Novae Motuum Coelestium Ephemerides Brandenburgicae, Annorum LX, incipientes ab anno 1595, & desinentes in annum 1655

calculo duplici luminarium, Tychonico & Copernicaeo …

[New Ephemerides of the Celestial Motions for Brandenburg, for 60 years (1595–1655)]

(1609)

by David Origanus (David Tost, 1558–1628), professor of Greek and mathematics, Viadrina University, Frankfurt an der Oder

Translation by Scott Weisman

Ars Astronomica

2026

”Novae Motuum Coelestium Ephemerides Brandenburgicae, Annorum LX, incipientes ab anno 1595, & desinentes in annum 1655 (calculo duplici luminarium, Tychonico & Copernicaeo …),” published in 1609, is in the public domain. All translations, original additions, including illustrations, commentaries, and summaries, are copyright.

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Translator Version 2

Upright reason dictates that the recipients of the good, of whatever type and level of beneficence it may be, must show gratitude and blessing to the beneficent person in every way possible, commensurate with the value of the beneficence. And one who has benefited all the people of the world — for example, one who invented a new instrument for the good of the world, or a good book — it is fitting for every discerning person, out of the obligation of love of fellow beings, to at least purchase it, so that the man will profit and his heart will be encouraged thereby to invent yet more good instruments in the world. And similarly, all other wise-hearted people will likewise strive and exert themselves to invent good things and instruments needed for the repair of the world and its perfection.

And therefore, whoever says: ”What do I need this new instrument for?” — he does not act well towards the world. For if not for the man who invented it, where would you be? And what would your city do? And more than this, if the man did not exert himself, what would the world do?

— R. Pinchas Eliyahu Hurwitz, *Sefer HaBris HaShalem* (1797)

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A note on the work

David Origanus's *Novae Motuum Coelestium Ephemerides Brandenburgicae* (Frankfurt an der Oder, 1609) is a monumental set of astronomical ephemerides giving day-by-day positions of the Sun, Moon, and planets across sixty years (1595–1655), computed on a **double basis — Tychonic and Copernican**. A fuller introduction (the *introductio plenior*) lays out Origanus's planetary system and the chronological, astronomical, and astrological foundations of the tables. One of the major observational-astronomy reference works of the generation after Tycho Brahe and contemporary with Kepler's *Astronomia Nova* (also 1609), it is valued both as a historical statement of pre-Keplerian planetary theory and as a dense corpus of computed positional data.

A note on the translation process

This translation was produced with the translation-pipeline. See the linked repository for details on the process.

A note on the references. A scriptural or bibliographic reference given in brackets or parentheses is, in most cases, an **editorial identification of an allusion rather than a citation printed in the source**. Books of this kind quote and weave scripture constantly without naming it, and the identification is supplied here as a convenience to the reader. Where the source does print a reference of its own, it is given as printed. **An identified allusion is not evidence that the author cited that passage** — look at the original before resting an argument on one.

This text is the product of a highly refined automated translation process. It has undergone only cursory human review and should not be treated as an authoritative or scholarly rendering. It is offered solely as a reference and reading aid — a way to make an otherwise inaccessible work approachable — and any passage of real consequence should be checked against the original source.

Acknowledgements

Translated with the assistance of Claude. The translator thanks the Anthropic team for making this work possible.

Notation and abbreviations

A few conventions have been applied uniformly throughout this translation, so that one quantity is always written one way. They change how a value is *written*, never what it is; where the printed source and this translation differ in notation, the source's own form is recorded in the editorial apparatus.

Numerals are Arabic, even where the source sets Roman ones. Roman numerals are kept only in headings, running headers and signatures, which are transcribed as printed.

Dates are given as year, month, day — *1572 November 11*. Dates are Julian, as the source gives them, and have not been converted to the Gregorian calendar.

The sign ℞ set after a planet's position marks the planet as retrograde (moving backward against the order of the signs). It is kept as printed throughout, in the text, the tables and the charts.

Times are written with raised unit letters: $7^{h}\ 36^{m}\ 12^{s}$ for seven hours, thirty-six minutes and twelve seconds. An interval longer than a day carries a raised d — $3^{d}\ 7^{h}$. The degree and minute signs below are never used for time.

Angles are written with the conventional signs — 23° 27′ 30″. Early modern astronomy divides the degree sexagesimally and often runs to places for which modern writing has no common symbol; the orders used in this book are:

sign	order	the source's term
°	degrees	*partes*, *gradus*
′	minutes of arc	*scrupula prima*, *minuta*
″	seconds of arc	*scrupula secunda*
‴	thirds	*scrupula tertia*
⁗	fourths	*scrupula quarta*

A **sign** is 30° — one twelfth of the circle — and is written with a raised s: 5^{s} 3° 57′ is five signs and 3° 57′, that is 153° 57′. The source uses the sign both as a place in the zodiac and as a plain unit of 30° for a motion or a distance, and this translation keeps that distinction by writing the count rather than naming a constellation.

The signs of the zodiac. Longitude is reckoned eastward from the first point of Aries.

	Latin	English	longitude
♈	Aries	the Ram	0°–30°
♉	Taurus	the Bull	30°–60°
♊	Gemini	the Twins	60°–90°
♋	Cancer	the Crab	90°–120°
♌	Leo	the Lion	120°–150°
♍	Virgo	the Virgin	150°–180°
♎	Libra	the Scales	180°–210°
♏	Scorpius	the Scorpion	210°–240°

	Latin	English	longitude
♐	Sagittarius	the Archer	240°–270°
♑	Capricornus	the Goat	270°–300°
♒	Aquarius	the Water-bearer	300°–330°
♓	Pisces	the Fishes	330°–360°

The Sun, Moon and planets.

	Latin	English
☉	Sol	the Sun
☽	Luna	the Moon
☿	Mercurius	Mercury
♀	Venus	Venus
♂	Mars	Mars
♃	Iuppiter	Jupiter
♄	Saturnus	Saturn

Abbreviations used in table headings: **Long.** longitude; **Lat.** latitude; **Asc.** ascension; **Diff.** difference.

Where a table in the source spreads one quantity across separate columns for degrees, minutes and seconds, those columns have been joined into a single column and the value written whole. Where a value runs to thirds and beyond, the columns are kept, since there the columns are the notation.

[Front cover — binding board.]

No printed text. The leaf is the book's front board: brown calf or pigskin over boards, blind-tooled in a panel design — a broad outer border of foliate roll-work, within it successive rectangular frames, and at the centre a stamped figural panel showing a scene of several figures beneath an arch, with a large rayed star in the arch-head; short stamped inscriptions stand on scrolls within the scene, and a two-line stamped legend in a boxed panel at its foot. Two metal clasp catches are fixed to the fore-edge. In the small panel above the central scene a number of about three figures is written by hand in brown ink. Neither the stamped lettering nor the written number can be read with confidence on the leaf.

[Illegible: the two-line stamped legend in the panel at the foot of the central scene; the stamped inscriptions on scrolls within the scene, of which the upper-right scroll is partly legible as ?VID NOS (the first letter O or Q, the D uncertain); the small lettered label cartouches on the vertical runs of the inner roll; a handwritten number of about three figures in brown ink in the small panel above the scene.]

[Front flyleaf with armorial bookplate.]

No printed text of the work. In the upper left corner, in a modern hand in pencil, the library shelfmark:

4° Math 421

Below it, on the leaf, a hand-coloured woodcut armorial device: a shield party per pale, the dexter half red with dark scrolling foliage, the sinister half white with grey scrolling foliage; over all a large green-and-gold pine cone rising on a small crenellated tower from a capital, and on the face of the capital, between its volutes, a small helmeted bust. No motto or date appears on the device; a short run of lettering-like marks along the inner border at its base may be a cutter's mark or ornament [?].[1]

[Verso of the flyleaf.]

Blank. No printed text, no manuscript note, no ruling. The armorial woodcut on the recto shows through the paper as a faint offset — the shield outline and a trace of the green and red colouring are visible, but nothing is printed on this side.

[1] The pine cone (*Zirbelnuss*) set on a capital is the arms of the city of Augsburg. Nothing on the leaf names a library; the digitized copy is catalogued as Augsburg, Staats- und Stadtbibliothek, shelfmark 4 Math 421, which matches the pencilled shelfmark above.

Novae Motuum Coelestium Ephemerides Brandenburgicae — Introductio

[Second front flyleaf, recto.]

Blank. No printed text, no manuscript note, no ruling. The leaf is laid paper, lightly foxed with rust-brown spots that thicken toward the lower half; a small spatter of dark ink lies near the outer edge at the foot. Nothing is inked in any hand.

[Title page, within an engraved architectural border.]

NEW EPHEMERIDES OF THE CELESTIAL MOTIONS, FOR BRANDENBURG, COVERING SIXTY YEARS, BEGINNING FROM THE YEAR 1595 and ending in the year 1655; worked out for the two luminaries by a double calculation, the Tychonic and the Copernican, and for the remaining planets by the latter; and adapted to the various calendars of different nations. With THIS FULLER INTRODUCTION, in which chronological, astronomical and astrological matters are treated from their very foundations.

By DAVID ORIGANUS of Glatz [Davide Origano Glacense], a Silesian, a German, Mathematician and Ordinary Professor of the Electoral Brandenburg Academy at Frankfurt an der Oder.

In these the two Momuses who barked at the earlier edition of the same work are refuted, and other matters bearing on the festivals of the Christians and on the ancient Roman and Greek festivals are briefly explained.

A work most useful to physicians, mathematicians, historians, and to virtually everyone who deals with letters and with time-reckoning.

Frankfurt on this side of the Oder [Francofurti cis Viadrum], in the year 1609, from the press of Johann Eichorn [Ioannis Eichornij], at the shop of David Reichard, bookseller of Stettin [Szczecin].

With the privileges of His Sacred Imperial Majesty, of the Most Christian King of the French, and of certain Princes and Republics.

Diagram. The title is set inside a full-page woodcut architectural border, printed from a single block. At the head, a broad oval cartouche encloses a landscape: a radiant human-faced sun in the upper left with birds in flight beneath it, a cloud-bank across the middle from which a winged figure emerges, hills and a shoreline below, and small stars at the lower right. Square corner-panels at either end of the head-band hold foliate and animal ornament. Down each side stands a bearded figure on a pedestal within a niche framed by a

column: the left-hand figure wears a soft cap and holds a celestial globe or armillary in his raised right hand; the right-hand figure, also capped and robed, gestures upward with a rod or pointer. At the foot, a second oval cartouche encloses a landscape of animals — a ram or goat, a camel, a long-necked waterbird and a couchant animal at the left, a tree within an oval frame at the centre with a small shield beneath it, a single leaping horned beast at the right, and a reclining human figure at the lower centre. Small shield-shaped cartouches stand at the two lower corners, the left holding a plant in a vase, the right a serpent coiled round a staff. Only two words of lettering appear anywhere in the block, one on each side pedestal:

- Left pedestal (below the globe-bearing figure): PTOLOMÆVS. — Ptolemy
- Right pedestal (below the gesturing figure): PLINIVS. — Pliny [Pliny the Elder]

No other label, motto, date, monogram or engraver's signature stands in the border.

[Library stamp: a circular blue stamp struck over the lower left of the title-block, its legend only partly legible — "[?]NTRUM DER [?]" around the upper arc and "AUGSBURG" around the lower, with a small device at the centre. A modern library mark, not part of the book.]

[Margin: below the border at the foot of the leaf, in a contemporary hand in brown ink: "Table of equations, fol. 101 b." A reader's finding-note, not printed.]

[Verso of the title leaf.]

To Booksellers and Printers, greeting

In everything nature makes and in every walk of life, bad is mixed with good and good with bad. So it is in your profession too. All of you are bound, as far as in you lies, to assist and advance the study of letters equally by your work and by your trade, since the very calling in which God has placed you demands exactly that — on the one side, honest men are everywhere to be found, lovers of truth and justice, whose minds are set on using and enjoying the means allowed them and on increasing their own estate. These men accordingly do not reprint new books without their authors' consent, do not disfigure them with faults, and hunt no profit out of books printed elsewhere in defiance of the laws, of fairness itself, and of love of neighbour. On the other side are found perverse men, liars, cheats and starvelings. For a while they have neglected the honest means by which they might support themselves and their families; they have swindled others once and again, and have even had to surrender their goods to their creditors; and so they take refuge in dishonest ones, and, as mice born of who knows what dunghill try to gnaw stealthily at another man's food, so they themselves are not ashamed to reprint other men's writings recklessly, against the prohibitions of the highest magistrates and against the authors' will,

and to debase them miserably, to the shameful deception of those who read and use them. As I most gladly grant the first sort this work of mine, printed at Frankfurt an der Oder — indeed I even beg those same men, for the sake of the public good and so that geographical errors may at last be corrected, to carry it into other regions — so I solemnly warn and adjure the second sort not to reprint this work of mine, but to leave it untouched. Let them consider that it was not for nothing that the highest magistrates, and others besides, whose ready goodwill I have gratefully accepted but have passed over here for brevity's sake, granted me these privileges; nor did God himself lay down the commandment *You shall not steal* without a penalty attached. Those who act otherwise will be handled in such a way that they come to regret their labour and their outlay. Let them look, too, at the Schönwetter edition [Schonvvetteriana editio] of the *Ephemerides* of Giovanni Antonio Magini, if at nothing else, and see how many errors are committed by those who publish writings of this kind while the authors are not there. Farewell.

[First leaf of gathering (a), recto.]

Summa Cæsarei privilegij. [Summary of the Imperial Privilege]

Rudolf II, Emperor, ever Augustus, King of Germany, Hungary, Bohemia, Dalmatia, Croatia and Slavonia, etc., Archduke of Austria, etc. We acknowledge and make known by the tenor of these presents to all men: whereas our honourable and beloved liegeman of the Holy Empire, David Origanus, Doctor of Arts and Philosophy and Professor of the Academy of Frankfurt an der Oder, has most humbly set forth to us that he has resolved to commit to the press new *Ephemerides* covering 60 years, fitted both to the reformed calendar and to the calendars of other nations — Syrians, Ethiopians, Hebrews, Arabs and Persians — and likewise an *Arithmetic* in three parts and a *Cosmography* divided into four books; and whereas he fears that he may be caught out by the frauds of rivals and suffer some hindrance or loss, and has for that reason most submissively begged us graciously to see fit to fortify him with our Imperial privilege; and whereas we have kindly granted his fair and honourable request:

We therefore will and ordain by public edict that no printer, bookseller or other dealer in the book trade, anywhere throughout the whole Roman Empire or in our other kingdoms and dominions, shall for a full ten years immediately following the first edition publish, print or put on sale the said *Ephemerides*, *Arithmetic* or *Cosmography*, in whole or in any part, in the form in which Origanus himself has worked them out, without his leave and consent; nor shall anyone import and sell copies of these same works printed elsewhere, whether openly or covertly. The penalty is 10 marks of pure gold, half of which shall fall irremissibly to our Imperial treasury as the punisher of the fraud and the remaining part to the said Origanus, over and above the forfeiture of the said books printed in imitation and imported — books which, wherever they

are found, he may claim for himself either on his own authority or on that of the magistrate. One condition is attached: that he send three copies of each book printed, at his own expense and as soon as may be, to our Imperial Aulic Latin Chancery, and so forth. These letters bear witness to it, subscribed by our own hand and secured with the impression of our Imperial seal. Given in our royal castle at Prague, 1605 October 10, in the 30th year of our reign as Roman Emperor, the 34th as King of Hungary, and the 31st as King of Bohemia.

Rudolphus

By His Sacred Imperial Majesty's own command

Rudolf Coraduz [Rud. Coraducius] — Johannes Barvitius [Io. Baruitius], with his own hand [*M. pp. = manu propria*]

[Verso of the same leaf.]

Privilegium Regis Galliæ de verbo ad verbum ex autographo impressum. [The Privilege of the King of France, printed word for word from the original][2]

Henry [Henry IV], by the grace of God King of France and of Navarre, to our Provost of Paris, Seneschal of Lyon, Bailiff of Rouen and of Caen, and to all our other justices, officers and subjects whom it may concern, greeting. David Origanus [David Origan], Professor of Mathematics in the University of Frankfurt, has had it represented and shown to us that he is bringing to light a book much needed by the public, entitled *Ephemerides, sive calculationes motuum cœlestium, & temporum ab anno Christi 1595 usque ad annum 1655* [*Ephemerides, or Calculations of the Celestial Motions and of the Times, from the year of Christ 1595 to the year 1655*]. And since the said book is very costly to print, and he would fear hereafter that the printers of our kingdom might wish to print it — which would be his total ruin — he has therefore had us petitioned and requested to grant him our letters on the matter.

For these reasons, wishing to reward the said Origanus [Origan] for his pains and labours, and to give him cause to want to carry on in the future, we have of our special grace, full power and royal authority permitted and granted — and by these presents, signed with our own hand, do permit and grant — that he may put the said book specified above on sale in all the places and districts of our kingdom, in the countries, lands and lordships under our obedience; and this for the term and space of six full and completed years (provided always that nothing may be found in the said book that could work to our prejudice, on pain of confiscation of the said books). And for the said term we make prohibition and forbid all booksellers and printers of our kingdom to print the said book, as has been said, on pain of confiscation of the copies, of an arbitrary fine, and of all costs, damages and interest. And by placing a copy of these presents at the end of the said book, they shall be held as duly notified of it. For

[2] Privilege — the text of this page is in French, not Latin; translated here, with the printed French forms noted where they matter.

such is our pleasure. Given at Fontainebleau, 1608 July 11, and of our reign the nineteenth.

Henry
By the King
Antoine de Loménie [Delomenie]
[Second leaf of gathering (a), recto.]

To the Most Illustrious and Most Powerful Prince and Lord, Lord Johann Sigismund, Margrave of Brandenburg, Arch-Chamberlain and Elector of the Holy Roman Empire

Duke of Prussia, Jülich, Cleves, Berg, Stettin [Szczecin], Pomerania, Kashubia and the Wends, and of Crossen [Krosno Odrzańskie] and Jägerndorf [Krnov] in Silesia; Burgrave of Nuremberg; Prince of Rügen; Count of Mark and of Ravensberg; Lord in Ravenstein, etc.

To his most gracious Lord, lasting happiness.

What Horace long ago sang about words in his *Art of Poetry* [*Ars Poetica* 60–72], most illustrious and most powerful Elector of Brandenburg, my most gracious Lord, and proved so plainly, when he says:

> As the woods change their leaves when the year slopes downward, and the earliest fall first, so the old generation of words dies out, and those newly born flower and thrive after the manner of young men. We are owed to death, we and all that is ours: whether Neptune, taken in behind the land, shelters our fleets from the north winds — a king's work — or a marsh long barren and passable only by oar now feeds the neighbouring towns and feels the weight of the plough, or a river has changed the ruinous course that harmed the crops and been taught a better way, all that mortals make will perish; much less can the honour and living charm of speech stand fast. Many words that have already fallen will be born again, and words now held in honour will fall, if usage so wills — usage, in whose hands lie the decision, the right and the rule of speech.

The same holds, I maintain, of opinions or judgments about matters that are perfectly plain in nature, and is rightly applied to them. For these too change along with men in almost every age: what was formerly set beyond controversy and held for wholly true is now reckoned doubtful, placed in the balance, and often utterly false. And to demonstrate the truth of this claim not from far-fetched instances but from ones that suit my present purpose: it is confirmed by the very inconstancy of men's opinion about the shape of the earth — which, according to certain ancient philosophers of old, is not round and spherical, but Leucippus took it to be τυμπανοειδῆ [Greek: tympanoeidē, "drum-shaped"], Anaximander κυλινδροειδῆ [Greek: kylindroeidē, "cylinder-shaped"], Heraclitus σκαφο[?]δῆ [Greek: skapho[?]dē, "boat-shaped"], Democritus hollow, and Empedocles and Anaximenes flat. In later ages too, many of the ecclesiastical

writers — Augustine [Aurelius Augustinus], Lucius Lactantius and others — believed it flat, and resting on I know not what roots.

So it was that around the year of Christ 745, as Johannes Aventinus [Ioanne Aventino], that most distinguished and most reliable historian of the Bavarians, reports in his annals, a certain Virgil of Salzburg [Virgilius], bishop of Salzburg — a man more learned and expert in astronomy and geography than the manners and institutions of the Christians of that day allowed — preached before a large gathering of hearers that there are men who press their footsteps against ours on the round convexity of the earth and are our antipodes. That sermon brought down on him not only the abuse of the ignorant crowd, but the censure of those who governed others with authority and power and who ought to have instilled piety and truth into them. For Boniface [Bonifacius], bishop of Mainz, at once began to charge him with deserting religion, on the ground that in bringing in antipodes he seemed plainly enough to be bringing in a new Christ as well; and he accused him gravely before Utilo [Odilo], king of the Bavarians, and at last before Zachary, the Roman Pontiff. These men duly condemned our Virgilius by common verdict, and drove him from his priesthood, from the church, and from the Church.

Such is the force of ignorance: in matters even of the plainest kind it does not shrink from headlong and reckless assault, attacking not only the truth itself, but hounding to the utmost those who stand for it. But since it is certain — from the earth's own nature, from the unanswerable geometrical demonstrations regularly set out in the manuals of cosmography, and finally from the most trustworthy testimonies of the historians — that the earth is round and habitable on every side, a thing the descriptions of the eclipses in this work amply confirm, I do not linger long over those who think quite otherwise and refuse to believe it, but leave them to be satisfied with their own judgment. For, given this diversity among men, not everyone takes in the arguments by which the earth is shown to be spherical, even though nothing may be given that is simpler, nothing plainer, than those arguments.

In the same way, widely differing opinions about the earth's motion and rest are to be observed and read — and not only among the ancient pagan philosophers, some of whom laid down that the earth is motionless, as Plato, Aristotle and the whole Peripatetic school held, while others held that it moves. Among these latter were Heraclides Ponticus and Ecphantus, Pythagoreans, and likewise Nicetas of Syracuse [Hicetas of Syracuse] and Aristarchus of Samos, together with not a few of their followers. But the same is true in our own times as well, among Christians who argue in different ways about natural things from the causes that present themselves in nature. Among them, although very many are found who judge the earth to be fixed, supposing that this is what Holy Scripture means, there are nevertheless not a few others who have laid down that it moves and is by no means motionless — moved partly by the hypotheses and reasonings that Copernicus fitted so acutely to the explanation of the celestial motions, partly drawn by other causes as well. This latter opinion,

then, but confined within definite limits — namely the one by which the earth, which is the mother of us all and anxiously nourishes and cherishes us, not, as Copernicus established it, in a place midway among the stars between Venus and Mars, with a threefold or fourfold [motion], but rather at the middle of the world, upon an immobile axis and centre, is laid down to be driven and whirled round in a circle by a single and simple motion. This opinion, as most consonant with truth and with nature, and as most useful to astronomical studies, I strive to prop up and strengthen with its own defences, and to storm and demolish the contrary one as less agreeable to nature and unsuited to the science of the stars. In this address to Your Most Illustrious Highness I most humbly beg that Your Highness will not reject and banish it as contrary to Holy Scripture or as foreign to the reasonings of the philosophers, but will most kindly grant it some place in the Academy — if not among the other studies, at least among the astronomical ones.

I judge it not contrary to Holy Scripture on this ground among others: that Scripture makes plain to us the knowledge of God and the wonderful decree of redemption, by rightly grasping which alone we may attain the end for which we were created; whereas in matters that do not bear on our salvation — as in other worldly things, but above all in these natural and physical ones — it for the most part accommodates itself to our senses and our understanding, and does not lay bare to us the secrets of nature. That this is so and not otherwise may be seen from this alone: we observe that Holy Scripture speaks of the shape of heaven and earth, and of the number, the size and the motions of the sun, the moon and the remaining stars, to human sense and human understanding.

Thus, of the shape of heaven — which is agreed to be round and spherical — Isaiah says that God spread out the heaven like a tabernacle, a tent or a chamber; and the Psalm, that God stretched out the heaven like a skin or a curtain. Not that heaven sits over the earth on every side in the manner of a tent or tabernacle and has the shape of a curtain — after whose pattern tabernacles and tents were once made out of skins — but that heaven appears to us to be such, and seems to present such a shape to us. In the same way Holy Scripture everywhere calls the sun and the moon the great lights: not that no larger stars at all are to be found in the heaven, since by the reckoning of all astronomers and the undoubted verdicts of the mathematicians even the smallest fixed stars far surpass the moon, and Sirius surpasses the sun itself, but because these two present themselves with nearly equal apparent size and light, and indeed with the greatest of all among the stars of heaven.

Of the earth, too, we read in Job as though it had been made solid and founded upon certain bases by the power of an omnipotent craftsman, like the rest of our buildings, and a corner-stone let down for it — although from travels and from the comparison of celestial appearances we are certain that it is, as I said above, round and spherical, founded or suspended upon a centre, that is upon nothing, since a centre is a point indivisible in magnitude and most like nothing. And countless other testimonies and examples are to be

read throughout which prove this same thing true: that Holy Scripture speaks of certain natural matters according to sense, and accommodates itself to our understanding. In the same way it attributes to God himself arms, feet, ears, eyes and similar members that properly belong to men — not that God, who is an infinite spirit and not a body, truly has such things, but because they endeavour in some fashion to sketch the immense power of him who sees and hears all things and governs everything, by a certain likeness to the members and operations of man, the noblest of creatures, and to set that power before our eyes. Since, then, it stands to reason that Holy Scripture, in the matters that concern the earth's motion too, in no way draws us away from our senses but likewise adapts itself to our capacity — especially since such matters neither bear at all upon that stupendous mystery of our redemption, which is most carefully set out and explained for us in the sacred writings, nor contribute anything toward a more correct understanding of any article of faith — then surely no one will have any right to charge me with having put forward here something contrary to religion, to piety and to Holy Scripture, if I affirm that a rotation from west to east belongs to the earth upon its own immobile centre and axis: a thing which the finger of the omnipotent God seems to have fashioned best, and which nature herself seems to require.

Nor indeed do I depart from the sense of the sacred writings in this, that with the consent of most astronomers and natural philosophers, and against Copernicus's view, I assert that the earth always holds the middle of the world and does not swerve from it by a nail's breadth — since Psalm 104 also says plainly that the earth is founded upon its own stability, that is its centre, from which it is not tilted or displaced in any age. For it is manifest from various φαινομένοις [Greek: phainomenois, "appearances" — the phenomena] that no other place than the middle was assigned to the earth at the first creation, since it is observed to keep perpetually the same distance from the fixed stars, and not to vary its distance from the wandering stars in the daily revolution.

Someone will perhaps say that in this I lay down something at variance with Holy Scripture and with the opinion commonly received: that I not only think, but openly profess, that this same earth is turned once each day by a certain rotation from west to east upon the poles of the world, no differently from the way a small wheel fixed to a wall by a nail spins round. And not without cause. For when the sacred writings attribute to all the stars a motion from east to west, they are certainly taken to remove all motion from the earth; and when the same writings report among the miracles that the sun and moon stood still in the time of Joshua, and that under King Hezekiah the sun went back, they seem to hint plainly enough that the earth stands still while the stars move. But so far is nature from granting rest to the earth and that motion to the stars, or Holy Scripture from dogmatically asserting that the earth is at rest and that the stars move from east to west, that we find nature herself — which is everywhere like herself and carefully avoids all confusion and contrariety — plainly requiring the opposite, with Holy Scripture in no way resisting on

that point, since, as I have said, it adapts itself to our senses. For the motion from east to west that appears to be in the stars is, by the consent of nearly all astronomers, not their own and natural motion but merely an accidental one, whereas the motion in the contrary direction, from west to east, is reckoned to be their own and genuine: it is the motion by which the moon is said to complete the zodiac and one revolution in the heaven in the space of a month, the sun in the space of a year, and Saturn in the space of 30 years.

And because some in our time have tried to take this proper motion away from the stars and to confound it with the former one — showing that no body can be moved by two motions, and contrary ones at that, in one and the same moment of time, a matter we shall look at a little later — they have at any rate accomplished this much with me by their reasonings: they have stripped away all the wrappings in which the variety of the stars' motions had until now been enveloped, and what one should truly think, by arguments that are indeed true but on false positions, which I have carefully examined as though by the rule of false position [regula falsi], —have supplied me.

And indeed, if we weigh the matter more carefully with ourselves, we see that nature acknowledges only one motion, that from west to east, and that this one motion belongs properly not only to all the stars but to the earth as well; whereas the other, from east to west, belongs to the stars by appearance only, and arises from that rotation of the earth. Since the earth is carried round in its circle once each day from west to east, the result is that the stars appear to us to advance once each day by the contrary route, from east to west. The same thing happens to people who, having gone into some chamber, then withdraw to a lower storey: to them the ceilings above, which were at first facing them, and the objects that had been set in front of them, seem gradually to move off in the opposite direction.

We notice too that when ☉ and ☽ stood still, Joshua above all makes mention of the earth: he ordered the sun to stand near Gibeon and the moon over against the valley of Aijalon, hinting plainly enough that the appearance of standing still belonged to the luminaries, but the reality to the earth. So too with the going back of the shadow in Hezekiah's time: what the sacred writings above all mention is the shadow, and the shadow is produced by earthly bodies. There too it was chiefly by the earth's going back from east to west that the shadow was observed to shorten, and the sun was seen to go back. Were it otherwise, many absurdities would follow, and for brevity's sake I pass over the recital of them here. For I have no wish to examine here how, when the sun and moon stood still, the whole heaven with all its stars, fixed and wandering alike, could have halted in both motions, the proper and the apparent; nor how, when the sun went back, the whole heaven together with all its stars can have gone back by the apparent motion, while the proper motion had meanwhile of necessity to stay at rest for just so long, until the sun had returned to its former position — unless we are willing to admit a great confusion of motions in the heaven.

Rather, what I have proposed must be carried through, and the view that the earth rotates must be established by argument.

But before I turn to the foundations of my arguments, I should like those who undertake to show, from αὐτοψία [Greek: autopsia, "seeing for oneself" — direct eyewitness inspection], that the earth stands unmoved while the stars are carried from east to west by the primary motion [motus primus], to weigh a little more carefully with themselves whether the argument that ocular inspection seems to furnish is sufficient to establish that very conclusion, and whether the judgment of the eyes may not rather be deceived. That can easily happen to those who are willing to pass judgment on this controversy without having taken account of the nature of the sense of sight, which ought to have been investigated more carefully than anything else. For although I do not deny that sight is the chief judge of local motion, and one to which most people appeal not without reason, still everyone rightly grants this much as well: that the eyes, or the sense of sight — even with all those aids it seems to lean on — cannot determine exactly, for us who live on the surface of the earth, whether it is the earth or the heaven that moves; for apart from the heaven and the earth no third thing is given, against which, as against something fixed, we might test the question itself. To show this in some measure, we shall look more closely into the nature of sight.

Now the condition of sight is this: that it is effective and exerts its operations not at just any angle, but chiefly at a right angle — that is, through a pyramid of rays [pyramis radiosa] rising perpendicularly upon the sight from the base opposite it. Hence, since nature, the parent of all things, granted sight to the other animals and above all to man, so that he might contemplate the things that are in the world, it also arranged muscles about his eyes to move them in every direction, so that with the head unmoved they might see a sufficiently wide space around them. The eyes are turned about to this end, that they may have the object diametrically opposite them. We judge an object to be in motion, or to be being moved, when we find that the straight line along which it is seen is another and a different one from before — that is, when we find the object in one position and then in another, different from the first.

Now it is certain that every apparent change of place is due either to a motion of the thing seen — the sort of thing we observe in running water, in animals changing their place, and in other things that are set in motion — or else to a motion of the observer himself. This second kind of motion is what those who sail out of harbour notice in the shore, in the woods that lie along the shore, and in the other things standing fast on it. For because they are moved along with the ship, their eyes alter their position with respect to the harbour, which is the object; and under that change of position the harbour seems to move, although in fact it is at rest. Here the poet's line applies: *We are carried out from the harbour, and the lands and the cities fall away* [Virgil, *Aeneid* III.72]. Or the apparent change is due to the separation and the motion of both together. And this too is certain: whether the stars move, or we are carried

round on the earth, or both alike — the stars and ourselves — are moved, the object is nonetheless necessarily presented to the sight always in the same way.

It follows infallibly that nothing can be proved from direct eyewitness inspection that bears on the question at issue — nothing that would teach us for certain either that the earth moves or that it stands unmoved. Our senses are deceived above all by the size and extent of the earth as nature drives it on, and any grasp of its swiftness is dissipated by the gentleness of the motion, which takes place without any shock.

We must therefore press forward by another road to prove the earth's motion: namely, by bringing forward causes which drive the earth in its circle, and which demonstrate that the motion most people ascribe to the stars — the extremely swift motion from east to west — does not belong to them at all.

I shall begin, then, from something known to everyone and commonly agreed: the roundness of the earth. As no one who judges rightly doubts it, so this is how the matter is to be settled. Provident nature granted the earth this spherical shape not merely because the sphere comes before all other figures made up of several surfaces; because it is the most perfect; because it is the most capacious; because all things in nature aspire to this shape alone; and because nature was bound to imitate its own Architect, who, being infinite, has neither beginning nor any end, just as in a round figure no such limits can be found. With these reasons I have no quarrel — that saying of the philosophers is perfectly true, that one thing can have many ends — but there is this further and chief reason: that the sphere should be the fittest and best suited shape for the motion and the rotation which nature especially requires in the earth. For such is the ἀναλογία [Greek: analogia, "proportion" — the correspondence between figure and motion] of figure to motion, that bodies which touch the surface beneath them at a very sharp angle run along it most swiftly; those which touch at a larger angle move more slowly; until at last those that stand upon it at a right angle are quite at rest. Therefore when a round body touches a flat surface beneath it, it makes an angle smaller and sharper than any rectilinear acute angle, springs back from that surface on the instant, and so has nothing of roughness and nothing of obstruction in it to hinder the speed of its motion. But a body that has flat surfaces and angles, because of the more nearly right angles at which it touches the flat surface beneath it, moves with difficulty and comes to rest easily. Surely, then, no one will have any right to deny the rotation of the earth, for which it appears to have been turned on nature's lathe and to have received its spherical shape. For although the earth touches no flat surface beneath it, but has air poured round it on every side, there is nevertheless nothing to hinder its circular motion. For it is entirely reasonable that, once nature has set it moving in the air, it should never come to rest — precisely because of that roundness and that fitness for motion — but should always be in motion; especially since the natural motions of spherical bodies are perpetual, and since internal causes that remain in the same condition within the earth drive it round in its circle by a kind of natural impulse.

To bring forward only a few of the causes, then, and to pass over many others: the chief and first cause is that marvellous property and power by which the earth imitates the magnet — or rather, by which the magnet itself imitates the earth. To display this property for closer examination, we shall consider not so much the earth itself, which because of the immense quantity and variety of things it embraces is unmanageable and does not conveniently lie open to the sight as a whole, as its homogeneous offspring, the magnet. William Gilbert [Guilhelmus Gilbertus], the foremost authority on magnetic philosophy, calls the magnet by a new word, μικρόγην [Greek: mikrogēn, "little earth"], or the *terrella*, because it has the same powers as the terrestrial globe — since those powers too have only lately been discovered, however much the magnet may have received them from the earth as from their source. At the same time, in that very offspring the magnet, we shall be contemplating the mother earth.

Nor can it be obscure to anyone who has carefully read the philosophical and natural writings of the geographers and historians, ancient and modern, that many things are famously reported of the magnet, some known to earlier ages, others only in these times of ours. The magnet was once thought — as many still think — to be a friable stone, one that can neither be bent nor drawn out, and cannot be softened or melted by the force of moisture or of heat. But more recent writers, drawing on the great variety of magnets collected from one place and another, have shown us that it is not a stone only, but also a metallic body, which can in some fashion be melted by fire and even drawn out under the hammer — as the smelting of edge-metal, or steel [acies seu chalybs], out of certain magnets shows; and indeed that it is earth as well, which first softens with excess moisture and then, when that moisture is increased, liquefies, as is plain from magnetic earth, which is the ore of iron. From this these same writers have further concluded that the terrestrial globe, which consists of stones, metals and earths — setting aside for the moment liquids, saps and resins, which approach the nature of water and air — has, like a most indulgent mother, imparted the whole variety of its own substance to its uniquely beloved offspring, the magnet.

Further, it is well known that in our times one can hardly find a region, and scarcely a village, that does not yield either a vein rich in iron or some earth either steeped in iron-rust or lightly tinged with it. This very fact suggests — since the magnet has the closest connection with iron, and iron itself possesses, in company with the magnet, all the magnetic powers, though weaker ones (which Gilbert establishes by many arguments and experiments) — that the earth too is everywhere furnished, and as it were armed, with magnetic power.

Furthermore, it is no secret — indeed the ancient philosophers rehearsed it everywhere — that the magnet draws iron, and not iron alone but the ore too, that is, the material of iron out of which iron itself is finally smelted by art; though if that ore has not been properly cleared of its dross, nor fully worked up by nature, the magnet draws it more weakly. More recent writers have also demonstrated that iron draws other iron, and one vein of iron another vein of

iron, but less conspicuously. From this we may draw a conclusion about the earth. The earth does indeed hold this power — the power by which it ought to draw earth — bound and suppressed, as it were, because of the many other operations going on in it at once, by which it does more service to living things both on the surface itself and beneath the surface. Even so, it performs the same office by this magnetic property: if some portion of earth, or something with an earthy nature predominant in it, travels abroad, is thrust out, or in any way comes to lie outside the natural place it has within its own whole, the earth draws it perpendicularly toward the centre of the whole, to its own whole. Natural philosophers commonly call this attraction the motion of heavy bodies to the centre of gravity, and they lay that centre down as the centre of the world, or of the earth — although heavy bodies never in fact reach that centre, but stop and come to rest at the surface. We, however, call that attraction a natural appetite [appetentia naturalis], by which the unity and wholeness of a thing is preserved. For the heaviness and lightness that natural philosophers assign to the elementary bodies — heavy things being observed to tend downward toward the earth, light things upward away from the earth, along a straight line — are nothing but supports of that natural appetite by which all things guard their own wholeness and continuity. So the natural place of the earth and the centre of the world are no more marked out and determined by the heaviness and appetite of earth than by the natural appetite implanted in other bodies. Indeed, we hold that if some particle could be torn away from any other heavenly globe — the Sun, the Moon, or the rest of the stars — it too would rush back to its own whole, exactly as in terrestrial things a particle strives to close with its own (since like tends toward like). That we do not observe this is simply because the heavenly bodies are not liable to dissolution; and even if they were, they lie too far from us for dissolutions of this kind to reach our senses. Nature, too, if she sets up any perpendicular in that attraction for terrestrial things travelling outside the unity of the earth, does not alter or bend it; she preserves it scrupulously at the shortest distance from the very point over which it stands or hangs — unless the things themselves are thrown off the perpendicular by violence and displaced. Hence, when missiles, cannon-balls or the like are driven from a place by some force, they are observed to travel only to the point at which they are aimed.

Finally, this most noble property and power of the magnet as well — that by which the magnet is directed to the poles — began to become known around the year of Christ 1300. It has brought such great benefits to the human race that it not only put heart into seafarers, who from that time on dared to trust themselves more freely to the restless waves of the Ocean, to sail farther from land and to discover new lands; it also gave them occasion to search out, with the utmost diligence and eagerness, since the human mind is most greedy for novelty, merchandise of every kind throughout the whole world — soils, stones, timbers, herbs, spices, and metallic substances in the greatest number, all that the earth brings forth in abundance. So it came about that the true essences and

powers of many different things, and the powers of the magnet itself, came into more exact human knowledge, once its various species had been collected from different regions of the earth: things that in the ages before the globe of the earth was thoroughly explored had been passed over and remained unknown.

To say something here, then, about this property, discovered not so long ago: Girolamo Fracastoro [Fracastorius], in *De sympathia et antipathia* chapter 7, and some of the geographers held that there are certain magnetic mountains in the far north, which draw magnetic ironwork toward the north. From this comes that tale of Olaus Magnus, who reports that those mountains have such power that if ships fastened with iron nails are carried past the magnetic crags, the iron nails are pulled straight out of the timber, the ships break up as their framing comes apart, and the cargo aboard is lost — which is why ships there are customarily built and joined with wooden pegs. Marsilio Ficino [Marsilius Ficinus], in *De vita* book 3 chapter 8 — as Gilbert reports at book 1, chapter 1 — thinks the magnet is directed toward the north because there is in it a certain kinship, or power, that it shares with the Tail of the Great Bear in the heavens: as that keeps always to the north, so this stone, and iron rubbed on the stone, is directed to the north. But he is mistaken, since neither a suspended magnet nor an iron pointer touched with a magnet is carried around the pole in step with the motion of that star, now toward the east, now toward the west. Girolamo Cardano [Cardanus] holds that it is the declination of the tail of the Little Bear toward the east from the north pole that produces the direction in the magnet. Pierre de Maricourt [Petrus Peregrinus], too, seeks the causes of magnetic direction in the poles of the heaven and in the heaven itself; and Scaliger, the Conimbricenses [the Coimbra commentators], Martín Cortés [Martinus Cortesius] and a good many others bring forward still other causes drawn from the heaven, which it would be far too long to pursue here.

For such is human nature that when men fail to notice the true causes of things in nature, they heap up fictitious ones from every side, in which they and others can somehow come to rest. The true cause, however, lies in the substantial form of the magnet itself and in the internal property that nature has bestowed on it. For just as accidents flow from a determinate substance, and no common accident can exist that does not belong to some determinate kind, so this direction toward the poles can flow from nothing other than the magnet, iron, the ore of iron, and the terrestrial globe itself — the source from which the other powers already discussed are likewise derived. This is clear from the following as well. Take some magnet of round shape, still vigorous in its power and highly suited for conducting trials, and lay an iron wire or a needle on it: the ends of the iron will be seen to move about their own centre and then suddenly come to rest. Now mark the stone in chalk lengthwise along the position in which the iron lies. Then move the iron wire in turn to another place, then to a third, a fourth, and to several more, and each time mark the places on the stone in the same way, along the length of the iron wire as it lies. It will become plain that those lines are directed by the internal power of

the magnet in such a way that they reproduce meridian circles, or circles like meridians, meeting at the poles of the stone.

And if those lines are carried on until they make complete circles, then not only will each pole, the northern as well as the southern, be established by their meeting and mutual intersection; an equator can also be drawn in the place midway between the two poles, exactly as astronomers describe one on their celestial spheres and geographers on the terrestrial globe.

Since, then, nature establishes meridians, poles, an equator and its parallels not only in the magnet, as has been said, but in the terrestrial globe as well — which experience confirms: on that globe indeed, as the historians of the Indies report, along the equator, which divides the earth into two halves, a northern and a southern, there are no regular winds; the weather is thoroughly unsettled and changes from moment to moment, and it makes sailing difficult and dangerous for seamen, so that many ships which set their course for the southern part of the earth and cannot get across the equator are forced to turn back. In that same region the Ocean is seen to be tinged red in a remarkable way, and there is such an abundance of fish there that nowhere in the Ocean does a greater one appear. Near the north pole, by contrast (about the south pole I can say nothing, since access to it has not yet lain open to our people), scarcely any winds are observed either; but there is a wonderful whirlpool of the sea, into which the waves of the sea are swept from remoter parts with tremendous force through four straits, or narrows of the sea, running together and plunging as into an abyss within the inner parts of the earth — so that ships which have once entered those straits can be drawn out again by no skill and no assistance. Indeed, what is more, daily trials teach even gardeners that things growing out of the earth take note of the earth's magnetic force. Writers on husbandry — Columella, Conrad Heresbach [Heresbachius] and others — lay it down that trees, if they are to be propagated successfully and with profit, are not to be shifted or transplanted before they have been marked on the bark, so that they may be set in their new place in the same orientation in which they stood before in the nursery. Virgil too noted the point in these lines:

> *Quin etiam cæli regionem in cortice signant, Ut quo quæq; modo steterit, qua parte calores Austrinos tulerit, quæ terga obverterit axi Restituant, adeo in teneris assuescere multum est.*

They even mark on the bark the quarter of the sky, so as to restore each tree to the position in which it stood — which side bore the southern heat, which back it turned to the pole: so much does it count to accustom them while they are young. (Virgil, *Georgics* II.269–272)

All those seem to be in the gravest error who assign to the heaven the same poles as the equator's — who, in fact, invent two sets of poles in the heaven: one set the Zodiac's, which we regard as the true and genuine poles of the heaven, the other the world's, or the equator's, which we call, not without evident reason, the poles of the earth, and indeed not merely mathematical but natural poles. For in astronomy too, all longitudes of the stars and of the other

φαινομένων [Greek: phainomenōn, "the celestial phenomena"] in the heaven are counted along the Zodiac and its parallels, while latitudes are counted from the Zodiac toward its poles, that is, the poles of the heaven; whereas in geography and on the earth all longitudes are reckoned along the equator and its parallels, and latitudes from the equator toward its poles, that is, the poles of the earth. And finally, on the earth all the magnetic declinations are so adjusted to the body of the earth that from them one may recognize the dispositions of places on the earth with respect to the equator and the poles, and from those dispositions recognize the declinations in turn.

Since, then, the equator, the meridians and the poles are established on the terrestrial globe in this way — not by human decision but by nature herself — and since all of them tend, by a consent that is silent yet unanimous, to intimate a natural motion, the motion of the earth's rotation cannot possibly be denied; especially as we see that nature does nothing in vain, but contrives and does everything for the sake of a definite end. For who, on considering a little more carefully that nature, which is everywhere like herself, does not allow more than two natural poles to be given in one and the same spherical body — who, I say, would go on to maintain that these poles and circles have been shaped, as it were, by nature on the terrestrial globe to no purpose, and would look for the same poles in the heaven, where nature refuses them? And who, weighing more deeply that a single motion in the heaven does not suffice to save all its φαινόμενα [Greek: phainomena, "phenomena"], and that besides the motion the astronomers call the first there is required another in the opposite direction, which they call the proper motion — though it seems altogether absurd that the heaven should be carried by both motions at one and the same time — who, I say, would strip the earth of the first motion, which is natural to the earth about its own poles (as we shall show shortly), and assign it to the heaven?

The cause of the error by which not only the natural philosophers but even most astronomers — whose judgment ought to settle this business — came to believe that the earth stands still and immobile, while the celestial orbs and the stars are driven by two different motions, was assuredly nothing other than the Aristotelian philosophy that is everywhere in use at the present day. Granted that in other matters which serve human knowledge it proceeds by a method than which none is better fitted for sharpening the understanding, forming an art, acquiring knowledge and wisdom, and gaining prudence; granted too that in fortifying its own judgments and opinions about the nature of things it uses a force of argument than which none firmer, or more agreeable to the human mind, is to be found in the other sects of the philosophers. Still, in this one department, which explains the local motions of the parts of heaven and earth, it leads us far off the straight path of truth into trackless places and labyrinths from which no convenient way out lies open. Indeed — and I shall say freely what I think — Aristotle saw, and saw rightly, that no body can be moved without something to impel and move it; for God, the author of nature, implanted souls in natural things that are stirred by any motion, and craftsmen

attach to their αὐτομάτοις [Greek: automatois, "self-moving machines"] either weights or other pulling devices that stand in place of a soul. Hence, since the celestial bodies appear to lack organs, he assigned to them not internal souls but assisting intelligences, which move the orbs — in which he placed the stars — primarily, and the stars only in consequence. But the earth, because he supposes it fixed and immobile, he lays down, together with the rest of the elements, as wretched, abandoned, sluggish and wholly without a soul. But Aristotle is mistaken, and so is everyone who hangs on his authority.

For they make a monster of the world, who reckon it alive and quick in its upper, containing part, and in its inner, contained part destitute of soul and dead.

They also seem to be maintaining, against the true ἀξιώματα [Greek: axiōmata, "axioms"] of the natural philosophers, that a natural cause is in its whole kind inferior to its own effect — they who grant souls to moths, worms, cockroaches and fungi, and deny one to the earth, and who dream that souls are roused out of an inanimate earth, an earth from which nevertheless, as also from the Sun, we see most living bodies arise and be given life. But how, I ask, can that earth lack the surpassing dignity of a soul, and be mindless and dead, when out of it are brought forth and come the creatures of every kind that daily pass before our eyes on every side? Dig a clod out of its depths, set it somewhere high in the open sun, and not long afterwards grasses and herbs spring up and grow, distinct and unbidden, with no seed sown at all.

Those judge more rightly who, with Hermes, Zoroaster, Orpheus and our own Gilbert, acknowledge the whole to be animate, and assign interior souls to the very globes of the stars and of the earth — souls that praise God with jubilation, as we find in the Psalms and in Job. By these souls the whole world blossoms in its most beautiful variety, and by them the earth, our chief subject here, even before the lights and the stars were made, "brings forth the green herb, bearing seed, and the fruit-bearing tree, making fruit", as Moses puts it. For although we are uncertain, in the case of the globes of the stars, what instruments they use to carry out their motions — since they are too far removed from our senses, from which knowledge takes its beginning, and since they appear to us under no differing aspect but the same on every side, shining and fiery — it is nevertheless reasonable that they, being corporeal, received their own organs from nature just as we find the terrestrial globe furnished with various instruments for exercising its powers. And in the earth, to touch on at least a few of them: by the admirable wisdom of God the craftsman, waters are spread this way and that through subterranean passages, to moisten and nourish the dry parts, exactly as blood is spread through the veins; through the metallic veins the vigour of the earth's treasures is dispersed — treasures men use above all as a second blood — exactly as the vital blood is dispersed through the arteries; and finally, through the magnetic bodies that reach from the inner recess of the earth all the way to the surface (a recess we hold to be wholly magnetic and stony — indeed to be that very cornerstone upon which,

as holy Scripture says in Job, the earth is founded — and not, as the common natural philosophers suppose, made of simple earth), there is communicated that force by which the earth is driven round upon its own poles: just as we find the power of moving conveyed into all the members through the nerves, which are the instruments of motion.

The natural philosophers do indeed point to similar things in plants, by which they establish that a soul is in them, since they see that plants are moved by an internal principle and grow out of the earth. But those instances are the more obscure in proportion as the motion of trees and plants — which always cling to a single root and are bent only on their own growth — is more obscure, less noble, and confined within narrower bounds than the motion we ascribe to the earthy globe, as the mother and nurse of all elementary things: a circular and perpetual motion, by which it looks after and serves not itself alone but all terrestrial things.

Not without reason, then — both from the magnetic force by which, as we have shown, the earth is directed toward its own natural poles from opposite quarters and fills out the equator and the intermediate places with its remaining parts, and from the variety of organs and operations by which it cherishes and sustains all that is alive and all the growing things that issue from itself[3] — we conclude that a certain soul is in the earth, and indeed one that moves it in a circle upon its own axis and centre, which stand perpetually fixed. For without a soul no body is surpassing, precious or excellent; and without one no body can endure in its own integrity, or produce any operations suited to its nature.

This soul of the terrestrial globe has a great συνοικείοσιν [Greek: syn-oikeiosin, "close association"] — or kinship — with the souls of the celestial globes, seeing that all of them drive their own globes in a circle. The earth's soul drives the earth about its own centre and axis with the motion of rotation, by which it traces its equator and the parallels of that equator beneath the fixed outermost heaven, against which we estimate all the motions of the globes in the world; the souls of the stars drive the stars, both wandering and fixed, with a certain motion of advance, by which they mark out the Zodiac and its parallels by their own παρόδῳ [Greek: parodōi, "passage"] and ἀποκαταστάσει [Greek: apokatastasei, "restitution" — a body's return to the same place]. So, by these same souls and by their working, all of them together shape this most beautiful harmony of motions, assigning a shorter time for completing the circular motion to a body driven in a narrower circle nearer the centre of the earth, and a longer time to one moved in a wider circle. Hence the earth, because of the smallness of its globe, completes one revolution in the space of a day; the Moon, moved in a wider circle, in a month; the Sun, Mercury and Venus in a year; Mars in two years; Jupiter in twelve; Saturn in 30; and the fixed stars, describing the widest circles of all, in the space of thirty-six thousand years according to Ptolemy, or of nearly twenty-six thousand according to

[3]another copy of this printing (BSB 10501686) reads *prodeuntia & nascentia*, "the things that issue from it and the things that grow".

more recent writers — either completing that one revolution or striving to carry it through.

Without this harmony — the harmony by which the things nearest the earth are the most mobile and changeable, while those removed further from it, such as the stars, are less mobile, indeed unchangeable — motion, change and corruption would belong to the heaven rather than to the earth, and to the stars rather than to terrestrial things. There would be assigned to the highest heaven, which embraces and contains all the rest within its compass — whose immense magnitude and extent no sharpness of our eyes, I will not say, but not even any faculty of our soul, shut up in the tiny workhouse of the body, can take in — and to all the stars that shine in the heaven, a most headlong motion, one that bodies so vast and spread so far and wide can in no way sustain. But the condition of rest, or immobility, is nobler and more divine than that of mobility, or of the motion through which things tend toward perfection; local motion belongs to what is contained, or located, rather than to what contains, or locates, since the natural philosophers consider the locating thing, together with the place, as something immobile, and the located thing as mobile; and local motion is nothing but a passage from place to place, in which the moving body runs first through the earlier parts, then the second, and so on through the rest, until at last it reaches the goal and the mark of the course it has set out on. That being so, it will seem absurd to attribute rest to the earth, in which various changes, alterations, generations and corruptions take place, and which is the better able to traverse limits not so far apart — but to the stars and the highest heaven, in which such changes are not observed, and which are compelled to travel between limits very far apart in that vast expanse of the heaven — that we should ascribe to these the greatest and swiftest motion of all. This is so above all because we see that nature does everything by a kind of economy, taking the shorter road and without roundabout ways; and because the one motion that is attributed to the earth alone, from west to east, accounts for and explains all the appearances of all the stars from east to west most easily and best. On that view the stars need not be so wearied by the first motion, and no interpenetrations of dimensions [penetrationes dimensionum] arise — whereas on the contrary opinion, which makes the earth immobile, they arise in heaps.

There is this further point. In this universe of things we see that all bodies have been so arranged by nature that whatever is not stirred and moved locally in the world rushes into decay and destruction. So we see that water in lakes which is not stirred by an inflow and outflow, or even by strong winds, putrefies very readily; that timber is eaten away by worms; that iron, solid metals and everything else that is always kept in one place and never moved either by force or by nature is damaged and corrupted by rust and corrosion; and we find that the air itself, when it is not moved by winds, is tainted and spoiled. Now the bodies of the stars are safe from that spoiling and corruption, since they all carry through their own proper and natural motions. That the elements too, and the things mixed and compounded out of the elements, might be safe

from it likewise, and might be granted some permanence — as much as can fall to bodies that are elemental and subject to various alterations and changes — provident nature, the preserver of all things, equipped each of them with its own natural motions, by which they might protect themselves and what is theirs. Agitation frees the air from corruption: the agitation that comes from the winds, and also that which comes from the surrounding bodies that drag the air along with them. The sea is kept whole and untouched by putrefaction not only by the inflow of rivers but also by the perpetual tide, by which it is lifted and lowered, withdraws far from its shores and runs back to them again. Timber is guarded from the gnawing of worms and from rot by a dry breeze blowing upon it and stirring it. Bronze and other metals are kept free of verdigris by being moved about, when they are not shut up in one and the same place, and a damp one at that, but are carried from one place to another — which is why kings and princes take care to turn over and shift even the wrought bronze in their treasuries. Why then should the earth alone — the mother and nurse of all things that are born, which grants a dwelling-place to every living creature and carefully supplies their food — be believed to be immobile and to lie torpid in perpetual idleness?

Two things rouse her, truly rouse her, and move her in a circle. The first is her own preservation, which the earth, like other things, not only seeks by nature but pursues untiringly. The second is the outstanding benefit which she confers and shares, by that motion, upon living creatures and upon the things that are born from her. For we find that the powers of living creatures are somewhat broken down by waking and toil during the day, while the Sun is present, and are restored again in turn by sleep and rest during the night, while the Sun is away — as the well-known couplet also has it:

> *Quod caret alterna requie durabile non eſt, Hæc reparat vires feſſaq; membra levat:*
> What lacks alternating rest does not last; rest repairs the strength and relieves weary limbs.

Likewise the radical moisture of the things that are born from the earth — while that moisture remains entire, those things persist in growth and vigour — is observed to be drained by the heat of the day, life-giving though that heat is, and to be repaired and restored in turn by the moisture of the night. In this way the earth strives, not without the nod, the will and the singular providence of God, to care equally for everything born from her. The Sun, the Moon and the other stars go forward with their own distinct and slow motions, by which the Sun marks out the year and the Moon the month; the earth herself, by her daily rotation and her swifter circular motion, makes the civil day of 24 hours, and turns now this part and now that toward the Sun, the Moon and the rest of the stars. In this way her different parts, lit one after another and drawn away from the Sun's rays in turn, feel the distinction between natural days and nights. Stirred and set in motion by day by the life-giving heat of the Sun's presence, they are then, by night, in its absence — when the vapours drawn up are no

longer held suspended in the air as the heat fails, but thicken and sink down into the earth's lap — bathed and refreshed with a suitable moisture.

That the Sun rises and sets for us within the civil day, and that the Moon and the other stars in the heaven climb daily above our horizon [finitor] and sink below it, is not the work of the Sun's motion, nor of the Moon's, nor of that of the remaining stars, but of the earth's rotation.

That the Sun, whose motion is slow and completes its circle only in the course of a year, does not press its light and heat too long upon one part of the earth and abandon another, but serves nearly all of them in succession within the space of a civil day — this is the work of the earth's rotation.

That there are alternations of day and night, welcome and useful — indeed necessary — to nature, by which living creatures are invited in turn to carry out their labours and duties by day and to give their limbs, wearied with toil, over to rest by night, so that they may live a more comfortable life; and by which plants are roused by the life-giving heat during the day and bedewed at night with a fitting moisture: this too is the work of the earth's rotation.

Without this rotation, if the luminaries and the other stars in the heaven advanced only by their own proper motions, the Moon would rise just once in a month, the Sun once in a year, and Saturn once in 30 years — and each in the very place where the heavenly bodies are now found to set, while they would sink where they are now found to rise. The Sun, moreover, would scorch one and the same tract of the earth for half the year, so that it could neither bring forth crops nor could animals subsist and endure in it; and the earth would be robbed of the many benefits which she herself and her inhabitants enjoy and delight in through the daily rotation.

For consider how we deal with meat we wish to roast for our own use. We fix it on a spit and turn it evenly in a circle before a slow fire, the spit being turned skilfully either by hand or by other instruments, so that the same side, always facing the fire, may not suddenly crust over and be scorched while the side turned away stays raw, but that the whole may be cooked through evenly and properly roasted. Just so with the earth: that she might be useful on every side, and might both bring a fitting cooking and ripeness to the things born from her and supply living creatures with a safe and convenient dwelling and the food that is necessary, nature, the parent of all things, fixed her to her own axis and turns her about its ends, that is, about her poles, her soul moving her. Otherwise one and the same part of her, agreeing too long with the same disposition of the heaven and exposed too long to the Sun's rays, would be parched by excessive heat and drained of all moisture and strength; whereas, turned evenly, she furnishes the benefits I have described. It is true that the meat being roasted does not itself want the fire's presence and that roasting, though neither can it turn away from them, since it is no longer in a living animal: in the meat, the animal power by which it once lived and had sensation has already been destroyed and put out. It is men who want that roasting — men, for whose sake earthly things were founded, and who are multiplied, preserved

and increased by generation; who use a varied diet for the sustenance of their bodies, and who took this art of roasting from nature herself, in which they turn the meat to the fire and not the fire around the meat. Yet that the earth and the things born from the earth long with incredible desire for the enjoyment of the celestial light, and eagerly expose themselves to the rays of that eternal star which by its heat arouses and cherishes the seed-beds of all things — this we experience and observe not only in ourselves but almost daily in the plants themselves. We see plants call their flowers out at the Sun's coming, their buds spreading wide, and at its departure, when the same buds have closed, draw them back again into their little pouch as into a lodging; and so the leaves that unfolded into the shape of a calyx while the Sun was present they fold up again, in its absence, as into a case. So we see the mallow, chicory, honeysuckle [Periclimenon] and that whole class of herbs and shrubs which the Greeks call heliotrope and the Latins *solisequium* — the sun-follower — nod toward the Sun with so great a longing that country people have even built from them the timepieces we call *scioterica* [shadow-clocks]. And among plants of this kind that look toward the Sun, the lotus too is especially conspicuous and remarkable. Born in the water, it stands up all day long, sinks at evening, and by night takes itself down so deep that it cannot be found even by plunging in an arm. All these things, and many more besides, plainly show that we are not courted and sought after by the Sun and the heavenly bodies, and that they have no need of our earthly rubbish; rather, it is the earth and earthly things that reach out toward the heaven and look to their own advantage. In the same way we see the seas, at full moon, lift themselves up out of longing for the Moon (Scaliger, *Exercitatio* 52). For nature, the preserver of all things, has bred into them this natural instinct, that each should look after itself, feed on what is wholesome, flee what is harmful, and so protect itself and its own. That is why she willed that the earth too should be turned about in a circle daily by the power of her soul, so that no part of her should be left destitute of the life-giving heat of the Sun and go without it longer than is right. Nor meanwhile does the Sun fail the earth in its own office: it is for this very reason that it describes an oblique circle in the heaven with respect to the earth, so that through one half of its revolution it may serve the northern regions of the earth and their living creatures, and through the other half the southern, and be equally serviceable to all. For this whole world, with all its parts, has been founded with such wisdom that all of them together and each singly discharge their office in a remarkable harmony, and none is so slack and idle as not to devote itself entirely to the preservation of itself and of its own. And since the earth stands in the greatest need of the measuring and numbering of time, being the thing upon which all temporal matters bear, from elsewhere the same will not have to be sought either, except from the earth's rotations, compared nevertheless with the Sun, the Moon and the other stars; for the earth's daily revolutions — what astronomers commonly call the first motion [primus motus] — are known only from the apparent motion of the stars.

I am well aware, of course, that most natural philosophers and astronomers assign both revolutions, the daily and the annual, to the Sun; the daily and the monthly likewise to the Moon; and to the remaining stars a daily revolution together with each one's own periodic revolution — since many hold that the stars are driven by a twofold motion, a common one and a periodic one, of which they make the common accidental and the periodic proper to the star. Yet for the establishing of the truth I am compelled to declare without hesitation that all those who lay this down do an injury. They do one, first, to the earth our mother, in that they dare to assert that she is inert, unfit and incapable of motion — whether on the ground of her weight and heaviness, failing to notice that the earth was set at the middle of the world for this very reason, in the lowest place of all, from which she can neither go away nor change her place, so that, once impelled by nature, she cannot come to rest but is turned in a circle by her own weight with a restless, unending motion and walks her round; for all motion too arises not from lightness, such as is found in feathers, but from heaviness, a thing that arrows weighted with lead, cannon balls made of heavy metals or of stone, and laden ships at sea abundantly prove — or else on the ground that only straight motion, and not circular, belongs to her naturally. By this assertion they certainly turn aside from the path of truth in two ways. First, because they say that the earth's straight motion is natural, whereas the natural motions of things that endure and remain in their own being are perpetual, while a straight motion can never be perpetual: once it has reached its limit, it comes to rest. And secondly, because they maintain that it arises from gravity, by which all earthly things are moved toward the centre, when it takes its origin rather from that magnetic attraction implanted in all the globes of the world, by which those globes preserve their own unity and wholeness; since it is also certain that straight motion befalls only those things which stray from their natural place, or are thrust out of it, or are in any way whatever outside it, as I pointed out earlier. And if straight motion came from gravity, then everything that exists outside the centre, at the surface, would be in a preternatural place and would strain toward the centre with the utmost appetite; and so the upper parts, that is those further from the centre, would press continually upon the lower, those nearer to it, until at last the earth our nurse, set in such distress and pressure, would be annihilated outright. Nor would that escape avail which some of them bring forward against their own principles — that earthly parts do not weigh [gravidare] while within their own whole — since all the same they do not cease contending that on account of gravity she cannot be moved.

And although we gladly grant that the earth does not weigh while within its own whole — since in its own region too we see that water does not press upon fishes and divers, so that they feel any weight from the water — nevertheless we judge that this condition has another adequate cause, namely a magnetic force, by which straying parts seek their own whole by natural appetite along

the shortest line, that is perpendicularly, and, once it is reached, come to rest as though their appetite were satisfied.

Next, they do an injury to the stars as well, and lay a great burden upon them which by nature the stars cannot bear or carry, when they assert that the stars are driven by a twofold motion — the one from east to west about the poles of the equator, the other from west to east about the poles of the zodiac. For nature does not allow one and the same body in number to be set going and driven at one and the same time by two distinct circular motions, and contrary ones at that. Beyond this, she does not admit that the heaven should have the poles we have called natural in the earth, since neither the planets nor the fixed stars above them acknowledge those poles: by their own proper motion all the stars keep to the poles of the zodiac, and hence at one time approach, at another recede from, the poles of the equator — fictitious poles in the heaven. And what holds of the planets holds plainly of the fixed stars too. For about the star at the end of the Tail of Cynosura [Cauda Cynoſuræ, the tail of the Little Bear], the one we now call the pole star, Ptolemy writes in the *Geography* that in Hipparchus's day it stood 12 degrees from the arctic pole, whereas in our own times it is not yet three degrees away.

Either, then, if real spheres are set up in the heaven, grooves have been cut around the poles on both faces of the eighth sphere — and the same would have to be asserted far more strongly of the remaining lower spheres of the planets; or else, if the stars are held to move without orbs, which is what the philosophers of our own age for the most part agree on, then the stars will have either a pair of intelligences moving them, one for the common motion and one for the proper; or [a single] intelligent soul which, with the utmost diligence and circumspection, moves any star whatever in smaller and in greater circles in such a way that in neither progression does the star stray from the curvature of the circle, but keeps to both in just proportion throughout — driving it more swiftly in the greater circle, which lies nearer the equator, and more slowly in the smaller, which inclines further toward the poles, so that the same daily time is preserved. But for all I care, let those who set up a twofold motion in the heaven trouble themselves over the arguments by which they may try to prop up their less than probable opinion. To me it plainly seems altogether impossible that any arguments should be found to excuse a twofold motion in the heaven, when the axes and poles stand in the way and are different, and so does the motion, since each of the two is found to be carried out exactly in a round circle. For if the Moon, the Sun and the other stars did not advance by their own proper motions, their daily revolution would shape exact circles returning into themselves, which would keep an equal distance from the poles of the equator — poles wholly fictitious in the heaven. But since they do advance, and those motions also trace out circles of their own, helical curves must arise out of that mixed motion; and these are more spread out around the equator, where the declinations change abruptly, and more drawn together around the tropics and the poles, where the declinations do not vary so much.

And these very curves most people suppose are described by the Moon, the Sun and the other stars by a single natural motion from east to west — men who have recognized the absurdity of the heavenly bodies being driven by a twofold motion. But by what means even these defend their own opinion, I do not see. For neither by what reasoning not only all the planets but the fixed stars as well always accommodate themselves to the poles of the heaven and to the zodiac, and the same bounds of that oblique circle, in the motion of ascension, which takes place in the ascending half, and of descension, which takes place in the other half— —the descending half, perpetually retain, and never go out or leap across, and indeed change their declinations more swiftly around the equinoctial signs and more slowly around the solstitial signs — can they give, or even find, any fitting causes.

The safest way, then — indeed the only way — which not only the harmony of the motions I have spoken of but also the theory of the parallaxes demands, is that we lay it down that the earth is turned about from west to east, and that the contrary motion from east to west arises from appearance alone. For it is well known to most who are at home in the learned theatre of the mathematicians that nature has granted us two chief foundations — I pass over the others as of little service to my present purpose — by which we come to know the position, or the distance from the earth's centre, of the φαινομένων [Greek: phainomenōn, "phenomena"], whichever of them are presented to us in this universe. The first is proper motion: the swifter it is, the nearer and the closer to the earth itself — which we judge to be mobile in the highest degree — that phenomenon of the heaven stands; and this is plainly established from the harmony of the motions of the Moon, the Sun and the other stars already set out above. The second is παράλλαξις [Greek: parallaxis, "parallax"], which the Latins commonly interpret as the aberration or deviation of sight from the true place, the place that faces its own centre; and it comes from nothing else than the thickness of the earth and its motion. For whatever things are reckoned to be carried by the first motion, and do not by excessive nearness rest perpetually upon one spot of the earth — as Josephus reports of a comet in *The Jewish War*, book 6, chapter 31, and Hegesippus [Egeſippus] in book 5, chapter 48, a comet that was seen for a whole year over the temple at Jerusalem, before its final destruction, in the likeness of a flaming sword — such things, if they lie below the Moon, undergo a parallax of the kind that is detected quite plainly, even by unaided sight and without the help of instruments, by anyone even lightly steeped in astronomy. For phenomena of this kind rise later and set earlier to our sight than do the places in the heaven to which they are referred; and around the surface of the earth, from which we judge motions, they make unequal advances — greater near the zenith, smaller near the horizon — as is also in some measure plain from the motion of the clouds. And the cause is that the solidity, or thickness, of the earth, which separates and removes us, set as we are on its surface, from that centre by about 860 German miles, bears some relation and proportion only to those things which

are confined within the Sun's bounds, whereas to those that stand further off it is, on account of the excessive extension, like a mathematical point, which has no part. In phenomena, then, that are nearer and closer to the earth, not only is the angle always the greater and the parallax the more evident — the parallax formed by two lines, one drawn from the earth's surface and our own station, the other from the earth's centre to the phenomenon — but an inequality of motion is produced as well, in proportion as those two lines are shorter and the earth bears the greater relation to the place in which the phenomenon lies. For it is certain, and proved by geometrical demonstrations, that a motion regular about one centre is necessarily seen as irregular from another and different place. And this foundation of the parallaxes is most firm, most useful, and celebrated by the mathematicians in so many praises that none is to be found more solid, more certain, or better fitted for informing and settling a judgement about the position of the celestial phenomena — whether sublunary, or set above the Moon yet still within the Sun's barriers. And it is on this account —that we necessarily derive that very thing as well, from the certain, infallible and uniform motion of the earth's rotation upon its own fixed axis and centre. But those who suppose that the parallaxes arise from a dragging — the dragging by which, as they maintain, not only the stars but the air too, and the φαινόμενα [Greek: phainomena, "phenomena"] that appear in the air, are driven along from east to west by the *primum mobile* — those men build this excellent foundation, so very useful to astronomy, upon shifting sand, and expose it to so many assaults from contrary opinions that it can in no way keep its dignity among the supports of astronomy, nor be held in the place it deserves, even though the observations of eclipses of the luminaries agree with it. To treat this more fully, however, I forgo, out of a concern for brevity.

I could indeed go on now to show further that, just as man — everywhere called a μικροκόσμος [Greek: mikrokosmos, "microcosm"] by the philosophers — walks not upon his highest and topmost part, the head, but upon his lowest, the feet, while the head meanwhile stays steady and looks out for the safety and the uses of the body, so the earth, which occupies the lowest place in the world, carries out the chief motions, while the heaven meanwhile acts upon these lower regions by its heat and by its motion in the oblique circle, so that this world may bloom with the loveliest variety through the alternation of generation and corruption. And just as the heart, very nearly the middle organ in living creatures, quickens everything around it by its unceasing motion, so the earth, having obtained the middle seat in this universe, preserves and protects all things in their vigour by its daily motion. I could also touch on this: that it is for this very reason that our prayers are commonly directed toward the east, and that the altars in churches are built facing the same quarter — so that we may show that the whole of nature sets its motions in that direction, as toward the worthier place, since the same qualities are assigned to that region as are assigned to the heavenly bodies and to fire. I could further confirm that the tides, or the ebb and flow of the sea — which in the broader expanses of the

ocean are more regular and return more slowly, while in narrower waters they are found less regular and ebb and flow more often — come about from the earth's daily revolutions, with the Moon's longing [desiderium] concurring, by which the seas are affected; and that the motion of the Ocean and of the other seas from east to west — the motion that helps those sailing from the Low Countries to Portugal and from there to America, while those returning from America to Portugal are held back, as the histories report of Columbus and others, who crossed from Spain to America in about 24 days but on the return were forced to spend more than three months — arises from the earth's opposing advance from west to east. And finally I could demonstrate that, since we do not know the limits of the heaven, on account of its immensity and because the world is, according to Pliny, most like the infinite, and since on the philosophers' view there is nothing outside the heaven — neither place, nor body, nor void — it is quite thoughtless to attribute to the heaven that swiftest circular motion which is completed in the space of a day, and then from that motion to conclude that the heaven is finite and bounded by a fixed limit. For everyone knows that nothing is confined by nothing, and that motion occurs only in a place, and not in a void or in nothing.

But the arguments of those who make the earth fixed and immobile must also be refuted. They are moved by these considerations: that the earth is the centre of the whole world; that, if it were set in motion, it would break up and scatter everything, so that nothing in it could be joined together, or once joined remain so;

that it would be unfit for the generation and growth of the things born from it; that it would overturn buildings and the animals standing on its surface; that it would produce perpetual winds out of the east; that things hanging and flying in the air would appear to be carried westward without a break; and that, on Aristotle and the Peripatetics, an earth moved in a circle would be agitated contrary to its nature, since its parts have only one natural motion, the straight one toward the centre. Necessarily, too, it would be set going by a twofold motion, as the stars are; its parts would not rest upon its surface but would likewise move round upon it in a circle; and the earth would grow hot from the motion — and other arguments like these. But since the solution of all these contrary arguments comes easily from the principles drawn from the nature of the earth and from local motion, some of which I set out a little earlier, I have preferred to touch on only a few of them lightly, and to put off a fuller reply to them to another occasion.

First, then, they argue badly from the earth's being the centre of the world to the conclusion that it must be fixed. For the earth is not the centre absolutely, but only relatively — or, more truly, it lies about the centre, as Scaliger too teaches in Exercise 1 — since the centre is an indivisible point within the globe, about which the astronomers rightly judge that motion takes place. But since the earth is not the centre of the Moon's own motion, nor of the Sun's, nor of the other planets', how, I ask, will it be the centre of the whole universe?

How will the more distant things in the world have regard to that very point in their motion, when the nearer ones do not look to it? And how will the earth, the most changeable of things, be the base, the foundation and the centre of the unchangeable heavens? Next, there is no reason for anyone to think that the generation and growth of things are hindered by the earth's natural rotation. That rotation does not violently tear the things born from the earth out of it, nor shift them from their place; rather, any portion of earth, settled in its own place, surrounds them, warms them and feeds them, like a pregnant woman carrying her womb. Nor does motion stand in the way of generation, since we find by experience that soil in some sunny spot aboard a ship — a ship driven by a continuous and very swift motion — embraces on every side the seed entrusted to it and taken in, and that the seed germinates and yields fruit proper to its kind. Nor is there reason for anyone to fear dissolution and dispersal from the earth's motion, since we do not see the stars broken up and scattered — which would be all the more to be feared in their case, given that those who contradict us hold the stars to be carried by a motion more frenzied than the earth's — nor does a violent motion break up things that are driven at the very highest speed. The earth, then, moved naturally, remains whole and entire, marked out into its own regions; for everything works by natural effort toward this end, that it may preserve itself and its own in wholeness and in a lasting condition for as long as possible. And what natural thing, I ask, would throw down buildings or anything else standing on the surface? Violence alone does that, and violence is utterly foreign to natural motion. For if, among the antipodes, no one in his right mind fears that buildings or people will fall away into the opposite part of the heaven, how will anyone be able to fear that same fall here in the case of a natural motion — a fall that the same reasoning and the same nature of the earth rule out? Further, this cannot be inferred either: that when the earth is set in motion from west to east [recte: ortum; the print sets or-um, without the t], the clouds and the other things hanging or flying in the air near us must always be carried the contrary way, from east to west, exactly as we see the stars driven in the direction opposite to the earth's own motion. For although the stars are bodies far removed and distinct from— —the earth and from its nature, and so are not affected by the speed of the earth's motion but are carried by their own peculiar motions, which they complete in set and definite periods (so that, referred to the earth, they have to be reckoned as though fixed in one place, seeing that otherwise, because of the earth's rotation from west to east, the heavenly bodies themselves are found to travel the contrary way, from east to west) — even so, the clouds and the things hanging in the air, because they have something watery and earthy in them, are sometimes observed to stand motionless and to make no advance at all. The reason is that they are not set going by any proper motion of their own, and do not alter their natural perpendicular to the earth. Instead, together with the earth and with the air adjoining the earth, they are simply carried round by magnetic force with the motion of the terrestrial globe — which is

composed of earth and water — keeping that same perpendicular to the earth. Sometimes, though, they are seen to move, because gusts of wind shift them off their perpendicular and push them: now from north to south, now the reverse; now from west to east, now, conversely, from east to west, according as the winds, whether one alone or several together, drive and stir them.

So too with birds. Since they are themselves earthy bodies, they are turned about with the earth's motion by that magnetic force, without being aware of it themselves, any more than we are — especially since they fly within the very air that is turned round together with the earth. Hence, if in their flight they choose to advance in no direction at all, they seem to stay virtually fixed, since they move forward by no motion other than the one that belongs to them from the nature and the dominion of the earth. But when they want to fly upward, or downward, or to the sides, they can do so perfectly well, with no hindrance from that natural motion of the earth. For wings were granted them by God their creator to this end: that, just as men and the other land animals take themselves from one place to another on their feet over the earth, and fish do so with their fins in the water, both without hindrance from the earth's rotation, so the birds too might be able to carry themselves on their wings through the air into every quarter of the earth, in search of food or as appetite requires.

Next, the arguments of Aristotle and the Peripatetics prove very little. For one cannot infer, from the fact that the wandering parts of the earth move toward their whole along the straightest line, that the whole earth too is moved naturally by this motion only and by no other — since, once founded upon the centre, it has no further place to which it might move in a straight line. And as some perpetual motion is rightly attributed to it, lest it grow numb with idleness, so that motion can be none other than circular. For, as Ecclesiastes 1, verse 4, has it, the earth abides forever while one generation passes away and others come, just as the Sun, the Moon and the rest of the stars are endowed with perpetuity by nature; and so the earth too is naturally driven by a perpetual motion that returns upon itself, however much its parts feel certain changes. And just as one may not argue: *the parts of the other globes in the world, such as the Sun and the stars, are carried along a straight line by a motion of aggregation toward their own whole, which must happen so that no confusion of parts arises in the world; therefore the Sun and the stars are not moved in a circle* — so neither can we grant that no other perpetual motion suits the earth, or that such a motion would be contrary to nature, on the ground that its parts are carried toward the whole; for the account of the parts is one thing, that of the whole another. In the same way this is quite worthless: that if the earth is moved with a circular motion, it must necessarily be moved with a twofold one, as the stars are. For that the stars are driven by a twofold mo— —tion, we do not concede. On the contrary, among the causes that set the earth going in circular motion we judge this one not the least: that the stars should not have to be driven by a twofold motion, at one and the same time, contrary to nature. This much, though, we

readily grant — that the earth grows warm to some degree from its motion, and adds certain further qualities to its native ones, so that it does not remain simple. For if it were simple and merely cold, it could neither bring forth fruit nor preserve and increase, out of itself, what has grown from it: not within its own caverns, nor in cellars made by art, nor in midwinter under the snow. But if they hold that this heat arises from friction, we for our part certainly do not lay that down, since the earth moves in the freest air — indeed, moves that same air along with itself.

We by no means concede, however, that this follows once the earth is turned in its circuit: that the north pole, which stands behind a man who turns his face toward the south, comes round in front of him when twelve hours have gone by. For just as, when a globe is moved, the part of it turned toward the pole necessarily keeps facing that same pole, so it is with us who stand on the earth's surface. The quarter that at this moment lies behind us and faces the pole can never become the quarter in front — not even though the terrestrial globe turns perpetually, so long as I, or anyone else, stand as I now do — unless we turn ourselves round, and so by turning the body make what was behind into what is in front. Since, therefore, the arguments by which the earth is laid down as fixed and immobile are weak, and are broken and scattered with no trouble at all, we should rather hold that the earth is naturally carried round in its circuit daily. I have made this very point plain from three things: from the round figure the earth has, on which that supreme Architect and craftsman of the world, God, turned it as on a lathe; from the magnetic and anxious care with which nature has armed it, and which the divine decree assigned to it for the preserving of itself and of its own; and then from the property belonging to local motion.

That property, of course, demands this of all bodies, provided local motion really does belong to them: that they traverse every part of the space or interval to be covered in order, one after another, successively in time, and do not measure out in a moment some immense space — which is to be assigned to spirits rather than to bodies. Once this is rightly weighed, anyone can see that it is easier, and more consonant with nature, for the earth to cover 15° in an hour — that is, 225 German miles — at the equator, and 138 miles on our own parallel, than for the Moon, at a distance of 60 semidiameters of the earth, to describe 13,515 miles at the equator in those same 15° by a preternatural motion in which it is carried along [motus raptus]; or for the Sun, whose bulk exceeds the earth's about a hundred and forty times over by Tycho Brahe's most accurate observations, to run through 259,024 miles in a single hour, at a distance of 1,150 semidiameters of the earth, on the equinoctial day; or for some fixed star — say the topmost star of the second magnitude in Orion's Belt, which on Tycho's reckoning surpasses the earth thirty times over in bulk, and more than that on others' — to traverse in a single hour, at a distance of 20,000 semidiameters of the earth, four million five hundred and four thousand seven hundred and sixty-two miles: 4,504,762. And in a single sixtieth part of an

hour it would traverse as many miles as a man doing ten a day can scarcely complete on the march in two hundred and three years — namely 75,079.[4] And this quite apart from the fact that by their own proper motion the fixed stars as well, which have the least motion of any, being nearest to the fixed heaven, nearly a quarter of a mile in the contrary direction over the poles of the zodiac— —or of the heaven, are compelled to sweep out even within a single hour; the Moon about 450 miles, the Sun 729. Finally, once this same nature of local motion has been weighed more carefully, a man grants all the more readily that the daily revolution belongs to the earth rather than to the heaven, the more he finds that the motion of rotation, which nature assigns to the earth, outdoes the motion of advance along the longitude of the heaven, which must necessarily be assigned to the stars — and this even in the things that are set going by art with the one motion or the other. That will be so above all if he also holds with us that the stars are moved, not in orbs, but through the free air by an inner power, and lays down firmly what the science of optics itself seems to require.

For the rest, most august Prince Elector, most gracious Lord, I dedicate and offer to Your Most Illustrious Highness this εἰσαγωγὴν [Greek: eisagōgēn, "introduction"] and exposition of my Ephemerides, in particular — that is, to you personally — and, along with it, the Ephemerides themselves. I do so for two reasons. First, because whatever this work amounts to, I carried it out at the Academy of Frankfurt, which your most illustrious forebears founded on the bank of the fish-rich river Oder and left to Your Highness to preserve and enlarge — indeed all but handed into your hands — and carried it out for that Academy's meridian, the meridian which anyone who wishes to use and enjoy them is bound to consult; and so I now rightly refer the work to the most illustrious Lord and Possessor of this land under the title of Brandenburg. Second, because I see that I owe an account of the studies I spent, while I held the chair of mathematics, both publicly and privately, on this Academy's students and on other learned men who are drawn to the science of the stars and take pleasure in it.

Publicly, as my office required, I set out in the Academy, with all the diligence and clarity I could, and from the foundations themselves, not only matters geometrical, cosmographical, geographical and astronomical; and of this I have as my witnesses both my hearers and my dearest colleagues. Privately, on the other hand, I not only put forward arithmetic, spherics and the other mathematical subjects, but also, with unwearied application and the greatest labour by day and by night, investigated and computed the celestial motions for sixty years. Those motions, written out and set against their proper days and months according to the various calendars of various nations — which are presented alongside them — I here offer and present as a suppliant to Your Most Illustrious Highness. For it is not everyone who has leisure for the most

[4]at ten miles a day, 75,079 miles take about 20½ years; the print says 203.

laborious and most vexatious computation; most men look about for short cuts, and if they do not have those ready to hand they would sooner pass such matters by than occupy themselves with them. From these, then, anyone will be able, with no calculation at all, as though out of a set of abridged tables, to make out and consider what the advance of the heavenly bodies is, what the aspects are, and what the other occurrences are — eclipses above all, by which, as being the rarer events, the minds of men are chiefly stirred and affected.

I undertook this labour — an arduous one, certainly, and the work of many years — for the sake of the public good alone, and not of any private gain, which some men who give themselves over wholly to practice hunt after to the exclusion of all else, often neglecting even the very office in which they have been placed. And I undertook it so that this lofty study — in which the kings of old took the first of their delight, and in which in our own day Your Most Illustrious Highness and many other princes, above all the most unconquered Roman Emperor Rudolf [Rudolf II, Holy Roman Emperor], the most serene and most powerful James [James VI and I], King of the English, the Scots and Ireland, and the most illustrious of Hesse— —Landgrave Moritz, and the most illustrious Philipp, Prince of Stettin and of Pomerania, and the rest, are agreeably affected — so that this study may come to the notice of many, may find a great many devotees, and may not be left abandoned and neglected; for of a thing unknown there is no desire.

And that Your Most Illustrious Highness may receive this offspring of my wit with a serene and most kindly countenance; may most graciously foster me and my studies, barren as they otherwise are; and may defend them against the dog-like bites of those who envy me — this I beg most humbly, with the submission that is due. If I obtain it, I shall have good reason to rejoice that I have reached the goal of my studies; and I shall not stop preparing for publication the material I still keep laid out at home in my notebooks, so that with the talent granted me I may be of real use to others as well.

I shall also not leave off imploring God, the fountain of all grace and all good, with my whole heart and with the most ardent prayers, that he graciously prosper Your Most Illustrious Highness — whom not long ago he willed to be successor, in the dignity of the Electorate, to your most illustrious and most powerful father and lord Joachim Friedrich, Elector of Brandenburg, who died devoutly and peacefully in true invocation of the divine majesty — prosper you, that is, with the accession of further duchies and with a happy and peaceful government of them; and that he keep you safe and flourishing for very many years, through Jesus Christ, the son of God and of Mary, our only Saviour. Amen.

Frankfurt an der Oder, May 26 [VII Cal. Iunij] of the Julian year 1654 [M. DC. LIV], which is the year 1609 [M. DC. IX] of the Christian, Dionysian era.

Your Most Illustrious Highness's
most submissive client
David Origanus, Ordinary Professor of Mathematics.

DAVID ORIGANUS OF GLATZ [Glacensis], Master of Arts and Doctor of Philosophy, sends his warmest greetings to lovers of the stars and to the candid reader

Such, my most friendly reader, is the lot of those who serve the public good by their labours and by the writings they publish: they are compelled to meet and to endure the varied judgments of others, whether those judgments are fair or unfair. I can prove this from my own case, if it is not already plain enough to everyone. Not yet eleven years have passed since I first brought out my Ephemerides for 36 years, computed from the Copernican calculus and the Prutenic Tables [tabulae Prutenicae] for the meridian of the most celebrated seat of learning [emporium literarium] of the Elector of Brandenburg, where by God's favour I have now held the chair of mathematics for twenty-three years running. And then — while many were applauding me and thanking me, both by letter and in person, for the very great labours I had drained out through five full years of tireless study — there appeared two Διάβολοι [?] [Greek: diaboloi, "slanderers"], that is, two calumniators: one an Italian, IOANNES ANTONIUS MAGINUS [Giovanni Antonio Magini] by name, mathematician of the University of Bologna; the other a German schoolmaster [paedotriba] in the neighbourhood. Both barked at that work of mine — written and published for no other reason than the public good — out of spite, and with sheer canine fury.

In this letter to you, kind reader, I refute them and convict them of falsehood, in defence of my own good name, and in the same letter I set out my reasons for this revision and new edition of my Ephemerides. And I am confident of two things: that you will not be swept away by any prejudice, nor take it amiss if here and there I handle them more roughly than my nature inclines to; and that my opponents and carpers themselves, if only they will attend to it, will lay the blame not on me but on themselves, since they attacked me unprovoked and injured in no respect. For how should I brand them both as envious slanderers — I who have never injured any honourable man by my words or deeds, whether rashly or by design — unless they had earned these names by their abusive writings, in which they shamelessly drew their venomous tongues against me, who had done them no wrong? To demonstrate this openly to everyone who understands humane letters — leaving aside the unlettered, whose judgment in these matters I count for nothing, however much the schoolmaster has courted popular favour by publishing in the vernacular — I shall deal with each man separately, and make plain what case each has fabricated against me and what my answer to it is.

I shall begin with the Italian, to whom, as a foreigner, I rightly give precedence out of courtesy, and all the more because he too is a mathematician. I shall set out word for word his *Apologia* — or rather his invective — exactly as he inserted it into his *Tabulae primi mobilis* addressed to the most invincible and most mighty Emperor of the Romans, Rudolf II, ever Augustus, my own most

gracious lord; and I shall set out along with it that old piece of mine addressed to the reader, by which he supposes himself to have been injured long ago. Anyone may then see how arrogantly, and with how little candour or sincerity, a German has been treated by an Italian, and mangled in less than fair terms. To dispatch the business in the fewest possible words and in summary form: here is the title he prefixed to his slanderous piece.

> **JO. ANTONII MAGINI PATAVINI APOLOGIA SUARUM Ephemeridum contra Davidem Origanum. Cui annexæ sunt Eruditissimorum aliquot virorum ad rem Mathematicam facientes Epistolæ.**
> [*The Apologia of Giovanni Antonio Magini of Padua for his own Ephemerides, against David Origanus. To which are annexed some letters of most learned men bearing on mathematics.*]

This title certainly promises two things. First an *Apologia*, that is, an excuse or a defence, by which Magini undertakes to excuse and defend his own work of Ephemerides. But against which antagonist? He writes against David Origanus. And yet that man, Magini — so long as you were not attacking the truth in the work, and were not, with the errors admitted here and there in your Ephemerides, cunning- ly covering them up, frivolously excusing them, and shamelessly defending them against your own conscience; and so long as you were not assailing Origanus himself with the bitterest slanders and abuse — that man would readily have put up with it and borne it, and would not have contradicted you in a single word; he would rather have agreed with you amicably, as with a man who professes the same discipline as himself. But since he perceived the opposite — and with him many others into whose hands your *Apologia* came, which one might more properly call an ἀπόλογον [?] [Greek: apologon, "a wordy and fabulous tale"] — he has rightly defended himself and his good name, and with it the truth, for which good men rightly fight, against your canine bites and sophistical illusions, with the severity the case deserves.

The second thing the title promises is letters from other men bearing on mathematics. These, Magini — whether you attached them to that apology on your own judgment or at the urging of Henricus Zuckius, though I think it was in no way done without your consent — I take in this sense: since they present themselves to readers under the title *Apologia of the author's Ephemerides against David Origanus*, repeated on every page, you had by then begun to lose confidence in your thoroughly bad case, and were nevertheless struggling to shore it up with the testimonials of others, like seals hung on a document, after the manner of the mountebanks [agyrtae] whom the Italians call *Ziarlitanos* and the Germans *Zanbrecher vnd Quacksalber* [German, set in Fraktur: "tooth-breakers and quacksalvers"]. But those testimonials do you little good. They have no bearing on the matter itself, they do not concern me, and — apart from two letters, one written by Tycho and the other by Romanus, which you nevertheless boastfully repeat twice, as we shall see below — they make no mention whatever of our controversy; and most of them were written before

I ever turned my mind to computing Ephemerides. But let these pass along with your other errors: we shall now consider the contents themselves, which you begin as follows.

> I had already published in a second printing the volume of my Ephemerides, from the year 1598, that is, to 1610, and I had planned to add as soon as possible their second part, which I had carried down to the year 1630 long before but had not yet made public — when, quite unexpectedly, the Ephemerides of a certain David Origanus were laid before me, printed at the very same time as mine. They ran from the year 1595, at which point Johannes Stadius's Ephemerides begin to go furthest astray, down to 1630.

In this preamble of yours, Magini, you imagine that you alone among mathematicians are awake, and that you alone are diligent in this branch of study, so far as the writing and publishing of ephemerides goes. As regards the Italians I may perhaps readily grant you that; for apart from the Ephemerides of Pietro Pitati [Petrus Pitatus] for 5 years, appended to Stöffler's [Stefleri], those of Giuseppe Scala [Iosephus Scala] the Sicilian for 12 years — which you boast were taken over from yours — and your own for 40 and now for 50 years, I have seen none by Italians or by any other nation except the Germans. You suppose that all the rest, in other kingdoms, are held fast in deep sleep, snoring and doing nothing; indeed that Germany no longer produces, as she did in earlier ages, mathematicians to cultivate this invention that is the Germans' own and to leave ephemerides to posterity — since you write that mine appeared when you were not expecting it. But you are much deceived, Magini. What ought to have occurred to you even in a dream at night — that some German besides yourself would write ephemerides — you now see has come about; and you see that my Ephemerides too stand in broad daylight and have long stood there, though in your ambition and Φιλαυτία [Greek: philautia, "self-love"] you thought otherwise. For since Ioannes Regiomontanus, a German, was the first to compose Ephemerides for 30 years, from the year 1475 to 1505 — as Erasmus Reinhold [Erasmus Reinholdus], the author of the Prutenic Tables, shows in his life of Regiomontanus, and as Petrus Ramus confirms in his *Scholae mathematicae*, and as you yourself will not dare to deny unless you wish to be thought utterly shameless — how should the Germans desert this offspring native to their own soil, and fail to nourish it by cultivation and continuance? They would certainly do a wrong both to its first author and to themselves, if they did not protect the honour they had won [*partum decus*]. But you go on.

> I would have borne this well enough, whatever it was: for I thought it mattered little to me if others were spending their time to no profit — had I not seen that this David, driven either by idleness or by envy, wished by his useless and superfluous labour either to belittle or to snatch away the modest glory I had already won among most men from the first edition of my Ephemerides.

And how, pray, Magini — you who are a foreigner — could you have prevented me, a German, who profess the same science as you, from illustrating that science by writings of my own as well? Is not every man free to practise the art he knows and to serve the convenience of others? Have you obtained a privilege from the whole world, or from all the princes of the earth, that you alone and no one else may write ephemerides? Do you suppose that, because you brought your Ephemerides into the light first, you thereby frustrated the efforts of others, and mine above all, in this field, and that profit flows to other men from yours alone and not equally from mine? This, it seems, is your exalted way of thinking. But in my judgment, and in that of others, you are much mis- taken, and you bear witness to your own envy. You see that in Italy it is the custom for two men to treat the same subject publicly at one and the same hour, in different lecture halls. What reason is there, then, why — because you have published Ephemerides — I should not be permitted to publish a similar work as well? You see that almost every discipline in which there is but a single truth has been treated many times over by different men, and that some points are always found more clearly explained in one work than in another. For God has not lavished everything on one man; he has granted one man special gifts in one field and another in another. You infer very badly, then, that I am driven by idleness or by envy to plot against your renown, and that by my labour — which you call useless, and not without slander and canine envy — I mean to belittle and to snatch away the glory you reckon you had won from your Ephemerides before I appeared. For just as you render others an account of your leisure, and I raise no objection, so grant me leave to render an account of mine; since I mind my own affairs and let you mind yours. Write, for your part, for Italy and for other regions, and know that the same is granted to me — to write for Germany and for other regions. Nor, if I write on cosmography and you write something similar, shall I say that you do it driven by idleness or by envy. Nor will the praise won by your labours take anything from mine, any more than mine from yours; for in this world every man is made famous or condemned by his own deeds. You add:

> Although this matter troubled me not a little at the time, still, when I saw that he had accused me of rather slight errors of no importance, I did not think it necessary either to say anything about them or to quarrel with him about the injury.

Here you rightly confess not only that you took it very badly, but also that you were thrown into confusion in your reckonings at the sight of my Ephemerides. For you had persuaded yourself — by a wholly new and unheard-of precedent — that no one would come forward again to publish a work like yours; that the whole world would henceforth use your Ephemerides and no others; that it was now open to no mathematician to seek any praise from publishing ephemerides, since you had snatched all the glory from others, especially in that long and tedious critique of Stadius's errors, which no decent man will read without bile; and that all the praise of our time was owed to you

alone and to no other mathematicians. Here, precisely here, is your arrogance; this is the cause of your agitation. And foolishly do they encourage you in that arrogance — all those who cast aside their own labours, begun for the public good, and turn their eyes on you alone, and in faintheartedness throw away what they had begun to work out on the primum mobile. But perhaps they will take heart when they see me pointing out to you, not merely slighter errors as before, but by now graver ones in your Ephemerides — errors which you yourself provoke and challenge me to display. For how do you dare to write that I have done you an injury, when I wounded you by no offensive word, but noted only certain slighter errors of yours, as you yourself admit, and noted them modestly at that? You add:

> For I could not easily believe that anyone else is so unfair, or so eager to obscure my name, as to be persuaded by Origanus's perverse slanders and undeservedly to lay aside whatever opinion of me he had already formed. On the contrary, I was hoping that those who had seen my *Apologia* against Francesco Giuntini [Franciscus Iunctinus], in which I discussed that very difference of meridians which he laid to my charge, would readily excuse me on every count.

In the words just quoted you can all see, mathematicians — indeed all of you who read this — Magini's proud and haughty spirit. He judges himself to be of such authority that his bare word must be believed without any demonstrations at all, as though he were Pythagoras himself and we his disciples, entitled to invoke that phrase αὐτὸς ἔφα [Greek: autos epha, "he himself said it"]. He writes that he long ago replied to Francesco Giuntini, the Jesuit and astrologer — though I have not been able to see that reply of his — and replied in such a way as to have settled the difference of meridians that Giuntini laid to his charge. I do not believe this; and I hope that others will not easily be brought to believe it on his bare word. For how, as a mathematician, could he persuade us of these things without rhetorical flourishes, when he proves not the least part of them — indeed, when we know from the teaching and assertion of the most distinguished mathematicians, and at last from Magini's own admission (as we shall show a little later), that the case stands otherwise? Yet you will conclude, kind reader, that he does confirm this very point by those words of Magini's: 1, the words in which he calls "perverse slanders" the objections I raised against him on the score of the difference of meridians; 2, the words in which he warns others not to be so unfair, and so eager to obscure his name, as to lay aside at once the opinion they had already formed of his studies, once they notice the errors which, he trifles, are falsely ascribed to him. But I maintain that Magini confirms nothing by them, since — against his own conscience — he not only cunningly covers up and dissembles what I set against him about the difference of meridians on solid and just grounds, but wrongly calls it slander. I had written, as will also appear below, that Magini computed his Ephemerides for the longitude of Venice, which — as the catalogue of places appended to those

same Prutenic Tables has it — is, toward the west, 50^{m} of an hour re- moved from the meridian of Königsberg in Prussia [Regiomontium Borussorum]; and that he wrongly makes that difference in his own catalogue only 36^{m}, and confounds it with our Frankfurt meridian, which he declares to agree with that of Venice, since he assigns no difference of longitude at all to Frankfurt an der Oder. All this is plain to everyone from the first edition of his Ephemerides, produced at Venice in 1582 by Damiano Zenaro [Damianus Zenarius] — the same press that also published the fable written against me, under the emblem of a salamander, which, as it feeds on fire, so, through the envy with which Magini burns, feeds on running good men down. But Magini calls these very statements slanders — statements I had written with perfect truth and confirm more fully at the end of Part One of the *Introduction* — either because he does not understand, or will not understand, what slander is, or because he wants to wriggle out of that error of his (which he would do better to acknowledge and correct), twisting like a snake, cunningly but to no purpose; and that ill becomes an honest man. As a Master or Doctor of Philosophy, Magini ought to have known that slander is a false interpretation or accusation of someone's writing or intention, maliciously undertaken and wrested to the worse sense. Since Magini does not grasp that definition of slander, and since anyone can see that it fits not me at all but Magini, everyone will judge that it is he who slanders and does not know what he is prattling about, rather than I. Indeed, convicted of it, he acknowledged and corrected the error charged against him in the latest Schönwetter [Schonvvetteriana] edition of the Ephemerides, produced at Frankfurt am Main in the preceding year, 1608 — but far too late, after he had insisted long and maliciously, against Giuntini and against me, that he had not erred. A comparison of the editions makes this perfectly clear. So he adds these words to no purpose:

> As for the meridian of Venice, which Giuntini earlier and now Origanus again report that I took wrongly, I believe I have defended it amply in Canon 8 of my *Tables of the Second Movables* [*Tabulae secundorum mobilium*].

But there, Magini, you do indeed show that the authorities differ in assigning the longitude of Venice and of Königsberg: Apianus [Petrus Apianus] sets Venice only 35^{m} of an hour west of Königsberg, where others extend the interval to 50^{m}. What you do not explain is why, having computed the motions to the larger difference, you afterwards entered the smaller one in your catalogue, and so disagree not only with yourself but with the author of the Prutenic Tables, whom you scourge unjustly, as we shall see later. So I affirm — truly, and not slanderously, as you write — that you are still caught in this, and indeed that you erred. And why should I not affirm it, when anyone who examines the later edition of your Ephemerides and compares it with the first notices that you have corrected that error? You owed me thanks, then, for setting you back on the road when you were straying. But you go on:

> And, to confess the fact, any further dispute about the Ephemerides is an annoyance to me.

That I readily believe. It is heavy work to fight against manifest truth and to try to crush it, when truth keeps breaking out into the open — since, as the common saying has it, truth may be pressed down but is never crushed. And just as the sun's brightest light can indeed be intercepted and darkened, but cannot be removed or blotted out, so truth can be assailed for a time by the wicked and the envious, but cannot be worn away entirely. But who, Magini, called you too into this contention, except your own lofty spirit, by which you presume that you have never erred? You might have confessed frankly and honestly that you had erred in those places, and those who fight for truth and set themselves against you would have been mollified by your candour and let the matter rest. As it is, a case that is not good will only be made worse by an unfair defence. But let us look at the rest.

> For I had hoped (he says) that after that Giuntini, and after a certain other man, Giuseppe Scala the Sicilian [Iosephus Scala Siculus] — who, at the instigation of Giuseppe Moletti [Iosephus Moletius], mathematician of the University of Padua, had ascribed my Ephemerides to himself with a few things altered (the man's shameless theft was betrayed by the errata which had crept in through the printers' carelessness and which he transcribed along with the rest) — no one at all would raise any further objection against me.

Giuntini has been dealt with above. If he charged you with the same point I did about the difference of meridians, he is rightly judged to have done it not out of malice but out of zeal for the truth. As for Giuseppe Scala, whom you accuse of theft, Scala himself must see to that — how he will defend himself, if he is still alive. Still, I am bound to admit this much: although many of the errors you committed are found in his Ephemerides too, some points stand more correctly in them. And while, for the sake of upholding the truth, I set this out for you and for other lovers of the stars in the years covered by my Ephemerides, I would ask you not to say again that I am slandering you, but rather to grant that it is a good thing for several men to treat the same subject. For one man always sharpens another's diligence, so that those who trust one author's Ephemerides too confidently are not taken in by that same author.

In 1595, on 14 April of the reformed year, you place the Moon wrongly in 15° 59′ ♊; Scala puts it correctly in 15° 39′.

On 12 June the Moon stands, on your reckoning, in 9° 51′ ♌; but on his, better, in 6° 52′.

On 6 September Mercury stands, on your reckoning, in 11° 50′ ♍, on his in 11° 44′. The preceding days too carry an error of as much as 5′ and 4′ in your Ephemerides.

In 1596, on 19 February, the Moon stands, on your reckoning, in 15° 1′ ♏, on his in 13° 1′.

On 27 May the Sun stands, on your reckoning, in 5° 59′ ♊, on his in 5° 51′.

On 1 June Mars stands, on your reckoning, in 28° 36′ ♎ [?], on his in 28° 7′.

For the last days of August, from the 20th down to 7 September, the motion on your reckoning runs as much as 9′ in excess; on his it is set out more correctly.

In 1597, the latitude of Mercury on 11 April is, on your reckoning, 1° 14′, on his 0° 34′ — though even his still exceeds the truth by 10′, while yours exceeds it by 50′. Mercury's motion in longitude, too, for the thirteen days at the end of April and the beginning of May, is more correct on his reckoning than on yours, since yours falls short by 5′.

On 5 June the Moon stands, on your reckoning, in 27° 46′ ♒, on his, more correctly, in 26° 48′.

On 21 August the latitude of Mercury is, on your reckoning, 1° 14′; for him 0° 56′.

In 1598, for the latitude of Venus on 21 January, Scala comes closer to the truth, placing it at 1° 15′, whereas you put it at 1° 25′ and exceed the truth by 19′.

In December, from the 18th day to the end of the year, your motion of Mercury exceeds by as much as 10′. It is found more correctly in Scala.

In 1599 the Moon stands, on your reckoning, on 4 May in 2° 20′ ♍; on Scala's in 8° 20′.

In the same month of May, too, Mercury is set out more correctly by Scala than by you for the 12th, 13th, 14th and the following days. And Saturn, which throughout the whole month of September runs on your reckoning 4′ and 5′ in excess, is well placed by Scala.

In 1600, towards the end of April, your motion of Mercury exceeds the truth by 6′ and 7′; it is found correctly in Scala.

But as I declared earlier, I shall not take up Scala's defence. I only wished to show that yours are not free of errors — as I shall demonstrate more fully a little later. You continue:

> I had therefore already resolved to pass over in silence those later slanders of Origanus, when I was repeatedly pressed by my household friends in person and by other friends in letters: why did I delay any longer to refute this man's treacherous abuse? I was giving a handle to those ignorant of the true state of the case, increasing the suspicion of the doubtful, and even planting a scruple in the well-disposed, as though either I had nothing to answer him, or by saying nothing I admitted that I had been justly stung.

It would have been wiser for you to keep silent, since I stung you justly — as your own conscience will testify; and then so many of the errors you committed in your Ephemerides would never have come to light as will be exposed in this writing of mine, although I shall not bring forward all of them, but most of them at least for those years for which I too wrote Ephemerides. But since it has pleased you to play the supplanter of truth, and to repeat so often that I slander you and tear you apart with treacherous abuse — come, then: point to a single passage in my earlier letter to the reader where I slandered

you, and where I did not tell you the truth; point out too the abuse I heaped on you. And if you cannot show it, as you never will be able to, what is to stop me from calling you the emptiest, most shameless, trifle-mongering, indeed lying fellow? These names, moreover, are applied to you by me out of no desire to give offence or to speak ill, but out of a desire to pay you back; and you will take them as coming from none more than from your own instigators, informers and toadies [Gnatones], who set you against me and suggested to you things that never entered my mind, and that no sane man will ever dig out of my writing. But since you claim too much for yourself, swell with pride, and are so entirely of the mind that no mathematician of your like is to be found in our time — for you despise all others in comparison with yourself, and take it for granted that you alone can write and publish anything relevant to mathematics, while the rest deservedly keep silent, as can abundantly be gathered from the preface to the reader recently published in your *primum mobile*) — though you merely deck yourself out here and there with other men's compilations — you let yourself be persuaded the more easily to write this invective against me. I, for my part, along with others, recognize in it that brazen face of yours, by which you show that you have thrown off all shame, since you do not blush to lie hard and steadily. You call "treacherous" the abuse I am supposed to have heaped on you — abuse you cannot point to at all. And where, I ask you, trifle-monger, did I ever pledge you my faith, that you dare to shout that I have dealt treacherously with you? I fully believe you poured all this out either drunk or out of your senses. So take this answer as well, which you have deserved. You add:

> And indeed someone might, not unjustly, take me to task over so long a silence. But such a man, along with Origanus, will readily excuse me once he understands that my reason for making no reply was this: I did not want any apologetic piece I might entrust to three or four sheets to be thrown aside or ignored by students of astronomy at the first reading. And in fact I did this on his own example, since he prefixed those slanders to his Ephemerides as though they were splendid proofs or ornaments of his industry. It was therefore fair that I, if I wished to reply at all, should reply in such a way as to insert the reply into some labour or work of my own, if not to prefix it.

What are you inventing for yourself here, Magini? I have said already that you would have done better to keep silent altogether, for you had no reason to rave against me as you did. But since you judged otherwise, you certainly came before the public soon enough with your slanders — unworthy, surely, of a mathematician — and no excuse for delay was needed at all. Anyone is free to write an *Apologia* in his own defence. But it was not an *Apologia* you put together: it was a *fable* [Apologus], and a disfiguring one — or rather a defamatory pamphlet — which by your own design you inserted into your work on the tables of the primum mobile. So I, in order that your labour might

be paid its deserved wage, and that you might not seem to have done all this for nothing, have used my own design and brought this answer to your fabricated case into my own Ephemerides in the same way: so that it too should not be thrown aside or ignored at the first reading, but should be clear to many — indeed to the whole world — that it is not I who attacked you with slanders, but you who attacked me. You excuse yourself further for the delay:

> The interval of time deceived me; and since I have been busy with many things up to now, nothing has come out from me in these last few years. For I was then pressing on with my *primum mobile* — as indeed I still am — and then with general tables of the second movables, agreeing with every hypothesis; besides these, with the use of several mathematical instruments, and with a *Geography of Italy*. Pulled about not a little by all of these, and at the same time much occupied with these tables of directions, which I had resolved to commit to the press next, I have never been able to bring them to an end.

This excuse of yours, which nobody asked for and which is plainly superfluous, you set out for one purpose only: that, swollen with pride as you are, you may show off long before the time what business now keeps you occupied — you who want to be taken for everyone's teacher — so that others may not put their effort into similar studies and strive to help the republic of letters. Hence, too, those yard-long words: "For I was then pressing on with my *primum mobile* — as indeed I still am" — as though the primum mobile were your private property, and moved forward when you pressed it on and stopped when you stopped. What a barren writer on the primum mobile and on motion, who still does not understand what the first motion properly belongs to! I should like you to be convinced of this: no good man will be frightened off by this arrogance of yours into deserting his post, or let himself be drawn away from his own studies — least of all if he has looked closely into your work, which is certainly not such as to block other men's light. For it is clear enough from your writings that much is still lacking in you to make you perfect. Do not boast, then, of that weakness of yours; fear GOD, and leave the judgement of your writings to others. At last you conclude:

> Since, then, I must at long last shake that very heavy load of abuse from my shoulders, I judged it not out of place, for the greater convenience of students, to bring in here that whole letter of David Origanus which he prefixed, addressed to the reader, to his Ephemerides printed at Frankfurt an der Oder in 1599.

You do right to append that whole letter — by which you consider yourself injured — to your invective, which has been bitter enough so far and has called for an answer to match. For from it anyone who judges candidly will notice that I —dealt with you most humanely, and did not expose the errors of yours which — now that I have been provoked — I shall recite later, somewhat more fully, out of your own Ephemerides. I refrained from doing so earlier because

my purpose was not to censure your errors, but only to state the reasons for computing and publishing my own Ephemerides. This will bring a further benefit to others as well: warned by your example, they will handle their own affairs more cautiously, and will not, by tearing others apart with abuse and slander without cause as you do, incur the same reproach along with you, or give everyone an occasion to expose their own faults and errors. They will see, too, that you know nothing beyond rattling wagon-loads of slanders, with which you idly claim to have been loaded by me — falsely, though, and beyond my desert. So you turn to the matter itself:

Its first part, then, a kind of preamble of slanders, runs thus:

> **M. DAVID ORIGANUS GLACENSIS ASTROPHILO ET CANDIDO LECTORI S. P. D.** [M. David Origanus of Glatz sends warmest greetings to the star-loving and candid reader.]
>
> It is now the seventh year, most friendly Reader, since I began to compose these Ephemerides which I now offer for public use. I was drawn to the work chiefly by these considerations. I had noticed that the later Ephemerides of Johannes Stadius [Ioannis Stadii] depart widely from the reckoning of the Prutenic Tables, from which he himself boasts that they are derived; and that a certain other man had not carried his own Ephemerides, constructed for the years 1577 to 1590, any further, although he had promised as much in his dedication. Now students of astronomy are helped and advanced in the study of the motions by one thing above all — having exactly computed Ephemerides drawn from the tables which the coryphaei of this study most recommend; and at present no tables more correct than the Prutenic are available. Truly, I judged that this piece of business fell to me, on account of the professorship I hold: while others who run in the same course with me were idle, I should attempt something. Among other things, this too invited me to the work: that by constructing the Ephemerides themselves for the meridian of Frankfurt I might in some way show my gratitude to the most illustrious Prince Elector of Brandenburg etc., my most gracious lord, who by his munificence and kindness fosters and preserves the chief home of the Muses in his dominion, praiseworthily established in this city by his ancestors; and then to the university here, which has not only enrolled me among its citizens but has honoured me with the senior chair of mathematics and with senatorial rank; and finally to the city itself, which grants me and mine a safe haven

> [halcyonia]. I set about the work, then, with the greatest eagerness of mind, especially since I heard that no one was engaged on it who wished to satisfy those who were asking for new Ephemerides for the coming years drawn from the Prutenic Tables. And by pressing the work forward in my spare hours, within

Here you are playing the forger, Magini — and against your own promise at that, by which you undertook to bring in the whole letter as it was published by me. For in my text you will not find these words, "and a certain other man," but what follows: "and that M. Michael Mästlin, that most distinguished mathematician and most industrious professor of the University of Tübingen, distracted no doubt by other occupations, &c." The rest follows correctly: "Ephemerides, &c." Why, then, did you alter what was mine — and indeed no longer mine, but made public by publication? For no other reason, plainly, than that the title stung you by which I honoured Michael Mästlin as he deserves, calling him what he certainly is, the coryphaeus of the mathematicians of this age — the very name Johannes Kepler [D. Ioannes Kepplerus], Imperial Mathematician and always grateful towards his teacher, gives him. For you alone want to be held the man on whom the whole world turns its gaze, and so Mästlin's very name is hateful to you: a man whom you and your like have long wished dead. But he is alive still, and the works he has in hand will last, and will sing Requiem and Darkness over yours.

> —two years I achieved this much: that I computed the motions of all the planets for twenty years, from 1595, the year of the world's redemption, up to the year 1615. But after I learned from a certain N. that there existed other Ephemerides, the work of a certain Italian, calculated and published many years earlier, I eased off from the labour somewhat, until he offered them to me, from the most excellent town physician of Schweidnitz, Doctor Tobias Fischer — whom I name for the sake of honour and friendship — for inspection. I examined them eagerly when they were handed over, and found that they were by Giovanni Antonio Magini [Ioannes Antonius Magini] of Padua, a mathematician of the greatest renown in the illustrious university of Bologna, computed for forty years, namely from the year of Christ 1581 to the year 1620, and printed at Venice. At length, when from a comparison of his reckoning with my own I found only a slight discrepancy — as indeed men who hold to the same foundations cannot fail to agree — I resolved with myself to suppress my labours altogether, so as not to seem to have done what was already done, and for that reason I put aside all thought of them for nearly the

> next two years. But then many dealt with me kindly and earnestly, in person and by letter — men indeed to whose counsel and wish I rightly defer — urging that, since copies of Magini sold off in Italy were now hardly to be found in Germany, and any that survived were sold at an intolerable price, I should complete the work so happily begun and already carried halfway. They brought it about at last that I took up my strength afresh, set about the labour, and in these last three years extended these Ephemerides of mine ten years beyond Magini's. My spirit was raised, too, and I, wavering and doubtful, was urged and confirmed in publishing them by the munificence of the most reverend and noble Johannes Henze of Blankenburg [Ioannis Henze à Blanckenburg], Grand Master of the Knights of the Cross with the Red Star throughout Poland and Silesia, etc., my most generous patron — which I gladly and deservedly proclaim with a grateful mind; and also because I found that certain things not to be neglected were wanting in Magini's own Ephemerides. Of these, most friendly reader, I now give brief notice, out of a zeal for truth and not for carping; and I am led to hope that Master Magini, endowed as he is with courtesy and learning, will, if he reads and examines this work of ours, take it in no ill part, but will rather interpret it all kindly.

Here too you cannot restrain yourself, Magini, from committing a falsification in another man's text. For I had not written "But after I learned from a certain N.," but "But after I learned from the reverend and most eminent Master Christoph Pelargus [Christophoro Pelargo], Doctor of Sacred Theology, professor of our university and General Superintendent of the Mark, &c." The rest follows as you recite it. For — believe me, please — my business is not with vague individuals [individua vaga], the sort you wish to persuade others that I appeal to, you who in this affair are yourself N., seeking A — but with men of the highest excellence in reverend dignity, piety, learning and authority, of which sort you should know Doctor Pelargus to be. It is on this man's testimony above all that I rely, since it was he who in 1595 procured your Ephemerides for me from Schweidnitz in Silesia, from Doctor Fischer, that most highly praised physician of the city — although you call this very point into doubt, as we shall see a little later.

Here you decide that the first part of my letter ends — a part in which, as in all the rest, you certainly notice nothing that does not breathe gently of the friendship and courtesy that most becomes us, professors of the humanities and the liberal arts. If in what went before I digressed into things that stink and reek of discourtesy, who, I ask, was the cause but you yourself, who led me

into it? And now in turn I am forced to put on another character, as I examine your slanders against this work of mine. First you say:

> Origanus certainly had a praiseworthy reason for composing Ephemerides, as he reports in this part of his letter. Stadius departs from the reckoning; Mästlin does not carry his own forward; others he has not himself seen. Since, then, he says that this piece of business was left to him by reason of the profession he holds, so that while others were idle he might himself attempt something — we willingly grant him this burden.

Since, then, you write that the reason which led me to begin composing my Ephemerides was not only sufficient but even praiseworthy, and since you willingly leave that burden to me, why, I ask, in what follows do you not merely cavil at what I have done and attack it, but even traduce it slanderously? As though you were the sort of man in whose power other men's labours lie, to be granted or forbidden at your pleasure! Certainly both I and others laugh that you, from Italy, a man of the schoolroom, should boldly presume to lord it over us Germans. But you go on:

> We think, however, that in view of that same profession it was no less his part to inquire carefully beforehand whether what he was undertaking had already been done by others. Origanus teaches mathematics publicly — and neglects to investigate the authors who have written in the same field? Mine had been in existence nine years already when he began to compose his own Ephemerides. Was a professor of mathematics, then, to let slip, over so long an interval of years, the very things it most concerned him to know? Surely he is either utterly careless of his own business, in not attending to what ought to be his care, or shameless, in wanting to dissemble what he has seen. Those Frankfurt book-indexes, in which the new items appearing at each fair are listed, could have told him that for so many years past other computations of Ephemerides besides those of Stadius and Mästlin had appeared; he could have learned the fact itself from any bookseller; and finally, if he neglected everything else, he could have been informed from that universal catalogue of all books, into which the new books of so many years are gathered, published at Frankfurt in 1592, that my Ephemerides had been on sale for many years already.

In the words you have brought forward up to this point you accuse me on two counts: either that I am utterly careless of my own affairs, in not attending to what belongs to my profession alone; or that I shamelessly conceal and dissemble what I had seen. As to the first, I affirm this most truly and with the best of consciences: so far as I have been able to find out and learn, your Ephemerides did not reach these northern regions of ours any earlier than when the General Superintendent of the Mark, Doctor Pelargus, obtained them from Doctor Fischer, who had brought them back with him from Italy, and allowed

me to inspect them at Frankfurt. The cause of this was that at that time we had only a single bookseller here, who did not always bring the book catalogues to us, and who, even when he did bring them, did not at the same time bring the new books that would have been useful to us. Nor will you say that I was utterly careless in inquiring whether any other Ephemerides were on sale. Besides the others whom I consulted on this point, I asked that most distinguished and famous mathematician Bartholomäus Scultetus [Bartholomæo Sculteto], councillor of Görlitz, when he happened to be here at Frankfurt in 1593 for the wedding of a very dear friend of his, D.D. Robert [Roberi], who died piously ten years ago, whether he knew anything of Mästlin or of anyone else who had published something on Ephemerides or was engaged in a labour like my own — a labour on which I had by then been occupied for nearly a year. Since he too knew of none at that time, I diligently pressed on with continuing the Ephemerides, as was right, for the public good. As to the catalogues: I saw that general catalogue published at Frankfurt only very late, around the year 1600, and I did not find your Ephemerides in it. I saw only the tables of the second movables noted down under a long title, and the new Theorics of the celestial orbs. At last, three years ago, one of my friends showed me the Ephemerides too entered in the catalogue — and indeed under a name of yours somewhat altered, as though you were called Anoninus and not Antoninus. But what good does it do to know that this or that book has appeared, since no one can ever prove from that fact that, if someone has written on a subject, it is not open to another to write on the same subject as well? This is a new and hostile thing, to try to block other men's springs. Many wrote before us, and men will write hereafter on the same subject; and neither can the predecessor rightly refute the successor, nor the successor the predecessor, since anyone is free to work on any subject. In vain, then, and to no purpose you croak those things at me: do you want me to see with your eyes, when I can see with my own? Do you not know that saying, "Let no man be another's who can be his own"? To the second charge I answer this: you cannot judge my character from your own. For I have none of that shamelessness which I see in you, who fight against the truth even in matters perfectly plain. And indeed, if I were to grant that I had seen them — which I did not — neither you nor anyone else who wants the public good advanced and increased could have hindered or held back my labours; since, as I declared above, it is beneficial to public study that several men work at one and the same subject at once, so that it may come out more polished and clearer. But you both fasten a false cause upon me and load what I have done with a most shameless lie, when you write:

> But I think a snake lies hidden in the grass, and that he was led not by the reasons he brings forward but rather by that one which I learned by letter from Thomas Fincke [Thoma Finkio], a man of the greatest erudition in mathematical matters: that he compiled this whatever-it-is of Ephemerides under my guidance. He wrote me these words as far back as the year 1585:

> There were several men with me who, taking it ill that Stadius should be handled by you as he was, tried to get me to agree that, if it could be managed, I should look through your Ephemerides for at least something that might stand correction. But my own temper is such that I would rather see men roughly treated than fail the truth; and since I know your volume of Ephemerides to be so well worked out that no file is needed, I easily dismissed their empty request. But this is how it usually goes: when we have leisure in abundance, we go looking for the very things which, when we lack it, we take over ready-made from others, and so on.

Here, Magini, we are not engaged in framing hypotheses to save the motions; what I had to explain was the reason for what I did. For we men must take particular care to say nothing, do nothing, and make nothing for which we cannot give others some plausible reason: though the motive of our acts is not displayed to everyone, it is examined by everyone. You, however, under no pressing necessity, simply in order to misrepresent what I did slanderously, allege a motive falsely in my name — one that never so much as entered my mind — and you colour it as though it had been supplied to you by that most distinguished physician and mathematician Thomas Fincke [Dn. D. Thoma Finkio]. But he had medical studies as his object; he merely declared to you his own mind about the business into which others wanted to draw him, and that at a time when I had not given the slightest thought to writing Ephemerides. He certainly did not write to you out of any mind of mine. And you are wrong to suppose that I am of one mind with him on the middle term that we are both Germans. Do you foolishly lay it down that all Germans are of exactly the same mind? Perhaps you imagine this too: that because he did not have those patchworks of tables of the second movables which you derived and scraped together out of the Prutenic Tables, he therefore shirked the labour of writing Ephemerides — while you, most frivolous of men and peddler of trifles, prate that I took up the computation of Ephemerides in a broader and readier spirit under your guidance. But here too you stray far from the truth. For how should a man who has a quicker route for tracking the motions use your long and roundabout one? You think, of course, that no one has demonstrated a shorter one than yourself. You are much mistaken. And to make this plain to everyone, I will show you — undeserving as you are — and at the same time do a service to others, an excellent short method for calculating the Moon's motion, by which anyone practised in computation can easily work out a whole year's motion for every single day within six or seven hours.

Since, then, in Canon 44 of your tables you write that half the labour of Ephemerides is the computation of the Moon's motion, on account of its remarkable day-to-day variation, and since you therefore make so much of your invention of tables of the daily motion of the Moon — tables in which I find no abridgment at all, given their enormous length, which runs to more than 40 pages — what, I ask, will you make of this method of computing the

Moon's motion, which is both easy and contained in a few pages? Yours, if we add up all the tables that bear on the Moon's motion, runs beyond 100 pages; this one is completed with the utmost brevity, by simple addition, without any finding of the true precession of the equinoxes, without the equation of the second epicycle, without the equated anomaly, and finally without the inquiry into the proportional part arising from the proportional minutes and from the excess. You will certainly be forced, willing or not, to affirm that for the computation of Ephemerides nothing is more concise and nothing more convenient than these. And do not doubt that similar short methods for the other planets will appear in their time — so do not boast too much of the patchwork of your tables; and so that you may know that, once your tables have been discharged from service, a quicker computation of all the celestial motions will shortly be available to everybody:

Now let us look at the tables themselves.

These tables are constructed for the meridian of Frankfurt an der Oder and refer to noon, so that anyone who wants to compute Ephemerides may accomplish the same thing for the Moon, by an excellent short method, for 200 years. For the roots are so set up that, once the tables of the Moon's equations have been consulted — descending the left-hand side with the centre and running along the top with the anomaly — the common angle, with the proportional part applied, shows the part to be added to the composite motion of the Moon; and if 30′ is joined to that as well, the true motion of the Moon at noon of the first day results.

Tabulæ compendiariæ motui ☽ calculando accommodatæ — Abridged tables suited to calculating the motion of the Moon

Prima tabula æqualium motuum ☽ conveniens annis Iulianis centesimis — First table of the equal motions of the Moon, for centurial Julian years

Year	Centre ☽ [Centrum]	Anomaly ☽ [Anom.]	Composite ☽ [Compos.]
1500	0° 54′ 32″	210° 3′ 4″	279° 55′ 14″
1600	255° 1′ 37″	48° 34′ 2″	227° 18′ 41″
1700	149° 8′ 43″	247° 4′ 59″	174° 40′ 23″

See the first example below.

Secunda tabula mediorum motuum Lunæ, conveniens singulis annis Julianis ad centum usque — Second table of the mean motions of the Moon, for single Julian years up to a hundred

Year	Centre ☽ [Centrum]	Anomaly ☽ [Anomal.]	Composite ☽ [Compos.]
1	283° 37′ 38″	101° 47′ 2″	142° 33′ 37″

Year	Centre ☽ [Centrum]	Anomaly ☽ [Anomal.]	Composite ☽ [Compos.]
2	182° 52′ 23″	190° 30′ 10″	271° 56′ 39″
3	82° 7′ 8″	279° 13′ 18″	41° 19′ 41″
4	341° 21′ 53″	7° 56′ 26″	170° 42′ 43″
5	264° 59′ 31″	109° 43′ 28″	313° 16′ 19″
6	164° 14′ 16″	198° 26′ 36″	82° 39′ 21″
7	63° 29′ 1″	287° 9′ 44″	212° 2′ 23″
8	322° 43′ 46″	15° 52′ 53″	341° 25′ 25″
9	246° 21′ 24″	117° 39′ 55″	123° 59′ 1″
10	145° 36′ 9″	206° 23′ 3″	253° 22′ 3″
11	44° 50′ 54″	295° 6′ 11″	22° 45′ 5″
12	304° 5′ 39″	23° 49′ 19″	152° 8′ 7″
13	227° 43′ 17″	125° 36′ 21″	294° 41′ 44″
14	126° 58′ 2″	214° 19′ 29″	64° 4′ 46″
15	26° 12′ 47″	303° 2′ 37″	193° 27′ 48″
16	285° 27′ 32″	31° 45′ 45″	322° 50′ 50″
17	209° 5′ 10″	133° 32′ 47″	105° 24′ 26″
18	108° 19′ 55″	222° 15′ 55″	234° 47′ 28″
19	7° 34′ 40″	310° 59′ 4″	264° 10′ 30″ [recte: 4° 10′ 30″]
20	266° 49′ 25″	39° 42′ 12″	33° 33′ 32″ [recte: 133° 33′ 32″]
21	190° 27′ 3″	141° 29′ 14″	276° 7′ 8″
22	89° 41′ 48″	230° 12′ 22″	45° 30′ 10″
23	348° 56′ 33″	318° 55′ 30″	174° 53′ 12″
24	248° 11′ 18″	47° 38′ 38″	304° 16′ 14″
25	171° 48′ 56″	149° 25′ 40″	86° 49′ 51″
26	71° 3′ 41″	238° 8′ 48″	216° 12′ 53″
27	330° 18′ 26″	326° 51′ 56″	345° 35′ 55″
28	229° 33′ 11″	55° 35′ 4″	114° 58′ 57″
29	153° 10′ 49″	157° 22′ 6″	257° 32′ 33″
30	52° 25′ 34″	246° 5′ 14″	26° 55′ 35″
31	311° 40′ 19″	334° 48′ 23″	156° 18′ 37″
32	210° 55′ 4″	63° 31′ 31″	285° 41′ 39″
33	134° 32′ 42″	165° 18′ 33″	68° 15′ 15″
34	33° 47′ 27″	254° 1′ 41″	197° 38′ 17″
35	293° 2′ 12″	342° 44′ 49″	327° 1′ 19″
36	192° 16′ 57″	71° 27′ 57″	96° 24′ 21″
37	115° 54′ 35″	173° 14′ 59″	238° 57′ 58″
38	15° 9′ 20″	261° 58′ 7″	8° 20′ 50″ [recte: 8° 21′ 0″]
39	274° 24′ 5″	350° 41′ 15″	137° 44′ 2″
40	173° 38′ 50″	79° 24′ 23″	267° 7′ 4″
41	97° 16′ 28″	181° 11′ 25″	49° 40′ 40″
42	356° 31′ 13″	269° 54′ 33″	179° 3′ 42″
43	255° 45′ 58″	358° 37′ 42″	308° 26′ 44″
44	155° 0′ 43″	87° 20′ 50″	77° 49′ 46″
45	78° 38′ 21″	189° 7′ 52″	220° 23′ 22″
46	337° 53′ 16″ [recte: 337° 53′ 6″]	277° 51′ 0″	349° 46′ 24″
47	237° 7′ 51″	6° 34′ 8″	119° 9′ 26″
48	136° 22′ 36″	95° 17′ 16″	248° 32′ 28″
49	60° 0′ 14″	197° 4′ 18″	31° 6′ 5″
50	319° 14′ 59″	285° 47′ 26″	160° 29′ 7″

Year	Centre ☽ [Centrum]	Anomaly ☽ [Anomal.]	Composite ☽ [Compos.]
51	218° 29′ 44″	14° 30′ 34″	289° 52′ 9″
52	117° 44′ 29″	103° 13′ 42″	59° 15′ 11″
53	41° 22′ 7″	205° 0′ 44″	201° 48′ 47″
54	300° 36′ 52″	293° 43′ 52″	331° 11′ 49″
55	199° 51′ 37″	22° 27′ 1″	100° 34′ 51″
56	99° 6′ 22″	111° 10′ 9″	229° 57′ 53″
57	22° 44′ 0″	212° 57′ 11″	12° 31′ 29″
58	281° 58′ 45″	301° 40′ 19″	141° 54′ 31″
59	181° 13′ 30″	30° 23′ 27″	271° 17′ 33″
60	80° 28′ 15″	119° 6′ 29″ [recte: 119° 6′ 35″]	40° 40′ 35″
61	4° 5′ 53″	220° 53′ 37″	183° 14′ 11″
62	263° 20′ 38″	309° 36′ 45″	312° 37′ 13″
63	162° 35′ 23″	38° 19′ 53″	82° 0′ 15″
64	61° 50′ 8″	127° 3′ 1″	211° 23′ 17″
65	345° 27′ 46″	228° 50′ 3″	353° 56′ 54″
66	244° 42′ 31″	317° 33′ 11″	123° 19′ 56″
67	143° 57′ 16″	46° 16′ 19″	252° 42′ 58″
68	43° 12′ 1″	134° 59′ 28″	22° 6′ 0″
69	326° 49′ 39″	236° 46′ 30″	164° 39′ 37″
70	226° 4′ 24″	325° 29′ 35″ [recte: 325° 29′ 38″]	294° 2′ 39″
71	125° 19′ 9″	54° 12′ 46″	63° 25′ 40″
72	24° 33′ 54″	142° 55′ 54″	192° 48′ 42″
73	308° 11′ 32″	244° 42′ 56″	335° 22′ 19″
74	207° 26′ 17″	333° 26′ 4″	104° 45′ 21″
75	106° 41′ 2″	62° 9′ 12″	234° 8′ 23″
76	5° 55′ 47″	150° 52′ 20″	3° 31′ 25″
77	289° 33′ 25″	252° 39′ 12″ [recte: 252° 39′ 22″]	146° 5′ 1″
78	188° 48′ 10″	341° 22′ 30″	275° 28′ 3″
79	88° 2′ 55″	70° 5′ 38″	44° 51′ 5″
80	347° 17′ 40″	158° 48′ 46″	174° 14′ 7″
81	270° 55′ 18″	260° 35′ 49″	316° 47′ 44″
82	170° 10′ 3″	349° 18′ 57″	86° 10′ 46″
83	69° 24′ 48″	78° 2′ 5″	215° 33′ 47″
84	328° 39′ 33″	166° 45′ 13″	344° 56′ 49″
85	252° 17′ 11″	368° 32′ 15″ [recte: 268° 32′ 15″]	127° 30′ 26″
86	151° 31′ 56″	357° 15′ 23″	256° 53′ 28″
87	50° 46′ 41″	85° 58′ 31″	26° 16′ 30″
88	310° 1′ 26″	174° 41′ 39″	155° 39′ 32″
89	233° 39′ 4″	278° 28′ 41″ [recte: 276° 28′ 41″]	298° 13′ 8″
90	132° 53′ 49″	5° 11′ 49″	67° 36′ 10″
91	32° 8′ 34″	93° 54′ 57″	196° 59′ 12″
92	292° 23′ 19″ [recte: 291° 23′ 19″]	182° 38′ 5″	326° 22′ 14″
93	215° 0′ 57″	284° 25′ 8″	108° 55′ 50″
94	114° 15′ 42″	13° 8′ 16″	238° 18′ 52″

Year	Centre ☽ [Centrum]	Anomaly ☽ [Anomal.]	Composite ☽ [Compos.]
95	13° 30′ 27″	101° 51′ 24″	7° 41′ 54″
96	272° 45′ 12″	190° 34′ 32″	137° 4′ 56″
97	196° 22′ 50″	292° 21′ 34″	279° 38′ 33″
98	95° 37′ 35″	21° 4′ 42″	49° 1′ 35″
99	354° 52′ 20″	109° 47′ 51″	178° 24′ 37″

Tertia tabula mediorum motuum ☽ conveniens mensibus — Third table of the mean motions of the Moon, for the months

Month	Common year: Centre ☽	Common year: Anomaly ☽	Common year: Composite ☽	Bissextile year: Centre ☽	Bissextile year: Anomaly ☽	Bissextile year: Composite ☽
January	0° 0′ 0″	0° 0′ 0″	0° 0′ 0″	0° 0′ 0″	0° 0′ 0″	0° 0′ 0″
February	35° 49′ 35″	45° 0′ 52″	48° 28′ 6″	35° 49′ 35″	45° 0′ 52″	48° 28′ 6″
March	358° 30′ 29″	50° 50′ 2″	57° 24′ 26″	22° 53′ 23″	63° 53′ 56″	70° 35′ 1″
April	34° 20′ 4″	95° 50′ 55″	105° 52′ 32″	58° 42′ 58″	108° 54′ 49″	109° 3′ 7″ [recte: 119° 3′ 7″]
May	45° 46′ 46″	127° 47′ 53″	141° 10′ 2″	70° 9′ 39″	140° 51′ 47″	154° 20′ 37″
June	81° 36′ 21″	172° 48′ 45″	189° 38′ 8″	105° 59′ 14″	185° 52′ 39″	202° 48′ 43″
July	93° 3′ 2″	204° 45′ 43″	224° 55′ 38″	117° 25′ 55″	217° 49′ 37″	238° 6′ 13″
August	128° 52′ 37″	249° 46′ 35″	273° 23′ 44″	153° 15′ 30″	252° 50′ 29″ [recte: 262° 50′ 29″]	286° 34′ 19″
September	164° 42′ 12″	294° 47′ 27″	321° 51′ 50″	189° 5′ 5″	307° 51′ 21″	335° 2′ 25″
October	176° 8′ 54″	326° 44′ 26″	357° 9′ 20″	200° 31′ 47″	339° 48′ 20″	10° 19′ 55″
November	211° 58′ 28″	11° 45′ 18″	45° 37′ 26″	236° 21′ 22″	24° 49′ 12″	53° 48′ 1″ [recte: 58° 48′ 1″]
December	223° 25′ 10″	43° 42′ 16″	80° 54′ 56″	247° 48′ 3″	56° 46′ 10″	94° 5′ 31″

Quarta tabula mediorum motuum ☽, diebus congruens — Fourth table of the mean motions of the Moon, fitted to the days

Day	Centre ☽	Anomaly ☽	Composite ☽
1	0° 0′ 0″	0° 0′ 0″	0° 0′ 0″
2	24° 22′ 53″	13° 3′ 54″	13° 10′ 35″
3	48° 45′ 47″	26° 7′ 48″	26° 21′ 10″
4	73° 8′ 40″	39° 11′ 42″	39° 31′ 45″
5	97° 31′ 34″	52° 15′ 36″	52° 42′ 20″
6	121° 54′ 27″	65° 19′ 30″	65° 52′ 55″
7	146° 17′ 20″	78° 23′ 24″	79° 3′ 30″
8	170° 40′ 14″	91° 27′ 18″	92° 14′ 5″

Day	Centre ☽	Anomaly ☽	Composite ☽
9	195° 3′ 7″	104° 31′ 12″	105° 24′ 40″
10	219° 26′ 0″	117° 35′ 5″	118° 35′ 15″
11	243° 48′ 54″	130° 38′ 59″	131° 45′ 50″
12	268° 11′ 47″	143° 42′ 53″	144° 56′ 25″
13	292° 34′ 41″	156° 46′ 47″	158° 7′ 0″
14	316° 57′ 34″	169° 50′ 41″	171° 17′ 35″
15	341° 20′ 27″	182° 54′ 35″	184° 28′ 10″
16	5° 43′ 21″	195° 58′ 29″	197° 38′ 45″
17	30° 6′ 14″	209° 2′ 23″	210° 49′ 20″
18	54° 29′ 8″	222° 6′ 17″	223° 59′ 55″
19	78° 52′ 1″	235° 10′ 11″	237° 10′ 30″
20	103° 14′ 54″	248° 14′ 5″	250° 21′ 5″
21	127° 37′ 48″	261° 17′ 59″	263° 31′ 40″
22	152° 0′ 41″	274° 21′ 53″	376° 42′ 15″ [recte: 276° 42′ 15″]
23	176° 23′ 34″	287° 25′ 47″	289° 52′ 50″
24	200° 46′ 28″	300° 29′ 41″	303° 3′ 25″
25	225° 9′ 21″	313° 33′ 35″	316° 14′ 0″
26	249° 32′ 15″	326° 37′ 29″	329° 24′ 35″
27	273° 55′ 8″	339° 41′ 22″	342° 35′ 10″
28	298° 18′ 1″	352° 45′ 16″	355° 45′ 45″
29	322° 40′ 55″	5° 49′ 10″	8° 56′ 21″
30	347° 3′ 48″	18° 53′ 4″	22° 6′ 56″
31	11° 26′ 42″	31° 56′ 58″	35° 17′ 31″

Fifth table of the equal motions of the Moon in hours and in minutes of an hour

Quinta tabula æqualium motum ☽ in horis & horarum ſcrupulis.

Hours [Horæ]	Centre ☽ [Centrū]	Anomaly ☽ [Anomal.]	Composite ☽ [Compoſ.]
1	1° 0′ 57″	0° 32′ 40″	0° 32′ 56″
2	2° 1′ 54″	1° 5′ 20″	1° 5′ 53″
3	3° 2′ 52″	1° 37′ 59″	1° 38′ 49″
4	4° 3′ 49″	2° 10′ 39″	2° 11′ 46″
5	5° 4′ 46″	2° 43′ 19″	2° 44′ 42″
6	6° 5′ 43″	3° 15′ 58″	3° 17′ 39″
7	7° 6′ 41″	3° 48′ 38″	3° 50′ 35″
8	8° 7′ 38″	4° 21′ 18″	4° 23′ 32″
9	9° 8′ 35″	4° 53′ 58″	4° 56′ 28″
10	10° 9′ 32″	5° 26′ 37″	5° 29′ 25″
11	11° 10′ 29″	5° 59′ 17″	6° 2′ 21″
12	12° 11′ 27″	6° 31′ 57″	6° 35′ 18″
13	13° 12′ 24″	7° 4′ 37″	7° 8′ 14″
14	14° 13′ 21″	7° 37′ 16″	7° 41′ 10″
15	15° 14′ 18″	8° 9′ 56″	8° 14′ 7″
16	16° 15′ 16″	8° 42′ 36″	8° 47′ 3″
17	17° 16′ 13″	9° 15′ 16″	9° 20′ 0″
18	18° 17′ 10″	9° 47′ 55″	9° 52′ 56″

Hours [Horæ]	Centre ☽ [Centrū]	Anomaly ☽ [Anomal.]	Composite ☽ [Compoſ.]
19	19° 18′ 7″	10° 20′ 35″	10° 25′ 53″
20	20° 19′ 4″	10° 53′ 15″	10° 58′ 49″
21	21° 20′ 2″	11° 25′ 55″	11° 31′ 45″
22	22° 20′ 59″	11° 58′ 34″	12° 4′ 42″
23	23° 21′ 56″	12° 31′ 14″	12° 37′ 39″
24	24° 22′ 53″	13° 3′ 54″	13° 10′ 35″
25	25° 23′ 51″	13° 36′ 34″	13° 43′ 31″
26	26° 24′ 48″	14° 9′ 13″	14° 16′ 28″
27	27° 25′ 45″	14° 41′ 53″	14° 49′ 24″
28	28° 26′ 42″	15° 14′ 33″	15° 22′ 21″
29	29° 27′ 40″	15° 47′ 13″	15° 55′ 17″
30	30° 28′ 37″	16° 19′ 52″	16° 28′ 14″
Scrup.	*(′ ″ ‴)*	*(′ ″ ‴)*	*(′ ″ ‴)*

Seventh table, completing the true motion of the Moon

Tabula ſeptima abſolvens verum motum ☽.

Bissextile years [Anni biſſex]	1500	1600	1700
0	30′ 0″	30′ 0″	30′ 0″
4	29′ 6″	28′ 59″	28′ 58″
8	28′ 12″	27′ 56″	27′ 57″
12	27′ 18″	26′ 54″	26′ 56″
16	26′ 23″	25′ 52″	25′ 55″
20	25′ 28″	24′ 50″	24′ 54″
24	24′ 32″	23′ 47″	23′ 52″
28	23′ 36″	22′ 44″	22′ 53″
32	22′ 40″	21′ 42″	21′ 52″
36	21′ 43″	20′ 40″	20′ 53″
40	20′ 46″	19′ 37″	19′ 53″
44	19′ 49″	18′ 34″	18′ 54″
48	18′ 51″	17′ 31″	17′ 55″
52	17′ 52″	16′ 29″	16′ 56″
56	16′ 54″	15′ 24″	15′ 58″
60	15′ 55″	14′ 22″	15′ 0″
64	14′ 55″	13′ 20″	14′ 2″
68	13′ 56″	12′ 18″	13′ 4″
72	12′ 56″	11′ 15″	12′ 7″
76	11′ 55″	10′ 13″	11′ 10″
80	10′ 54″	9′ 10″	10′ 14″
84	9′ 53″	8′ 8″	9′ 18″
88	8′ 52″	7′ 5″	8′ 23″
92	7′ 51″	6′ 3″	7′ 28″
96	6′ 50″	5′ 1″	6′ 33″
100	5′ 48″	3′ 59″	5′ 39″

Sixth table, of the equations of the Moon

Tabula ſexta Æquationum Lunæ.

Column banner across the whole table: **Gradus Anomaliæ mediæ.** — degrees of the mean anomaly.

Cent. med.	0	5	10	15	20	25	30	35	40	45	50	55
0	9° 30′	9° 6′	8° 43′	8° 19′	7° 56′	7° 34′	7° 12′	6° 52′	6° 32′	6° 13′	5° 55′	5° 39′
10	9° 17′	8° 53′	8° 30′	8° 6′	7° 44′	7° 22′	7° 0′	6° 40′	6° 20′	6° 2′	5° 45′	5° 30′
20	9° 4′	8° 40′	8° 17′	7° 53′	7° 31′	7° 9′	6° 47′	6° 27′	6° 8′	5° 50′	5° 34′	5° 19′
30	8° 53′	8° 28′	8° 4′	7° 41′	7° 18′	6° 56′	6° 34′	6° 14′	5° 55′	5° 38′	5° 22′	5° 7′
40	8° 42′	8° 17′	7° 53′	7° 29′	7° 5′	6° 43′	6° 21′	6° 1′	5° 42′	5° 25′	5° 8′	4° 54′
50	8° 33′	8° 8′	7° 42′	7° 18′	6° 54′	6° 31′	6° 9′	5° 48′	5° 29′	5° 11′	4° 55′	4° 41′
60	8° 26′	8° 0′	7° 34′	7° 8′	6° 44′	6° 20′	5° 58′	5° 36′	5° 17′	4° 58′	4° 42′	4° 27′
70	8° 21′	7° 53′	7° 27′	7° 0′	6° 35′	6° 11′	5° 47′	5° 26′	5° 5′	4° 46′	4° 30′	4° 14′
80	8° 18′	7° 49′	7° 22′	6° 54′	6° 28′	6° 3′	5° 39′	5° 17′	4° 55′	4° 35′	4° 18′	4° 2′
90	8° 17′	7° 48′	7° 19′	6° 51′	6° 23′	5° 57′	5° 32′	5° 8′	4° 46′	4° 26′	4° 17′	3° 51′
100	8° 18′	7° 48′	7° 18′	6° 49′	6° 21′	5° 53′	5° 27′	5° 3′	4° 40′	4° 18′	4° 0′	3° 42′
110	8° 22′	7° 50′	7° 20′	6° 49′	6° 20′	5° 52′	5° 25′	4° 59′	4° 35′	4° 13′	3° 52′	3° 34′
120	8° 27′	7° 55′	7° 23′	6° 52′	6° 22′	5° 53′	5° 24′	4° 58′	4° 33′	4° 9′	3° 48′	3° 28′
130	8° 35′	8° 2′	7° 29′	6° 57′	6° 26′	5° 55′	5° 26′	4° 59′	4° 32′	4° 8′	3° 45′	3° 25′
140	8° 44′	8° 10′	7° 36′	7° 4′	6° 31′	6° 0′	5° 30′	5° 2′	4° 35′	4° 9′	3° 46′	3° 24′
150	8° 54′	8° 20′	7° 46′	7° 12′	6° 40′	6° 7′	5° 36′	5° 7′	4° 39′	4° 12′	3° 48′	3° 25′
160	9° 5′	8° 31′	7° 56′	7° 22′	6° 49′	6° 16′	5° 44′	5° 14′	4° 45′	4° 18′	3° 52′	3° 29′
170	9° 18′	8° 43′	8° 7′	7° 33′	6° 59′	6° 26′	5° 54′	5° 23′	4° 53′	4° 25′	3° 59′	3° 35′
180	9° 30′	8° 55′	8° 20′	7° 45′	7° 11′	6° 37′	6° 5′	5° 33′	5° 3′	4° 35′	4° 7′	3° 42′
190	9° 42′	9° 7′	8° 32′	7° 57′	7° 23′	6° 49′	6° 16′	5° 44′	5° 14′	4° 45′	4° 17′	3° 52′
200	9° 55′	9° 20′	8° 45′	8° 10′	7° 35′	7° 2′	6° 29′	5° 57′	5° 26′	4° 57′	4° 29′	4° 2′
210	10° 6′	9° 31′	8° 57′	8° 22′	7° 48′	7° 14′	6° 42′	6° 10′	5° 39′	5° 9′	4° 41′	4° 14′
220	10° 16′	9° 42′	9° 8′	8° 34′	8° 0′	7° 27′	6° 54′	6° 22′	5° 52′	5° 22′	4° 54′	4° 27′
230	10° 25′	9° 52′	9° 18′	8° 45′	8° 12′	7° 39′	7° 6′	6° 35′	6° 4′	5° 35′	5° 7′	4° 40′
240	10° 33′	10° 0′	9° 27′	8° 54′	8° 22′	7° 49′	7° 18′	6° 47′	6° 17′	5° 47′	5° 20′	4° 53′
250	10° 38′	10° 6′	9° 34′	9° 2′	8° 30′	7° 59′	7° 28′	6° 58′	6° 28′	5° 59′	5° 32′	5° 6′
260	10° 42′	10° 11′	9° 40′	9° 9′	8° 38′	8° 7′	7° 37′	7° 7′	6° 38′	6° 10′	5° 43′	5° 18′
270	10° 43′	10° 13′	9° 43′	9° 13′	8° 43′	8° 13′	7° 44′	7° 15′	6° 47′	6° 20′	5° 53′	5° 29′
280	10° 42′	10° 13′	9° 44′	9° 15′	8° 46′	8° 17′	7° 49′	7° 21′	6° 54′	6° 28′	6° 2′	5° 38′
290	10° 39′	10° 11′	9° 43′	9° 15′	8° 47′	8° 19′	7° 52′	7° 25′	6° 59′	6° 33′	6° 9′	5° 46′
300	10° 34′	10° 7′	9° 39′	9° 13′	8° 46′	8° 19′	7° 52′	7° 27′	7° 1′	6° 37′	6° 14′	5° 52′
310	10° 27′	10° 0′	9° 34′	9° 8′	8° 42′	8° 16′	7° 51′	7° 26′	7° 2′	6° 39′	6° 16′	5° 55′
320	10° 18′	9° 52′	9° 27′	9° 2′	8° 36′	8° 11′	7° 47′	7° 23′	7° 0′	6° 38′	6° 17′	5° 57′
330	10° 7′	9° 43′	9° 18′	8° 53′	8° 29′	8° 5′	7° 41′	7° 18′	6° 56′	6° 35′	6° 15′	5° 56′
340	9° 56′	9° 31′	9° 7′	8° 43′	8° 19′	7° 56′	7° 33′	7° 11′	6° 50′	6° 29′	6° 10′	5° 52′
350	9° 43′	9° 19′	8° 55′	8° 32′	8° 8′	7° 46′	7° 23′	7° 2′	6° 42′	6° 22′	6° 4′	5° 47′
360	9° 30′	9° 6′	8° 43′	8° 19′	7° 56′	7° 34′	7° 12′	6° 52′	6° 32′	6° 13′	5° 55′	5° 39′

Remainder of the sixth table

Reliquum Tabulæ ſextæ

Column banner across the whole table: **Gradus Anomaliæ mediæ.** — degrees of the mean anomaly.

Cent. med.	60	65	70	75	80	85	90	95	100	105	110	115
0	5° 25′	5° 12′	5° 0′	4° 51′	4° 43′	4° 38′	4° 35′	4° 34′	4° 35′	4° 38′	4° 44′	4° 52′
10	5° 16′	5° 4′	4° 54′	4° 45′	4° 39′	4° 34′	4° 32′	4° 32′	4° 35′	4° 40′	4° 47′	4° 56′
20	5° 6′	4° 54′	4° 45′	4° 37′	4° 32′	4° 29′	4° 27′	4° 29′	4° 32′	4° 38′	4° 47′	4° 57′
30	4° 54′	4° 43′	4° 34′	4° 28′	4° 23′	4° 20′	4° 20′	4° 23′	4° 27′	4° 34′	4° 44′	4° 56′
40	4° 42′	4° 31′	4° 22′	4° 16′	4° 12′	4° 10′	4° 11′	4° 14′	4° 20′	4° 28′	4° 39′	4° 52′
50	4° 28′	4° 18′	4° 10′	4° 3′	4° 0′	3° 59′	4° 0′	4° 4′	4° 10′	4° 20′	4° 31′	4° 46′
60	4° 15′	4° 4′	3° 56′	3° 50′	3° 47′	3° 46′	3° 47′	3° 52′	3° 59′	4° 9′	4° 22′	4° 37′
70	4° 1′	3° 50′	3° 42′	3° 36′	3° 33′	3° 32′	3° 34′	3° 39′	3° 46′	3° 57′	4° 10′	4° 26′
80	3° 49′	3° 37′	3° 28′	3° 22′	3° 19′	3° 18′	3° 20′	3° 24′	3° 32′	3° 43′	3° 57′	4° 14′
90	3° 37′	3° 25′	3° 15′	3° 9′	3° 5′	3° 3′	3° 5′	3° 10′	3° 18′	3° 29′	3° 43′	4° 0′
100	3° 27′	3° 14′	3° 4′	2° 56′	2° 51′	2° 50′	2° 51′	2° 55′	3° 3′	3° 14′	3° 28′	3° 46′
110	3° 18′	3° 4′	2° 53′	2° 45′	2° 39′	2° 37′	2° 38′	2° 42′	2° 49′	2° 59′	3° 14′	3° 31′
120	3° 10′	2° 57′	2° 45′	2° 35′	2° 29′	2° 26′	2° 25′	2° 29′	2° 35′	2° 45′	2° 59′	3° 16′
130	3° 7′	2° 51′	2° 38′	2° 28′	2° 20′	2° 16′	2° 15′	2° 17′	2° 23′	2° 32′	2° 45′	3° 1′
140	3° 5′	2° 48′	2° 34′	2° 22′	2° 14′	2° 8′	2° 6′	2° 7′	2° 12′	2° 20′	2° 31′	2° 48′
150	3° 5′	2° 47′	2° 32′	2° 19′	2° 9′	2° 3′	2° 0′	2° 0′	2° 3′	2° 10′	2° 21′	2° 36′
160	3° 8′	2° 49′	2° 32′	2° 18′	2° 8′	2° 0′	1° 55′	1° 54′	1° 57′	2° 3′	2° 12′	2° 26′
170	3° 12′	2° 52′	2° 35′	2° 20′	2° 8′	1° 59′	1° 53′	1° 51′	1° 51′	1° 57′	2° 5′	2° 18′
180	3° 19′	2° 58′	2° 40′	2° 24′	2° 11′	2° 1′	1° 54′	1° 50′	1° 50′	1° 54′	2° 1′	2° 12′
190	3° 28′	3° 6′	2° 47′	2° 30′	2° 16′	2° 5′	1° 57′	1° 52′	1° 51′	1° 53′	1° 59′	2° 9′
200	3° 40′	3° 16′	2° 56′	2° 38′	2° 23′	2° 12′	2° 2′	1° 57′	1° 54′	1° 55′	2° 0′	2° 8′
210	3° 50′	3° 27′	3° 6′	2° 48′	2° 33′	2° 20′	2° 10′	2° 3′	2° 0′	2° 0′	2° 3′	2° 10′
220	4° 2′	3° 39′	3° 18′	3° 0′	2° 44′	2° 30′	2° 19′	2° 12′	2° 7′	2° 6′	2° 8′	2° 14′
230	4° 15′	3° 52′	3° 31′	3° 12′	2° 56′	2° 42′	2° 30′	2° 22′	2° 17′	2° 15′	2° 16′	2° 21′
240	4° 28′	4° 5′	3° 44′	3° 25′	3° 9′	2° 54′	2° 43′	2° 34′	2° 28′	2° 25′	2° 26′	2° 30′
250	4° 41′	4° 19′	3° 58′	3° 39′	3° 22′	3° 8′	2° 56′	2° 47′	2° 41′	2° 37′	2° 37′	2° 40′
260	4° 54′	4° 31′	4° 11′	3° 52′	3° 36′	3° 21′	3° 10′	3° 0′	2° 54′	2° 50′	2° 50′	2° 52′
270	5° 5′	4° 44′	4° 23′	4° 5′	3° 49′	3° 35′	3° 23′	3° 14′	3° 8′	3° 4′	3° 3′	3° 6′
280	5° 16′	4° 54′	4° 35′	4° 17′	4° 2′	3° 48′	3° 37′	3° 28′	3° 22′	3° 18′	3° 18′	3° 20′
290	5° 24′	5° 4′	4° 45′	4° 28′	4° 13′	4° 1′	3° 50′	3° 42′	3° 36′	3° 32′	3° 32′	3° 34′
300	5° 31′	5° 12′	4° 54′	4° 38′	4° 24′	4° 12′	4° 2′	3° 54′	3° 49′	3° 46′	3° 46′	3° 48′
310	5° 35′	5° 17′	4° 59′	4° 45′	4° 32′	4° 21′	4° 12′	4° 5′	4° 1′	3° 59′	3° 59′	4° 2′
320	5° 38′	5° 21′	5° 5′	4° 51′	4° 39′	4° 29′	4° 21′	4° 15′	4° 11′	4° 10′	4° 12′	4° 15′
330	5° 38′	5° 22′	5° 7′	4° 54′	4° 44′	4° 35′	4° 28′	4° 23′	4° 20′	4° 20′	4° 23′	4° 27′
340	5° 36′	5° 21′	5° 7′	4° 56′	4° 46′	4° 38′	4° 32′	4° 29′	4° 27′	4° 28′	4° 32′	4° 38′
350	5° 31′	5° 17′	5° 5′	4° 54′	4° 46′	4° 39′	4° 35′	4° 32′	4° 32′	4° 35′	4° 39′	4° 46′
360	5° 25′	5° 12′	5° 0′	4° 51′	4° 43′	4° 38′	4° 35′	4° 34′	4° 35′	4° 38′	4° 44′	4° 52′

The equations of the Moon

Æquationum Lunæ

Column banner across the whole table, in italic: **Gradus anomaliæ mediæ —** degrees of the mean anomaly.

Cent. med.	120	125	130	135	140	145	150	155	160	165	170	175
0	5° 3′	5° 15′	5° 30′	5° 47′	6° 7′	6° 28′	6° 50′	7° 14′	7° 40′	8° 6′	8° 34′	9° 2′

Cent. med.	120	125	130	135	140	145	150	155	160	165	170	175
10	5° 8′	5° 22′	5° 38′	5° 56′	6° 17′	6° 39′	7° 2′	7° 27′	7° 54′	8° 21′	8° 49′	9° 17′
20	5° 11′	5° 26′	5° 43′	6° 3′	6° 24′	6° 48′	7° 13′	7° 39′	8° 6′	8° 34′	9° 2′	9° 32′
30	5° 10′	5° 27′	5° 46′	6° 7′	6° 30′	6° 55′	7° 21′	7° 48′	8° 17′	8° 46′	9° 15′	9° 45′
40	5° 8′	5° 26′	5° 46′	6° 9′	6° 33′	7° 0′	7° 27′	7° 56′	8° 25′	8° 55′	9° 26′	9° 57′
50	5° 3′	5° 22′	5° 44′	6° 8′	6° 33′	7° 1′	7° 30′	8° 0′	8° 32′	9° 3′	9° 35′	10° 7′
60	4° 55′	5° 16′	5° 39′	6° 4′	6° 30′	7° 0′	7° 31′	8° 3′	8° 35′	9° 8′	9° 42′	10° 16′
70	4° 45′	5° 7′	5° 31′	5° 58′	6° 26′	6° 57′	7° 29′	8° 2′	8° 36′	9° 11′	9° 46′	10° 21′
80	4° 34′	4° 56′	5° 21′	5° 49′	6° 19′	6° 51′	7° 24′	7° 59′	8° 35′	9° 11′	9° 48′	10° 24′
90	4° 20′	4° 44′	5° 10′	5° 38′	6° 9′	6° 42′	7° 17′	7° 53′	8° 30′	9° 8′	9° 47′	10° 25′
100	4° 6′	4° 30′	4° 56′	5° 27′	5° 57′	6° 31′	7° 7′	7° 45′	8° 23′	9° 3′	9° 42′	10° 22′
110	3° 51′	4° 15′	4° 42′	5° 12′	5° 44′	6° 19′	6° 56′	7° 34′	8° 14′	8° 55′	9° 36′	10° 17′
120	3° 37′	4° 0′	4° 27′	4° 57′	5° 29′	6° 5′	6° 42′	7° 21′	8° 2′	8° 45′	9° 27′	10° 8′
130	3° 21′	3° 45′	4° 11′	4° 41′	5° 14′	5° 50′	6° 30′	7° 7′	7° 49′	8° 32′	9° 15′	9° 59′
140	3° 7′	3° 30′	3° 56′	4° 26′	4° 58′	5° 34′	6° 12′	6° 52′	7° 34′	8° 17′	9° 1′	9° 46′
150	2° 54′	3° 16′	3° 42′	4° 11′	4° 43′	5° 18′	5° 56′	6° 36′	7° 18′	8° 2′	8° 46′	9° 32′
160	2° 43′	3° 4′	3° 28′	3° 57′	4° 28′	5° 3′	5° 40′	6° 20′	7° 2′	7° 46′	8° 31′	9° 16′
170	2° 34′	2° 53′	3° 17′	3° 44′	4° 15′	4° 48′	5° 25′	6° 4′	6° 46′	7° 29′	8° 15′	9° 0′
180	2° 27′	2° 45′	3° 7′	3° 33′	4° 3′	4° 35′	5° 11′	5° 50′	6° 31′	7° 14′	7° 58′	8° 44′
190	2° 22′	2° 40′	3° 0′	3° 25′	3° 53′	4° 24′	4° 59′	5° 37′	6° 17′	6° 59′	7° 43′	8° 28′
200	2° 20′	2° 36′	2° 55′	3° 18′	3° 45′	4° 15′	4° 49′	5° 25′	6° 4′	6° 45′	7° 28′	8° 13′
210	2° 20′	2° 35′	2° 53′	3° 14′	3° 40′	4° 8′	4° 40′	5° 15′	5° 53′	6° 33′	7° 15′	7° 59′
220	2° 21′	2° 36′	2° 53′	3° 13′	3° 37′	4° 4′	4° 35′	5° 7′	5° 45′	6° 23′	7° 4′	7° 47′
230	2° 29′	2° 41′	2° 56′	3° 15′	3° 37′	4° 3′	4° 32′	5° 4′	5° 39′	6° 16′	6° 55′	7° 36′
240	2° 37′	2° 47′	3° 1′	3° 19′	3° 40′	4° 4′	4° 32′	5° 2′	5° 35′	6° 11′	6° 49′	7° 29′
250	2° 46′	2° 56′	3° 9′	3° 26′	3° 45′	4° 8′	4° 34′	5° 3′	5° 35′	6° 9′	6° 45′	7° 24′
260	2° 58′	3° 7′	3° 19′	3° 34′	3° 53′	4° 15′	4° 39′	5° 7′	5° 37′	6° 10′	6° 45′	7° 21′
270	3° 11′	3° 19′	3° 30′	3° 45′	4° 3′	4° 23′	4° 47′	5° 13′	5° 42′	6° 13′	6° 47′	7° 22′
280	3° 25′	3° 33′	3° 43′	3° 57′	4° 14′	4° 34′	4° 57′	5° 22′	5° 50′	6° 20′	6° 51′	7° 25′
290	3° 39′	3° 47′	3° 58′	4° 11′	4° 28′	4° 47′	5° 9′	5° 33′	5° 59′	6° 28′	6° 59′	7° 31′
300	3° 54′	4° 2′	4° 12′	4° 26′	4° 42′	5° 0′	5° 22′	5° 45′	6° 11′	6° 39′	7° 8′	7° 39′
310	4° 8′	4° 16′	4° 27′	4° 41′	4° 57′	5° 15′	5° 36′	5° 59′	6° 25′	6° 52′	7° 20′	7° 50′
320	4° 22′	4° 30′	4° 42′	4° 56′	5° 12′	5° 30′	5° 51′	6° 14′	6° 39′	7° 5′	7° 33′	8° 2′
330	4° 34′	4° 44′	4° 56′	5° 10′	5° 27′	5° 46′	6° 7′	6° 30′	6° 54′	7° 20′	7° 48′	8° 16′
340	4° 46′	4° 56′	5° 9′	5° 24′	5° 41′	6° 1′	6° 22′	6° 45′	7° 10′	7° 36′	8° 3′	8° 31′
350	4° 55′	5° 7′	5° 21′	5° 37′	5° 55′	6° 15′	6° 37′	7° 0′	7° 25′	7° 51′	8° 19′	8° 46′
360	5° 3′	5° 15′	5° 30′	5° 47′	6° 7′	6° 28′	6° 50′	7° 14′	7° 40′	8° 6′	8° 34′	9° 2′

Remainder of the sixth table

Reliquum tabulæ ſextæ

Column banner across the whole table, in italic: **Gradus anomaliæ mediæ —** degrees of the mean anomaly.

Cent. med.	180	185	190	195	200	205	210	215	220	225	230	235
0	9° 30′	9° 58′	10° 26′	10° 54′	11° 20′	11° 46′	12° 10′	12° 32′	12° 53′	13° 13′	13° 30′	13° 45′
10	9° 45′	10° 14′	10° 41′	11° 9′	11° 35′	12° 0′	12° 23′	12° 45′	13° 5′	13° 23′	13° 39′	13° 53′

Cent. med.	180	185	190	195	200	205	210	215	220	225	230	235
20	10° 0′	10° 29′	10° 57′	11° 24′	11° 50′	12° 15′	12° 38′	12° 59′	13° 19′	13° 36′	13° 51′	14° 4′
30	10° 15′	10° 44′	11° 12′	11° 40′	12° 6′	12° 30′	12° 53′	13° 14′	13° 33′	13° 50′	14° 4′	14° 16′
40	10° 28′	10° 58′	11° 27′	11° 55′	12° 21′	12° 46′	13° 9′	13° 30′	13° 48′	14° 4′	14° 18′	14° 30′
50	10° 39′	11° 10′	11° 40′	12° 8′	12° 35′	13° 1′	13° 24′	13° 45′	14° 3′	14° 19′	14° 33′	14° 44′
60	10° 49′	11° 21′	11° 52′	12° 21′	12° 49′	13° 15′	13° 38′	14° 0′	14° 18′	14° 34′	14° 48′	14° 58′
70	10° 56′	11° 29′	12° 1′	12° 32′	13° 1′	13° 27′	13° 51′	14° 13′	14° 32′	14° 49′	15° 2′	15° 13′
80	11° 0′	11° 35′	12° 9′	12° 40′	13° 10′	13° 38′	14° 3′	14° 26′	14° 46′	15° 3′	15° 17′	15° 27′
90	11° 2′	11° 38′	12° 13′	12° 47′	13° 18′	13° 47′	14° 13′	14° 37′	14° 57′	15° 15′	15° 30′	15° 41′
100	11° 1′	11° 39′	12° 15′	12° 50′	13° 23′	13° 53′	14° 21′	14° 45′	15° 7′	15° 26′	15° 41′	15° 53′
110	10° 56′	11° 36′	12° 15′	12° 51′	13° 25′	13° 57′	14° 26′	14° 52′	15° 15′	15° 34′	15° 51′	16° 4′
120	10° 50′	11° 31′	12° 11′	12° 49′	13° 25′	13° 58′	14° 28′	14° 56′	15° 20′	15° 41′	15° 59′	16° 13′
130	10° 41′	11° 24′	12° 5′	12° 44′	13° 21′	13° 56′	14° 28′	14° 57′	15° 23′	15° 45′	16° 4′	16° 19′
140	10° 30′	11° 13′	11° 56′	12° 37′	13° 15′	13° 53′	14° 25′	14° 56′	15° 23′	15° 47′	16° 7′	16° 24′
150	10° 17′	11° 1′	11° 45′	12° 27′	13° 7′	13° 45′	14° 20′	14° 52′	15° 20′	15° 46′	16° 7′	16° 25′
160	10° 2′	10° 47′	11° 32′	12° 15′	12° 56′	13° 35′	14° 11′	14° 45′	15° 15′	15° 42′	16° 5′	16° 24′
170	9° 46′	10° 32′	11° 17′	12° 1′	12° 43′	13° 23′	14° 1′	14° 36′	15° 7′	15° 35′	16° 0′	16° 20′
180	9° 30′	10° 16′	11° 2′	11° 46′	12° 29′	13° 10′	13° 49′	14° 25′	14° 57′	15° 27′	15° 53′	16° 15′
190	9° 14′	10° 0′	10° 45′	11° 31′	12° 14′	12° 56′	13° 35′	14° 12′	14° 45′	15° 16′	15° 43′	16° 7′
200	8° 58′	9° 44′	10° 29′	11° 14′	11° 58′	12° 40′	13° 20′	13° 57′	14° 32′	15° 3′	15° 32′	15° 56′
210	8° 43′	9° 28′	10° 14′	10° 58′	11° 42′	12° 24′	13° 4′	13° 42′	14° 17′	14° 49′	15° 18′	15° 44′
220	8° 30′	9° 14′	9° 59′	10° 43′	11° 26′	12° 8′	12° 48′	13° 26′	14° 2′	14° 34′	15° 4′	15° 30′
230	8° 19′	9° 1′	9° 45′	10° 28′	11° 11′	11° 53′	12° 30′	13° 10′	13° 46′	14° 19′	14° 49′	15° 15′
240	8° 10′	8° 52′	9° 33′	10° 15′	10° 58′	11° 39′	12° 18′	12° 55′	13° 31′	14° 3′	14° 33′	15° 0′
250	8° 4′	8° 43′	9° 24′	10° 5′	10° 46′	11° 26′	12° 4′	12° 41′	13° 16′	13° 48′	14° 18′	14° 45′
260	7° 59′	8° 38′	9° 18′	9° 57′	10° 37′	11° 15′	11° 53′	12° 29′	13° 3′	13° 33′	14° 4′	14° 30′
270	7° 58′	8° 35′	9° 13′	9° 52′	10° 30′	11° 7′	11° 43′	12° 18′	12° 51′	13° 22′	13° 50′	14° 16′
280	8° 0′	8° 36′	9° 12′	9° 49′	10° 25′	11° 1′	11° 36′	12° 9′	12° 41′	13° 11′	13° 39′	14° 4′
290	8° 4′	8° 39′	9° 14′	9° 49′	10° 24′	10° 58′	11° 31′	12° 3′	12° 34′	13° 2′	13° 29′	13° 53′
300	8° 11′	8° 44′	9° 18′	9° 52′	10° 25′	10° 57′	11° 29′	12° 0′	12° 30′	12° 56′	13° 21′	13° 44′
310	8° 21′	8° 53′	9° 25′	9° 57′	10° 28′	11° 0′	11° 30′	11° 59′	12° 27′	12° 52′	13° 16′	13° 38′
320	8° 32′	9° 3′	9° 34′	10° 5′	10° 35′	11° 4′	11° 33′	12° 0′	12° 27′	12° 51′	13° 14′	13° 34′
330	8° 45′	9° 15′	9° 45′	10° 14′	10° 43′	11° 12′	11° 39′	12° 5′	12° 30′	12° 53′	13° 14′	13° 33′
340	9° 0′	9° 28′	9° 58′	10° 26′	10° 54′	11° 21′	11° 47′	12° 12′	12° 36′	12° 57′	13° 17′	13° 34′
350	9° 15′	9° 43′	10° 11′	10° 39′	11° 6′	11° 33′	11° 58′	12° 21′	12° 43′	13° 4′	13° 22′	13° 38′
360	9° 30′	9° 58′	10° 26′	10° 54′	11° 20′	11° 46′	12° 10′	12° 32′	12° 53′	13° 13′	13° 30′	13° 45′

The equations of the Moon

Æquationum Lunæ.

Column banner across the whole table, in italic: **Gradus Anomaliæ mediæ. —** degrees of the mean anomaly.

Cent. med.	240	245	250	255	260	265	270	275	280	285	290	295
0	13° 57′	14° 8′	14° 16′	14° 22′	14° 25′	14° 26′	14° 25′	14° 22′	14° 17′	14° 9′	14° 0′	13° 48′
10	14° 5′	14° 14′	14° 21′	14° 25′	14° 28′	14° 28′	14° 25′	14° 21′	14° 14′	14° 6′	13° 55′	13° 43′
20	14° 14′	14° 22′	14° 28′	14° 32′	14° 33′	14° 31′	14° 28′	14° 22′	14° 14′	14° 4′	13° 53′	13° 39′

Cent. med.	240	245	250	255	260	265	270	275	280	285	290	295
30	14° 26′	14° 33′	14° 37′	14° 40′	14° 40′	14° 37′	14° 32′	14° 25′	14° 16′	14° 6′	13° 53′	13° 38′
40	14° 38′	14° 45′	14° 48′	14° 50′	14° 49′	14° 45′	14° 39′	14° 31′	14° 21′	14° 9′	13° 55′	13° 39′
50	14° 52′	14° 58′	15° 1′	15° 1′	14° 59′	14° 55′	14° 48′	14° 39′	14° 28′	14° 15′	14° 1′	13° 43′
60	15° 6′	15° 12′	15° 14′	15° 14′	15° 11′	15° 6′	14° 58′	14° 48′	14° 36′	14° 22′	14° 6′	13° 48′
70	15° 21′	15° 26′	15° 28′	15° 28′	15° 24′	15° 18′	15° 10′	14° 59′	14° 47′	14° 32′	14° 15′	13° 56′
80	15° 35′	15° 40′	15° 42′	15° 42′	15° 38′	15° 32′	15° 23′	15° 12′	14° 58′	14° 43′	14° 25′	14° 6′
90	15° 49′	15° 54′	15° 57′	15° 56′	15° 52′	15° 46′	15° 37′	15° 25′	15° 11′	14° 55′	14° 37′	14° 16′
100	16° 2′	16° 8′	16° 10′	16° 10′	16° 6′	16° 0′	15° 50′	15° 39′	15° 24′	15° 8′	14° 49′	14° 29′
110	16° 14′	16° 20′	16° 23′	16° 23′	16° 19′	16° 13′	16° 4′	15° 52′	15° 38′	15° 21′	15° 2′	14° 41′
120	16° 23′	16° 30′	16° 34′	16° 35′	16° 32′	16° 26′	16° 17′	16° 6′	15° 51′	15° 35′	15° 16′	14° 55′
130	16° 31′	16° 39′	16° 44′	16° 45′	16° 43′	16° 38′	16° 30′	16° 18′	16° 4′	15° 48′	15° 29′	15° 8′
140	16° 39′	16° 46′	16° 52′	16° 54′	16° 53′	16° 48′	16° 41′	16° 30′	16° 16′	16° 0′	15° 42′	15° 21′
150	16° 40′	16° 50′	16° 57′	17° 0′	17° 0′	16° 57′	16° 50′	16° 40′	16° 27′	16° 12′	15° 54′	15° 33′
160	16° 40′	16° 52′	17° 0′	17° 5′	17° 6′	17° 3′	16° 58′	16° 48′	16° 37′	16° 22′	16° 4′	15° 44′
170	16° 38′	16° 51′	17° 1′	17° 7′	17° 9′	17° 8′	17° 3′	16° 55′	16° 44′	16° 30′	16° 13′	15° 54′
180	16° 33′	16° 48′	16° 59′	17° 6′	17° 10′	17° 10′	17° 6′	16° 59′	16° 49′	16° 36′	16° 20′	16° 2′
190	16° 26′	16° 42′	16° 55′	17° 3′	17° 9′	17° 9′	17° 7′	17° 1′	16° 52′	16° 40′	16° 25′	16° 8′
200	16° 17′	16° 34′	16° 48′	16° 57′	17° 3′	17° 6′	17° 5′	17° 0′	16° 52′	16° 42′	16° 28′	16° 11′
210	16° 6′	16° 24′	16° 39′	16° 50′	16° 57′	17° 0′	17° 0′	16° 57′	16° 51′	16° 41′	16° 28′	16° 13′
220	15° 53′	16° 12′	16° 28′	16° 40′	16° 48′	16° 53′	16° 54′	16° 52′	16° 46′	16° 38′	16° 26′	16° 12′
230	15° 39′	15° 59′	16° 15′	16° 28′	16° 37′	16° 43′	16° 45′	16° 44′	16° 40′	16° 32′	16° 22′	16° 9′
240	15° 23′	15° 44′	16° 1′	16° 15′	16° 25′	16° 31′	16° 35′	16° 34′	16° 31′	16° 25′	16° 15′	16° 3′
250	15° 9′	15° 29′	15° 46′	16° 1′	16° 11′	16° 18′	16° 22′	16° 23′	16° 21′	16° 15′	16° 7′	15° 56′
260	14° 54′	15° 14′	15° 32′	15° 46′	15° 57′	16° 5′	16° 9′	16° 10′	16° 9′	16° 4′	15° 56′	15° 46′
270	14° 40′	15° 0′	15° 17′	15° 31′	15° 42′	15° 50′	15° 55′	15° 57′	15° 55′	15° 51′	15° 45′	15° 35′
280	14° 26′	14° 46′	15° 3′	15° 17′	15° 28′	15° 36′	15° 40′	15° 42′	15° 41′	15° 38′	15° 32′	15° 23′
290	14° 15′	14° 34′	14° 50′	15° 3′	15° 14′	15° 21′	15° 26′	15° 28′	15° 27′	15° 24′	15° 18′	15° 10′
300	14° 5′	14° 23′	14° 38′	14° 51′	15° 1′	15° 8′	15° 13′	15° 14′	15° 13′	15° 10′	15° 4′	14° 56′
310	13° 57′	14° 14′	14° 29′	14° 40′	14° 50′	14° 56′	15° 0′	15° 1′	15° 0′	14° 57′	14° 50′	14° 42′
320	13° 52′	14° 8′	14° 21′	14° 32′	14° 40′	14° 46′	14° 49′	14° 50′	14° 48′	14° 44′	14° 38′	14° 29′
330	13° 50′	14° 4′	14° 16′	14° 26′	14° 33′	14° 37′	14° 40′	14° 40′	14° 37′	14° 32′	14° 26′	14° 17′
340	13° 49′	14° 3′	14° 13′	14° 22′	14° 28′	14° 31′	14° 33′	14° 31′	14° 28′	14° 23′	14° 15′	14° 6′
350	13° 52′	14° 4′	14° 13′	14° 20′	14° 25′	14° 28′	14° 28′	14° 26′	14° 21′	14° 15′	14° 6′	13° 56′
360	13° 57′	14° 8′	14° 16′	14° 22′	14° 25′	14° 26′	14° 25′	14° 22′	14° 17′	14° 9′	14° 0′	13° 48′

Reliquum tabulæ ſextæ æquationum Lunæ

[The remainder of the sixth table, of the equations of the Moon]

Banner inside the frame, italic: Gradus anomaliæ mediæ — *degrees of mean anomaly*.

Argument column head: `Cent. med.` (*centrum medium*, the mean centre). Each value column is headed with its degree of mean anomaly and, beneath, the pair `Grad. /` — degrees and minutes; the pair is gathered here into one sexagesimal cell.

Cent. med.	300	305	310	315	320	325	330	335	340	345	350	355	360
0	13° 35′	13° 21′	13° 5′	12° 47′	12° 28′	12° 8′	11° 48′	11° 26′	11° 4′	10° 41′	10° 17′	9° 54′	8° 30′ [recte: 9° 30′]
10	13° 29′	13° 13′	12° 56′	12° 38′	12° 18′	11° 58′	11° 37′	11° 14′	10° 52′	10° 28′	10° 5′	9° 41′	9° 17′
20	13° 24′	13° 8′	12° 50′	12° 31′	12° 10′	11° 49′	11° 27′	11° 4′	10° 41′	10° 17′	9° 53′	9° 29′	9° 4′
30	13° 22′	13° 4′	12° 45′	12° 25′	12° 4′	11° 42′	11° 19′	10° 55′	10° 31′	10° 7′	9° 42′	9° 17′	8° 53′
40	13° 22′	13° 3′	12° 43′	12° 22′	12° 0′	11° 37′	11° 13′	10° 49′	10° 24′	9° 58′	9° 33′	9° 8′	8° 42′
50	13° 25′	13° 5′	12° 44′	12° 21′	11° 58′	11° 34′	11° 9′	10° 44′	10° 18′	9° 52′	9° 26′	9° 0′	8° 33′
60	13° 29′	13° 8′	12° 46′	12° 23′	11° 59′	11° 33′	11° 8′	10° 41′	10° 14′	9° 47′	9° 21′	8° 53′	8° 26′
70	13° 36′	13° 14′	12° 51′	12° 27′	12° 1′	11° 35′	11° 8′	10° 41′	10° 13′	9° 45′	9° 17′	8° 49′	8° 21′
80	13° 44′	13° 22′	12° 58′	12° 32′	12° 6′	11° 39′	11° 11′	10° 43′	10° 14′	9° 45′	9° 16′	8° 47′	8° 18′
90	13° 55′	13° 31′	13° 7′	12° 40′	12° 13′	11° 45′	11° 16′	10° 47′	10° 17′	9° 47′	9° 17′	8° 47′	8° 17′
100	14° 6′	13° 42′	13° 17′	12° 50′	12° 22′	11° 53′	11° 23′	10° 53′	10° 22′	9° 51′	9° 20′	8° 49′	8° 18′
110	14° 19′	13° 54′	13° 28′	13° 1′	12° 32′	12° 2′	11° 32′	11° 1′	10° 30′	9° 58′	9° 26′	8° 54′	8° 22′
120	14° 32′	14° 7′	13° 40′	13° 13′	12° 43′	12° 13′	11° 42′	11° 11′	10° 38′	10° 6′	9° 33′	9° 0′	8° 27′
130	14° 45′	14° 20′	13° 53′	13° 25′	12° 56′	12° 25′	11° 54′	11° 21′	10° 48′	10° 15′	9° 42′	9° 8′	8° 35′
140	14° 58′	14° 33′	14° 6′	13° 38′	13° 8′	12° 38′	12° 6′	11° 33′	11° 0′	10° 26′	9° 52′	9° 18′	8° 44′
150	15° 10′	14° 46′	14° 19′	13° 51′	13° 21′	12° 50′	12° 18′	11° 46′	11° 12′	10° 38′	10° 3′	9° 29′	8° 54′
160	15° 21′	14° 58′	14° 31′	14° 3′	13° 34′	13° 3′	12° 31′	11° 58′	11° 25′	10° 50′	10° 15′	9° 40′	9° 5′
170	15° 32′	15° 8′	14° 43′	14° 15′	13° 46′	13° 16′	12° 44′	12° 11′	11° 37′	11° 3′	10° 28′	9° 53′	9° 18′
180	15° 41′	15° 18′	14° 53′	14° 25′	13° 57′	13° 27′	12° 55′	12° 23′	11° 49′	11° 15′	10° 40′	10° 5′	9° 30′
190	15° 48′	15° 25′	15° 1′	14° 35′	14° 7′	13° 37′	13° 6′	12° 34′	12° 1′	11° 27′	10° 53′	10° 17′	9° 42′
200	15° 52′	15° 31′	15° 8′	14° 42′	14° 15′	13° 46′	13° 16′	12° 44′	12° 11′	11° 38′	11° 4′	10° 29′	9° 55′
210	15° 55′	15° 35′	15° 12′	14° 48′	14° 21′	13° 53′	13° 24′	12° 53′	12° 20′	11° 48′	11° 14′	10° 40′	10° 6′
220	15° 55′	15° 36′	15° 14′	14° 51′	14° 25′	13° 58′	13° 30′	13° 0′	12° 29′	11° 56′	11° 24′	10° 50′	10° 16′
230	15° 53′	15° 35′	15° 15′	14° 52′	14° 28′	14° 1′	13° 34′	13° 5′	12° 34′	12° 3′	11° 31′	10° 58′	10° 25′
240	15° 50′	15° 32′	15° 12′	14° 51′	14° 27′	14° 2′	13° 36′	13° 7′	12° 38′	12° 8′	11° 37′	11° 5′	10° 33′
250	15° 42′	15° 26′	15° 8′	14° 47′	14° 25′	14° 1′	13° 35′	13° 8′	12° 40′	12° 11′	11° 40′	11° 10′	10° 38′
260	15° 33′	15° 18′	15° 0′	14° 42′	14° 20′	13° 57′	13° 33′	13° 7′	12° 39′	12° 11′	11° 42′	11° 12′	10° 42′
270	15° 23′	15° 9′	14° 53′	14° 34′	14° 14′	13° 52′	13° 28′	13° 3′	12° 37′	12° 9′	11° 41′	11° 12′	10° 43′
280	15° 11′	14° 58′	14° 42′	14° 25′	14° 5′	13° 43′	13° 21′	12° 57′	12° 32′	12° 6′	11° 38′	11° 11′	10° 42′
290	14° 59′	14° 46′	14° 30′	14° 14′	13° 55′	13° 34′	13° 13′	12° 49′	12° 25′	12° 0′	11° 33′	11° 7′	10° 39′
300	14° 45′	14° 33′	14° 18′	14° 2′	13° 43′	13° 24′	13° 2′	12° 40′	12° 16′	11° 52′	11° 26′	11° 0′	10° 34′
310	14° 32′	14° 19′	14° 5′	13° 49′	13° 31′	13° 12′	12° 51′	12° 29′	12° 6′	11° 42′	11° 18′	10° 52′	10° 27′
320	14° 18′	14° 6′	13° 52′	13° 35′	13° 18′	12° 59′	12° 39′	12° 17′	11° 55′	11° 31′	11° 7′	10° 43′	10° 18′
330	14° 6′	13° 53′	13° 38′	13° 22′	13° 5′	12° 46′	12° 26′	12° 4′	11° 42′	11° 19′	10° 56′	10° 32′	10° 7′
340	13° 54′	13° 41′	13° 26′	13° 10′	12° 52′	12° 33′	12° 13′	11° 51′	11° 29′	11° 7′	10° 43′	10° 20′	9° 56′
350	13° 44′	13° 30′	13° 15′	12° 58′	12° 40′	12° 20′	12° 0′	11° 38′	11° 16′	10° 5[?]′	10° 30′	10° 7′	9° 43′
360	13° 35′	13° 21′	13° 5′	12° 47′	12° 28′	12° 8′	11° 48′	11° 26′	11° 4′	10° 41′	10° 17′	9° 54′	9° 30′

Penultima tabula inſerviens non exercitatis in calculo inveſtigationipartis proportionalis.

[The penultimate table, serving those not practised in calculation for the finding of the proportional part.]

Banner inside the frame, italic: `Gradus intercepti` — *the degrees intercepted.*

The argument column is headed `Differ.` (*differentia*), set vertically up the side of the frame. The ten value columns are headed 1 to 10 — the intercepted degrees — and each is ruled into a `/` and a `//` field, minutes and seconds; the pair is gathered here into one cell.

Differ.	1	2	3	4	5	6	7	8	9	10
1	0′ 6″	0′ 12″	0′ 18″	0′ 24″	0′ 30″	0′ 36″	0′ 42″	0′ 48″	0′ 54″	1′ 0″
2	0′ 12″	0′ 24″	0′ 36″	0′ 48″	1′ 0″	1′ 12″	1′ 24″	1′ 36″	1′ 48″	2′ 0″
3	0′ 18″	0′ 36″	0′ 54″	1′ 12″	1′ 30″	1′ 48″	2′ 6″	2′ 24″	2′ 42″	3′ 0″
4	0′ 24″	0′ 48″	1′ 12″	1′ 36″	2′ 0″	2′ 24″	2′ 48″	3′ 12″	3′ 36″	4′ 0″
5	0′ 30″	1′ 0″	1′ 30″	2′ 0″	2′ 30″	3′ 0″	3′ 30″	4′ 0″	4′ 30″	5′ 0″
6	0′ 36″	1′ 12″	1′ 48″	2′ 24″	3′ 0″	3′ 36″	4′ 12″	4′ 48″	5′ 24″	6′ 0″
7	0′ 42″	1′ 24″	2′ 6″	2′ 48″	3′ 30″	4′ 12″	4′ 54″	5′ 36″	6′ 18″	7′ 0″
8	0′ 48″	1′ 36″	2′ 24″	3′ 12″	4′ 0″	4′ 48″	5′ 36″	6′ 24″	7′ 12″	8′ 0″
9	0′ 54″	1′ 48″	2′ 42″	3′ 36″	4′ 30″	5′ 24″	6′ 18″	7′ 12″	8′ 6″	9′ 0″
10	1′ 0″	2′ 0″	3′ 0″	4′ 0″	5′ 0″	6′ 0″	7′ 0″	8′ 0″	9′ 0″	10′ 0″
11	1′ 6″	2′ 12″	3′ 18″	4′ 24″	5′ 30″	6′ 36″	7′ 42″	8′ 48″	9′ 54″	11′ 0″
12	1′ 12″	2′ 24″	3′ 36″	4′ 48″	6′ 0″	7′ 12″	8′ 24″	9′ 36″	10′ 48″	12′ 0″
13	1′ 18″	2′ 36″	3′ 54″	5′ 12″	6′ 30″	7′ 48″	9′ 6″	10′ 24″	11′ 42″	13′ 0″
14	1′ 24″	2′ 48″	4′ 12″	5′ 36″	7′ 0″	8′ 24″	9′ 48″	11′ 12″	12′ 36″	14′ 0″
15	1′ 30″	3′ 0″	4′ 30″	6′ 0″	7′ 30″	9′ 0″	10′ 30″	12′ 0″	13′ 30″	15′ 0″
16	1′ 36″	3′ 12″	4′ 48″	6′ 24″	8′ 0″	9′ 36″	11′ 12″	12′ 48″	14′ 24″	16′ 0″
17	1′ 42″	3′ 24″	5′ 6″	6′ 48″	8′ 30″	10′ 12″	11′ 54″	13′ 36″	15′ 18″	17′ 0″
18	1′ 48″	3′ 36″	5′ 24″	7′ 12″	9′ 0″	10′ 48″	12′ 36″	14′ 24″	16′ 12″	18′ 0″
19	1′ 54″	3′ 48″	5′ 42″	7′ 36″	9′ 30″	11′ 24″	13′ 18″	15′ 12″	17′ 6″	19′ 0″
20	2′ 0″	4′ 0″	6′ 0″	8′ 0″	10′ 0″	12′ 0″	14′ 0″	16′ 0″	18′ 0″	20′ 0″
21	2′ 6″	4′ 12″	6′ 18″	8′ 24″	10′ 30″	12′ 36″	14′ 42″	16′ 48″	18′ 54″	21′ 0″
22	2′ 12″	4′ 24″	6′ 36″	8′ 48″	11′ 0″	13′ 12″	15′ 24″	17′ 36″	19′ 48″	22′ 0″
23	2′ 18″	4′ 36″	6′ 54″	9′ 12″	11′ 30″	13′ 48″	16′ 6″	18′ 24″	20′ 42″	23′ 0″
24	2′ 24″	4′ 48″	7′ 12″	9′ 36″	12′ 0″	14′ 24″	16′ 48″	19′ 12″	21′ 36″	24′ 0″
25	2′ 30″	5′ 0″	7′ 30″	10′ 0″	12′ 30″	15′ 0″	17′ 30″	20′ 0″	22′ 30″	25′ 0″
26	2′ 36″	5′ 12″	7′ 48″	10′ 24″	13′ 0″	15′ 36″	18′ 12″	20′ 48″	23′ 24″	26′ 0″
27	2′ 42″	5′ 24″	8′ 6″	10′ 48″	13′ 30″	16′ 12″	18′ 54″	21′ 36″	24′ 18″	27′ 0″
28	2′ 48″	5′ 36″	8′ 24″	11′ 12″	14′ 0″	16′ 48″	19′ 36″	22′ 24″	25′ 12″	28′ 0″
29	2′ 54″	5′ 48″	8′ 42″	11′ 36″	14′ 30″	17′ 24″	20′ 18″	23′ 12″	26′ 6″	29′ 0″
30	3′ 0″	6′ 0″	9′ 0″	12′ 0″	15′ 0″	18′ 0″	21′ 0″	24′ 0″	27′ 0″	30′ 0″

Beneath the frame, in italic, the author's note on the use of the table:

From this table of proportional parts the proportional part can be found in the shortest possible way, whenever — as very often happens — the centre and the anomaly of the Moon as given differ from the tables of equations, which run by 10 degrees in the centre and by 5 in the anomaly. The calculator should first collect the difference in minutes that stands, whether by way of the centre or by way of the anomaly, between the two nearest tens of degrees, the next smaller and the next larger, and look for that difference down the left-hand side of this table. Then let him find at the head of the table the degree by which the smaller ten falls short of the degree given, and the common angle will offer the proportional part answering to the degrees proposed. For example, let the

centre be given as 56° 0′ and the anomaly of the Moon as 190°. Since to 50 degrees of centre under anomaly 190 there answers an equation of 11° 40′, while to 60 degrees the equation is 11° 52′, so that the difference is 12′: it is plain that, for the 12′ sought, in the

Reliquum tabulæ partis proportionalis

[The remainder of the table of the proportional part]

Banner inside the frame, italic: `Gradus intercepti` — *the degrees intercepted*.

Same frame, same ruling and the same ten value columns as the preceding leaf; the argument `Differ.` continues from 31 to 60. The `/` and `//` fields — minutes and seconds — are again gathered into one cell.

Differ.	1	2	3	4	5	6	7	8	9	10
31	3′ 6″	6′ 12″	9′ 18″	12′ 24″	15′ 30″	18′ 36″	21′ 42″	24′ 48″	27′ 54″	31′ 0″
32	3′ 12″	6′ 24″	9′ 36″	12′ 48″	16′ 0″	19′ 12″	22′ 24″	25′ 36″	28′ 48″	32′ 0″
33	3′ 18″	6′ 36″	9′ 54″	13′ 12″	16′ 30″	19′ 48″	23′ 6″	26′ 24″	29′ 42″	33′ 0″
34	3′ 24″	6′ 48″	10′ 12″	13′ 36″	17′ 0″	20′ 24″	23′ 48″	27′ 12″	30′ 36″	34′ 0″
35	3′ 30″	7′ 0″	10′ 30″	14′ 0″	17′ 30″	21′ 0″	24′ 30″	28′ 0″	31′ 30″	35′ 0″
36	3′ 36″	7′ 12″	10′ 48″	14′ 24″	18′ 0″	21′ 36″	25′ 12″	28′ 48″	32′ 24″	36′ 0″
37	3′ 42″	7′ 24″	11′ 6″	14′ 48″	18′ 30″	22′ 12″	25′ 54″	29′ 36″	33′ 18″	37′ 0″
38	3′ 48″	7′ 36″	11′ 24″	15′ 12″	19′ 0″	22′ 48″	26′ 36″	30′ 24″	34′ 12″	38′ 0″
39	3′ 54″	7′ 48″	11′ 42″	14′ 36″ [recte: 15′ 36″]	19′ 30″	23′ 24″	27′ 18″	31′ 12″	35′ 6″	39′ 0″
40	4′ 0″	8′ 0″	12′ 0″	16′ 0″	20′ 0″	24′ 0″	28′ 0″	32′ 0″	36′ 0″	40′ 0″
41	4′ 6″	8′ 12″	12′ 18″	16′ 24″	20′ 30″	24′ 36″	28′ 42″	32′ 48″	36′ 54″	41′ 0″
42	4′ 12″	8′ 24″	12′ 36″	16′ 48″	21′ 0″	25′ 12″	29′ 24″	33′ 36″	37′ 48″	42′ 0″
43	4′ 18″	8′ 36″	12′ 54″	17′ 12″	21′ 30″	25′ 48″	30′ 6″	34′ 24″	38′ 42″	43′ 0″
44	4′ 24″	8′ 48″	13′ 12″	17′ 36″	22′ 0″	26′ 24″	30′ 48″	35′ 12″	39′ 38″ [recte: 39′ 36″]	44′ 0″
45	4′ 30″	9′ 0″	13′ 30″	18′ 0″	22′ 30″	27′ 0″	31′ 30″	36′ 0″	40′ 30″	45′ 0″
46	4′ 36″	9′ 12″	13′ 48″	18′ 24″	23′ 0″	27′ 36″	32′ 12″	36′ 48″	41′ 24″	46′ 0″
47	4′ 42″	9′ 24″	14′ 6″	18′ 48″	23′ 30″	28′ 12″	32′ 54″	37′ 36″	42′ 18″	47′ 0″
48	4′ 48″	9′ 36″	14′ 24″	19′ 12″	24′ 0″	28′ 48″	33′ 36″	38′ 24″	43′ 12″	48′ 0″
49	4′ 54″	9′ 48″	14′ 42″	19′ 36″	24′ 30″	29′ 24″	34′ 18″	39′ 12″	44′ 6″	49′ 0″
50	5′ 0″	10′ 0″	15′ 0″	20′ 0″	25′ 0″	30′ 0″	35′ 0″	40′ 0″	45′ 0″	50′ 0″
51	5′ 6″	10′ 12″	15′ 18″	20′ 24″	25′ 30″	30′ 36″	35′ 42″	40′ 48″	45′ 54″	51′ 0″
52	5′ 12″	10′ 24″	15′ 36″	20′ 48″	26′ 0″	31′ 12″	36′ 24″	41′ 36″	46′ 48″	52′ 0″
53	5′ 18″	10′ 36″	15′ 54″	21′ 12″	27′ 30″ [recte: 26′ 30″]	31′ 48″	37′ 6″	42′ 24″	47′ 42″	53′ 0″
54	5′ 24″	10′ 48″	16′ 12″	21′ 36″	27′ 0″	32′ 24″	37′ 48″	43′ 12″	48′ 36″	54′ 0″
55	5′ 30″	11′ 0″	16′ 30″	22′ 0″	27′ 30″	33′ 0″	38′ 30″	44′ 0″	49′ 30″	55′ 0″
56	5′ 36″	11′ 12″	16′ 48″	22′ 24″	28′ 0″	33′ 36″	39′ 12″	44′ 48″	50′ 24″	56′ 0″
57	5′ 42″	11′ 24″	17′ 6″	22′ 48″	28′ 30″	34′ 12″	39′ 54″	45′ 36″	51′ 18″	57′ 0″
58	5′ 48″	11′ 36″	17′ 24″	23′ 12″	29′ 0″	34′ 48″	40′ 36″	46′ 24″	52′ 12″	58′ 0″
59	5′ 54″	11′ 48″	17′ 42″	23′ 36″	29′ 30″	35′ 24″	41′ 18″	47′ 12″	53′ 6″	59′ 0″
60	6′ 0″	12′ 0″	18′ 0″	24′ 0″	30′ 0″	36′ 0″	42′ 0″	48′ 0″	54′ 0″	60′ 0″

Beneath the frame, in italic, the note continues from the foot of the preceding leaf:

left-hand side going down, and under 6 degrees at the head — the degrees that attach to the centre of 50° — the common angle gives 7′ 12″. That is the proportional part to be added to 11° 40′, making the corrected equation 11° 47′ 12″.

One thing more must be observed. Since the table of anomaly advances by 5 degrees at a step, the difference of anomaly by which the given value departs from the tables of equations has to be doubled, and the proportional part drawn from the adjoining [columns] with the double. Suppose, for example, that the centre is given as 90° and the anomaly of the Moon as 207°. It appears that under anomaly 205 a centre of 90° answers to an equation of 13° 47′, whereas 210° of anomaly carry an equation of 14° 13′, so that the difference between the equations is 26′. If, then, I subtract 205 degrees from 207 and double the difference of 2 degrees, there is shown — under 4 degrees at the head, and 26′ of difference going down the left-hand side — 10′ 24″ in the common angle; and these, added to 13° 47′, bring out 13° 57′ 24″.

Tabula ultima inſerviens illis ſcrupulis, quæ gradibus in-ſterceptis adhærent.

[The last table, serving for those minutes which adhere to the intercepted degrees.]

Banner inside the frame, italic: Scrupula Gradibus interceptis adhærentia — *the minutes adhering to the intercepted degrees.*

The argument column is headed Di (*differentia*, the difference in minutes between the two neighbouring entries of the equation tables); each value column is headed with the minutes that adhere to the intercepted degrees — 10 to 60 by tens — and beneath that head stands the pair of separator marks / //, marking the first and second sexagesimal orders. The pair is gathered here into one cell.

Di	10	20	30	40	50	60
1	0′ 1″	0′ 2″	0′ 3″	0′ 4″	0′ 5″	0′ 6″
2	0′ 2″	0′ 4″	0′ 6″	0′ 8″	0′ 10″	0′ 12″
3	0′ 3″	0′ 6″	0′ 9″	0′ 12″	0′ 15″	0′ 18″
4	0′ 4″	0′ 8″	0′ 12″	0′ 16″	0′ 20″	0′ 24″
5	0′ 5″	0′ 10″	0′ 15″	0′ 20″	0′ 25″	0′ 30″
6	0′ 6″	0′ 12″	0′ 18″	0′ 24″	0′ 30″	0′ 36″
7	0′ 7″	0′ 14″	0′ 21″	0′ 28″	0′ 35″	0′ 42″
8	0′ 8″	0′ 16″	0′ 24″	0′ 32″	0′ 40″	0′ 48″
9	0′ 9″	0′ 18″	0′ 27″	0′ 36″	0′ 45″	0′ 54″
10	0′ 10″	0′ 20″	0′ 30″	0′ 40″	0′ 50″	1′ 0″
11	0′ 11″	0′ 22″	0′ 33″	0′ 44″	0′ 55″	1′ 6″
12	0′ 12″	0′ 24″	0′ 36″	0′ 48″	1′ 0″	1′ 12″
13	0′ 13″	0′ 26″	0′ 39″	0′ 52″	1′ 5″	1′ 18″
14	0′ 14″	0′ 28″	0′ 42″	0′ 56″	1′ 10″	1′ 24″

Di	10	20	30	40	50	60
15	0′ 15″	0′ 30″	0′ 45″	1′ 0″	1′ 15″	1′ 30″
16	0′ 16″	0′ 32″	0′ 48″	1′ 4″	1′ 20″	1′ 36″
17	0′ 17″	0′ 34″	0′ 51″	1′ 8″	1′ 25″	1′ 42″
18	0′ 18″	0′ 36″	0′ 54″	1′ 12″	1′ 30″	1′ 48″
19	0′ 19″	0′ 38″	0′ 57″	1′ 16″	1′ 35″	1′ 54″
20	0′ 20″	0′ 40″	1′ 0″	1′ 20″	1′ 40″	2′ 0″
21	0′ 21″	0′ 42″	1′ 3″	1′ 24″	1′ 45″	2′ 6″
22	0′ 22″	0′ 44″	1′ 6″	1′ 28″	1′ 50″	2′ 12″
23	0′ 23″	0′ 46″	1′ 9″	1′ 32″	1′ 55″	2′ 18″
24	0′ 24″	0′ 48″	1′ 12″	1′ 36″	2′ 0″	2′ 24″
25	0′ 25″	0′ 50″	1′ 15″	1′ 40″	2′ 5″	2′ 30″
26	0′ 26″	0′ 52″	1′ 18″	1′ 44″	2′ 10″	2′ 36″
27	0′ 27″	0′ 54″	1′ 21″	1′ 48″	2′ 15″	2′ 42″
28	0′ 28″	0′ 56″	1′ 24″	1′ 52″	2′ 20″	2′ 48″
29	0′ 29″	0′ 58″	1′ 27″	1′ 56″	2′ 25″	2′ 54″
30	0′ 30″	1′ 0″	1′ 30″	2′ 0″	2′ 30″	3′ 0″
31	0′ 31″	1′ 2″	1′ 33″	2′ 4″	2′ 35″	3′ 6″
32	0′ 32″	1′ 4″	1′ 36″	2′ 8″	2′ 40″	3′ 12″
33	0′ 33″	1′ 6″	1′ 39″	2′ 12″	2′ 45″	3′ 18″
34	0′ 34″	1′ 8″	1′ 42″	2′ 16″	2′ 50″	3′ 24″
35	0′ 35″	1′ 10″	1′ 45″	2′ 20″	2′ 55″	3′ 30″
36	0′ 36″	1′ 12″	1′ 48″	2′ 24″	3′ 0″	3′ 36″
37	0′ 37″	1′ 14″	1′ 51″	2′ 28″	3′ 5″	3′ 42″
38	0′ 38″	1′ 16″	1′ 54″	2′ 32″	3′ 10″	3′ 48″
39	0′ 39″	1′ 18″	1′ 57″	2′ 36″	3′ 15″	3′ 54″
40	0′ 40″	1′ 20″	2′ 0″	2′ 40″	3′ 20″	4′ 0″
41	0′ 41″	1′ 22″	2′ 3″	2′ 44″	3′ 25″	4′ 6″
42	0′ 42″	1′ 24″	2′ 6″	2′ 48″	3′ 30″	4′ 12″
43	0′ 43″	1′ 26″	2′ 9″	2′ 52″	3′ 35″	4′ 18″
44	0′ 44″	1′ 28″	2′ 12″	2′ 56″	3′ 40″	4′ 24″
45	0′ 45″	1′ 30″	2′ 15″	3′ 0″	3′ 45″	4′ 30″
46	0′ 46″	1′ 32″	2′ 18″	3′ 4″	3′ 50″	4′ 36″
47	0′ 47″	1′ 34″	2′ 21″	3′ 8″	3′ 55″	4′ 42″
48	0′ 48″	1′ 36″	2′ 24″	3′ 12″	4′ 0″	4′ 48″
49	0′ 49″	1′ 38″	2′ 27″	3′ 16″	4′ 5″	4′ 54″
50	0′ 50″	1′ 40″	2′ 30″	3′ 20″	4′ 10″	5′ 0″
51	0′ 51″	1′ 42″	2′ 33″	3′ 24″	4′ 15″	5′ 6″
52	0′ 52″	1′ 44″	2′ 36″	3′ 28″	4′ 20″	5′ 12″
53	0′ 53″	1′ 46″	2′ 39″	3′ 32″	4′ 25″	5′ 18″
54	0′ 54″	1′ 48″	2′ 42″	3′ 36″	4′ 30″	5′ 24″
55	0′ 55″	1′ 50″	2′ 45″	3′ 40″	4′ 35″	5′ 30″
56	0′ 56″	1′ 52″	2′ 48″	3′ 44″	4′ 40″	5′ 36″
57	0′ 57″	1′ 54″	2′ 51″	3′ 48″	4′ 45″	5′ 42″
58	0′ 58″	1′ 56″	2′ 54″	3′ 52″	4′ 50″	5′ 48″
59	0′ 59″	1′ 58″	2′ 57″	3′ 56″	4′ 55″	5′ 54″
60	1′ 0″	2′ 0″	3′ 0″	4′ 0″	5′ 0″	6′ 0″

Beneath the frame, in italic, the author sets a note on the table's use:

This table has been added so that the difference may be looked up down the side, and the ten-minute steps adhering to the degrees at the head; the single units, however, are taken from the preceding table, though with the denomination of its figures shifted — what that table offers as minutes becomes seconds here, and its seconds become thirds. Whatever is drawn out at the common angle is minutes and seconds, to be added to the proportional part already found above for the whole degrees. Suppose, for example, that the centre is 90° as before, and that 32′ adhere to the anomaly of the Moon previously given as 207°. It appears that 26′ of difference, under 30′ adhering to the intercepted degrees, answer to 1′ 18″; and that the two minutes give, in the preceding table, 5″, the thirds being discarded. The resulting 1′ 23″, added to the earlier equation of 13° 57′ 24″, make that same equation 13° 58′ 47″.

The use of the tables here set out, in finding the Moon's true motion for any given time, is this. **First**, for the astronomical time of the Julian year — as it is given incomplete, in years, months, days and hours — the mean motions are to be looked up in the preceding tables and gathered separately, as is taught in the 8th precept of the Prutenic Tables [*Tabulae Prutenicae*]. Next, the sixth table, of the equations of ☽, is to be consulted with the mean centre down the side and the anomaly at the head, and the Moon's prosthaphaeresis [*prosthaphæresis*] taken from the common angle; this is always to be added to the Moon's composite motion, with a careful search for the proportional part, which has already been dealt with at the tables themselves. And **third**, from the seventh table, which completes the true motion of ☽, under the given hundredth year at the head and the remainder down the side, the minutes to be added are to be taken from the common angle; these, with the rest, complete the Moon's true motion. Suppose, for example, the year 1600 and the first day of it, for which the Moon's true motion is to be found.

First, then, from the first table I take these motions:

	Centrum ☽	Anomal. ☽	Compoſ. ☽
Anni 1600	255° 1′ 37″	48° 34′ 2″	227° 18′ 41″

Next, in the sixth table of the equations, having looked up the centre 250° down the left side and the anomaly 45° at the head, I compare — for the proportional part to be sought on account of the centre — the common angle 5° 59′ with the next one, 6° 10′. The difference of 11′ I then look up in the penultimate table under 5 degrees, by which the centre of 255° overruns the tables; it yields 5′ 30″ to be added, so that the first corrected equation is 6° 4′ 30″. Then, for the proportional part to be sought on account of the anomaly, I compare the angle 5° 59′ with the one across from it, 5° 32′, and I look up the difference of 27′ under 7° 8′, the double of the residue of anomaly 3° 34′. There are shown 18′ 54″, and likewise 6″, both to be subtracted; so that the fully corrected equation stands at 5° 45′ 30″, to be added to the Moon's composite motion. The motion of ☽ is therefore 233° 4′ 18″ [?].

Third, so that it may come out true, I consult the seventh table and take from it the completing minutes, 30′; and when these are added to the Moon's motion the Moon's true motion emerges as 233° 34′ 11″ — that is, the Moon stands in Scorpio ♏, 23° 34′.

Let the Moon's true motion be sought in the same way for the beginning of the year 1609. First the mean motions are to be gathered thus:

	Centrum ☽	Anomal. ☽	Compoſ. ☽
Anni 1600	255° 1′ 37″	48° 34′ 2″	227° 18′ 41″
9	246° 21′ 24″	117° 39′ 55″	123° 59′ 1″
	141° 23′ 1″	166° 13′ 57″	351° 17′ 42″

Then, with the help of the centre and the anomaly, the equation to be added is to be sought; corrected properly throughout by the proportional parts, it comes out as 8° 26′ 31″. Third, the completing part is to be investigated, which is 27′ 56″. From this the Moon's true motion rises to 0° 12′ 9″ — that is, the Moon is in Aries ♈ 0° 12′.

For the first of May of the same year 1609 the Moon's motion is found in this way:

	Centrum ☽	Anom. ☽	Compoſ. ☽
Anno 1609	141° 23′ 1″	166° 13′ 57″	351° 17′ 42″
Majus	45° 46′ 46″	127° 47′ 53″	141° 10′ 2″
	187° 9′ 47″	294° 1′ 50″	132° 27′ 44″
Æquatio			16° 10′
Pars abſolvens			27′ 56″
			149° 5′ 40″

or 29° 6′ of Leo ♌.

There is no need to heap up more examples here, since from these few anyone can work out others on the same plan.

Everyone practised in astronomical study will notice how much of a shortcut there is in these tables — so much that a more convenient one is scarcely to be had. Magini therefore lies outrageously when, with all shame cast off, he writes arrogantly that it was under his lead that I came to the construction of the Ephemerides — I, who can see almost no shortcut in his tables at all; and if there is one, the working through of so many pages consumes and overturns it again in its turn. Let guides of that kind fare well — men who know no better shortcuts and yet set up to instruct others; for my part I recognize no such guides. But let us go on to what follows, where Magini draws this inference from Fincke's letter:

> Look at a truly candid man, Origanus. Fincke too had made an Ephemeris for the year 1582, printed that same year at Strasbourg [Argentorati], and he would beyond doubt have carried it on over

> more years, had he not — out of that remarkable sincerity of his — judged mine to be such that it was not open to him to spend his time for nothing in computing his own. Who could have dissembled all this better than he? He had brought out that Ephemeris of his at the very time I brought out mine; he had begun it a year after me; the envy of others and their perverse promptings came in as well — and even so he did not allow himself to be induced to defend his own cause, which everyone might have thought the better.

For my part I readily excuse Dr Thomas Fincke for not continuing the Ephemerides he had begun once he had seen yours — above all because his medical studies drew him away from that heavy and thoroughly vexatious labour. So too I judge that he acted on some plan of his own, and perhaps for friendship's sake, when he decided that yours called for no polishing; particularly as he did not examine them carefully in every place. Had he examined them throughout, as he ought, he would have judged very differently. You then seize your opportunity and treat that as the finished and final verdict of so great a man — you call it sincerity of mind — and here you lay bare the arrogance you have already displayed plainly enough above, so that it stands out as clearly as anything the eyes can see. For you write boastfully, like some Thraso [the braggart soldier of Terence's *Eunuchus*], that your tables are such that neither he nor anyone else was free to compute other ephemerides. But I judge neither yours nor mine to be of that kind, as though it were not open to anyone to compose others at his own discretion; since, as I remarked a little earlier, it is a good thing for several people to be busy working over the same matter, so that it may be laid before others as polished and as adequately explained as possible. And yet at last, after you had struggled long enough and in vain to show that I had done wrong in writing other ephemerides after yours, you fall back on this:

> But however that may be — since it matters little to me whether you undertook the labour out of envy of others, or out of your own, or even for the sake of gain — let us go on with what concerns our own business.

And yet that sentence too is not free of glaring slanders. For you heap up false motives on every side and slander the grounds on which I came to the making of ephemerides, when you say that I took up the labour of composing them moved and drawn on by envy — my own or other men's — or else for gain. And this although I have shown and driven home more than enough that I bore that whole labour for the public good, or for the sake of the public benefit, so as to oblige the lovers of the stars in this department. Anyone can gather as much from the fact that I have proved that your Ephemerides long escaped my notice and were altogether unknown to me; and that when at last they were put in my hands, they proved to be such as could not draw me away from a like labour. For your glaring errors, which I shall display shortly, not only steadied me when I was wavering over the earlier edition, but above all

moved me to this present edition of the Ephemerides — in which you certainly see much that is lacking in yours. But we shall look at what follows in your own text as well, where you intimate that you are now taking up chiefly the matters that concern your own case.

> In these, [you say,] certain things by no means to be overlooked are found wanting in my Ephemerides, and you are brought to hope that I shall not take it ill if you warn the reader of them. For my part, in keeping with that courtesy which you yourself attribute to me, I shall gladly acknowledge any true errors you have noted; and since they are rather slight, I am confident that when I have shown the students of astronomy that you have committed graver ones, they will readily excuse me. It would indeed go badly with me if the same charges could be brought against me as against you — that you are ignorant, that is, of the laws of the planetary theorics and of the motions of the planets. For on page 269 of your *Introductiones* you lay it down that a trine aspect occurs between ♀ and ☿, although the theorics do not allow these planets to be elongated from one another by more than about 79 degrees; in the same place you likewise admit a trine and a sextile between ☉ and ♀, though that same ♀ can never range beyond 50 degrees from the Sun; and on the following page you presuppose that ☿ can form a quartile, a trine and a sextile aspect with ☉ — even though in fact ☿ never departs more than 29 degrees from the Sun. This, Origanus, is to blunder against the principles of the art; and your own most grievous blemishes are not to be set beside slips of three or four minutes.

In these words you display your arrogance once again, as you have often done before, but here joined with a shameful ignorance and crudity. Arrogance, in that you write that — in keeping with that courtesy I earlier credited you with, though I now find you altogether undeserving of it — you are willing to acknowledge the errors I pointed out, when in fact you do nothing of the kind: swollen with pride, you keep most of the mistakes, excuse them ineptly, and merely traduce what I have done by slander. Crudity, in that you show you do not grasp the difference between the disciplines.

You ought to have known — you, a man who wants a place among the learned — that commonplace distinction between astronomy and astrology, familiar even to beginners in mathematics: the distinction between that mathematical science which sets out and explains the laws of the motions and of the times, and that conjectural physical art which, from the position of the stars taken singly or in combination and from the physical qualities that our forebears, taught by long experience, assigned to the stars, comes to know future outcomes and judges of them by rule. You shamefully confuse these two very different bodies of doctrine when you trifle that I spoke as an astronomer of things I put forward as an astrologer.

Astrologers write — and I with them — that in nativities all the planets are advanced from their radical place by one degree a year in directions, whether in the order of the signs or against it, and by a whole sign in profections. For it is known from astronomy that the motions of the planets differ very widely: the Sun, ☿ and ♀ cover only about a degree a day, the rest much less, the Moon more; Jupiter alone traverses nearly a whole sign in the space of a year, Saturn 12 degrees, and the others several signs — indeed the whole zodiac several times over.

Astrologers write too — and I affirmed the same thing with them in the earlier edition of my Ephemerides, in the last chapter of the first member of the third part of the Introduction, which treats of astrology, and I repeat it in this edition at the corresponding place, page 438 (for I would not have you persuade yourself that I was in error) — that Mercury and ♀ do come to sextile, □, △ and ☍ with ☉, and likewise to rays between themselves, in directions, profections and transits; whereas, in considering the motion astronomically and simply, as the second part of the Introduction sets out, I have nowhere proposed that sextile, quartile, trine or opposition aspects occur between ☉ and ☿, or likewise between ☉ and ♀, or even between ♀ and ☿ — between which last pair a sextile is indeed sometimes given, but □, △ and ☍ are not.

Either, then, you have stumbled shamefully here, Magini, out of some inexperience and ignorance of the distinction I have described; or else, against your own conscience and with the single aim of slandering me — which would certainly be no part of an honest and candid man — you have fabricated these charges against me, so as to beg unfavourable judgments of me and of my teaching from the unwary, and somehow to clear yourself of your own errors. But believe me: with men of understanding, who read and weigh these very pages carefully, you will gain nothing whatever.

You return at last to the remaining part of my letter, in these words:

> But I now bring forward the other part of your letter.
>
> > First, then, it appears — and it is plain to anyone who weighs the calculation carefully — that Magini, in working out the motions, has used 50^m for the difference between the two meridians of Königsberg and Venice, which is 35^m of an hour: the addition being of the size that the Catalogue of Places appended to the Prutenic Tables themselves gives, and that he has accordingly laid it down that Venice lies 50^m of an hour to the west of the meridian of Königsberg in Prussia. Yet once he had detected that this difference was erroneous, he altered it in the Index appended to his Ephemerides, and set down only 35 minutes.
> >
> > Hence the motions of the planets themselves — above all the Moon's, which is the swifter, and in which this difference is chiefly to be seen — depart by a quarter of an

hour from the calculation of the Prutenic Tables. So that if the motions had to be sought from his Ephemerides for the meridian of Königsberg, or for our own of Frankfurt, or for any other whatever, an error of a quarter of an hour would be committed. And since this error presents itself in all the motions of the planets throughout the whole of Magini's work, who will not judge that it must be carefully guarded against?

To avoid it, I for my part not only searched out with the utmost care the epochs of the mean motions suited to our meridian for the beginnings of the years, and took care to set them out at the head of each Ephemeris — so that from them, by adding the mean motions belonging to the months and days of any proposed year, both those mean motions themselves and, from them, the true motions for those times might be found more easily — but also, so that our Ephemerides might be fitted to other places both better

and more safely, I derived the difference of the meridians from our own as exactly as I could in the Catalogue of Places, which we present in the fullest form, and converted it into time, following the most recent edition of Apianus's *Cosmographia* as enlarged and corrected by Cornelius Gemma. If some error betrays itself in that Catalogue, I would have it charged not to me but to the imperfect state of geography. For so great a disagreement arises among authors over the description of places that in no other matter is a greater one to be found. The restoration of geography calls not for the labour of one man but for the careful observations of many, living in different places, so that by collating them the true difference of the meridians may at last come to light. Still, the best course is to follow some one author of geography, and that a tested one, since different writers use different starting points from which they reckon the longitudes of places, so that one gives a place a greater and another a smaller longitude, according as he sets the prime meridian beyond the Fortunate Isles or within them.

In all that I have set out up to this point, I gave warning chiefly of four things. **First**, that Magini computed his Ephemerides for the meridian of Venice, which he removes 50^{m} of an hour westward from Königsberg, whereas in his Catalogue of notable places he makes it only 35 minutes further west.

That he has committed an enormous error in this I show by the following argument:

> Whoever separates things that answer to one another and necessarily agree among themselves — that is, teaches that they differ — errs notably.
>
> Magini separates the calculation of the planets and the guide to that calculation, namely the Catalogue of Places, two things that necessarily answer to and agree with one another — that is, he teaches that they differ.
>
> Therefore Magini errs notably.

I prove the minor premise: because he lays down in the Catalogue of Places one difference of longitude, and a different one for which he worked out the calculation of the planets' motions. For he directed the calculation of the planets' motion — as he himself admits, and as I showed more fully towards the end of the first part of this Introduction of mine — to a difference of meridians of 50^{m} between Venice and Königsberg, while in the Catalogue of the first edition, which I attacked on this head too, he puts that difference at only 35 minutes. Anyone, then, who weighs the matter sees that Magini has gone astray by a quarter of an hour; for 35^{m} differs from 50^{m} by 15 minutes.

Secondly, I gave warning that I had carefully guarded against that error, since on the assumption of the very difference I set out in the Catalogue I derived the mean motions for the time of the meridian on the first day of each year, and from these at length gathered the true motions as well.

Thirdly, that in the Catalogue of Places I followed the most recent edition of Apianus's *Cosmographia* as recast by Cornelius Gemma — from which, however, as I rightly acknowledge, I departed in a number of places both in this edition and in the earlier one: I made changes where places near at hand became better known to me from experience and from the comparison of journeys, and where I learned from the *Geographia* of Petrus Plancius that matters stand otherwise in more distant regions. Anyone will be free to do the same who finds more certain determinations than mine. For I myself declare that, amid so great a disagreement among the authors who have written on geography, it is difficult to establish anything certain about the difference of the meridians.

Fourthly, I showed that it is good to follow the determinations of longitude of one author, and not of several at once, since different writers use different starting points from which they reckon the longitudes of places.

Magini passes over the last three and treats the first at length. At the outset he writes that he had long since answered Giuntini in this same business:

> To the same objection, once made to me by Francesco Giuntini [Francisco Junctino], I replied in these words in my *Astrologia*, printed at Padua in 1584. But why do I waste time defending Apianus's opinion, when I myself assumed a longitude of 34 degrees rather than his? — though at that time I did not know it, and of that I am neither ashamed nor sorry. For when I was deriving

the radices of the celestial motions of the Prutenic Canons for the meridian of Venice, I supposed with Apianus that the longitude of Venice was 32½°, and that Reinhold [Erasmus Reinhold] had taken the longitude of Königsberg as 45 degrees, since nowhere (so far as I could see) does he give the longitude of his own city in degrees. I therefore noted a difference of 50^{m} between the two meridians, as Reinhold himself left it recorded in the Prutenic Tables; and the truth of this will be established from my radices reckoned for the year 1581 and set at the beginning
of the said year 1581 in my Ephemerides, if an operation of this kind be repeated. But I have now noticed that Reinhold took the longitude of Königsberg from Gemma Frisius as 46° 45′. It appears that a certain other writer supposed the same, since between Tübingen and Königsberg he notes a difference of 1^{h} 8^{m}, to which difference 17 degrees on the equator correspond; and if these are added to the longitude of Tübingen, 29° 30′, as he himself holds it to be, the longitude of Königsberg comes out at 46° 45′, just as Gemma also noted it. So if the same difference of 50^{m} between the meridians of Königsberg and Venice, as I took it, be converted into degrees of the equator, 12½° result; and when these are subtracted from the 46° 45′ of the supposed longitude of Königsberg, the remainder will be 34° 15′ for the longitude of Venice. But if you accuse me of error once more, because I put the longitude of Venice in my Catalogue at 32½° when I nevertheless constructed the Ephemerides for a longitude of 34 degrees, my answer will be this: that since I had determined to follow Apianus's table, it was not inconsistent to take the longitude of Venice according to Apianus as well, and so to compare it with the other places he sets down, in order to draw out the difference. Had I not done so, I should have misused Apianus's description, since he puts not only Venice but at the same time the other places too at a smaller longitude than others give them; for otherwise I should have had to take greater longitudes for the remaining places, and so on.

From this answer of yours to Giuntini, Magini, I see that you are anxiously casting about, to no purpose, for a way of slipping out. You accuse yourself more than you excuse yourself. But come — I will show you where you are stuck. You composed your Ephemerides, Magini, for the difference of longitude of Venice, which is removed 50^{m} of an hour westward from Königsberg, as the Catalogue appended to the Prutenic Tables itself taught you. You admit, unwillingly, that you did this under the guidance of that Catalogue — though I do not see for what reason — while first producing discordant statements about the longitude of Venice, by which you shamefully confound yourself: namely, that you supposed it to be 34 degrees rather than Apianus's 32½°, although you did this by chance and were then unaware for which longitude you had

computed the motions; that at that time you thought the longitude of Venice was 32½°, and that Reinhold had taken the longitude of Königsberg as 45 degrees. So you write that, contrary to your own opinion and out of a certain ignorance, you assumed the greater longitude of 34 degrees for Venice in your calculation. Afterwards, though, you confess the very thing I wanted: that you used the Catalogue of the Prutenic Tables.

Now this too you ought to have shown — and Giuntini, no doubt, required it of you as I do: why you altered that difference in your Catalogue of Places and made it only 35 minutes. But on that you keep a cunning silence. For you cannot extricate yourself; you stick fast like a mouse in pitch. And so, to look as though you were doing something, you run to Gemma Frisius, who puts the longitude of Königsberg at 46° 45′. You do not hesitate to call in Mästlin [Michael Mästlin], the mathematician of Tübingen, as well — though you blush to name him, so far does his authority tell against you — and from his Ephemerides, printed at Tübingen in 1580, you confirm the same longitude of 46° 45′ for Königsberg. For since Mästlin puts the difference of longitude between Königsberg in Prussia and Tübingen at $1^h\ 8^m$, and sets the longitude of Tübingen at 29° 45′ (not 29° 30′, as you erroneously have it), it is plain that by adding 17 degrees the longitude of Königsberg comes out at 46° 45′. Hence, if the difference of the meridians between Venice and Königsberg is 50 minutes, the longitude of Venice will be 34° 15′. But what, I ask, do these things contribute to settling the controversy? Nothing at all. You are still stuck, like a feeble fly wrapped in a spider's web.

Nor are you freed from the error by the excuse with which you appeal to Apianus's tables — tables you claim to have followed carefully in everything, so that no discrepancy should arise in the longitudes of the remaining places — the error being that, with your Ephemerides computed for a longitude of 34 degrees, you nevertheless put the longitude of Venice in the Catalogue at 32½°. For this ought first of all to have been shown at once: why you stumbled on the very threshold, and why, with the Ephemerides computed for a difference of longitude of 50^m between Venice and Königsberg, you nevertheless made that difference only 35 minutes of an hour in the Catalogue of Places. Whether you used Apianus's description rightly or misused it, you still ought to have explained your mind openly and shown what reasons moved you to the discrepancy I have spoken of. Since you neglect to do this, you do indeed stir but advance nothing; that is, you pour out useless words and talk nonsense. In what follows you speak of me in this way, Magini, as though the business had been finished well and brilliantly.

> These things, if Origanus saw them, he certainly ought — unless he is utterly shameless — to have refrained from such quibbling; and if he denies having seen them, I do not see with what face he can deny that my *Tables of the Secondary Mobiles* were seen by him. For I am of this opinion, that they were of no small help to him in going over my Ephemerides. And if that is so, the eighth Canon

> of the said work cannot have escaped him, in which I discussed a good deal about this same longitude of the meridians. But so as not to seem to trouble the reader with tedious repetition, I deliberately pass that over now.

All of this teems with slanders and lies. Even granting that I had seen what I have not seen, there would still be no ground on which you, Magini, could justly accuse me either of shamelessness or of quibbling with you. I have shown that in what precedes you have not touched the point at issue in the least, and that you have not yet cleared yourself of having set down one difference of meridians in the Catalogue of Places and computed the motions to another. My own view is this: the meridian of Venice is not rightly placed in the tables — and I see you yourself establishing as much in what follows, since you separate it from Königsberg by 37^{m}. But why you computed the motions to a difference of 50^{m}, and afterwards thoughtlessly made that difference 35^{m}, is the very thing in dispute between us. While you hunt for escapes and hiding-places, and bring forward abuse rather than anything bearing on the matter itself, you show plainly enough that you are drunk with the lust of slandering, and that your judgment has failed you, so that you rage instead of arguing. Next you appeal to your *Tables of the Secondary Mobiles*, which you produce and hawk so boastfully, as though it were by their help that I had not composed new Ephemerides of my own but merely gone over yours. This, Magini, is to lie and slander with a most shameless mouth. I would refute you at greater length on these points, had I not already applied the branding iron to your conscience and shown abundantly in what precedes that I used better shortcuts than those you have in the patchwork of your tables; and this too is quite certain, that your wounded conscience is already telling you something else, and that your deed is common knowledge on every side, along with that boastfulness of yours to which lying is always joined. I have indeed seen those patchworks of yours, but I found nothing in the eighth Canon by which you could clear yourself. This one thing only do I find you confirming — the thing I have driven home again and again: that you computed the Ephemerides to a difference of longitude of 50^{m} between Königsberg and Venice. But whether in this you did rightly or not, you yourself doubt in what follows, which must also be weighed. You go on:

> But perhaps Origanus will object that Reinhold [Erasmus Reinhold] assumed the longitude of Königsberg in Prussia as 45° 15′, since that place lies close to Frombork in Prussia, whose longitude according to Copernicus is 45° 30′; and next, that the same Reinhold made the longitude of Venice 32° 45′ — as may be seen, if from the meridian of Königsberg at 45° 15′ one subtracts 12° 30′, the equivalent of fifty minutes of time. But that this is falsely inferred by Origanus will be proved by the difference of time set down by Reinhold in his Catalogue of Places in the Prutenic Tables, opposite Alexandria, as 55^{m}. For since the longitude of that city is granted, by the common

> opinion of all along with Ptolemy, to be 60° 30′, then when 13° 45′ — which answer to 55 minutes of time — are taken from it, the longitude of Königsberg will come out 46° 45′. From this it is clearer than the noonday light that Reinhold computed his tables to a longitude of 46° 45′, and that our Ephemerides agree with the meridian of 34° 15′: which is the value we have followed, on the common consent of the most approved writers, as best suiting the city of Venice.

You deal with me here, Magini, out of certain hypotheses that you invent and assume at your own pleasure; and by them you so confirm my view and refute your own that I wonder you should slide into such madness. First you bring forward certain longitudes — the first Königsberg at 45° 15′, then a second, Frombork in Prussia at 45° 30′ on Copernicus's view — neither of which you will find anywhere assumed by me. From these you also gather a third, Venice at 32° 45′, from the difference of time of 50^{m} which on your reckoning falls between Venice and Königsberg. Then you say that these things are falsely inferred by Origanus. But neither these nor anything like them about the longitudes of places has Origanus brought forward — as you yourself sufficiently prove by your own hesitation, when you write *But perhaps Origanus will object*, and so on. Empty, then, and inept is that refutation of yours which you fetch from the longitude of Alexandria in Egypt. And the spectators of us both are, along with me, right to laugh at you for fighting me in the manner of the *andabatae* — the blindfolded gladiators — and against me, far away, whom nevertheless, now in front, now on the right, now on the left, as pre- sent you picture to yourself — and foolishly and to no purpose you hurl and brandish your darts. But I shall aim at your own throat with your own hypotheses. Suppose I had put forward what you have assumed, and had made the longitude of Venice 32° 45′: then I should certainly differ from you by no more than one minute of an hour — from you, who judged that longitude to be 32° 30′ when you were deriving the radices of the mean motions of the Prutenic Canons for the meridian of Venice, as the Catalogue of Places in the first edition of your Ephemerides plainly shows. Yet you yourself declare that you did this out of ignorance, and that the longitude is either 34°, as you put it at the outset, or 34° 15′, as a little before, or 34° 50′, as you establish it a little later. This is that mathematical consistency of yours which you parade before the world.

I am astonished, too, that you should throw at me the difference of longitude which the Prutenic Tables allege between Königsberg in Prussia and Alexandria in Egypt, 55^{m} — a difference I by no means adopt in my Ephemerides, where I make it $1^{h}\ 1^{m}$ — and so bind me in turn to what I nowhere wrote. If you had had any mind to deal frankly with me, you would rather have compared my own figure, the difference of $1^{h}\ 38^{m}$ which I set in my Catalogue between Alexandria and Frankfurt, with yours, where you make $1^{h}\ 52^{m}$ between Venice and Alexandria; and you would have found that, once the 50^{m} are subtracted by

which on your own calculation Venice is distant from Königsberg in longitude, there remains to you $1^h\ 2^m$, whereas for me, once the 37^m are subtracted that lie between Frankfurt and Königsberg, there remain $1^h\ 1^m$ — which is the difference between Königsberg and Alexandria; and you would then have found that here again we differ by a single minute of an hour and nothing more. But it pleased you, lacking any just defence, to beat the air in gladiator fashion and with your eyes shut, so as to show others that you are not altogether ignorant of the gladiator's art. You add:

> Whether the longitude of Königsberg is 46° 45′ I would not venture to determine, especially since I see that most learned man, most skilled in all geography, Gerardus Mercator, place Königsberg at about 44° 10′ — with whom I rather agree — and likewise set the meridian of Venice at 34° 50′; so that on his opinion the difference of the two meridians will be 9° 20′, that is, 37 minutes of time. And if that is so, it will be evident that it is not I who went astray in the meridian of Venice, but Reinhold in taking the longitude of Königsberg, and that his tables suit not Königsberg, as he himself believed, but rather some other meridian, one of 45° 45′[5].

Here at last you doubt the very things you spouted out against me at such length, and you labour to determine what the true longitude of Königsberg is — and this with the aim that, having seen that the earlier road was not convenient for you but too rough, and that it hurt you, you might take another and look for an escape in your bad cause. But believe me, this road too will wound you in the end, and will drive you into such straits that, unable to prevail by your own strength, you will implore the help of others in vain, and will be seen to shield yourself in vain behind other men's writings and testimonies as behind a buckler. You call the longitude of Königsberg into question on the authority of the German Netherlander Gerardus Mercator, a geographer learned beyond all cast of the dice, with whom you write that you agree — merely so that you may set German against German and Mercator against Reinhold, and slip away yourself while they fight it out. But they have no wish to fight, and I hold you, Magini, so that you shall not escape so easily. First, then, I make this point: you do badly to set these two excellent men against each other, when their aim is different and they use different principles — Mercator in describing the earth, Reinhold in describing the celestial motions. For Gerardus Mercator established his new *Geography* in a way of his own, and not wholly out of what Ptolemy handed down, while Erasmus Reinhold derived his Prutenic Tables from Copernicus's observations of the celestial motions; nor will any mathematician grant that the longitude of Alexandria, as Ptolemy proposed it, is the foundation of both, and that both agree in that foundation. Next, though I readily grant that Reinhold may be said to have

[5]so printed; in Magini's words quoted before and after this passage, the longitude to which Reinhold's tables are said to agree is 46° 45′

had regard to the longitude Ptolemy assigns to Alexandria — since he cut by 5 minutes the difference of longitude of one hour which Copernicus put between Frombork and Alexandria, by which he makes Königsberg more easterly than Frombork, so that on his reckoning Königsberg stands 55^{m} from the meridian of Alexandria — still I truly deny that the same can be asserted of Mercator. For in the old *Geography* he does indeed agree with Ptolemy, since he undertook to expound him; but in the new one, fitted to the places of these times, he seems to dissent. Nor, for brevity's sake, do I say more now. Badly, then, does Magini seek his escape through these men; he strips his own Ephemerides of their foundation and prepares them for ruin. For if the difference which Gerardus

Mercator sets between Venice and Königsberg, 37^{m}, is the true one (for it is to him, Magini writes, that he rather assents), then the other, the 50^{m} which Reinhold established and Magini used, will be false; and the motions of the planets — and among them chiefly the swifter motion of the Moon — will depart from the truth itself in Magini's hands. This is what I set out in my Letter to the Reader on just grounds, with no slander at all, out of a single zeal for the truth.

I ask you now, then, Magini: who led you into that error, so that you computed the motions to a difference of longitude of 50^{m}, when you acknowledge a difference of only 37^{m}? Here, because you cannot get free otherwise, you lay the blame not on me nor on my Ephemerides, but on our own common teacher Reinhold, as though he had led you into error and were the cause of your mistake. And yet, wanting to escape the disgrace of having been misled by him, you do not dare to profess it openly; rather, to give rein and satisfaction to your pride and arrogance, you do not blush to accuse Reinhold and to write that he strayed shamefully from the way of truth. This is the gratitude you repay to teachers who have deserved so well of your studies. But how justly you do so, and how thoughtlessly you slander me too — me, who out of zeal for truth pointed that error out to you — in that abusive book of yours, is shown abundantly, and clearer than the noonday light, by your latest edition of the Ephemerides published at Frankfurt am Main by Schönwetter. For convicted in your own conscience, and beyond doubt brought to repentance, though far too late, you have at last retracted and corrected that error you committed, and have taken care to prefix to your Ephemerides another directory of the motions, a Catalogue of Places much different from the first and much in agreement with my own view.

To you, then, kind reader, I now turn, and I beg you most earnestly — indeed I implore you — that when you have carefully examined everything, you would at last decide whether Magini has released and freed himself from this first error which I charged against him, namely that he computed the celestial motions from the Prutenic Tables to a western difference of 50^{m} while in the Catalogue he proposed a difference of only 35^{m}; and whether he has not rather trifled — indeed, whether by the slanders he vomited out against me, an innocent man, he has not wrung this harsh reply from me. For surely anyone

in my place would by no means put up with such things and bear them, but would hurl back worse. And since Magini is not yet quiet, but contends that I too have erred in the difference of the meridians, well then — let us look at his demonstration.

> That you, Origanus, have not used but abused the Prutenic Tables, no one fails to see. For you presuppose that they were constructed for a longitude of 45° 15′, when in fact, as I showed above, they agree with 46° 45′. And so you wander from the true calculation by six minutes of time; and you computed your Ephemerides not for 36°, as you say, but for a longitude of 37° 30′. Then, since you assert that the longitude of Venice is more easterly than your own meridian of Frankfurt by a quarter of a degree, you must also grant — falsely, though necessarily — that the meridian of Venice is 37° 45′. Hence if anyone were to follow the motions of your Ephemerides for the meridian of Venice, or of any neighbouring place, he would stray by a quarter of an hour from the true Prutenic calculation. Not that on that account, if you had published Ephemerides before me, I would have slanderously declared that they must be either corrected or — as you say of mine, both too boldly and too shamelessly — rejected.

No demonstration can be given feebler or more inept than this one of yours, which you think so manifest from what you have said before that anyone may now see that I have not used but abused the Prutenic Tables. For the six minutes of an hour which you work out to have been set smaller than, on your own judgment — or rather your own hypothesis — they had to be set between Frankfurt and Königsberg, you take falsely not from the longitudes of those places but from the supposed Ptolemaic longitude of Alexandria. But I maintain that the longitude of Frankfurt is rightly placed, and on your own testimony at that: for not only did you couple it with the meridian of Venice in the earlier edition of your Ephemerides, set up at Venice in the year 1582, but in this very fable [Apologo] of yours you remove the difference of the longitude of Venice from Königsberg by 37^{m}, just as I removed Frankfurt from the meridian of Königsberg by 37^{m} on Reinhold's view as expressed in the Prutenic Tables. And you ask of me in vain that I should rectify the longitude of Venice for you, when you cannot do it yourself, though you have both your homeland and your dwelling in its neighbourhood. So here at least you are trifling, and are trying to deceive the unwary and those who do not understand this business. But believe me: though you press the truth down, you will never crush it. At the end you add that I wrote that your Ephemerides must be not merely corrected but rejected — and that impudently enough. But you will never point to the place. So sweet is lying to you, if only you can drag me into other men's hatred. But other men have eyes too; they believe what they see, and it is not in your lies that they so easily put faith. Let us pass on to the

second error, in connection with which he brings in my earlier Letter, making it speak as follows.

> Secondly, when one compares more carefully the planetary motions computed by Magini [Giovanni Antonio Magini] against the Prutenic Tables themselves, it becomes plain that Magini — whose diligence in computing is elsewhere evident enough — was not everywhere so lynx-eyed as ephemerides require. Ephemerides are treated as the standard of motions and times, and the general run of astronomers and astrologers follows them as it would the statues of Mercury [*statuas Mercuriales*]; they ought therefore to be worked out by the most exact calculation. To take an example: leaving aside the other errors that turn up here and there, the year 1608 alone can serve us. In that year, not only in Jupiter, on 21 July and on several days before and after it, is the motion given by Magini 4 first minutes greater than it should be. And in Mars, in the same month of July, on the 23rd and on several days before and after, the motion is found 4 minutes smaller than the Prutenic calculation shows. In Mercury, in the same month of July, right at the outset, the motion comes out 8 minutes too small. And in the Moon, in the same year, at the beginning of May, the lunar motion Magini sets down exceeds the true calculation by several minutes.

What I wrote about your Ephemerides bears me public witness, not only with you but with anyone else you please, that I nowhere asserted — indeed, with my own conscience as witness I can affirm that it never entered my mind — that your work should be thrown out. I stated plainly that your diligence in computing is sufficiently evident throughout; and so as to leave your Ephemerides their own place and their own praise, I even commended them in what went before, when I wrote that they agree in most respects with mine, being derived from the same foundations. That you have not everywhere worked them out by exact calculation, and that human errors turn up here and there in them — this I noted modestly, and for a single year only, and for a year in which you had not gone far wrong. Nor do you dare deny that you erred. For you write:

> You have asserted that I erred here more truly than in the meridian of Venice. And frankly, I admit that I went somewhat astray in those places, and perhaps in certain others as well. For who is everywhere so perfect in all his numbers that he will deny he could have swerved from the true line of calculation — I will not say in matters like these, but even in greater ones? Certainly, unless you are the first of all who have ever worked in this kind of writing never to have erred, I cannot be brought to believe that anyone ever put together ephemerides free of serious slips.

In all these words I praise your candour; and had you shown yourself such throughout, I should never have blazed out against you with the vehemence

the preceding pages show. Nothing else provoked it in me but your own arrogance, which you have displayed openly, up and down, in this fable of yours [*apologus*] — written, perhaps, at the prompting of others as well. You could easily have gathered that it was not my purpose to hunt out your slips, since I touched on the errors of one year only, as I also declared at the end of my Letter. But since with an unjust appetite for retaliation you vomit up fresh slanders against me — that in the preceding years, which you too computed, I could easily have avoided errors by taking you for my guide, and that only in the last 10 years, from 1621 to 1630, do I at last display my diligence brilliantly — let us first consider your own charges against me, and afterwards set your errors and mine side by side. In your fable you go on like this:

> Your own diligence in computing, however, is not yet established, since you could either have followed my guidance without difficulty, or, if some error or discrepancy had been committed elsewhere, have submitted it to a second calculation and made every item agree by repeating the computation — unless perhaps you have displayed that diligence brilliantly in your later ten years. When I compared those years with my own decade, which I had already completed from the second edition of my Ephemerides, I found them so carefully constructed that I am not a little astonished at the face with which you could raise those trifling objections. That I finished that last part of the Ephemerides in those years, very many will testify who have seen it. But so as not to seem to detain the reader too long over these minutiae — and since you might object that the good faith of Italians is suspect to you — I bring forward one man who deservedly can suffice in place of all the rest: that most learned man Frans Tengnagel [Franciscus Tengnagelius], now son-in-law of that supreme man — while he lived — the restorer and prince of astronomy, Tycho Brahe. On his way to Rome about the beginning of the year 1599 — in February, if I am not mistaken — he both met me here at Bologna and at the same time brought me a letter from the illustrious Tycho, a copy of which will be appended below together with several others.
>
> But let us now look at the most exact labours of Origanus. First, though, I give the reader this warning, and press it on him, that he is not to put a sinister construction on it: I am passing over those slighter blemishes of four or five minutes which are very frequent in his Ephemerides, and am noting down only the graver ones, those that deserve some censure.
>
> First, then, in Venus: after the beginning of November in the reformed year 1623, and through that whole month, as well as through several following days, a marked difference from the calculation of the tables can be seen, which presently grows to 9 minutes. For on the 30th day of the said November he places Venus in 24°

19′ ♐ (Sagittarius), whereas by the calculation of the tables she is in 24° 28′.

2. In the same Venus, in the corrected year 1628, on 3 August he is 10 minutes out, since he puts her in 24° 12′ ♍ (Virgo), whereas by the calculation of the tables she is in 24° 2′; and he carries this error on for several days.
3. On the 24th of the same month and the same year he puts Venus herself in 6° 6′ ♎ (Libra), when she is in fact in 6° 17′; and so, decreasing from 11 minutes, he goes markedly astray through the remaining days of that August, and indeed in the following September the error is still visible, up to 6 minutes.

So much for the motion of Venus; now to Mercury.

4. In the year 1623, on 3 July of the Gregorian year, he exceeds the true calculation by 7 minutes. For he puts Mercury in 3° 15′ ♌ (Leo), when it is 3° 8′.
5. Next, in the month of July of the year 1625, right from the start he commits an error of 9 minutes, since on the second day of that month he allows Mercury 6° 21′ ♋ (Cancer), whereas the tables give the place as 6° 30′.
6. Again in that same month of July 1626 he goes wrong in the place of Mercury, falling short of the tables little by little over several days, until on the 20th day of the said month he shows the calculation 10 minutes smaller than it should be, setting Mercury in 13° 24′ ♋, where from the tables it stands at 13° 34′. In the same way, in the same year in the month of September, around the middle of it, an error of 7 minutes can be seen.
7. Besides this, in the corrected year 1527[6] he departs from the true calculation through the whole month of January and for several days of February, as may be seen from the 24th day of the former month, where he places Mercury in 7° 58′ ♒ (Aquarius), when it is 7° 50′; and so an error of 8 minutes is plain.
8. In the year 1628, from the end of April on past the middle of May, a discrepancy in the motion of Mercury is visible, running as high as 8 minutes, since he places it on the 10th of the said May in 10° 4′ ♉ (Taurus), when it ought to be in 9° 56′.
9. Lastly, in the Gregorian year 1630, in the month of January, Mercury is set by Origanus in 9° 36′, whereas by the calculation of the tables it is in 9° 42′ ♑ (Capricorn); so his calculation is 6 minutes smaller than it should be.

[6]so printed; a reformed-calendar year before the reform of 1582 is impossible, and the list otherwise falls in 1621–1630

Moreover, Origanus has committed errors in the Moon neither smaller nor fewer, and I now review most of them, leaving aside all those under six minutes which turn up here and there.

10. Thus in the reformed year 1624, on 31 January, he gives the Moon's place as 26° 38′ ♊ (Gemini), when it ought to be 26° 28′; and so he is 10 minutes out.
11. In the same year, on 9 March, he commits an error of 14 minutes, setting the Moon in 21° 22′ ♏ (Scorpio)[7], when she is in fact in 11° 8′.
12. Next, in 1625, on 21 January, he assigns the Moon a place in 9° 22′ ♋, whereas from the calculation it is found to be 9° 13′; and so he has slipped by about 10 minutes through several following days.
13. In the same year too, on 14 April, he puts the Moon in 22° 30′ ♋, when she truly is in 22° 24′; and so he makes an error of 6 minutes, and carries it on for several days.
14. Again in the same year, on 4 July, he sets the Moon in 10° 34′ ♋, when she ought to be in 10° 24′; and so he departs from the true calculation by 10 minutes.

For my part I too admit that, because of other occupations, I could not always bring to bear the diligence which must be at its highest in compiling ephemerides. We are men, after all, and to err is nothing foreign to us. Hence it came about that I admitted certain errors, not only in the later ten years, beginning from 1621 and running to 1630, but also in the earlier 26, which Magini published before me. Yet in the revision — which I undertook in the third year from the first publication, that is in 1601, and have continued down to the present time, together with an appendix of 24 years, the Tychonic motion of the luminaries, and eclipses both above and below the earth, every one of which I worked out in one piece — I noticed those errors long before Magini's admonition, and carefully corrected and emended them; so that I may with good reason call these second labours more chastened and more corrected. In you, Magini, I look for candour of judgment about both parts of my previously published Ephemerides. For in the earlier years, which you too published before me, you offend twice over. 1. You pass those years by as though nothing were to be found in them that called for the file; indeed you dare to write that in compiling them I either leaned on yours, or that, if any error or discrepancy had been committed in them, I could have submitted it to a second calculation and easily made every item agree by repeating the computation. That the case stands quite otherwise, the errors — many and grave — which I shall bring forward from your own work will prove more than sufficiently; for wherever any errors of mine occurred, I corrected them. Next, you offend in this too,

[7]so printed; the stated error of 14 minutes does not agree with the two places as printed

that you have not corrected your own errors, of which I noted at least a few out of very many, but have kept them as they were before.

By that very thing you assuredly and badly deceive those who use your Ephemerides. For to know an error, and not to amend it but to persist in it, is obstinacy.

As for the later years — and whether you calculated them before my edition I care little, though it is certain that they had not yet been made public — of the 14 errors you have collected from various years, five are printer's errors of one day only, easily recognized and emended by comparing the neighbouring days: namely 4, 5, 10, 11 and 14. Errors like these, and far graver ones, I could pick out and note if I chose, either from what you first published at Venice or from the next 23 years issued by Schönwetter [Schonvvetterus]; I could bring forward more than six hundred. For the Schönwetter edition teems so with errors that hardly a page is to be found in which two, three or more do not stand. Good God, what would come of it if you alone held the privilege of writing and publishing ephemerides! You would certainly deceive others with impunity, and lead them into error with no one to contradict you. Then again, one of them — namely the eighth — is charged against me by you falsely. My calculation is right, while yours errs disgracefully. And you know that well-worn little verse:

> Turpe est doctori cum culpa redarguit ipsum. [It is shameful for a teacher when the fault convicts the man himself.]

The remaining 8, which are nevertheless nowhere as great as you allege, were let through by a certain carelessness, and were corrected and emended by me long ago — in the revision, in the calculation of the planets' latitudes for the intermediate days, and in the adaptation to the reformed calendar — before I had ever seen your tables of the primum mobile. Now, however, we shall consider some errors of yours in a few of the earlier years of my Ephemerides. For I have no wish to contend with you about them all. And what would it come to, if I filled my pages with your errors and bred weariness in others, since I should be washing a brick and making little headway with you? For you obstinately keep the same errors and correct hardly anything. First, then, passing over the printer's errors — which are very frequent, and not of minutes only but of several degrees, especially in the Schönwetter edition, in which all the errors of the Venice press are retained and many more heaped up besides — let us note down some others. What is certain, in the Moon:

> In the year 1597, from 20 September to the 27th, the Moon falls short by 4′ and 5′.
>
> In the year 1601, on 27 September, the Moon is placed in 17° 55′, when she is in 16° 55′. And that this gross error of a whole degree is to be ascribed not to the printer but to the computer is shown by the sextile ⚹ of Venus ♀ and the Moon ☽, which belongs not to 26 but to 27 September.

In 1603, from the end of May through the whole of June and the first half of July, Magini errs by 7′, 8′, 9′, and up to 10′.

In 1605, in August, from the 9th to the 17th, the Moon ☽ falls short by 6′ and 7′.

In 1608, in May, from the 5th to the 17th, the Moon ☽ runs ahead by 6′, 7′ and 8′ — an error not corrected even in the new edition.

In 1616, on 4 December, the Moon ☽ errs in both editions by 44′ in excess.

In Saturn. In 1596 the latitudes err throughout the whole year: for the first six months by 3′, then immediately by 7′, and from there by 12′, in excess; in the remaining months only in defect.

In 1611 Saturn ♄ falls short through the month of July by 5′ and 6′ in longitude. For on 11 July Saturn ♄ is placed in 5° 31′ ♓, when he is in 5° 36. So on 12 July in 5° 28′, when he is in 5° 34′.

In Jupiter. In 1601, at the end of March and the beginning of April, Magini's motion exceeds the true calculation by 4′ and 5′.

In 1606, at the end of July and through August up to the 20th, it falls short of the truth by 4′, 5′ and 6′.

In 1614 Jupiter's latitude on 21 March falls short by a degree in both the Venice and the Schönwetter edition.

In 1616, in October, from the 15th to the 26th, Magini's motion of Jupiter ♃ exceeds the true one, over 12 days, by 11′ — in both editions.

In Mars. In 1595 the latitude for 1 November is put at 1° 36′, when it is 1° 48′.

In 1600, on 1 February, the latitude is set at 4° 7′, when it is 4° 15′.

In 1604 the latitude for 11 May is given as 1° 14, when it is 1° 40′; and for 21 May as 1° 40′, when it is 1° 14. Turn them round, then, and the shoe is made [*Verte ergo & fiet calceus*].

In 1610, at the end of August and the beginning of September, the motion in longitude falls short by 6′ and 7′.

In 1614, in July, from the 22nd up to the end of August, the motion in longitude runs ahead by 4′ and 5′ — indeed, on 1 August it stands in both editions at 7° 20′, when it ought to be 7° 35′.

In Venus. In 1595 the latitude for 21 March is put at 5° 20′, when it is only 5° 5′.

In 1601 the longitude for 1 January is given as 3° 13′, when it is 3° 45′.

In 1612, at the end of October, the confusion in the motions of Venus is so great that the daily motion is now 41′, presently 3, then 45′. On the 30th, too, Venus ♀ is placed in 0° 52′ ♎, when she is in 0° 14′.

In Mercury. In 1595, on 11 May, the latitude is put at 0° 15′, when it is 0° 41′. And on 21 May at 2° 41′, when it is 3° 19′. Likewise on 1 July at 0° 10′, when it is 0° 16′.

In 1596 the motion in longitude errs from 20 August to 7 September — over 18 days — by 9′ in excess. So at the beginning of the year the latitude is set at 2° 2′, when it is 2° 18′. And on 1 February it is put at 1° 21′, when it is 0° 17′.

In 1597, on 21 March, the latitude of Mercury ☿ errs by a whole degree in defect.

In 1602 Mercury ☿ errs at the end of January by 9′ in excess. For the planet which Magini sets on 28 January in 12° 37′ is in 12° 28′. And on 29 January Mercury ☿ is put in 13° 39′, when he is in 13° 30′. So in June, from the 18th to the 25th, Mercury ☿ runs ahead by 5′. And through the whole of December he falls short by 3′, 4′, 5′ and 6′. In the same year, too, the latitude on 1 and 11 April is in excess by 14′ and 9′.

In 1603, in February, from the 13th to the 23rd, Mercury's ☿ longitude runs ahead by 5′, 6′, and up to 7′. But in July, from the 16th to the 25th, it falls short by 6′ and 7′. So at the beginning of August it falls short by 9′ and 10′ as well. But about the middle of August, from the 15th to the 22nd, it runs ahead by 7′, 8′, 10′. On 1 September, too, the latitude is put at 1° 10′, when it is 0° 26′.

In 1604, on 11 April, the latitude of Mercury ☿ is set at 0° 21′ north, when it is 1° 9′ south — an error certainly enormous, amounting to a full degree and a half. In July too, from the 15th to the 25th, Mercury ☿ falls short of the truth by 5′, 6′, and up to 8′.

In 1605, from 14 April to the 23rd, Mercury ☿ runs ahead by 6′. And from the end of May through the beginning of June, up to the 11th, he runs ahead by 6′, 7′, up to 8′. In October, from the 20th and for several days following, he falls short by 6′, 7′, up to 8′.

In 1609, from 25 July to 20 August, Mercury ☿ falls short by 9′, 10′, 14′, and up to 16′. For on 7 August ☿ stands in 7° 43′, when he ought to be in 7° 59′. And on 8 August he is put in 7° 39′, when he is in 7° 55′.

In 1610, at the beginning of the year, Mercury ☿ runs ahead by 6′ and 7′ — which he did at the end of 1609 as well.

In 1614, at the beginning of the year, he runs ahead in the same way by 6′ and 7′.

But I stop here from pursuing more of Magini's errors in the motions. It is irksome to me to correct a man to no profit, one who admits indeed that he has erred, yet is none the better for it and mends nothing. And so, in what follows, he addresses me thus in his fable:

There you are, illustrious restorer of the Ephemerides, Origanus: errors culled from your own Ephemerides not of three or four

> minutes, as you charge against me, but of ten, of eleven, and sometimes of 14. And yet, for the want of time by which I am now most hard pressed, I neither could nor would look into the remaining planets, or the other σφάλματα [Greek: sphalmata, "slips, errors"] (as you call them) of that restored volume of yours. Had I done so, I should perhaps have found other things not to be despised — so that there is no need of that triumph of yours, in which, at the end of your Letter, before the victory is won, you rave about lapses of no consequence, lapses of the pen rather than of science, concerning the descriptions of eclipses.

To him I rightly answer thus: There you are, illustrious compiler of Ephemerides, Magini — you who claim this province of writing ephemerides for yourself alone, and can hardly bear that others should run in the same course with you: errors not of four, 5, or 8 minutes, such as I earlier adduced from only a few instances, but now of 12 and 16 minutes; and indeed, as I showed a moment ago, errors running a good way, extending through a whole year, and even errors of whole degrees. These too I should like you to correct, so that you may no longer knowingly and willingly impose on others, who buy your work at a dear price. And be assured of this at the same time: that had I any mind to stain my own pages with your errors, I could have produced far more of them, and graver. But to anyone who compares your work with mine it is plain that I have neither called my Ephemerides a "restored" volume, nor ever asked of the Roman Pontiff, of cardinals, of prelates, or of the people a triumph in which to rave over the defeated — though you, ironically enough, make out that I triumph before the victory is won. Where, I ask, do you find any triumphal words of mine? You plainly do not seem to understand what a triumph is and what it is to be granted a triumph, although you live not far from the place where triumphs were once held — indeed, you quietly ask that they be assigned to you. But perhaps what follows in my Letter looks to you like a triumph: the passage where I touch you on the sore, and openly sing out nothing but the truth, which galls you and even breeds a straining in your nostrils, in these words:

> Thirdly, errors are to be noticed here and there in the eclipses. For not only does an error not to be despised appear in the calculation and in the diagram of the solar eclipse of 1612, but the description of the solar eclipse ☉ of 1618 is altogether at odds with the truth. For the eclipse which he asserts will appear at sunrise to those in the east in fact shows itself to those in the west, and is certainly not seen at all by those in the east, since the true and visible conjunction takes place for us at sunset, as the Sun goes down, and for those further east below the horizon. Other errors which occur in the syzygies, being of less moment, we leave to others to sift. For my purpose is not so much to display other men's σφάλματα [Greek: sphalmata, "slips, errors"] as to set out the principles of this work

> and of this edition; and if I see that they win your approval, most friendly reader, I shall rightly rejoice that I have reached the end of my labour. Farewell — and the errors that the printers' carelessness has let creep into this work, correct without grudging, as they stand noted.

This is what Magini calls raving; and I should never have believed the man a reveller against others without cause, had I not examined rather closely this ἀπόλογον [Greek: apologon, "fable, tale"] of his own revelling against me. But I, as you see and read, most friendly reader, wrote — and wrote truly — that Magini had set out and noted two eclipses erroneously and falsely. For he cannot deny that he erred, though he makes light of the errors and excuses them frivolously and thinly enough, speaking thus:

> For, to say nothing of that first eclipse, of 1612, in which some error arose from a lunar anomaly wrongly assumed, though the mean time meanwhile was perfectly determined — so, when that other solar eclipse of 1618, which falls below the earth and is therefore rightly disregarded by everyone (although you, so as to seem to have done something beyond me, described even those eclipses that occur among the antipodes),
> you try to charge me with as a most grave error — when nothing is easier than to write "western" for "eastern" — you betray your own remarkable impudence.

Is this really raving, and betraying one's own impudence, as you suppose — when a man in good faith urges another to acknowledge an error, and calls him back from error into the wholesome path of truth? Plainly you refuse to understand what raving is, or what it is to be impudent; and, sunk and crazed in these very vices, you ridiculously ascribe to others, in the manner of drunkards, what belongs to you alone. As for the first eclipse: to anyone who compares the description you first published at Venice with the later Schönwetter edition, it is plain that you altered and corrected the whole eclipse, diagram and all — and not without reason — whether you went wrong in the lunar anomaly only, as you most falsely plead, or in other matters bearing on the calculation. And had I not warned you of the error, you would certainly never have noticed it or set it right. Now to the other eclipse, which you described for the year 1618 in these words:

> On 21 July, at sunrise, its greatest obscuration will appear to those in the east as the Sun rises; for those who lie an hour and a half east of our meridian will be able to see its middle and its end. But we, together with those west of us, shall not have this eclipse at all. Its middle, referred to our meridian, will fall at $7^h\ 25^m$ P.M. on the 21st, and the half-duration will be $0^h\ 52^m$. The digits of obscuration will be 5 digits 37 minutes in our climate.

To cloak and excuse the error you bring forward these two things: 1. that it is rightly disregarded by everyone, and 2. that nothing was easier than to

write "western" for "eastern." But I have shown, near the end of chapter 10 of Part 2 of the *Introduction* — to which I refer the reader — that eclipses of this kind, which happen outside our horizon, can no longer conveniently be disregarded by mathematicians, if we wish our Ephemerides to be universal and to be fitted to other places as well. I say too that anyone may observe that this error was committed not by a slip of the pen but out of supine negligence and gross ignorance — an error which runs through almost the whole length of the heaven, and is rightly called a Maginian error. But I ask: why did you repeat this erroneous notation of the eclipse in the later edition too, without any correction? Why did you not amend the error, or else simply leave it out altogether? Doubtless because it was your intention to impose on the unwary with this error of yours — a whole heaven wide, and Maginian; and whether that befits a sincere and upright man I leave to others to judge. And although you seem to display singular diligence in distinguishing the times of immersion and emersion in solar eclipses — which I do not deny are somewhat different, especially in eclipses that fall away from the 90th degree of the ecliptic — nevertheless you also err greatly in your description of the eclipse that occurred in 1600, on 10 July of the reformed year. For there you make the time of immersion in the western quadrant $7^{m}\ 5^{s}$ less than the time of repletion, which flatly contradicts both experience and precept 63 of the Prutenic Tables — a precept you yourself repeat in your own patchworks [*in tuis Centonibus*] at Canon 86. For those passages teach expressly that the time of immersion in the eastern quadrant is less, and conversely in the western quadrant greater, than the time of emersion. Other errors, which are all too frequent in the syzygies, especially in the Schönwetter edition, I willingly pass over. And now, for what remains, I ask the fair-minded reader to weigh Magini's conclusion, in which, as though he had cleared himself admirably, he adds the following.

> Hence I am led to hope that any who have hitherto thought ill of me on your account will, once instructed by these arguments of mine, change their minds and hold you in that very esteem in which you wished to hold me — especially since you took up this labour of yours at a most inopportune time, when all with one voice are calling for the restored motions of that great man Tycho. For it is no longer obscure to anyone that Copernicus's calculation departs from the truth not so much by minutes as, sometimes, even by degrees; and that the motions of the planets were observed, and as good as restored, by that most distinguished restorer of astronomy Tycho Brahe — by whose death our whole science has suffered a signal loss — through so many vigils and at such expense, both in Denmark and at the court of His Sacred Imperial Majesty. When these are complete — as we already have the solar and lunar motion finished — and are at length brought out by those most learned men to whom the charge of them has been left, it will be altogether

necessary that someone build from them newer ephemerides, better agreeing with the heaven itself.

As if the exact observation of the celestial motions, and the correction of the motion of the luminaries, so happily undertaken by Tycho Brahe, the Atlas of our age — for which we rightly owe him great thanks, and celebrate him with the praise he deserves — could excuse Magini from his own errors, so that it is no longer open to anyone to look into them at all; or as if it ought to draw anyone back from weaving ephemerides out of observations and out of Copernicus's hypotheses. For although the straight is the test both of itself and of the crooked, ephemerides of this kind are nevertheless to be built for that very reason: to give astronomers a handle for comparing the Copernican results with the Tychonic, and these with those, so that if any defect is still caught in the determination of the motions it may be patched the more easily and the more quickly. That is why I have not only computed the motion of the luminaries by a double calculation, Tychonic and Copernican, for the sixty years I set myself, but have at the same time worked out all the eclipses of the luminaries, those below our horizon as well as those above it — so that, once the motions and the particulars produced in the eclipses have been set side by side, the difference between them might become known, and so that observers of the celestial motions in different places, equipped with this doctrine, might at last remedy the defects of geography and fix the longitudes of places more exactly over the whole globe. Nor have other men's judgements of my labours frightened me off or drawn me away from my purpose — judgements which Magini goes on to handle thus.

So, to bring this reply to an end at last, I now add only this: the distinguished testimonies of the most noble Tycho here, and of another most learned man, the eminent mathematician Adriaan van Roomen [Adriani Romani], concerning that showy volume of yours.

From a letter of Tycho Brahe, written to me at Prague in Bohemia, 1601 January 24.

I have received from Frankfurt your ten-year Ephemerides, the ones last published. I notice that you have corrected nothing in them that differs from the earlier ones, but have only added certain things by way of supplement — not useless ones, in my own opinion. You hold out hope of the remaining twenty years that are soon to follow, which I should be equally glad to obtain. In this latest publication of yours you have not yet refuted, as he deserved, that Origanus, the mathematician of Frankfurt an der Oder and computer of ephemerides; perhaps you will do just that in the remaining volume of the Ephemerides. Your exceptional diligence in this undertaking [*pragmateja*] has certainly always pleased me, and I do not stop commending it to others. And my mind recoils from those who, moved by a kind of self-love [*philautia*] and by arrogance, attack other men's labours on the slightest pretext, often looking for a knot in a bulrush. But what the comic poet used to

> say happens to them, and not unjustly: by saying what they want, they hear in return what they would not want.

From a letter written to me by Adriaan van Roomen, knight and most distinguished mathematician, from the Frankfurt fair, 1602 April 10.

> There is something else besides of which I wanted to warn Your Excellency: namely, that a certain David Origanus has published Ephemerides in which he sets out to diminish Your Excellency's reputation — indeed, to convict the whole work of imperfection. I am most eager to know what you answer to this, so that I may answer certain detractors and envious persons. For my own part I know what to answer on the main point: that nothing is harder than the determination of meridians, that is, of the longitudes of regions — and would that Origanus himself could set them right. But let it be granted; let him show by the firmest demonstrations that the longitude of Venice is different (if only he could make that good) — will Magini's work, which was undertaken for a different longitude, be useless on that account? I think that a bad inference. But the very thing he objects against Magini we can object against him, since he himself has nothing settled about the longitude of the city of Frankfurt.

For although my volume is not so showy as to delight the eye, it is nevertheless such as has served some men's uses to good purpose up to now, and will serve them in future. And it is plain from Tycho's letter that he did not approve everything Magini put forward in his Ephemerides. For when he writes that he received from Frankfurt the ten-year Ephemerides last published, and that he noticed nothing in them corrected so as to differ from the earlier ones, he hints plainly enough that the earlier errors still remain and lie hidden — errors which Magini ought to have corrected. [He writes,] however, that he himself none the less commends Magini's Ephemerides to others for friendship's sake.

Tycho too, after paying my office and profession an honourable tribute, finally adds some things so ambiguous that they can be applied to Magini quite as well as to me. And I believe that, were Tycho alive, he would take it very ill that Magini has made this private letter of his public: for it often happens that we write privately to friends what we want kept quiet in public. As for Adriaan van Roomen's letter, I judge that His most distinguished Excellency either did not grasp the aim of my preface to the reader, or, so as to give Magini's ears something, was unwilling to understand it. But I trust that from what I have set out above he now knows my aim more fully. The remaining letters, since they have nothing whatever to do with me or with our business, I send back to Magini; and I add this by way of a finishing flourish: that if I had chosen to fight it out with letters written to me by others, I could have added a great many. One only, however, have I been pleased to attach here — the one written to me from Orléans in France by the German Nation, since it kindly spurred me on to hurry my work forward:

To the most distinguished gentleman, DAVID ORIGANUS OF SILESIA, Master of Philosophy, public professor in the illustrious and most celebrated Electoral Brandenburg Academy at Frankfurt an der Oder, our honoured friend. Greetings.

Your reputation, in which you stand out here, most distinguished sir, has moved us to send you this letter — nor did our own inclination dissuade us, since we wish that reputation both to be lasting, as your merit deserves, and to redound the more to the credit of the German Nation, which stands high among foreigners. A certain Frenchman, and no unlearned one, has demanded of our library that most excellent work of yours, the Ephemerides, enlarged by the addition of various calendars. Some of our number are well aware that it has been in your hands, but we do not know whether it has been made public. If it has, we do not doubt that a copy of it will shortly be procured for us through the good offices of our Nation's chief printer. But if it has not, we ask you again and again to resolve that nothing shall be held back, as befits your outstanding merit, when it comes to the celebration of your name, the discharge of a public debt, and the enlargement of your illustrious Academy's honour. For besides the fact that a great many others undoubtedly long to see that singular offspring of your excellent mind published, by publishing it you will both grant that uncommon French friend of ours — who also wishes you every honour — the fulfilment of his wish, and make our illustrious library the more illustrious by those shining rays of your genius. Farewell. Signed in our library at Orléans, with the lesser seal of our Nation, 1607 May 30.

Your Excellency's most devoted

Adrianus de Roy of Utrecht, Procurator of the Illustrious German Nation Ioannes Neander of Rastenburg, a Prussian, Quaestor for the time being of the Illustrious German Nation Reinerus VV. à Nienhuis of Cleves, Doctor of Both Laws, Assessor of the same Nation for the time being. Gulielmus à VVinssen, Librarian for the time being of the Illustrious German Nation M. Hubertus Havvel of Arras, Librarian for the time being of the Illustrious German Nation.

*Now, having done with the Italian, I come to the other man: a German schoolmaster [*Pædotriba*] in the neighbourhood, who, in a German pamphlet published through a son only very lightly touched — so I hear — with humane letters, has drawn his abusive and venomous tongue against me as he has against many others. His name I have for this very reason not wished to insert into my Ephemerides: he was a notorious buffoon, known to most people for that remarkable licence of chatter and of baiting others which he seized for himself as a Gnatho-like teller of tales at table, and for his stage-player's impudence — and I did not want it said by others that the fame of a name he sought by less than honourable means had been won through me; nor did I want to seem to have brought into the light the name he himself concealed in*

his pamphlets, in which he lashed now this man, now that, in all sorts of ways and boldly enough and without cause, in the character of a public censor, while turning the gravity that once belonged to the censors into frivolity and something like a lust for abusing others. For he wanted to be thought no ordinary chastiser of boys, no mere Orbilius — or, as someone said of him in German, not inaptly, [German: Ein ſchlächter hoſaklapper, "a poor breeches-beater" — set in Fraktur] — *but a man furnished with an entirely new method of instruction, one who would teach others by joke, by play, by pictures and by ridiculous attacks. Hence he even published an ABC-book, to which he prefixed his own name, in which he sets before boys, by means of various pictures — but, alas, how stupidly — the grasp of the simple letters. This ABC-book, because of its initial letter, which is meant to show an ape's head severed from the rest of the body, is commonly called in the place where he lived* [German: des Rectors Apenkopff — set in Fraktur] *, the Ape's Head; and so I was right to dub the author himself, my Momus, by that name long before I began to write this, as is plain from Part 3 of the* Introduction*, where I mentioned him at pages 400, 440, 501 and elsewhere. I should therefore now refute him in the same fashion, as he deserves, and put him to confusion, for the slanders he has most impudently blurted out against an innocent man — in a vernacular writing, by which this most vain of men unjustly sought praise and standing among the crowd and the common sort. But in these very days, as I write this at the beginning of June, I have learned for certain from someone's letter that he died in the preceding month of May and has ceased to be among the living. And I forgo doing it for these further reasons as well: because he injured me with slanderous assertions only, and never made good what he belched out against me with any reasons or proofs, although he had more than six years for it, from the time he first brought his suit against me publicly and I, in a public writing to the most prudent and praiseworthy Senate of that place, declared that I would pursue those slanders with the answer they deserve in these Ephemerides of mine; because he never properly learned mathematics in his youth, and was scarcely an ABC-pupil in the science (as I showed in some measure in the writing to the Senate, from a few of his falsehoods, earlier, so I could have demonstrated it here at greater length, had not his unlooked-for death drawn back my pen); because meanwhile he none the less sought a livelihood from astrological predictions, with which nothing is commoner in our time than imposing on others; and because he had the reputation of the art among others rather than the art itself. And now that the father too is dead, what should I have to do with the son, who in mathematical matters is a downright ass? May GOD grant him a sounder mind. But now, kind reader, I turn to you, whom I do not wish to detain any longer with my skirmishing against opponents and fault-finders [*Momis*]; and I offer you these labours of mine — undertaken for the single purpose of advancing the public good, and brought to their end by GOD's favour — to use and enjoy. If I learn that you have found them welcome and useful, you will shortly see my* Arithmetic *and my* Cosmography *as well.*

Farewell — and the printer's errors that went unnoticed during proofing, correct in this way.

Errata.[8]

- p. 6, line 25 — for *Suſyga* read *Suslyga*.
- p. 7, line 4 — for *coſtitutione* read *conſtitutione*.
- p. 9, line 4 — for *carrente* read *currente*; line 30 — for *fuerunt* read *fuerint*; penultimate line — for *communem* read *commentum*.
- p. 17, line 39 — for *ſi uſta* read *ſi juſta*.
- p. 20, line 26 — for *ſub Arſe 32* read *ſub Arſe 3*.
- p. 22, line 33 — for *verſa* read *verſam*.
- p. 24, lines 28 and 29 — for *die abente* read *die labente*.
- p. 28, line 35 — *Secudo* read *Secundo*; and lines 39 and 40 — for *Iulianam* read *Iulianum*.
- p. 35, line 27 — for *nfra* read *infra*.
- p. 36, line 12 — for *46 die* read *26*; line 13 — for *condi cœpiſſe* read *condere cœpiſſe*; line 29 — for *luminares* read *luminare*.
- p. 39, line 36 — for *major* read *mater*.
- p. 45, line 32 — for *Octateerida* read *Octaeterida*.
- p. 50, in the table at the year 228 — for $27^{h}\ 30^{m}$ read $17^{h}\ 30^{m}$.
- p. 60, line 9 — for *inita* read *initia*.
- p. 62 — at golden number 12 the epacts remain on the left-hand side; on the right-hand side, not XXIIII but XXIII.
- p. 67, line 20 — for *inſervij* read *inſervijſſe*.
- p. 75, line 21 — for *menſis primi Thebeth* read *menſis decimi Thebeth*.
- p. 77, lines 12 and 13 — for *congruentes* read *congruentius*.
- p. 80, line 23 — for *anteſignana* read *anteſignani*; antepenultimate line — for *verum* read *vernum*.
- p. 88, last line — for *retractiones* read *refractiones*.
- p. 94, line 6 from the foot — for *Antalib.* read *Auſtralibus*.
- p. 95, line 21 — for *durnum* read *diurnum*.
- p. 100, at 16° ♒ — for *5 55* read *7 55*.
- p. 101, penultimate line — for *panallelus* [?] read *parallelis*.
- p. 104 — the latitude of Berlin is 52° 28′, not 40′.
- p. 108 — the latitude of Frankfurt an der Oder is 52° 20′, not 42° 20′.
- p. 113, line 28 — for *abſtraherem* read *adderem*; line 29 — for *tribus tantum-modo minutis* read *ſeptem*.
- p. 125, line 25 — for *quem circulu* read *quem circulum*.
- p. 130, line 9 — for *trogonus* read *trigonus*; line 35 — for *digreſſa* read *digreſſæ*.

[8] On the leaf the list is set as continuous running text across the full measure; it is broken out here one entry to a line. The abbreviation "p." stands for *pro* ("for") and "l." for *lege* ("read"). The wrong and the right forms are given as printed, and neither has been applied to the text of the *Introduction*.

- p. 237, line 22 — for *loci non ſunt* read *loci non eſt*.
- p. 240, line 7 from the foot — for *autumale* read *autumnale*.
- p. 261, line 7 from the foot — read: *quod idem licet menſium nominibus diſcrepet, tamen quoq; Æthiopum &c.*
- p. 264 and following — for μηκοπλατες [?] read μηκοπλατης [?] [Greek: apparently a compound of μῆκος "length" and πλάτος "breadth"; the correction alters only the ending, -ες to -ης].
- p. 275, line 33 — for *ſecundum latitudinem* read *ſecundum longitudinem*.
- p. 298, near the foot — for *monuiſſe ſufficiant* read *monuiſſe ſufficiat*.
- p. 385, line 24 and following — read *in 10 domum incidit*, and delete the repeated *in domum*.
- p. 390, line 6 — for ☽ *cum latit.* ☿: read ☽ *cum latit. Merid.*; line 24 — for ✶ ♀ read ✶ ☿; line 26 — for △ ☽ read ✶ ☽; line 31 — read *quadrantes anni antevertunt*.
- p. 395, line 26 — read *annum 1589 diem Febr. 5*.
- p. 401, line 28 — for *robor* read *robur*.
- p. 405, line line 13[9] — for *paſſio* read *paſſo*.
- p. 411, lines 9 and 10 — for *manuetudo* read *manſuetudo*.
- p. 435, line 15 — for *at* read *ac*.
- p. 440, line 5 — for *notari* read *notam levitatis*.
- p. 454, line 18 — for *dixiſſe ſufficiant* read *dixiſſe ſufficiat*.
- p. 459, antepenultimate line — read *febres tertianas*.
- p. 475, line 24 — read *Haly cap. 4*.
- p. 487 — for *in aliis* read *in alis*.
- p. 517, line 4 — for *Cephalagiæ* read *Cephalalgiæ*.
- p. 518, antepenultimate line — for *excluſus à domino* read *excluſus à dominio*.
- p. 538 — for *ſuo impetu fieri* read *ſuo impetu ferri*.
- p. 597, line 27 — for ☊ *his* read ☋ *his*.
- p. 646, line 20 — for *patim. etiam* read *partim etiam*.
- p. 789, line 11 — for *genitura loca* read *genituræ loca*.

This too, reader, I should very much like to beg of you: if you notice letters transposed in the same way elsewhere, or whole words altered, correct those as well, and without resentment; and do not be angry with me for not having warned you of everything. For although in correcting both these and the numbers I relaxed nothing of the utmost diligence, it has still often happened — since I was not myself present at the final correction, as my occupations frequently did not allow me to be there — that some displacement was introduced by careless compositors. Farewell once again. Frankfurt, from my study, XV Kalends of July, in the Julian year 1654 [M. DC. LIV]; which is:

Day 17 of June, the tenth month of the Muscovites and of the Greek Church, in the year 7117 from the beginning of the world;

[9] the abbreviation for "line" is printed twice, with no figure between

and it is the 17th day of that same June, which was the fourth [month] of the Roman Church, in the year 6808 of the founding of the world, as they have reckoned it;

25 Sivan of the Hebrews and Jews, in the year 5369 of the founding of the world — but by historical truth, the year 5558;

17 Haziran, the ninth month of the Syrians, in the year 1920 of the Alexandrian era, that is, of the reign of Seleucus Nicator [Seleuci Nicanoris];

23 Peuni, the tenth month of the Abyssinians, in the year 1325 from the martyrdom of the Copts;

27 Rabi' the First, the third month of the Indians, in the year 1705 from the Julian ordering;

24 of the same month among the Turks, in the year 1018 from the Muhammadan Hijra;

11 Thir, the fourth month of the Persians, in the year 531 of the Jalali era;

6 Mesori, the last month of the Egyptians, in the year from Nabonassar — 2357;

from the death of Alexander the Great — 1933;

from the Yazdegird era — 978;

and lastly 27 June of the reformed year, 27, from the Christian Dionysian epoch — 1609.

DE Opere novo Ephemeridum Brandenburgicarum Mathematici clariſſimi DN. M. DAVIDIS ORIGANI SIL. PROFESSORIS MATHEM. SOLERTISSIMI.

On the new work of Brandenburg Ephemerides by that most distinguished mathematician Master David Origanus of Silesia, most skilful Professor of Mathematics.

What toil is it to bring the stars of heaven down to earth, and what task, to number off the days of their working? This is no toil for a star-watcher [*Aſtriſpex*], no labour of Atlas: the one carries the stars in his eyes, the other on his shoulders. It is the work of a greater mind, and of a higher honour, to be able to join the twin pole to either soil.

Origanus, as you go up under Erigone and the bright signs of Olympus, you bring Urania back to every land. What the order is, and the motions, what the names, what the impulses [*momina*] — all of it you, one man, lay open, and not for one country only: how often the Sun's light brings back the appointed terms of our work, when it is good to ease the limbs in light sleep; what risings and settings portend, and the labours of heaven, what the *Athla* [the astrological lots], and what lies hidden in the star-tables. All this you show to the man who is present, and to the absent you deliver the present. Everywhere you set up a new heaven. The present age cannot requite you, nor a later one, nor would you wish to take your reward from anywhere but heaven. Believe me, heaven is ready to bear a heaven beneath heaven for those whose faith rests in heaven — but a better one.

Ch. Pelargus, D. [Christoph Pelargus]

The man who sees heaven vaulted in its shining arch, and the stars inlaid into their splendid figures, sees something great and beautiful, a work that no mortal skill could render in any likeness; and yet what the eyes make out on the outside is small — inwardly you have greater things to contemplate. The man who sees the stars, running in perpetual motion, keep their own laws: he is the man who sees.

The man who reckons out, by the strength of his mind, the darkenings of the Sun and the Moon robbed of her light: he is the man who sees. The man who foresees wars one day to be fought in horrifying tumult, and famine and plague: he is the man who sees. The man who announces the crash of storms before it comes, who sings of rich harvests beforehand: he is the man who sees. The man who conceives in advance the ebbing tides of the sea, who foresees the lots of men: he is the man who sees. This and more is seen by the man whom the land of the March could rightly call, in its cultivation [*cultus* [?]], *its own Euclid — Origanus, who carries the whole of heaven in his breast, who would not shrink even from the burden of Atlas. More than that: he opens these wonders to the whole world, so that through him anyone may know what he himself sees. What, then, shall I call you, through whom we see such good things? Surely I shall declare you the eye of our own time; you rightly hear yourself called this honour, and anything worthier still; indeed you deserve to be dearer to us than our eyes. Spite itself tries to bow before you, and your noble Work reaches up above envy.*

Matthias Polenius, *IC.*, wrote this.

That true and splendid ornament of our Lyceum, that best of mathematicians, Origanus, who has surpassed the human race in genius, and all the old astronomers and the new astrologers: having measured out the whole heaven, he shows what the earth's magnetic force is, and how smoothly its motion flows, with no interval left out, and with no collapse shaking the firm foundations of that long-standing work. Who would not call this man born of heavenly seed, who takes in heaven and earth with a single mind?

Samuel Scarlach, D. & P. Phyſicus

Take, reader, the work that Origanus founded with keen zeal beside the gently flowing waters of the Oder. Know the mathematician from it, as one knows the lion by his claw, and say that Germans too can do something. But you who batter Origanus with unfair tongues, who pluck his beard though he has not deserved it — be off with you. And if you really trust your own art that far, publish a work like this one, or a greater still.

M. Chriſtoph. Neander, Profeſſor Ethicus, wrote this for his honoured colleague.

At long last that noble work of ORIGANUS's Ephemerides, longed for by so many, comes out. Momus, why do you jeer? Read it, read it through: you will see much that your own eyes will find hard to bear. May God be pleased to keep the author safe, and in his goodness to prosper labours so great.

M. Ioannes Schoſſerus, Professor of Rhetoric.

While ORIGANUS keeps watch and takes the measure of the star-bearing spheres, his feet fixed on the ground but his head raised above the stars, he marvels at the motionless poles, at the swift revolutions of the aether, and at its sure and unceasing alternations. Others marvel instead at the great riches of mind in the man himself, and look up to him as one like GOD. And rightly. For what is greater, what loftier than this — that a man should range in flight through the houses on high, should discern every wonder of the heavenly course, and set it out in its own numbers, year by year? Few have been granted it. ORIGANUS matches them all, and some he even outdoes, with a genius more favourable than theirs. Atlas gives up the mass, worn out by its oppressive weight, and commits his own turns of duty to a man more firmly set. Highest Father, preserve this man, until he opens up the rest — which, *tener*[10], are to be ranked with the discoveries of the fathers. Having thus embraced the outermost reaches of heaven, he will carry knowledge of himself all the way to the innermost parts of the world. The glad Muses will applaud, and will sound his praises with triumphal voice and with the magnificent trumpet. The goddesses began this long ago. The friendly omen is welcome: so many poets' songs added, and honour so great.

Pancratius Crugerius of Finſtervald, Professor of the Greek tongue in the Academy of the March, Imperial Poet [Poeta Cæſareus].

She who was once the rival of Hoſtus's daughter, and had bound ORIGANUS about with her arms, each in turn — Urania — now that she has seen her rival's soul, released by death, make for the steep stars, exults alone, joined to her own ORIGANUS, and cherishes him in her embrace, whether the sun lay everything open or night bury everything in darkness. And not for nothing. From the longed-for enjoyment of the bond that joined them a second Urania is born and comes forward, who lays open the secrets of the pole, and with weighty utterance unfolds the various paths along which the stars fly. Go, happy offspring: living on through all the climates of the world, the glory will always be both yours and your stock's.

M. Caleb Trygophorus, Professor of Logic.

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[10]so printed; the word does not construe in this line

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[11] so printed; the word does not construe

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- In what way the Moon's latitude is to be traced out by the Prutenic calculation — p. 144 & 276
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- The heliacal rising is otherwise called the apparent rising, and it too is either morning or evening — p. 236
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- The method of examining the syzygies and their times — whether they stand correctly, or whether faulty ones have crept in through the printer's carelessness — p. 257
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- Eclipses, solar as well as lunar [printed *Lunare*], are of two kinds, either total or partial. Total eclipses of the Moon are again either with tarrying or without tarrying; in partial ones, on the other hand, either exactly the half is wanting, or more or less than the half — p. 266
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- The pictures of eclipses set out their beginnings, middles and ends, and their quantities as well — p. 267
- The eclipses set down in the *Ephemerides* hold good only for that meridian for which the *Ephemerides* were computed — p. 268
- Lunar eclipses are more easily transferred [printed *trasferuntur*] to any other places whatever, but solar ones with more difficulty — p. 268
- Magini's [Giovanni Antonio Magini] censure about not describing eclipses below the earth is rejected — p. 269
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[13] that is, of elevations of the pole

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- The fixed stars act according to the natures of the planets, which they reproduce by their light; hence some are named Saturnine, others Jovial, Martial, Solar, and so on — p. 406
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- The further stars are removed from the vertex, or zenith, the weaker they are — Ibidem
- A remarkable effectiveness of the stars is detected when they rise, set, or culminate together with some planet — p. 407
- Certain of the fixed stars are also called Behenian, or royal, stars; for how many they are and which they are, see p. 407

C A P U T III.

On the properties of the signs of the Zodiac.

- The chief efficacy is indeed attributed to the stars, yet the dodecatemories of the Zodiac are not wholly to be neglected — p. 407
- The fixed stars have shifted their seats among the dodecatemories, so that the face of the heaven is now other than it was in Ptolemy's time — p. 408
- The fixed stars receive a certain power from the dodecatemories, and in turn these assign a certain power to those — p. 408
- The Sun's motion through the Zodiac marks out the year and its parts; therefore, as the parts of the year are four, so are the quadrants of the Zodiac four — p. 408
- What the nature of spring, summer, autumn and winter is, in terms of the four primary qualities — p. 408
- The four parts of the year also imitate the ages of living creatures — p. 409
- Since there are four quadrants of the Zodiac and twelve dodecatemories of it, each quadrant will accordingly contain three signs, or dodecatemories — p. 409
- The spring quadrant comprises ♈ ♉ ♊, and answers to spring and to the age of childhood — p. 409
- For the nature of the summer, autumn and winter quadrants, see the same place.

- There follow the various divisions of the signs of the Zodiac and the explanation of them: into movable, fixed and common; likewise into fiery, earthy, watery and airy — p. 409
- The same 12 signs are further divided into masculine, which are diurnal, and feminine, which are nocturnal; into six northern and as many southern; into direct and crooked — p. 410. Likewise into human, brutish and reptilian; into those having a fine voice, those having a middling voice, and lastly those lacking voice; into fertile, middling and barren; into beautiful, middling and misshapen — p. 411
- Signs of happy natural gifts, of middling ones, and of stupidity are also established — p. 411: likewise the signs beholding and disjoined; commanding and obeying; antiscia and inconjunct; friendly and hostile — p. 412

C A P U T IV.

On the familiarity and dignity of the planets in the 12 signs of the Zodiac.

- The planets are affected by different signs in different ways, and those affections are called the essential dignities or debilities of the planets — p. 413
- The dignities of the planets are twofold: essential and accidental — Ibidem
- The essential dignities of the planets are defined — p. 413 — and recited in order, namely: house, exaltation, triplicity, term, face, chariot [carpentum], person, joy
- Which signs are called the houses of the planets, and for what reason — p. 413 & following
- Either luminary has only one domicile; the remaining planets have two — p. 414; but for a table of the houses see p. 415
- The signs opposite the houses are opposite to the planets' powers as well, and they break and weaken them. Those signs are commonly called the detriments of the planets — p. 415
- The exaltations of the planets are likewise signs of the Zodiac, in which the powers of the planets are exalted and increased; just as, on the contrary, in the opposite signs they fall and are cast down — p. 415
- In which signs the several planets have their exaltation and their fall — p. 416
- What triplicity is, and what sort of dignity it confers on the planets — p. 417
- There are four trigons, or triplicities — fiery, earthy, watery, airy; which planets are the trigonocrators of each, see p. 417 & 418
- What the terms of the planets are, and of what sort their dignity is — p. 419
- On the distinction of the terms there is great controversy among astrologers, and they are divided into what amount to three sects — the Egyptians', the Chaldeans' and Ptolemy's — p. 419

- For the Egyptian table of terms see p. 420; for the Ptolemaic, p. 421
- The foundations of the Ptolemaic reckoning of the terms — p. 4[numeral: ?]0 — which reckoning is illustrated by examples — p. 421
- The degrees disputed between Ptolemy and the Egyptians are set out in a little table — p. 422
- Four further dignities of the planets follow — chariot, person, decanate and joy; on these see p. 422 & following
- The decanates, or faces, of the signs are recited in order, and their nature and signification is explained — p. 423 & 424
- The last dignity of the planets is joy; what it is, he shows — p. 424
- The dignities of the planets are distinguished by numbers, so that the strengths of the planets can be expressed in figures of the heaven and compared with one another — p. 425
- A general table of all the essential dignities, from which, once some celestial figure has been proposed, the lords or dispositors are drawn out very easily, and so too the contrary debilities — p. 425
- The planets often exchange their dignities; when this happens it is called reception — p. 426
- On the receptions of the planets — what they are, how many kinds there are, and what they effect — read p. 426

C A P U T V.

On the significations and nature of the houses.

- Accidental powers accrue to the planets chiefly by reason of their position in the 12 domiciles of the heaven — p. 427
- The domiciles of the heaven and of the celestial figures are called seats, houses, mansions, places, cusps — Ibidem
- The first house begins from the eastern horizon [?] and is commonly called the horoscope, or the ascendant, the eastern cardinal point, and so on — p. 427
- What matters the horoscope signifies, which planet has its joy and its co-signification there — see p. 428
- The remaining eleven houses are explained in the same manner and order — p. 428 & following
- Scarcely anything good or bad can happen in life that is not portended by the twelve domiciles of the heaven, by their condition, and by the position of their lords — p. 432
- There follow the divisions of the houses: 1, into angles, succedents, and those cadent from the angles — p. 432. Next they are referred to the four quadrants; third, to two halves; fourth, some are established as fortunate and others as unfortunate — p. 433
- Accidental dignities and debilities accrue to the planets in different ways according as they are found in one house or another, and these are determined by numbers — p. 433

C A P U T VI.

On the accidental dignities of the planets.

- What the accidental dignities of the planets are, and from what they take their name — p. 434
- Accidental strengths and debilities befall the planets either by reason of the Sun, or of motion, or by reason of the aspects — ibidem
- With respect to their position relative to the Sun the planets have a sixfold difference, since they are either in cazimi, or combust, or under the beams, or free of combustion and the beams, or increased and diminished in light, or lastly eastern and western — p. 434 & following
- These six differences are carefully explained in the same place, and what each of them imports is shown.
- Astrologers call the orbs of the planets those spaces of the Zodiac within which planets joined to the Sun lie hidden and concealed; they are also called arcs of vision — p. 434
- The halves of the orbs, or of the arcs of vision, are expressed in numbers — p. 435
- Many astrologers confuse combustion with oppression under the beams, and recognize them as a single kind of weakness — p. 435
- By the aspects the planets help or afflict one another — p. 436
- Conjunction is not properly an aspect, yet it is more efficacious than all the aspects — Ibidem
- Aspects are divided into partile and platic, right and left — p. 436 — likewise into application and separation — p. 437
- Partile aspects are always more efficacious than platic ones — p. 436 — and left-hand aspects than right-hand — p. 437
- The halves of the orbs in the case of the fixed stars — p. 437
- Application and defluxion are platic aspects; how they are defined, see p. 437
- Which planet is void of course, and which is feral — p. 437
- The aspects are reduced to numbers, so that the magnitude of strength and of debility can be expressed — p. 437 & 438
- Magini is charged with playing the slanderer by confounding astronomical matters with astrological ones — p. 438 & 439

SECUNDI MEMBRI.

On the prognostication of general ἀποτελεσμάτων *[Greek: apotelesmatōn, "effects, outcomes"]*

C A P U T I.

On the division of general events and on the prognostication of kingdoms, cities and places.

- The doctrine of general prognostications rightly precedes the genethliacal doctrine, on Ptolemy's example — p. 439

- The rebuke of a certain schoolmaster [paedotriba] who, thinking himself wiser than Ptolemy, sets genethliacal matters before general prognostications — p. 439
- General prognostication is twofold: one long-lasting, drawn from rare and long-lasting causes; the other annual, drawn from anniversary causes — p. 440 & 441
- The rare and long-lasting causes are the progressions of the fixed stars, the great conjunctions of the planets in different trigons, the changes of the eccentricities and of the apogees, and so on — p. 440.
- The anniversary causes are the motions of the planets, the entry of ☉ into the 4 cardinal points, aspects, risings and settings, eclipses — p. 441.
- What things, and of what sort, are to be looked for in anniversary prognostications — p. 441
- The globe of the earth is divided by the equator and the prime meridian into four quadrants — p. 441
- Whatever the nature of one quadrant is with respect to the heaven, such is the nature of the rest as well. Therefore only one is taken up for consideration, the one that embraces Europe, Asia and Africa — p. 441
- In any quadrant two things are to be looked at: the quality of the air, and the familiarity of the signs and stars with its parts — p. 441
- The quality of the air varies by reason of the zones — torrid, temperate and cold; on these, sufficiently — p. 442
- As places are mountainous, level, dry or moist, so too do the people and animals that live there vary — p. 442
- How a quadrant of the earth, once taken up, is to be applied to the signs and stars, and their mutual familiarity investigated — p. 442 & following
- To which celestial trigons the kingdoms and provinces of the whole quadrant are subject — p. 443 & following
- By what method the powers of the fixed stars are to be carried over to regions and provinces — p. 446
- It is not impious to inquire into the celestial causes of changes in empires, polities, and the like — p. 446
- The causes of change in lands and empires are four: the change of the planets' apsides, the change of the Sun's eccentricity, the change of the obliquity of the Zodiac, and lastly the great conjunctions of the superior planets — p. 447
- The conjunction of the superior planets ♄ and ♃ is threefold — great, mean and lesser; how many years each of them embraces, see Ibidem — p. 448
- The error of certain men is noted who measure the quantity of the great conjunctions badly — Ibidem, p. 448
- The reason why some conjunctions of ♄ and ♃ are called lesser, some mean or greatest — p. 449

- Historical examples of the change of the watery trigon into the fiery — p. 449
- When the things signified by the great conjunctions are brought into act — p. 450
- The opinions of others on the greatest, the great and the mean conjunctions — p. 450
- By what reasoning a judgement is to be made about the conjunctions — p. 450 & 451
- Not only the conjunctions but also the ☍ and □ rays of the superior planets are to be attended to — p. 451.
- How cities and likewise buildings are assigned to the celestial signs — p. 451 & 452
- Just as astrologers observe the time of birth in nativities, so too in the founding of cities. Therefore, just as the time of a nativity is rectified by the accidents of the person born, so too by the accidents of cities — p. 452
- In which city anyone may live most safely and most happily — p. 452
- Which king and magistrate is to be judged fortunate in his government — Ibidem
- From what the peaceful and prosperous condition of a city is to be judged — Ibidem
- From the king's nativity we can pass judgement on the condition of the kingdom or the city — p. 452
- A catalogue of regions and cities, showing more fully to which signs each is subject — p. 453 & 454

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On eclipses.

- The effects of eclipses are universal, and are to be explained in the general part of astrology — p. 454
- An example of constructing the celestial figure for any eclipse proposed — p. 455 — and likewise of finding the lord of the eclipse — p. 456
- The three Ptolemaic rules for finding the lord of an eclipse — p. 456
- Five significators of eclipses are enumerated: 1, the lord of the eclipse — p. 456; 2, the ruling fixed stars — p. 457; 3, the asterisms; 4, the eclipse sign; 5, the place of the eclipse — p. 459
- Which fixed stars are held to be rulers in eclipses — p. 457
- The nine modes of conjunction, opposition and quartile aspect in the heaven — p. 457 & 458.
- The five planets are reviewed in order, and what each of them signifies is set out separately, should it be lord of the eclipse — p. 459
- Planets configured with one another, or in exchanged places, or variously situated with respect to the Sun, mingle their powers — p. 460

- Just as the fixed stars reproduce the nature and colour of the planets, so too do they imitate their efficacy in operation, if they are the ruling ones — p. 461
- The asterisms determine the modes of events from their own configuration — p. 461
- By what reasoning a judgement is to be formed from the signs, see p. 461 — and how from the place of the eclipse, p. 462
- What the house of the eclipse portends, and likewise its quantity and colour, you will learn in the same place — p. 462
- Meteors too are not to be neglected, and likewise comets, if any appear at the time of the eclipse — p. 463
- Useful observations and rules from Cardano [Girolamo Cardano] for forming a judgement of eclipses — p. 453
- On which places, cities and regions, and on which men, eclipses chiefly act, whether their effect be good or bad — p. 464
- How the duration of the effects may be known, and likewise their beginning and end — p. 465.

C A P U T III.

On the general prognostication of weather, and on the other judgements that are drawn from the lords of the year.

- The annual judgement is drawn from the lord of the year, from the regular nature of the quarters and from their lord, from the places and condition of the planets, from the new moons, full moons and the other aspects of the Moon and the planets, and so on — p. 466 & following
- By what method the lord of the year is to be chosen, in Ptolemy's opinion, who urges that all 4 ingresses of ☉ are to be attended to, together with the new or full moons immediately preceding — p. 466 & 467
- The following ones too are not conveniently passed over — in the same place
- The Sun's ingress into Aries is called the revolution of the year, and most astrologers shape their whole judgement from it — p. 467
- The method of finding the Sun's ingresses into the four cardinal points, and of constructing the celestial figures for them once found — p. 467
- The precepts are illustrated by examples, and for the year of Christ 1607 celestial figures are set up for all 4 ingresses and for all the new and full moons immediately preceding or following — p. 468 & 469
- Whichever planet proves strongest of all, and especially at the time of spring, will be reckoned lord of the year — in the same place
- How the strengths and debilities of the planets are to be gathered from the figures once set up, he shows on p. 470; and the whole business is made clear by examples from the year 1607 — p. 470 & 471
- Certain astrologers teach differently from Ptolemy, but are rejected — p. 472

- Another likely opinion, however, is put forward concerning the determining of the lord of the year — p. 473
- There follow astrological aphorisms on the method by which judgement is to be made from the lord of the year — p. 473 & following
- All the planets are reviewed in order, and what they portend if they are lords of the years is set out first in general and afterwards worked through house by house — p. 474 & following
- When there is not one lord of the year but several, their significations must be blended as well, as is plain in the example taken up — p. 478
- So that judgement may be made more surely, the natural qualities of spring, summer, autumn and winter must be thoroughly known; and afterwards it must be considered whether the quarters of the year will depart from their natural state, and how far — p. 478
- What the natural and regular condition of spring, summer, autumn and winter is — p. 478 & 479
- There follow 7 general rules and several particular ones from Leopold of Austria [Leupoldus] on the constitution of the several quarters of the year and their departure from their proper and natural state — p. 479 & 480
- Astrologers ought to be cautious in predicting excessive extremes, so as not to go astray as Johannes Stöffler [Stöfflerus] once did — p. 481 & 482
- Peucer's [Caspar Peucer] opinion is debated: whether, in erecting figures, the signs of the zodiac should be reduced to the asterisms — p. 483
- By way of example a judgement is given on the year 1607, which lovers of the stars may imitate in their own prognostications — p. 483

C A P U T IV.

On the special judgement of lunations.

- The new moons of the year furnish a more particular prognostication, if the celestial figures are erected and the rulers chosen; the full moons and quadratures are not to be excluded, however — p. 484
- A special judgement of the weather is completed if, besides these, one considers the aspects of the planets to one another and their daily coincidences with the Moon, and likewise their risings, settings and culminations, the passages of the planets across the tempestuous fixed stars, eclipses, comets, and so on — p. 485
- The mansions of the Moon are rejected as trifles — p. 485
- What the signs of the zodiac and the asterisms severally effect in storms and in changes of the air, he teaches at length — p. 486 & 487
- What powers the individual planets exert upon the air and its changes, he shows — p. 4[numeral: ?]8
- There follow general aphorisms concerning storms, drawn from the meeting and configuration of the planets in particular signs — p. 489
- The openings of the gates and doors have a singular force; on these — p. 490

- What sort of storms the planets that are lords of the lunations stir up, and likewise what sort of associations of planets they set in motion — p. 491 & 492
- The applications furnish the daily significations —
- …of the Moon to the planets, and their daily aspects; on these see p. 493
- A caution concerning the rising and setting of the stars, and likewise concerning the passages of the planets across the tempestuous fixed stars — in the same place & p. 494
- Another caution concerning the times at which the weather usually changes — p. 494
- By way of example the eclipsed full moon that occurred on 1607 August 27 is applied to the precepts — p. 485, & 494 & 512

C A P U T V.

On the winds.

- The great power of the winds in stirring up storms demands a more careful consideration — p. 495
- A definition of the winds is laid down, and their number according to the ancients and the moderns is stated — the same place
- The distribution of the winds into principal ones, which are either cardinal or meridional, and less principal ones, which are either lateral or collateral — p. 495 & following
- A table of all the winds, of which 32 are counted in the mariner's square — p. 496
- Which are the collateral winds and how they are named — p. 47
- The winds mixed out of contrary ones are the whirlwind, the squall and the fire-blast [prester] — p. 497
- On the nature of the winds by reason of the 4 primary qualities — p. 497 & 498
- On the Etesian winds — p. 498
- On the nature of the winds by reason of health and sickness — p. 499
- On the alternation of the winds: when they usually both rise and fall — p. 500
- He treats of the astrological causes of the winds — p. 500 — where the winds are assigned to the planets and to their own trigons as well.

C A P U T VI.

On the particular prognostication of the weather for each single day.

- Seven degrees or varieties of weather are counted, although Cardano judges that nineteen are to be observed — p. 501
- How the weather appropriate to each day is to be assigned — p. 501.
- What nature the Saturnian, Jovial, Martial, Solar, Venereal, Mercurial and Lunar fixed stars have in stirring up storms — p. 501

- The applications and aspects to the fixed stars are also rightly attended to — p. 502
- The fixed stars keep their own powers and never change them; but their risings and settings, and likewise their culminations, vary perceptibly with the passage of time — p. 502
- πιθηκ[?]κέφαλος [Greek: pithēk[?]kephalos, "ape-headed"] is rebuked for professing astrology while still not knowing that the fixed stars vary their longitude and likewise their risings and settings — p. 502
- A calendar of the risings and settings of the fixed stars, carried through most days of the year and clearly comprising the weather of each day — p. 503 & following
- Why the same weather does not recur every year, even though the motion of the Sun and the risings and settings of the fixed stars do return — p. 512
- Lastly the full moon of the year 1607, discussed above, is taken up, and its days are defined astrologically in order, with their weather, down to the last quarter — p. 512 & 513

C A P U T VII.

On the fertility of the earth and the corn supply.

- Most men judge of the corn supply and the yield of fruits from the figure of the revolution; but a better judgement is taken from the temper of the year — p. 513
- How grain and fruit fare when the spring is excessively moist, hot, cold or dry; and how when the summer is of such a kind, or the autumn or the winter — p. 514
- What a multitude of winds, a scarcity of them, or complete calm brings to the crops — p. 514
- Rules shaping the judgement to be made about the corn supply — p. 514
- How most astrologers judge of the corn supply from the revolution of the year and from the preceding conjunction or opposition — p. 515.
- The Arabs introduced the lots of the grains, so as to estimate from them the future price in the market; on these see p. 515

C A P U T VIII.

On diseases and the plague.

- A year is healthy in which spring, summer, autumn and winter keep their native temper; but it is a sickly one if they depart from it — p. 516
- A drier year is healthier than a moist one — the same place
- He shows what epidemic diseases arise when dryness predominates, and likewise when moisture is excessive, or when the same wind persists for a long time — p. 516

- All four quarters of the year are reviewed, and it is taught what diseases each of them produces, whether they run to excess in moisture or in dryness, in cold or in heat — p. 516
- How astrologers judge of the frequency of diseases from the revolution of the year and from the preceding new or full moons — p. 517
- Physicians lay down the proximate causes of plague as the malignity of the air, contagion, and a disordered diet; astrologers, by contrast, keep harping on Saturn as the author of plague — p. 517
- See the astrological aphorisms on plague, both in the waters and in the air — p. 518
- Plague can be predicted only with difficulty from the disposition of the stars alone, unless experience and a knowledge of the periods are added — the same place
- Plague does not last in one place beyond four years — p. 518

C A P U T IX.

On wars, fires, earthquake and floods.

- The science of wars is next to nothing; and what little there is depends on eclipses, on comets, and on the position of Mars in the revolution of the world — p. 518
- Mars is set down by astrologers as the significator of wars. From his position and his rulership, accordingly, astrologers shape their prognostication — p. 518 & 519
- Judgement about wars is also made from the great conjunctions of Saturn and Jupiter. See the aphorisms bearing on this — p. 519
- For war and for lawsuits the Arabs consider three lots: 1, the lot of discord and slaughter; 2, of success in litigation; 3, of escape. How they draw a prognostication out of these, see p. 519 & 520
- How astrologers judge of fires, earthquakes and floods — p. 520

C A P U T X.

On the condition of men.

- Mention is rightly made of the condition of men in the yearly calendars — p. 520
- The condition of men is known from the condition of that planet to which the rank of men is subject, or to which the matters men handle are subject — p. 520
- What things and persons are subject to Saturn, and what to Jupiter, Mars, the Sun, Venus, Mercury and the Moon — see p. 521
- Planets that are strong and fortunate make fortunate the things and persons subject to them; weak ones hinder them — p. 521
- The condition of the magistracy is known from the Sun, that of subjects from the Moon. For the method see p. 522

- It is the mark of a diligent astrologer to have a great many nativities of distinguished men ready to hand — p. 522
- The significator of the Jews is ♄, of Christians ♃ and ☉, of Turks and Tartars ♂ together with Venus and the Moon; of Ethiopians ♀ and ☽; of learned and lettered men ☿; of women, Venus. And so judgement about each of them will be made from the condition of these planets — p. 522 & 523.
- How the condition of pregnant women is to be investigated — p. 523
- From what the condition of a particular city becomes known — the same place, p. 523.

C A P U T XI.

On journeys, metals and comets.

- The prognostication of journeys is taken from the third and the ninth house, and likewise from the Moon and from Mercury, which are the general significators of journeys — p. 524
- From the position of Saturn judgement is made about lead; from Jupiter about bronze and copper; from Mars about iron and sulphur; from the Sun about gold; from Venus about tin; from ☿ about quicksilver; from ☽ about silver — p. 524
- What Cardano [Girolamo Cardano] thinks about these you will find in the same place
- From what astrologers foretell comets, chasms and other fiery meteors — p. 524
- If a comet appears, how its significations are to be known: 1 from its place, 2 from its position with respect to the Sun, 3 from its motion, 4 its figure, 5 its duration — p. 525
- How the beginning and the end of the effects in comets is to be recognized — p. 526

C A P U T XII.

On elections.

- What astrologers understand by the word "elections" — p. 526
- Which elections are to be approved and which rejected — the same place
- The time of an election is judged in general: 1 from daily experience, 2 from the general constitution of the season, 3 from the disposition of the Moon, 4 from the strength of the appropriated planet — p. 527
- In phlebotomy regard must be had to the celestial signs, which are either good or bad for that business — p. 527; 2 to the aspects of the planets, which are likewise either good or bad — p. 328; 3 to the complexion; and 4 to the man's age — p. 528 & 529
- It is also best to observe a good ascendant, and a good placement of the planets in the figure, and likewise that the Moon is not running through the sign of the limb to be cut — p. 528

- A vein is not to be cut rashly — p. 529
- When baths and scarifications are to be administered by election — p. 529
- By which planets the natural faculties — attractive, retentive, digestive, expulsive — are governed — p. 529 & 530.
- The sign of Leo is never chosen for medical operations — p. 529
- The time suited to purgations is either the spring or the autumn — p. 530
- The signs suitable for purgation are ♋, ♏, ♓, ♎ and ♒. The Moon, therefore, ought to be passing through these unimpeded — p. 530 & 531
- Which planets preside over each of the four humours, and when those humours ought to be purged — p. 531
- Aphorisms on the ordering of purgations and on the administering of other medicines — p. 531
- Let the Moon not be in the ruminant signs when a purge is given, because of the danger of vomiting — p. 531
- When the shearing of hair and of sheep is to be undertaken, and when the cutting of the nails is to be set about — p. 532
- The gelding and the slaughtering of those [beasts] which are to be cured in smoke should be done while the Moon is waning — p. 532
- When infants are to be weaned — p. 532
- What times are to be chosen and prescribed for sowing and planting — p. 533
- The time suitable for celebrating betrothals — p. 5[numeral: ?]3
- When journeys and voyages are to be undertaken — p. 5[numeral: ?]4
- When meetings may be held with good fortune: with a magistrate, with religious, with old men, with farmers, with soldiers, with women, or with clever men of any kind — p. 534 & following
- When boys are to be committed to the teaching and discipline of schoolmasters — p. 535
- When new clothes are to be made or put on — p. 535
- When hunting and wood-cutting, both for the hearth and for the building of houses, should be undertaken under fortunate stars — p. 536

TERTII MEMBRI

Treating the general genethlialogical judgement.

P R O Œ M I U M

On the continuation of this doctrine and on the requisites necessary to it.

- The general judgement of regions and of the annual prognostications differs from the genethliacal, in that the latter looks at particular men individually — p. 537
- The generation of a man has a twofold beginning, conception and birth. The time of conception is preferred to that of birth, if it is precisely known — p. 537

- A child is then said to be born, as soon as it draws in air outside its mother's womb through mouth and nostrils — p. 538
- That moment of birth or nativity has the greatest force for prognostication — p. 538
- The place of the Moon at birth agrees with the place of the Moon at conception — p. 538
- In genethliacal judgement the figure is erected first, and its chief significators are directed — the same place.
- What order of teaching is kept in this third member is set out in the same place.

C A P U T I.

On the collecting of the dignities of the planets and on the government of the houses.

- In genethliacal judgement, if the figure has been properly constructed, the strengths and weaknesses of the planets come first of all to be examined — p. 539
- Six accidents are chiefly considered in the planets: essential dignity, position in the figure, the motion of the planets, position with respect to the Sun, nearness, and association — p. 539 & 540
- The method by which the strengths and weaknesses of the planets are reduced to numbers, and one is preferred to another in dignity — p. 5[numeral: ?]0
- The collecting of strengths and of weaknesses is set out by two examples — p. 541 & following
- The part of fortune too must be examined no differently from a planet, to see whether it is strong or weak. For the method see p. 544 & 545
- The examination once finished, those planets are to be determined which govern not only the domiciles but also the weaker planets — p. 545
- There is a difference between the lord of the sign, which is called οἰκοδεσπότης [Greek: oikodespotēs, "master of the house", the ruler of the sign], and the lord of the degree of the sign, which is called the almuten — p. 545; yet the two often coincide — p. 546
- Of the celestial houses too, some are fortunate, some unfortunate, some middling. For the way of telling them apart see p. 546

C A P U T II.

On the general judgement of life and the inquiry into the hyleg and the alcocoden.

- It is pointless to inquire about the native's talent, character, wealth or marriage unless it is established that he can enjoy life long enough — p. 546
- In the general judgement of life the parents come first, then the horoscope and its lord, and then the luminaries are to be considered — p. 547
- Which planets are set down as the killers, or anaeretae, in a nativity — p. 547

- The Moon governs the natural faculty, the Sun the vital. Therefore, when they are placed at their best, they decree a long life — p. 547
- Examples are brought forward in which the stars decree a long life — p. 548: 1 Pope Paul III; 2 Christian, King of Denmark; 3 Augustus, Elector of Saxony; 4 D. Johannes Heidenreich, in the same place; likewise 5 D. Andreas Sartorius, 6 Martin Benekendorf — p. 550
- Two examples of a short life: 1 of a certain girl; 2 of Alexander, son of the Elector Augustus — p. 550
- When the luminaries are unfortunately placed and threaten an untimely death — p. 550 & 551
- Several aphorisms for the general judgement of life — p. 551 & 552
- Two examples specially taken up, to be explained in full, are applied to the precepts — p. 552
- What the hyleg is, and how it is to be investigated with the help of four rules — p. 553
- Ptolemy's opinion is approved, and that of certain others rejected — p. 553
- Examples specially taken up are applied — p. 554
- What the alcocoden is, how it is to be investigated with the support of five rules, and what its use is — p. 554
- The alcocoden discloses the years of life in general, whether in the greater, the mean or the lesser years — p. 555
- A caution to be carefully observed: that the astrologer should not, from the alcocoden alone and without directions, profections and the rest, boldly promise or deny a long life to anyone, and especially not beyond the customary term of life — p. 555 & 556

C A P U T III.

On the lord of the nativity and on the planetary hour

- Which of the planets is the lord of the nativity, and what the opinions of astrologers about it are — p. 556
- Some make the almuten of the horoscope the lord of the nativity; others prefer the sign of the Moon — p. 556; others cry up that planet in whose term the Sun stands by day and the Moon by night; others hold in honour that sign which the Moon enters next after the birth — p. 557
- The luminaries are not employed for the rulership of nativities — p. 557
- The opinions of Firmicus [Julius Firmicus Maternus] and of Johannes ab Indagine [Joannes de Indagine] are rejected — p. 557
- Ptolemy and the moderns hail as lord of the nativity that planet which prevails in the five hylegiacal places — p. 557
- The hylegiacal places are the horoscope, the mid-heaven [M. C.], the place of ☉, the place of ☽, and the place of ⊕ [the part of fortune] — ibid.

- The Greeks favour a different opinion about the lord of the nativity, and Cyprianus yet another — p. 558; what is to be settled amid so great a variety of opinions he teaches on p. 559
- Who the lord of the planetary hour, that is, the lord of the orb, may be, and how he is to be investigated — p. 559
- In what order and by what method the planetary hours are counted — p. 560
- A table showing the planetary hours and their governors through the whole week and through each of its days — ibid.
- What use the lord of the planetary hour has in genethliacal judgement — p. 561

C A P U T IV.

On nurture.

- The first four years from birth are called the years of nurture, and are the most exposed to disease — p. 561
- In nurture five significators are to be attended to: the horoscope, the Moon, the Sun, the lord of the nativity, and the two benefic planets — p. 562
- What is called the luminary of the time, or the conditionary luminary — p. 562 & 547
- General precepts on nurture drawn from the luminaries — p. 562
- A great many aphorisms of a great many authors: on the ascendant — p. 563; on the Moon — p. 564; on the Sun — ibid.; on the dispositors of the luminaries, on the lord of the nativity, and on the remaining planets — p. 565
- The doctrine of the Arabs is set out concerning the governors of nurture — p. 565; the precepts are illustrated by two examples specially taken up — p. 566.

C A P U T V.

On temperament.

- What temperament is to the natural philosophers, and its four principal kinds — sanguine, phlegmatic, choleric, melancholic — p. 566
- Temperaments are judged from the qualities of the signs according to the trigons, from the five planets, and from the difference of the luminaries in the year or in the month — p. 567
- In a birth figure ten significators of the temperaments are established — p. 567
- The way of considering the qualities of the significators — p. 567 — and of gathering the testimonies of them all — p. 568.
- The precepts are made clear by applying two examples specially taken up — pp. 568 & 569

C A P U T VI.

On the form, stature and habit of the body.

- The form and habit of the body depend on the parents, on the place of birth, on upbringing, and lastly on the position of the stars — p. 570
- When children come to resemble their fathers and when their mothers — p. 570, where the rules of judgement are also handed down.
- What habit of the limbs, and what proportion among them, the asterisms of the zodiac mark out — pp. 571 & 572
- The significations of that asterism are attended to which is rising, or in which the Moon stands, or the lord of the horoscope — p. 572
- What stature, colour or bodily habit each several planet denotes — pp. 572 & 573
- Five things come to be considered concerning the proportion of the face: 1 the ascending sign, 2 the planets in the ascendant, 3 the luminaries, 4 the quarter of the year, and 5 the fixed stars in the horoscope — p. 573 and following
- Examples too are put forward, of Paul Eber [Pauli Eberi] and of a hunch-backed youth — p. 574
- On the colour of the face, the eyes and the hair, and from what it is to be judged — p. 576
- From what the judgement of the native's stature is to be sought — p. 577
- Where two examples are also put forward, of Joachim Camerarius [Joachimi Camerarij] and Philipp Melanchthon [Philippi Melanchthonis] — ibid. & p. 575
- How judgement is to be passed on the native's corpulence or slenderness — pp. 577 & 578

C A P U T VII.

On twins and monstrous births.

- For twins three significators are to be considered: the Sun, the Moon, the horoscope — p. 5[numeral: ?]8
- When twins are born, or even more than two at a single birth, and likewise of what sex they are — see p. 579
- The figure of conception discloses such things more plainly, the figure of birth more obscurely — p. 579
- Monstrous births occur more rarely, but they do occur, and their causes are chiefly five: 1 GOD, 2 the Devil, 3 a defect or an excess of matter, 4 the imagination of the woman, and 5 the position of the stars — p. 579
- Ptolemy explains a threefold reckoning of monstrosity — in fortune, in the body, and in the character of the mind — ibid.
- From what celestial causes all three take their origin, see pp. 579 & 580, where certain aphorisms are also set down.

C A P U T VIII.

On the character and talent of the native.

- Some accidents of the soul belong to the rational part, others to the irrational. The former are commonly called talent, the latter character — p. 580
- General rules concerning the accidents of the mind — p. 581
- The astrological significators of character are seven — p. 581; judgement, however, is formed from certain rules and from the examples adduced.
- The first rule is read on p. 581, the second on 582, the third, fourth and fifth on p. 584, the sixth and seventh on p. 586
- By way of example are brought forward Ermolao Barbaro [Hermolaus Barbarus], Angelo Poliziano [Angelus Politianus] and Joannes Iacobus Medices — p. 582; likewise Cardinal Rodolfo Pio da Carpi [Rodolphus Pius Cardinalis], George of Trebizond [Georgius Trapezuntius], Marcellus Corvinus and Joseph Scaliger [Iosephus Scaliger] — p. 584; Paul Eber — pp. 585 & 575; Joachim Camerarius and Philipp Melanchthon [Philip. Melanchthon] — pp. 586 & 575
- What characters are signified in particular by each of the planets, he teaches at length — pp. 587 & 588
- When several planets are together significators of character, how the mixture is to be set up — pp. 589 & 593; which is also explained by aphorisms — pp. 590, 591 & 592
- What significations of character the signs of the zodiac hold, whether the significators are lodged in them — p. 594 — or whether they hold the horoscope — p. 595
- What Venus signifies in each several sign — p. 595
- The more notable fixed stars, such as Caput Medusæ [the Head of Medusa], the Pleiades, Capella and the rest — what characters they implant — pp. 595 & 596
- What the several temperaments avail in respect of character — p. 596
- What talent is; what a happy or an unhappy one is; and who its significators are, namely Mercury and the Moon — p. 597
- What judgement of talent is drawn from Mercury alone — pp. 597 & 598, where examples too are recited: of Melanchthon, Vesalius, Justus Jonas, Johannes Heidenreich, Hieronymus Wolf [Hieronymi VVolfij], Joachim Camerarius and Erasmus Reinhold — pp. [numeral: ?]98 & 599; of Matthias Flacius, Georg Sabinus [Georgij Sabini], Andrea Alciato [Andreæ Alciati], Ioannes Schosserus Æmilianus and Joseph Scaliger — p. 599
- From Mercury and the Moon conjointly, and also together with the other planets, where examples are recited of Andreas Sartorius, Heinrich Cornelius Agrippa [Cornelij Agrippæ] and Erasmus of Rotterdam — p. 601
- From Mercury together with the fixed stars — p. 602

- What the Moon, considered alone, contributes to talent — pp. 598, 600; and what she contributes together with Mercury — p. 601
- Particulars about each several planet, namely what each contributes to talent — p. 602, where examples too are set down of Seth Calvisius [Sethi Calvisij], Pietro Bembo [Petri Bembi] and Frater Cornelius — p. 603
- What the fixed stars and the celestial houses effect, where examples too are set down of Hieremias Setserus and Calebus Trigophorus — p. 604. What the temperaments bring with them — p. 605
- What things in general denote a feebleness of talent; what harm Mercury brings in particular in certain signs and houses; and what the Moon badly placed brings — pp. 605 & 606.

C A P U T IX.

On the fortune and misery of the native in general, and in particular on riches.

- Concerning those things that lie outside the native's own substance, a more obscure and less certain judgement is passed — p. 607.
- Five aphorisms are brought forward, and are made plain by the examples of King Matthias Corvinus [Matthiæ Hunniadis], Maurice the Elector [Mauritij Electoris], Marcellus Corvinus and Augustus, Elector of Saxony, to whom signal fortune and happiness fell — pp. 607 & 608
- Unhappiness is judged from the contrary aphorisms, and is made plain by the example of Johann Friedrich, Elector of Saxony [Ioannis Friderici Saxoniæ Electoris]; yet other, different and notable examples are read as well — pp. 608 & 609
- From what a middling happiness is judged, the kind that falls to most men — p. 610
- What astrologers understand by the mention of riches, and which significators of riches are laid down, namely nine in number — p. 610.
- The significators of riches are reckoned to be: 1 the second house — p. 610; 2 the lord of the second; 3 the planets in the second, with the example of Johannes Heidenreich [Ioannis Heidenrichij D.]; 4 Jupiter — p. 611; 5 the part of fortune — p. 612; 6 the lord of ⊕; 7 the outstanding fixed stars — p. 613; 8 the fourth house, where the nativities of Maximilian I, Emperor, of Jakob Fugger the Elder [Iacobi Fuggari senioris] and of Ioannes Rosenbergerus are set out together — p. 614; and who it is that bring wealth in extraordinary fashion — p. 614
- Aphorisms on the second house and on the planets in it — p. 611; aphorisms on Jupiter — p. 612; on the part of fortune — 613
- When a kingdom, a magistracy or a priesthood is decreed to the native, riches too are decreed along with it, though incidentally. On these — p. 616, where not a few aphorisms are adduced and are explained by the example of Matthæus Cuno D.
- Two examples specially taken up make the manner of judging clear — p. 617

- How the testimonies of strength, of weakness, or of a middling state are to be gathered — those, that is, which belong to each several significator of riches — pp. 617 & 618
- Once the testimonies are gathered, five questions can be answered: whether the native will be rich — p. 618; on what occasion — p. 619; by lawful or by unlawful means — p. 622; whether the riches will last — p. 623; and when they will chiefly increase or decrease — p. 624
- What riches each several planet denotes, and from what persons they are to be got — p. 720[14]; likewise the signs and the celestial houses — p. 621
- Aphorisms on the duration of riches — p. 623. The particular and definite time, however, is taken from the directions — p. 625

C A P U T X.

On the native's brothers and sisters.

- From anyone's nativity a certain judgement about his brothers and sisters is hard to come by; yet three things are usually considered — whether he is going to have brothers or sisters, of what condition they will be, and with what disposition they will be affected towards him — p. 625
- The significators of brothers and sisters are four: the third house, its lord, Mars, and the planets placed in the third house — p. 625
- Whether the significators decree brothers and sisters or not — p. 625
- Which planets are fertile, which barren, which indifferent — ibid.
- Mercury always takes on the nature of another planet; but of which planet at any given time, he teaches — p. 625
- Which signs of heaven are held fertile, which barren, which middling — p. 626
- The gathering of the testimonies from the significators, for judging of brothers — p. 626
- Ptolemy left another opinion on record, and recognizes as significators the mid-heaven, and ☿ by day, ☽ by night — p. 626
- There follow special aphorisms on the number of brothers, twelve of them — pp. 626 & 627
- From what the condition and fortune of brothers ought to be investigated — pp. 627 & 628
- Concord or discord among brothers is estimated from the lord of the ascendant, if it is compared with the lord of the third house — p. 628
- The doctrine handed down about brothers can be applied also to relations by marriage and to other kinsfolk — p. 629

C A P U T XI.

On the parents.

- The nativities of parents and of children have a hidden kinship with one another — pp. 629 & 638 — as do those of brothers and sisters — p. 628

[14]so printed; every other reference in this chapter's entries falls between pp. 607 and 625

• The significators of the father and of the patrimony are five — p. 630 — and general rules about them are given in the same place.
• There follow special rules on the chief significators: on the fourth house, that is, and its …
—lord — p. 630; on the Sun, however, and on Saturn — p. 631.
• Aphorisms on the death of the father, in a diurnal figure as well as in a nocturnal one — p. 632.
• The significators of the mother are likewise five — p. 633 — and general and special rules about them in the same place.
• To the condition of the mother belongs the birth itself and what accompanies it. Several aphorisms are fitted to this — pp. 634 & 535 [recte: 635]
• The Arabs look for the part of the father and the part of the mother alike in a diurnal and in a nocturnal figure, and judge a great deal from them. On these — p. 636
• Whether the native is a legitimate son is taught by several aphorisms — p. 636
• Whether there is concord or discord between father and mother, in the same way — p. 637
• Whether the parents love the native, and which of the two more strongly — p. 637
• Whether the native will enlarge or squander his parents' property — p. 638

C A P U T XII.

On children.

• Judgement can be passed more surely about children than about brothers and sisters — p. 638
• The astrological prognosis of children is drawn from the signs which occupy the 5th and the 11th house and the first — p. 639; Ptolemy, however, departs a little from the beaten track, as may be seen in the same place.
• By what method the testimonies for children are to be gathered, see the same place; likewise how the part of children and of life is to be investigated.
• Whether the native will have children is taught by general and special rules — p. 640 — and the same point is made clear by the examples of the Emperors Ferdinand and Maximilian II, and likewise of D. Martin Benekendorf — p. 641
• How many children the native will have, two rules teach — p. 642
• The sex of the children is shown by collating the testimonies for males and for females — p. 643
• Whether a man is going to have legitimate or illegitimate children, and at what time — p. 643

- The fortune of children is examined by general and special rules, and so too is their concord, both among themselves and with their parents — p. 644
- Judgement on the death of children is directed by general and special precepts — p. 645 — and examples are added by way of illustration.

C A P U T XIII.

On diseases and ill health.

- Some diseases affect the whole body, others particular limbs — p. 646
- Nine significators of health are reviewed — p. 647; the authors of diseases, however, are ♄ and ♂, together with their unhappy aspects — ibid.
- For judgement on health to be passed rightly, all the significators must be examined and the testimonies gathered — p. 647; the matter is made plain by examples — p. 648
- What sort of health will befall the native, good or bad, is explained by three general rules and by several special ones — p. 649
- No one will judge of particular diseases of particular limbs unless he knows which limbs of the human body the signs of the zodiac and the celestial houses preside over — p. 650 — and which limbs the several planets preside over — p. 651.
- By what method the kind of disease ought to be determined in particular — p. 652.
- There follow special aphorisms on the diseases and defects of the eyes, with the example of Fantinus Cornelius of Venice and of the blind daughter of Christophorus Kotzen — p. 652; on hearing, with the example of a physician — p. 653; on the tongue, with the example of a deaf and mute girl — p. 654; on the teeth, with the example of Fazio Cardano [Facij Cardani] — p. 655.
- Further, on wounds and injuries to the head, with the example of a certain Neapolitan — p. 655; on epilepsy, insanity and the possessed — p. 657; on the stone, dysentery, fevers and consumption — p. 658; on defects of the private parts, hernia and foul odours — p. 659; on baldness, greying and gout, with the example of Ioachimus Schmidius; on being flung down and falling from a height, with the examples of a boy and of a certain man of Nuremberg — p. 660
- Which planets cause long, short, variable, moderate or chronic diseases — p. 661, where two particular examples are also fitted to the precepts.
- The time of diseases is judged generally from the position of the significators in the chart, and specifically from the directions, the revolutions, the profection, the transit and the alfridaries [Alfridariæ] — p. 662
- ♃, ☿ and Venus signify the cures of diseases — p. 662, where it is also shown whether the diseases are curable or not — p. 662 — and likewise whether easily or with difficulty — p. 663

C A P U T XIV.

On the household and on beasts.

- The significators of the household are 4: the sixth house, its lord, Mercury, and the planets in the sixth — p. 663
- For the examination of the significators see the same place; but for the special rules on each several significator — p. 664
- From what, and on what terms, the mutual affection of servant and master is to be judged — p. 664
- Cattle and domestic animals have the same significators as servants and are judged in the same way; the sixth house, however, takes in the smaller animals and the twelfth the larger — p. 665
- The precepts, as has been done throughout up to this point, are illustrated here too by examples. Ibid.

C A P U T XV.

On marriage.

- The significators of marriage are reckoned to be the seventh house, its lord, and the planets in it; the feminine planets, however, have a particular regard to men — p. 666 — and the masculine to women — p. 676
- ♄ is an enemy of marriage and of the female sex — p. 666
- For passing judgement it must be weighed whether the significators are barren or fertile, benefic or malefic, strong or weak — p. 666
- Whether the native is going to take a wife or not is taught by certain rules — p. 666
- Whether the native will obtain a bride easily or with difficulty, and at what time, is shown by general and special aphorisms — p. 667
- The number of wives, and their country and condition, is established from the rules set out on pp. 668 & 669.
- What form, disposition, character and reputation the wife will have — p. 670
- Whether the native will marry a rich woman or a poor one — p. 671. An example of a man who married a rich wife — p. 672
- Lastly, what the love of the spouses will be, and which of the two will die first, is shown by the example of Henricus Staupitius — pp. 673, 674 & 675
- For women it is the Sun and Mars, besides the seventh house, that particularly signify marriage — p. 676
- Whether a woman will marry, and whether easily or with difficulty, and at what time — p. 676 teaches
- It explains the number of husbands, their country, condition, bodily form and character of mind — p. 677
- The doctrine on the fortune of the husband and his affection toward his wife is appended — p. 678

C A P U T XVI.

On the religion of the native.

- We look in vain to the stars for men who are holy and pleasing to GOD; but since there are many heathen religions not instituted by GOD, those are without doubt subject to the heavens — p. 678
- The significators of religion are[15] the planets in the ninth or third house, 2 the ninth house and its lord, 3 Jupiter, the co-significator of the ninth house — p. 678
- Separately, the Christian religion is signified by ♍ and ♎, by ♃, ♀ and ☊[?]; idolatrous religion, however, by ♈ and ♏, and likewise by ♄, ♂ and ♉ — ibid.
- How judgement on religion is to be framed is shown by the general precepts — p. 678 — and by special aphorisms, some inclining toward piety — p. 679 — others toward impiety — p. 680
- By way of example Johann Georg, Elector of Brandenburg, is brought forward — p. 679 — and two other men specially taken up — p. 680

C A P U T XVII.

On journeys and travels abroad.

- The significators of journeys and of travel abroad are the third and ninth houses, the lords of those houses, and the planets standing in them; and besides these the luminaries together with Mercury — p. 681
- By a careful consideration of these significators many questions can be answered, provided the special aphorisms are not neglected either — p. 681
- Whether the native will travel abroad, or will stay at home always — p. 681
- Toward which quarter of the world he will move — p. 682 — and whether by sea or by land — p. 683
- For what cause he will undertake his journeys, and with what fortune he will accomplish them — p. 683
- What difficulties or dangers will befall the traveller, and on what occasions — p. 684
- One region favours a particular man's travels more than another does; what the causes are, and how they are to be recognized, he makes plain — p. 685
- Two examples are appended which set out the method of judging in advance — p. 686

C A P U T XVIII.

On dreams.

[15] no enumerator 1 is printed

- There are men whose dreams foretell future events. That is recognized from the significators of dreams — p. 687
- The significators of dreams are the sign of the ninth house, its lord, and the planets found in that sign — p. 687
- Whether a native's dreams will prove truthful or deceptive is explained by rules — p. 687
- The quality of dreams is discerned from the significator planets. What, then, each several planet contributes, see p. 687
- Finally, the examples set out toward the end throw light on the precepts — p. 688

C A P U T XIX.

On the profession, or the manner of life, of the native.

- The manner of life, and the art or profession by which the native seeks his living, we can define only with difficulty; we show more correctly, or more surely, his natural bent and his inclination toward particular kinds of work — p. 688
- The significators of the art are, among the planets, ♀, ♂ and ☿; among the houses, 10, 1 and [numeral: ?] — p. 689; and the rules of judgement are directed to these. Ibid.
- From what the quality of the art the native will practise is to be estimated in general — p. 690
- Those will determine it more precisely who weigh the aphorisms on Mercury, both alone and mixed with others — p. 6[numeral: ?]0 — and on ♀ alone and mixed with others, and likewise on Mars — p. 691
- Other mixtures too are to be weighed: of Venus with Mercury, and of both with the other significators; likewise of Mercury with Mars, and of both with others; and finally of Mars with Venus, and of both with others — pp. 692 & 693
- What the celestial signs contribute to deciding the profession, see p. 693; what the celestial houses contribute — p. 694; what the extraordinary significators — p. 695
- Success in practising the art is likewise drawn from the happy or unhappy condition of the significators — pp. 695 & 696
- Finally, once two examples have been adduced, all the precepts are made plain — p. 696

C A P U T XX.

On the standing and honours of the native.

- What the determinations about standing and honours require, and what questions are commonly raised about them — p. 697
- Five significators of honours are laid down, and judgement is made from their strength and weakness — p. 697

- The method of gathering the testimonies of strength and weakness is found in the same place.
- Whether the native ought to be raised to high office or to remain always without distinction, general rules teach — p. 698 — and special ones: 1 on the luminaries taken together — ibid.; 2 on the Sun separately — p. 699; on the Moon and the mid-heaven — p. 700; on the ascendant and the fixed stars — p. 701
- What constellations decree royal dignity, see p. 699
- The quality and the origin of the dignities to come is discussed — p. 702 — from the principal significator and from the celestial houses.
- What honours the several planets confer, in the same place.
- The duration of honours is judged in the same way, from the nature and strength of the principal significator — p. 703. Judgement is greatly helped by the general rules — p. 703 — and by the special ones, together with the examples adduced — p. 704

C A P U T XXI.

On friends.

- Who the significators of friends are, and how the part of friends is to be sought — p. 705
- Whether the native will have friends or not, and whether many or few, is made known by the general and the special rules — pp. 705 & 706
- What sort of friends the native will have — whether farmers, old men, prelates, soldiers, princes and so on — is judged from the nature of the significators — p. 706
- What persons the several planets signify, in the same place.
- The constancy and inconstancy of friends is known from nothing other than the nature of the significators — p. 707
- From this, judgement is also passed on spouses, on master and servant, and on colleagues, and on whether they can live in love or in hatred — p. 707
- Which planets are friends to one another and which enemies, ibid.
- It is often asked which of two friends is the more sincere. This can be answered from three rules — p. 708

C A P U T XXII.

On enemies.

- What significators the astrologers assign to enemies — p. 709
- Just as judgement is made about friends from the nature of the significators, so it is about enemies too: whether there will be any, whether many or few, whether open or secret, and of what condition and standing — p. 709

- The method of judging the power and the strength of enemies, and likewise whether they will conquer or be conquered, with the examples of Maurice the Elector and of the Emperor Maximilian I — p. 710
- A comparison of the nativity of the Emperor Charles V with that of Johann Friedrich, Elector of Saxony, is set up there as well — p. 711
- Very many aphorisms are appended by way of explanation, and two examples are sufficiently worked out — pp. 710 & 711

C A P U T XXIII.

On the captivity and the hardships of the native.

- The significators of prison and of bonds are the luminaries, if they are afflicted, together with Saturn and Mars, and likewise the 12th and the 7th house with the planets they contain — p. 712.
- Aphorisms on the luminaries as indicating imprisonment, with the examples of the Emperor Maximilian I, of Christian, King of Denmark, of Albert, Margrave of Brandenburg, of Caspar Peucer, and of William, Duke of Jülich — p. 712; on the malefics, with the example of Cornelius Agrippa — p. 714; on the 12th and the 7th house — p. 715; on the extraordinary significators, in the same place.
- How the qualities, the causes and the duration of imprisonment are to be investigated — p. 715
- There follow rules that can promise the native safety from prison — p. 715
- But if imprisonment is not decreed, hardships and very many dangers can still arise in a general way — p. 716
- The signification of hardships is sought from the luminaries, from the malefics, and from the fixed stars of malefic nature — p. 616[16]
- General aphorisms on hardships and calamities drawn from the luminaries and the malefics — p. 616[17] — but special ones drawn from Saturn, Mars and the remaining planets, and likewise from calamitous fixed stars, with the examples of Erasmus of Rotterdam, of Lodovico Sforza and of Urbano Landriani — p. 717

C A P U T XXIV.

On a violent death.

- One death is natural, another violent: each has its own significators in the heavens — p. 718
- Prison and a violent death for the most part occur together, and from this —they have almost the same significators. In the same place.
- The significators of a violent death are, besides the luminaries, the malefics, the first house and the 8th, and the lords of those houses; 1 the violent signs ♈, ♏, ♑, ♒, ♎; 2 the malefic fixed stars, such as the head of Algol,

[16]so printed; the entries on either side cite pp. 716 and 717
[17]so printed

the eye of the Bull, Hercules, the right shoulder of Orion, Antares, the southern claw — p. 718
- Aphorisms on the luminaries as signifying a violent death, with the examples of Girolamo Savonarola, of Louis, King of Hungary, of Galeazzo Sforza, of Muzio Colonna, of the Marchese de' Manzoli of Bologna, of Giovanni Battista Cardano, and of Giovanni Maria, Duke of Milan — pp. 718, 719, 720 & 721; on the malefics, with the example of Charles, Duke of Bourbon; on the lord of the 1st and of the 8th, with the examples of Maurice the Elector, of Ludovicus Bredenrodius, of Caspar Fidler, of Pier Luigi Farnese and of Regiomontanus — p. 722 and following; on the fixed stars — p. 723
- General precepts on the kind of violent death — pp. 724 & 725. Likewise special rules on Saturn — p. 725; on Mars — p. 726; on the lords of the eighth house and of the horoscope, and on the signs and the houses — p. 727
- Beyond all else the fixed stars specify a violent death, and so aphorisms very well worth noting are to be read there — pp. 728 & 729

C A P U T XXV.

On a natural death.

- A natural death comes about when the radical moisture has been used up and the native heat extinguished — p. 729
- If a violent death is not decreed, and the two fortunes are found in the eighth house, it is right to predict a natural death. In the same place
- For several further general precepts on a natural death, see p. 730
- The several planets, if they are the authors of death, mark out a definite kind of disease and of death. ibid.
- Who the killers, or anaeretae, are, and what is to be attended to in them — p. 730
- By what kind of disease the choleric, the phlegmatic, the melancholic and the sanguine severally perish — p. 731
- From what a sudden death is signified, and the example of the Count of Gaiazzo. In the same place
- The time of death is to be determined cautiously, and the dangers of death rather than death itself are to be predicted — p. 731
- The times of death, or of a dangerous illness, are disclosed by the climacteric years, the directions, the profections and the alfridaries — p. 732
- How the native's reputation after death is to be judged: whether it will be short or lasting, and whether it will be good or bad — p. 733
- From what source the several planets confer fame or reputation after death. In the same place

• Finally, this last chapter of the third member is brought to a close by collating two examples with the precepts that have been delivered.[18]

QUARTI MEMBRI

On special genethliacal judgement

P R O Œ M I U M

Showing the continuity and the necessity of special judgement, together with the division of the same.

• Genethliacal judgement is either general or special; and special judgement is rightly subjoined to the general — p. 734
• What general judgement foreknows, or teaches one to predict. In the same place
• General doctrine is imperfect and defective without the special, in the same place.
• Special doctrine determines the times of accidents and forewarns the native in what year of age, in what month or on what day the accident is to be expected — p. 734
• There are four things above all by which the particular times of events are known: direction, profection, revolution and transit — p. 735
• In what order this last member is to be treated, in the same place.

C A P U T I.

On directions.

• Directions often last through several years, until the moving significator comes to another promittor — p. 735
• The power of a direction is strong at its outset and weaker in the years that follow. In the same place
• Directions are stimulated by profections, revolutions and transits, and so they ought to be considered together with them — p. 735
• It can happen that the effect of a direction vanishes altogether — p. 735
• One direction is favourable, another unfavourable — p. 735; which each of them is, see in the same place
• Directions are judged from their own significators, that is, from the houses and the planets — p. 736
• Besides their principal and natural signification, the planets have an accidental one as well, by reason of the celestial house and of the planet over which they rule — p. 736
• The cause and occasion of what is signified is shown by the promittor. In the same place
• The promittor is either a planet or a ray, to which the significator is directed — p. 736

[18]no page reference is printed for this entry

- Five hylegiacal places are chiefly directed: the horoscope, the mid-heaven, the Sun, the Moon and the part of fortune. In the same place
- The direction of the horoscope is undertaken for the sake of life, the affections of the mind, and travels, in the same place
- What the direction of the horoscope forewarns, if it is made to the body of Saturn, to its △ or ✶, its □ or ☍, or finally to its term — p. 737
- What the direction of the horoscope to the body of Jupiter, to its △, ✶, ☍, □, or to its term, brings with it. In the same place
- What the direction of the horoscope to the body of Mars, to its △, ✶, ☍, □, or to its term, denotes. In the same place
- What follows upon the direction of the horoscope, if it is made to the body of the Sun, to its △, ✶, ☍ or □ — p. 738
- What the direction of the horoscope effects, if it is made to the body of Venus, to her △, ✶, ☍ or □, and likewise to her term — p. 738
- What the direction of the horoscope to the body, to the △, ✶, ☍, □ or to the term of Mercury marks out — p. 739
- The direction of the horoscope to the Moon or to her rays, in the same place; likewise what it portends when made to ☊ and ☋ and to the part of fortune — p. 739
- What effects the direction of the horoscope brings, if it reaches Canopus, Arcturus, the tail of ♌, the bright star in the Ship, the belt of Orion, the Heart of the Lion, the Lesser Dog, the bottom of the Vessel, Spica of ♍, the fixed star above the knee of the Lion, the neck of the Lion, the Bright Star of the Hydra, the Manger or the Pleiades, and the Asses — pp. 740 & 741
- What the direction of the horoscope brings, if it reaches the cusp of the second, the third or the fourth house — p. 741
- The direction of the mid-heaven signifies honours, the favour of the great, the affection of the common people, and the native's actions — p. 741
- What the direction of the mid-heaven decrees, if it is made to the body, the △, ✶, □, ☍ or the term of Saturn or of Jupiter — p. 741; of Mars, of the Sun or of Venus — p. 742; of Mercury or of the Moon — p. 743
- What effects the direction of the mid-heaven draws out when made to ☊, ☋, ⊕, and likewise to Capella, the Heart of the Scorpion, the right shoulder of Orion, the eye of the Bull, the left shoulder of Orion — p. 743
- What effects it has if it is made to Rigel, to Canopus, to the tail of ♑, to the Heart of the Lion, to Sirius, to Arcturus, to Spica of ♍ — p. 744
- What effects it has, finally, if it is made to the Pleiades, to the head of Algol, to the eleventh and the twelfth house, and to the horoscope — p. 745
- Directions of the Sun are admitted on account of health, public offices, the favour of the great, and the father's reputation — p. 745

- What effects are to be looked for if a direction of the Sun is made to the ☌, △, ✶, □, ☍ or the term of Saturn, of Jupiter or of Mars — p. 746; likewise of Venus or of Mercury — p. 747; or of the Moon — p. 748
- He explains the directions of the Sun to ☊, ♅, ⊕, to Rigel, to the Heart of ♏, to the Lesser Dog, to the Heart of ♌[?], to the head of Hercules, to the eye of ♉, to the Claws of ♍ — p. 748; and to Spica of ♍, to the southern horn of ♉, to the Pleiades, to the Asses, and to the Manger — p. 749
- He unfolds the directions of the Sun to each of the celestial domiciles — pp. 749 & 750
- Directions of the Moon are made on account of the state of body and mind, and on account of the mother, sisters, wives, daughters and so on — p. 750
- He sets out, by way of their effects, the directions of the Moon to the ☌, △, ✶, □, ☍ and the term of Saturn — p. 750; to the syzygies, and to the term of Jupiter, of Mars or of the Sun — p. 751; of Venus and of Mercury — p. 752
- The directions of the Moon to ☊, ♅ and ⊕: read their significations on p. 753; likewise to Rigel, to Spica of ♍, to the Bright Star of the Hydra, to the tail of the Swan, to the left shoulder of Orion and of Boötes, to the neck of the Serpent, to the star of the Serpent-bearer, to the falling Vulture, to the nebulous star in the eye of ♐, to the Bright Star of the Crown, and to the Heart of ♏ — p. 753
- Finally, he sets out the significations of the directions of the Moon to the twelve celestial domiciles — p. 754
- The part of fortune is directed for the sake of riches and the state of the household — p. 755
- He explains the directions of the part of fortune to the ☌, □, ☍, ✶ and △ of Saturn, Jupiter, Mars and the Sun — p. 755; and he interprets the same syzygies of it to Venus, Mercury, the Moon, ☊ and ♅ — p. 756
- He gives the directions of the part of fortune to each of the celestial domiciles, together with their significations — p. 756, in the same place
- The effects of directions are unlike one another, at times more violent, at times milder — p. 756
- He teaches how the magnitude of the effects is to be weighed — p. 756; but he clarifies the same point with special and necessary cautions — p. 757
- Bad directions often anticipate their own year — p. 758; when this happens may be read in the same place
- The precepts set out so far are illustrated by two examples in the following pages
- Tables of the directions of a certain nobly born native may be seen — pp. 758 & 759

- What befell that noble native in particular years by the decree of the directions — p. 760 and following
- What directions brought upon another very learned man in certain determined years of his life — p. 764

C A P U T II.

On annual profections.

- What annual profections are, or are called — p. 765
- By an annual profection every significator completes 30 degrees, whether it is a planet or some point of the ecliptic — p. 765
- There are indeed monthly and daily profections as well, but those are not so closely attended to, and can easily be understood. In the same place
- The rule for finding the profection of any significator whatever — p. 765; but it is had more compendiously from a table.
- A general table of profections is found on p. 766, where there is also a special table for a certain nobly born native, and on p. 767 one for another very learned man.
- To what end the special tables of profections are constructed — p. 766
- The way of ascertaining the significators for a whole year, which the profection can reach on certain days — pp. 766 & 767
- He teaches how those particular days are to be tracked down by calculation — p. 768, both by precepts and by examples; and again, more compendiously and by tables — p. 769
- The method of finding the arc of progression for any given time — p. 769
- The chief use of profections is that they show happy and unhappy years — p. 770
- The foundation of the climacteric years is drawn out of the profections — p. 770
- Which years are called climacteric, and what they bring, whether they arise from the seven-year or from the nine-year period. In the same place
- The 36th year is deadly for men, the 72nd and the 84th for the old; but the Heroic climacteric is the name given to the 56th year alone — p. 770
- The profections of the lords of the seven-year periods likewise show well-omened and ill-omened years, and from these the seven-year climacterics are chiefly derived — p. 771
- The 49th year, the square of seven, is the most powerful, as is the 81st, the square of nine; more dangerous still, however, is the 63rd, which is made up of 7 and 9 multiplied into one another — p. 771
- The lords of the seven-year periods are commonly called Alfridaries [Alfridariæ] — p. 771; see their little table in the same place
- He shows the use of the table of alfridaries — p. 772
- Some alfridaries are principal, others participant — p. 772

- What the principal alfridaries afford in the matter of children, riches, pleasure, labours, honour, talent, counsel, and so on — see p. 772
- The profections of the horoscope disclose dangerous years and the lords of the years — p. 773
- If the several planets are lords of years they have operations peculiar to themselves; he reviews these — p. 773 and following
- Profections are weaker than directions, yet they greatly increase the force of directions — p. 775; or else they retard it — p. 776
- Rules of judgement, showing when directions are deferred to the following year on account of profections — p. 776
- Profections disclose not only well-omened or ill-omened years but the days as well; for the method see p. 776
- How the effect of profections is to be determined in particular. In the same place
- Finally the doctrine set out so far is explained by the example of a noble Baron, and caput 2 is brought to a close.

C A P U T III.

On revolutions.

- What revolutions are in general — p. 778; what a revolution of the world or of a nativity is, in the same place
- The ways of finding revolutions are many — p. 778; but an easy and accurate one is set out — p. 779, and illustrated by an example — p. 780
- The method of erecting figures of the heavens for the moments of the revolutions — p. 779
- He supplies general rules of judgement for revolutions — p. 781; but special ones — pp. 782, 783 & 784
- The lords of the ascendant also bear on the judgement of revolutions; on them — p. 784. Likewise the ascending signs — p. 785
- What it denotes if Saturn in the revolutions arrives at his own place or at that of another planet — p. 785
- If Jupiter comes there — p. 785; Mars and the Sun — p. 786; Venus or Mercury — p. 787; and if, finally, the Moon — p. 788
- An example is applied to the precepts, and it leads the way in the method of judging — p. 788

C A P U T IV.

On transits.

- What the transits of the planets are called, and how they are brought to bear on genethliacal judgement — p. 789
- The several planets have their own particular times of transit, in proportion to their motion — p. 789
- There are 72 principal places in which transits are customarily considered. In the same place

- Some transits are reckoned good, others bad, others middling, from the nature of the planets. In the same place
- Transits, no differently from profections, are either fitted to directions — 789[19]; or else they are considered on their own — p. 790
- Transits by themselves seem to have little force, but they stir up directions and bring them perceptibly into act — p. 789
- In particular, transits fix the days and the months of events, whether these be good or bad — p. 790
- He teaches how transits are to be sought from the ephemerides and turned to use — p. 790, both by precepts and by examples.

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INTRODUCTION, or A COMPENDIOUS ACCOUNT OF THE EPHEMERIDES

in which are explained not only what serves for a fuller understanding and use of the Ephemerides, but also a great many further chronological, astronomical and astrological precepts — and explained with such ease that anyone may go on from them to compose annual calendars and judgements of nativities.

PROOEMIUM

On the name, definition and use of the Ephemerides, and on the parts of the Introduction.

What the Greeks call Ἐφημερίδες ἀστρονομικαὶ [Greek: ephēmerides astronomikai, "astronomical day-books"; the second word is set with this shop's στ-ligature] and the Latins *Diaria* are so named because they determine, for each single day, the motions of the heavenly bodies and the συζυγίας [Greek: syzygiai, the syzygies]. They are also commonly called *Calendaria*, from the first days of the months — as the chief days, sacred and auspicious — which the Latins call the Kalends. [Margin: The Ephemerides are called *Diaria*.] [Margin: Where the name *Calendaria* comes from.] For just as on the Kalends of each month, which showed the Hebrews the νεομηνίας [Greek: neomēniai, the new moons], sacrifices were celebrated among the people of GOD — Numbers 10 v. 20 and ch. 28 v. 11; Isaiah 1 vv. 13 and 14; Ezekiel 46 v. 3 — and banquets were held (1 Kings 20 vv. 5 and 18)[21], so among the Romans the common people were *calata*, that is, summoned by the Pontifex to the Capitol, beside the Curia Calabra, to hear the number of the Nones and which feast days would fall within the whole month (Macrobius, *Saturnalia* I.15). The Arabs call it אלמנה [Hebrew: almanah, "a numbering, a distribution"] *Almanah*, meaning as it were a numbering and a distribution, the word being drawn from the

[19]the page reference is set without the "p." that the neighbouring entries print
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[21]*1 Reg.*, the First Book of Kings in the Vulgate's numbering, is 1 Samuel in English Bibles

Hebrew root מנה [Hebrew: manah, "he numbered, he distributed"] — since in the Ephemerides the years are distributed into months and the months into days, and the position the heaven holds on each single day is set out distinctly in figures and in the symbols of the signs. [Margin: *Almauah*.] [recte: *Almanah*] The common people call the little books derived from these for everyday use *Practici*, since by them what is to be done — above all the work of the countryside — is customarily shown and foretold for each single day from the position of the heaven. [Margin: The *Practici* books.]

Astronomical Ephemerides, then, are tables of this kind: for fixed periods, defined by their own limits and marks, they set out in figures the motions of each of the planets, in longitude as well as in latitude, together with the planets' syzygies and the other conditions which it is customary to consider in the heavens on astronomical and astrological grounds — day by day through the civil months. [Margin: Definition of the Ephemerides.]

For that they are tables, distinguished by their own rows, classes and figures, is plain to anyone even from this: that in any Ephemeris the months of the year are set out first, in order and distinctly, under their own titles. Then, beneath these, the days into which each month is divided are distinguished from one another by figures and — where there is need — by the Dominical letters, with the names of the Sundays and of the feast days added. Third, the places which the several planets hold at the very moment of midday are displayed for examination. Fourth, the marks of the aspects and of the other occurrences in the heavens are indicated, with lines drawn lengthwise and crosswise to keep everything apart. [Margin: The Ephemerides set out the months and days of the years distinctly.] [Margin: They also show the motions, the aspects and the remaining occurrences of the stars.] And that they suit particular years — years circumscribed by their own limits and marks — and not indiscriminately all years, is clear from this too: later years always stand further off from the more notable preceding years of the era, and they have a different position of the heaven, because of the continuous and divergent motion of the various stars, and different events of the year, such as weather, the high price of grain, wars and the rest.

But it is GOD himself who requires of us this distinguishing of times and this consideration of the heavens' motions. He not only established the lights and the stars in the firmament of heaven to this very end — as is written in Genesis i v. 14 — that they should divide the day from the night, and be for signs, for seasons, for days and for years; a thing that Plato too, the most excellent of the heathen philosophers, attests in the *Timaeus* in these words: [Margin: The distinguishing of times and the consideration of the heavens' motions is laid upon us by GOD himself.]

> ἐξ ο[?] λόγου καὶ διανοίας θεοῦ τοιαύτης π[?]ς χρόνου γένεσιν,
> ἵνα γεννηθῇ χρόνος, ἥλιος, καὶ σελήνη, καὶ πέντε ἄλλα ἄστρα,
> ἐπίπλην ἔχοντα πλάνητες, εἰς διορισμοὺς, καὶ Φυλακὴν ἀριθμῶν
> χρόνου γέγονε.

That is: by this reasoning and counsel of GOD the Sun and the Moon were made for the establishing of time, and the other five heavenly bodies, which are commonly called the wandering stars, so that by observing them time might be distinguished and the numbers of time kept. And for this reason too he gave us men an upraised countenance and eyes set upright, so that we might contemplate the heavens and those wonderful celestial motions, which would teach us of his immeasurable wisdom, power and goodness.

Next, these tables are useful and necessary to the ministers of the Church. It falls to them — if, following Paul's precept in 1 Corinthians ch. 14, the last verse, they mean to do all things in the Church ἐ[?]χημόνως καὶ κατὰ τάξιν [Greek: "… and according to order"; the first word's opening sorts do not resolve, and the page sets the word for "and" and the word before τάξιν as abbreviations] — to instruct the people of GOD at fixed and appointed times in the several articles of the faith and in the precepts and examples of a holier life, of virtue and of true piety, and to urge and exhort that same people to a steadfastness in religion like that with which the Martyrs professed their faith. [Margin: This teaching is necessary to the Church.] Third, they serve the political condition of mankind, which can neither hold together nor be governed without fixed divisions of time by which all things are done and carried through decently and conveniently. [Margin: To the commonwealth.] Fourth, they are so necessary to private persons that anyone who wishes not to live after the manner of brutes, but to belong to human society and be counted part of it, must look to them for the divisions of time, and must see at what times public assemblies are held in church or in the state, and all matters are undertaken in order and fittingly. [Margin: To private life.]

They are of great use, too, for the successful practice of Medicine; for the right handling and understanding of cosmographical, historical and chronological studies; for the working of agriculture; and for the other πραγματείας [Greek: pragmateiai, "occupations, practical business"] necessary to life. Finally, how great— [Margin: It serves Medicine and all the sciences.]

—a pleasure and delight they pour over those who look upon the times set out in order, the distinct motions of the heavens, and even the moments of eclipses. To anyone who examines these tables with any care it is plainer than I could hope to put into words.

Since there are three chief heads about which we see those who consult the tables of the Ephemerides to be most concerned — Time, the Position of the heaven, and Effects — we, being about to set out the use of these tables, have divided this whole exposition of ours of the Ephemerides into three parts, so as to satisfy anyone's desire. [Margin: The parts of the exposition of the Ephemerides are three.] [Margin: Time.] The first is on time. It teaches how the year in question is to be numbered from its own epochs on chronological foundations; how it is to be fixed by the common notes; how it is to be divided into months and days; how the calendars of nations outside the Roman empire are to be understood; and how everything necessarily required for the equation

of time [æquatio temporis] and for the reduction of the Ephemerides to other places on earth is to be worked out. The second is on the position of the heaven. It shows by what method the disposition of the heaven and of all the stars at any given moment of time is to be found from the Ephemerides; how the declinations, the ortive amplitudes [amplitudines ortivæ], the culminations [cœli mediationes], the risings and settings, and the other affections such as the aspects and eclipses are to be gathered; and how the figure of the heaven, together with the directions, is to be drawn up for the framing of prognostications. [Margin: Motion.] [Margin: Effects.]

The third is on effects. It shows the method of judging not only the weather and the other events of the year, but nativities as well.

PART ONE — ON TIME

Caput I. On the Epochs, or Eras

The word ἐποχή [Greek: epochē, "a checking, a holding back" — an epoch] is named from the verb ἐπέχω [Greek: epechō, "I hold back"], which means *inhibeo*, "I check." It is, as it were, a checking or a retention, by which something that is in continuous flux is held fast and fixed, so that everything else may be measured from it. [Margin: Where the word *Epocha* comes from.] And it is such a thing not only in the study of the celestial motions — where it is a fixed place in the heaven, marked out by a line, from which motion [is reckoned] — but also in time, where it is a fixed and notable beginning from which we number years, months and days both backwards and forwards. [Margin: What an Epoch is.]

It is commonly called a *Radix*, since everything else is computed from it as from a foundation and a starting limit. [Margin: An Epoch is also called a *Radix*.] It is likewise called an AERA — a word which the notaries, through a certain ignorance, first took over and put to use from the writings of the Spaniards; the astrologers then made frequent use of it, and at last it passed to writers generally. [Margin: Likewise *Æra*.] For *Aera* was not one word at the outset but several, and the Spaniards, stitching them badly together and running them into one another, made a single word of them, which was at length received among the Latins as well — as Matthieu Béroalde [Matthæus Beroaldus] notes (*Chronicum* bk. 4 ch. 4), drawing on Sepúlveda. [Margin: On the word *Æra*.] For since the rule of Augustus Caesar, which had been conferred on him alone and as a private grant, proved fortunate and salutary for the Spaniards in the year 38 before the birth of Christ, they took care to date all the years of their transactions and their deeds from Augustus Caesar, in this fashion: "These things were done, let us say, at Toledo, on the Kalends of

March, A. ER. A. CCL."[22] But through the carelessness of later generations the points were dropped, and the same letters came to be written run together, as though they formed a single word whose first syllable was the diphthong AE; and a declension was even assigned to the word.

Some call it a *Hera* as well. Pedro Mexía [Petrus Messias], in the third book of his *Silva*, says on the authority of Antonio de Nebrija's Spanish dictionary that this word is a corruption, and that it means "monarchy" — for they accordingly interpret *Hera Caesaris* as "the monarchy of Caesar." [Margin: It is also called *Hera*.] From this they give the name *Hera* to the reckoning-up of any stretch of time drawn from one of the kings, or from some other beginning worth remembering, down to another point of time under consideration. So we speak of the Hera of the world, the Hera of Christ, the Hera of the Julian ordinance; and universally we call a Hera any span of time reckoned from the notable beginning of a people or a sect.

Since it is the business of epochs, or eras, that earlier stretches of time should be referred to them as to a fixed limit, the more notable epochs are rightly entered in ephemerides and calendars, which are the standards of time. In this way one can tell what number any given year holds — not only from the Nativity of our Saviour JESUS CHRIST, which is the epoch we Christians use most of all whenever a piece of business has to be dated, but also from the beginnings of other memorable things: the creation of the world, the Flood, the Olympiads, the founding of the City, and so on. [Margin: The business of the epochs.] For those who are furnished with principal intervals of years of this kind understand better the distinctions of time as they variously arise, and read history to much greater profit.

First, then, that famous epoch which is reckoned from the time of the incarnation of CHRIST, and is the one most widely current among Christians, is customarily set down in the Ephemerides — since it puts before our eyes the beginning of our restored salvation, to which it is altogether fitting that every Christian should look back daily with devout thanksgiving. [Margin: The Christian epoch.] We read that the man who laboured to fix and determine this era was Dionysius the Scythian, surnamed Exiguus, a Roman abbot, at the very time when the liberal arts and the languages had been all but driven out of Italy and wiped away by the repeated incursions of the barbarians. [Margin: Dionysius the author of the epoch of Christ.] By his computation, and with the approval and by the command of the Emperor Justinian and of the Roman pontiff John II, surnamed Mercurius — so Bede and Marianus Scotus report — it was introduced in the year of Diocletian 248, and was confirmed by the applause of most Christians. [Margin: The Christian epoch was introduced in the time of the Emperor Justinian and of John II, Pontiff.] They not only

[22] the points are the whole force of the etymology being reported here — the argument is that these separated letters were later run together into the single word *AERA*. The expansion customarily given for them, *Annus ERat Augusti*, is not printed on this page and is supplied editorially. The numeral CCL is the year 250 of the reckoning.

abolished the old epoch at that point, in the year of Diocletian 248, and began to number the year of Christ 532, but went on keeping that reckoning in living observance ever afterwards, down to these times of ours. At present, alongside the Diocletianic year 1312 — a reckoning still in use in Africa among the Abyssinians — there runs the Dionysian year 1606 of the Christian era, as will be said below.[23]

There is no lack of chronologers in our own day who affirm that this Christian era was rightly established, and who support it with arguments of their own. But very many of the more exact chronologers maintain that Dionysius slipped in designating this era. [Margin: Opinions on the epoch of Christ.] Passing over their arguments, let me at least report what a number of them lay down. As regards the numbering of the years, it is shown first that the nativity of Christ preceded the received Christian epoch: by a whole year, according to that most learned chronologer Heinrich Bünting [Heinricus Buntingus]; by two years, according to Jean du Temps [Ioannes Temporarius] (*Chronologicae demonstrationes* bk. 2, Canon 7) and Seth Calvisius [Sethus Calvisius], my particular friend and a most skilful chronologer (*Isagoge chronologica* ch. 44) — which Scaliger also asserts, both in the *Canones Isagogici* and in *De emendatione temporum* bk. 6; and by four years, according to Laurentius Suslyga the Pole, in his disputations on the year of the Lord's birth and death. Next, they do not all think alike about the time of year either. For although through very many centuries the memory of the Nativity was kept — in the Old Julian year, and also in the more recent Lilian year — eight days before the beginning of the new year, a little after the winter solstice, and is still kept so by the custom of the Church, nevertheless Matthæus Beroaldus (*Chronicum* bk. 4 ch. 2) — and Seth Calvisius [Sethus Calvisius] does not disagree with him (*Isagoge chronologica* ch. 46) — assigns the birth of Christ to the autumnal equinox, while du Temps [Temporarius], at the place cited above, assigns it to the spring. We, however, keep to common usage in these Ephemerides, so as not to appear to have innovated: up to the year which is the first of our work we number 1595 years — not completed years, which astronomical computation otherwise uses, but current years, since taking one away yields the completed years. [Margin: In the epoch of Christ we are obliged to keep the common opinion in our numbering.]

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[Margin: The derivation of the Christian era.]

For, to gather up that number in a few words:

[23] on the page's own figures (Diocletianic 248 = year of Christ 532) the two reckonings stand 284 years apart; 1312 and 1606 as printed stand 294 apart. The page does not show which figure is at fault.

	Years
The city of Jerusalem, with its Temple, was overthrown and levelled to the ground by Titus, son of the Emperor Vespasian, in the year of the Christian era	70
From there to the Diocletianic era, also called the era of the Martyrs, are counted years	214
Then to the reign of Constantine the Great, which he received from his father Constantius while Constantius was still alive, in the first year of the 271st Olympiad, years	21
From there to the Hegira of Muhammad, the era of the Arabs and the Turks, years	317
From there to the era of Yazdegerd, the murdered King of the Persians	10
From that to the coronation of Charles the Great, the first Emperor of the Germans and the Romans, which is recorded to have been performed at Rome by Pope Leo	168
From that to the Persians' Nawrūz of the Sultan [Neuruz Elsultani], that is, the newly corrected year, years	279
From there to Rudolf of Habsburg, through whom the house of Austria came to the Empire, are counted years	194
From that to the beginning of the Turkish empire, which Osman established, years	28
From there to the Emperor Rudolf II, who took up the rods of empire in the year of Christ 1576, on 12 October, some six years before the reform of the Julian year, years	275
And finally to the year we named, years	19
All of which, gathered into one sum, make up the years of Christ	1595

[Margin: The era of the Passion of Christ.]

Very close to this era is the one most writers reckon from the Passion and death of Christ. They hold that the 70 weeks of years treated by Daniel in chapter 9 come to their term in it, since those weeks end at last in the devastation and ruin of the Jewish polity, provided we weigh correctly the text of Daniel and Christ's own prophecy at Matthew 24:15.

[Margin: Various opinions about this era.]

Even about this era there is dispute among the authorities as to when they judge Christ to have suffered. Some place it in the 30th year both of his age and of the Christian era, on 25 March — so Lactantius, book 4, chapter 10; Tertullian, *Against the Jews*; and the Valentinians, as Irenaeus testifies, book 1, chapter 1. Suslyga [Sufyga] puts it in the year 31 of the Christian era, on 23 March. Others in the year 34, on 25 March — so Augustine, *On the Trinity*, book 4, chapter 5, Chrysostom, and Apollinaris. Others in the year 33: on 19 March according to Epiphanius of Cyprus, *Heresies* 51; on 25 March according to Bede the Anglo-Saxon, *On the Reckoning of Time*.

[Margin: The true time of the Passion of Christ.]

We, however, following the historical truth of the biblical text, place the time of the Baptism on 7 November, feria 1, in the 30th year of Christ's age and the 28th of the Christian era; and his preaching, which covers 4 full years and 147 days after the baptism. Since the eating of the Paschal lamb was kept at different times — by Christ on the 14th day of the moon, by the Jews when the 15th was complete — and on a correct comparison of the Hebrew year with the Julian, we must hold, with Eutropius, Giovanni Lucido [Ioannes Lucidus], Jacob Christmann [Iacobus Christmannus], Seth Calvisius [Sethus Calvisius], Bartholomäus Scultetus [Barth. Scultetus] and the other more

reliable chronologers, that the time of the Passion and death falls, according to the Hebrew calendar, in the year 3793 of the Jewish era, on the 15th day of the month Nisan by the Mosaic reckoning but the 14th of Nisan by the Jewish reckoning, in the course of the Julian year 78; that is, in the year 33 of the common Christian era, on 3 April in the Julian form, 1 April in the Gregorian form. For in that year alone did the Paschal full moon fall on a Friday. In the year 30 of the Christian era it fell on 5 April, which was feria 4; in the year 31, on 26 March, feria 2; and in the year 34, on 23 March, which was feria 3. The year proposed is therefore the 1562nd from the death of Christ, as is plain from subtracting 33 from 1595. That reckoning must nevertheless be increased by one on 3 April in the Julian year and on 1 April in the Gregorian, so that the year runs as 1563.

[Margin: The era of the founding of the world.]

The second era is the creation of the world and of the human race. About this in particular there is great controversy among the chronologers, so that one can scarcely lay down anything certain. For they cross swords first over the part of the year in which the world was founded: the theologians

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[Margin: Many hold that the world was founded in spring.]

and many chronologers — Eusebius, Basil, Athanasius, Ambrose, Cyril of Jerusalem, Augustine, Gregory of Nazianzus, John of Damascus, Bede, Isidore, and among more recent writers Luther, Giovanni Lucido [Ioannes Lucidus] and Heinrich Bünting [Buntingus] — put it in spring; Mercator in high summer itself, with the Sun set in ♌. The rest — the Hebrews with Rabbi Eleazar, and the Greek writers Josephus, Nicephorus, Clement and Cedrenus, and likewise not a few chronologers, Paul Crusius [Paulus Crusius], Matthieu Béroalde [Matthæus Beroaldus], Rudolf Hospinian [Rodolphus Hospinianus], Seth Calvisius [Sethus Calvisius] and Scultetus — judge that the world was created by God in autumn.

[Margin: We maintain that it was founded in autumn.]

The opinion that appeals to me most is that of those who assign the beginning of the world to the month Ethanim, later called Tishri — that is, to the start of autumn.

[Margin: The grounds of this opinion.]

[Margin: 1.]

For from the founding of the world down to the departure of the Israelites from that harshest slavery, which they endured in Egypt for 144 years after the death of Joseph, the Hebrews began their year from no other starting point than the month Tishri, which at that period fell in October by Julian reckoning; and on it the Jews in our own day still keep Rosh Hashanah, that is, the head of the year. True, at Exodus 12 God commanded them to observe the month Abib — which in the course of time they called Nisan — as the opening of the year, and they afterwards did so in ecclesiastical business as well, and still do. But it is certain that this was ordained solely as a memorial of that miraculous

deliverance; there would have been no need to command it if the beginning of the year had already run from the month Nisan.

[Margin: 2.]

Then we see that the Jews derive all their computations of time from the month Tishri, and that they begin from it the Jubilee too, and the seventh year that was consecrated to God, so that the produce of two years may not be lost.

[Margin: 3.]

For if they were to make Nisan the first month and start the year from it, they would lose two years' produce in the seventh year, since they could neither gather the sixth year's harvest nor sow in the seventh.

[Margin: 4.]

Rightly, then, is it prescribed at Exodus 23:16 that the solemnity of Tabernacles is to be kept at the going out of the year, and at chapter 34, verse 22, that this feast ought to be kept when everything is stored up at the year's return.

[Margin: 5.]

Besides, in the account of the universal Flood — which began on the 17th day of the second month and was over a full year later, on the 27th day of the same month, when Noah and his household came out of the ark — it is plain that it happened in the month Bul, afterwards called Marheshvan, which at that period coincided with the Julian November. Josephus testifies to the same thing: in *Antiquities*, book 1, chapter 5, he states that the Flood began in the month Marheshvan, which the Macedonians call Dios.

[Margin: 6.]

There can be no doubt, then, that the world was created in autumn, when the fruits are ripe. For the herbs, plants and trees are said to have been created in such a way that, newly come into being though they were, they nevertheless bore their own seed and fruit in full perfection — which God is said to have seen and approved. The order of nature, once instituted by God, is never changed while this machine of the world lasts. Moreover, the seasons of the Fall and of the Redemption are better set against one another than joined together; and the grim winter that followed was better suited than a pleasant, agreeable summer to bring our first parents to recognize and bewail that most hideous fall.

Nor does the argument hold that is brought against this by those who push the Flood back into springtime: that the earth could not so suddenly have produced fresh crops for the animals and for the people who had come out of the ark with Noah, and that the inhabitants of the earth must have gone hungry for a whole year. For just as spring was not the fit season for gathering the food which Noah had been ordered to carry into the ark for himself and for all living creatures — harvest and autumn were fitter — so the seasons of spring and summer were better suited to drying up the waters than autumn and winter, which are by their nature the damp and rainy parts of the year. And if Noah came out in autumn, he could gather the fruit that had meanwhile come up on trees and shrubs, here and there on the higher ground, while the earth was drying; and he could get the sowing under way as well. But if the

Flood had begun in spring, two years' produce would have been lost, because Noah would have been stuck in the ark at both harvest time and sowing time.

Next, as to the number of years, here too there is great disagreement among the authorities. What the Eastern writers of the Greek church, the Western writers of the Roman, and the He- 8

brews, that is the Jews, lay down on this matter at the present day, we shall set out. From historical truth as well we shall gather, era by era, a certain fixed number of years down to the Nativity of Christ — since in the ephemerides for each individual year, right at the entry, we have noted the times reckoned from their several eras, having in this rejected the opinion of the earlier edition and followed those outstanding chronologers Seth Calvisius [Sethus Calvisius], Joseph Justus Scaliger and certain others, whose chronological demonstrations rest on the soundest foundations and are contradicted by others in vain.

[Margin: The Greek church and the Muscovites.]

As for the Eastern Greeks, whom the Muscovites and the Christians under the Turkish Emperor for the most part follow, it is clear from the still-vigorous practice of those who acknowledge the Patriarch of Constantinople as head of the Church, and from Scaliger, *De emendatione temporum*, books 5 and 6, that they count 5508 years from the founding of the world to the birth of Christ — though Nicephorus in his *Chronologia* sets 5500, Theophilus 5531, and Metheodorus only 5000. So if to a given year of Christ — 1595, for example — we add 5508, the result is 7103 years, which is the reckoning from the beginning of the world according to the Greeks, its start being taken, in the Julian year-count, from the month of September of the year of Christ 1594. For on the very first day of September of the year of Christ 1595 the count of years from the beginning of the world is increased by one, so that they become 7104 years. And this reckoning is increased in the same way in the following years, so that from the year of Christ 1605, beginning with the Julian month of September, the year of the world 7114 likewise begins, and it ends with the close of August of the year of Christ 1606. This I learned from Petrus Petreius, a Swede and a most learned man, who served a full five years under the Muscovite yoke and was released with letters of safe-conduct which he received from the Grand Duke Dmitry, son of Ivan, through the intercession of the Polish envoy.

[Margin: The Latin church.]

The Western, Roman writers, as is established from the *Ecclesiastical History* of Eusebius and from Platina [Bartolomeo Platina], *On the Lives of the Popes*, reckon 5199 years from the beginning of the world to the birth of Christ, and make the start from the Julian month of March, which is the first of the spring months. If we add to these the 1595 years of Christ, 6794 years are produced — the count being made, as has been said, from the month of March, since February and January still belong to the year 6793.

[Margin: The Jews.]

The Hebrews and the Jews, and among them the recent rabbis, count 3761 years from the beginning of the world to the birth of Christ, the start being

made from the first day of the month Tishri, which at that period coincided with 7 October in the Julian year, but with 7 September in the Gregorian. So if 1595 years from the Nativity of Christ are added to 3761 years, the year 5356 results — which the Jews began to count from the founding of the world on 4 September in the Gregorian year, but on 25 August in the Julian.

[Margin: The true opinion about the years of the world.]

But according to historical truth there are, not without good reason, neither more nor fewer years established from the founding of the world to the birth of Christ than 3949 complete Julian years, together with the 67 days that ran out between the month Tishri — that is, 26 October — and the beginning of the month of January, from which we derive the era of Christ. For this opinion of ours — to pass over the other grounds for brevity's sake — is plainly confirmed by the eras that follow: the universal Flood, the promise made to Abraham, the departure of the Israelites from Egypt, the Temple of Solomon, the destruction of the Temple and the city, and the intervening time between that destruction and the birth of

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[Margin: The era of the Flood.]

—Christ. As for the Flood, or universal cataclysm, it is established from chapters 5 and 7 of Genesis — provided we follow the truth of the Hebrew text and not the corrupt codices of the seventy translators — that it came to an end in the year 1656 complete from the beginning of the world, that is, in 1657 current.

	on the completion of the year of his age	he begot	According to the Seventy translators; likewise Nicephorus and Eusebius
For Adam	130	Seth	230
Seth	105	Enosh	205
Enosh	90	Kenan	190
Kenan	70	Mahalalel	170
Mahalalel	65	Jared	165
Jared	162	Enoch	162
Enoch	65	Methuselah	165
Methuselah	187	Lamech	167 (older copies read 187)
Lamech	182	Noah	188
Noah was in his 600th year when the Flood began, and it ceased when that same year was complete			600

So the sum of the years is 1656 complete from the founding of the world to the end of the cataclysm — which the Hebrews also accept.

I hold, then, that the year in which, on the reckoning of the sacred writings, Noah remained in the ark with his household is not to be added to the 1656 years so as to make the years to the end of the Flood 1657 complete, from which two would afterwards be counted to the birth of Arphaxad and the remainder in the era that follows. That view I had indeed followed before now, with Crentzheim [Krentzheim], Bucholzer and others; but it must rather be counted in with the final year, 1656, so that that year is completed. For Genesis 7:11 shows expressly that the Flood began in the six-hundredth year of Noah's life, in the second month, on the seventeenth day — that is, while the year of the world 1656 was still running, of which only 46 days had elapsed — and that Noah came out in the current year of the world 1657, on the twenty-seventh day of the second month, or the fifty-seventh from the beginning of the year.

That this cannot be otherwise is proved by the passages agreeing on the point that are read in Scripture. For at Genesis 11:10 it is said that Shem begot Arphaxad two years after the Flood, that is, when 1658 years of the world had passed; and at Genesis 9:28–29, that Noah lived three hundred and fifty years after the Flood, so that all his days were nine hundred and fifty years, and that he therefore died when 2006 years were complete from the beginning of the world. For if the words *after the Flood*, which are the same in both places in the Hebrew sources and in all the translations, were to be taken of years counted from 1657 complete, Noah would have lived 951 years, which contradicts Scripture.

Nicephorus and Eusebius put the figure at 2243 years, as the sum of the numbers on the right shows. And if these years are subtracted from the years of the founding of the world, counted either to the birth of Christ or to any other period one chooses, what remains are the years from the Flood to the times adopted.

[Margin: The era of the promise made to Abraham.]

Next, as to the promise made to Abraham concerning the blessed seed, on receiving which he went out from Haran, a city of Mesopotamia, into Palestine: it is certain from Genesis 12 that it falls in the seventy-fifth year of Abraham's age, 145. (For the Beroaldine conjecture[24] does not satisfy me, which Codomann and Temporarius follow, by which they strangely confuse the chronology of the

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—ancients here.) If, then, we join the time of that promise to the years recorded in Genesis 11, the years from the Flood to the promise come out as 367.

[24]another copy of this printing (BSB 10501686) reads *communem*, the reading the author's errata corrects to *commentum*; this copy prints *commentum*.

For Shem, being in the hundredth year of his age,	on the completion of the year of his age	he begot	Eusebius	Nicephorus
in the year after the Flood	2	Arphaxad	2	
Arphaxad	35	Shelah	135	
Shelah	30	Eber	130	Kenan 130
Eber	34	Peleg	134	
Peleg	30	Reu	130	
Reu	32	Serug	132	
Serug	30	Nahor	130	
Nahor	29	Terah	79	89
Terah	70	Abram	70	
Abraham goes out from Haran in the 75th year of his age	75		75	

All these years joined together make 367. From the founding of the world, however, adding the earlier 1656 years, the year is 2023. *The more recent rabbis, and the Jews, agree with us on this era.* Nicephorus, on the other hand, here counts 1157 years from the Flood, and 3399 from the founding of the world. For he adds 100 years to nearly every one of the fathers, and he also inserts Kenan, on the view of the seventy translators, assigning him 130 years — a man the Hebrew codices do not have. In Eusebius 1017 years are found, for he omits Kenan and assigns 79 years to Nahor, Terah's father. He therefore has 3259 years from the founding of the world to the promise made to Abraham.

[Margin: The era of the departure of the Israelites.]

Thirdly, the departure of the Israelites from Egypt — which was followed fifty days later by the promulgation of the Law, so that these two dates are commonly taken together as one and the same era — is fixed by St Paul in the Epistle to the Galatians 3:17, and by Moses too in Exodus 12:40, at 430 years. These are not to be counted from Jacob's descent into Egypt, as the chronologers demonstrate at length, but from the promise made to Abraham, or from his departure out of Haran — which is also what the Apostle's words imply. To gather up that number:

From the calling of Abraham to the birth of Isaac are 25 years, Genesis 21:5.

To Isaac, in his sixtieth year, Jacob and Esau are born — 60: Genesis 25:26.

From that point, Joseph is born in the 91st year of Jacob's age. This is established by comparing the years of Jacob and of Joseph, since Scripture does not expressly state the year of Joseph's birth. For Joseph was 30 years old when he was brought out of prison into Pharaoh's presence, Genesis 41:46. Afterwards followed 7 years of plenty and 2 complete years of famine, in which Joseph made himself known to his brothers in Egypt when they came to buy grain a second time, Genesis 45:11. Jacob, again, going down into Egypt in the third year of the famine, declares before Pharaoh, when asked about his age, that he is 130 years old: Genesis 47:9.

Jacob's 130th year therefore coincides with Joseph's 39th, from which it appears that Joseph was born in the 91st year of Jacob's age.

Further, the number of Joseph's years is 110: Genesis 50:22.

From Joseph's death to the birth of Moses the years can be neither more nor fewer than 64, if the number of years noted by the Apostle and by Moses is to agree.

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Finally, from the birth of Moses to the departure from Egypt are 80 years, Genesis 7:7 [as printed].

All these years collected together make up the number 430.

Calvisius gathers this number more briefly in chapter 34 of his *Isagoge*. He says that half of this interval of sojourning — namely 215 years — was spent in the wanderings of the patriarchs Abraham, Isaac and Jacob in the land of Canaan, and that his descendants passed the remaining half in Egypt, reckoned from Jacob's arrival in Egypt.

And over this interval Nicephorus and Eusebius agree. The more recent Jews subtract a five-year period and make it 425 years.

According to historical truth, then, it is clear that the departure of the Israelites from Egypt took place in the year 2453 from the founding of the world, and 797 from the Flood.

According to Nicephorus and the Eastern Greek churches, 3829 years are counted from the founding of the world to the departure of the Israelites from Egypt; according to Eusebius and the Western Roman churches, 3689; according to the Jews, 2448.

[Margin: The era of the Temple of Solomon.]

Fourthly, to the beginning of Solomon's Temple, *which the king began to build after the death of his father David, at the opening of the fourth year of his reign, 480 years are counted from the departure of the Israelites out of Egypt — 3 Kings 6:1 [= 1 Kings 6:1].*

And these can be gathered in the following way:

Moses presided over the people of Israel in the wilderness for 40 years, Deuteronomy 1:3.

For he died when he was 120 years old, Deuteronomy 34:7.

He is succeeded by the first judge of Israel, Joshua, in the 92nd year of his age complete, governing Israel for 18 years; for he dies in the 110th year of his age: Joshua 24:29.

After him comes the second judge of the people of Israel, Othniel, 40 years. Judges 3:11.

Then the third judge, Ehud or Aod, 80 years. Judges 3:30.

Fourth, Barak and Deborah, 40 years. Judges 5:31.

Fifth, Gideon, 40 years, Judges 8:28.

Sixth, Abimelech, 3 years. Judges 9:22.

Seventh, Tola, 23 years. Judges 10:2.

Eighth, Jair, 22 years. Judges 10:3.

Ninth, Jephthah, 6 years. Judges 12:7.
Tenth, Ibzan, 7 years. Judges 12:10.
Eleventh, Elon, 10 years. Judges 12:13.
Twelfth, Abdon, 8 years. Judges 12:15.
Thirteenth, Samson, 20 years. Judges 16:31.
Fourteenth, Eli the high priest, 40 years. 1 Kings [= 1 Samuel], verse 18.[25]
Fifteenth, Samuel and Saul, 30 years. Acts 13:21.
Sixteenth, David, 40 years. 2 Kings 5:4 [= 2 Samuel 5:4].

Finally Solomon presided over the people down to the beginning of the Temple for about 4 years, 3 Kings 6 [= 1 Kings 6]; for which, however, we count only three. For while his father David was still living, Solomon was crowned king against Adonijah, as appears in 3 Kings 1 [= 1 Kings 1]. From this he was king together with his father for nearly one year.

And so the whole sum of the years is, as before, 480.

Counting back, therefore, from the beginning of Solomon's Temple, there are 910 years to the Promise made to Abraham; to the Flood, 1277; to the creation of the world, 2933.

In this interval Eusebius does not disagree, since he likewise sets 480 years from the departure of the Israelites out of Egypt to the foundations of Solomon's Temple, so that for him the year of the world is 4169. The Rabbis and the Jews also give the same number, from which the Temple began to be built for them in the year of the world 2928. Nicephorus, by contrast, counts 630 years from the departure of the Israelites out of Egypt down to the death of David, and to the beginning of the Temple — three years of Solomon's reign being added — 6[?]3 years. For he adds 9 years to Joshua, and assigns 33 to the elders after Joshua and 111 years to the foreign oppressors [Alienigenæ] here and there. From this the beginning of the Temple falls for him in the year 4462 from the creation of the world.

[Margin: The era of the Babylonian captivity.]

Fifth, from the foundations of the Temple to the destruction of that same Temple and of the city of Jerusalem — *when Nebuchadnezzar, monarch of the Babylonians, after a siege of eighteen months [obsidio sesquiennalis] of the city, in the nineteenth year of his reign, carried off to Babylon Zedekiah, king of the Jews, then in his eleventh year, his male offspring having been destroyed and his eyes put out, bound in chains; burned the Temple with fire; and pulled down the walls of Jerusalem, as is in 4 Reg. c. 25 [= 2 Kings 25] and 2 Paral. cap. ultimo [= 2 Chronicles, last chapter] — we count 427 years. And we hold that the Babylonian captivity preceded that very destruction by nearly 11 years: not indeed the captivity that some of the chronologers assign to the fourth year of Iojachim [Jehoiakim] and the first of Nabocodonosor [Nebuchadnezzar], monarch of Babylon, but the one the text of Holy Scripture sets before us — which at 4 Reg. 24 verſ. 12, 13 and 14 [= 2 Kings*

[25]no chapter number is printed in this citation; the space between "1 Reg." and "verſ. 18" is an ordinary word space, so nothing appears to have fallen out of the forme. Nothing is supplied.

24:12–14] shows expressly that Nabocodonosor, only in the eighth year of his reign, carried off to Babylon the second king, Ioiachim [Jehoiachin], together with the sacred vessels and the leading men of the city, leaving only the poorer sort behind so that the fields should not lie deserted. And this span of 427 years we draw out from a careful collation of the kings of Judah and Israel, which the following table presents. In it the kings of Judah stand on the left and the kings of Israel on the right, while in the middle place the years numbered from the creation of the world are set down, so that the beginning of any king in the one kingdom may be matched against the year of the other king in the other kingdom.

Tabula collationis Regum Juda & Israel.

Table of the collation of the kings of Judah and Israel.

Solomon, king of Judah and Israel, began to build the Temple in the fourth year of his reign, as is in 3 Reg. 6, verſ. 1 [= 1 Kings 6:1], in the year of the world 2933. And afterwards he reigned a further 36 full years, as is in 3 Reg: cap. 11 verſ 42 [= 1 Kings 11:42] and 2 Paral. cap. 4 verſ. 31 [= 2 Chronicles; as printed], that is, to the year of the world 2969. On his death the kingdom was torn apart, and there were two lines of kings:

Reges Iuda — Kings of Judah	An·Re· Iudę	Anni Mundi	An·Re· Iſrael	Reges Iſrael — Kings of Israel
Rehoboam reigns 17 years. 3 Reg. 14 verſ 21. 2 Paralip. 12 verſ. 13 [= 1 Kings 14:21; 2 Chronicles 12:13]	1	2969	1	Jeroboam reigns 22 years. 3 Reg. 14 verſ. 20 [= 1 Kings 14:20]
Abijam is made king in the 18th year of Jeroboam; he reigns 3 years. 3 Reg. 15 v. 1. 2. Paral 13, v. 1. [= 1 Kings 15:1; 2 Chronicles 13:1]	1	2986	18	

Table continues on the following page.

Reges Iuda — Kings of Judah	An·Re· Iudæ	Anni Mundi	An·Re· Iſrael	Reges Iſrael — Kings of Israel
Asa begins to reign in the 20th year of Jeroboam, and reigns 41 years, as is in 3 Reg. 15, v. 9 & 10 [= 1 Kings 15:9–10].	1 · 3	2988	20	
	2	2989	21 · 1	Nadab son of Jeroboam was made king of Israel in the second year of Asa, and reigned 2 years. 3 Reg. 15 verſ. 25 [= 1 Kings 15:25].
	3	2990	22. 2. · 1	Baasha, having killed Nadab, seizes the kingdom in the third year of Asa, and reigns 24 years. 3 Reg. 15, v 28 & 33 [= 1 Kings 15:28, 33].

Reges Iuda — Kings of Judah	An·Re· Iudæ	Anni Mundi	An·Re· Ifrael	Reges Ifrael — Kings of Israel
	26	3013	1 · 24	Elah son of Baasha succeeds his father in the 26th year of Asa, and reigns 2 years. 3 Reg. 16 v. 8 [= 1 Kings 16:8].
	27	3014	2	Zimri, when the whole house of Baasha had been destroyed, usurps the kingdom in the 27th year of Asa, and reigns 7 days. 3. Reg. 16 v. 15 [= 1 Kings 16:15].
	27	3014	1	Omri is chosen king, and at the same time Tibni also, the people being divided: 3 Reg. 16 v. 16 & 21 [= 1 Kings 16:16, 21]. And Omri reigns 12 years, 3 Reg, 16 v. 23 [= 1 Kings 16:23].
	31	3018	5	Omri reigns alone over Israel in the 31st year of Asa, in the same place.
	38	3025	12 · 1	Ahab son of Omri succeeds his father in the 38th year of Asa, and reigns 22 years; 3 Reg 16 v. 29 [= 1 Kings 16:29].
Jehoshaphat son of Asa begins to reign in the 4th year of Ahab, and reigns 25 years. 3 Reg. 22 verf 41 & 42; 2 Paral. 20 verf. 31 [= 1 Kings 22:41–42; 2 Chronicles 20:31].	1 · 41	3028	4	
In this 17th year of his reign, Jehoshaphat, seeing that he had several sons, assigns the kingdom to Jehoram, the elder by birth, and bestows gifts on the rest. 2 Paral. 21 verf. 3 [= 2 Chronicles 21:3]. Likewise at 4 Reg. 1 verf. 17 [= 2 Kings 1:17] it is said that in the second year of Jehoram king of Judah, Jehoram son of Ahab came to the kingdom of Israel.	17	2044 [recte: 3044]	20 · 1	Ahaziah son of Ahab is designated king in the 17th year of Jehoshaphat, and reigns two years. 4 Reg. 1 v. 1 & 2 [= 2 Kings 1:1–2].

Table continues on the following page.

Reges Iuda — Kings of Judah	An·Re· Iuda	Anni Mundi	An·Re· Ifrael	Reges Ifrael — Kings of Israel
IOSAPHAT [Jehoshaphat]	18	3045	21 · 2 · 1	Jehoram son of Ahab is put in the place of his dead brother, in the 18th year of Jehoshaphat, and reigns 12 years. 4 Reg. 3 v. 1 [= 2 Kings 3:1].

Reges Iuda — Kings of Judah	An·Re· Iuda	Anni Mundi	An·Re· Ifrael	Reges Ifrael — Kings of Israel
Jehoram son of Jehoshaphat comes to the kingdom in the fifth year of Jehoram son of Ahab, and reigns 8 years. 4 Reg. 8. v. 16 & 17, 2 Paral. 21 verſ 5 [= 2 Kings 8:16–17; 2 Chronicles 21:5].	1 · 22	3049	5	
Ahaziah son of Jehoram is declared king by his father in the 12th year of Jehoram son of Ahab, and reigns 1 year. 4 Reg. 8 v. 25 & 26 [= 2 Kings 8:25–26].	8 · 1	3056	12	
		3057	1	Jehu son of Nimshi is anointed king, and reigns 28 years. 4 Reg. 9 v. 3 & 6, and 4 Reg. 10 v. 36 [= 2 Kings 9:3, 6; 10:36].
Athaliah, her son Ahaziah being dead, kills the whole royal seed, and reigns 6 full years — for in the seventh she was killed. 4 Reg. 11, v. 4, 2 Paral. 22, v. 12 [= 2 Kings 11:4; 2 Chronicles 22:12].	1	3057		
Joash, when Athaliah had been cut down, is designated king in the 7th year of Jehu, and reigns 40 years. 4 Reg. 12 v. 1. And 2 Paral. 24 v. 1 [= 2 Kings 12:1; 2 Chronicles 24:1].	1 · 7	3063	7	
	23	3085	1	Jehoahaz son of Jehu succeeds his father in the 23rd year of Joash, and reigns 17 years. 4 Reg. 13 v. 1 [= 2 Kings 13:1].
	37	3099	15 · 1	Joash is designated king while his father is still living, in the 37th year of Joash king of Judah, and reigns 16 years — nearly three of them with his father, the remaining 12 alone. 4 Reg. 13 v. 10 [= 2 Kings 13:10].
Amaziah is put in the place of his father while the latter is still living, in the second year of Joash king of Israel, and reigns 29 years. 4 Reg 14 v. 1 & 2. and 2 Paral. 25 v. 1 [= 2 Kings 14:1–2; 2 Chronicles 25:1].	1 · 38	3100	2	
	15	3114	16 · 1	Jeroboam succeeds his father Joash in the fifteenth year of Amaziah, and reigns 41 years. 4 Reg. 14 v. 23 [= 2 Kings 14:23].
After the death of Amaziah an interregnum of 11 full years is allowed.	29	3128	15	
Uzziah, otherwise called Azariah, succeeds his father after the interregnum in the 27th year of Jeroboam. 4 Reg. 15, v. 1 & 2. And 2 Paral. 26 v 3 [= 2 Kings 15:1–2; 2 Chronicles 26:3]. And he reigns 52 years.	1	3140	27	
	14	3153	40	An interregnum of 23 full years must necessarily be allowed here.

Table continues on the following page.

Kings of Judah [Reges Iuda.]	Years of reign, Judah [An. Re. Iudę.]	Years of the World [Anni Mundi]	Years of reign, Israel [An·Re· Iſrael]	Kings of Israel [Reges Iſrael.]
	38	3177	1	Zechariah son of Jeroboam comes to the kingdom in the 38th year of Azariah. He reigns 6 months: 4 Reg. 15 v. 8 [= 2 Kings 15:8].
	39	3178	0	Shallum son of Jabesh enters upon the kingdom in the 39th year of Azariah. And he reigns one month: 4 Reg. 15 v 13 [= 2 Kings 15:13].
Uzziah or Azariah [Uſias vel Azarias.]	39	3178	1	Menahem, once the murder of king Zechariah and Shallum's savagery were known, vigorously makes away with the assassins; and he himself reigns 10 years: 4 Reg. 15 v. 17 [= 2 Kings 15:17].
	49	3188	1	An interregnum of one year is rightly inserted here.
	50	3189	1	Pekahiah, or Phaceia, son of Menahem at length succeeds his father in the 50th year of Azariah, and reigns for two years. 4 Reg. 15 verſ. 23 [= 2 Kings 15:23].
	52	3191	1	Pekah, or Phacee, son of Remaliah, having killed Pekahiah, takes possession of the kingdom himself in the 52nd year of Azariah; and he reigns 20 years: 4 Reg. 15 v. 27 [= 2 Kings 15:27].
Jotham son of Azariah succeeds his father at his death in the second year of Pekah son of Remaliah, and reigns 16 years. 4 Reg. 15 v. 33, and 2 Paral. 27. v. 1 [= 2 Kings 15:33; 2 Chronicles 27:1].	1	3192	2	
Ahaz son of Jotham is substituted for his father in the last year of the reign, in the 17th year of Pekah; and he reigns 16 years. 4 Reg. 16 v. 1 & 2, and 2 Paral. 28. v. 1 [= 2 Kings 16:1–2; 2 Chronicles 28:1].	1 · 16	3207	17	
	5 · 20	3211	1	Hoshea cuts down Pekah son of Remaliah in the 20th year of Jotham; and in the meantime, during the interregnum, he holds the government by tyranny for nearly 7 years. 4 Reg. 15 v. 30 [= 2 Kings 15:30].

Kings of Judah [Reges Iuda.]	Years of reign, Judah [An. Re. Iudę.]	Years of the World [Anni Mundi]	Years of reign, Israel [An·Re· Iſrael]	Kings of Israel [Reges Iſrael.]
	12	3218	1	Hoshea at last gains the kingdom in the 12th year of Ahaz, and reigns 9 years. 4 Reg. 17 v. 1 [= 2 Kings 17:1].
Hezekiah son of Ahaz is taken by his father into the government, in the third year of Hoshea king of Israel. And he reigns	1 · 14	3220	3	

Table continues on the following page.

Kings of Judah [Reges Iuda.]	Years of reign, Judah [An.Re. Iudæ]	Years of the World [Anni Mundi]	Years of reign, Israel [An.Re. Iſrael]	Kings of Israel [Reges Iſrael.]
…29 years. 4 Reg. 18 v. 1 & 2, and 2 Paral. 28 v. 1 [= 2 Kings 18:1–2; 2 Chronicles 28:1, as printed].	6	3226	9	In this year, which is the ninth of Hoshea and the sixth of Hezekiah, Samaria is taken by Shalmaneser king of the Assyrians, and the kingdom of Israel is destroyed. 4 Reg. 17 v. 6, and chap. 18 v. 10 [= 2 Kings 17:6; 18:10]. Now since this year is the 293rd from the foundations of the Temple, there remain 134 years to the destruction of Jerusalem and of the Temple; from which the number of years from the beginning of the Temple to the destruction of the same is 427.
In the 14th year of his reign, which is the 9th year from the destruction of the kingdom of Israel, Hezekiah fell mortally ill, and by his prayers obtained an addition of 15 years to his life: 4 Reg. 20 v. 1 & 6; Eſaiæ 38 v. 1 & 5 [= 2 Kings 20:1, 6; Isaiah 38:1, 5].	14	3234	Years from the de-struc-tion of Samaria [Anni deſtructæ Samariæ] — 8	
	29		23	
Manasseh succeeds his father Hezekiah at his death. And he reigns 55 years. 4 Reg. 21 v. 1; 2 Paral. 33 v. 1 [= 2 Kings 21:1; 2 Chronicles 33:1].	1	3250	24	

Kings of Judah [Reges Iuda.]	Years of reign, Judah [An.Re. Iudæ]	Years of the World [Anni Mundi]	Years of reign, Israel [An.Re. Iſrael]	Kings of Israel [Reges Iſrael.]
	55		78	
Amon succeeds his father Manasseh, and reigns 2 years. 4 Reg. 21 v. 19, and 2 Paral. 33. v. 21 [= 2 Kings 21:19; 2 Chronicles 33:21].	1	3305	79	
	2		80	
Josiah son of Amon follows his father in the kingdom, and reigns 31 years. 4 Re. 21 v. 19 [as printed].	1	3307	81	
	31		111	
Jehoahaz is brought into the kingdom of his father Josiah; but he reigns only three months. 4 Reg. 23 v. 31, and 2 Paral. 35 v 2 [as printed; = 2 Kings 23:31].	0 … 3 months [Men. 3]	3338	112	
Jehoiakim, formerly called Eliakim, son of Josiah, is made king by Pharaoh Necho; and he reigns 11 years. 4 Reg. 23 v. 34 & 36, and 2 Paral. 36 v 5 [= 2 Kings 23:34, 36; 2 Chronicles 36:5].	1	3338	112	
	11		122	
Jehoiachin son of Jehoiakim succeeds his father, but holds the kingdom for only three months and 10 days. 4 Reg. 24 v 8, and 2 Paral. 36. v 9 [= 2 Kings 24:8; 2 Chronicles 36:9]. For Nebuchadnezzar king of Babylon came in the 8th year of his own reign and carried him off, together with all the princes and strong men of the kingdom, into captivity at Babylon. 4 Reg. 24 v. 15 [= 2 Kings 24:15].	0 … 3 months [Men 3]	3349	123	
Zedekiah, formerly called Mattaniah, is made king by Nebuchadnezzar. And he reigns 11 years. 4 Re. 24 v. 18, and chap. 25 v. 3; likewise 2 Paral. 36 v. 11 [= 2 Kings 24:18; 25:3; 2 Chronicles 36:11].	1	3349	123	

In the eleventh year of Zedekiah the city and temple of Jerusalem are laid waste, and the kingdom of Judah comes to an end. The temple therefore stood 427 years — which is plain once 2933 is subtracted from 3360.	11	3360	134

And so, on these foundations, the years counted to the first destruction of Jerusalem are these: from the departure of the Israelites out of Egyptian servitude, 907 years; from the promise made to Abraham, 1337; from the Flood, 1704; from the creation of the world, 3360.

Nicephorus and the Eastern Greek Churches make this interval 442 years, and Eusebius — and with him the Western Churches — hold the same. On the Eastern Greek Churches' reckoning, then, the destruction of the city falls in the 4904th year from the creation of the world; in the 2662nd from the Flood; in the 1505th from the promise made to Abraham; and in the 1075th from the departure of the Israelites out of Egypt. The Western Roman Churches, by contrast, counting from the creation of the world and following Eusebius, make it 4611 years to the capture and razing of the city together with the temple; from the Flood, 2369; from Abraham's going out of Haran into Canaan, 1352; from the departure of the Israelites out of Egypt, 922. The more recent Rabbis and Jews, following the true reckoning of Rabbi Abraham the master of the Kabbalah, count from Solomon's temple to its devastation 427 years, as we do. And Rabbi Abraham writes that he received this figure from his forebears. A number of chronologers approve it as well — above all Schubertus, book 1 *de ſcrupulis Chron:* [on chronological scruples], chapters 5 & 6; Joseph Scaliger, book 5 *de Em[endatione] Temp[orum]* [*De emendatione temporum*]; and my particular friend Seth Calvisius [Sethus Calvisius] in his *Temporum ſacrarium*. On the Jews' view, therefore, the years counted to the destruction of the city and the temple are: from the departure of the Israelites out of Egypt, 907; from the promise made to Abraham, 1332; from the Flood, 1699; from the creation of the world, 3355.

[Margin: The era of the destruction of Jerusalem.]

Sixth: from the destruction of the temple and city of Jerusalem to the customary Christian era we count 589 full years together with some days; and we derive them from the numbers of years lying between the first destruction of the temple and the passion of Christ, and likewise between the epoch of Christ and his passion. These two eras, sacred though they too are, cannot — as the earlier ones could — be drawn out and confirmed from the text of sacred scripture alone. Reckonings used by pagan writers have to be brought in as well: those of the Olympiads, of the years of Nabonassar, and of the founding of the city, which lead us as though by the hand to a true division of the later periods.

[Margin: The first terminus, the fall of king Zedekiah, determined.]

And so, since in every interval there are two termini, a beginning and an end, this is to be known about the beginning. Clement of Alexandria, *Stromata* 1, teaches that the fall of king Zedekiah — that is, the destruction of Jerusalem — happened in the 47th Olympiad; and, as Eusebius determines more exactly, in the 2nd year of the 47th Olympiad, that is in the Olympiadic year 186, just as it was running out. That year, as the eras that follow will show, coincides with the 158th year of Nabonassar and the 164th of the city. Nearly all the older

chronologers embrace these numbers, and so do several of the moderns who have judged the times rightly. There are, however, not a few of the moderns who, led astray by the Funcian commentary, think otherwise: they hold that the destruction of the temple occurred at the end of the first year of the 43rd Olympiad, that is in the Olympiadic year 169, which is the 147th year of the founding of the city and the 141st of Nabonassar; and so they anticipate the Eusebian reckoning and that of the ancients by 17 years. Yet their error can be gathered from this very point: the eclipses of earlier times, and other things recorded in the histories for those years, do not agree with the distribution of the years of those times, if a sound comparison of the years is set up. To make the same thing plain by a single example only, bringing in the earlier table as well — it appears from 4 Reg. 20 v. 12, and likewise Eſaiæ 39 v. 1 [= 2 Kings 20:12; Isaiah 39:1], that Merodach son of Baladan, king of the Babylonians — who in Ptolemy, *Almagest* IV.6, is called Mardocempadus [Mardoēpadus] — in the seventh year of his reign (as Scaliger shows *in Dynaſt. Babylonior. l. 2. Can.* [in the Babylonian dynasties, book 2 of the *Canones*…]

Continued on the following page.

—Isag.; from Manetho the Egyptian) — sent envoys with gifts to Hezekiah, king of Judah, about the fifteenth year of this king's reign, which, as the preceding table shows, is the year of the world 3235, the year of the city of Rome 39, of Nabonassar 33, and the first [year of] Olympiad 16, that is Olympiadic year 61; and they came to congratulate Hezekiah on his recovery of health and on the heavenly miracle of the Sun's shadow moving backwards [umbræ ☉ retrogradæ].

The astronomical calculation of Ptolemy, however, teaches that in the first year of this Mardocempadus, king of the Babylonians — the year 27 of Nabonassar — on the 29th day of Thoth, that is 19 March in the Julian reckoning, at about the ninth hour of the evening, there occurred a total eclipse of the Moon; and afterwards, in the second year of Mardocempadus, another, partial, ☽ of 3 digits, on the 18th day of Thoth, that is 8 March, almost exactly at midnight; and a third, likewise partial, in which more than half was eclipsed on the northern side, in the same year on the 15th day of Phamenoth, that is 1 September, at the seventh hour after noon.

Now the first eclipse (observed at Babylon six years before the embassy was sent) falls in the year of the world 3229, which agrees with the third year of Olympiad 14 and with the year 33 of the city, while the two later ones fall in the following year; and these can be fitted conveniently to no other years. It is therefore established that the first Olympiad falls in the year of the world 3174, and so in the 35th year of the reign of Uzziah king of Judah; that the first year of the city falls in 3197 of the world, and in the 6th year of Jotham king of Judah; and that the first year of Nabonassar falls in the year of the world 3203, that is in the 12th year of the same king Jotham, and the 13th of Pekah king of Israel. From this the years are reckoned from the first Olympiad to the destruction of the Temple — which in the preceding era we showed to

correspond to the year of the world 3360 — as 186 complete Olympiadic years, a figure that is confirmed from Eusebius as well; from the founding of the city, 163 complete, for from the spring the year 164 had already begun to be counted; from Nabonassar, 157.

[Margin: The second terminus, the Passion of Christ.]

As for the other terminus, the Passion of Christ, it is clear from the same Eusebius that Christ, the Son of God, our Saviour, suffered in the 4th year of Olympiad 202, that is in Olympiadic year 808. For Eusebius also cites Phlegon, that outstanding reckoner of the Olympiads, who assigns to that year the miracles that occurred at the Passion of Christ, as will appear more fully in the era of the Olympiads that follows. The same figure is confirmed by eclipses and by other events, which are correctly fitted to the years of the Olympiads, or of the city, or of Nabonassar; on all of which anyone may consult the chronologers who discuss them more fully — Scaliger, Bünting [Heinrich Bünting], Seth Calvisius [Sethus Calvisius], and others.

Subtracting, then, the 186 Olympiadic years reckoned at the destruction of the Temple and the city of Jerusalem from the 808 reckoned at the Passion of Christ, there remain 622 years, which fall between the destruction of Jerusalem and the Passion of Christ. If from these I again take away the 33 years, not yet complete, that are reckoned from the Christian era to the Passion of Christ, as we showed above, there are left 589 full years and some days. For the memorial of Christ's Nativity is kept by common custom on December 25, in the year 589 from the destruction of the Temple as that year runs out in the Julian reckoning; and in the following year, which is 590 from the destruction of the Temple, or 3950 of the world, the Christian era has its beginning. If this reckoning of the years of the world were to be carried from its own true starting point — namely from autumn, in which we established above that the world was created — it would anticipate the present reckoning by about a quarter of a year.

[Margin: The reckoning of the intervening years.]

Moreover, within this interval we first extend the remaining 60 years of the Babylonian captivity to the year of the world 3420 and the 2nd year of Olympiad 62. These 60 years, together with the 10 that are counted from the deportation of Jeconiah — from which, with Jeremiah the prophet (chapter 25 verses 11 and 12, and chapter 29), we too rightly reckon the years of the captivity, as Ezekiel does throughout his prophecy — make up 70 years. In that span of time the chief part of the Jewish people, which had been carried off into captivity as a single body (and to which alone the promise of restoration looked, as Jeremiah chapter 24 verses 5, 6 and 7, and again chapter 29 verses 10 and 14, show — since of the rest, who stayed at Jerusalem down to the destruction, and who, relying on their own forces and on the king of Egypt against the warnings of the prophets, did not make good their loyalty to the king of Babylon, almost none was restored, as is clear from the same chapter 29 verses 16, 17 and 18, and again chapter 24 verses 8, 9 and 10), lived in captivity outside their native land under the kings of Babylon: under Nebuchadnezzar indeed,

[Margin: The 70 years of the Babylonian captivity.]

—son of Nabopolassar, 35 years. For the deportation took place in the seventh year of Nebuchadnezzar's reign, and he reigned in all 43 years. Under Evil-merodach, who at the beginning of his own reign released Jeconiah from prison, as 4 Kings 25 verse 27 has it, 2 years, according to Berossus, *Chaldaica* book 3. Under Neriglissar [Niroglosſore], Nebuchadnezzar's son-in-law — or rather under Belshazzar, son of Neriglissar and grandson of Nebuchadnezzar, who for a time ruled together with his brother Labassardachus (whom Josephus too, *Jewish Antiquities* book 10 chapter 12, calls a son of Neriglissar) and afterwards reigned alone — 5 years. Under Nabonnedus, who in Daniel chapter 6 is called Darius the Mede, 7 years. And under Cyrus, who, having defeated Nabonnedus king of the Babylonians — Labynetus, as Herodotus book 1 calls him — transferred the monarchy from the Babylonians to the Persians, about 10 years. All these years gathered into a single sum make 70.

[Margin: Edictum Cyri. — The edict of Cyrus.]

Then, when these 70 years had run out, Cyrus, the first Persian monarch, having settled most things by many successful and fortunate campaigns, and being now not far from the fated end of his life, by divine prompting issued an edict granting the Jews their return to Palestine and commanding the restoration of the Temple. In response to this edict — which is said to have been published in the first year of Cyrus, Ezra 1, perhaps because the Jews had resolved to count from it a new era in memory of their restoration, had the liberty they seemed to have obtained gone forward — a great part of the Jewish people, 42360 persons, not counting menservants and maidservants, under the leadership of Zerubbabel, grandson of King Jehoiachin, and of the others named in Ezra chapter 2 verse 2, went off to the rebuilding of the Temple and of the walls of the people of Jerusalem, and laid certain foundations both of the Temple and of the commonwealth, as in Ezra chapter 3.

[Margin: Cambyses, the successor of Cyrus.]

But they were hindered on every side by enemies and informers. First indeed under Cambyses, who in the year next after the edict succeeded Cyrus in the empire when Cyrus had set out for the Scythian war — which is why they are said in Ezra chapter 4 verse 5 to have been hindered while Cyrus was still alive. In that same war Cyrus fell at the river Araxes at the hands of the Massagetae, over whom Queen Tomyris then presided, and Cambyses held the empire alone for 7 years.

[Margin: The Magian brothers; Darius son of Hystaspes; Xerxes; Artabanus. Artaxerxes Longimanus. Xerxes the second; Sogdianus.]

Then, under the two Magian brothers, during an interregnum of 7 months; thirdly under Darius son of Hystaspes for 36 years; fourthly under Xerxes, that is Ahasuerus, for 20 years; fifthly under Artabanus for 7 months; sixthly under Artaxerxes Longimanus, as Ezra 4 verse 7 has it, for 40 years, whom Xerxes the second succeeded for 2 months and Sogdianus for 7 months. Throughout all this the building of the Temple not only remained in suspense, as the last verse

of Ezra 4 has it, but even the enjoyment of that liberation granted through Cyrus was let slip. And of that prohibition, which lasted right up to Darius Nothus, the evidence survives in Ezra chapter 4, where express mention is made of Ahasuerus, that is Xerxes, and of Artaxerxes, under whom the Jews were not only denounced but also hindered by rescripts. From this arose that complaint of the angel in Zechariah the prophet, chapter 1 verse 12: *O Lord of hosts, how long wilt thou have no mercy on Jerusalem and on the cities of Judah, with which thou hast been angry these seventy years now gone by?*

[Margin: Darius Nothus.]

At last, however, in the second year of Darius Nothus, who followed next after Sogdianus in the kingdom — 108 years having elapsed from the first edict of Cyrus, a figure that emerges from the collection of the years already set out, through which the Persian kings had reigned from the last year but one of Cyrus to the second of Darius Nothus — that is to say, in the year of the world 3528, the Temple of God was begun to be built once more, at the bidding and direction of the prophets Haggai and Zechariah, and the decree of Cyrus was confirmed anew, at the prompting of the Divine Spirit and by the command of Darius Nothus.

[Margin: The seventy weeks are to be counted from the 2nd year of Darius Nothus to the destruction of the Temple.]

From that year, which is the second of Olympiad 89, the year 332 of the city, and 326 of Nabonassar, we count the seventy weeks of Daniel, that is 490 years, through which the prophecy in Daniel chapter 9 verses 24 and following determines that the commonwealth of the Jews would last, down to the final destruction of that commonwealth and of the Temple, and that Christ would come before their end and would make satisfaction by his own death for the sins of the human race.

[Margin: The grounds of the reckoning.]

This reckoning, however, we begin only from the following year of the world, 3529, and for these reasons. [Margin: 1] First, because it was towards the end of the year 3528 that the restoration of the Temple was commanded by the Holy Spirit, through the prophets Haggai and Zechariah and through the Persian king Darius himself, as Haggai chapter 1, Zechariah 1 and Ezra chapter 6 have it; and no other command preceded this one except the edict that Cyrus issued. [Margin: 2] Secondly, because after this edict no further royal prohibition followed by which the building of the Temple and the constitution of the commonwealth of Jerusalem would have been forbidden, however much the Jews were hindered in many ways by the ill-will and the injuries of their neighbours, and especially in the building of the walls. And thirdly, because the Temple was indeed built within four years, down to the sixth year of Darius, as Ezra 6 verse 15 has it; whereas the remaining matters belonging to the condition of the commonwealth were completed in part by Ezra 20 years later, namely in the seventh year of Artaxerxes Mnemon, Ezra 7 verse 7 (for Darius Nothus was at the head of the empire for 19 years), and as to the remaining part, that

concerning the building of the walls, 13 years after that, namely in the twentieth year of Artaxerxes, Nehemiah 2 verse 1, by Nehemiah, within a span of 12 years, down to the 32nd year of Artaxerxes, Nehemiah 5 verse 14 and again 13 verse 6. And so the Temple, the walls and the streets of Jerusalem were built from the second year of Darius Nothus to the 32nd of Artaxerxes Mnemon, in seven weeks of years, that is 49 years, within which the angel in Daniel chapter 9 verse 25 foretold that this very thing would come about — and that in a time of distress. How greatly the Jews feared the governors of Syria and their Samaritan neighbours, Sanballat, Tobiah, Geshem and the rest, is clear enough from Nehemiah chapter 4: so much so that even while at work, to keep off their enemies, they carried arms in one hand and built the walls with the other.

The walls of Jerusalem, then, were finished in the year of the world 3578, the fourth year of Olympiad 101, the year 382 of the city of Rome, and 376 of Nabonassar.

The 63 weeks that remain, down to the final desolation of the Temple and the city, reach with their 441 years to the year of the world 4019, in which, in the course of the year 70 after the Christian era, Titus Vespasianus laid siege to Jerusalem and levelled it so completely with the ground that not a stone was left upon a stone, in accordance with Christ's prediction in Matthew 24 verses 2 and 15, drawn from Daniel. And since the Passion and Death of Christ fall in the year 33 of the Christian era, as we showed above, it is plain that, when the 37 years counted from the Passion of Christ to the destruction of Jerusalem are taken away from the 441 years, there remain 404, which are reckoned from the fortifying of Jerusalem to the Passion of Christ.

[Margin: The time of the Passion of Christ.]

Hence in the year of the world 3982, in the fourth year of Olympiad 202, the year 786 of the city of Rome and 780 of Nabonassar, Christ paid on the cross the λύτρον [Greek: lytron, "ransom"] for the sins of the human race.

And this same figure is drawn out from the following as well: that after the thirty-second year of Artaxerxes Mnemon the Persian kingdom still lasted down to Alexander the Great, 43 years — under Artaxerxes himself, who reigned 43 years in all, 11 years; under Ochus 23; under Arses 32 [recte: 3]; and under Darius Codomannus 6. Then, that Alexander lived a further 6 years after defeating Darius, so that from the 32nd year of Artaxerxes to the death of Alexander there are 49 years. For Alexander died in the year of the world 3627, in the first year of Olympiad 114, the year 431 of the city, 425 of Nabonassar.

[Margin: The time of the death of Alexander the Great.]

Thirdly, that in the same year Antigonus succeeded Alexander in the Greek kingdom of the East and reigned for 12 years; and finally Seleucus Nicator [Nicanor], from whom the chronologers begin the era of the Syro-Greeks, which is also called the Alexandrian, of which we shall speak below. Since, then, this Greek era is distant from the Passion of Christ by 343 years, 121 days and 12 hours, as Paul Crusius shows in his book *On the Epochs*, under the era of Adhilcarnain, that is the *Taric* of the Romans — and I do not judge it necessary

to carry those years further out in detail to the very last term of the Passion of Christ — it is established that from the years 49, 12 and 343 taken together there emerge 404 years, which added to the 3578 years produce 3982, the figure counted from the beginning of the world at the Passion itself.

[Margin: The time of the Passion of Christ.]

Besides, this too is established: that if to the 60 years reckoned from the destruction of the Temple to the edict of Cyrus there are joined, first, the 108 years that run to the second edict, that of Darius Nothus; secondly, the 49 in which the Temple was built and the city of Jerusalem fortified; thirdly, the 49 that run from there to the death of Alexander; fourthly, the 12 years from the death of Alexander to the era of the Syro-Greeks; and finally the 344 begun, which are counted from there to the Passion of CHRIST — there arise the 622 years that come between the destruction of Jerusalem and the Passion of Christ. To the Passion of Christ, therefore, from the foundations of the Temple

[Margin: The era of the Nativity of Christ is gathered from the date of the Passion.]

—of Solomon, 1049 years are counted; from the departure of the Israelites out of Egypt, 1529; from the promise made to Abraham, 1959; from the Flood, 2326; from the creation of the world, 3982. If 32 complete years are now subtracted from these — since it was in the 33rd year from the era that Christ suffered death on the cross, as was said above — there remain, running down to the era of Christ: from the creation of the world 3950; from the Flood 2294; from the promise made to Abraham 1927; from the departure of the Israelites out of Egypt 1497; from the foundations of Solomon's Temple 1017; and from the Babylonian captivity 590.

[Margin: The Greeks' reckoning down to the Christian era.]

Nicephorus, by contrast, sets 596 years from the Babylonian captivity to the birth of Christ; and to these the Greek Eastern churches add a further 9 to reach the Dionysian era of Christ, so that the total from the captivity to the Christian era is 605. From this it follows that for the Eastern Greek churches, and for the Muscovites as well, the Dionysian era of Christ falls in the year 5509 from the creation of the world, that year being current and beginning from September; in the year 3266 from the Flood; 2109 from the promise made to Abraham; 1679 from the departure of the Israelites out of Egypt; 1046 from the Temple of Solomon.

[Margin: The Latins'.]

Eusebius has 589 years from the captivity to the birth of Christ, as his own chronological tables plainly show. Since, then, the Western churches of Rome follow him — which is abundantly clear from Platina [Bartolomeo Platina] and other writers — the figures down to the Nativity of Christ will be: from the Temple of Solomon 1030 years; from the departure of the Israelites out of Egypt 1510; from the promise made to Abraham 1940; from the Flood 2957; from the creation of the world 5199, the beginning being taken from the Julian March.

[Margin: The Jews'.]

The Jews and the more recent rabbis never, indeed, direct their own years towards the birth of our only Saviour. But since, once the numbers of the years down to the Babylonian captivity and down to our own times are known, it is easy to gather how large an interval they place between the captivity and the birth of Christ, we use this method: first we subtract the years from the birth of Christ to the present time from their own figure reckoned from the creation of the world; then from the remainder we deduct the years from the creation of the world to the captivity, counted a little earlier; and what is left is the number of years that, on their reckoning, falls between the Babylonian captivity and the birth of Christ.

[Margin: The Jews count fewer years from the captivity to Christ than historical truth shows.]

Thus in the year of Christ 1595, the year with which our Ephemerides begin, the Jews began to count the year 5356 from the creation of the world on 4 September in the Gregorian year, and on 25 August in the Julian, as their own calendars attest, together with other accounts of the Jewish years in Giovanni Lucido [Ioannes Lucidus], Sebastian Münster [Sebastianus Munsterus], Joseph Scaliger, Jacob Christmann [Iacobus Christmannus] and others. If, then, I subtract the stated number of the years of Christ, there remain 3761 years, which on the Jewish view are counted from the creation of the world to the birth of Christ. From these I further take away the years counted from the creation of the world to the captivity, and 406 years are left, which on their reckoning fall between the Babylonian captivity and the birth of Christ. Now this figure is 184 years less than the true one, which is derived from the more trustworthy historians by careful comparison and computation. For the Jews refuse to know Persian and Greek history, out of sheer hatred of the Christian religion, so that by drawing out the number of Daniel's 70 weeks further they may the more easily and safely rob Christ our Immanuel of the honour of the Messiah. *And this is the reckoning of the ecclesiastical eras.*

Since, however, to these eras others too — which are in use here and there in the world among other nations, and of which, either in profane histories or in the reading of Ptolemy, the leader of astronomers, [Margin: The era of the Olympiads.]

—and in other astronomers, very frequent mention is made — are rightly joined, we shall, for the sake of reading and reconciling the histories of different periods, and so as to be of service to other nations as well, briefly describe here some few of the others, and first of all those reckoned from the Olympiads and from the founding of the city.

[Margin: Where the Olympiads get their name.]

As for the Olympiads, which the Greeks used in numbering time, it is certain *that they took their name from the place at which the Olympic games were held.*

[Margin: The Olympiads were celebrated when the fourth year had run out.]

For the histories teach that in the territory of the Eleans, not far from the city of Pisa and the river Alpheus, on the plain of Olympia, near the temple of Olympian Jupiter, athletic contests were once held, by which pagan men were roused to the worship

of the immortal gods and to the exercise of their strength. They were not, however, celebrated every year, but every fifth year, at the entry of a new Olympiad; for, as Rudolf Hospinian [Hospinianus] proves at length in chapter 17 of his De origine festorum, *these games were repeated only when four years had run out, with now one set and now another of rites and judges being employed. Hence an Olympiad is a space of time* τετραετηρικόν [Greek: tetraetērikon, "of four years"], *that is, of four years. It is called* πεντετηρίς [Greek: pentetēris, "a five-year period"] *because, four years being complete, it came round again in the fifth year.*

[Margin: The origin of the Olympic games.]

Although opinions differ among various authors about the origin of these games and their first institution — on which one may consult Pausanias in the Eliaca, *Strabo book 8, Pindar in the* Olympians, *Diodorus book 5, Pliny book 7, Plutarch in the* Life of Theseus, *Eusebius book 10 of the* Preparation for the Gospel *chapter 2, Dionysius of Halicarnassus book 1, Solinus chapter 2, Polydore Vergil [Polydorus Vergilius]* De inventoribus rerum *book 2 chapter 13, and Hospinian at the place cited above —*

[Margin: The determination of the epoch of the Olympiads.]

this much, nevertheless, is admitted by all, and both Scaliger (book 1 De emendatione temporum, *in the Olympic period of Iphitus) and Paul Crusius in his book* De epochis *point it out: that Iphitus of Elis, son of Praxonides or of Haemon, re-established these games, which had lapsed, more than 400 years after their first institution, in the year of the world 3174 and 776 before the birth of Christ — not 775, as Copernicus and Erasmus Reinhold [Reinhold.] would have it; 808 before the Passion, that year running out to its end; and 731 before the Julian ordinance. And this is the truest epoch of the Olympiads, one which many of the most approved chronologers have most firmly confirmed for us — Paul Crusius in his book* De epochis, *Heinrich Bünting [Buntingus] in his* Chronologia, *Jacob Christmann [Christmannus] in his additions to al-Farghānī [Alphraganus], and Seth Calvisius [Sethus Calvisius] himself in chapter 39 of his* Isagoge chronologica *— by arguments drawn from the more trustworthy historians and by a careful examination of the eclipses belonging to those times. Unless we know it exactly, we shall never arrive at that reckoning of time which the Greeks have set out for us in their fasti. For since it is beyond controversy that the fourth year of Olympiad 202 falls in the year 33 of the Christian era, that is, in the year of the Lord's Passion — as Eusebius attests in his* Chronicle *on the authority of Phlegon of Tralles, the freedman of the emperor Hadrian, a passage taken from Phlegon's book 14 which Marianus Scotus too cites from Flaccus in these words:* that an eclipse of the ☉ took place, great and remarkable beyond all that had happened before it, in the fourth year of Olympiad 202, the day at the sixth hour being turned into night so dark that the stars were seen in the sky — *we can draw no other conclusion than that the first year of the Olympiads is 808 before the Passion of Christ, and that in the summer following the Passion the first year of Olympiad 203 began.*

[Margin: The method of resolving Olympiads into single years.]

That these things stand thus and not otherwise is shown by the resolution of Olympiads into single years, which is carried out in this way. Given a number of Olympiads, first let 1 be subtracted, so that the elapsed Olympiads may be had. Then let the elapsed Olympiads be multiplied by four, to yield the absolute single years. To these let there finally be added the years that are counted within the given number of Olympiads. For example, the fourth year of Olympiad 202 is given. First I take 1 from the given Olympiads; then I multiply 201 by four; to the product 804 I finally add 4, and 808 years result.

[Margin: And conversely, single years into Olympiads.]

But if single years are given, let them be divided by 4; the elapsed Olympiads emerge, and whatever is left in the remainder —shows the year of the following, that is the current, Olympiad. And if nothing at all is left over, the given year is said to be the fourth of the Olympiad produced in the quotient, as the same example teaches.

To come, then, to the determination of our own time: in the current year 1595 the second year of Olympiad 593 is in progress at the beginning of the year, while in the summer the third year begins. And our Saviour was born in the 4th year of Olympiad 194. For if I divide by 4 the Olympiadic year 776, in which Christ was born, the number of the Olympiad, 194, is produced; and by the foregoing rules its fourth year was in progress. Or again: if to the 1595 years given and running since the birth of Christ I join the 775 that elapsed in full before the birth of Christ, from the era of the Olympiads to the Christian era, 2370 years are produced; and these, resolved by 4, show year 2 of Olympiad 593 — which in fact had begun in the summer of the preceding year.

[Margin: The era of the founding of the city of Rome.]

The era of the founding of the city of Rome is placed by some many centuries before the age of Romulus: they hold that the little town received both its name and its first foundations at the outset from Roma, daughter of Italus. Sempronius, *De divisione Italiae*, is of this opinion, and Plutarch in his *Romulus*, and Fabius Pictor *De aureo saeculo*.

[Margin: Differing opinions about the founding of the city.]

We, however, relying on the firm judgments of a good many authors, put it back into the age of Romulus — and specifically at the time when Romulus and Remus, having killed Amulius their maternal grandfather's brother, who had then been king of the Latins for a full 44 years, and having left the Alban realm to Numitor, undertook to found afresh, out of the little town, a square and royal city. And we hold that this took place in the year of the world 3197, in the spring, in the third year of the sixth Olympiad as it was running out shortly afterwards, on perhaps 21 April by the Julian calendar. Of this opinion are M. Terentius Varro, Velleius Paterculus, Eusebius, Dio Cassius, Censorinus, Cornelius Tacitus, Onofrio Panvinio [Onufrius Panvinius], Scaliger, Jacob Christmann [Christmannus] and others. But Dionysius of Halicarnassus, M. Porcius Cato, Pliny, Clement of Alexandria (*Stromata* I), Solinus chapter 2,

Diodorus, Carlo Sigonio [Carolus Sigonius] and many others among the moderns hold that the city was founded as the fourth year of Olympiad 6 was running out, with the first year of Olympiad 7 beginning shortly afterwards.

By the former opinion, then, which we judge to be the truer, the Roman era of the founding of the city is some 23 years later than the Greek era derived from the Olympiads. And if we wish to determine by this era the year 1595 of Christ, with which our Ephemerides begin, or any other years you please after the birth of Christ, we simply add to the given years of Christ 752 complete years — since the city began to be founded in the spring while the year 753 before the birth of Christ was in progress — and 2347 years result, whose beginning is from the spring of the year 1594.

[Margin: Confirmation of the two eras, of the founding of the city and of the Olympiads.]

That the two eras we have now discussed, of the Olympiads and of the city, are rightly established, we can confirm from Censorinus, that most acute champion of chronology, whom the chronologers follow with very good right. For he writes, in chapter 21 De die natali, *that the year 991 of the founded city ran into the Julian year 283 about the vernal equinox, and that the Olympiadic year 1014 fell about the summer solstice. For if to the running year 991 of the city we add the 23 years that are counted from the beginning of the Olympiads to the founding of the city, the Olympiadic year 1014 comes out. Now the Julian year 283 is the year 238 of Christ; and if I join to these the 1357 that are still counted from that point to the beginning of our Ephemerides, the year of Christ 1595 comes out, which answers to the Julian year 1640, and to 2371 of the Olympiads, and from the founding of the city, —2348 — yet in such a way that the Olympiad's year begins with summer and the city's with spring.*

[Margin: The era of the Syrians, or of the Syro-Greeks.]

The third era is that of the Syrians, or of the Syro-Greeks*, which is also called the era of the Chaldaeans.* It is reckoned from the reign of Seleucus Nicator, who was the most powerful of the successors of Alexander the Great and who ruled with great vigour over Syria, Chaldaea and the other neighbouring regions as far as the river Indus; Josephus too mentions him (*Antiquities* XII.3).

[Margin: Alexandrian. Dhilkarnain.]

This era is everywhere called the Alexandrian era — not because it takes its start from the reign or from the death of Alexander the Great, as most Arabic writers have supposed, since the death of Alexander the Great preceded this era by 12 complete years and 50 days, but because after Alexander's death his Eastern empire was divided in two, into Asia and Syria. Hence this era is also called *Dhilkarnain*, that is, "two-horned", from the two horns, or the two empires, that sprang from the one Eastern empire of Alexander. In 1 Maccabees 1:11 it is called the era of the kingdom of the Greeks, and from it, too, most years are counted. It is also called the era of contracts. The numbering of this era is set up from the year 311 before the birth of Christ and from the first month of the Syrians, which they call the earlier Tishrin — a month that among the Arabs agrees exactly with October in the Julian year. The Jews, however, anticipated

this reckoning by six months, beginning from Nisan, which coincides with April, as is clear from the earlier book of Maccabees.

[Margin: The adjustment of the Syrians' era to our own years; see Joseph Scaliger, *De emendatione temporum*, book 7.]

In the first year of Christ the year 312 from the reign of Seleucus Nicator, or of the Alexandrian era of Dhilcarnain, had run out — from the October of the preceding year to the October of the first year — so that 313 then began. It is therefore evident that if 311 years are added to the years of Christ counted from the Nativity, for the first 9 months, and 312 for the last three months, the result is the years reckoned from the Alexandrean era. For example, if I join 311 years to the 1595 years of the Nativity of Christ, it is clear that at the beginning of the Ephemerides, that is, in the first 9 months, the year 1906 has elapsed, and that from October the year 1907 from the reign of Seleucus Nicator, or of the Alexandrean era of Dhilkarnain, has begun.

[Margin: Confirmation of the era of the Syrians.]

That this is so is shown by the connection of years which Jacob Christmann [Christmannus] sets out in his Calendarium Syrorum, *where he says: if 267 years are added to the Julian years, the beginning of the years of Dhilkarnain results. The beginning of the year 636 of Alexander therefore falls in the Julian year 369, that is, the year of Christ 324, and precisely on the Kalends of October; and towards the end of that year, on 19 June, as the year 325 was running out, Socrates [Socrates Scholasticus] writes that the first council of Nicaea was held.*

[Margin: The era of the Julian year.]

The fourth era is that of the Julian institution or ordinance*, by which Julius Caesar, the first monarch of the Romans, introduced into the Roman empire and the provinces belonging to it the year we have used from the birth of Christ down to these our own times; and it is called Julian from its author.*

[Margin: The reason for the correction of the year by Julius Caesar.]

For he observed that the year of Romulus, the first king of the Romans and the founder of the city, which Romulus had made of 10 months, ran counter both to the 12 conjunctions of the two luminaries ☉ and ☽ within a year and to the practice of peoples elsewhere who numbered the year by months; and that the year of Numa Pompilius, which had come into use when that earlier one was superseded, and which Numa wished to be of 12 months, was lunar, and less suited to the motion of the Sun, which is the chief measure of the year.

[Margin: The time at which Julius established his year.]

And so, taking his reckoning from the fourth year of his own consulship — the year 709 from the founding of the city, the Olympiadic year 732 — in order to serve his subjects in this matter as well and to leave an everlasting memorial of his name among posterity, he corrected the year, employing above all the services of Sosigenes, the Alexandrian mathematician, and

…made it one of 365 days and 6 hours. Now the year 708 from the founding of the city and the Olympiadic year 731 immediately precede the 45th year before the birth of Christ — which is plain to anyone once 45 years are added

to the completed years from the founding of the city and of the Olympiads and the comparison is made with the preceding eras. It is therefore clear that, given the years of Christ, the Julian years, or those of the city of Rome, or those of the Olympiads, are easily gathered.

[Margin: The method of reckoning the years from the Julian institution.]

To the years of Christ let 45 years first be added: the years from the Julian ordinance result. Then to this total let either the 708 years of the city or the 731 of the Olympiads be added, and the years we want come out, whether of the city or of the Olympiads. For example, let the year of Christ 1595 be given: it will be the Julian year 1640, the year 2348 from the founding of the city — the beginning being taken only from the spring — and 2371 from the Olympiads, the beginning being taken from the summer of the given year.

That this epoch has been rightly established by us appears from Eusebius, who says in his Chronicle *that the second year of Probus is the year 325 according to the Antiochenes, a year which he also compares with the year of Christ 280.*

[Margin: The Antiochenes run together with the Julian ordinance in their numbering of time.]

And since it is everywhere established from the histories that the Antiochenes at once began to use the years of the Julian ordinance, the Julian year 46 will agree with the year 1 of Christ, and the 325th of the Antiochenes with the 280th of Christ; and from this, 45 Julian years will precede the era of Christ. The Indians too, moreover, number from this era their own purely lunar Arabic years, which consist of 12 periods of lunation, that is, of 354 days and — as they themselves will have it — 8^h 48^m, the beginning of the year being taken, however, from the first of Muharram. For although in the manner of the Hagarenes they formerly reckoned the year from the earlier Rabi', which was once the first month of the Arabs, yet since in the year of the Julian ordinance the new moon of the last month but one, Muharram, fell on the Kalends of January, they chose to make this the first month, and from that fixed era derived their Arabic years. Since between this era of the Indians and the era of the Hegira there lie 687 complete Arabic years, we add the same number to the Arabic years of the Hegira in order to obtain the Indian years: the years of the Indians come out, yet anticipating the days of the months by a full three days. For when Muharram of the Hegira begins, the fourth of the Indians' Muharram is already running. Hence it is clear that in the current year of Christ 1595, since the year 1003 of the Hegira is in progress, that same year with 687 added is the Indian year 1690; and that the first Muharram of the Indian year 1691 begins on 3 September of the reformed year, that is, 24 August of the old, since the first Muharram of the year 1004 of the Hegira falls on 6 September reformed, or 27 August Julian.

[Margin: The era of the new correction.]

***The fifth era is that of the new correction**, long desired and attempted by many, and at last brought partly to completion by Christoph Clavius [Christophorus Clavius], mathematician to the Pope, by Luigi Lilio [Aloysius Lilius] and by other mathematicians, and published by Pope Gregory XIII: from which it is called the Gregorian, the Pontifical, the Clavian and the Lilian.*

[Margin: The time at which the correction was instituted, and the manner in which it was made.]

This correction was decreed at Rome, to be made and observed, in the year of Christ 1582, and on this plan: ten days were taken out of October — the 5th, the 6th, and so on up to the 14th inclusive — so that, those days being passed over, the 15th of October should follow immediately upon the 4th, and then the 16th, the 17th, and the rest be numbered accordingly. The purpose was that the vernal equinox of the year of Christ 1583, and of the years following, should return in its turn to 21 March, on which it had stood in the century immediately before the Council of Nicaea. So from that correction to the beginning of our Ephemerides the year 13 is running. For subtract 1582 years from the number of the years of Christ, 1595, and there will remain the number showing the era of the correction, or Lilian era, namely the year 13, which takes its beginning in the preceding year 1594, from the 5th day of October of the Julian year — the day that was made the 15th of the Gregorian year.

[Margin: When the corrected year began to be observed in Silesia.]

It should be known, however, that this correction was not received in all places at the same time, but reached the regions more remote from the place of the correction later — as in Silesia, where it was at last admitted into use in the year of Christ 1584, in the month of January.

[Margin: The era of the Spaniards, from Augustus Caesar.]

The sixth is that of the Spaniards, from Augustus Caesar, which we mentioned at the beginning of this chapter. *Alfonso X [Alphonsus] calls it simply the era of Caesar, which is otherwise called the era of the* aes *(the money, that is, to be paid into the Roman treasury).*

[Margin: The era of the *aes*.]

It falls, 7 years of the Julian era being complete, in the 8th Julian year; and it is older than the era of the Nativity of Christ by 38 complete years, —as we declare without hesitation on the authority of the Saracen and of Alfonso X [Alphonsus].

[Margin: The method of reckoning from the era of the *aes*.]

It falls, therefore, in the year 715 from the founding of the city and the year 738 of the Olympiads. And if we intend to carry this era down to the beginning of our Ephemerides, or to other times after the birth of Christ, we simply add 38 years to the given years of Christ, and the years reckoned from the era of Augustus Caesar result: for the year of Christ 1595, namely, the year 1633.

[Margin: The era of the Ethiopians, of the Coptic martyrs, the Diocletianic era.]

***The seventh is that of the Ethiopians or Abyssinians**, which the Alexandrians and the Egyptians also use at this time, and which is called by the same peoples the era of the holy martyrs, or of the Coptic martyrs, and otherwise the Diocletianic era.*

For when the emperor Diocletian had won great praise for prudence in his own day, and on that account was so pleased with himself that he wished to be worshipped as a god, he ordered all the peoples subject to the Roman empire to observe the beginning of his reign and to number all their years from it.

[Margin: When the Diocletianic era began.]

Hence it came about that the Diocletianic era began in the year of Christ 284, in which Diocletian entered upon the empire — the year which, as Paul Crusius [Paulus Crusius] in his treatment of the Diocletianic era and Jacob Christmann [Christmannus] in his connection of the years report from the historians, answers to the Julian year 329. In Italy indeed, and in the other adjacent kingdoms, it began on the eleventh day before the Kalends of May, that is, on 21 April, which is also fixed as the birthday of Rome; and this era was observed in this way down to the year of Christ 532, at which time men at last began to number the years from the birth of Christ. In Africa, however, it began on the fourth day before the Kalends of September, that is, on 29 August, the day on which the first day of Thoth, the first month of the equable year, then fell.

[Margin: Martyrium Coptitarum in 19 annum imperii Diocletiani cadit. — The martyrdom of the Copts falls in the 19th year of Diocletian's reign.]

Among the Abyssinians this era is otherwise called the era of the martyrs, on account of the extreme tyranny which Diocletian practised against the Christians during his reign; and likewise the era of the Copts, from the region and city near the Nile in which a great multitude of Christians, subjected to the most exquisite tortures, most wretchedly perished. And although this persecution — in which many thousands of Christians were most cruelly put to death here and there — falls only in the 19th year of his reign, as Eusebius reports in his Ecclesiastical History, *the Copts nevertheless, in the notations of their years, take the beginning of the persecution from the beginning of Diocletian's reign, so that the Diocletianic era is one and the same as the era of the martyrs.*

[Margin: The method of reckoning from the Diocletianic era.]

Since, then, the year of Christ 2[numeral: ?]4 and 29 August are the beginning of the era of the Copts, it is clear that when the 283 elapsed years are subtracted from the years of Christ given thereafter, the Diocletianic year is produced; and that if the years of Diocletian are given and 283 years are added to them, the years of Christ are produced. For example: suppose it is to be found out what year the year of Christ 1595 is from the Diocletianic era. With 283 years subtracted, 1312 years remain, and these are counted from the next 29 August, for determining the era of the Coptic martyrs. So suppose that we are to hunt out what year of the Christian era it was: the year from the martyrdom of the Copts is 1310, the 16th day of the month Hathor, which is the third month of the Abyssinians, as will be said in the following chapter. For at that time letters were given at Alexandria to the Pope, which legates presented at Rome, as Cesare Baronio [Cæsar Baronius] reports at the end of volume 6 of his Annales Ecclesiastici. *And it is clear that, with 283 years added, they were given in the year of the Christian era 1593, on 22 November of the reformed year, or 12 November of the old — which also appears from an inspection of the Ephemerides.*

[Margin: The era of the Arabs and Turks, the Muhammadan era.]

***The eighth is that of the Arabs and Turks**, who number the years of the Hegira, that is, of the flight of Muhammad [Mahamedis] from Mecca to the city of Yathrib [Ietrib], from the year of Christ 622, on the day which, according to the astronomers, is 15*

…July, feria 5, on which the conjunction of ☉ and ☽ took place. By the civil reckoning, however, they count from 16 July, feria 6 — the day of assembly, that is, which followed the new moon, and on which Muhammad, after recovering Mecca, began in turn to preach and to promulgate his impious doctrine.

[Margin: The years of the Hegira.]

Hence the translator of Averroes also calls the years of the Hegira "years from the preaching of Muhammad", whereas al-Farghānī [Aphraganus], in chapter 1 of his Rudiments of Astronomy, *and other astronomers call them years from the flight or migration of Muhammad.*

[Margin: The magnitude of the Arabic year.]

Now the Arabs and the Turks use years that are purely lunar, made up of 12 synodic months — that is, of 354 days 8^h 48^m — and these fall short of our solar year by very nearly 11 days. By their own peculiar form and numbering of years they therefore count far more years from the Hegira than we do. Even so, if anyone wishes to know how much more recent their era, reckoned from the false prophet Muhammad, is than ours, which we derive from our Saviour the true Christ, he can work it out as follows. Subtract 621 completed years from the current years of Christ, and what remains is the number of years from the era of the Hegira in our own years. For example, take the year of Christ 1595: subtract 621 years and 974 remain, which are counted from the Turks' era, beginning again on 16 July. The Turks themselves, however, count the year as 1004, since 537 Arabic years always make up very nearly 521 Julian ones — or, as Scaliger teaches in book 7 of De emendatione temporum, *235 Arabic years complete 228 Julian years less one day.*

[Margin: The Persian era is twofold. The Yazdegird era.]

The ninth is that of the Persians, which is twofold. The earlier is the Yazdegird era, which takes its name from the last king of the Persians, Yazdegird [Iesdagird]. As Scaliger writes in book 3 of *De emendatione temporum*, he was defeated by Othman [ʿUthmān] the Saracen, son of Ophan, emir of the Arabs of the tents, who took his life along with the empire that then passed to the Saracens. Since the reckoning runs from that time, it is less appropriate to name the era after the defeated Yazdegird; it would more properly be named after the victor, Othman the Caliph.

[Margin: The beginning of this era.]

This era in fact began in the year of Christ 632, on 16 June, the day Yazdegird was killed at the town of Marga. For Hetoum the Armenian [Hetoum of Corycus], in his *Passage of the Holy Land*, chapter 15, writes that Yazdegird — whom he calls Ascaiorth — was killed in the year of Christ 632; and Abū Maʿshar [Abumasar], at the end of the fourth treatise of *De magnis coniunctionibus*, adds the day, in these words: "Yazdegird king of the Persians was killed in the year 11 of the Hegira, in Rabiʿ I, on the 22nd day, feria 3, that is, the day of ♂." That day corresponds to 16 June of the year of Christ 632, provided the beginning of the Hegira is taken, as the astronomers take it, from the conjunction of ☉ and ☽, which fell — as has been said — on 15 July of the year of Christ 622. It would have had to be called the 21st day of Rabiʿ I if we took the beginning of

the Hegira, as the civil reckoners do, from 16 June [recte: 16 July] of the year already named.

[Margin: The Persian years from the Yazdegird era were Egyptian.]

From this Yazdegird era the Persians — with al-Battānī [Albategnio], Abū Maʿshar, al-Farghānī, Alfonso and other astronomers and historians in agreement — used the Egyptian magnitude of the year. To each of its 12 months (which they called by particular Persian names, taken from the names of the heroes or ancient kings of Persia) they assigned 30 days, with the addition of 5 intercalary days, which they call *Musteraka*, so that all their years came to exactly 365 days.

[Margin: The way of counting years from the Yazdegird era.]

It is nevertheless certain that if we subtract 631 completed years of Christ from the given years of Christ that follow, what is left is Julian years from the Yazdegird era. So, if we wish to know how far our year of Christ 1595

…is from the Yazdegird era, I simply take 631 years away from these given years, and 964 remain; these are counted in the years we ordinarily use from this Persian era, beginning with the coming month of June.

[Margin: Second: the Jalālī era.]

The later era is the Jalālī [Gelalæa]. It was established and set in order by the emperor of Khorasan, Mesopotamia and Persia — the man called among the Persians Sultan Gelal eddin Melic Sa Alb Arselan Selgiukai Elhal Waraz Meschahi — through eight of the foremost sages of Persia, men most expert in celestial matters (their names are given at the end of book 4 of Scaliger's De emendatione temporum*). For the sages of Persia had observed that the equable year reckoned from the Yazdegird era in the Egyptian manner was shorter than it should be and not exactly solar, and that its months were gradually carried backwards; and that the Julian year, for its part, did not correspond to the motion of ☉ but was longer than it should be, and crept forward little by little into the following signs, though with a slower progress than the Egyptian year. So they set their hand to the tables and found a particular magnitude of the year, somewhat smaller than the Julian, exceeding the Gregorian a little and the Egyptian by a good deal.**

[Margin: When the Jalālī year was established.]

This was in the Yazdegird year 448, on Farvardin 18 [Phiravardin 18], and in the year of Christ 1079, 14 March, feria 5. The year they had found, reckoned from the moment then fixed, they named either Senathi Gelali, *that is, the Year of Majesty, on account of the singular dignity and eminence of the man who promulgated it — or indeed of the year itself; or else* Neuruz Elsultani, *as though the imperial equinoctial year, because it takes its beginning very nearly from the vernal equinox.*

[Margin: The Nawrūz of the Sultan.]

The Jalālī year, then, in the current year of Christ 1595, begins as year 517, its start being taken from spring. That this is so is plain enough from subtracting 1078 completed years from the birth of Christ out of the current years.

[Margin: The era of the victory at Actium.]

Other civil epochs could be added to these. The first is that of the Actian victory, which Roman writers mention everywhere. Some reckon this epoch from the sea-battle in which Octavian Caesar defeated Antony and Cleopatra off the promontory of Actium and put them to flight, in the Julian year 15, on 2 September. We must nevertheless set its beginning nearly a whole year later, and refer it to the Julian year 16, the 29th day of Sextilis, when Cleopatra and Antony killed themselves and Egypt was made a Roman province. For on this day and in this year falls not only Thoth of Nabonassar 719, from which Ptolemy with the Egyptians counts the years of the Actian victory; this epoch is also used by Josephus, Eusebius and others. And since 15 complete years and 241 days elapsed from the Julian ordinance to this era, it is clear that if 15 is taken from the given Julian years, what remains is the years of the Actian victory, beginning from 29 August. Thus the Julian year 1640 is 1625 of the Actian victory; while if 30 is added to the years of Christ, the same era results. For example, take the year of Christ 1595: add 30 and the year 1625 is likewise produced.

[Margin: The era of the Augusti.]

Secondly, the era θεῶν σεβαστῶν [Greek: theōn sebastōn, "of the divine Augusti"], or of the divine Augusti, which took its name from this: that when Augustus had put an end to the civil wars, about the sixth month of the third year of the 187th Olympiad — as Dionysius of Halicarnassus writes — he imposed on the Egyptians not only a fixed form of the year, of the sort the Romans used, but this beginning of it as well. This epoch falls in the Julian year 17, and 29 before the Christian epoch. Hence, to find these years, 16 is subtracted from the years given from the Julian ordinance, while 29 is added to the Dionysian years of Christ; and it appears that the Julian year 1640, which is the year of Christ 1595, is 1624 of the Augusti.

[Margin: The Augustan era.]

Thirdly, the Augustan era, which has its origin from this: that when Octavian Caesar, with Egyptian affairs

…rightly settled, had returned to Rome; when he was daily deserving well of the Roman citizens, had no adversaries or partners in power left, and the commonwealth was now wholly at peace; and when in a speech he offered back to the whole Senate the imperial power that he alone held as a monarch — then the Senate resolved not only to leave that power with him, but to enhance him further with some splendid title, taken from the designation "Augustus", which the Germans interpret, from the enlarging of the empire, as [Fraktur: Alzeit mehrern des Reichs][26]. When this was done, with the consent of the Roman citizens too, on the motion of Lucius Munatius Plancus [L. Munacio Planco], in the consulship of Octavian Caesar — his seventh — and of Marcus Vipsanius Agrippa — his third — two years after the Egyptian era θεῶν σεβαστῶν [Greek: theōn sebastōn, "of the divine Augusti"], in the Julian year 19 and 27 before the Dionysian epoch, as Censorinus teaches

[26] "ever-enlarger of the Empire"

in chapter 21 of *De die natali*, it follows that if 18 is subtracted from the years counted from the Julian ordinance, and 27 added to the years derived from the epoch of Christ, the Augustan years result. Hence the Julian year 1640, which is 1595 of the Christian era, is 1622 of the Augustan. But we are content in this place with these civil epochs; as for the rest, if any are worth considering, we shall draw them to the attention of students of chronology in the Ephemerides themselves.

[Margin: Astronomers use the Egyptian year, as the most uniform and the best suited to investigating the motions.]

Let us also say a few words about the astronomical eras. *It is certain that for computing the motions of the stars no more convenient year can be had than the Egyptian, and for its convenience Ptolemy, al-Battānī [Albategnius], Alfonso, Copernicus and virtually everyone who has set out calculations of the motions from first principles have used it — as the Alphonsine and Prutenic Tables show, drawn as they are from the writings of the practitioners; and for that same reason those tables also display the method of converting Julian years into Egyptian and, conversely, Egyptian into Julian. See precepts 5 and 6 of the Prutenic Tables.*

[Margin: The era of Nabonassar.]

The first and most ancient era is that of Nabonassar. *The Arabs, the Hebrews, and certain mathematicians before our own time, following Alfonso and al-Farghānī [Alphraganum], call him Nebuchadnezzar [Nabochodonosorem, seu Nabu adnezarem], monarch of the Babylonians, merely on account of the kinship of the names — but wrongly.*

[Margin: Nabonassar was not Nebuchadnezzar.]

For if we test against sacred and profane history the interval of 424 Egyptian years between the reign of Nabonassar and the death of Alexander, together with the other events of that time, some among the Jews and some among other nations, we find that Nebuchadnezzar is 140 years later than Nabonassar.

[Margin: Who Nabonassar was.]

There are also very many who believe that Shalmaneser king of the Assyrians was Nabonassar — which we too supposed before this, misled by the arguments that Johannes Funck [Funccius], Abraham Bucholzer [Bucholcerus], Heinrich Bünting [Buntingus], Codomannus [Laurentius Codomannus] and others advance in their chronologies, and above all Reinhold in the Prutenic Tables. But the light of the truth was opened to us by Joseph Scaliger, De emendatione temporum *book 5 and* Canones isagogici *book 2; by Calvisius, chapter 28 and following of his* Isagoge chronologica; *and likewise by Christmann [Jacob Christmann], in his* Connection *of the years up to the Olympiadic year 30. We therefore lay it down, with these most distinguished chronologists, that Nabonassar was that king of the Babylonians who at 4 Kings 20:12 is called Baladan, the father of Merodach — or of Mardocempadus [Mardochcempadi], as Ptolemy, the chief of astronomers, calls him — or else that king whom Scaliger calls by this name as the first in the Babylonian dynasty, who revolted from Artica, king of the Medes, and built a new kingdom, in which he counts 20 kings down to Cyrus king of the Persians. Ptolemy derives the epoch of this king*

from the noon of the first day of Thoth, the first month of the Egyptians, and from there all the planets'

…motions he reckons as from a fixed starting point. Its beginning we attach to the noon of 26 February, which was feria 4 in the Julian form, in the course of the year of the world 3203 — the year 747 before the Christian era, and 702 before the Julian ordinance. From it is reckoned year 1 of the eighth Olympiad, the sixth year from the founding of the city, running towards its close.

[Margin: Where the beginning of the years of Nabonassar is to be set.]

Now let us see which year from Nabonassar is currently running. First we add the given years from the era of Christ to the 747 years that are counted before the Christian era. Next we divide the product by 4, on account of the bissextile days, which are disregarded in the Egyptian year — having first, however, taken away the three years that precede the bissextile. Third, we subtract 365 days from the quotient as often as this can be done, that quotient being added to the aggregate of years; and the remainder is counted backwards from 26 February. From this come out the Egyptian years derived from Nabonassar, and at the same time the day on which the new year begins.

[Margin: The method of counting the years from Nabonassar forwards.]

For example. Take the year in which our Ephemerides *begin, 1595 from the birth of Christ, in Julian form. If I wish to know which year it is from Nabonassar in Egyptian form, I add to the given years of Christ the 747 years elapsed before the birth of Christ, and 2342 years result. From these I first take three, so that 2339 remain, and I divide by 4 — since in the Julian form every fourth year is bissextile — and 584 days are gathered in the quotient, which give a year and 219 days. The year I add to the previous 2342, and 2343 result. The days I count backwards from 25 February: through January 31 days, December 31 days, November 30, October 31, September 30, August of 31 days, which together make 209 days; and so I arrive at last at July. If I take from it the 10 last days, 21 days are left. I say, therefore, that the year 2344 from Nabonassar begins at noon on 21 July.*

[Margin: The era of the death of Alexander.]

The second era is that of the death of Alexander the Great, *which Ptolemy, in* Almagest *book 3, chapter 8, places 424 completed Egyptian years later than the era of Nabonassar; and the Prutenic Tables, with Copernicus, lay down the same. The Arabs likewise put just this number of years between Nabonassar and the era of Philip, as is clear from al-Farghānī [printed* Alphrag: *], chapter 1 of the* Rudiments of Astronomy, *who wrongly calls Nabonassar "Nebuchadnezzar", as we pointed out earlier.*

[Margin: This era follows the era of Nabonassar by 424 years.]

For he writes that between Nebuchadnezzar and Yazdegird, king of the Persians, there are 1379 Egyptian or Persian years and three months, and between Philip and Yazdegird 455 [recte: 955] years and three months. It is evident that if we subtract the smaller number from the greater, 424 years are left, because they had run past from Nabonassar to the Philippic era. The Arabs, then, call it the era of Philip, which

Ptolemy called the era from the death of Alexander. On this matter Christmann may be consulted, in his Connection of the Years, *at the year 425 of Nabonassar.*

[Margin: When Alexander the Great died.]

But that the time of Alexander's death may be understood more exactly: he did indeed die at Babylon — according to the Chronicle *of Eusebius of Caesarea — in the 33rd year of his age, in the first year of the 114th Olympiad, that is, in the Olympiadic year 453. And Plutarch, in his* Alexander, *fixes the day in these words:* Δα[?]σίου τρίτη φθίνοντος [Greek: Da[?]siou tritē phthinontos, "… on the third (day) of the waning month"], *that is, on the third day from the end of the month Daesius. But concerning Plutarch's meaning, and the day of Alexander's death, there is great controversy among authors: some take the words of the 27th day of the month Daesius (as of a month that would reach its end three days later), others of the 23rd day, and others again of the third day of the same month. Hence, too, about the day in our own Julian year there is not one and the same…*

…opinion among all writers. For Paul Crusius, in his epoch of Alexander's death, refers the death of Alexander to 20 May; Bünting, in his Chronology, *to 9 June; Christmann, in his elegant and learned* Connection of the Years, *to 23 June; and Scaliger, in book 1 of* De emendatione temporum, *to 25 July. However the matter may actually stand, it should nevertheless be known that astronomers attach the epoch of Alexander's death to 12 November, on which very day falls the first day of Thoth, the first month of the Egyptians. For astronomers do not always, as historians do, refer events to the days on which they happen, but for the most part to the beginnings of the years that are in public use — accommodating themselves in this to ease of calculation and to the reckoning of days customary among ordinary people — and it is to these that they refer the epochs of events.*

[Margin: The astronomical epoch of Alexander's death is referred to the beginning of the Egyptian year that next follows the event.]

The epoch of Alexander's death, therefore, as the usage is among astronomers, we accommodate to the 12th day of November of the year of the world 3647, which is the year 324 currently running before the birth of Christ, and 279 before the Julian ordinance. If from this I want to know which year from Alexander's death is now current, I proceed by plainly the same method as was followed in the era of Nabonassar. I add the years given from the birth of Christ to the 323 years that elapsed from Alexander's death before the birth of Christ. Then I divide the aggregate by 4, three years having first been taken away; and from the quotient I subtract 365 days as often as this can be done, and as often as that is done I add to the years. The remainder I count backwards from 11 November, and out comes the year numbered from Alexander's death, together with the day on which the new year begins.

[Margin: The way of counting the years from the epoch of Alexander the Great.]

Suppose it is the year of Christ 1595, and I wish to know which Egyptian year from Alexander's death is running. First, to the given 1595 years I add 323; the product, 1918, I diminish by three, so that 1915 remain, and divide by 4. Next, from the quotient 478 I take away once the magnitude of a year, 365

days, and I add the unit to the year 1918: they become 1919. The remainder, 113, I count backwards from 11 November: through October 31 days, September 30, August of 31 days, which together make 103 days. And I arrive at July, from which, if I take away the last 10 days, 21 days are left. So here too I say that the 21st day of July begins the year 1920 from the death of Alexander the Great. Nor is any other number of years left, if I subtract 424 Egyptian years — the interval proposed above — from the Egyptian years of Nabonassar.

[Margin: The astronomical epoch of Yazdegird.]

The third era, to which al-Farghānī carried down his chronology in chapter 1 of the *Rudiments of Astronomy*, **is that from the death of Yazdegird,** *which is referred, as we noted above, to the year of Christ 632, the 16th day of June. In that year (which was the year 1380 from Nabonassar, then beginning) the first day of Thoth, the first month of the Egyptians, coincided with the 18th day of March in the Julian year, on which at that time the beginning of Dimech, the 10th Persian month, also fell; and from that day to 16 June are 90 days, or three Egyptian and Persian months. It is therefore plain that what al-Farghānī says agrees with this reckoning: that before the Persian era 1379 years of Nabonassar and three months had elapsed.*

[Margin: The first month of the Persians coincides with the fourth of the Egyptians.]

The first day of Pharavardin of the Persians therefore coincides with the first day of Chiac, the fourth month of the Egyptians. And although, before the Yazdegird era, the Persians used to intercalate their 5 intercalary days, which they call Mustaraka, *after the eighth month — the one they call Aben — so that Adar was held to be the first month, from which all the rest, up to Aben, were counted at 30 days each: nevertheless the Persians, after this Yazdegird era, those same five intercalary days, or*

Mustaraka, began to attach to the month Asfirer, or Alphandar, where they have also kept their fixed seat down to these times of ours, and keep it still. Pharavardin, then, is the first of their months, and it agrees exactly with the Egyptians' month Chiac.

[Margin: The way of counting the years from the Yazdegird era.]

Nor is it difficult to count the years from the Yazdegird era. For whether we take 1379 years away from the years given from Nabonassar, or subtract 631 elapsed years from the years given after the birth of Christ, and then proceed with the remainder as was done in the two preceding eras, the same result must always emerge. For instance, in the year of Christ 1595 there runs the year of Nabonassar 2344; if I subtract 1379 years from it, the year 965 from the Yazdegird era remains. And since the year of Nabonassar began in that year on 21 July, the Yazdegird year will begin 90 days later, on the 19th day of October. In the same way, if I subtract 631 from the years of Christ 1595, and the remainder 964 — diminished by five, as must be done in this era, so that 959 remain — I divide by 4, and finally count the quotient, 239, backwards from the 15th day of June, I am brought to 19 October, on which the year 965 from the Yazdegird era began.

[Margin: A difference in intercalating produces a difference in certain months.]

This one thing, however, still needs to be noted in the numbering of the months. Since among the Egyptians and the Persians the intercalations are made at the end of the twelfth month, the nine earlier Persian months do indeed agree with the nine later Egyptian ones. But because the Egyptians institute their intercalation after their own last month, which is the ninth of the Persians, the three later months of the Persians differ from the three earlier ones of the Egyptians by 5 days — until at last, once the intercalation has been made among the Persians too, the first day of the first Persian month corresponds exactly to the first day of the fourth Egyptian month.

Caput II. On the Years, Months and Days of the Years

The year is the chief and most familiar part of time, by which not only the ages of men, of the world and of other things, but also the times of nearly everything done in the world — their beginnings, their progress, their durations and their intervals — are measured and numbered; it is a periodic revolution, that is, a great circle of months and days, in which the four seasons — spring, summer, autumn and winter — are held to come round again in their circuit, one revolution of the Sun being nearly completed. *It is so called, according to Varro,* On the Latin Language *book 5, as though a great circle, by analogy with the* annulus, *which denotes a small circle. For just as a ring coheres with itself in all its parts and returns into itself, so too the year rolls round in itself along its own tracks; and there is a fixed succession of the years, a fixed coherence and connection. The Greeks call the year* ἐνιαυτὸν [Greek: eniauton, "year"], ἀπὸ τοῦ ἐν ἑαυτῷ ἰέναι [Greek: apo tou en heautō ienai, "from its going within itself"], *because it runs back and returns into itself, and has its beginning and its end everywhere. Hence the Egyptians too, before the use of letters, represented the year by a serpent taking the end of its own tail in its mouth.*

[Margin: The use of the years.]

[Margin: What the year is.]

[Margin: Where the word *annus* comes from.]

[Margin: The year is called ἐνιαυτός [Greek: eniautos, "year"] by the Greeks.]

Since the spans of time we call years differ from people to people — some longer, others shorter — and are rightly referred back to the standard of the celestial motions, from which they take their measure, years are therefore properly established as of two kinds: **astronomical and political. Astronomical years are those** *that are governed either by the Sun's periodic motion or by the conjunctions of the Moon with the Sun; and so these too are of two sorts:* **some solar, others lunar. The solar year** *is the span of time in which the Sun, having traversed the whole zodiac, returns by its own motion from one point of the heaven to that same point.* **This kind too is twofold: natural and sidereal.**

[Margin: All years are rightly measured against the heavens.]

[Margin: Astronomical years.]

The natural year — which the Greeks call Τροπικὸς *[Greek: tropikos, "turning", the tropical year], from* τρέπω *[Greek: trepō, "I turn"], so that it is named, as it were,*

the "turning" year — is the one in which the Sun sets out from one of the tropic points, whether equinoctial or solstitial, measures out the whole length of the ecliptic, and returns to that same point. It is called natural *because nature seems to have appointed it for the measuring of time; and it is called* temporary *as well, either because it tempers the four changes of the year, or because it measures time best. Since the Sun's motion, with respect to us, is twofold — mean and true — this year too is made twofold.*

[Margin: Solares — Solar [years].]

[Margin: The natural or tropical year.]

The mean year, *also called* ὁμαλὸς *[Greek: homalos, "even, uniform"], is referred to the mean equinox and solstice, and contains 365 days, 5^h 49^m 15^s $45'''$ $52''''$ 48^v. It is the rule and standard of all years.* **The true year,** *which is called* Φαινόμενος *[Greek: phainomenos, "appearing"], that is,* apparent, *and also* ἀνόμαλος *[Greek: anomalos, "uneven"], that is,* unequal, *is referred to the true equinox or solstice; or it is the span of time in which the Sun returns to the true equinox or solstice. This year grows and shrinks according as the equinoctial and solstitial points move forward more quickly or more slowly, as Copernicus teaches in* De revolutionibus *book 3, chapter 13, and Reinhold in precept 21 of the* Prutenic Tables. **At its greatest it contains, beyond 365 days, 5^h 56^m 53^s; at its least it adds to the days and hours just named a further 24^m 38^s.**

[Margin: The mean natural year.]

[Margin: The true natural year.]

[Margin: The true tropical year is unequal.]

The sidereal year, *which the Greeks call* αστεροτή*[?]*δα *[Greek: the Greek name of the sidereal year; one letter not settled], is the span of time in which the Sun returns to the same star, fixed or wandering, from which it set out. Hence the sidereal year too is either* fixed *or* moving.

The fixed sidereal year is referred to the fixed stars, and its quantity is always invariable. According to **Thebith [Thābit ibn Qurra],** *who is reckoned the first to have established this year, it contains 365 days, 6^h 9^m 12^s; according to* **Copernicus,** *365 days, 6^h 9^m 40^s; and according to* **Tycho Brahe,** *over and above the days and hours just named, 19^m 26^s $43'''$ $30''''$. The moving sidereal year is the one directed to one of the planets: either to* **Saturn,** *whose mean quantity is 378 days, 2^h 12^m 13^s; or to* **Jupiter,** *whose mean quantity is 398 days, 21^h 12^m 9^s; or to* **Mars,** *whose quantity is 779 days, 22^h 22^m 40^s; and so on.*

[Margin: The sidereal year.]

[Margin: Fixus. — The fixed [year].]

[Margin: Mobilis — The moving [year].]

The lunar year, finally, is that in which the Moon, *after a number of conjunctions with the Sun, meets and is joined with the Sun not far from its former place. This year too is twofold.* **Either it is common,** *which takes in 12 synodic lunations;* **or embolismic,** *which takes in 13. And each of these is again either* **mean** *— which is the standard of all civil lunar years — or* **true. The mean common**

year contains, according to the *Prutenic Tables*, **354 days, 8^{h} 48^{m} 38^{s} $7'''$ $38''''$; the embolismic, 383 days, 21^{h} 32^{m} 41^{s} $18'''$ $16''''$. The true year strays from these mean values, now by more and now by less, as is plain to anyone who considers the motions and syzygies of the luminaries.**

[Margin: The lunar year: common; embolismic.]

[Margin: The mean.]

[Margin: The true.]

Political or civil years, on the other hand, are those *which peoples everywhere use for dating events. In these they look either to the Sun's motion alone, or to the Moon's alone, or else to the motion of both luminaries together.*

[Margin: The political year.]

Those who look to the Sun are, first, the Egyptians, *who make the year exactly 365 days. They have twelve months in the year, each of 30 days, and at the end they add 5 intercalary days. Years of this kind the* **Hebrews** *kept before the era of Alexander, though in such a way that when 120 years had run out they intercalated a whole month of 30 days, as Scaliger teaches towards the end of book 3 of* De emendatione temporum, *and Christmann in his* Calendar of the Hebrews; *and so too Seth Calvisius [Sethus Calvisius], chapter 5 of the* Isagoge chronologica. *Years of this sort likewise, without an embolismic month, were used by the* **Persians,** *who from the era of Yazdegird — which, in the doctrine of epochs in the preceding chapter, we referred to the year of Christ 632 — counted 447 Egyptian years, down to the year Senath Gelal [the Jalālī era], that is, the year of Christ 1079. For at that time the Persians, having seen that the year they had been using for some while was far too short, and that the days of the months were gradually being carried back into the seasons before them, established a correction of the year on the authority of the Persian emperor Alp Arslan [Alb Arſalam]; and they added a further day usually in the fourth year, and sometimes in the fifth, just as is regularly done in our own bissextile years. In 648 years they enclosed 33,811 weeks, that is, 236,677 days, so that their year came out at 365 days, 5^{h} 48^{m} 53^{s} $20'''$.*

[Margin: Of the Egyptians.]

[Margin: Of the ancient Hebrews.]

[Margin: Of the Persians.]

[Margin: Annus Gelaleus Perſarum. — The Gelalean [Jalālī] year of the Persians.]

Next the Romans, *who use a year larger than the Egyptians' and the ancient Persians'. For by the ordinance of Julius Caesar the year is 365 days, 6 hours; and those 6 hours make every fourth year an intercalary one of 366 days, whereas the common year is only 365 days.* **This year is used by the Muscovites too,** *who keep the Roman names and lengths of the months but begin their year from the first of September.* **Likewise the Syrians, or Syro-Greeks,** *who number their months and days according to the Julian form, although they give them other names, as will be said a little later; and so also the* **Abyssinians, Copts and Ethiopians.**

[Margin: Romanorum Iulianus. — The Romans' Julian [year].]

[Margin: Which is also the Muscovites'.]

[Margin: Which is also the Syrians'. And the Ethiopians' in Africa.]

For although they begin their year from the 29th day of August in the Julian year, and assign 30 days to each of the months, which they call by particular names in their own tongue, they nevertheless agree with the Julian reckoning in this: that to the 12 months they add 5 epagomenal days in the common year and 6 in the intercalary year; and this in the year immediately preceding the Julian intercalary year, in which their first month also falls on the 30th day of August, whereas in the other years it always coincides with 29 August.

By the correction of Gregory XIII [printed Gregorij 13 Pontificis*]*, however, the year is 365 days, 5^{h} 49^{m} 12^{s}, and thus falls short of the mean solar year by only about 4 seconds of an hour.* **For since, in the Gregorian year, three intercalary days are dropped in every 400 Julian years, which amount to 146,100 days, it is clear that 400 Gregorian years have only 146,097 days; and if these are divided by 400, the stated number of days, hours and minutes of a single year comes out. But so that the grounds of the correction — and thereby the Julian and Gregorian years themselves — may be better understood, it should be known that in the Julian year the six hours by which the year is made greater than 365 days are, to avoid the disturbance of intercalation, passed over in the first three years; and only in the fourth year, when 6 hours four times over**

[Margin: Gregorianus. — The Gregorian [year].]

[Margin: The quantity of the Julian year, and the method of intercalation.]

gathered together make up 24 hours, or a whole day, are they all intercalated together, as they emerge from the 4 years. Hence years are made of two kinds: the first three of 365 days, which are called *common*; **the fourth of 366 days, which is called** *intercalary*, **or** *bissextile*. **For the intercalary day is inserted in February, immediately before the sixth day before the Kalends of March [24 February], and makes the sixth before the Kalends of March be counted twice.**

[Margin: Some Julian years are common, of 365 days.]

[Margin: Others bissextile, of 366 days.]

[Margin: Where the bissextile day is inserted.]

The method by which one may tell whether some proposed year is common or bissextile is somewhat different for years given after Christ and for years given before the birth of Christ. For years given from the birth of Christ, simply divide the given years of Christ by 4 — since the first year of Christ's birth was the first after a bissextile — and the number left over from the division by four will show what is sought. For the year will be judged common if anything remains, bissextile if nothing is left. And the remainder itself will show how far it stands from the bissextile. For example, the year 1595 from the birth of Christ is given. Divided by 4, it leaves 3 as remainder: it shows, therefore, that the proposed year is common, and the third after a bissextile — which is just what we have chosen to note at the beginning of each Ephemeris.

[Margin: The way of telling common and bissextile years, after the birth of Christ.]

For years given before the birth of Christ (if, as is right, we number the Julian year backwards to the beginning of the world), first take one unit away from the given years, since the year in which Christ was born, in December, was on the common opinion a bissextile. Then let the rest be divided by 4; and the remainder, if there is one, will likewise show a common year, while no remainder at all shows a bissextile year. Further, a remainder of three shows the first year, and a remainder of one the third year, after the intercalary. Thus let the year 747 before the birth of Christ be given, on which the era of Nabonassar itself falls. I take away one unit first, and divide the remainder, 746, by 4; 2 are left, which show that the year was common and the second from a bissextile. So too the year in which the world was founded, in autumn, 3950 before the nativity of Christ, was likewise common and the third from a bissextile.

[Margin: The way of telling the same before the birth of Christ.]

In the Gregorian year, although the method of inquiry is the same, a certain difference nevertheless arises in some bissextiles, which are not counted. For the three days that are dropped from the Julian form of the year in every 400 years are passed over under this rule: that all the hundreds counted from the birth of Christ which correspond to the smaller numbers of common years are themselves also to be held common, the intercalary day being struck out (for otherwise they too would have had to be bissextile), while the rest are to be reckoned bissextile. Just as, therefore, among the smaller numbers — those below a hundred — the years 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17 and so on are common, while the years 4, 8, 12, 16, 20 and so on are bissextile, the former of 365 days, the latter of 366: so also in the Gregorian reckoning the years 100, 200, 300, 500, 600, 700, 900, 1000, 1100, 1300, 1400, 1500, 1700 and so on are held common, but the years 400, 800, 1200, 1600, 2000 and so on bissextile.

[Margin: The difference which is found on this head in the Gregorian year is explained here: that it holds only in the hundred-years.]

[Margin: Which hundred-years are common.]

[Margin: Which are bissextile is shown.]

Further, as the Gregorian calendar at this time — that is, from the year of Christ 1500 inclusive down to 1700 exclusive — differs from the Julian calendar by 10 days, which it counts in excess (as we see, when the eleventh day of January is being kept in the Gregorian calendar, while in the Julian year it is the first day of January), so in the intervening years from the birth of Christ (if we extend the Gregorian year backwards even to the times preceding the correction itself), for the years counted from the two-hundredth of Christ inclusive to the three-hundredth exclusive, all the months and days in the Gregorian form agree exactly with the months and days in the Julian form; whereas for the years before that, fewer days and months must necessarily be counted on the Gregorian pattern than on the Julian.

[Margin: How the Gregorian calendar at this time differs from the Julian.]

[Margin: From the year of Christ 200 to 300 the Gregorian calendar is held to have agreed with the Julian.]

So that the method of counting may be known, then: first, let the hundreds counted from the birth of Christ be divided by 4. Next, let the quotient be subtracted from the dividend. And the number that is left, less by two, will show by how many days, counted onwards, the Gregorian form differs from the Julian. For example, let the year 1595 be given, and suppose I wish to know by how many days the Gregorian calendar differs from the Julian. First I divide the hundreds number, 15, by 4. Then I subtract the quotient, 3, from the dividend, 15, and 12 are left. The ten, therefore, by which this number exceeds two show that 10 more days are to be counted in the Gregorian year than in the Julian — so that when, in the

[Margin: The way of investigating the discrepancy in the years after the birth of Christ.]

—Julian year, the 10th day of January is being kept, it is the 20th in the Gregorian year. Suppose, then, you wish to know how far apart these two reckonings stood at the time of the Council of Nicaea, held in the year of Christ 324: the centenary figure cannot be divided by 4, but the unit by which 3 exceeds 2 shows that the calendars then differed by a single day, so that when the 20th of March was being counted in the Julian form, it was the 21st in the Gregorian.

[Margin: The method of finding the same discrepancy in years before the birth of Christ.]

If the same question is asked for a given year before the birth of Christ, proceed as follows. First add to the given years before the birth of Christ the 200 years which, once elapsed after the birth of Christ, brought these two forms of the year, the Gregorian and the Julian, into exact agreement in days and months, as was said a little earlier. Then divide the centenary figure by 4. Finally subtract the quotient, diminished by one, from the dividend; and the remainder will show by how many days, counted backwards, the Gregorian form of the year differs from the Julian. For example, take the year of the world's creation as 3950 before the birth of Christ: adding 200 gives 41 centuries; divide these by 4, diminish the quotient 10 by one, subtract the resulting 9 from 41, and 32 are left. Counting these backwards from the 46th [recte: 26th] day of October in the given Julian year, one arrives at the 24th of September in the Gregorian year — the day on which we judge that God, best and greatest, began to create the world out of nothing, on feria 1, that is, on the day of ☉. In the same way, take the year 2023 from the creation of the world, that is 1927 before the birth of Christ, in which Abraham received the promise and migrated from Mesopotamia into Canaan. Add 2 to 19, divide the product 21 by 4, take one away from the quotient 5, and subtract the remaining 4 from the dividend. 17 are left, and these determine that from the given 12th day of April in the Julian year one must count backwards, so as to arrive at the 26th of March in the Lilian year.

[Margin: The civil lunar year of the Arabs.]

Those who look to the Moon are the Arabs, and likewise the Indians and the Turks, *who make up the year out of 12 synodic lunations. In the 30 years that complete their period they reckon 19 years of 354 days, but eleven of them — namely the 2nd, 5th, 8th, 10th, 13th, 16th, 19th, 21st, 24th, 27th and 30th, as Scaliger teaches in* De emendatione temporum *book 2 — of 355 days, so that on*

this reckoning the whole period comes to 10,631 days. Hence a single lunation, of which there are 360 in the complete period of 30 years, contains for them $29^d\ 12^h\ 44^m$. *The ancient Romans too attended to the Moon in laying out the year, at the direction of Numa Pompilius, as Macrobius testifies in* Saturnalia *book 1, chapter 13, in these words:* Numa, so far as he could grasp it in a raw and still unpolished age, with his own wit for his only teacher, extended the year to 354 days, in which he believed that 12 courses of the Moon were completed.

[Margin: Of the ancient Romans.]

[Margin: The civil year that looks to both luminaries. The Hebrew year.]

Those who looked to both luminaries were, first, the ancient Hebrews, *from the Exodus out of Egypt down to the times of the Alexandrian era. For in that interval of time they established the ceremonies in the temple according to the divine command and the motion of* ☽. *And although they retained certain features of the earlier form, so that their year was as it were a mixed one — partly solar, returning in some fashion to the equinoxes and solstices, and partly lunar, to which the feasts and festivals were directed — still the equinoxes gradually ran ahead of them, until at last, after the death of Alexander the Great, they took over the year of the Greeks, as is plain from the books of Maccabees.*

[Margin: The Greek year.]

Then the Athenians and the Greeks. *For although they fitted their layout of the year principally to the Moon, and formed the year out of 12 lunar months, they observed that the lunar year did not answer to the Sun's revolution; and so they intercalated a whole month, sometimes in the third year and sometimes even in the second, following the Callippic period, in order both to fit the year to the motion of the Sun — which alone defines the year — and to hold the equinoxes and solstices within their proper limits.*

Third, the Jews of our own time, *who about the time of Constantine the Great framed a calendar of their own through the work of Rabbi Hillel. In it they brought the motion of the Moon — whose use lies in fixing the feasts — into sufficiently precise agreement with the motion of the Sun, so that the equinoxes and solstices cannot easily be dislodged from their seats.*

[Margin: Of the Jews of our own time.]

Fourth, those who use the Roman calendar do not altogether neglect the lunar year, *but judge that it too deserves careful attention: both so that the several months may be given their own names, suited to their qualities and to the work proper to them, and so that the* **movable feasts,** *and above all Easter, the foundation of the rest, may be determined more exactly.*

[Margin: And it is the one observed in the Roman Empire and in the neighbouring kingdoms.]

For whichever lunation lies nearest to each new entry of the Sun into the signs takes its name from the month in which that entry occurs. Thus the lunation nearest the Sun's ☉ *entry into* ♒ *is to be called January's; the one nearest its entry into* ♓, *February's; the one nearest its entry into* ♈, *March's; and so on. And this March lunation is the only one by which the feast of Easter must be fixed for us Christians,*

so that the Sunday next following the full moon of the month of March is Easter day. For this lunation is the first both by the sacred writings — Exodus 12 — and by the reckoning of the Hebrews; and it was the first for the ancient Romans, who chose to take the beginning of the year from March, established in honour of Mars. The judgement about the naming of a lunation must always be taken from the full moon: if the full moon immediately follows the entry, the lunation is referred to the month in which the entry occurs; if it precedes it, the lunation belongs to the preceding month. And if two full moons fall between two entries, the earlier takes its name from the month in which the entry occurs, while the later is counted to the embolismic month. This method of naming the lunations is not only drawn from solid foundations, answering to the workings of nature, but is universal as well: it is one and the same, and holds good, in the old calendar as in the new. The rules that others prescribe for naming the lunations, by contrast, are rightly rejected, since they answer neither to the effects in nature nor to the several calendars in the same way; and since their absurdities are plain to anyone, they call for no fuller refutation.

[Margin: The method of naming the lunations in the calendars.]

[Margin: Why the common method of naming the lunations is faulty.]

For the rest, just as no year has a fixed beginning κατὰ φύσιν *[Greek: kata physin, "according to nature"] — since it turns back upon itself at any point whatever — so, by hypothesis or at the choice and will of the nations, it begins and ends at whatever place or time one pleases. For astronomers who, in ephemerides, begin the tropical year at the winter solstice and end it there, as I have done — as the figures expressing the quantity of the true or apparent tropical year show — are accustomed, by common usage, to start the tropical year, the mean as well as the true, from the beginning of the signs of the Zodiac, that is from the Sun's entry into Aries; for this equinoctial point is the most conspicuous of all, the point about which the Sun exerts its powers as if anew, opens the earth, and quickens all things that are coming to birth.* **Astronomers begin the sidereal year** *from the first star in the horns of the Ram, since ♈ is held to be the first of all the asterisms.*

[Margin: The year has no natural beginning, but only one taken by hypothesis.]

[Margin: Astronomers start the tropical year from the vernal equinox.]

[Margin: The sidereal year, from the star of ♈.]

The Egyptians, although they open the year at noon of the first day of the month Thoth, have that first day fixed neither to an equinox nor to a solstice; it wanders through all the months of our year, since, for want of the quarter-day whose intercalation they leave out, it is carried back by the interval of one day every four years. The same judgement is to be made of the *ancient Persian year.* **Although they began it from the first day of the first month, Pharavardin — which agrees exactly with the fourth Egyptian month, Chæac, as was said at the end of the first chapter — it too, like the Egyptian year, would have wandered through all the days of our year within 1460 Julian years, had the correction not been made. For 1460 Julian years make up 1461 Egyptian ones.** *But the corrected and new*

Persian year was introduced taking its beginning from the vernal equinox; it is also called Neuruz Elsulthani [the Nawrūz of the Sultan], as being

[Margin: The Egyptians start from the first day of the month Thoth.]

[Margin: Likewise the ancient Persians.]

[Margin: But this beginning wanders through every part of the year.]

[Margin: The Persians of our own time, in the Jalālī year, …]

[Margin: …open the year at the vernal equinox.]

the emperor's equinoctial year, as we noted in the preceding chapter; and the use of it is now retained in the most ample and most powerful empire of the Persians.

[Margin: The Romans, from the winter solstice.]

The Romans, **by the ordinance of Romulus, had the first beginning of the year from the month of March, about the vernal equinox. Afterwards, however, by the constitution of Numa and the approval of Julius Caesar, they began their year at the winter solstice. Hence Ovid too sings:**

> *Bruma anni prima eſt, veteriſq; noviſſima Solis, Principium capiunt Phœbus & annus idem.*
>
> The winter solstice is the year's first day and the old sun's last;
> Phoebus and the year alike take their beginning.

But since we see that the winter solstice runs ahead of the first day of the first month, January, by 9 days in the new calendar and by 19 days in the old, the Roman year at this time does not answer to the beginning established for it by the ancients.

[Margin: The Muscovites, from September in the Julian year.]

The Muscovites and Ruthenians **open the year on the first day of September in the Julian year; and in the names of the months and in the feasts they differ hardly at all from the Julian reckoning.**

The Venetians **start their year from the first day of March, perhaps because the foundations of the city were laid at that season. There are some, too, who open the year from the Nativity of Christ on 25 December, as the point from which the Christian era is derived. We ourselves, however, change the numbering of the years only on the first day of January.**

[Margin: The Syrians, from October.]

The Syrians, or Syro-Greeks, **start their year from the first day of October in the Julian year — to which they attach their first month, the earlier Tishrin — and so after the autumnal equinox.**

[Margin: The Copts and Ethiopians, from 29 August of the Julian year.]

The Copts, the Ethiopians and the Alexandrians, **on the testimony of the Bishop of Fossombrone [Paulus de Middelburgo] in his** *Paulina,* **begin the year on the 4th day before the Kalends of September, that is, 29 August of the old year, and so before the autumnal equinox.**

[Margin: The Athenians, from the summer solstice. The Hebrews.]

The Athenians **begin the year at the summer solstice, or at the new moon nearest to it.**

The Hebrews **have two beginnings of the year: the ecclesiastical, by which they begin the year at the new moon nearest the vernal equinox, and the civil, by which they begin it at the autumnal new moon nearest the equinox. In civil affairs, then, the year of the Jews is reckoned from the month Tishri, but in ecclesiastical affairs from the month Nisan.**

[Margin: Months. Astronomical.]

Months, by which we measure the year, *are so called by the Latins from* metiri *or* mensurare, *to measure; by the Greeks* μῆνες *[Greek: mēnes, "months"] from* μήνη *[Greek: mēnē, "the Moon"], because months are laid out chiefly by the Moon's course. They are of two kinds,* **astronomical and civil. Astronomical months,** *which are also called natural, are weighed by the motion of the two luminaries, the Sun and the Moon;* **and they are either solar or lunar. Solar months** *are the spans of time in which the Sun traverses the twelfth part of the Zodiac. And since the Sun's motion is twofold, one mean and the other true,* **the solar month too will be twofold: one mean, the other true. The mean** *or equal month, the standard of all solar months, is the span of time in which the Sun by its mean motion completes a twelfth part of the Zodiac; and it is invariably 30 days, $10^h\ 29^m\ 6^s\ 18'''\ 50''''$.* **The true** *or apparent month is the span of time in which the Sun by its true motion passes through one sign of the Zodiac. And since this motion is unequal, it will make the months unequal as well — longer about the Sun's* ἀπόγειον *[Greek: apogeion, "the apogee"] in Cancer, where the motion is slower;* **shorter about the** περίγειον *[Greek: perigeion, "the perigee"]* **in ♍, where the motion is swifter. Lunar months,** *which are referred to the motion of the Moon,* **are of three kinds: periodic, synodic, and**

[Margin: Solar.]

[Margin: Mean.]

[Margin: True.]

[Margin: Lunar. Periodic.]

…of illumination. **The periodic month** *is the interval of time in which the Moon returns by its own motion to the same place of the Zodiac from which it set out. By the mean motion this takes 27 days, $7^h\ 43^m\ 5^s$, near enough; by the true motion, one hour more or less at most.* **The synodic month** *is the interval from one conjunction ☽ ☌ ☉ to the next following one. The* mean *synodic month is the one in which the two luminaries come together by their mean, that is equal, motions; it is the norm and measure of all lunar months, and runs to 29 days, $12^h\ 44^m\ 3^s\ 10'''\ 58''''$ [recte: $38''''$] 10^v. The* true *synodic month, in which they are joined by their true motions, differs from the mean by as much as 14 hours at times, and is by that much longer or shorter.*

[Margin: Of the synodic months. And … either mean…] [?]

[Margin: …or true.]

Lastly, the month **of illumination, or of appearance,** *is the interval from the first day on which the Moon is seen after the conjunction to the last day on which it fades from sight. This is commonly judged to be 28 days; yet that does not always hold. The Moon is seen and fades away now later, now sooner, according as, first, it is*

northern or southern; second, faster or slower in motion; third, in signs that ascend and descend directly or obliquely.

[Margin: Of illumination.]

Lastly, the civil, political or customary months *are those by which each nation divides its year according to some institution of its own. And with the variety of nations and peoples there goes a variety not only in the reckoning of the months, but in their names as well.*

[Margin: The civil months.]

For the months of the *Egyptians* **are these: 1 Thoth, 2 Phaophi, 3 Athyr, 4 Chæac, 5 Tybi, 6 Mechir, 7 Phaménoth, 8 Pharmuthi, 9 Pachon, 10 Payni, 11 Epephi, 12 Mesori — all of 30 days, to which five intercalary days are added at the end.**

[Margin: The Egyptians.]

Those of the **Persians** *are 1 Pharavvardin, 2 Adarpahascht, 3 Chardad, 4 Thir, 5 Mardad, 6 Scheheriz, 7 Mehar, 8 Aban, 9 Adar, 10 Di, 11 Behemen, 12 Asphandar (or Asphirer) — likewise all of 30 days, to which are added the intercalary days they call Musteraka: five in a common year, 6 in an intercalary one.*

[Margin: The Persians.]

The *Romans,* **by the ordinance of** *Romulus,* **the city's founder and first king, had at first only 10 months in their year, as Ovid teaches in this distich:**

> When the founder of the city was setting the seasons in order, he
> appointed that in his year there should be twice five months.

These enclosed 304 days, on the testimony of Macrobius, *Saturnalia* **book 1, chapter 12; of Solinus in his book** *On the Wonders of the World;* **and of Censorinus,** *On the Birthday,* **chapter 20, drawing on Junius Gracchanus, Fulvius, Varro and Suetonius. Of these** *the first was March,* **which Romulus named from Mars — or else because he wished the Roman people to be a race of Mars and warlike.** *The second* **was called April, either from** *aperire,* **"to open," because then the pores of the earth are opened and the crops are drawn forth, or from** ἀφρός *[Greek: aphros, "foam"]:* **from which Venus has the name** Ἀφροδίτη *[Greek: Aphroditē],* διὰ τὴν ἐκ τοῦ ἀφροῦ γένεσιν *[Greek: dia tēn ek tou aphrou genesin, "on account of her birth from the foam"].* **For Venus was reckoned the mother of Aeneas, from whom the origin of the Roman race is derived.**

[Margin: Of the Romans. In the Roman year there were at the outset only ten months.]

The third, May, **was named from the** *maiores,* **the elders, or from Maius — that is, from Jove. Anglicus, in book 5 of** *On the Properties of Things,* **calls it Madius, from the drenching of the rains that is caused at that season by the rising of the Pleiades and the Hyades. The fourth,** *June,* **from the** *iuniores,* **the younger men, or from Juno, the wife of Jove. The fifth** *Quintilis,* **the sixth** *Sextilis,* **the seventh** *September,* **the eighth** *October,*

the ninth *November,* **the tenth** *December* **— which Ovid himself also attests in these verses:**

[Margin: 1 March. 2 April. 3 May. 4 June. 5 Quintilis. 6 Sextilis. 7 September. 8 October. 9 November. 10 December.]

> Mars had the first month, and Venus the second: she the head of the race, he its very father. The third was named from the old men, the fourth from the young; the crowd that follows was marked out by number.

Of these 10 months the four longer ones were called "full," the remaining six "hollow." The full ones were March, May, Quintilis and October, of 31 days; the six hollow ones left over — April, June, Sextilis, September, November and December — of 30 days. And Aurelius Cassiodorus testifies that this calendar lasted 38 years, as long as Romulus reigned. If those years have our measure, as is likely, then 45 Romulean years and about 200 days elapsed in the meantime. Giovanni Lucido [Ioannes Lucidus], however, in chapter 2 of *On the True Day of the Lord's Passion,* **writes that it lasted only 24 Romulean years, to which about 20 Julian years answer.**

[Margin: The months of the ancient Romans: four full, six hollow.]

But Numa Pompilius, the second king of the Romans, **saw that his predecessor's year was cut too short, and added 51 further days to it. Taking six others as well — one from each of those six hollow months of 30 days — he arranged them into two new months in this way: to the first month, January, he assigned 29 days, and to February 28. Censorinus attests the same in chapter 20 of** *On the Birthday,* **in these words:** *Numa added fifty-one days to Romulus's year; and since these would not fill out two months, single days were taken from each of those six hollow months and added to them, so that 57 days were made. Out of these came two months, January of twenty-nine days and February of twenty-eight; and so all the months began to be full and of an odd number of days, except February, which alone was hollow and for that reason was held more ill-omened than the rest.* **Similar things about Numa are written by Plin: 2 in the book** *On Illustrious Men,* **by Cassiodorus, and by Macrobius,** *Saturnalia* **book 1, chapter 13.**

[Margin: But Numa added two months more.]

[Margin: January.]

[Margin: February.]

January, then, is said to be named either from *ianua,* **a door — since one enters upon the year through January as one enters a hall through a door — or from two-headed Janus, who looks back on the end of the year gone by and forward to the beginning of the year to come. February, by contrast, is from** *februum,* **that is, a sacrifice, because at that season the Romans sacrificed for the souls of their forefathers to Pluto, who was also called Februus, and to the other gods below. Ovid too hints at this,** *Metamorphoses* **1:**

[Margin: Where January gets its name.]

[Margin: Where February does.]

But Numa passed over neither Janus nor the ancestral shades: he it was who added those two to the ancient months.

By this arrangement, then, all the months of the Numan year — and so the year itself — came to have an odd number of days, in honour of the odd number, which is sacred to the Pythagoreans; February alone excepted, which had an even number of days, lest, if the several months ran on in an even or in an odd number, they should make the sum even. And hence arose this disposition of the months:

Month	Days
Ianuarius	29
Februarius	28
Martius	31
Aprilis	29
Majus	31
Iunius	29
Quintilis	31
Sextilis	29
September	29
October	31
November	29
December	29

In this arrangement, although January and February were set before March, so that March no longer stayed first but was made third, Quintilis nonetheless — now no longer the…

…fifth but the seventh, kept the name Quintilis; and so did the remaining months that follow in order.

For the rest, Numa observed that with this quantity of the year — a lunar one, and framed chiefly by comparison with the year of the Greeks — the Sun did not return to the same place in the heavens. He therefore judged it fitting to recall this lunar year to the Sun's course and fit it to that course by intercalating a new month of 22 or 23 days, which the Romans afterwards called either the intercalary February or Mercedonius, and which they intercalated once, by turns, at the end of every two years. His aim was that March should not be dislodged from the beginning of spring, and that more years should not be counted from the founding of the city than the true quantity of the year allows.

[Margin: Numa tried to recall his lunar year to the Sun's course by intercalating Mercedonius.]

And although this method of intercalating did restore the Numan year — which without it would have been purely lunar — to the Sun's course so far that the equinoxes and solstices stayed fixed to roughly the same months, still, in later times it was found to exceed the true and natural

quantity of the year by a little. The pontiffs, whose charge it was to correct the intercalation, too often omitted it, and corrupted it in many ways, whether out of spite or out of favour — so that a man might quit his magistracy the sooner or hold it the longer, or so that a farmer of the taxes and of other public revenues might gain or lose by the length of the year. The upshot was that in the 708th year from the founding of the city, after the Numan year, not wholly like itself, had been in use for 670 complete years, the correction was applied by Julius Caesar.

[Margin: The Numan year was corrupted when the intercalation was omitted, or tampered with by the pontiffs.]

For Julius Caesar, **the first monarch of the Romans, having been instructed by the mathematicians of Alexandria, found that the Numan year still fell short of the full completion of the solar year by about 10 days and a quarter. With the help of Sosigenes the mathematician, summoned from Egypt to Rome after the defeat of Pompey, he added those ten days, reckoning two apiece to January, Sextilis and December, and one apiece to April, June, September and November. Hence January, March, May, Quintilis, Sextilis, October and December have 31 days, while the remaining months — except February, which kept 28 — came to have 30. Censorinus confirms this in these very words:** *Caesar, doing away with the intercalary month, framed the civil year to the Sun's course. And so to the 355 days he added 10, which he distributed among the 7 months that had twenty-nine days, in such a way that two were added to January, Sextilis and December, and one to each of the rest; and he set those days at the outer ends of the months, so that the religious observances belonging to each month should not be shifted from their place.* **Macrobius attests the same,** *Saturnalia* **book 1, chapter 14.**

[Margin: Julius Caesar at length corrected the Roman year with the help of Sosigenes.]

[Margin: He did away with the intercalary month Mercedonius.]

In the very first year of the Julian ordinance, then, not only Quintilis — which was afterwards called July in honour of Julius Caesar the dictator — received 31 days, but the month Sextilis received the same number of days as well. That month was at length called August in honour of Augustus, by a decree of the Senate and a plebiscite, on the motion of Sexto Pacubio [Sextus Pacuvius], tribune, putting it to the people. Macrobius, in the place cited, reports the words of the senatorial decree as follows: *Whereas the Emperor Caesar Augustus in the month Sextilis both entered upon his first consulship and brought three triumphs into the city; and whereas the legions were led down from the Janiculum and followed his auspices and his good faith; and whereas Egypt was in this month brought under the power of the Roman people, and in this month an end was set to the civil wars; and whereas for these causes this month has been judged the most fortunate of all for this empire: it has pleased the Senate that the month be called Augustus.* **Censorinus writes to the same effect about these two months in his book** *On the Birthday,* **chapter 22.**

[Margin: Quintilis was at length called July.]

[Margin: Why Sextilis came to be called August.]

[Margin: Suetonius, *Augustus*, chapter 31.]

[Margin: Dio Cassius, book 55.]

The Roman civil months, then, as they are still in use, are reckoned in this way:

January, 31 days. February, 28 in a common year, 29 in a bissextile: March 31: April 30: May 31: June 30: July 31: August 31: September 30: October 31: November 30: December 31:

Verses made as an aid to memory show the same thing:

> *April takes thrice ten, and June, and September, and November; the rest one more; February twenty and eight; but if the bissextile day falls, one is added over.*

This Julian year has, in our own time, been corrected by Pope Gregory XIII; even so, the order of the months and the number of the days are the same in the corrected year as in the old one. The two differ only in this, that over a span of four hundred years the Julian reckoning runs three intercalations — that is, three days — ahead of the Gregorian, as was said a little earlier.

[Margin: The months in the new year are the same as those in the old.]

*Further, these Roman months are customarily divided, by the ordinance of Romulus, into Kalends, Nones and Ides, as Macrobius reports (*Saturnalia *I.15). The* Kalends *is the name given to the first day of each month — either because the Moon, veiled by the Sun's rays, was not visible to men at the time of the Kalends, from which some derive* Calendas *from* clam, *"secretly"; or because on the first days of the months the common people were* calata, *that is, summoned together, to hear the number of the Nones. The* Nones *are the name given to those days of the months on which either the new Moon first appeared — so that the Nones are, as it were, the "New" — or on which nine days were still counted up to the Ides.*

[Margin: The months are divided into Kalends, Nones and Ides.]

[Margin: On the Kalends.]

[Margin: On the Nones.]

[Margin: On the Ides.]

The Ides, *on the other hand, take their name from a word borrowed from the Tuscans, among whom* Itis *meant "the trust of Jupiter"; and they are the days that are free of the darkness of night. For [the Tuscans] held Jupiter to be the author of light — which is why the Salii too sang of him as* Lucetius *in their hymns, and the Cretans called him* δια τὴν ἡμέραν *[Greek: dia tēn hēmeran, "Dia, for the day"], and the Romans called him* Diespiter, *as though "father of the day." With good reason, then, they called this day of the Ides* Itis *or* Itus, *that is, "the trust of Jupiter": its light does not end with the setting of the Sun, but carries the brightness of day on through the night, since the Moon is shining — which regularly happens at the full moon, that is, in the middle of the month.*

[Margin: The Ides are said to be named either from Itis, a word of the Tuscans.]

Plutarch also supports this view: in the Roman Questions *he takes the Ides to be derived* ἀπὸ τοῦ εἴδους *[Greek: apo tou eidous, "from the appearance"], because on that day the Moon shows her full appearance. Macrobius, however, is better pleased with the etymology by which the Ides are derived from the verb* iduare; *and in Etruscan* iduare *means "to divide" — from which* vidua, *"widow," is so called as though* idua, *that is, "divided from her husband." Hence the Ides are the days that divide the month into two nearly equal halves.*

[Margin: The Ides fall around the full moon.]

[Margin: Or from the verb iduo, which among the Tuscans means "I divide."]

Now just as the first day of each month is called the Kalends, so in four months — March, May, Quintilis (that is, July) and October, which in the first constitution of the Romulean year were full months — the Nones are the sixth day from the Kalends, that is, they fall on the seventh day of those months. In all the remaining months they are the fourth day from the Kalends, that is, they are reckoned on the fifth day of each month. And in any month whatever the Ides are counted as eight, for they fall on the eighth day from the Nones. All the remaining days are numbered in reverse order from the Nones and Ides of their own month, and from the Kalends of the following month, and are marked by the number of days by which they precede the Nones, the Ides and the Kalends.

[Margin: The Kalends are the first day of each month.]

[Margin: The Nones in the month are either four, or six.]

[Margin: The Ides are 8.]

So 1 January is called the Kalends of January.

2 January, the fourth of the Nones, or before the Nones of January

3 Jan.: the third of the Nones, or before the Nones of Jan.

4 Jan.: the day before the Nones

5 Jan.: the Nones of January

6 Jan.: the eighth of the Ides, or before the Ides

7 Jan.: the seventh of the Ides, or before the Ides

[Margin: The remaining days are marked by counting backwards from the Kalends.]

12 Jan.: the day before the Ides, or before the Ides

13 Jan.: the Ides, or of the Ides of January

14 Jan.: the nineteenth of the Kalends, or before the Kalends of February

31 Jan.: the day before the Kalends of February

1 February: the Kalends of February

This is clear as well from the following verses, handed down by the ancients as an aid to memory:

> *The first day of every month is called the Kalends; May, October, July and March give six to the Nones, but the rest four. Any month you like will give eight to the Ides. After that, call all the remaining days Kalends, and, counting them backwards, you will reckon them from the following month.*

The months of the *Syrians, or Syro-Chaldeans,* **as al-Battānī and al-Farghānī use them, and as those peoples use them at the present day, agree exactly with the months of the Julian year in their number of days and in their manner of intercalation; but their starting point is different. For the first Syrian month answers to the tenth Roman month, October; the second to the eleventh, November; the third to the twelfth, December; the fourth to the first, January; and so on in order, the remaining Syrian months correspond exactly, in length and in number of days, to the remaining Roman ones.**

[Margin: The Syrian months correspond, in their number of days, to the months of the Julian year.]

[Margin: But the first of their months is set against October, and is called Tishrin I.]

So the first Syrian month, Tishrin I, has 31 days: 2 Tishrin II 30: 3 Kanun I 31: 4 Kanun II 31: the fifth, Sabat or Asbat, has 28 days in a common year, 29 in a bissextile: 6 Adar 31: 7 Nisan 30: 8 Iyar 31: 9 Haziran 30: 10 Tamuz 31: 11 Ab 31: 12 Elul has 30 days.

The reckoning of the *Syro-Greek,* **or** *Gazan,* **months is the same, however much the names may differ. For Hyperberetaeus, which is matched to October, contains 31 days: Dius 30: Apellaeus 31: Audynaeus 31: Peritius 28 in a common year, 29 in a bissextile: Dystrus 31: Xanthicus 30: Artemisius 31: Daesius 30: Panemus 31: Lous 31: Gorpiaeus 30.**

[Margin: The Syro-Greek months differ from those of the Syrians in their names, but not in their reckoning.]

The *Abyssinians and Copts,* **peoples of the African interior, for the most part begin the reckoning of their months from 29 August of the Julian numbering, and assign 30 days to each. The first they call Tuth: 2 Papa: 3 Hathur: 4 ChiaK: 5 Tuba: 6 Amschir: 7 Pharmahath: 8 Parmuda: 9 Paschnes: 10 Peuna: 11 Epip: 12 Musre — to which they join the epagomenal days, 5 in a common year, 6 in a bissextile year. They appear to have borrowed their names from the Egyptians.**

[Margin: The months of the Abyssinians and the Copts.]

From the same day, 29 August, the *Ethiopians* **too reckon their years, as Scaliger teaches in his book** *On the Emendation of Times* **and in the** *Canones Isagogici;* **and the names of their months are these. The first is called Mascaram; 2 Tikmith: 3 Hadar: 4 Tachschas: 5 Thir: 6 Iachatith: 7 Magabith: 8 Miazia: 9 Ginboth: 10 Sene: 11 Hamle: 12 Nahase.**

The *Arabs and Turks* **reckon their year from the Muhammadan Hegira, and, beginning from the first month, which they call Muharram, they assign to each 30 and 29 days alternately. The first month, then, 30: 2 Sephar 29: 3 Rabi' I 30: 4 Rabi' II 29: 5 Giumadi I 30: 6 Giumadi II 29: 7 Regeb 30:**

[Margin: The months of the Arabs and the Turks.]

8 Sahaben 29: 9 Ramadhan 30: 10 Schevval 29: 11 Dhilkahde 30: 12 Dhilhaga, or Dhilhitsche, has 29 days in a common year, 30 in an intercalary one.

The Hebrews and Jews **use these names for the months. The first, which begins in autumn, is called Tisri, from** *Thirosch,* **which means "new wine" — for the vintage fell in this month. Anciently it was called Ethanim; and it is of 30 days: 2 Marcheshvan, which the ancients called Bul, 29. 3 Cisleu 30: 4 Tebeth 29: 5 Schebeth 30: 6 Adar 29: 7 Nisan, or Abib, 30: 8 Iyar, or Ziph, 29: 9 Sivan 30: 10 Tamuz 29: 11 Ab 30: 12 Elul, of 29 days.**

[Margin: The months of the Hebrews and the Jews.]

And this number of days is assigned to the several months in the common, ordinary or middling year, which contains 354 days. But when the common year is full, or abundant, a day is added on to the second month, Marcheshvan, and the year becomes one of 355 days. Likewise, when the common year is deficient, a day is taken away from the third month, Cisleu, and the year is of only 353 days.

[Margin: The ordinary common year.]

[Margin: The deficient common year.]

The embolismic year of the Hebrews exceeds the common year by 30 days; and then, before the last month, an embolismic Adar of 30 days is inserted, and the last month is then called Veadar, as it were a repeated Adar. And the embolismic years, like the common ones, are either middling, of 384 days, or abundant, of 385, or deficient, of 383 days.

[Margin: The embolismic year.]

[Margin: The month Veadar.]

[Margin: The embolismic years are of three kinds, as the common ones are.]

There are, however, Jews to be found at the present day — a thing I judged should by no means be passed over in silence — who make the full months hollow and the hollow months full, and so assign to Tisri 29, to Marcheshvan 30, and so on; calendars of this kind have been brought to us out of neighbouring Poland by the Jews. But since they can give no grounds at all for the different reckoning, and since they set this up, perhaps out of a certain κακοζηλία *[Greek: kakozēlia, "misplaced imitation, affectation"],* **against all antiquity, we leave these matters to their own authors.**

[Margin: A caution concerning the Jewish calendars that are circulated from Poland.]

The Attic, or Athenian, Greeks **have these names for the months. The first is** ἑκατομβαιὼν *[Greek: hekatombaiōn]* **30: 2** μεταγειτνιὼν *[Greek: metageitniōn]* **29: 3** βοηδρομιὼν *[Greek: boēdromiōn]* **30: 4** πυανεψιὼν *[Greek: pyanepsiōn]* **29: 5** μαιμακτηριὼν *[Greek: maimaktēriōn]* **30: 6** ποσειδεὼν *[Greek: poseideōn]* **29: 7** γαμηλιὼν *[Greek: gamēliōn]* **30: 8** Ἀνθεστηριὼν *[Greek: anthestēriōn]*

29: 9 ἐλαφηβολιὼν *[Greek: elaphēboliōn]* **30: 10** μουνυχιὼν *[Greek: mounychiōn]* **29: 11** θαργηλιὼν *[Greek: thargēliōn]* **30: 12** σκιρροφοριὼν *[Greek: skirrophoriōn]* **, of 29 days.**

[Margin: The months of the Attic Greeks.]

To these there is joined, near the end of the year — sometimes in the third year, sometimes in the second — an ἐμβόλιμος μὴν *[Greek: embolimos mēn, "an intercalary month"] of 30 days, so that the reckoning of the year may correspond in some fashion to the motion of the Sun.*

Cap III. On the common notes of the years, in the Julian and Gregorian length of the year

The *common notes of the years* **are those general terms by which the years are usually determined — for fixing their length, for the movable feasts and festivals, and likewise for an easier knowledge of the lunations.** *For although the length of the year was fixed with certainty by Julius Caesar, through the work of the mathematician Sosigenes, in the 46th year current before the birth of Christ, yet, so that it might be better fitted to displaying the feasts customary in the Church, certain notes by Dionysius Exiguus, a Roman abbot, in the year of Christ 532,*

[Margin: The common notes.]

[Margin: The Julian year, by Dionysius Exiguus, with fixed notes …]

—were partly discovered and partly corrected and confirmed — the golden number, the solar cycle, the dominical letter and the rest. Once these are applied to a given year, the whole reckoning of the feasts and of the lunations is at once apparent.

[Margin: …is laid out for the purpose of showing the lunations and the feasts.]

Now those marks would indeed show the movable feasts and the lunations accurately for all time, if two things held. First, if the Julian year were of the same length as the mean solar year — the year on which the civil year is, and rightly, fixed — namely $365^d\ 5^h\ 49^m\ 16^s$*. Second, if the lunations themselves returned exactly full circle within the space of 19 civil years, which is what the golden number, or the nineteen-year cycle, implies and requires. But in fact the length of the year established by Julius Caesar is greater than it should be, namely* $365^d\ 6^h$*, exceeding the mean length of the solar year by nearly* $10^m\ 44^s$ *of an hour, so that over a span of 134 years it outruns the solar year by one day, and over 402 years by three days. The lunations likewise run ahead: over the space of 19 years by* $1^h\ 27^m\ 33^s\ 20'''$*, and over the space of about 304 years — or, as Clavius and the reformers of the calendar prefer, about 312½ — by a whole day, because of the excessive length assigned to them. The result has been that the marks failed to do what they ought to have done, and that the year itself long ago called for correction — as the more learned mathematicians attested with one voice and urged in their counsels: Isa[?]io Agyro nearly 250 years ago, Robert of Lincoln [Robert Grosseteste], Regiomontanus, Johannes Stöffler [Steffler], Pietro Pitati [Pitatus] and others. It was corrected, then, in the year of Christ 1582, at Rome, on the authority of the Roman pontiff Gregory XIII, by Luigi Lilio of Cirò [Aloysius*

Lilius Hypsichronæus] and other skilled mathematicians — above all by Christoph Clavius [Christophorus Clavius], a German of Bamberg, on whose commentaries I confess I have drawn heavily in describing this matter. Not only was the length of the year emended; the common marks of the years themselves were also somewhat altered.

[Margin: The Julian year does not agree exactly with the mean astronomical year.]

[Margin: The lunations do not return exactly full circle in the space of 19 years.]

[Margin: The excess of the Julian year over the astronomical year.]

[Margin: The shortfall of the lunations over 19 years, by which they quit their places.]

[Margin: By whom the correction of the year was instituted.]

Since enough has been said about the length of the year in the preceding chapter, we must now consider the terms [termini] that are of the greatest use in determining years. Among these the golden number claims first place. It is nothing other than a part of the nineteen-year Paschal cycle; that is, a number that begins from unity in some fixed year and then, in each of the following years, takes a different value in the natural order of the numbers, until, running out as far as 19 — which is the last number — it returns once more to its beginning, that is, to unity. *It is called the nineteen-year cycle [Cyclus Decennovennalis]; in Greek* κύκλος ἐννεαδεκαετηρίδος *[Greek: kyklos enneadekaetēridos, "the cycle of a nineteen-year period"] — a periodic revolution of 19 civil years, within which the ancient astronomers judged that the lunations, that is the new moons and the quarters, returned to their own starting points. Hence it is not badly called, as it commonly is, the lunar cycle.*

[Margin: What the golden number is.]

[Margin: What the nineteen-year cycle is.]

The first discoverer of this cycle is held to be Meton of Athens, the son of Pausanias. He was a man distinguished — as Scaliger describes him in Book 2 of De emendatione temporum, *under the Metonic year — not only for his skill in the celestial motions but also for his rain-making rites and his regulation of waters; for it was he who, after the octaeteris of Harpalus, discovered the cycle about the close of the 86th Olympiad. From this the nineteen-year revolution is commonly called the Metonic year. That it was not, however, exactly the same as the nineteen-year Paschal cycle [Cyclus Paschalis Enneadecaetericus], which we have used in the Christian Church from the time of the Council of Nicaea — now more than 1250 years — is shown by its different length; and from that difference there necessarily follows a different placing of the embolismic months. For Meton, as Scaliger reports, arranged within a single cycle of 19 years twelve common years, each of them of 12 months, alternately of 30 and 29 days; and seven embolismic years, each of them of 13 months, six of 29 days and seven of 30, with the addition of 4 whole days — so that his cycle amounted to 6940 whole days. Censorinus too confirms this in ch. 18 of his book* De die natali, *and it can be seen from the table set beside this passage, in which, against each of the Metonic years, we have set both the days and the minutes of a day belonging to the nineteen-year period.*

[Margin: The first author of the nineteen-year cycle was Meton of Athens.]
[Margin: Meton's cycle is not altogether the same as the Paschal cycle.]

Our own nineteen-year cycle [Cyclus Enneadecaetericus], although it likewise takes in 12 common years and 7 embolismic ones, is nevertheless shorter by a quarter of a day, that is by 6 hours; for it is fitted exactly to 19 Julian years, which contain $6939^{d}\ 18^{h}$. It was fitted to 19 Julian years by the Fathers of the Eastern Churches, among whom Eusebius of Caesarea is the most celebrated. For it was they who first brought this cycle into the Church, in the year of Christ 323, which year they also made the first of the cycle. Afterwards it was approved and confirmed by the most august Emperor Constantine the Great, and by the venerable Council of Nicaea — at which 318 bishops are recorded to have been present — by the following procedure and in the following manner. The first year of the cycle, and its first month, that is[?] the Paschal new moon, was to begin from 23 March and, when its 29 days were complete, to end on 20 April. From there the second month was to run from 21 April through its 30 days to 20 May; and so, in succession, the remaining months were to be constituted alternately of 29 and 30 days, until, the common year of 354 days being complete, the first month of the second year fell on 12 March, and its 354 days likewise ended on the first of March. But because the second year was made embolismic, a month of 30 days is inserted, so that the first new moon of the third year necessarily fell on 31 March. And so that the beginnings of the following years, and which years were embolismic, should not go unknown, I have thought it well to append this Dionysian table. From it anyone can see on what days of the Julian year the beginnings of the several years fall; likewise which years are embolismic years of 384 days; and how the whole cycle is completed by its own days.

[Margin: Table of the Metonic nineteen-year cycle.]
[Margin: Over 19 years the Paschal cycle is 6 hours shorter than the Metonic.]
[Margin: Eusebius.]
[Margin: The Council of Nicaea confirmed the Paschal cycle.]
[Margin: What the Paschal cycle of the Council of Nicaea was, the Dionysian table set opposite shows.]

Table of Meton's Great Year

Metonic year	Days	Minutes of a day, of the nineteen-year cycle
1	354	4
2	738	8 Em:
3	1092	12
4	1446	16
5	1831	1 Em
6	2185	5
7	2569	9 Em.
8	2923	13
9	3277	17
10	3662	2 Em.
11	4016	6
12	4370	10 Em

Metonic year	Days	Minutes of a day, of the nineteen-year cycle
13	4754	14
14	5109	18
15	5463	3
16	5847	7 Em.
17	6201	11
18	6585	15 Em.
19	6940	0

[Margin: Lunationes an=norum commu nium antici=pant 11 diebus. — The lunations of common years run ahead by 11 days.]

[Margin: Those of embolismic years are 19 days later.]

From this table the following appears. First, that the annual lunations do not fall on the same days in the civil year; rather, those of the common years run ahead by 11 days, while those of the embolismic years fall 19 days later. The reason is that the common lunar year of 354 days falls short by eleven days of the common civil year of 365 days — and it is the common year that this reckoning chiefly attends to — while the embolismic year of 384 days exceeds that same common year by 19 days. Second, that all the embolismic months are of 30 days, except the last, that is in the 18th year of the cycle, which is sometimes of 29 days. Third, that the days intercalated in bissextile years are, in this reckoning, inserted in such a way as to compensate for the excess by which the astronomical lunations run over $29^d\ 12^h$ *— as will be said a little later — so that the lunations correspond aptly to the civil years. Fourth, that the sum of the days of the 19 years is 6939, to which 18 hours must still be added; and these hours increase each of the three following cycles by one day, since all of them are of just so many days and hours. For if the first cycle is of 6939 days, the second, third and fourth necessarily come out at 6940 days, seeing that 18 hours taken four times make up 72 hours, that is 3 days.*

[Margin: Almost all embolismic months are of 30 days.]

[Margin: The bissextile days absorb the excess of minutes in the lunations.]

[Margin: The 18 hours of the first cycle, left out of account, increase the remaining cycles by a day.]

And since the nineteen-year cycle was discovered and established to this end — that its parts should indicate the days of the new moons, which are what we chiefly look to in describing times — the ancients for that reason called those parts the golden number; or else because the Alexandrians, those best of investigators of celestial things, sent to the Romans, who at that time were masters of Egypt and of most other lands, this same number written in golden letters on a tablet of silver. From this the Romans were taught to find the lunar aspects

[Margin: The use of the nineteen-year cycle.]

[Margin: How the golden number came by its name.]

—with respect to the Sun; or else because, thanks to it, everything is to be had — just as with gold, that most excellent of metals — so that a man may procure for himself a knowledge of all the movable feasts, and likewise of the conjunctions and

oppositions of the Sun and Moon. It must now be shown, further, how the new moons are found by the help of the golden number. For this teaching instructs us more fully in the nature of the golden number, and at the same time shows on what principle the golden numbers are to be laid out in calendars. The ancient astronomers, then, once they had learned that the new moons return to the same days over a span of 19 years, assigned just that many numerals — beginning from unity and running up to 19 — to the calendar, which contains the several months and days of a common year, setting each against the days on which, in any given span of 19 years, the new moons fell. That is, they set the number one against those days on which the new moons occurred while golden number 1 was running; the number two against those days on which the new moons likewise occurred while golden number 2 was running; and so it is to be reckoned for the rest, just as the appended calendar shows the golden numbers throughout the whole cycle.

The Dionysian Table of the Paschal Cycle

Year of the cycle	Year of Christ	Day of the Paschal new moon	Days in each year	Days accumulated	
1	532 B	23 March	354	354	
2	533 C	12 March	384	738	Embol
3	534 C	31 March	354	1092	
4	535 C	20 March	355	1447	
5	536 B	9 March	384	1831	Embol
6	537 C	28 March	354	2185	
7	538 C	17 March	384	2569	Embol
8	539 C	5 April	355	2924	
9	542 [recte: 540] B	25 March	354	3278	
10	541 C	14 March	384	3662	Embol
11	542 C	2 April	354	4016	
12	543 C	22 March	355	4371	
13	544 B	11 March	384	4755	Embol
14	545 C	30 March	354	5109	
15	546 C	19 March	354	5463	
16	547 C	8 March	385	5848	Embol
17	548 B	27 March	354	6202	
18	549 C	16 March	383¾	6585¾	Embol
19	550 C	4 April	354	6939¾	

[Margin: How the new moons are to be traced out by means of the golden number.]

Turn the page.

Hence, since the lunations are alternately of 29 and 30 days, and the whole common lunar year has 354 days, we see that it comes about, first, that the new moons of the following year run ahead of those of the preceding year by eleven days — which we also pointed out a little earlier. For instance, the new moons of the second year precede those of the first by 11 days, and those of the third year precede those of the second by 11 days likewise; and the same holds for the remaining golden numbers, since only very rarely does the greater precede the next lower by 10 days only, and far more rarely still by 12 — though this does happen from time to time, when the nature of the cycle demands it. For example, on 2 and 12 February the greater golden number, 11, precedes the lesser, 10; again, on the fourth and 14 April the greater, 19, precedes the lesser, 18; again, on 5 and 15 April the greater, 8, precedes the lesser, 7; and in certain of the months that follow, such as June and October, the greater numbers of the cycle precede the next

[Margin: In each following year the new moons run ahead by eleven days.]

An Ecclesiastical Calendar, showing the golden numbers through the whole nineteen-year cycle — the calendar the Church used first from the time of the Council of Nicaea, and afterwards, by the ordinance of Dionysius Exiguus, Abbot of Rome, right down to our own day.

Di	Ian-uar.	Februarius	Mar-tius	Aprilis.	Maius.	Iu-nius.	Iulius.	August.	Septem	October	Novem	De-cemb	Di.
1	A 3	d	d 3	g	b 11	e	g 19	c 8	f 16	A 16	d	f 13	1
2	b	e 11	e	A 11	c	f 19	A 8	d 16	g 5	b 5	e 13	g 2	2
3	c 11	f 19	f 11	b	d 19	g 8	b	e 5	A	c 13	f 2	A	3
4	d	g 8	g	c 19	e 8	A 16	c 16	f	b 13	d 2	g	b 10	4
5	e 19	A	A 19	d 8	f	b 5	d 5	g 13	c 2	e	A 10	c	5
6	f 8	b 16	b 8	e 16	g 16	c	e	A 2	d	f 10	b	d 18	6
7	g	c 5	c	f 5	A 5	d 13	f 13	h [recte: b]	e 10	g	c 18	e 7	7
8	A 16	d	d 16	g	b	e 2	g 2	c 10	f	A 18	d 7	f	8
9	b 5	e 13	e 5	A 13	c 13	f	A	d	g 18	b 7	e	g 15	9
10	c	f 2	f	b 2	d 2	g 10	b 10	e 18	A 7	c	f 15	A 4	10
11	d 13	g	g 13	c	e	A	c	f 7	b	d 15	g 4	b	11
12	e 2	A 10	A 2	d 10	f 10	b 18	d 18	g	c 15	e 4	A	c 12	12
13	f	b	b	e	g	c 7	e 7	A 15	d 4	f	b 12	d 1	13
14	g 10	c 18	c 10	f 18	A 18	d	f	b 4	e	g 12	c 1	e	14
15	A	d 7	d	g 7	b 7	e 15	g 15	c	f 12	A [numeral: ?]	d	f 9	15
16	b 18	e	e 18	A	c	f 4	A 4	d 12	g 1	b	e 9	g	16
17	c 7	f 15	f 7	b 15	d 15	g	b	e 1	A	c 9	f	A 17	17
18	d	g 4	g	c 4	e 4	A 12	c 12	f	b 9	d	g 17	b 6	18
19	e 15	A	A 15	d	f.	b 1	d 1	g 9		e 17	A 6	c	19
20	f 4	b 12	b 4	e 12	g 12	c	e	A	d 17	f 6	b	d 14	20
21	g	c 1	c	f 1	A 1	d 9	f 9	b 17	e 6	g	c 14	e 3	21
22	A 12	d	d 12	g	b	e	g	c 6	f	A 14	d 3	f	22

Di	Ianuar.	Februar.	Martius	Aprilis.	Maius.	Iunius.	Iulius.	August.	Septem.	October	Novem.	Decemb.	Di.
23	b 1	e 9	e 1	A 9	c 9	f 17	A 17	d	g 14	b 3	e	g 11	23
24	c	f	f	b	d	g 6	b 6	e 14	A 3	c	f 11	A 19	24
25	d 9	g 17	g 9	c 17	e 17	A	c	f 3	b	d 11	g 19	b	25
26	e	A 6	A	d 6	f 6	b 14	d 14	g	c 11	e 19	A	c 8	26
27	f 17	b	b 17	e	g	c 3	e 3	A 11	d 19	f	b 8	d	27
28	g 6	c 14	c 6	f 14	A 14	d	f	b 19	e	g 8	c	e 16	28
29	A		d	g 3	b 3	e 11	g 11	c	f 8	A	d 16	f 5	29
30	b 14		e 14	A	c	f	A 19	d 8	g	b 16	e 5	g	30
31	c 3		f 3		d 11		b	e		c 5		A	31

—lower ones by 10 days. By twelve days, on the other hand, the greater number 19 comes before the lesser number 18 — between 28 August and 9 September; between 27 September and 8 October; between 26 October and 7 November; between 25 November and 6 December.

Second, that in the Calendar each successive golden number is formed by adding eight to the one before it, 19 being cast out whenever the sum exceeds 19. [Margin: "The golden numbers are propagated by the addition of eight."] The reason is this. Eight solar years, each reckoned at 365 days and 6 hours, come to 2922 days, and these contain very nearly 99 lunations: the last lunation alone falls short by $1^{d}\ 12^{h}\ 41^{m}\ 14^{s}\ 32'''\ 58''''$ of matching that octaeteris to the heavens, since in the heavens 99 lunations contain $2923^{d}\ 12^{h}\ 41^{m}\ 14^{s}\ 32'''\ 58''''$ — though Harpalus assigns 2924 days to this same octaeteris. After eight years have run out, therefore, the lunations do not begin on the same days on which the new moons fell eight years before, but roughly one and a half days later. Hence after any given golden number the Calendar sets a golden number greater by eight units, to show that when eight years are complete the new moons fall not on the days marked by the preceding golden number, but on those marked by the following one, increased by eight. And because the next golden number in turn anticipates the preceding lunation by a full 12 hours, the second of the two golden numbers has to be written — to make up the difference — not immediately after the first but with one day left empty; otherwise its lunation would come a whole day early.

Third, that each preceding golden number arises by adding eleven to the one that follows, 19 being cast out whenever the sum exceeds 19. [Margin: Aurei numeri in antecedentia adjectione undenarii ostenduntur. — "The golden numbers, taken backwards, are shown by the addition of eleven."] For eleven solar years contain 4017 days and 18 hours, in which 136 lunations are completed, with $1^{d}\ 14^{h}\ 8^{m}\ 47^{s}\ 53'''\ 31''''$ still wanting — since 136 lunations require only 4016 days, $3^{h}\ 51^{m}\ 12^{s}\ 6'''\ 29''''$. And so, when 11 years are complete, the new moons do not fall on the same days on which they occurred 11 years earlier, but roughly a day and a half earlier. For that reason a golden number greater by 11 units is also placed in the Calendar before any given golden number, signifying exactly what has been said: that the new moons do not fall, after 11 years, on

the same days on which they occurred, but come earlier — namely on those days to which the preceding golden number, formed from the following one by adding 11, is assigned.

Last of all, we observe this too: that among the golden numbers set out in the Calendar the linking and order runs as follows. If the next number is smaller than the one before, it follows immediately after it; if it is greater, it comes only in the third place, one day being left empty. [Margin: "Lesser golden numbers that follow greater ones come immediately after them; greater ones mostly follow only when one day has been left empty."] In some places in the Calendar this cannot be kept, and there a greater number does sometimes follow a lesser one immediately, the nineteen-year cycle requiring it. The reason for this is already more or less clear from what has been said. If the following golden number always came immediately after the preceding one, the lunations of the following number would be anticipated by 12 days; rightly, then, the second golden number is written not immediately after the first but with one day left empty, so that the compensation may be made. And it suited the framers of the cycle rather to separate the greater number further from the lesser, and to place the lesser immediately below the greater.

Once the 19 golden numbers had been arranged in the Calendar in this way, it was not difficult, around the time of the Council of Nicaea, to find the time of the new moon in any given month.

For the mean new moon was said, in those days, to fall on the day prefixed by the golden number of the year in question. From that the fourteenth Paschal moon was easily traced, and from it Easter, together with the other movable feasts. [Margin: "In the time of the Council of Nicaea the new moons were readily known from the golden number."]

But our question now is whether the golden number can still be put to that use in our own day. To settle it on solid foundations, let us first see how much time the heavens allot to a single lunation, to 12 of them, to 13, and to 235 — that is, to the whole cycle εννεα δεκατηρικὸς [Greek: enneadekatērikos, "of nineteen years"] of 19 years.

Now a single lunation, the mean synodic lunar month, comprises 29 days and, of a day, 31′ 50″ 7‴ 56⁗ 35^{V} 24^{VI} — that is, 29^{d} 12^{h} 44^{m} 3^{s} 10‴ 38⁗ 10^{V}. This follows from the periodic motion of the Moon's [☽] elongation from the Sun, worked out for the purpose from the Prutenic Tables. [Margin: "How much time the synodic month contains."]

Twelve months, or the common lunar year, comprise 354^{d} 8^{h} 48^{m} 38^{s} 7‴ 38⁗. [Margin: "The common lunar year."]

Thirteen months, or the common embolismic year, 383^{d} 21^{h} 32^{m} 41^{s} 18‴ 16⁗. [Margin: "The embolismic year."]

A complete revolution of the 19-year cycle, finally — 235 lunations — takes in 6939^{d} 16^{h} 32^{m} 26^{s} 39‴ 37⁗ 16^{V}.

Next, let this celestial cycle be set against the civil cycle: their agreement or disagreement will settle the question. Now the civil cycle, the revolution

of 19 Julian years, consists of 6939 days and 18 hours, and so does not agree exactly with the celestial cycle of 19 lunar years, but differs from it by $1^{h}\ 27^{m}\ 33^{s}\ 20'''\ 22''''\ 44^{V}$. [Margin: "By how much the new moons run ahead of the nineteen-year cycle."] It follows that the mean lunations do not return, after one cycle has run, at exactly the same moment of time, but come early by just the interval the difference already shown indicates.

And so, although the mean new moons, after 19 Julian years have run out, do fall on the same days of the month on which they fell 19 years before, they do not fall at exactly the same hours: they come $1^{h}\ 27^{m}\ 33^{s}\ 20'''\ 22''''\ 44^{V}$ earlier. Over 4 cycles, or 76 years, they come $5^{h}\ 50^{m}\ 13^{s}\ 21'''\ 30''''\ 56^{V}$ earlier; and over 16 cycles, or 304 years, $23^{h}\ 20^{m}\ 53^{s}\ 26'''\ 3''''\ 44^{V}$ earlier. Hence, if we attend not so much to the lunations as to the whole period reckoned to 24 hours — which is what Clavius does — then within 312½ years the new moons will have run ahead of their former places by a whole day, on the Prutenic foundations, and over 625 years by two whole days; and so from the Council of Nicaea down to our own age they will have moved forward toward the beginnings of the months by nearly 4 days and something more. The appended table shows how great the προήγησις [Greek: proēgēsis, "a going before"], or precession, is for each cycle and for several other intervals.

Tabula ostendens anticipationem lunationum — A table showing the anticipation of the lunations

Anni Cycli Enneadecaet:	Hours	Minutes	Seconds	Thirds
19	1	27	33	20
38	2	55	6	41
57	4	22	40	1
76	5	50	13	22
95	7	17	46	42
114	8	45	20	2
133	10	12	53	23
152	11	40	26	43
171	13	8	0	3
190	14	35	33	24
209	16	3	6	44
228	27 [recte: 17]	30	40	4
247	18	58	13	25
266	20	25	46	45
285	21	53	20	6
304	23	20	53	26
312½	24	0	0	0

Anni Cycli Enneadecaeterici — Anni	Scrup.	Dies anticipati
312	30	1

Anni Cycli Enneadecaeterici — Anni	Scrup.	Dies anticipati
625	0	2
937	30	3
1250	0	4
1562	30	5
1875	0	6
2187	30	7
2500	0	8
2812	30	9
3125	0	10
3437	30	11
3750	0	12
4062	30	13
4375	0	14
4687	30	15
5000	0	16
5312	30	17

An Ecclesiastical Calendar, in which the golden numbers are arranged through the whole nineteen-year cycle so as to show the mean new moons for our own times.

Di	Ianuar.	Februarius	Martius	Aprilis.	Maius.	Iunius.	Iulius.	Auguſt.	Septem.	October	Novemb.	Decemb.	Di
1	a 19	d	d 19	g 8	b	e 5	g 5	c 13	f 2	a	d 10	f	1
2	b 8	e 16	e 8	a 16	c 16	f	a	d 2	g	b 10	e	g 18	2
3	c	f 5	f	b 5	d 5	g 13	h [recte: b] 13	e	a 10	c	f 18	a 7	3
4	d 16	g	g 16	c	e	a 2	c 2	f 10	b	d 18	g 7	b	4
5	e 5	a 13	a 5	d 13	f 13	b	d	g	c 18	e 7	a	c 15	5
6	f	b 2	b	e 2	g 2	c 10	e 10	a 18	d 7	f	b 15	d 4	6
7	g 13	c	c 13	f	a	d	f	h [recte: b] 7	e	g 15	c 4	e	7
8	a 2	d 10	d 2	g 10	b 10	e 18	g 18	c	f 15	a 4	d	f 12	8
9	b	e	e	a	c	f 7	a 7	d 15	g 4	b	e 12	g 1	9
10	c 10	f 18	f 10	b 18	d 18	g	b	e 4	a	c 12	f 1	a	10
11	d	g 7	g	c 7	e 7	a 15	c 15	f	b 12	d 1	g	b 9	11
12	e 18	a	a 18	d	f	b 4	d 4	g 12	c 1	e	a 9	c	12
13	f 7	b 15	b 7	e 15	g 15	c	e	a 1	d	f 9	b	d 17	13
14	g	c 4	c	f 4	a 4	d 12	f 12	b	e 9	g	c 17	e 6	14
15	A 15	d	d 15	g	b	e 1	g 1	c 9	f	a 17	d 6	f	15
16	b 4	e 12	e 4	a 12	c 12	f	a	d	g 17	b 6	e	g 14	16
17	c	f 1	f	b 1	d 1	g 9	b 9	e 17	a 6	c	f 14	a 3	17
18	d 12	g	g 12	c	e	a	c	f 6	b	d 14	g 3	b	18
19	e 1	a 9	a 1	d 9	f. 9	b 17	d 17	g	ç [recte: c] 14	e 3	a	c 11	19
20	f	b	b	e	g	c 6	e 6	a 14	d 3	f	b 11	d 19	20
21	g 9	c 17	c 9	f 17	a 17	d	f	b 3	e	g 11	c 19	e	21

Di	Ianuar.	Februar.	Martius	Aprilis.	Maius.	Iunius.	Iulius.	Auguſt.	Septem.	October	Novemb.	Decemb.	Di
22	A	d 6	d	g 6	b 6	e 14	g 14	c	f 11	a 19	d	f 8	22
23	b 17	e	e 17	a	c	f 3	a 3	d 11	g 19	b	e 8	g	23
24	c 6	f 14	f 6	b 14	d 14	g	b	e 19	a	c 8	f	a 16	24
25	d	g 3	g	c 3	e 3	a 11	c 11	f	b 8	d	g 16	b 5	25
26	e 14	a	a 14	d	f	b	d 19	g 8	c	e 16	a 5	c	26
27	f 3	b 11	b 3	e 11	g 11	c 19	e	a	d 16	f 5	b 13	d 13	27
28	g	c	c	f	a	d 8	f 8	b 16	e 5	g	c 2	e 2	28
29	A 11		d 11	g 19	b 19	e	g 16	c 5	f 13	a 13	d	f	29
30	b 19		e	a 8	c 8	f 16	a 5	d	g 2	b 2	e 10	g 10	30
31	c 8		f 19		d 16		b	e 13		c		a	31

It follows, then, that the golden numbers in the Julian Calendar cannot show the new moons at the present day. One must instead move up from the place of the golden number, leaving three days empty, to the fifth day — just as the Calendar accommodated to our own times, which we chose to append, sets the golden numbers out. [Margin: "The golden number in the Julian Calendar cannot show the new moons."]

And although the golden number — an uncorrected one above all — ought not now to be used for marking the lunations, it still has a use in the Julian Calendar, in that the movable feasts are known from it; and these too it is not able to show accurately. [Margin: "But it shows only the movable feasts."] *How far we stray, in the celebration of Easter — the feast that is the basis and foundation of all the movable feasts — from the ordinance and command of GOD which stands in Exodus chapter 12, experience teaches plainly enough: it shows that Easter has been kept by us sometimes one week, sometimes four or even five weeks later than it should have been. So the golden number, since it does not deliver what it was first devised and found for, will deserve to be called leaden instead. In the new Gregorian correction of the year this nineteen-year cycle has indeed remained the same as it is in the Julian year, for the method of finding the golden number is the same in both Calendars; but its use is altogether different. It is applied neither to showing the new moons nor to showing the movable feasts; through it the epacts alone are known, and it is by their help that both the new moons and the movable feasts are gathered, as we shall say later.* [Margin: "In the reformed calendar the epacts are known by means of the golden number."]

For the rest, to find the golden number for any year you propose, in the Julian year as well as in the new one, you will proceed as follows. [Margin: "The method of finding the golden number for any year after the birth of Christ."] If years after the birth of Christ are given, first add one to them, since in the year in which the Saviour Christ is said to have been born the golden number was 1. Then divide the sum by 19, that being the number of years of the whole cycle; and the remainder that cannot be divided will show the golden number of the year proposed, while the quotient will give the complete

revolutions of this cycle since the nativity of Christ. If, however, nothing is left in the remainder after the division, the number of the whole cycle, 19, is to be taken.

Suppose, for example, the golden number is sought for the year of Christ 1595. First I add one to the years proposed; then I divide the product by 19, and the quotient gives 84 revolutions of the cycle, with no remainder. Hence the number of the whole cycle, 19, is the golden number of the year proposed, in both the old year and the new.

But if years before the birth of Christ are given, first take 2 from them, since the epoch of Christ is fixed at the beginning of a year having lunar cycle 2. [Margin: "Before the birth of Christ."] Then divide the remainder by 19, and subtract from 19 whatever is left over after the division; the remainder will show the golden number of the year given. If nothing is left, 19 will be the golden number.

Suppose, for example, the year of the world's founding is given, which is 3950 before the birth of Christ, and it is asked what the golden number then was. First I take away 2, and 3948 remain; then I divide this remainder by 19, and when the division is done 15 are left; and if I subtract these from 19, 4 remain — the golden number in that year. Clavius, in book 3 of the Apologia for the new Calendar, *chapter 1, hands down an excellent short method by which the golden numbers for any years given since the birth of Christ can easily be gathered on the joints of the four fingers of the left hand, the thumb being left out; and this I wanted to append in a few words.* [Margin: Modus colligendi aureum numerum in digitis manuum. — "The way of gathering the golden number on the fingers of the hands."] *He teaches that on each of the four fingers five joints are to be taken, except on the little finger, where 4 are enough; and that, beginning at the root, that is the first joint of the index finger, one is to place there the year at whose close Christ was born, the golden number being 1; in the second joint the first year after Christ's birth; the second year in the third joint; the third in the fourth, that is the tip; the fourth in the fifth, which lies outermost, just under the nail. From here the fifth goes to the root of the middle finger, and the following 4, up to 10 exclusive, on the remaining joints of the middle finger. The tenth year is to be assigned to the root of the ring finger, the fifteenth to the root of the little finger, until the 18th year, which has golden number 19, comes to the tip of the little finger. From there the 19th returns to the root of the index finger, having the golden number one; the twentieth to the second joint, 40 to the third, 60 to the fourth and 80 to the fifth; and these too always denote as many numbers as there are joints. So the hundredth year goes to the root of the middle finger, having golden number 6; the two-hundredth to the root of the ring finger, having golden number 11; 300 to the root of the little finger, having golden number 16; 400 to the second joint of the index finger, having golden number 2; 500 to the second joint of the middle finger, having golden number 7; 600 to the second joint of the ring finger; 700 to the second joint of the little finger; 800 is to be assigned to the third joint of the index finger — and so on, until 1800 comes to the fifth joint of the ring finger, having golden number 15. From here 1900 is assigned again to the root of the index finger, 2000 to the root of the middle finger, 2100 to the root of the ring finger, and so on with the*

rest, always returning after the 19th joint to the inner root of the index finger. It is clear from this distribution, then, that from the beginning up to 100 the cycle revolves five times, and that, with a sixth running on part of the way, we are brought by the hundred-count to the root of the middle finger, where golden number 6 is established. From there again, when 100 years are complete, the two-hundredth year reaches the root of the ring finger, where the golden number is 11; and 300 reaches the root of the little finger, where the golden number is 16, and so on. So if, for example, the year of Christ 1595 is given, and it is asked what golden number belongs to it: I see first that 1500 falls on the tip of the little finger, where the golden number is 19. Then from 95 I cast out 20 four times, and I join those four to the 15: the golden number 19 results.

For this rule is to be noted. When any number is set before you that clings to a count of hundreds, then — so as to cast out 19 the more easily — cast out 20 as often as can be done, and for each casting demand back a single unit; add these to the remainder of the golden number left from the hundreds, and so compose the golden number of the year proposed.

In the same way, let the year of Christ 622 be given, in which the Muhammadan Hegira began. Here 600 falls on the second joint of the ring finger, to which golden number 12 belongs. Then out of 22 let 20 be cast out once; and the 1 joined to the 2 and to the 12 shows that the golden number then was 15.

The second place among the common notes of the years is held by the Solar Cycle [Cyclus Solaris], which is a revolution of 28 [?] years in which the change of the dominical letter comes round again into a cycle. [Margin: "The Solar Cycle."] *It is called Solar not because it shows the motion of the Sun, but because by its good offices we know the dominical letter, and through that the Lord's day, on which the Sun rules.* [Margin: "where it gets its name."] *So, just as the earlier cycle was called Lunar from the office it discharges in marking the lunations, this one is called Solar because it takes in the whole variation of the dominical and solar letter that arises from the bissextile day, and so shows the* ἀποκατάστασιν, τῆς σαββατηκῆς ἡμέρας [Greek: apokatastasin tēs sabbatēkēs hēmeras, "the restoration of the sabbath day"]. *Moreover this cycle of 28 years is generated by the multiplication of 7 by 4. For since there are 7 weekday letters, A, B, C, D, E, F, G, answering to the 7 days of the week, and since every fourth year is bissextile and intercalates a day, which breaks the order of the 7 letters, it follows that the Lord's day is not always marked by the letter immediately preceding; rather, in bissextile years, to which two dominical letters belong, a certain jump occurs, and to make it more easily recognized it is usually shown by this cycle-number 28, which arises from seven multiplied four times.* [Margin: "How the Solar Cycle is generated."]

The method of gathering the cycle-number for any year you propose, in the New Calendar as well as the old, is this. [Margin: "The way of finding the Solar Cycle in years after the Christian era."] If years after the birth of Christ are given, first add 9 to them, since to the year at whose close our Saviour was born there belongs Solar Cycle 9. Then let the sum collected be divided by 28, that being the number of years of the whole cycle; for the quotient [gives] the complete revolutions of this cycle since the birth of Christ — which, however,

we do not care about — while the remainder, which is what must be looked at first of all, will show the very number of the Solar Cycle for the time proposed. And if nothing is left over, the whole cycle is to be taken.

Suppose, for example, the Solar Cycle is sought for the year of Christ 1595. First I add 9 to this number. Then I divide the product by 28, and 57 comes out in the quotient — which shows how many times the Cycle has been repeated since the birth of Christ — while 8 remains in the remainder, and this indicates the Solar Cycle. If, on the other hand, years before the birth of Christ are given, then 18 is first to be added to them. Next let the sum be divided by 28, and finally let the remainder be subtracted from the whole Cycle of 28; what is left is the Solar Cycle. [Margin: "In the years preceding the era of Christ."] *For example, take the year 590 before the birth of Christ, the very year in which what was left of the Jewish people was carried off into the Babylonian captivity — only the poorer sort being left behind, so that the fields should not lie deserted — and in which the Temple of Solomon too was burnt. If I want to know what the Solar Cycle was, I add 18; I divide the sum, 608, by 28; I subtract the remainder, 20, from 28, and 8 is left, the Cycle of the Sun.*

Clavius hands down this short cut as well, in Book 3, chapter 3 of the *Apologia*, for finding the Solar Cycle in years given after Christ. [Margin: "The way of finding the Solar Cycle on the fingers of the hands."] He would have 28 cast out mentally from given years under 100, as often as it can be done; and, to make this easier, he would have 30 cast out instead, with two units demanded back for each casting, since those two were thrown out over and above the 28; and finally he would have 9, which is placed on the tip of the thumb, joined to the remainder. For in this way the golden number will come out. *For example, let the year 70 from the birth of Christ be given, in which Jerusalem was taken and utterly destroyed by the Romans. Casting out 30 twice leaves 10; to this I join twice 2, that is 4, and then the 9 that resides on the tip of the thumb; and Solar Cycle 23 is made up.*

But if more than 100 years are given, let the year at whose close Christ was born be placed on the tip of the thumb. Then let 100 be placed on the middle joint of the thumb; 200 at the root[27]; 300 at the root of the index finger; 400 at the root of the middle finger; 500 at the root of the ring finger; 600 at the root of the little finger. Then, returning to the tip of the thumb, let 700 be set there again, 800 on the middle joint, and so on, always coming back, after the root of the little finger, to the tip of the thumb. Next, since the year at whose close Christ was born had Solar Cycle 9, let this number 9 be placed on the tip of the thumb, and 25 on the middle joint of the thumb — because in 100 years the Solar Cycle is contained 3 times with a remainder of 16, and if that 16 is joined to 9 it makes 25. At the root of the thumb let 13 be placed, seeing that 16 joined to 25, with 28 taken away, leaves 13. By the same reckoning let 1 be placed at the root of the index finger, 17 at the root of the middle finger, 5 at the root of

[27]the finger is not named on the page

the ring finger, and 21 at the root of the little finger. No other arrangement is needed, since the same numbers return in exactly the same order. For if 16 is added to the 21 we placed at the root of the little finger, then with 28 taken away we get 9 again, which agrees with the tip of the thumb.

And if anyone finds it hard even so to distribute the Solar Cycle over the 7 joints proposed by adding 16 and casting out 28, let it be done by adding 4 at alternate joints: so that to the 9 on the tip of the thumb 4 is added for the root of the thumb, and 13 comes out; then again 4 to that 13, for the root of the middle finger, making 17; and again 4 for the root of the little finger, making 21; again 4 for the middle joint of the thumb, making 25; and when 4 is added for the root of the index finger, unity arises once 28 has been cast out; to which at the end 4 accrues, and 5 is made up for the root of the ring finger. The reason is that in 200 years 7 Cycles are contained, with a remainder of 4. Hence, if the cycle-number is to be sought for some hundredth year, it will be established as the very number on which that year falls when the count is made as above. But where further years are attached, the Cycle is always to be increased by as many units as there are years given beyond the hundredth — 28 being cast out, however, as often as it can be cast out. And 28 is easily cast out of any number if 30 is thrown out first and two units are taken back for each throwing-out, as we noted above. *For example, let the year 1595 be given, whose Solar Cycle is sought: first, the 1500 years fall on the middle joint of the thumb, whose number is 25. Then, if 30 is cast out three times from 95, and twice three — that is, 6 — is added to the 5 that clings to the 90, 11 emerges. These 11 joined —to 25, with 28 cast out, leave 8 as the Cycle of the Sun. In the same way let the year of Christ 2183 be given. 2100 falls on the tip of the thumb, whose Cycle is 9. Then, casting out 30 twice from 83, 23 remain; and if I join 4 and 9 to these, they make, once 28 is cast out, 8 in the Solar Cycle.*

The third place among the common notes of the years is held by the dominical letter [litera Dominicalis], [Margin: "The dominical letter."] *which is one of these seven — A B C D E F G — and shows the Lord's day, the day of the Sun, throughout the whole year. For since it often happens that, when some day in the year is proposed, one is eager to know which day of the week it falls on, the doctrine of the dominical letter is usually set out, so that once it is known the weekday of any day whatever may be easily recognized.* [Margin: "The use of the dominical letter."] *In a common year there is only one dominical letter; but in a bissextile year there are two, of which the first is used from the beginning of the year to 24 February, and the second from that term to the end of the year.*

Tabella ostendens quomodo numeri Cycli Solaris cum literis Dominicalibus in annis Iulianis congruant. — A table showing how the numbers of the Solar Cycle agree with the dominical letters in Julian years.

Numeri Cycli Solaris	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Literæ Dominicales	G F	E	D	C	B A	G	F	E	D C	B	A	G	F E	D

Numeri Cycli Solaris	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Literæ Dominicales	C	B	A G	F	E	D	C B	A	G	F	E D	C	B	A

In the old Calendar, with the present table at hand, it is indeed easy to gather the dominical letter from the Solar Cycle, whether the years given are after or before the birth of Christ. For the table is consulted with the number of the Solar Cycle only, and the letter written against it is taken to be the dominical letter. [Margin: "The finding of the dominical letter in a Julian year is done from the adjoining table."] For instance, in the year 1595 the Solar Cycle is 8, so the dominical letter is E. How the search may nevertheless be made without the table, on the fingers of the hands alone, we shall now teach from Clavius, chapter 4, book 3 of the *Apologia*.

On the inner roots of the 4 fingers of the left hand, the thumb being left out, let these five letters be placed — C, D, E, F, G — the first two, A and B, being excepted, in this way. [Margin: "It can also be done on the fingers of the left hand."] At the root of the little finger let C be set; at the root of the ring finger D; at the root of the middle finger E; and at the root of the index finger the two remaining letters, F and G, because of the bissextile years, which all fall on the joints of the index finger. Then, the Solar Cycle being given from what precedes, let the first year of the cycle be assigned to the lower root of the index finger, the second to the root of the middle finger, the third to the root of the ring finger, the fourth to the root of the little finger, the fifth to the second inner joint of the index finger, the sixth to the second joint of the middle finger, and so on crosswise over all the joints — not neglecting the tips of the four fingers either — with new numbers always assigned, until the number 28 falls on the outer root of the little finger. All the years falling on the index finger will be bissextile; all the rest, common. Finally, on the finger the Solar Cycle falls on, let the count be made following the natural series of the dominical letters, beginning from —the letter written above at the root of the finger in question, running through not only the joints or knuckles but the spaces between the joints as well — in the three fingers other than the index — and assigning a single letter to each inter-joint space as well as to each knuckle, with a return made after the last letter G to A, until you arrive at the joint of the Solar Cycle proposed. For the letter falling on that joint will be the dominical letter for that year.

And since on the index finger the inter-joint spaces are disregarded, two letters are assigned to each joint of the index finger, because of the bissextile years, which require two dominical letters: of these the later marks the Lord's

day from the beginning of the year to 24 February, and the earlier from that 24 February to the end of the year. *For example, let the year 1595 be given, whose dominical letter I seek in the Julian year from the known Solar Cycle 8. It falls on the 2nd joint of the little finger, at whose root C is placed. So if I begin from the letter C and count the inter-joint space along with it, I am brought at the 2nd joint to E, the dominical letter. In the same way, in the year of Christ 622, which has Solar Cycle 15, I seek the dominical letter. The number 15 falls on the tip, that is the fourth joint, of the ring finger. So if I count upward from the root of the ring finger, to which the letter D is assigned, I am carried through to C as the dominical letter.*

In the new year the method of the search is this. [Margin: "The finding of the dominical letter in the new Gregorian year."] First the dominical letter is sought exactly as if the year had not yet been corrected. Then attention is paid to how many days the new Calendar runs ahead of or behind the Julian calendar, a matter dealt with in the preceding chapter. For from the number of days that shows the difference between the two Calendars, once the seven days of a single week have been cast out as often as they can be, the units left over show how many letters are to be counted from the letter found, exclusive of it — following the order of the alphabet in years where the Gregorian Calendar runs ahead of the Julian, as it now does, but against that order in years where it follows it, as was once the case. This must be done, however, in such a way that both in bissextile years and in centesimal years that are not bissextile — those, that is, in which the intercalary day is omitted — the counting of the letters begins from the later of the letters found. For the last letter of this count will be the dominical letter if the year is a common year, and so too in centesimal years that are not bissextile. But in a bissextile year the letter immediately preceding must be joined to it as well, since bissextile years require two dominical letters. *For example, let the year 1595 be given, whose dominical letter is to be sought in the Gregorian year from Solar Cycle 8. First, then, it is found as it stands in the Julian year: E. But since in this year the Gregorian Calendar runs 10 days ahead of the Julian, and 7 subtracted from 10 leaves 3, it follows that from E, in the natural order of the letters — a return being made from the last letter G to the first, A — three letters are to be counted, F G A, and that the last of them, A, is the dominical letter of the year proposed. So too let the year of Christ 2184 be given, which has Solar Cycle 9, and the dominical letters D and C in the old year. Since in that year the Gregorian count runs 14 days ahead of the Julian, and when twice 7 is taken from 14 nothing is left, it follows that there is no difference of letters between the old year and the new either, but that D and C are the dominical letters in both Calendars. In the same way let there be given the year 3950 before the birth of Christ, which is the year of the founding of the world, whose Solar Cycle is 8 and whose dominical letter in the old Calendar is E. In that year, because the Gregorian count followed the Julian by 32 days, and four times 7 — that is, 28 — being taken away, 4 remain, it follows that from E one must count backwards as well, through 4 letters, D C B A, and that the fourth, A, is the dominical letter.*

But if anyone judges this method too prone to error, and would rather have some table from which the dominical letter might be sought by the Solar Cycle without trouble, as was done for the old year, [Margin: "The finding of the dominical letter, in the new …"]

—he should understand this: in the new Calendar a single table does not suffice, as it did in the old one. Since the omission of the intercalary days in certain centurial years breaks the series of the Cycle, the same dominical letters no longer agree with the same numbers. Instead, particular tables have to be drawn up for almost every new centurial year, and from these the dominical letters are to be found by means of the Solar Cycle.

[Margin: "…requires more tables in the new Calendar."]

As to how the construction of these tables may be managed as conveniently as possible, this is the first point to attend to: the ancient Solar Cycle serves our purpose, provided that to each bissextile year — and there are 7 of them in the whole cycle — one of the 7 numbers is added, beginning from five. But the numbers are to be carried on not in their natural order: rather by adding two, and by casting seven out of the sum whenever the number runs beyond 7. The reason is that within two hundred years a change of two letters takes place, and within five hundred, of four — as the adjoined table shows.

[Margin: "How the composition of the tables is to be carried out."]

Cyclus Solaris ſive literarum Dominicalium antiquus 28 annorum perpetuus factus, ut omnibus temporibus accommodari poſſit.

The ancient Solar Cycle, or Cycle of the Dominical Letters, of 28 years, made perpetual, so that it can be fitted to every period.

No.	Bissextile year	2nd year	3rd year	4th year
V	G F	E	D	C
VII	B A	G	F	E
II	D C	B	A	G
IIII	F E	D	C	B
VI	A G	F	E	D
I	C B	A	G	F
III	E D	C	B	A

Huic vero primæ tabulæ, & hæc altera adjungenda eſt, quæ directorium gerat, & monſtret quomodo cyclus æquandus, & ad diverſa tempora diverſimode uſurpandus ſit.

To this first table a second must be joined as well, one to act as a guide and to show how the cycle is to be equated, and how it is to be applied in different ways to different periods.

Tabula æquationis Cycli Solaris antiqui

Table for the equation of the ancient Solar Cycle

No.	Anni Domini	Anni Domini	No.	Anni Domini	Anni Domini	No.	Anni Domini
III	0 B	2800 B	V	1200 B	4000 B	VII	2400 B
IV	100	2900	VI	1300	4100	I	2500
V	200	3000	VII	1400	4200	II	2600
VI	300	3100	I	1500	4300	III	2700
VI	400 B	3200 B	I	1600 B	4400 B	III	2800 B
VII	500	3300	II	1700	4500	—	—
I	600	3400	III	1800	4600	—	—
II	700	3500	IV	1900	4700	—	—
II	800 B	3600 B	IV	2000 B	4800 B	—	—
III	900	3700	V	2100	4900	—	—
IV	1000	3800	VI	2200	5000	—	—
V	1100	3900	VII	2300	5100	—	—

The use of these tables is as follows. Once the Solar Cycle has been found for whatever year of Christ is proposed, first consult the table for the equation of the cycle, taking the centurial years that the proposed year contains, and note the numeral letters written against them. Then enter the table of the Solar Cycle with those numerals; begin from the matching numerals and count off in order as many successive cells — returning from the last to the first if need be — as the Solar Cycle of the given year has units. The last cell reached will show the dominical letter of the year proposed.

[Margin: "The use of the tables, and the finding of the dominical letter by means of the adjoined table."]

For instance, take the year of Christ 1595, for which the Solar Cycle is 8. It appears from the table for the equation of the cycle — if that table is consulted with the year 1500 — that the number 1 answers to it; and when this number is carried into the first table, and the counting of the Cycle is begun from the letters C B, it leads at last, at the number 8, to A as the dominical letter.

Nor is it difficult, on this general principle, to construct many tables to suit whatever centurial years are proposed. For example, let this first particular table be made, serving the 200 years from 1500 after the birth of Christ inclusive up to the year 1700 exclusive. It appears from the general tables that, since the unit serves for these years, the table must begin from the letters C B assigned to the unit, and be carried on through the whole Cycle. In the same way, if another particular table is to be built, one that fits the 100 years from 1700 of Christ to 1800: since II answers to the year 1700, it appears that the table must be begun from the letters D C — as the two adjoined tables show.

[Margin: "The way to make the particular tables of the dominical letter out of the general one."]

Tabula prima particularis, oſtendens literarum dominicalium cum numeris Cycli Solaris congruentiam ab anno Chriſti 1500 incluſive, usq; ad annum 1700 exluſive.

First particular table, showing the agreement of the dominical letters with the numbers of the Solar Cycle, from the year of Christ 1500 inclusive up to the year 1700 exclusive.

Upper bank:

Numeri Cycli Solaris	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Literæ Dominicales	C B	A	G	F	E D	C	B	A	G F	E	D	C	B A	G	F	E

Lower bank:

Numeri Cycli Solaris	17	18	19	20	21	22	23	24	25	26	27	28
Literæ Dominicales	C D	B	A	G	F E	D	C	B	A G	F	E	D

Tabula II particularis numeri Cycli Solaris & literarū Dominicalium ab anno Chriſti 1700 incluſive, usq; ad 1800 exluſive.

Second particular table, of the number of the Solar Cycle and of the dominical letters, from the year of Christ 1700 inclusive up to 1800 exclusive.

Upper bank:

Numeri Cycli Solaris	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Literæ Dominicales	D C	B	A	G	F E	D	C	B	A G	F	E	D	C B	A	G	F

Lower bank:

Numeri Cycli Solaris	17	18	19	20	21	22	23	24	25	26	27	28
Literæ Dominicales	E D	C	B	A	G F	E	D	C	B A	G	F	E

Quartum locum tenet Indictio Romana ſeu Cyclus Indictionalis.

The fourth place is held by the Roman Indiction, or Indictional Cycle.

On its first origin — that is, on the time and on the grounds of its institution — differing opinions are found among the authors.

[Margin: "On the Roman Indiction."]

Scaliger, in book 5 of De emendatione temporum, *holds that the Indiction was called by the Greeks* ἐπινέμησιν *[Greek: epinemēsin, "distribution, apportionment"] — as it were a distributing, an assigning and a proclaiming — from the proclamation of the Panegyric games and of the shows held every five, ten or twenty years. For the*

same author writes, and Christmann agrees with him in his Connexio annorum, *that the Emperor Constantine celebrated the Encaenia in the year of Christ 308, on 24 September, that is on the 8th day before the Kalends of October; and that four years later, namely in the year of Christ 312, he gave the quinquennial games, from whose first festival — Constantine and Licinius both being consuls for the second time — the Constantinian Indictions begin. Onofrio Panvinio too notes this date, though one year later, in* Fasti *book 3, even while he alleges a different cause. For he holds that the Indictions were set up on account of the famous victory which the Emperor Constantine won at that time over M. Aurelius Maxentius, that most cruel tyrant, and because he restored peace to the Christian Church; and that they were established as a perpetual memorial of the event by the Council of Nicaea, which followed shortly afterwards. And in reasoning so he is doubtless looking to the opinion of George Kedrenos [Cedreni], who in his* Ecclesiastical History *lays it down that the Indictions were named from a word drawn from a Greek source and marking the time of the victory at Actium, so that* Indictio *is as it were* ἐν δ' Ἀκτίῳ νίκη *[Greek: en d' Aktiō nikē, "and the victory at Actium"].*

[Margin: "The Indiction is called ἐπινέμησις [Greek: epinemēsis, 'distribution, apportionment'] by the Greeks."]

A period of 15 years is assigned to each Indiction for this reason: in the fifteenth year after the completion of Constantine's quinquennial games — that is, in the year of Christ 328, in which Constantine gave the Vicennalia of his Encaenia — the most holy Council of Nicaea was dismissed, so that by this means the time and the acts of the Council of Nicaea might stand fixed with certainty; as Christmann notes at the year of Christ

[Margin: "An Indiction contains a period of 15 years."]

312. Hence, if 312 years are taken from the given years of Christ and the remainder is divided by 15, what is left over is the number of the Indiction, which has its beginning from 24 September of the preceding year. Take for instance the year of Christ 1595: subtract 312, and let the remainder, 1283, be divided by 15; 8 remain, and these show the Indiction of the given year.

[Margin: "The way to find the Indiction."]

Bede, however, in De natura rerum *chapter 48; Giovanni Lucido Samotheo [Ioannes Lucidus], in chapter 7 of his little work* De vero die passionis Domini; *Matthieu Béroalde [Matthæus Beroaldus] in book 4, chapter 4 of his* Chronicum; *and most of the computists, ancient and modern, judge otherwise about the Indictions.*

For, not to mention that some report that the Indictions were devised by the ancient industry of the Romans and placed in September, for the sake of a more convenient division of the times — namely, to guard against the error that might creep into the reckoning when one of the emperors departed either from life or from the throne in the middle of the year, and one historian assigned that same year to the departing emperor and another to his successor, on the ground that the latter too had a share in the reign as much as the former. It seems on every count that the Indictions were instituted by the Romans for the sake of the census or of the tributes, since tributes are of course

customarily proclaimed [indici] and levied, to be paid or discharged at a fixed time. And the German name for this mark confirms this view, for it is called [Fraktur: Der Römer Zinßzahl] *["the Romans' tax-number"].*

[Margin: "Why the Indictions were devised."]

So, according to the views of the authors just named, an Indiction is a πεντεκαιδεκαετηρίς [Greek: pentekaidekaetēris, "a period of fifteen years"], that is, a span of 15 years, which in former times showed the year in which tribute used to be brought in to the Romans, and at the same time indicated which year it was after the payment of the tributes.

[Margin: "What the Indiction is."]

Most, however, hold that Octavian Augustus instituted the Indictions of 15 years at the beginning of the first year of the 194th Olympiad, that is, in the third year before the Nativity of Christ; so that those who lived in more remote places should pay tribute at the end of each five-year period — at the end of the first five years bringing gold as a token of dominion, at the end of the second silver for the soldiers' pay, and at the end of the third bronze and iron for the repair of arms. And lest this arrangement should pass out of men's memory easily, the Emperor Justinian ordered by edict that the years of the Indictions should be entered in the public records — as may be seen in the Novels, Authentica 47. Not only scriveners and public notaries but also the computists of the Ecclesiastical Calendar have obeyed that command down to the present, and obey it still.

The Cycle of the Indiction begins, in the Emperors' ruling, on 24 September, the season when the crops are ripe and tribute can most conveniently be paid. By decree of the Popes, however, it begins only at the point where the years of the Nativity of Christ are also customarily changed; for the Popes wanted the openings of the year of the Lord and of the Indiction to fall together. Hence imperial scriveners, registrars and notaries change the Indictions on 24 September, but papal ones three months later, namely on 25 December — as is clear from the acts of the Council of Constance, in which the year of the Lord and the Indiction change at the same time.

[Margin: "The Indictions begin at different points under the decrees of the Emperors and of the Popes."]

[Margin: "Notaries use the Indictions in dating."]

To find which Indiction is running in any given year in either calendar: to the years given after the birth of Christ add three, because on Dionysius's testimony Christ was born in the fourth year of the Indiction; divide the sum by 15, and the quotient shows how many revolutions of this cycle have passed, while the remainder gives the number of the Roman Indiction. If nothing remains, the full Cycle of the Indiction will itself indicate the Indiction. *For example, let the year of Christ 1595 be given: add 3, and divide the sum 1598 by 15. There emerge in the quotient 106 revolutions of this cycle, and 8 are left over, which is the number of the Indiction for the year proposed.* This distich too is commonly handed down to make the operation easier to hold in mind:

[Margin: "The way to find the Indiction in years following the era of Christ."]

Si tribus adjunctis, Domini diviſeris annos. Ter tibi per quinos
Indictio certa patebit.
Add three, then divide out the years of the Lord; by thrice five, and
the Indiction will stand plain before you.

If years before the birth of Christ are given, add 11 to them, divide the sum by 15, subtract the remainder from 15, and the number of the Indiction is left. *For example, let the year of the creation of the world 3950 be given: adding 11, they make 3961. If I divide these by 15, 1 remains; and when that unit is taken from 15, 14 remain, the number of the Indiction for the year proposed.*

[Margin: "The way to find the same in the years preceding the era."]

The Indiction can also be found, very compactly, on the tips of the three fingers of the left hand — thumb, index and middle — in the following way, following the teaching of Clavius, *Apologia*, book 3, chapter 11, for years given after the birth of Christ. First, for numbers under 100, add 3 placed on the thumb, and from the sum 15 will readily be cast out, so that the remainder shows the Indiction. But for larger numbers, place 0 on the thumb — that is, the year at whose close Christ was born; on the index 100; on the middle finger 200; then again on the thumb 300; on the index 400; on the middle finger 500; and returning to the thumb 600, and so on. And to make it easier to place large numbers on one of the fingers, cast out 3 from the hundreds as often as can be done, taking no account of the order — as in arithmetical proofs 9 is commonly cast out — and add a unit to the remainder. For the sum, provided it is not greater than three, will show the finger on which the given hundred is placed — the threes being then cast out. *For example*, let the year 1500 be given, and this number is placed on the first finger, that is the thumb; for when 3 is cast out of 15 nothing remains, and when the unit is added the thumb is indicated.

[Margin: "The way to find the Indiction on the fingers of the hand."]

Suppose the year 4700 is given: from the first figure 1 is left over, and from the second likewise 1, which make 2; and with the unit added, three — so the year proposed is placed on the middle, that is the third, finger. If now the Indiction 3 is set on the tip of the thumb, 13 on the index (because in 100 years the cycle of 15, run through six times, leaves 10, which joined to 3 make 13), and finally 8 on the middle or third finger (because 10 joined to the previous 13 make 23, and when 15 is taken from these 8 remain), then it is clear what kind of Indictions are owed to those centurial years which are placed on the three fingertips proposed — namely those taken in by this little verse:

Da tria primo, alii tredecim, de inde octo ſequantur ·
Give three to the first, thirteen to the next, and then let eight follow.

So, for any years given, if the number of the Indiction is first assigned to the hundreds in the manner shown, and the years to be counted after the hundred are then added to that number, and 15 is cast out of them as often as it can be, the Indiction of the year proposed will at last be produced. *For example, let the year of Christ 1595 be given. When 3 is subtracted from the 15 hundreds 0 remains; with 1 added it becomes 1, so that the year 1500 falls on the thumb, to which Indiction*

3 belongs. Now in the same way let 15 be cast out of 95 six times, and 5 remain, which joined to 3 make 8, the Indiction of the year proposed. Again, let the year 622 be given: when 3 is taken twice from 6, 0 is left. But the unit which has to be added shows that the year 600 falls on the thumb, to which Indiction 3 belongs. Joined to 22 this makes 25, and when 15 is taken from the sum 10 remain, which give the Indiction of that year.

The fifth and last place belongs to the Epacts, so called from ἐπάγειν [Greek: epagein], to carry in, to bring in. For the Epacts are the additional or intercalary days which are brought in at the end of the last lunar month, to fill out the number of days of the solar year and to begin the first lunation of the following year; or they are the excess of days by which the solar year exceeds the lunar. *For in our ordinary reckoning of years both luminaries are attended to: the Sun, so that the year may be measured by its periodic revolution; the Moon, so that from its conjunctions with the Sun the new moons, the full moons, and in general the Moon's ages — and from these Easter, the foundation of all the movable feasts — may be known. And since the golden number alone cannot show all of this at once, especially in these times, when it is used only in the old calendar for marking the movable feasts, the Epacts were devised (they are gathered in either calendar by means of the golden number, and were not in use in the earliest times) to show the difference between the lunar year and the solar, and to make plain the new moons, the full moons and the ages of the Moon. And since the solar year is 365 days, and the common lunar year of 12 months 354 days, it is plain that the excess is 11 days each year. And because this excess, accumulated over a number of years, would grow beyond all measure unless there were a limit past which the Epacts do not extend, it should be understood that no number of the Epacts goes beyond 30 days, since no age of the Moon exceeds 30 days either. If, then, in the first year 11 days are over, and in the second another 11, which joined to the former make 22 days, and in the third another 11, which added to the former produce 33, it follows that 30 days must be cast out and 3 remain. In the fourth year 11 days come in their turn and make 14. And going on in this way, the number always growing beyond 30, 30 days are cast out, as the table appended in aid of the old calendar shows; and from that table, once entry has been made with the golden number, the Epacts are easily gathered.*

[Margin: "On the Epacts."]

[Margin: "Definition of the Epacts."]

[Margin: "The use of the Epacts."]

[Margin: "The solar year is greater than the lunar by nearly 11 days."]

[Margin: "The Epacts, then, are propagated by the number eleven, 30 being cast out, however, if the number grows beyond 30."]

Tabella Epactarum, oſtendens, quomodo in Calendario veteri Epactæ per aureos nnmeros innoteſcant. — Table of the Epacts, showing how in the old calendar the Epacts are made known by the golden numbers.

Aurei numeri	1	2	3	4	5	6	7	8	9	10	11	12
Epactæ	XI	XXII	III	XIV	XXV	VI	XVII	XXVII [recte: XXVIII]	IX	XX	I	XII

Aurei numeri	13	14	15	16	17	18	19
Epactæ	XXIII	IV	XV	XXVI	VII	XVIII	XXIX

To this table we have added another and fuller one, in which the lunations — in the common year as well as in the embolismic, through the whole nineteen-year cycle — and likewise the Epacts arising in order year by year, and the embolismic months they make up (which we have chosen to mark by little rules drawn through the numbers), are set out expressly. From this table it may be seen that the computists of the earlier age, once they had noticed that the golden number could not show the lunations, by this doctrine of the Epacts

Tabula Lunationum oſtendens quomodo ad ſingulos aurei numeri annos Lunationes & Epactæ ſeſe habeant, excluſis diebus biſextilibus in Calendario veteri Iuliano. — Table of the Lunations, showing how the lunations and the Epacts stand at each year of the golden number, the bissextile days being left out, in the old Julian calendar.

Columns 4–15 stand under a single banner: *Numerus & ordo Lunationum deductus in ſingulis annis à 1 die Ianuarii, ſed ita tamen ut perficiendæ ſint primæ Lunationis ex præcedentium annorum Epactis* — "The number and order of the lunations, reckoned in each year from 1 January, but in such a way that the first lunation is to be completed out of the Epacts of the preceding years."

Aurei numeri	Initium primi menſis Lunaris tam in communi quam Embolismico anno.	Magnitudo anni Lunaris tam communis quam Embolismici	Prima Lunatio cum Epactis an. præcedentium numerata	Secunda Lunatio	Tertia Lunatio	Quarta Lunatio:	Quinta Lunatio	Sexta Lunatio.	Septima Lunatio.	Octava Lunatio.	Nona Lunatio.	Decima Lunatio.	Vndecima Lunatio	Duodecima Lunatio.	Finis duodecimi menſis Lunaris tam in communi quam Embolismico anno.	Decima tertia Lunatio.	Finis decimi tertii menſis Lunaris in anno Embolismico.	Epactæ quib. deficit annus Lunaris à Solari, annumerandæ ſequentium annorum Lunationibus
19	1 Ian:	354	30	29	30	29	30	29	30	29	30	29	30	29	20 Dec·			XI
1	21 Dec·	354	19	29	30	29	30	29	30	29	30	29	30	29	9			XXII

Aurei numeri	Initium primi menſis Lunaris tam in communi quam Embolismico anno.	Magnitudo anni Lunaris tam communis quam Embolismici	Prima Lunatio cum Epactis an. præcedenti numerata	Secunda Lunatio	Tertia Lunatio	Quarta Lunatio:	Quinta Lunatio	Sexta Lunatio	Septima Lunatio.	Octava Lunatio.	Nona Lunatio.	Decima Lunatio.	Undecima Lunatio	Duodecima Lunatio.	Finis duodecimi menſis Lunaris tam in communi quam Embolismico anno.	Decima tertia Lunatio.	Finis decimi tertii menſis Lunaris in anno Embolismico.	Epactæ quib. deficit annus Lunaris à Solari, annumerandæ ſequentium annorum Lunationibus
2	10	384	8	29	30	29	30	29	30	29	30	30	29	30	29 Nov	29	28 Dec	III
3	29	354	27	29	30	29	30	29	30	29	30	29	30	29	17 Dec:			XIV
4	18	354	16	29	30	29	30	29	30	29	30	29	30	29	6			XXV
5	7	384	5	29	30	30	29	30	29	30	29	30	29	30	26 Nov	29	25 Dec:	VI
6	26	354	24	29	30	29	30	29	30	29	30	29	30	29	14 Dec:			XVII
7	15	354	13	29	30	29	30	29	30	29	30	29	30	29	3			XXVIII
8	4	384	2	30	29	30	29	30	29	30	29	30	29	30	23 Nov	29	22 Dec:	IX
[9]	23	354	21	29	30	29	30	29	30	29	30	29	30	29	11 Dec:			XX
10	12	384	10	29	30	29	30	29	30	29	30	29	30	29	30 Nov	30	30 Dec:	I
11	31	354	29	29	30	29	30	29	30	29	30	29	30	29	19 Dec:			XII
12	20	354	18	29	30	29	30	29	30	29	30	29	30	29	9 [recte: 8]			XXIIII [recte: XXIII]
13	9	384	7	29	30	29	30	29	30	29	30	30	29	30	28 Nov	29	27 Dec:	IV
14	28	354	26	29	30	29	30	29	30	29	30	29	30	29	16 Dec:			XV
15	17	354	15	29	30	29	30	29	30	29	30	29	30	29	5			XXVI
16	6	384	4	29	30	30	29	30	29	30	29	30	29	30	25 Nov	29	24 Dec:	VII
17	25	354	23	29	30	29	30	29	30	29	30	29	30	29	13 Dec.			XVIII
18	14	383	12	29	30	29	30	29	29	29	30	29	30	29	1 Dec:	30	31 Dec:	XXIX

to have wished to come to the aid of this inquiry in the old Calendar. To the first year, then, they assigned the golden number 19, as can be seen from the Ecclesiastical Calendar set out above, which gives the golden number for our

own time; and in the course of that year the mean conjunctions fall roughly on January 1 and March 1. Since that year leaves 11 epacts at its close, those 11 are carried to the second year, whose golden number is 1. When that year in turn has run to its end, 11 epacts again emerge; added to the earlier ones they make 22, and these belong to the third year, whose golden number is 2. And since in that year a further 11 epacts are added, making 33, the year becomes embolismic, of 13 months, and after 30 days have been cast out 3 epacts remain. The same reasoning applies to all the rest.

[Margin: By the epacts we remedy the deficiency of the golden number.]

Now that the foundation of the doctrine of the epacts in the old Calendar has been grasped: if anyone wants to gather the epacts for the present time without the preceding table, starting from the golden number — which must in every case be known in advance — he should multiply that golden number by 11, divide the product by 30, and let the remainder stand as the epacts. Suppose, for instance, that the epacts for the year of Christ 1595 are to be found, whose golden number was found above to be 19. First let 19 be multiplied by 11. Then let the product, 209, be divided by 30: 29 are left over, and these are the number of epact days for the year proposed. With the help of this number the age of the Moon for any proposed time is found as follows. First, for the given year, month and day, have the epacts ready from the rules already laid down. Then see whether the month proposed follows or precedes March, and how many places it stands from March. For if March itself, or a month before March, is given, only the days of the month proposed are joined to the epacts already found, and the age of the Moon emerges. But if a month following March is given, the number of the month counted from March exclusive must be added to the epacts, and to that sum the days of the month proposed are then reckoned; and the number so collected — after first casting out 29 in our own time, whereas formerly 40 were cast out, if the number is found to have grown that far — will show the age of the Moon.

[Margin: The way to gather the epacts in the old year.]

[Margin: How the age of ☽ is found from the epacts.]

Suppose, for example, it is asked what the age of the Moon is in the year of Christ 1595 on August 3. First I take the epacts of this year, 1595, as 29. Then I add 5 to them, since August is the fifth month from March. I also add the given days of this month, 3, and 37 emerge. Taking away 29, it is clear that the day proposed is 8 days from the new moon; and if these are counted backwards, the new moon falls on July 26 — where it did in fact occur.

But just as the golden number, even corrected and adapted to our own time, cannot in the old Calendar show the new moons exactly beyond 300 years, so neither do the epacts show the age of the Moon exactly beyond that span. That is why most writers of ephemerides or of calendars — especially those who do not rightly understand their nature and use — are in the habit of neglecting them.

[Margin: In the old Calendar the epacts cannot show the new moons beyond 300 years.]

[Margin: In the new year the epacts run in retrograde order.]

*In the new, reformed year the rule of the epacts is this: they are written into the Calendar in retrograde order from the number 30 (which is marked with an asterisk ✳ rather than with the number 30, because no epact properly extends to 30 days, since no lunation in the heavens — and an epact must always be less than a lunation — equals that number), running on through 29, 28, 27 and so forth down to 1, beginning from the first day of January, to which the epact ✳ is assigned. In this way the epacts are not only better distinguished from the natural numbering of the days, and show the new moons more naturally, as Clavius puts it (*Apologia *II.3); they also show more clearly how the new moons of one year run ahead of the new moons of the following year by eleven days.*

[Margin: The reasons for the retrograde numbering.]

And since all of them must be entered twelve times over in the Calendar — because there are 12 lunations in the year — besides these eleven, ✳, 29, 28, 27, 26 down to 20, which are repeated a thirteenth time at the end of December on account of the 11 epacts left over beyond the 12 lunations, or 354 days, in a common solar year of 365 days: this precaution is rightly taken, that the two epacts XXV and XXIIII should, in the second, fourth, sixth, eighth, tenth and twelfth collocation, be written together against the same day — namely February 5, April 5, June 2, August 1, September 29 and November 27. For if this were not observed, all 12 lunations would come out full ones of 30 days, which

[Margin: It is better that the epacts ✳ and 29 be joined than that 25 and 24 be coupled in alternate months.]

alternately full and hollow[28] — that is, they ought to contain only 30 and 29 days. This same result, however, could also have been secured in the following way: if January 31, March 31, May 29, July 27, September 24 and November 22 had taken, along with the ✳ — which is not a true epact — the epact 29 as well, and the rest in the order in which they precede, since it is agreed that the months too run alternately of 30 and 29 days. And since it also regularly happens that in the last eight golden numbers greater than 11 — that is, from 12 up to 19 — the running epact 25, together with epact 24, calls for a second epact XXV, marked with a different character, to be set opposite epact 26 (so that two golden numbers, or two new moons, may not fall together on one and the same day): this same epact XXV, marked with a different character, has to be written against epact 26 in the six places of the Calendar where epacts 25 and 24 coincide, but in the rest against 25 itself, as is clear from the Calendar here appended.

A new Calendar, in which the epacts are set out day by day through the months. [*Calendarium novum in quo Epactæ per ſingulos dies menſium digeruntur.*]

[28] printed *plenæ & novæ*, "full and new"; *novæ* does not construe with months of 30 and 29 days and is rendered as if *cavæ*, "hollow".

Di	Ianuar.	Februar	Mart.	April	Maius	Iunius	Iulius	Auguſt.	Septemb.	Octob.	Novemb	Decemb	Di
1	✳	29	d ✳	g 29	28	27	26	25 24	23	22	21	20	1
2	29	28	e 29	a 28	27	XXV 26	XXV 25	23	22	21	20	19	2
3	28	27	f 28	b 27	26	25 24	24	22	21	20	19	18	3
4	27	XXV 26	g 27	[29] XXV 26	XXV 25	23	23	21	20	19	18	17	4
5	26	25 24	a 26	d 25 24	24	22	22	20	19	18	17	16	5
6	XXV 25	23	b XXV 25	e 23	23	21	21	19	18	17	16	15	6
7	24	22	c 24	f 22	22	20	20	18	17	16	15	14	7
8	23	21	d 23	g 21	21	19	19	17	16	15	14	13	8
9	22	20	e 22	a 20	20	18	18	16	15	14	13	12	9
10	21	19	f 21	b 19	19	17	17	15	14	13	12	11	10
11	20	18	g 20	c 18	18	16	16	14	13	12	11	10	11
12	19	17	a 19	d 17	17	15	15	13	12	11	10	9	12
13	18	16	b 18	e 16	16	14	14	12	11	10	9	8	13
14	17	14 [recte: 15]	c 17	f 15	15	13	13	11	10	9	8	7	14
15	16	15 [recte: 14]	d 16	g 14	14	12	12	10	9	8	7	6	15
16	15	13	e 15	a 13	13	11	11	6 [recte: 9]	8	7	6	5	16
17	14	12	f 14	b 12	12	10	10	8	7	6	5	4	17
18	13	11	g 13	c 11	11	9	9	7	6	5	4	3	18
19	12	10	a 12	d 10	10	8	8	6	5	4	3	2	19
20	11	9	b 11	e 9	9	7	7	5	4	3	2	1	20
21	10	8	c 10	f 8	8	6	6	4	3	2	1	✳	21
22	9	7	d 9	g 7	7	5	5	3	2	1	✳	29	22
23	8	6	e 8	a 6	6	4	4	2	1	✳	29	28	23
24	7	5	f 7	b 5	5	3	3	1	✳	29	28	27	24
25	6	4	g 6	c 4	4	2	2	✳	29	28	27	26	25
26	5	3	a 5	d 3	3	1	1	29	28	27	XXV 25 [recte: XXV 26]	XXV 26 [recte: XXV 25]	26
27	4	2	b 4	e 2	2	✳	✳	28	27	26	24 [recte: 25 24]	25 24 [recte: 24]	17 [recte: 27]

[29] no dominical letter printed

Di	Ian-uar.	Februar	Mart.	April	Maius	Iu-nius	Iulius	Au-guſt.	Septemb.	Oc-tob.	Novemb	Decemb	Di
28	3	1	c 3	f 1	1	29	29	27	XXV 26	XXV 25	23	23	28
29	2	*blank*	d 2	g ✳	✳	28	28	26	25 24	24	22	22	29
30	1	*blank*	e 1	a 29	29	27	27	XXV 25	23	23	21	21	30
31	✳	*blank*	f ✳	*blank*	28	*blank*	XXV 26	24	*blank*	22	*blank*	20	31

For just as the epact XXIIII is not used together with the epact XXV while the golden number in course is less than 11, but only when it coincides with a golden number greater than 11, so the epact XXVI is not employed together with the epact 25 marked in a different colour when the golden number is greater than 11, but only when it coincides with a smaller one.

[Margin: Why the epacts 25 and XXV were made twofold by the reformers of the Calendar.]

And indeed, unless this arrangement were set up in this way, the lunations could not run alternately of 30 and 29 days either: some that ought to be of 30 days would come out at only 29, and the other way round. For the rest, once the arrangement has been correctly established in this way through the whole year, as the appended Calendar shows, the new moon will fall, in any year proposed, on the days against which that year's epact is written — just as before the correction it was reckoned to fall, in any given year, on the days against which that year's golden number was set.

[Margin: By what method the new moons are to be traced from the epacts.]

But the new moons, when 19 solar years are complete, do not return exactly to the same moments of the days, as was shown above in the case of the golden number. Instead they come one day earlier once 312[fraction: ?] Julian years have elapsed (so the Correctors assume), and one day later on account of certain centurial years that are common years in the Gregorian reckoning. So another table must now be constructed first — an expanded Table of Epacts, showing each individual epact for any time whatever under each of the 19 golden numbers. It is done as follows. At the head of the table write all 19 golden numbers in order, beginning from the golden number 3, which at the time of the Council of Nicaea stood prefixed to the first day of January. Then in the foot, or lowest line, beginning from 1, place the 19 epacts as they are generated by the addition of 11, always casting out 30 if the number grows beyond 30 — yet so that the epact which follows the epact XXVII placed under 19 exceeds it by 12 units, and thus under golden number 1 the epact is IX. Third, from each of the epacts in the lowest line ascend upwards, following the natural sequence of the numbers, writing ✳ for 30 and then coming back to 1, ij, iij and so on. With this entering-up the expanded Table of Epacts will be complete. In it the epacts of any line exceed the nearest ones to their left by 11 units, with

the sole exception of the epacts under golden number 1, which exceed those preceding them under golden number 19 by 12 units. The epact 25, too, under these eight greater golden numbers — 12, 13, 14, 15, 16, 17, 18, 19 — should be written in a different colour or a different figure from the rest, as Clavius suggests (*Apologia* II.4), for the reason set out just above.

[Margin: How the expanded Table of Epacts is to be constructed.]

Last of all, set against the left-hand side of the table the small letters of the alphabet, beginning with a on the lowest line and going on through b, c, as far as u — but leaving out o, so that its likeness to the numeral character 0 may not breed confusion. After u let further letters be written, the capitals of the alphabet, omitting I, K, L and O for the same reason. For I, L and O are letters that serve as numerals, and capital K differs too little from small k, so that one could easily be taken for the other. *See the table overleaf.*

And on this expanded Table of Epacts depends the table called the perpetual Cycle of Epacts. It takes its beginning from the epact marked ✳ and runs through all 30 epacts by adding 11 to the one immediately preceding: thus in the second cell it gives XI, in the third XXII, in the fourth — 30 having been cast out — III, and so on in order until it has passed through all the numbers. To each epact must be assigned the letter of the alphabet which is found attached on the left-hand side of the expanded table, under golden number 3.

[Margin: The device by which the perpetual table of the cycle of epacts is built.]

TABULA EPACTARUM EXPANSA

THE EXPANDED TABLE OF EPACTS

[Margin: "The letters that index the epacts for the variation of the times, answering to the same letters in the table of the equation of the epacts."]

GOLDEN NUMBERS [*AUREI NUMERI*]

The six capitals set in the second header line spell **E · P · A · C · T · Æ** across the columns for golden numbers V, VII, IX, XI, XIII and XV.

Lit-era	III	IV	V	VI	VII	viii	IX	X	XI	xij	XIII	XIV	XV	xvj	xvij	xviij	XIX	i	ij
P	✳	11	22	3	14	25	6	17	28	9	20	1	12	23	4	15	26	8	19
N	29	10	21	2	13	24	5	16	27	8	19	✳	11	22	3	14	XXV	7	18
M	28	9	20	1	12	23	4	15	26	7	18	29	10	21	2	13	24	6	17
H	27	8	19	✳	11	22	3	14	25	6	17	28	9	20	1	12	23	5	16
G	26	7	18	29	10	21	2	13	24	5	16	27	8	19	✳	11	22	4	15
F	25	6	17	28	9	20	1	12	23	4	15	26	7	18	29	10	21	3	14
E	24	5	16	27	8	19	✳	11	22	3	14	XXV	6	17	28	9	20	2	13
D	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19	1	12
C	22	3	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18	✳	11
B	21	2	13	24	5	16	27	8	19	✳	11	22	3	14	XXV	6	17	29	10
A	20	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	28	9
u	19	✳	11	22	3	14	25	6	17	28	9	20	1	12	23	4	15	27	8

Lit-era	III	IV	V	VI	VII	viii	IX	X	XI	xij	XIII	XIV	XV	xvj	xvij	xviij	XIX	i	ij
t	18	29	10	21	2	13	24	5	16	27	8	19	✳	11	22	3	14	26	7
f	17	28	9	20	1	12	23	4	15	26	7	18	29	10	21	2	13	25	6
r	16	27	8	19	✳	01	22	3	14	XXV	6	17	28	9	20	1	12	24	5
q	15	26	7	18	29	11 [recte: 10]	21	2	13	24	5	16	27	8	19	✳	11	23	4
p	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18	29	10	22	3
n	13	24	[nu-meral: ?]	16	27	8	19	✳	11	22	3	14	25	6	17	28	9	21	2
m	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	20	1
l	11	22	3	14	25	6	17	28	9	20	1	12	23	4	15	26	7	19	✳
k	10	[?]1	2	13	24	5	16	27	8	19	✳	11	22	3	14	XXV	6	18	29
i	9	20	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	17	28
h	8	19	✳	11	22	3	14	25	6	17	28	9	20	1	12	23	4	16	27
g	7	18	29	10	21	2	13	24	5	16	27	8	19	✳	11	22	3	14 [recte: 15]	26
f	6	17	28	9	20	1	12	23	4	15	26	7	18	29	10	21	2	15 [recte: 14]	25
e	5	16	27	8	19	✳	11	22	3	14	XXV	6	17	28	9	20	1	13	24
d	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19	✳	12	23
c	3	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18	29	11	22
b	2	13	24	5	16	27	8	19	✳	11	22	3	14	XXV	6	17	28	10	21
a	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	9	20

The epact 25 is likewise twofold. Both the one written with the usual figures, 25, and the one written with different ones, XXV, are to be entered under the capital letter F, so that when a golden number greater than 11 is running, the 25 may be attended to in the appropriate places.

Tabula Cycli Epactarum perpetua.

The perpetual Table of the Cycle of Epacts

Upper band (16 ruled cells, the cell under F carrying two figures):

P	I	C	c	p	F		f	f	M	i	A	a	m	D	d	q
✳	11	22	3	14	25	25	6	17	28	9	20	1	12	23	4	15

Lower band (14 ruled cells):

G	g	t	N	k	B	b	n	E	e	r	H	h	u
26	7	18	29	10	21	2	13	24	5	16	27	8	19

[Margin: The use of the letters in the perpetual table of the cycle of epacts.]

The letters set beside the epacts are there to show which series of epacts — the series laid out crosswise — is the one to be used at any proposed time. To have a directory for that purpose, one that shows when these or those 19 epacts, out of the 30 set out and distinguished by their own particular letters, are to be used, yet another table must now be put together: a table of the equation of the epacts.

[Margin: An account of the Clavian table of the equation of the epacts.]

The makers of the new Calendar constructed a table of this kind, running from the birth of Christ forward through many centuries to come, on the following foundations. **First**, at the time of the Council of Nicaea the golden number prefixed to the beginning of the year was 3, as is clear from the old Calendar set out above — the reason being both that the new moons then fell on the first day of the year and that this epact ✳ was placed against the first day of January.

[Margin: The letter P shows the epacts for the time of the Council of Nicaea.]

It follows that the first letter P of the expanded table — the line in which the epact ✳ is placed under golden number 3, along with the remaining 19 epacts of that same crosswise line — served to show the new moons around the Council of Nicaea for just so long as the Moon stood in no need of an equation. So wherever, for those times, the epact ✳ is found entered in the new Calendar, the one marked out with epacts, there too the golden number 3 is found in the old Calendar of the golden number; and where the epact XI, the one next following the epact ✳, is set down in the new Calendar, there in the old Calendar the golden number 4 is found as well; and so on in order — the epact XXII where the golden number is 5, and the rest.

[Margin: The letters N show the epacts for the era of Christ.]

Next, since the time of Christ's nativity precedes the Council of Nicaea by 300 years and more, the new moons in Christ's own time must have fallen one day later than they did around the Council. The reason is that over a span of 300 years the new moons run about one day early when one looks forward to the times that follow — as was said above in the case of the golden number — but one day late when one looks back to the times that precede. It is clear, then, that in Christ's time a different set of 19 epacts answered to the 19 golden numbers: namely those that are smaller by a single unit, which are contained in the second series of the expanded table, the series marked by the capital letter N.

[Margin: Where the root of the equation of the times is to be fixed.]

Third, with the root of the equations of the epacts, such as it was at the time of the Council of Nicaea, fixed at the time of Abbot Dionysius [Exiguus] — the man who first taught how to number the years from the birth of Christ and attached to them the ordinary year-numbers — that is, at the year of Christ 500, as Clavius's *Apologia* has it, but at the year 550, as the latest edition of the new Calendar by the same author has it (the object being that the epacts should

follow the mean new moons and not run ahead of them, and so should show the Easter solemnity later), it follows

[Margin: The continuation of the table of equation is set out here.]

from what has already been said that 300 years after the said root — that is, in the year of Christ 800 — the lunations must be anticipated by one day in the Calendar; that the last line of the epacts is therefore to be taken, the line that contains the epacts each of which runs one day earlier in the Calendar; and that the small letter **a** is accordingly to be prefixed. By the same reasoning, when another 300 years have run out, down to the year of Christ 1100, the letter **b** will have to be assigned; and after another 300 years, down to the year of Christ 1400, the letter **c**. For in each of those spans the lunations in the old Calendar run about one day early.

Fourth: because in the year of Christ 1582 ten days were taken away from the month of October, so that the equinox might be restored to 21 March, all the new moons must, after that subtraction, fall 10 days later than the epact of the year in which the correction was made shows.

[Margin: What letters of equation were fixed for the year of the correction.]

Now in the year 1582 the epact was VI, just as the golden number in that year was 6, under the letter c. So, stepping off through 10 letters and descending from the small letter c exclusive, through b and a, and then P, N and M as far as D, one builds up at last, under that same number 6, the corrected epact 26. Hence, after the removal of the 10 days, the capital letter D is prefixed to the year 1582, where otherwise the small c would have been in use; and out of the epacts VI of the old Calendar there come XXVI in the new.

[Margin: In continuing the table of equation, regard must be had not only to the anticipation of the lunations but also to the equation of the year.]

Fifth: because after the removal of the 10 days the solar year itself was equated as well, and in every 400 years three intercalary days are omitted, every single centurial year must further be written into the table of equations, beginning from the year 1600, which is a leap year — and in this manner, that to every fourth year from it (2000, 2400, 2800 and so on) the word *bissextile* is added. For in that way the table of equation, which after the correction depends on both the lunar and the solar year, will be brought to completion more easily.

[Margin: The letter of equation from the year 1400 to 1700 is the same, D.]

And since 300 years have not yet run out from the year 1400 — where the equation was last applied in the table of equation — the year 1600 will need no equation, especially as it also remains a leap year. Rightly, therefore, the letter D is assigned to that same year, the letter that was set against 1582, the year of the correction.

[Margin: The letter of equation from the year 1700 to 1900 is C.]

As for the year 1700, in that year the new moons certainly fall one day later, on account of the intercalary day that is omitted — and the more so since the anticipation of the lunations, which would have had to be attended to here once 300 years had elapsed from the year of Christ 1400, is passed over. The

reason is that, as we pointed out above, the anticipation does not come about in 300 years but in 312½. And so the anticipation, which since the year of Christ 500 has already been made four times over, once in each 300 years, we carry a further 100 years on, namely to the year of Christ 1800. From this, one day having been subtracted in the expanded table on account of the omission of the intercalary day, we pass from the letter D to C, which is set against the year 1700. In the year 1800 the intercalary day that is omitted and the day by which the lunations run early cancel one another; rightly, then, the same letter C is kept. But in the year 1900 the letter B is required, because in that year the intercalary day is again passed over.

[Margin: The letter of equation from the year 1900 to 2200 is B.]

In the year 2000 the same letter B is kept, because here too the leap day remains, and because with only 200 years completed no anticipation is yet made. In the year 2100 the same B still holds its place, since in that year both the anticipation and the passing over of the leap day occur, and these cancel one another. In the year 2200 the passing over of the leap day [calls for] the letter A;

[Margin: From the year 2200 to 2300 it is A.]

and by the same reasoning the year 2300 calls for the smaller letter u. But because 2400 is a leap year, and the anticipation is to be made here, there is a return to the letter A. In the year 2500, on the other hand, because the leap day is omitted, there is a descent to u; and in the year 2600 to t, for the same cause.

[Margin: The way to continue the table.]

And in this manner the table of equation is continued without end, provided account is taken both of the intercalary day — whether omitted or retained — and —of the equation of the Moon, which falls due to it every 300 years — provided that the 12½ years are not neglected either. These are dropped every 300 years; but after 2,500 years they are to be gathered into 100 years and likewise added in. This can be seen from the two tables. The first of them is to be fitted to the years before the correction, left uncorrected, and extended into the following times for only a few centuries as amended according to the new form; the second is to be fitted to all the preceding years as well — as though the Gregorian years had always run on from the foundation of the world — and to the years that follow, carried down in the same way for many centuries.

[Margin: "…of the equation, without end."]

Tabula Æquationis Cycli Epactarum perpetui in Calendario novo. *Table of the Equation of the perpetual Cycle of Epacts in the new Calendar.*

Letter	Anni Domi[ni]	Bis-sex-tile	☾	Let-ter	Anni Domi:	Bis-sex-tile	☾	Let-ter	Anni Domi	Bis-sex-tile	☾
N	1			A	2200			q	3600	Biſſex	☾
P	320	Biſſex:		u	2300			p	3700		
P	500	Biſſex:		*A*	2400	Biſſext	☾	n	3800		
a	800	Biſſex:	☾	u	2500			n	3900		☾

Letter	Anni Domi[ni]	Bis-sex-tile	☾	Let-ter	Anni Domi:	Bis-sex-tile	☾	Let-ter	Anni Domi	Bis-sex-tile	☾
b	1100	Biſſex;	☾	t	2600			n	4000	Biſſex:	
c	1400	Biſſex:	☾	t	2700		☾	m	4100		
Detractis 10 diebus (10 days having been taken away)				t	2800	Biſſext		l	4200		
D	1582			f	2900			l	4300		☾☾
D	1600	Biſſex:		f	3000		☾	l	4400	Biſſex:	
C	1700			r	3100			k	4500		
C	1800		☾☾	r	3200	Biſſext		k	4600		☾
B	1900			r	3300		☾	i	4700		
B	2000	Biſſex:		q	3400			i	4800	Biſſex:	
B	2100		☾	p	3500			i	4900		☾

From everything that has been said about the construction of the tables of the equations, these three rules are gathered, which Clavius mentions in the *Apologia*, book 2, chapter 4:

[Margin: Three rules for continuing the table of the equation.]

1. *When in some hundredth year the intercalary day is omitted, and the Moon does not need an equation: one must go down in the expanded table to the next lower line of epacts, and that line's letter is to be assigned to that hundredth year.*

[Margin: 1]

2. *When, however, in some hundredth year the intercalary day is not omitted, but the Moon does need an equation: one must go up in the expanded table to the next higher line of epacts, and that line's letter is to be written against that hundredth year.*

[Margin: 2]

3. *When, finally, both the intercalary day is omitted in some hundredth year and the Moon needs an equation; or else neither is the intercalary day omitted nor does the Moon require an equation: one must stay on the same line of epacts of the expanded table, and before that hundredth year the same letter*

[Margin: 3]

Tabula æquationis Epactarum, monſtrans quæ literæ in tabula expanſa ad propoſita quævis tempora Epactas indicent. *Table of the equation of the epacts, showing which letters in the expanded table indicate the epacts for any proposed times.*

Anni Chriſti.	Anni Chriſti	Anni Chriſti	Anni Chriſti	Interc. omiſſ.	Lunat. an-ticip.	Anni Chriſti	Anni Chriſti.	Anni Chriſti.	Interc. omiſſ.	Lunat. an-tici[p.]
p 0	s 10000	d 20000	B 30000	Biſſ:	0	r 3300	c 13300	A 23300	1	☽ 1
N 100	r 10100	c 20100	A 30100	1	0	q 3400	b 13400	u 23400	1	0

Anni Chriſti.	Anni Chriſti	Anni Chriſti	Anni Chriſti	Interc. omiſſ.	Lunat. anticip.	Anni Chriſti	Anni Chriſti.	Anni Chriſti.	Interc. omiſſ.	Lunat. antici[p.]
N 200	r 10200	c 20200	A 30200	1	☽ 1	p 3500	a 13500	t 23500	1	0
M 300	q 10300	b 20300	u 30300	1	0	q 3600	b 13600	u 23600	Biſſ: 0	☽ 1
M 400	q 10400	b 20400	u 30400	Biſſ: 0	0	p 3700	a 13700	t 23700	1	0
M 500	q 10500	b 20500	u 30500	1	☽ 1	n 3800	P 13800	s 23800	1	0
H 600	p 10600	a 20600	t 30600	1	0	n 3900	P 13900	s 23900	1	☽ 1
G 700	n 10700	P 20700	s 30700	1	0	n 4000	P 14000	s 24000	Biſſ: 0	0
H 800	p 10800	a 20800	t 30800	Biſſ: 0	☽ 1	m 4100	N 14100	r 24100	1	0
G 900	n 10900	P 20900	s 30900	1	0	l 4200	M 14200	q 24200	1	0
F 1000	m 10000 [recte: 11000]	N 21000	r 31000	1	0	l 4300	M 14300	q 24300	1	☽☽ 1
F 1100	m 11100	N 21100	r 31100	1	☽ 1	l 4400	M 14400	q 24400	Biſſ: 0	0
F 1200	m 11200	N 21200	r 31200	Biſſ: 0	0	k 4500	H 14500	p 24500	1	0
E 1300	l 11300	M 21300	q 31300	1	0	k 4600	H 14600	p 24600	1	☽ 1
E 1400	l 11400	M 21400	q 31400	1	☽ 1	i 4700	G 14700	n 24700	1	0
D 1500	k 11500	H 21500	p 31500	1	0	i 4800	G 14800	n 24800	Biſſ: 0	0
D 1600	k 11600	H 21600	p 31600	Biſſ: 0	0	i 4900	G 14900	n 24900	1	☽ 1
C 1700	i 11700	G 21700	n 31700	1	0	h 5000	F 15000	m 25000	1	0
C 1800	i 11800	G 21800	n 31800	1	☽☽ 1	g 5100	E 15100	l 25100	1	0
B 1900	h 11900	F 21900	m 31900	1	0	h 5200	F 15200	m 25200	Biſſ: 0	☽ 1
B 2000	h 12000	F 22000	m 32000	Biſſ: 0	0	g 5300	E 15300	l 25300	1	0
B 2100	h 12100	F 22100	m 32100	1	☽ 1	f 5400	D 15400	k 25400	1	0
A 2200	g 12200	E 22200	l 32200	1	0	f 5500	D 15500	k 25500	1	☽ 1
u 2300	f 12300	D 22300	k 32300	1	0	f 5600	D 15600	k 25600	Biſſ 0	0
A 2400	g 12400	E 22400	l 32400	Biſſ: 0	☽ 1	e 5700	C 15700	*Anni*	1	0
u 2500	f 12500	D 22502 [recte: 22500]	k 32500	1	0	e 5800	C 15800	*ant. nat.*	1	☽ 1

Anni Chriſti.	Anni Chriſti	Anni Chriſti	Anni Chriſti	Interc. omiſſ.	Lunat. anticip.	Anni Chriſti	Anni Chriſti.	Anni Chriſti.	Interc. omiſſ.	Lunat. anticip[p.]
t 2600	e 12600	C 22600	i 32600	I	O	d 5900	B 15900	*Chriſt:*	I	O
t 2700	e 12700	C 22700	i [?] 32700	I	☽ I	d 6000	B 16000	s 4601 [recte: 4001]	Biſſ O	O
t 2800	e 12800	C 22800	i 32800	Biſſ: O	O	d 6100	B 16100	s 3901	I	☽ I
s 2900	d 12900	B 22900	h 32900	I	O	c 6200	A 16200	r 3801	I	O
s 3000	d 13000	B 23000	h 33000	I	☽ I	b 6300	u 16300	q 3701	I	O
r 3100	c 13100	A 23100	g 33100	I	O	c 6400	A 16400	r 3601	Biſſ: O	☽ I
r 3200	c 13200	A 23200	g 33200	Biſſ: O	O	b 6500	u 16500	q 3501	O [recte: I]	O

Reliquum Tabulæ æquationis Epactarum. *The remainder of the Table of the equation of the Epacts.*

Anni Chriſti	Anni Chriſti	Anni Chriſti	Interc. omiſſ.	Lunat. anticip.	Anni Chriſti	Anni Chriſti.	Ante Chriſtū.	Interc. omiſſ.	Lunat. anticip.
a 6600	t 16600	p 3401	I	O	E 8400	l 18400	g 1601	Biſſ: O	O
p 6700	s 16700	n 3301	I	O	D 8500	k 18500	f 1501	I	O
a 6800	t 16800	p 3201	Biſſ: O	☽☽ I	D 8600	k 18600	f 1401	I	☽ I
p 6900	s 16900	n 3101	I	O	C 8700	i 18700	e 1301	I	O
N 7000	r 17000	m 3001	I	O	C 8800	i 18800	e 1201	Biſſ: O	O
N 7100	r 17100	m 2901	I	☽ I	C 8900	i 18900	e 1101	I	☽ I
N 7200	r 17200	m 2801	Biſſ: O	O	B 9000	h 19000	d 1001	I	O
M 7300	q 17300	l 2701	I	O	A 9100	g 19100	c 901	I	O
M 7400	q 17400	l 2601	I	☽ I	A 9200	g 19200	c 801	Biſſ: O	O
H 7500	p 17500	k 2501	I	O	A 9300	g 19300	c 701	I	☽☽ I
H 7600	p 17600	k 2401	Biſſ: O	O	u 9400	f 19400	b 601	I	O
H 7700	p 17700	k 2301	I	☽ I	t 9500	e 19500	a 501	I	O
G 7800	n 17800	i 2201	I	O	u 9600	f 19600	b 401	Biſſ: O	☽ I
F 7900	m 17900	h 2101	I	O	t 9700	e 19700	a 301	I	O
G 8000	n 18000	i 2001	Biſſ: O	☽ I	ſ 9800	d 19800	p 201	I	O
F 8100	m 18100	h 1901	I	O	ſ 9900	d 19900	p 101	I	☽ I
E 8200	l 18200	g 1801	I	O	ſ 10000	d 20000	p O	Biſſ: O	O
E 8300	l 18300	g 1701	I	☽ I					

—is to be set that was attached to the preceding hundredth year.

All these rules have been followed throughout the tables of the equations, so that the letter prefixed to any given hundredth year is the one that points to the

line of epacts in the expanded table. And although the letters of the alphabet in the tables of the equations seem to keep no order at all, it is nonetheless certain that they come round again in a cycle of 300,000 years.

[Margin: The table of the equation is contained in a cycle of 300,000 years.]

For after 10,000 years — reckoning from the year of Christ's birth, as is done in the later Table of the equations — exactly the same variety of letters returns, though not the same letters. The reason is that in any 10,000 years the 25 centuries are contained exactly four times: the 25 centuries into which the lunar equation, due to be established at the preceding 2400, is deferred to 2500. In this way the lunar equations advance in one span of 10,000 years in precisely the way they do in another. And since the bissextile hundredth years likewise behave the same way in all spans of this kind, it follows that the letters of the equation advance in the same proportion over any span of 10,000 years. But the very same letters return if thirty times 10,000 years run out, since at each ten thousand years one arrives at different letters, and there are 30 such letters in all.

For the rest, the use of these tables is to let us know which 19 epacts agree with the 19 golden numbers at any given time; and how, once the golden number is known, the epacts of any year may be found for gathering the times of the new moons. That is done as follows.

[Margin: The use of the table of the equation is that we may know which epacts are to be employed at any given time.]

[Margin: Finding the epacts for any proposed time according to the new Calendar.]

First, look up the proposed year in the table of the equation. Take the year itself if it is written in the table; if it is not written there, then — when the years given fall after the birth of Christ — take the hundredth year that is given, disregarding the years attached to it, and when the years given fall before the birth of Christ, take the preceding hundredth year, likewise disregarding the remaining years. Note the letter prefixed to that hundredth year. Next, with the letter you have found, consult the expanded table of epacts. Whichever line of epacts that same letter is found in, that line is to be used not only for the proposed year but for all the other years from that hundredth year up to the year that has a different letter assigned to it. Third, look for the golden number of the proposed year at the head of the table; whichever epact answers to it in the line already determined will indicate, in the Calendar of Epacts, all the new moons of that year.

For example, suppose the year of Christ 1595 is given, and the epacts and the days of the new moons for the whole year are to be found. 1 I therefore enter the year 1500 in the table of the equations and see what letter is assigned to it; and I find the letter D. Next, with that letter I consult the expanded table of epacts, and I find that the cross-row prefixed with the letter D contains, under golden number 19 — which is the mark of the year 1595 — the epact XIX. So wherever epact XIX occurs in the

Calendar of Epacts, there the new moons will be reckoned to fall throughout the year of Christ 15[numeral: ?]5.

In the same way, suppose the year of the foundation of the world is given, that is, 3950 before the birth of Christ, and one asks what epact is to be established for that year, and which days are the days of the new moons. 1 I enter the year 4000 before the birth of Christ into the said table of the equation (that year holds the first place in the table of the equation of the epacts among the years reckoned before the birth of Christ, and there is no need to go any higher than it), and I find the letter s *assigned to it. Next, with that same letter* s *I enter the expanded table of epacts, and I find that under golden number 4, which is the mark of that year, the epact XXVIII answers to it. The new moons therefore fell on those days to which epact XXVIII is assigned in the Calendar of Epacts of the Gregorian year, namely 3 January, 2 February, 3 March, 2 April, 1 May, and so on.*

There is no other way of finding the epacts from the particular tables, two of which — the ones corresponding to these nearest times — I have chosen to append here. For they are drawn simply from the expanded table of epacts, and the times to which they belong have been written against them.

Tabula I particularis Epactarum. reſpondens aureis numeris annorum à nato Chriſto numeratorum ab anno 1500 ad 1700 *Particular Table I of the Epacts, answering to the golden numbers of the years reckoned from the birth of Christ, from the year 1500 to 1700.*

Aurei nū.	19	1	2	3	4	5	6	7	8	9
Epact :	XIX	I	XII	XXIII	IV	XV	XXVI	VII	XIIX	XXIX
Aurei numeri		10	11	12	13	14	15	16	17	18
Epactæ		X	XXI	II	XIII	XXIV	V	XVI	XXVII	VIII

Tabula II particularis Epactarum, conveniens aureis numeris ab anno 1700 uſq; ad annum 1900 *Particular Table II of the Epacts, agreeing with the golden numbers from the year 1700 up to the year 1900.*

Aurei nū:	10	11	12	13	14	15	16	17	18	19
Epact:	IX	XX	I	XII	XXIII	IV	XV	XXVI	VII	XVIII
Aurei numeri		1	2	3	4	5	6	7	8	9
Epactæ		✳	XI	XXII	III	XIV	XXV	VI.	XVII	XXIIX

[Margin: The celestial new moons run ahead of the epacts.]

These epacts do, however, indicate the new moons too late, since almost all of them run ahead of the days the epacts point to. That is clear to anyone who compares the times of the new moons noted in the ephemerides with the times the epacts assign: a discrepancy of one day, and sometimes even of two, turns up very often. Still, the authors of the new Calendar preferred that the new moons of the epacts should fall somewhat after the mean conjunctions of the luminaries rather than coincide with them. For if they coincided, it would

often happen — such being the nature of cycles — that the new moons of the epacts would run ahead of both the mean and the true conjunctions of the luminaries, since no cycle can correspond exactly to the celestial motions. In the cycles, after all, not only are the hours disregarded and no account taken of the intercalary days in bissextile years; there is also the fact that, because of the differing equations of the solar and the lunar year, one has to pass from one line of epacts to another, and the true lunations themselves sometimes follow or precede the mean ones by nearly 14 hours.

[Margin: And this with the purpose that Easter should less often be celebrated together with the Quartodecimans.]

And because they judged it the greater fault for Easter to be celebrated too early rather than too late — which they prove from Theophilus of Alexandria, Cyril, the Venerable Bede, Campanus, and other computists — they determined that the new moons of the epacts should rather be pushed forward into the later times, so that anticipation, which itself could not be guarded against at all, should not give rise to frequent errors in the celebration of Easter.

Caput IV.

De diſtinctione feſtorum anni, & inquiſitione Intervalli minoris ac majoris, & feſtorum omnium in utroque Calendario.

On the distinction of the feasts of the year, on finding the lesser and the greater interval, and on all the feasts in either Calendar.

[Margin: Some days are profane, others sacred.]

No nation is so barbarous and so devoid of religion that it has not distinguished profane days from feast days, dedicating the feast days to the exercise of religion and to divine worship and the profane days to labour and the manual arts. We who live in a Christian commonwealth therefore have good reason to distinguish between days in the same way, appointing some profane and others sacred by decree of the Church.

[Margin: Which are the profane.]

The profane are those on which it is right to carry on the labours of providing food and clothing and the other necessities of life;

[Margin: Which are the sacred.]

the sacred, those on which it is right to give oneself to the outward worship of religion and to honour GOD in the assembly of the Church for the benefits he has shown us. For although all days ought to be holy and consecrated to GOD, without any distinction, for us who have given our names to Christ — as Paul says to the Colossians, chapter 2 verse 16: Let no one pass judgement on you in food or in drink, or in respect of a feast day, or of a new moon, or of sabbaths, *and so on — since GOD wills to be worshipped by us at every time, and superstition about days is indeed forbidden at Galatians 4, verses 10 and 11:* You observe days and months and seasons and years: I am afraid for you, that I may have laboured over you in vain —

[Margin: The use of this distinction of days.]

nevertheless, since the pursuit of piety is interrupted again and again by the weakness of the flesh and the cares of this world, feast days and sacred days have rightly been set apart from other days by the consent of the Church and appointed for public assemblies and for the exercise of religion, so that on them, with daily labours and other civil business laid aside, we may give ourselves wholly to the outward worship of GOD and to the handling of sacred things with joy

[Margin: Feast days are called "solemnly joyful."]

[Margin: or else *feriæ*.]

—and gladness, of mind as much as of body. That is why in earlier times too people called feasts, or feast days, as it were "solemnly joyful" days, on which banquets and entertainments or games were held in honour of the gods. More recent writers call them feriæ, *deriving the name either from the striking down* [feriendis] *of the victims and cattle that were offered on those days, or from the bringing in* [ferendis] *of the banquets that were made from the yield of the cattle and the crops — as Rudolf Hospinian [Hospinian:] notes in the preface to his book* On the Origin of Feasts [De origine festorum].

[Margin: On the feasts of the Jews.]

But to speak first of the feasts or holy days of the Jews: it should be understood that some feasts were instituted by divine authority, while others were devised by men.

[Margin: Those instituted by GOD.]

[Margin: The weekly Sabbath.]

Instituted by GOD are: I the weekly Sabbath, that is, the seventh day of every week. *For on that day Jehovah, after he had completed his work in six days, rested, and blessed the seventh day and sanctified it, as in Genesis 2, verses 2 and 3. That same day, in the wilderness at Mount Sinai, he solemnly commanded with great ceremony to be holy — that is, set aside for rest and for cessation from work, and for a leisure so sacred — as in Exodus 20, verses 8, 9, 10, 11; likewise chapter 23, verse 12.*

[Margin: The seven-year Sabbath.]

II The seven-year Sabbath, that is, every seventh year, *which took its beginning from the tenth day of the seventh month, in which it was permitted neither to sow nor to reap, as in Exodus 23, verses 10 and 11; likewise Leviticus 25, verses 3, 4, 5, 6 and 7. Nor was it lawful for creditors to exact debts from their own people, as in Deuteronomy chapter 15, verses 1 and 3.*

[Margin: The Sabbath of seven Sabbaths of seven years, or the Jubilee year.]

III The Sabbath of seven Sabbaths of seven years, that is, the Jubilee year, *which was every forty-ninth year counted from the first Jubilee year after the Sabbatical year. For at the close of the seventh week of years — that is, when the seven times seven years, which make 49, had been carried almost to their end, in that very 49th year, while the year that began from the last completed Jubilee was still running — the whole Sabbatical year was celebrated, so that no dislocation of the Sabbatical years should occur, just as none occurs with the days within a week on account of other feasts falling inside it. And since, reckoned together with the preceding Sabbatical year,*

it also fell in the middle of the fiftieth ecclesiastical year that begins in spring, it was called the fiftieth.

In that year not only were all debts remitted, so that fields, vineyards and other possessions that had been sold went back to their former owners; Israelite slaves too were set free by their masters, as in Leviticus 25, verse 8 to the end.

[Margin: The new moon, or new-moon day.]

IV The new moon [Neomenia] or new-moon day, that is, the first day of every month, which began from the new Moon. *For on that day, as is prescribed in Numbers 28, verses 11, 12, 13, 14 and 15, sacrifices were performed and banquets were held.*

[Margin: The Passover.]

V The Passover, which in Hebrew is called פסח [Hebrew: Pesach, "Passover"], *whose institution, with its ceremonies and rites, is set out in Exodus 12 in this way. First, on the tenth day of the first ecclesiastical month,* ניסן [Hebrew: Nisan, "the first month"], *the lamb was set apart, as in verses 3, 4, 5. Then on the 14th day of the same month at nightfall — that is, as the 14th day went out and the 15th came in — the lamb was slaughtered, as in verse 6. On the fifteenth, the solemnity of Unleavened Bread took its beginning, as in Leviticus 23, verse 6; and it lasted 7 continuous days, namely from the 15th to the 21st inclusive, as in Exodus 12, from verse 15 to 24, and chapter 34, verse 18; likewise Leviticus 23, verse 8; Deuteronomy 16, verse 8. Those travelling abroad, or defiled by a death, kept this feast on the fourteenth day of the second month, which in Hebrew is called* איר [Hebrew: Iyar, "the second month"] *or* זיו [Hebrew: Ziv, "the second month"], *as in Numbers 9, verses 10, 11, 12.*

[Margin: Pentecost.]

VI Pentecost, the solemn feast which the Hebrews call *Chag schafuoth*, חג שבעות [Hebrew: Chag Shavuos, "feast of weeks"], that is, the feast of weeks. *For it was celebrated after the seventh week from the previous feast, as one reads in Exodus 34, verse 22; Leviticus 23, from verse 16 to 21; Deuteronomy 16, verses 9, 10 and 11.*

[Margin: The Feast of Trumpets.]

VII The Feast of Trumpets, or of the horn and the trumpet-blast, which in Hebrew was called זכרון תרועה [Hebrew: Zichron Teruah, "memorial of the trumpet-blast"], *Sichron Theruah. For on the first day of the seventh ecclesiastical month — which is the first civil month,* תשרי [Hebrew: Tishrei, "the seventh month"] *— the sound and blare of trumpets was heard everywhere, by the command of GOD: Leviticus 23, verse 24, and Numbers 29, verse 1.*[30] *And that day was called* יום תרועה [Hebrew: Yom Teruah, "day of the trumpet-blast"], *the day of triumph. And besides the burnt offering of the Calends, other sacrifices were offered then, as is prescribed in the same chapter of Numbers, as far as verse 6.*

[Margin: The Feast of Expiation.]

VIII The Feast of Expiation, *at which, by an annual solemnity, the propitiatory or universal expiatory sacrifice was offered for the sins of the whole people, and was*

[30] the print sets de here, which does not construe with what follows.

carried out with many ceremonies, on the tenth day of the same month Tishrei, as in Leviticus chapter 16, and 23 from verse 27 to 34; Numbers 29 from verse 7 to 12.

[Margin: The Feast of Tabernacles.]

IX The Feast of Tabernacles, חג הסכות [Hebrew: Chag ha-Sukkos, "feast of tabernacles"], *called* ChagHasuKoth *by the Hebrews, which was kept after the first two feasts of this month, from the fifteenth day of Tishrei through 7 whole days up to the twenty-first; yet in such a way that the first day of this feast was festive and holy above all the rest, as in Leviticus chapter 23 from verse 34 to the end; Numbers 29 from verse 12 to 35; Deuteronomy 16, verse 13.*

[Margin: The Feast of Retention.]

X The Feast of Retention, or of Gathering, *which the Hebrews call* עצרת [Hebrew: Atzeres, "gathering"], *Azareth, from the verb* עצר [Hebrew: atzar, "to gather together"], *which means to gather together, to collect; and it was kept with great festivity on the 22nd day of the month Tishrei. It was, so to speak, an appendix to the Feast of Tabernacles, as in Leviticus 23, verse 36, and Numbers 29, verse 35. The preceding Feast of Tabernacles, however, was shifted by Jeroboam, the first king of the Israelites — who had broken away from Solomon's son Rehoboam with 10 tribes — out of the month Tishrei into the month* מרחשון [Hebrew: Marcheshvan, "the month after Tishrei"], *Marchesvvan, so as to draw the children of Israel away from their ancestral rites by degrees, as may be seen from 3 Kings [Vulgate numbering; = 1 Kings] 12, verse 32.*

[Margin: Devised by men.]

The feasts devised by men, and received by the Church to recall to memory the greatest benefits of GOD, were these among the Jews.

[Margin: 1. The four fasts.]

I Four fasts, *which the prophet Zechariah mentions at chapter 8, verse 19.*

[Margin: The fast of the siege of Jerusalem.]

The first fast, of the siege of Jerusalem — *which, though last in the order of the months, was nevertheless the first if you look to the order of the event itself. It was kept on the 10th day of the tenth month, Tebeth, when Nebuchadnezzar began to besiege Jerusalem, as in 4 Kings 25, verse 1.*

[Margin: The fast of the taking of Jerusalem.]

II Of the taking of Jerusalem. *This one was kept on the ninth day of the 4th month, Tammuz.*

[Margin: The fast of the desolate city.]

III The fast *of the desolate city, kept on the 9th day of the fifth month, Ab.*

[Margin: The fast of Gedaliah.]

IV The fast of Gedaliah, *who was left behind in Judea by Nebuzaradan and killed by the treachery of a certain Ishmael, born of the royal seed — a murder that gave occasion for a fresh migration of the Jews into Egypt, as one reads at 4 Kings 25, verses 25 and 26. It was kept in the month Tishrei, on the 3rd day. To these four fasts there was added, under the Babylonian Captivity,*

[Margin: The fast of Esther.]

the solemn fast of Queen Esther, *instituted in memory of that three-day fast which Esther commanded when she was about to approach King Ahasuerus to intercede for the Jews, as in the book of Esther chapter 4, verse 16. It was kept on the 13th day of the twelfth ecclesiastical month, Adar, the day on which, at Haman's instigation, all the Jews throughout every province of the Persian kingdom were to have been killed, as in the same book chapter 3, verse 13, and chapter 9, verse 1.*

[Margin: The fast of the broken tablets of the Law.]

The Jews also once kept, not without superstition, the fast of the broken tablets of the Law — *the tablets which Moses, coming down from Mount Sinai and angered at the worship of the calf, dashed to the ground and shattered, on the 17th day of the 4th month, Tammuz.*

[Margin: The days of Purim.]

Afterwards there were added to these solemn fasts: 1, the days of Purim, *or of lots, so called from the lot which Haman had had cast — as in the book of Esther chapter 3, verse 7 — to choose the time at which the Jews were to be destroyed; and they were kept on the 14th and 15th days of the last month, Adar, as in the book of Esther chapter 9, verses 21 and 22.* II. The Feast

[Margin: The Feast of the Carrying of Wood.]

ξυλοφορίας [Greek: xylophorias, "of the carrying of wood"], *of the Carrying of Wood, which Josephus mentions in book 2 of the Jewish War, chapter 17; and it was kept in the fifth ecclesiastical month, Ab.*

[Margin: The Feast of the Dedication.]

III The Feast of the Encaenia, *that is, of the consecration and renewal of the Temple, instituted by Judas Maccabaeus. For when Antiochus Epiphanes had come out of Egypt into the Holy Land and to Jerusalem, had brought the city and the Temple under his own power, had overthrown the true worship of GOD by carrying off the vessels of the Temple, and had set up an idol of Olympian Jupiter in the Temple — as in 1 Maccabees 1, verse 57 — Judas Maccabaeus took up the war against Antiochus' commanders, routed their forces, recovered the city, purged the Temple, burned the idol, and, when the sacred rites had been duly performed, dedicated the altar together with the Temple once more to divine worship. He also laid down that the dedication of the Temple, which had first been carried out over eight days, should be recalled each year with joy and gladness on anniversary feast-days, for 8 days, beginning from the 25th day of the month Kislev, as in 1 Maccabees 4, verses 56 and 59.*

[Margin: The Feast of the Expiation of the citadel of Jerusalem.]

IV The Feast of the Expiation of the citadel of Jerusalem, *by Simon the Hasmonean. For when Simon had taken by starvation the citadel of Jerusalem, which a garrison of Antiochus had held until then, he cleansed it of its defilements on the twenty-third day of the second month, Iiar, to the great applause of the people, and decreed that this day should be kept every year with festive joy, as in 1 Maccabees 13, verses 51 and 52. And these are more or less the feasts that were once in use among the Jews, and of which mention is made here and there in Holy Scripture.*

[Margin: On the feasts of the Christians.]

As for the feasts of the Christians, *we see that in the covenant of the New Testament no fixed feast is laid down, and that no one is bound to a superstitious and strict observance of those that were once in use, as is clear from the saying of the Apostle to the Colossians 2, cited above; from chapter 4 to the Galatians, verses 10 and 11; and from 14 to the Romans, verse 5.*

[Margin: No fixed feasts, indeed, are laid down in the New Testament.]

[Margin: Yet some are to be celebrated.]

But since nothing is better suited to the strengthening and increase of faith and to the practice of the Christian religion, and nothing more necessary, than that people should have set days on which they gather in great numbers into a public assembly to hear the word of GOD — for faith comes from hearing the word, Romans 10, verse 10 — who will be so careless of religion as to rule that feast days should be given up rather than religiously observed in public assembly? especially since Christ himself promises to be present at gatherings of this kind, Matthew 18, verse 20, in these words: where two or three are gathered together in my name, there I shall be in their midst.

[Margin: The use of feasts in the Christian Church.] [?]

Besides, according to the Apostle's judgment in 1 Corinthians 14, in the last verse, all things ought to be done decently and in order. And we see that in the primitive Church, from the age of the Apostles, this was the practice: although people came together daily to hear the word of GOD, they nevertheless also had set days on which the whole Church flowed together for divine worship. "So we too come together," says Tertullian, book 2 Against the Gentiles, chapter 39, "into an assembly and a congregation, so as to besiege GOD with our prayers like a body drawn up in formation, since this force is pleasing to GOD."

[Margin: Why the Lord's Day is held sacred by Christians.]

Above all, the Lord's Day is to be held religious and set apart for sacred worship — the day which the Apostles substituted and ordained in place of the rejected Jewish Sabbath, chiefly for the reason that Hospinian reports from Ignatius' Letter to the Magnesians, at chapter 8 of his On the origin of the

Christian feasts: that Christians should not seem to be bound and tied to Judaism and to Jewish ceremonies — or rather superstitions — and that they should at the same time bear witness to the abrogation of the Mosaic feasts and to Christian liberty. Hence too, in the Council of Laodicea, which was held about the year of the Lord 364, it is enacted in Canon 20: that Christians ought not to Judaize and be idle on the Sabbath, but should rather work on that same day, preferring the Lord's Day to the Sabbath. Hospinian adds three further reasons to this one, the first two of them from Justin's second Apology. *First, that on the day of the Sun — as the mathematicians call the Lord's Day — God created the world. 2. That Christ rose from the dead on this day, on which* ἡ δευτέρα τοῦ πάσχατος [Greek: hē deutera tou paschatos, "the second (day) of the Passover"] *fell, accomplished the redemption of mankind, and so entered into the glory of the kingdom of the New Testament. From the resurrection of the Lord, therefore, it began from that time to be called* κυριακή [Greek: kyriakē], *or the Lord's Day, the first feria. The third reason he takes from Caelius Rhodiginus,* Ancient Readings *book 7, chapter 42, where he writes in this way: The faithful of*

the early Church wished to honour the day of the Sun in place of the Sabbath, to ascribe and dedicate it to the Lord, and to devote it wholly to his worship, because there is nothing by which we can better picture to ourselves the majesty of Christ — all-powerful and pre-eminent above the whole universe — than the most splendid light of the Sun. For it is written: And in the Sun he has set his tabernacle; and: There came forth from the tribe of Judah, whose sign is the Lion, the animal of the Sun, and so on.

As for the remaining ferias besides the Lord's Day, we hold it advisable neither to neglect them all nor to celebrate them all. The people should not be drawn away from their work, since on holidays they are readier to do wrong than to do or think anything good and wholesome when at rest from their accustomed labour.

[Margin: Division of the feasts: some feasts are general; others particular.]

We divide them, then, into general feasts, *which are celebrated generally by everyone and are called solemnities — such as the Circumcision of the Lord, his Epiphany, the Purification of Mary, the Annunciation of Mary, the Resurrection, the Ascension of the Lord, Pentecost, Trinity, and so on* — and particular ones, *which are observed only by some. These belong either to some whole region or communion, and are then called common — as the ferias appointed in memory of the Apostles — or to one single place, and are then called proper to that place, as the ferias of certain saints or martyrs. All of these, however, whether universal or particular, and whether they are kept sacred for a whole day or only in the morning, are divided again, on the score of the days on which they fall in the Calendar, into moveable and fixed.*

[Margin: And again, either moveable or fixed.]

[Margin: Which the moveable ones are.]

Moveable feasts are those *which, although they are celebrated on the same day of the week, have no fixed seat in the Calendar but fall on different days of the month in different years. Ferias of this kind are all the Sundays throughout the year, and also those days interposed among them that are attached to particular weeks. We shall deal with these first.*

[Margin: First, the Sundays.]

The Sunday, if there is one, that falls between the Circumcision and the feast of the Epiphany has no fixed name of its own.

[Margin: The Sundays after the feast of the Epiphany.]

But those Sundays that follow the feast of the Epiphany *are marked with a name of order according to the place in which they follow the day of the Epiphany: the nearest is the first Sunday, the one after it the second, and so on. Sometimes more of them are constituted, sometimes fewer, according to the greater or lesser size of the larger interval. They end before Septuagesima Sunday. The seven following Sundays are then named in this way:* 1 Septuagesima, 2 Sexagesima, 3 Quinquagesima, 4 Quadragesima, or the first of Lent, 5 the second of Lent, 6 the third of Lent, 7 the fourth of Lent: *and the one that follows is not the fifth of Lent,*

[Margin: Septuagesima.]

[Margin: Sexagesima Sunday.]

—but Passion Sunday. Of these Sundays the first three, set before Lent, took their names — so Bede and Alcuin hold — from the order in which they precede Lent: Quinquagesima is so called because it comes immediately before Lent, or stands about fifty days from Easter; Sexagesima is the next more remote; Septuagesima the third.

[Margin: Quinquagesima Sunday, which is also called the Sunday of the Bacchanalia and *Esto mihi*.]

Quinquagesima — which, as Ambrose holds in his book of *Sermons*, Pope Telesphorus was the first to add to Lent — is otherwise called the Sunday of the Bacchanalia, in German *Der Faſtnacht Sontag* [Fraktur: Shrove Sunday]; for on this day, and on several days of the week that follows, many Christians run riot in just the way the Greeks and Romans once did at their Bacchanalia or Lupercalia. It is likewise called *Esto mihi*, from the church chant sung on it, which is called the Introit, taken from Psalm 30 verse 3: *Esto mihi in Deum protectorem* ("Be to me a protecting God"), and so on.

[Margin: Ash Wednesday.]

The Wednesday next following brings Ash Wednesday, which Gregorius Maximus[31] dedicated to the consecration of ashes and to their sprinkling. It is the head and beginning of the Lenten fast, and in some places these words are customarily written upon it: Mors Imperat Regibus, Odiosam Linguam Iudicat Dominus ("Death rules over kings; the Lord judges the hateful tongue"). Of these words, all but the first have initial letters that mark the Sundays of the Lenten season, while the individual letters mark the individual days of the fast, the count beginning from Ash Wednesday.

[Margin: Quadragesima Sunday, also called Invocavit.]

The Germans designate the same Sundays by these words: *Ins Richters Ofen liegen Junge Palmen* [Fraktur: "In the judge's oven lie young palms"]. Quinquagesima Sunday, then, is succeeded by the first Sunday of Lent, which is called Invocavit, from a like Introit chant out of Psalm 90 verses 3 and 4: *Invocavit me & ego exaudiam eum* ("He has called upon me, and I will hear him").

[Margin: Reminiscere.]

Next comes the second, called Reminiscere, from Psalm 25 verses 6 and 22: *Reminiscere miserationum tuarum Domine* ("Remember your mercies, Lord").

[Margin: Oculi.]

The third is Oculi, from the same Psalm, verses 15 and 16: *Oculi mei semper ad Dominum* ("My eyes are always toward the Lord").

[Margin: Lætare, which is also called the Sunday of the Rose and the Sunday of the Loaves.]

The fourth is Lætare, from Isaiah chapter 66 verses 10 and 11, *Lætare cum Ierusalem* ("Rejoice with Jerusalem"). The Germans wrongly call this Sunday *den Todtſontag* [Fraktur: "the Sunday of death"], as though it were deadly. Some call it the Sunday of the Rose, after the golden rose which the Roman Pontiff

[31] so printed — *Gregorio Maximo*

carries in his hand in church, before all the people. It is also called the Sunday of the Loaves, since in the Gospel the miracle of the five loaves is set out.

[Margin: Iudica, which the Germans call *der ſchwartze Sontag*, "the black Sunday".]

The fifth is the Sunday of the Lord's Passion, also called Iudica from its Introit, taken from Psalm 43 verses 1, 2 and 3: *Iudica me DEVS & discerne caussam meam* ("Judge me, O God, and distinguish my cause").

[Margin: Palm Sunday, or Great Sunday.]

This is followed by Great Sunday, which — according to Chrysostom, Homily 30 on Genesis chapter 10 — won this name because great and unspeakable goods came to the faithful in the week that follows Great Sunday: death extinguished, the curse taken away, the tyranny of the Devil undone by the death of Christ. First, however, Palm Sunday is kept holy, so called from the palm branches which the Jewish people strewed before Christ as he entered the city of Jerusalem.

[Margin: Crooked Wednesday.]

The Wednesday next following is the day of the council of the Pharisees and the scribes, which the Germans call *Die krumme Mitwoch* [Fraktur: "crooked Wednesday"], from the perverse designs of the Jews.

[Margin: Green Thursday.]

On the Thursday after it falls the day of preparation for the legal Passover, and towards evening the institution of the Supper, after which Christ, having given his discourse, went out to the Mount of Olives. From this the Germans call it *Der Grüne Donnerſtag* or *Dornſtag* [Fraktur: "Green Thursday"]. And at last, on the Friday, comes the day of the Passion and cross of Christ, who for the sins of the whole…

[Margin: Quiet Friday.]

—world made satisfaction, and reconciled God the Father to the human race. From this the Germans call it *Der Stiller Freytag / guter Freytag* [Fraktur: "the quiet Friday / the good Friday"], from the good things won for us on that day; and likewise *Der Karrfreitag* [Fraktur], from the word *Karr*, which denotes a fine, a penalty, or rather a satisfaction made in place of a penalty.

[Margin: Easter.]

After the Great Week the feast of Easter is celebrated, in memory of the Lord's resurrection; it is the foundation and basis of all the Sundays and movable feasts.

[Margin: The Quinquagesimal Season.]

It is followed by the Quinquagesimal Season of fifty days between Easter and Pentecost, which in former times was wholly festal for Christians.

[Margin: Quasimodogeniti, or Dominica in albis.]

This season contains six Sundays. The first of them after Easter is called Quasimodogeniti, from the text of the Introit sung at it, which is drawn from 1 Peter chapter 2 verse 2: *Quasimodogeniti infantes, rationabiles sine dolore lac concupiscite* ("As newborn infants, desire the reasonable milk without pain"). It

is also called Dominica in albis, because those baptized on the holy Saturday of Easter went about all week clothed in white garments, and on this day laid the same garments aside.

[Margin: Misericordia.]

The second Sunday from Easter is called Misericordia, from the text of the Introit, taken from Psalm 32 verses 5 and 6: *Misericordia Domini plena est terra* ("The earth is full of the Lord's mercy").

[Margin: Jubilate.]

So too the third Sunday is called Jubilate, from the Introit out of Psalm 65 verse 1: *Jubilate DEO omnis terra* ("Shout for joy to God, all the earth"), and so on.

[Margin: Cantate.]

The fourth is Cantate, from the Introit out of Psalm 97 verse 1: *Cantate Domino canticum novum* ("Sing to the Lord a new song"), and so on.

[Margin: Vocem Iucunditatis, or Rogation Sunday.]

The fifth is Vocem Iucunditatis, from a like Introit: *Vocem jucunditatis annunciate & audiatur* ("Proclaim the voice of gladness, and let it be heard"), and so on. This Sunday is otherwise called Rogation Sunday, as is the whole week that follows it; the Germans usually call that week *Die Betwoche* or *Creutzwoche* [Fraktur: "the prayer week"; "the cross week"], because processions are set up through the fields with crosses and banners, and prayers and litanies are sung publicly in the open air.

[Margin: The Ascension of Christ.]

The feast of Christ's Ascension too is usually kept in this same week, on the Thursday, which is the fortieth day from Easter.

[Margin: Exaudi.]

The sixth and last Sunday is called Exaudi, from the chant out of Psalm 27: *Exaudi Domine vocem meam* ("Hear, Lord, my voice"), and so on. There are those who note the initial letters of these Sundays in this verse, as an aid to memory: *Quem Mea Iusserunt Cantica Victor Erit.*

[Margin: Pentecost.]

These Sundays of the Quinquagesimal season are succeeded by the solemnity of Pentecost. As the Jews once observed it with great devotion on the fiftieth day after the Passover, in memory of the divine law promulgated on Mount Sinai, so we Christians usually observe it on the seventh Sunday after Easter, because of the visible sending of the Holy Spirit on that day — the Spirit being the one and best interpreter of the divine law.

[Margin: Trinity Sunday.]

This solemn feast is followed on the next Sunday by the feast of the Holy Trinity; and after that Sunday, on the following Thursday, by the festival of the Body of Christ, which Pope Urban IV instituted about the year of Christ 1264.

[Margin: The Sundays after Trinity.]

The Sundays that follow this Sunday of the Holy Trinity are all named after Trinity, in the order in which they follow, down to the first Sunday of Advent.

[Margin: The Lord's Advent.]

The last four Sundays, which come immediately before the feast of Christ's Nativity, are called the Sundays of the Lord's Advent, in this arrangement: on the first, which is also the most remote of them, the entry of the Messiah into the city of Jerusalem is treated; on the second, his coming to the last judgment; on the third, his coming to his ministry, whose forerunner was John; on the fourth, the preparation for Christ's coming, of which Isaiah 40 verse 3 reads: *Parate viam* ("Prepare the way")

[Margin: What the fixed feasts are.]

—*Domini, rectas facite semitas DEI nostri* ("of the Lord; make straight the paths of our God"). All these feast-days are movable. The fixed or stationary ones, by contrast, are those which — though they may fall on different days of the week — are not shifted from one day of the month to another, but always fall on the same, established days, and so hold a fixed and certain place in the calendar. Such are the Circumcision of Christ, his Epiphany, and all the remaining feasts of saints and martyrs, apart from the movable ones already mentioned. These fixed feasts, and especially the more notable of them, can be had easily enough by anyone at all: from Hospinian's particular accounts of the anniversary feasts; or from general calendars, of which many are everywhere in print; or from the popular verses composed for that use — *Circumcisio Magos mittit*, and so on — or from the old *Cisio Ianus*. There is no need, then, to weave a long web of them here. Some notice of them we do give ✳ under the syzygies for the year 1601, 2, 3 and following.

[Margin: The foundation of the movable feasts is Easter. In the Old Testament the Passover was celebrated on the 14th of the moon of the first month. Christians celebrate it on the following Sunday.]

To come back to the movable feasts: they are not so easily known. They are determined only from the feast of Easter, to which alone the rest look, and from which, as from their foundation and root, they flow. And although this feast of Easter was celebrated by the people of Israel, by the sacrifice of an unblemished lamb, according to the Lord's command in Exodus 12, Leviticus 23, Numbers 9 and 28, on the fourteenth day of the first month, Nisan, towards evening — the beginning of that month falling at the new moon nearest the spring equinox — nevertheless the Christian Church keeps it holy not on the fourteenth of the moon along with the Hebrews, but on the Sunday that next follows it.

[Margin: The solemn feast of the Resurrection is rightly kept apart from the Passover of the Jews.]

For since this feast was received and instituted by the ancient Church in memory of the Resurrection, and since Christ rose from the dead on the first Sunday after the Jews' Passover, it was fitting that the Christian Easter should be celebrated not with the Jews, nor with the Judaizing Christians whom the rest called τεσσαρεσκαιδεκατίτας [Greek: tessareskaidekatitas, "Fourteenthers"], that is, the Quartodeciman heretics, whose standard-bearers were Polycrates bishop of Ephesus, Traseas, Melito, and Narcissus bishop of the church of

Jerusalem, as stands in Platina in his life of Pope Victor — but rather on the Sunday after the Jewish Passover. This too was settled in the first council, at Caesarea in Palestine, by a good number of bishops, with Theophilus, bishop of that city, presiding, in the year of Christ 190, and was afterwards approved and confirmed anew in the most celebrated Synod of Nicaea, in the year of Christ 325.

[Margin: Hence, if the 14th of the moon falls on the day of ☉, the paschal solemnity is transferred to the following day of ☉.]

Hence, whenever the fourteenth of the moon of the first month falls on a Sunday, the solemnity of Easter is transferred to the Sunday following, on which the twenty-first of the moon is running. Ambrose too suggests as much in Letter 83, to the bishops appointed throughout Aemilia, in these words: "So if the fourteenth moon of the first month falls on a Sunday, then — since we ought not to fast on a Sunday, and since, if the thirteenth moon falls on a Saturday, we ought not to break the fast (which is above all to be kept on the day of the Passion) — the celebration of Easter is to be deferred to the following week." Likewise Bede, *De tempor. rat.* chapter 57: "It is fitting, therefore, to take careful note that, whenever the fourteenth moon runs into a Sunday, we should rather defer the paschal day to the following week, for a twofold reason. First, so that we may not break the fast when the thirteenth moon is found on a Saturday — which does not follow, and which the law itself does not prescribe. Second, so that we may not be compelled to fast on a Sunday on which the fourteenth moon is set, doing a thing unseemly and unlawful. For this was the practice that held among the sect of the Manichees," and so on.

[Margin: The Council of Nicaea tied the vernal equinox to 21 March.]

And since, so that the first month might be settled more surely, the vernal equinox also had to be tied to a fixed day, those who lived a little before and a little after the Council of Nicaea — and above all those who took part in it — decided that 21 March, that is the twelfth day before the Kalends of April [12 Calend. Aprilis], should be assigned to the equinox falling near it; and that from that day the paschal lunations should be judged in this way: that the day of the fourteenth of the moon which…

—precedes 21 March, it would have to be referred to the last month of the year, and would not be fit for the celebration of Easter; whereas the moon that either falls on 21 March itself, or on the day that next follows it, would be suited for fixing Easter. For this is what Ambrose writes in the letter cited earlier: "The month — that is, the fourteenth of the moon — begins not by the common usage but by the practice of the experts, from the equinox, which is the twelfth day before the Kalends of April [12 Calend: Aprilis]." Likewise Bede, in chapter 57 cited earlier: "For the Sunday that falls after the fourteenth of the moon is itself the paschal day of the Lord's resurrection. That fourteenth moon displays its course over the earth at evening at the earliest on the equinox, that is on the twelfth day before the Kalends of April, and at the latest on the

twenty-ninth day from that, that is on the fourteenth day before the Kalends of May [14 Calend: Majarum]."

[Margin: "Easter is celebrated between 22 March and 25 April."]

From what has been set out, and above all from the words of Bede just quoted, it follows that a fourteenth moon falling on 21 March marks out the Easter nearest the beginning of the year, on 22 March or a little after; while one falling on 18 April indicates an Easter to be celebrated on 19 April or on the days following, and at the furthest on 25 April. Easter, therefore, can be celebrated on any of the days counted from 21 March exclusive to 25 April inclusive; outside those days it never strays. These extreme limits hold in both Roman calendars, the old as well as the new — just as the method of inquiry by which the day of Easter is worked out is no different in the two, however much the means by which it is done may differ in some respect.

[Margin: "In the old or Julian Calendar Easter is worked out by means of the golden number."]

In the old Calendar, then, the season of Easter is made known by the golden number, which there serves as the index of the lunations. Given golden number 16 and dominical letter D, the Easter nearest the beginning of the year is always obtained, falling on 22 March — since the fourteenth moon falls on the equinoctial day itself, 21 March, while the first moon, that is the new moon, falls on 8 March, as golden number 16 in the calendar of golden numbers set out above also shows in the first place; and from 8 March inclusive to the 21st, 14 days are counted. Similarly, given golden number 8 and dominical letter C, the furthest or most remote Easter is found to fall on 25 April, since the fourteenth moon falls on 18 April and the first moon on 5 April — which golden number 8, set against the fifth of April, likewise teaches; and from 5 April inclusive to 18 April, 14 days are counted.

[Margin: "In the reformed [Calendar] Easter is made known by the epacts."]

In the new Calendar, by contrast, Easter is sought by the epacts, which are there the indices of the lunations. Given epact 23 and dominical letter D, the Easter nearest the beginning of the year is likewise found, falling on 22 March, when the fourteenth moon falls on 21 March and the first on the 8th. But given epact 25 or 24 [printed *XXV vel XXIIII*] and dominical letter C, the most remote Easter is made known, falling on 25 April, since the fourteenth moon falls on 18 April and the first moon on 5 April. In this doctrine the following is constant and regular: that if any golden number be given in the old calendar, or any epact in the new, within 8 March and 5 April, and 14 days be counted from it inclusive, then the dominical letter next following that fourteenth day always indicates or determines Easter. For example, let golden number 19 be given in the old calendar for the year of Christ 1595, and let it be looked for in the Dionysian Ecclesiastical Calendar of golden numbers, between 8 March and 5 April, so that the first moon may be set at the place where it is found. Since it is found on 4 April, it is established that the first moon is to be placed there as well.

And if 14 days are then counted from 14 March [recte: 4 April] inclusive, one arrives at 17 April, which is the day of the fourteenth moon. But since the dominical letter that next follows the fourteenth moon must also be attended to in that calendar, and since the letter E — the dominical letter for the year in question — follows on 20 April, it is plain that on 20 April, and not…

—on any other day, that the Sunday of Easter is to be fixed. In the same way, in the new Calendar for the year 1595, epact 19 shows the first moon to fall on 12 March; and if 14 days are counted from that day inclusive, one arrives at 25 March. Since the dominical letter A of the year in question is found at 26 March, Easter will have to be placed there.

[Margin: "Why Easter in the Julian year is often celebrated 4 weeks late."]

It is clear, then, that the true vernal equinox, in the old form of the year, has been carried back by 10 whole days from the time of the Council of Nicaea to our own age, and now for the most part falls on 11 March, whereas it is assumed to occur only on 21 March. It was therefore necessary, in the reformation of the year, that 10 days be taken out, and that in this way, in the new form of the year, the equinox should be restored to its original place. For all the fourteenth moons that fall between 11 and 21 March of the old Calendar are genuinely paschal; yet they are not treated as paschal, but are thrown forward into the following, second month, against God's decree, and so push Easter 4 whole weeks further off.

[Margin: "Why one week late. Why by five weeks."]

This further point is established as well, from the doctrine of the golden number set out in the preceding chapter: since in the old calendar the golden number marks the new moons nearly four days later than the case requires, it often happens — for this reason too — that Easter is kept a week late. And if that week is added to the four weeks shown above, the feast of Easter in the old Calendar will be put off beyond its due time not merely by one week, or by four, but often by five. That this really is so at the present day we find from the ephemerides themselves.

[Margin: "All the remaining Sundays depend on Easter. What the lesser interval is."]

Once Easter is rightly known from the foundations laid down, it will not now be difficult to determine the remaining Sundays that precede or follow it, and so all the other movable feasts, and in the first place the lesser interval [intervallum minus]. That lesser interval is nothing other than the number of weeks and days between the Nativity of Christ and Quinquagesima Sunday [Dominica Esto mihi].

[Margin: "How to find Quinquagesima Sunday."]

We treat of this one in particular because it is regularly set out expressly in all ephemerides and calendars — if for no other reason than that from it all the remaining movable feasts are derived, in the order we set out earlier. One should know, then, that if we count back 7 weeks, that is 50 days inclusive, from Easter, we shall arrive at Quinquagesima Sunday, at which — reckoning

from the Nativity of Christ — the lesser interval comes to an end. Suppose, for instance, that Easter falls on 22 March, and that 50 days are counted back from it: 22 of them in March and 28 in February. It is then apparent that we are brought to 1 February in a common year, and to 2 February in a leap year. In the same way, let Easter fall on 31 March. It is established that, when these 31 days are subtracted from 50, 19 days remain; and if these are counted back into the February of a common year, we shall arrive at the tenth day, and in a leap year at the eleventh — on which Quinquagesima Sunday falls.

[Margin: "How to find the lesser interval from the appended tables. First, in the Julian year"]

So that this inquiry should not be tedious to anyone, two tables have been drawn up, one for the Old and the other for the New Calendar, from which the lesser interval can be obtained very easily. Given, in the old year, the golden number and the dominical letter — which is single in a common year and double in a leap year, where the earlier of the two is used for this business — enter the little table of the lesser interval that is fitted to the Old Calendar, and look for the golden number running down the left-hand side, and the dominical letter across the top. The common corner will then show, in the body of the table, the number of weeks of the lesser interval, while the number written above the dominical letter gives the concurrent days. These days have to be added to the whole weeks, since the Birthday of the Saviour usually falls on a day other than Sunday. For example, take the year of Christ 1595, whose lesser interval in the Old Calendar is sought. The golden number of this year is 19 and the dominical letter E. If I consult the table appended here, I find that the common corner offers 9 weeks of the lesser interval, with 4 days at the head. From this the time from the Lord's Nativity to the Sunday…

Tabella intervalli minoris, accommodata Calendario Veteri

(Little table of the lesser interval, fitted to the Old Calendar)

Intervallum minus in hebdomadibus, numnratum inter Nativitatem Chriſti & Dominicam Quinquageſimæ. — "The lesser interval in weeks, counted between the Nativity of Christ and Quinquagesima Sunday."

Aur. num.	A · 0	B · 1	C · 2	D · 3	E · 4	F · 5	G · 6
1	8	8	8	8	7	7	7
2	6	6	6	6	6	6	6
3	9	9	9	9	9	8	8
4	8	7	7	7	7	7	7
5	6	6	6	6	5	5	5
6	9	9	8	8	8	8	8
7	7	7	7	7	7	6	6
8	10	10	10	9	9	9	9
9	8	8	8	8	8	8	7
10	7	7	6	6	6	6	6

Aur. num.	A · 0	B · 1	C · 2	D · 3	E · 4	F · 5	G · 6
11	9	9	9	9	9	9	9
12	8	8	8	7	7	7	7
13	6	6	6	6	6	6	5
14	9	9	9	9	8	8	8
15	7	7	7	7	7	7	7
16	6	6	6	5	5	5	5
17	9	8	8	8	8	8	8
18	7	7	7	7	7	6	6
19	10	10	9	9	9	9	9

—Esto mihi is 9 weeks and 4 days.

[Margin: "Second, in the new year."]

In the same way, in the new Calendar, when the epacts and the dominical letter are given, the table of the lesser interval belonging to the new Calendar is consulted. First the dominical letter of the year in question is looked for, and then the epacts in the same class; the lesser interval standing opposite them shows the true Quinquagesima Sunday. For instance, in the year 1595, by the new ἐπιλογισμὸν [Greek: epilogismon, "reckoning, computation"], the dominical letter is A and the epacts 19. If I consult the table with these, I find the lesser interval to be 6 weeks and 0 days. Quinquagesima Sunday therefore follows the Saviour's Birthday by exactly 6 weeks.

[Margin: "Given the lesser interval, how the Sunday Esto mihi is found."]

For the rest, this is how to proceed in order to find out on what day of the month Quinquagesima Sunday falls. First, let the number of weeks of the lesser interval be converted into days by multiplication by seven, and let the concurrent days, if there are any, be added to the product; what results is the number of days by which that Sunday stands away from the feast of the Nativity. 2. From the number of days so found let 7 days be taken away — the days counted from the Lord's Birthday to 1 January, the beginning of the year — and the remainder will show on what day of the year Quinquagesima Sunday is kept. 3. From that remainder let there first be subtracted the 31 days that belong to January; then, if the number will bear it, let the 28 days of a common year, or 29 of a leap year, that are owed to February be taken away as well. The number then left, with one added, will show the day of March on which Quinquagesima Sunday falls. But if the number will not admit that subtraction, then the remainder — one having first been added — will show the day of February that belongs to Quinquagesima Sunday.

For example, in the year 1595 the lesser interval in the Old Calendar is 9 weeks and 4 days. If, in the first place, I multiply the weeks by 7 and add 4 days to the product of 63 days, 67 days emerge, which fall between the Lord's Nativity and Quinquagesima Sunday. In the second place, to learn the day on which Quinquagesima Sunday falls, I subtract from the number of days found: first 7 days, and 60 remain, which are counted from 1 January to Quinquagesima

Sunday; second, the 31 days owed to January, and 29 days remain; third, I subtract also the 28 days of the month of February in the given…

—common year. To the 1 that is left I add 1, and 2 days come out. Quinquagesima Sunday therefore falls on 2 March. In the same way, by the new Calendar, we found that the lesser interval of that same year, 1595, is exactly 6 weeks. Suppose I proceed as before, and first multiply the number of weeks by 7. From the resulting 42 days — the days counted from the Lord's Nativity to Quinquagesima Sunday — I take away 7, and after that 31 days; 4 days remain, and one added to them shows that Quinquagesima Sunday falls on 5 February.

[Margin: "Once Quinquagesima Sunday is known, the rest are easily gathered."]

Now that Quinquagesima Sunday is known, there is no real difficulty in attaching the remaining movable feasts to it in their proper order, provided that what we set out earlier about their order and arrangement is carefully kept in mind.

[Margin: Intervallum majus quid sit. — "What the greater interval is."]

The greater interval is likewise easy to find. It is nothing but the span of time that takes in the Sundays after Trinity, and it contains at least 22 weeks, that is, Sundays.

[Margin: "The greater interval takes in 27 Sundays at most, 22 at least."]

First consider this. A lesser interval that does not yet run beyond six weeks by more than one day in a common year, or by more than two days in a leap year, yields 27 Sundays; one falling within seven weeks and the days just named, 26 Sundays; within eight weeks and the same days, 25; within nine, 24; within ten, 2[numeral: ?][32]; and one that runs past ten weeks and the said days, taking in some further days, yields 22 Sundays. And so, as the lesser interval grows,

Tabula Intervalli minoris conveniens Calendario Novo. (Table of the lesser interval, fitted to the New Calendar)

Li: D:	Cyclus Epactarum	Interval: min: Hebdom:	Interval: min: Dies
A	23 22 21 20 19	6	0
A	18 17 16 15 14 13 12	7	0
A	11 10 9 8 7 6 5	8	0
A	4 3 2 1 ✳ 29 28	9	0
A	27 26 XXV 25 24	10	0
B	23 22 21 20 19 18	6	1
B	17 16 15 14 13 12 11	7	1
B	10 9 8 7 6 5 4	8	1
B	3 2 1 ✳ 29 28 27	9	1
B	26 XXV 25 24	10	1
C	23 22 21 20 19 18 17	6	2
C	16 15 14 13 12 11 10	7	2
C	9 8 7 6 5 4 3	8	2
C	2 1 ✳ 29 28 27 26 XXV	9	2

[32]the second figure does not print legibly on the leaf; the run of values implies 23

Li: D:	Cyclus Epactarum	Interval: min: Hebdom:	Interval: min: Dies
C	25 24	10	2
D	23	5	3
D	22 21 20 19 18 17 16	6	3
D	15 14 13 12 11 10 9	7	3
D	8 7 6 5 4 3 2	8	3
D	1 ✳ 29 28 27 26 XXV 25 24	9	3
E	23 22	5	4
E	21 20 19 18 17 16 15	6	4
E	14 13 12 11 10 9 8	7	4
E	7 6 5 4 3 2 1	8	4
E	✳ 29 28 27 26 XXV 25 24	9	4
F	23 22 21	5	5
F	20 19 18 17 16 15 14	6	5
F	13 12 11 10 9 8 7	7	5
F	6 5 4 3 2 1 ✳	8	5
F	29 28 27 26 XXV 25 24	9	5
G	23 22 21 20	5	6
G	19 18 17 16 15 14 13	6	6
G	12 11 10 9 8 7 6	7	6
G	5 4 3 2 1 ✳ 29	8	6
G	28 27 26 XXV 25 24	9	6

Tabula ostendens, quomodo in anno communi & bissextili ex Intervallo minore festa mobilia in Ephemeridibus notata cognoscantur. (Table showing how, in a common year and in a leap year, the movable feasts noted in the Ephemerides may be found from the lesser interval)

In anno cōmuni intervallū minus — Hebd. Dier.	Quadra-gesima	In anno bissext: Intervallū min: — Heb: Dier	Quadra-gesima	Do-minica Paschat:	Ro-gationū	As-censio Do-mini	Pen-te-coste	Ad-ven-tus Do-mini	Intervallum majus — Hebdo-madarum
5 · 3	8 *Febru-arii*	5 · 4	9 *Febru-arii*	22 *Martii*	26 *Aprilis*	30 Apri	10 *Maji*	29 d *No:*	27
5 · 4	9	5 · 5	10	23	27	1 *Phi: Ia*	11	30 e *De-cem:*	27
5 · 5	10	5 · 6	11	24	28	2 *Maji*	12	1 f	27
5 · 6	11	6 · 0	12	25 *AnM*	29	3	13	2 g	27
6 · 0	12	6 · 1	13	26	30	4 *Flori*	14	3 a	27
6 · 1	13	6 · 2	14 *Valen*	27	1 *Phla*	5	15 *Soph:*	27 b *Novem:*	26
6 · 2	14 *Valen*	6 · 3	15	28	2 *Maji*	6	16	28 c	26

In anno cōmuni intervallū minus — Hebd. Dier.	Quadra-ges-ima	In anno bissext: Intervallū min: — Heb: Dier	Quadra-ges-ima	Do-minica Paschat:	Ro-ga-tionū	As-cen-sio Do-mini	Pen-te-coste	Ad-ven-tus Do-mini	Intervallum majus — Hebdo-madarum
6 · 3	15	6 · 4	16 *Iuli:*	29	3 *In:* †	7	17	29 d	26
6 · 4	16 *Iuliã*	6 · 5	17	30	4 *Flor.*	8	18	30 e	26
6 · 5	17	6 · 6	18	31	5	9	19	1 f *De-cem:*	26
6 · 6	18 *Conc:*	7 · 0	19	1 *Aprilis*	6	10	20	2 g	26
7 · 0	19	7 · 1	20	2	7	11	21	3 a	26
7 · 1	20	7 · 2	21	3	8	12	22	27 b *Novemb:*	25
7 · 2	21	7 · 3	22 *Cath*	4	9	13 *Serv:*	23	28 c	25
7 · 3	22 *Cat P*	7 · 4	23	5	10	14	24	29 d	25
7 · 4	23	7 · 5	24	6	11	15 *Soph:*	25 *Urb*	30 e	25
7 · 5	24 *Math*	7 · 6	25 *Mat.*	7	12	16	26	1 f *De-cemb:*	25
7 · 6	25	8 · 0	26	8	13 *Serv:*	17	27	2 g	25
8 · 0	26	8 · 1	27	9	14	18	28	3 a	25
8 · 1	27	8 · 2	28	10	15 *Soph:*	19	29	27 b *Novemb:*	24
8 · 2	28	8 · 3	29	11	16	20	30	28 c	24
8 · 3	1 *Mar-tii*	8 · 4	1 *Mar-tii*	12	17	21	31	29 d	24
8 · 4	2	8 · 5	2	13	18	22	1 *Iunii*	30 e	24
8 · 5	3	8 · 6	3	14 *Tib:*	19	23	2	1 f *De-cemb:*	24
8 · 6	4 *Adri:*	9 · 0	4 *Adri:*	15	20	24	3	2 g	24
9 · 0	5	9 · 1	5	16	21	25 *Urb:*	4	3 a	24
9 · 1	6	9 · 2	6	17	22	26	5 *Bonif*	27 b *Novem*	23
9 · 2	7 *Perp:*	9 · 3	7 *Perp:*	18 *Valer*	23	27	6	28 c	23
9 · 3	8	9 · 4	8	19	24	28	7	29 d	23
9 · 4	9	9 · 5	9	20	25 *Urb:*	29	8 *Med*	30 e	23
9 · 5	10	9 · 6	10	21	26	30	9	1 f *Dec:*	23

In anno cōmuni intervallū minus — Hebd. Dier.	Quadra-ges-ima	In anno bissext: Intervallū min: — Heb: Dier	Quadra-ges-ima	Do-minica Paschat:	Ro-ga-tionū	As-cen-sio Do-mini	Pen-te-coste	Ad-ven-tus Do-mini	Intervallum majus — Hebdo-madarum
9 · 6	11	10 · 0	11	22	27	31	10	2 g	23
10 · 0	12 *Greg:*	10 · 1	12 *Greg*	23 *Greg:*	28	1 *Iunii*	11	3 a	23
10 · 1	13	10 · 2	13	24	29	2	12	27 b *Nov:*	22
10 · 2	14	10 · 3	14	25 *Marc:*	30	3	13	28 c	22

—the greater interval shrinks, and as it shrinks the greater grows. After that, take the lesser interval and consult the appended table — in which a difference of one day does show itself here and there in Quadragesima Sunday between a common year and a leap year, a point that must be carefully weighed and attended to, though everything else agrees exactly. From the table, together with several other Sundays, look up the greater interval itself as well, which always consists of as many Sundays after Trinity as there are weeks counted.

[Margin: "The first Sunday of Advent is the one that immediately precedes 4 December, the feast of Barbara."]

This greater interval ends on the first Sunday of Advent, which we take to be precisely the Sunday that immediately precedes the feast of Barbara, or that falls on the feast of Andrew, or is the nearest Sunday to it — so that three days are counted either before it or after, that is, from 27 November to 3 December inclusive, as the appended table likewise makes plain.

[Margin: "How the first Sunday of Advent may be found in short compass, on the joints of the index finger, from the dominical letters."]

The first Sunday of Advent can also be gathered easily without that table, from the dominical letter alone. When the dominical letter is B, the first Sunday of Advent falls on 27 November; when C, on the 28th; D, on the 29th; E, on 30 November, that is, St Andrew's day; F, on 1 December; G, on the 2nd; A, on 3 December. There is plainly no difficulty in the enquiry, especially if the counting is done on the seven joints of the index finger, as Clavius teaches (Christoph Clavius, *Apologia* — the leaf cites `cap.7 lib 3`), and 27 is set at the root of the index, following the verse:

> *Viginti septem sibi radix Indicis aptat* "The root of the index takes twenty-seven to itself."

On the second joint, 28; on the third, 29; at the tip, 30; then on the fifth joint, under the nail, 1; on the sixth, 2; on the seventh, 3. And finally, following the initial letters of each word of these seven in the verse:

> *Bella Ciere Dolo, Et Ferro Germanicus Audet* "Germanicus dares to stir up war by guile and by the sword."

— letters which stand for the dominical letters — begin the count again in the same way from the root of the index, and name the day on which the dominical

letter falls. *For example: in the year 1595, in the Old Calendar the dominical letter is E, which is marked by the word* Et; *and since this falls on the crown, that is, the fourth joint of the index, to which 30 November also belongs, the first Sunday of Advent in the Old Calendar therefore corresponds to 30 November. In the New Calendar the dominical letter of the same year, A, reaches the seventh joint, as is clear from the last word* Audet: *it therefore shows Advent Sunday to be 3 December.*

[Margin: "On the four seasons of the year, commonly called Quatember."]

Finally, once all the feasts have been rightly set in order, the four seasons of the year must not be neglected — commonly called Quatember, and by the Germans [German, in Fraktur type: Fronfast] — on which the assemblies of the tribes and the municipal courts are usually held. Of these the first two depend on two movable feasts, namely Quadragesima Sunday and Pentecost; the last two on two fixed feasts, the Exaltation of the Cross in September and St Lucy's in December. For the Wednesday next following these feasts is the one reckoned among the four seasons. And if the feast of the Cross or of Lucy should itself fall on a Wednesday, then it is the days following a whole week after it that will be reckoned to the four seasons. *For example, in the year 1595, since in the Old Calendar Quadragesima Sunday falls on 9 March and Pentecost on 8 June; since the Exaltation of the Cross too, which is always kept on 14 September, falls on a Sunday, as the feast of Lucy, which coincides with 13 December, is held on a Saturday — the four seasons will be 12 March, 11 June, 17 September and 17 December. Let the enquiry into these seasons be made in the same way in the New Calendar.*

[Margin: "On the dog days,"]

Since the beginning and end of the dog days are usually entered in the German calendars too, —we were quite unwilling to pass over, at this point, the question of when they fall.

[Margin: "Where the Dog Days get their name."]

In our own time the name Dog Days is given to those days of the year on which both Dogs — the Greater and the Lesser — rise with the Sun, and above all that star which Homer calls λαμπροτάτη, πολλὸν πυρετὸν θνητοῖσι Φέρουσα [Greek: lamprotatē, pollon pyreton thnētoisi pherousa, "most brilliant, bringing much fever upon mortals"]. Specifically it is called σείριος ἀπὸ τοῦ σεσηρέναι [Greek: seirios apo tou sesērenai, "Sirius, from sesērenai, to be agape, to grin"] — either because it emits its light as though gaping, or because it forces dogs σεσηρέναι, that is, to go open-mouthed, out of their raging thirst.

[Margin: "The Dog Days are the hottest season of the year."]

This season is the hottest and driest there is. The air then seethes at its fiercest and is all but clouded over by the quantity and thickness of the hot, dry, biting exhalations, especially near the horizon; and the bodies of living things, thrown open and slackened, are at their feeblest, scorched and weighed down by the huge heat. It is therefore extremely damaging to use purgative medicines then, unless the utmost necessity compels it — as even Hippocrates, the prince of physicians, attests at *Aphorisms* 4.5: ὑπὸ κύνα, καὶ πρὸ κυνὸς ἐργώδεες

αἱ Φαρμακεῖαι [Greek: hypo kyna, kai pro kynos ergōdees hai pharmakeiai, "under the Dog, and before the Dog, purgings are troublesome"]. The season is thus rightly and expressly marked out by the authors of calendars, so that various harms may be avoided.

[Margin: "On the limits of the Dog Days."]

Different writers do, however, assign different limits. Some, without proper thought, refer the beginning of the Dog Days to the heliacal evening setting of Sirius and their end to its heliacal morning rising. Others reckon the period from the first day of August, on which the Sun, in the 18th degree of ♌, rises in the morning together with Sirius: they count 18 days backwards and 18 forwards from that day, and so extend the Dog Days from 14 July to 18 August. Hence too the verse handed down in earlier times:

Margar: Caniculas, Assumtio terminat illas.
Margaret [begins] the Dog Days; the Assumption ends them.

Still, it is most fitting to place the beginning at the Sun's entry into ♌ and the end at its departure from that same sign. For Leo is the hottest and driest of the signs, is appropriated to the Sun, and then raises the heat of the air to its highest pitch.

The limits noted in this next verse, in the Old Calendar, do not depart much from that same season:

Margaris os Canis est caudam Laurentius affert.
Margaret is the Dog's mouth; Laurence brings its tail.

For St Margaret's feast falls on 13 July and St Laurence's on 10 August; and in the old Julian calendar the Sun's entry into ♌ occurs on 13 July, its departure on 13 August. Those who keep the same dates in the New Calendar are defining the season of the Dog Days by civil convention rather than astrologically.

Caput V.

De quantitate dierum & reductione cujusvis temporis usualis ad Astronomicum.

(Chapter V. On the length of the days, and on the reduction of any kind of ordinary time to astronomical time.)

[Margin: "Common usage divides days into natural and artificial."]

Astronomers, it is true, distinguish days in the ordinary way into natural and artificial. By natural they mean the space of time — 24 hours — in which the Sun, having completed one revolution of the heaven, returns to the same place; by artificial, the time during which the Sun remains above the horizon and lights our hemisphere with its presence. We too may divide the day in the same way, yet we do not adopt those names.

[Margin: "Properly speaking, an artificial day is one procured by art in the dark."]

For no day can be called artificial except one procured by art — at night or in darkness, by kindling a light to drive the darkness off; just as only that is rightly called

natural which is a day by nature and is marked off from night. So Censorinus too says, in his book On the Day of Birth: *"The natural day is the time from the rising of the Sun to…"*

—the setting of the Sun; the contrary period is Night, from the setting of the Sun to its rising.

[Margin: "The day is better distinguished into civil and natural."]

So what common usage calls the natural day, we call the civil day — since civil practice too reckons the day at 24 hours and measures it by the Sun's next return to the same one of the fixed circles of the sphere, the horizon or the meridian. And what common usage calls the artificial day, we call the natural day. For it is nature that separates day from night and light from darkness, and assigns the day to labour and the night to rest. The Greeks call this natural day simply ἡμέραν [Greek: hēmera, "day"]; *the civil one they call* νυχθημέρινον *or* νυχθήμερον [Greek: nychthēmerinon, nychthēmeron, "a night-and-day"], *since it takes in both night and day. Now a knowledge of the length of day and night is absolutely necessary if times are to be defined correctly and the* Φαινόμενα [Greek: phainomena, the celestial appearances] *of the heaven determined — whether they appear at all at some given place on earth, and when. We have therefore decided to set out briefly here the method by which that length may be found for any time and any place on earth, prefacing it with this general caution: days and nights behave in three different ways according to the three positions of the sphere.*

[Margin: "Natural days vary in three ways according to the threefold position of the sphere."]

1 In the right sphere the days are perpetually equal to the nights. 2 In the oblique sphere only two days in the year are equal to the nights; the rest are either longer or shorter than the nights. 3 In the parallel sphere, whose poles coincide with the poles of the horizon, the whole year is divided into a single day and a single night.

[Margin: "The length of any day is known from the Sun's place."]

Given now a day whose length in the oblique sphere is to be found, the first thing to consider is the place of the Sun, which describes the day. That place is obtained either from the ephemerides or from the foundations from which the ephemerides were derived.

[Margin: "Or else by seeking out the semidiurnal arc."]

If one then wishes to gather the length by the doctrine of triangles, he must look for the semidiurnal arc [arcus semidiurnus]. That arc is nothing but the arc of the parallel circle which the Sun describes at some given place, cut off between the point of rising and the meridian. It is found in this way. First find the declination of the point at which the Sun's centre stands; from that, the ortive amplitude [amplitudo ortiva]; third, the ascensional difference, by the rules of the following Part. Finally, if the Sun is in a northern sign that difference is added to 90°, but it is subtracted from 90° if the Sun occupies a southern sign — and the semidiurnal arc emerges. This arc, doubled and converted into time, gives the length of the day.

[Margin: "Or from tables of ascensions."]

If, however, one wants an easier road, the same quantity can be found from tables of ascensions suited to the place proposed. For compare the ascensions of the Sun's place and of the opposite degree with each other and subtract the ascension of the Sun's place from that of the opposite degree — adding 360° to the latter if the former cannot be subtracted from it — and a difference will emerge which, converted into time, will show the length of the day.

[Margin: "Or from the appended tables."]

For our part, so that the length of the day might be known without labour and tedious calculation for our own meridian of Frankfurt, whose latitude is 52° 20′, we have drawn up two tables: the first fitted to the Prutenic reckoning, the second to Tycho's. Enter them with the sign and degree of the Sun's place, and the length of day or of night can be taken out very easily from the common angle.

[Margin: "Why the days come out greater on Tycho's reckoning."]

The day yields the night, and the night the day, if the subtraction is made from 24 hours. Between the two tables a discrepancy does occur, and not only on account of the obliquity of the ecliptic, which Tycho and the Prutenic Tables fix differently for the present time, but also because, on Tycho's view, to the diurnal arc — on account of refractions, once parallax has been deducted — at rising…

Tabula prior ostendens quantitatem dierum & noctium in obliquitate Eclipticæ maxima 23 grad: 28′;qualis hoc tempore iuxta calculum tabularum Prutenicarum constituitur; & in loci latitudine 52 gra: 20. min.

First table, showing the length of the days and the nights at the greatest obliquity of the ecliptic of 23° 28′, as it is fixed for the present time by the reckoning of the Prutenic Tables, and in a place of latitude 52° 20′.

Head of the argument column: Gr. Head of the value columns: Quā Di. No. and ☉ tenē ("the Sun occupies"), over the paired zodiac signs.

Gr	♈ / ♎	♉ / ♏	♊ / ♐	Gr
0	$12^h\ 0^m\ 0^s$	$14^h\ 2^m\ 4^s$	$15^h\ 47^m\ 20^s$	30
1	$12^h\ 4^m\ 8^s$	$14^h\ 5^m\ 59^s$	$15^h\ 50^m\ 8^s$	29
2	$12^h\ 8^m\ 16^s$	$14^h\ 9^m\ 53^s$	$15^h\ 52^m\ 56^s$	28
3	$12^h\ 12^m\ 24^s$	$14^h\ 13^m\ 46^s$	$15^h\ 55^m\ 36^s$	27
4	$12^h\ 16^m\ 32^s$	$14^h\ 17^m\ 39^s$	$15^h\ 58^m\ 8^s$	26
5	$12^h\ 20^m\ 40^s$	$14^h\ 21^m\ 31^s$	$16^h\ 0^m\ 40^s$	25
6	$12^h\ 24^m\ 47^s$	$14^h\ 25^m\ 22^s$	$16^h\ 3^m\ 4^s$	24
7	$12^h\ 28^m\ 55^s$	$14^h\ 29^m\ 12^s$	$16^h\ 5^m\ 28^s$	23
8	$12^h\ 33^m\ 3^s$	$14^h\ 33^m\ 1^s$	$16^h\ 7^m\ 44^s$	22
9	$12^h\ 37^m\ 10^s$	$14^h\ 36^m\ 49^s$	$16^h\ 10^m\ 0^s$	21
10	$12^h\ 41^m\ 17^s$	$14^h\ 40^m\ 33^s$	$16^h\ 12^m\ 16^s$	20
11	$12^h\ 45^m\ 24^s$	$14^h\ 44^m\ 9^s$	$16^h\ 14^m\ 16^s$	19
12	$12^h\ 49^m\ 30^s$	$14^h\ 47^m\ 49^s$	$16^h\ 16^m\ 8^s$	18
13	$12^h\ 53^m\ 36^s$	$14^h\ 51^m\ 27^s$	$16^h\ 18^m\ 0^s$	17
14	$12^h\ 57^m\ 42^s$	$14^h\ 55^m\ 4^s$	$16^h\ 19^m\ 44^s$	16
15	$13^h\ 1^m\ 48^s$	$14^h\ 58^m\ 40^s$	$16^h\ 21^m\ 20^s$	15

Gr	♈ / ♎	♉ / ♏	♊ / ♐	Gr
16	$13^h\ 5^m\ 53^s$	$15^h\ 2^m\ 14^s$	$16^h\ 22^m\ 55^s$	14
17	$13^h\ 9^m\ 58^s$	$15^h\ 5^m\ 45^s$	$16^h\ 24^m\ 25^s$	13
18	$13^h\ 14^m\ 2^s$	$15^h\ 9^m\ 12^s$	$16^h\ 25^m\ 43^s$	12
19	$13^h\ 18^m\ 6^s$	$15^h\ 12^m\ 41^s$	$16^h\ 26^m\ 57^s$	11
20	$13^h\ 22^m\ 9^s$	$15^h\ 16^m\ 7^s$	$16^h\ 28^m\ 8^s$	10
21	$13^h\ 26^m\ 12^s$	$15^h\ 19^m\ 30^s$	$16^h\ 29^m\ 12^s$	9
22	$13^h\ 30^m\ 14^s$	$15^h\ 22^m\ 49^s$	$16^h\ 30^m\ 9^s$	8
23	$13^h\ 34^m\ 15^s$	$15^h\ 25^m\ 58^s$	$16^h\ 30^m\ 59^s$	7
24	$13^h\ 38^m\ 16^s$	$15^h\ 29^m\ 12^s$	$16^h\ 31^m\ 43^s$	6
25	$13^h\ 42^m\ 16^s$	$15^h\ 32^m\ 24^s$	$16^h\ 32^m\ 20^s$	5
26	$13^h\ 46^m\ 15^s$	$15^h\ 35^m\ 28^s$	$16^h\ 32^m\ 50^s$	4
27	$13^h\ 50^m\ 13^s$	$15^h\ 38^m\ 32^s$	$16^h\ 33^m\ 14^s$	3
28	$13^h\ 54^m\ 11^s$	$15^h\ 41^m\ 36^s$	$16^h\ 33^m\ 30^s$	2
29	$13^h\ 58^m\ 8^s$	$15^h\ 44^m\ 32^s$	$16^h\ 33^m\ 39^s$	1
30	$14^h\ 2^m\ 4^s$	$15^h\ 47^m\ 20^s$	$16^h\ 33^m\ 46^s$	0

Entered from the foot upward against the right-hand `Gr` column, the same three columns are headed ♓ / ♍, ♒ / ♌ and ♑ / ♋, and the foot label reads `Quantit. Noct. Diei.`

Tabula posterior monstrans in eadem latit: dier: & noct:quantit:in λοξώσει *Eclipticæ maxima 23 grad.31/30// adhibita & refractione, qua 30 min:æquatoris Sol citius oritur, tardius occidit;& diem quemvis 4 min.horæ maiorē facit.*

Second table, showing the length of day and night at the same latitude, at a greatest λοξώσει [Greek: loxōsei, "obliquity"] **of the ecliptic of 23° 31′ 30″, with refraction also allowed for — by which the Sun rises 30′ of the equator earlier and sets later, and which makes every day 4 minutes of time longer.**

Gr	♈ / ♎	♉ / ♏	♊ / ♐	Gr
0	$12^h\ 4^m\ 0^s$	$14^h\ 6^m\ 23^s$	$15^h\ 52^m\ 1^s$	30
1	$12^h\ 8^m\ 8^s$	$14^h\ 10^m\ 19^s$	$15^h\ 54^m\ 50^s$	29
2	$12^h\ 12^m\ 16^s$	$14^h\ 14^m\ 15^s$	$15^h\ 57^m\ 3^s$	28
3	$12^h\ 16^m\ 24^s$	$14^h\ 18^m\ 9^s$	$16^h\ 0^m\ 16^s$	27
4	$12^h\ 20^m\ 32^s$	$14^h\ 22^m\ 2^s$	$16^h\ 2^m\ 53^s$	26
5	$12^h\ 24^m\ 40^s$	$14^h\ 25^m\ 54^s$	$16^h\ 5^m\ 25^s$	25
6	$12^h\ 28^m\ 48^s$	$14^h\ 29^m\ 45^s$	$16^h\ 7^m\ 55^s$	24
7	$12^h\ 32^m\ 56^s$	$14^h\ 33^m\ 35^s$	$16^h\ 10^m\ 19^s$	23
8	$12^h\ 37^m\ 4^s$	$14^h\ 37^m\ 23^s$	$16^h\ 12^m\ 34^s$	22
9	$12^h\ 41^m\ 11^s$	$14^h\ 41^m\ 9^s$	$16^h\ 14^m\ 45^s$	21
10	$12^h\ 45^m\ 19^s$	$14^h\ 44^m\ 54^s$	$16^h\ 16^m\ 53^s$	20
11	$12^h\ 49^m\ 26^s$	$13^h\ 48^m\ 38^s$ [recte: $14^h\ 48^m\ 38^s$]	$16^h\ 18^m\ 56^s$	19
12	$12^h\ 53^m\ 32^s$	$14^h\ 52^m\ 19^s$	$16^h\ 20^m\ 53^s$	18
13	$12^h\ 57^m\ 39^s$	$14^h\ 55^m\ 59^s$	$16^h\ 22^m\ 44^s$	17
14	$13^h\ 1^m\ 45^s$	$14^h\ 59^m\ 37^s$	$16^h\ 24^m\ 30^s$	16
15	$13^h\ 5^m\ 51^s$	$15^h\ 3^m\ 13^s$	$16^h\ 26^m\ 11^s$	15
16	$13^h\ 9^m\ 57^s$	$15^h\ 6^m\ 47^s$	$16^h\ 27^m\ 45^s$	14

Gr	♈ / ♎	♉ / ♏	♊ / ♐	Gr
17	$13^h\ 14^m\ 2^s$	$15^h\ 10^m\ 19^s$	$16^h\ 29^m\ 13^s$	13
18	$13^h\ 18^m\ 7^s$	$15^h\ 13^m\ 48^s$	$16^h\ 30^m\ 35^s$	12
19	$13^h\ 22^m\ 12^s$	$15^h\ 17^m\ 15^s$	$16^h\ 31^m\ 51^s$	11
20	$13^h\ 26^m\ 16^s$	$15^h\ 20^m\ 40^s$	$16^h\ 33^m\ 1^s$	10
21	$13^h\ 30^m\ 19^s$	$15^h\ 24^m\ 1^s$	$16^h\ 34^m\ 4^s$	9
22	$13^h\ 34^m\ 22^s$	$15^h\ 27^m\ 21^s$	$16^h\ 35^m\ 1^s$	8
23	$13^h\ 38^m\ 25^s$	$15^h\ 30^m\ 37^s$	$16^h\ 35^m\ 51^s$	7
24	$13^h\ 42^m\ 27^s$	$15^h\ 33^m\ 51^s$	$16^h\ 36^m\ 35^s$	6
25	$13^h\ 46^m\ 28^s$	$15^h\ 37^m\ 1^s$	$16^h\ 37^m\ 12^s$	5
26	$13^h\ 50^m\ 29^s$	$15^h\ 40^m\ 8^s$	$16^h\ 37^m\ 43^s$	4
27	$13^h\ 54^m\ 29^s$	$15^h\ 43^m\ 12^s$	$16^h\ 38^m\ 7^s$	3
28	$13^h\ 58^m\ 28^s$	$15^h\ 46^m\ 12^s$	$16^h\ 38^m\ 24^s$	2
29	$14^h\ 2^m\ 26^s$	$15^h\ 49^m\ 8^s$	$16^h\ 38^m\ 34^s$	1
30	$14^h\ 6^m\ 23^s$	$15^h\ 52^m\ 1^s$	$16^h\ 38^m\ 38^s$	0

Entered from the foot upward, these three columns too are headed ♓ / ♍, ♒ / ♌ and ♑ / ♋; the foot of the argument column reads `Gr`, and the label at the foot of the whole grid reads `Quantit. Noct. Diei.` —indeed 30′ of motion in *antecedentia*, and at setting just as much must be added in *consequentia*, so that in this way every single day, winter and summer alike, must perpetually be lengthened by 4 minutes of an hour — and that on the assumption that the earth is exactly round. For where mountains and hills overshadow a place around the horizon, the days turn out shorter than they properly are.

Suppose, for instance, that the length of the day is to be found for 1595 May 24 of the reformed calendar. First I take the Sun's place from the Ephemerides as computed according to the precepts of the Prutenic Tables, and the Sun is found at the time of noon in about 2° 14′ ♊. Next I consult the first of the appended tables with the Sun's place. Since the table is computed only to degrees and not to minutes, I first see what falls at the common angle for 2° ♊. The day-length that agrees with it is $15^h\ 52^m\ 56^s$. I then compare this figure with the next one, which stands at $15^h\ 55^m\ 36^s$, and, to gather the proportional part, I look for the difference, which is found to be 2′ 40″. Finally, setting up this ἀναλογία [Greek: analogia, "proportion"] *— 1 degree gives 2′ 40″, what will 14 minutes give? — I obtain the proportional part by the operation: 37″ 20‴. This I add to the common angle, since the following number is the greater, and the day-length comes out at $15^h\ 53^m\ 33^s\ 20'''$. Subtracting this figure from 24 hours, the night is $8^h\ 6^m\ 26^s\ 40'''$. For the same day, following Tycho Brahe, the Sun is found in about 2° 35′ ♊; and so, from the table drawn up to his own principles, the length of the day will be $15^h\ 59^m\ 8^s$, and the night $8^h\ 0^m\ 52^s$.*

[Margin: "What is to be noted in the Tychonic calculation."]

Here, however, the following must be observed. Although the length of the summer days, while the Sun is northern, stands correctly in the second table, the length of the winter days, while the Sun is southern, has to be gathered in this way. First, let the 8 minutes of an hour there noted be subtracted from the length of the nights, so that the true length of the night may be established.

Then let the number of hours and minutes of the night be taken from 24 hours, and what remains is the correct length of the winter day.

For example: let the Sun be on the meridian at the beginning of ♐, and let the second table give the night as $15^h\ 52^m\ 1^s$. First, 8 minutes of an hour are to be subtracted, so that $15^h\ 44^m\ 1^s$ remains, which shows the true length of the night. Then this figure is taken from 24 hours, and there remain $8^h\ 15^m\ 59^s$ — the true length of the day.

To make sure that students of the stars [Astrophili] should not be without a similar short method for other places on earth that have a greater or a smaller latitude than our own, I have added a further table of day-lengths, constructed for most degrees of latitude, in accordance with what the ancient astronomers handed down and with the obliquity of the ecliptic as it is set at the present time by the Prutenic calculation. From it the semidiurnal or seminocturnal time — and from that the whole day and night — can be obtained by much the same procedure, provided only that some judgment is used.

Suppose, for example, that the length of the day is wanted at an elevation of the pole of 54°, for a place of the Sun in 14° 20′ ♏. Then, since the table is set out only for every third degree, the seminocturnal quantity is first sought for the number of degrees next below the one proposed to us, that is 12; and $7^h\ 30^m$ is offered. Next this figure is compared with the following one, $7^h\ 35^m$, which belongs to 15°; and the difference of 5 minutes is set out as a rule of three in this way: 3 degrees give 5′; what do the 2° 20′ give by which our figure differs from the lesser one in the table? The operation yields about 4 minutes, to be added to $7^h\ 30^m$. The seminocturnal time answering to the Sun's place comes out at $7^h\ 34^m$; so that at the latitude assumed and for the place of the Sun proposed the night will be $15^h\ 8^m$, and the day $8^h\ 52^m$.

[Margin: "What the reduction of time is, and why it is undertaken."]

As for the reduction of time by which the civil or ordinary days, which people everywhere commonly use, are reduced to the astronomical days that astronomers employ in their writings and tables — it is certain that the same beginning of the day is not

Table of the length of days, showing the semidiurnal time and the hour of the Sun's setting while the Sun holds the northern signs; and the seminocturnal time and the hour of the Sun's rising while the Sun occupies the southern signs, ♎, ♏, ♐, ♑, ♒, and ♓

Tabula quantitatis dierum, monstrans tempus semidiurnum, & horam occasus Solis, tenente Sole signa Borealia: Tempus verò seminocturnum, & horam ortus Solis, occupant e Sole signa Australia, ♎, ♏, ♐, ♑, ♒, & ♓.

Sig. Bor. / Sig. Au. — Sign / Grad	6	12	16	20	24	27	30	32	34	35	36	37	38	39	Grad / Sign — Sig. Bor. / Sig. Au.
♎ ♈ 0	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	
3	6h 0m	6h 1m	6h 1m	6h 2m	6h 2m	6h 2m	6h 3m	6h 3m	6h 3m	6h 3m	6h 3m	6h 4m	6h 4m	6h 4m 27	
6	6h 1m	6h 2m	6h 3m	6h 4m	6h 4m	6h 5m	6h 6m	6h 6m	6h 6m	6h 6m	6h 7m	6h 7m	6h 7m	6h 8m	6h 8m 24	
9	6h 1m	6h 3m	6h 4m	6h 5m	6h 6m	6h 7m	6h 8m	6h 9m	6h 10m	6h 10m	6h 10m	6h 11m	6h 11m	6h 12m 21	
12	6h 2m	6h 4m	6h 5m	6h 7m	6h 8m	6h 10m	6h 11m	6h 12m	6h 13m	6h 13m	6h 14m	6h 14m	6h 15m	6h 15m 18	
15	6h 2m	6h 5m	6h 7m	6h 9m	6h 11m	6h 12m	6h 14m	6h 15m	6h 16m	6h 17m	6h 17m	6h 18m	6h 19m	6h 19m 15	
18	6h 3m	6h 6m	6h 8m	6h 10m	6h 13m	6h 14m	6h 16m	6h 18m	6h 19m	6h 20m	6h 21m	6h 22m	6h 22m	6h 23m 12	
21	6h 3m	6h 7m	6h 9m	6h 12m	6h 15m	6h 17m	6h 19m	6h 21m	6h 22m	6h 23m	6h 24m	6h 25m	6h 26m	6h 27m 9	
24	6h 4m	6h 8m	6h 11m	6h 14m	6h 17m	6h 19m	6h 22m	6h 24m	6h 25m	6h 26m	6h 27m	6h 28m	6h 30m	6h 31m 6	
27	6h 4m	6h 9m	6h 12m	6h 15m	6h 19m	6h 22m	6h 24m	6h 27m	6h 28m	6h 30m	6h 31m	6h 32m	6h 33m	6h 34m 3	
♏ ♉ 0	6h 5m	6h 10m	6h 13m	6h 17m	6h 21m	6h 24m	6h 27m	6h 29m	6h 31m	6h 33m	6h 34m	6h 35m	6h 37m	6h 38m ♃ ♓ 0	
3	6h 5m	6h 11m	6h 14m	6h 18m	6h 22m	6h 26m	6h 29m	6h 32m	6h 34m	6h 36m	6h 37m	6h 39m	6h 40m	6h 41m 27	
6	6h 6m	6h 12m	6h 16m	6h 20m	6h 24m	6h 28m	6h 32m	6h 35m	6h 37m	6h 39m	6h 40m	6h 42m	6h 43m	6h 45m 24	
9	6h 6m	6h 13m	6h 17m	6h 22m	6h 26m	6h 30m	6h 34m	6h 37m	6h 40m	6h 42m	6h 43m	6h 45m	6h 47m	6h 48m 21	
12	6h 7m	6h 13m	6h 18m	6h 23m	6h 28m	6h 32m	6h 37m	6h 40m	6h 43m	6h 45m	6h 46m	6h 48m	6h 50m	6h 52m 18	
15	6h 7m	6h 14m	6h 19m	6h 24m	6h 30m	6h 34m	6h 39m	6h 42m	6h 46m	6h 48m	6h 49m	6h 51m	6h 53m	6h 55m 15	
18	6h 7m	6h 15m	6h 20m	6h 26m	6h 32m	6h 36m	6h 41m	6h 45m	6h 49m	6h 50m	6h 52m	6h 54m	6h 56m	6h 58m 12	
21	6h 8m	6h 16m	6h 21m	6h 27m	6h 33m	6h 38m	6h 43m	6h 47m	6h 51m	6h 52m	6h 55m	6h 57m	6h 59m	7h 1m 9	
24	6h 8m	6h 17m	6h 22m	6h 28m	6h 35m	6h 40m	6h 45m	6h 49m	6h 53m	6h 55m	6h 57m	7h 0m	7h 2m	7h 4m 6	
27	6h 8m	6h 17m	6h 23m	6h 30m	6h 36m	6h 42m	6h 47m	6h 51m	6h 56m	6h 57m	7h 0m	7h 2m	7h 4m	7h 7m 3	
♐ ♊ 0	6h 9m	6h 18m	6h 24m	6h 31m	6h 38m	6h 43m	6h 49m	6h 53m	6h 58m	7h 0m	7h 2m	7h 4m	7h 7m	7h 9m ♌ ♒ 0	
3	6h 9m	6h 19m	6h 25m	6h 32m	6h 39m	6h 45m	6h 51m	6h 55m	7h 0m	7h 2m	7h 4m	7h 6m	7h 9m	7h 12m 27	
6	6h 9m	6h 19m	6h 26m	6h 33m	6h 40m	6h 46m	6h 52m	6h 56m	7h 2m	7h 4m	7h 6m	7h 8m	7h 11m	7h 14m 24	
9	6h 10m	6h 20m	6h 26m	6h 34m	6h 41m	6h 47m	6h 54m	6h 58m	7h 4m	7h 6m	7h 8m	7h 10m	7h 13m	7h 16m 21	
12	6h 10m	6h 20m	6h 27m	6h 34m	6h 42m	6h 48m	6h 55m	6h 59m	7h 5m	7h 7m	7h 9m	7h 12m	7h 15m	7h 17m 18	
15	6h 10m	6h 20m	6h 27m	6h 35m	6h 43m	6h 49m	6h 56m	7h 0m	7h 6m	7h 9m	7h 11m	7h 13m	7h 16m	7h 19m 15	
18	6h 10m	6h 20m	6h 28m	6h 35m	6h 43m	6h 50m	6h 56m	7h 1m	7h 7m	7h 9m	7h 12m	7h 14m	7h 17m	7h 20m 12	
21	6h 10m	6h 21m	6h 28m	6h 36m	6h 44m	6h 50m	6h 57m	7h 2m	7h 7m	7h 10m	7h 13m	7h 15m	7h 18m	7h 21m 9	
24	6h 10m	6h 21m	6h 28m	6h 36m	6h 44m	6h 51m	6h 58m	7h 3m	7h 8m	7h 10m	7h 15m	7h 16m	7h 18m	7h 22m 6	
27	6h 10m	6h 21m	6h 29m	6h 36m	6h 45m	6h 51m	6h 58m	7h 3m	7h 8m	7h 11m	7h 14m	7h 16m	7h 19m	7h 22m 3	
30	6h 10m	6h 21m	6h 29m	6h 36m	6h 45m	6h 51m	6h 58m	7h 3m	7h 8m	7h 11m	7h 14m	7h 17m	7h 19m	7h 22m ♋ ♍ 0	
Polus															

Sub & prope æquatorem perpetuum ferè est æquinoctium, nec sensibiliter dies á noctibus differunt; quod horizon rectus, circulos dierum civilium & Astronomicorum in duas æquales partes in centris secet; quodq; in sphæra recta, quivis Eclipticæ semicirculus cum semicirculo æquatoris ascendat & descendat.

Under the equator and near it there is an almost perpetual equinox, and the days do not differ appreciably from the nights. The reason is that the right horizon cuts the circles of the civil and of the astronomical days into two equal parts at their centres, and that in the right sphere any semicircle of the ecliptic rises and sets together with a semicircle of the equator.

Table of the length of days, showing — while the Sun turns in the signs … and while the Sun is in the southern signs — the time …

Tabula quantiatis dierum, ostendens Sole versante in signis / Sole verò existente in signis Australibus tempus[33]

Sig. Bor. / Sig. Au. — Sign / Grad	40	41	42	43	44	45	46	47	48	49	50	51	52	53	Grad / Sign — Sig. Bor. / Sig. Au.
♎ ♈ 0	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	30
3	6h 4m	6h 4m	6h 4m	6h 4m	6h 5m	6h 5m	6h 5m	6h 5m	6h 5m	6h 6m	6h 6m	6h 6m	6h 6m	6h 6m	27
6	6h 8m	6h 8m	6h 9m	6h 9m	6h 9m	6h 10m	6h 10m	6h 10m	6h 11m	6h 11m	6h 11m	6h 12m	6h 12m	6h 13m	24
9	6h 12m	6h 12m	6h 13m	6h 13m	6h 14m	6h 14m	6h 15m	6h 15m	6h 16m	6h 16m	6h 17m	6h 18m	6h 18m	6h 19m	21
12	6h 16m	6h 17m	6h 17m	6h 18m	6h 18m	6h 19m	6h 20m	6h 20m	6h 21m	6h 22m	6h 23m	6h 24m	6h 24m	6h 25m	18
15	6h 20m	6h 21m	6h 21m	6h 22m	6h 23m	6h 24m	6h 25m	6h 26m	6h 27m	6h 27m	6h 28m	6h 29m	6h 31m	6h 32m	15
18	6h 24m	6h 25m	6h 26m	6h 27m	6h 27m	6h 29m	6h 30m	6h 31m	6h 32m	6h 33m	6h 34m	6h 35m	6h 37m	6h 38m	12
21	6h 28m	6h 29m	6h 30m	6h 31m	6h 32m	6h 33m	6h 34m	6h 36m	6h 37m	6h 38m	6h 40m	6h 41m	6h 43m	6h 44m	9
24	6h 32m	6h 33m	6h 34m	6h 35m	6h 36m	6h 38m	6h 39m	6h 41m	6h 42m	6h 44m	6h 45m	6h 47m	6h 49m	6h 50m	6
27	6h 36m	6h 37m	6h 38m	6h 40m	6h 41m	6h 43m	6h 44m	6h 46m	6h 47m	6h 49m	6h 51m	6h 53m	6h 55m	6h 57m	3
♏ ♉ 0	6h 39m	6h 41m	6h 42m	6h 44m	6h 45m	6h 47m	6h 49m	6h 50m	6h 52m	6h 54m	6h 56m	6h 58m	7h 0m	7h 3m	♍ ♓ 0
3	6h 43m	6h 45m	6h 46m	6h 48m	6h 50m	6h 51m	6h 53m	6h 55m	6h 57m	6h 59m	7h 1m	7h 4m	7h 6m	7h 9m	27
6	6h 47m	6h 48m	6h 50m	6h 52m	6h 54m	6h 56m	6h 57m	7h 0m	7h 2m	7h 4m	7h 7m	7h 9m	7h 12m	7h 15m	24
9	6h 50m	6h 52m	6h 54m	6h 56m	6h 58m	7h 0m	7h 2m	7h 5m	7h 7m	7h 9m	7h 12m	7h 15m	7h 17m	7h 20m	21
12	6h 54m	6h 56m	6h 58m	7h 0m	7h 2m	7h 4m	7h 7m	7h 9m	7h 12m	7h 14m	7h 17m	7h 20m	7h 23m	7h 26m	18
15	6h 57m	6h 59m	7h 1m	7h 4m	7h 6m	7h 8m	7h 11m	7h 13m	7h 17m	7h 19m	7h 22m	7h 25m	7h 28m	7h 32m	15
18	7h 0m	7h 3m	7h 5m	7h 7m	7h 10m	7h 12m	7h 15m	7h 18m	7h 21m	7h 24m	7h 27m	7h 30m	7h 34m	7h 37m	12
21	7h 3m	7h 6m	7h 8m	7h 11m	7h 13m	7h 16m	7h 19m	7h 22m	7h 25m	7h 28m	7h 31m	7h 35m	7h 39m	7h 42m	9
24	7h 6m	7h 9m	7h 11m	7h 14m	7h 17m	7h 20m	7h 23m	7h 26m	7h 29m	7h 32m	7h 36m	7h 39m	7h 43m	7h 47m	6
27	7h 9m	7h 12m	7h 14m	7h 17m	7h 20m	7h 23m	7h 26m	7h 29m	7h 33m	7h 36m	7h 40m	7h 44m	7h 48m	7h 52m	3
♐ ♊ 0	7h 12m	7h 15m	7h 17m	7h 20m	7h 23m	7h 26m	7h 30m	7h 33m	7h 36m	7h 40m	7h 44m	7h 48m	7h 52m	7h 57m	♎ ♒ 0
3	7h 14m	7h 17m	7h 20m	7h 23m	7h 26m	7h 29m	7h 33m	7h 36m	7h 40m	7h 44m	7h 48m	7h 52m	7h 56m	8h 1m	27
6	7h 16m	7h 19m	7h 23m	7h 26m	7h 29m	7h 32m	7h 36m	7h 39m	7h 43m	7h 47m	7h 51m	7h 56m	8h 0m	8h 5m	24
9	7h 18m	7h 21m	7h 25m	7h 28m	7h 31m	7h 35m	7h 38m	7h 42m	7h 46m	7h 50m	7h 54m	7h 59m	8h 4m	8h 9m	21
12	7h 20m	7h 23m	7h 27m	7h 30m	7h 33m	7h 37m	7h 40m	7h 44m	7h 48m	7h 53m	7h 57m	8h 2m	8h 7m	8h 12m	18
15	7h 22m	7h 25m	7h 28m	7h 32m	7h 35m	7h 39m	7h 42m	7h 46m	7h 50m	7h 55m	7h 56m	8h 4m	8h 9m	8h 15m	15
18	7h 23m	7h 26m	7h 30m	7h 33m	7h 37m	7h 40m	7h 44m	7h 48m	7h 52m	7h 57m	8h 1m	8h 6m	8h 11m	8h 17m	12
21	7h 24m	7h 27m	7h 31m	7h 34m	7h 38m	7h 42m	7h 45m	7h 49m	7h 54m	7h 58m	8h 3m	8h 8m	8h 13m	8h 19m	9
24	7h 25m	7h 28m	7h 32m	7h 35m	7h 39m	7h 42m	7h 46m	7h 50m	7h 55m	7h 59m	8h 4m	8h 9m	8h 14m	8h 20m	6
27	7h 25m	7h 29m	7h 32m	7h 35m	7h 39m	7h 43m	7h 47m	7h 51m	7h 56m	8h 0m	8h 4m	8h 10m	8h 15m	8h 21m	3
30	7h 26m	7h 29m	7h 32m	7h 36m	7h 39m	7h 43m	7h 47m	7h 51m	7h 56m	8h 0m	8h 5m	8h 10m	8h 15m	8h 21m	♑ ♍ 0
Polus															

In the oblique sphere, by contrast, once we move some degrees from the equator toward the north, only two days in the year are equal to their nights

[33] the heading of this second table is set across the opening: its two lines, ending here with *in signis* and *tempus*, are completed on the facing page. The first word is set *quantiatis*, against *quantitatis* on the preceding page.

— namely when the Sun stands at the beginning of Aries and of Libra. The reason is that the oblique horizon cuts only the equator, out of all the circles of the civil and astronomical days, into two equal parts at its centre; and that only those halves of the ecliptic which begin from the equinoctial intersections rise and set together with halves of the equator.

…Borealibus tempus semidiurnum vel horam occasus Solis: … seminocturnum, vel horam ortus Solis.

—northern: the semidiurnal time or the hour of the Sun's setting: … seminocturnal, or the hour of the Sun's rising.[34]

Sig. Bor. / Sig. Au. — Sign / Grad	54	55	56	57	58	59	60	61	62	63	64	65	66	66 32	Grad / Sign — Sig. Bor. / Sig. Au.
♎ ♈	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	30
3	6h 7m	6h 7m	6h 7m	6h 7m	6h 8m	6h 8m	6h 8m	6h 9m	6h 9m	6h 9m	6h 10m	6h 10m	6h 11m	6h 11m	27
6	6h 13m	6h 14m	6h 14m	6h 15m	6h 15m	6h 16m	6h 17m	6h 17m	6h 18m	6h 19m	6h 20m	6h 20m	6h 22m	6h 22m	24
9	6h 20m	6h 20m	6h 21m	6h 22m	6h 23m	6h 24m	6h 25m	6h 26m	6h 27m	6h 28m	6h 29m	6h 30m	6h 23m	6h 33m	21
12	6h 26m	6h 27m	6h 28m	6h 29m	6h 31m	6h 32m	6h 33m	6h 35m	6h 36m	6h 38m	6h 39m	6h 41m	6h 43m	6h 44m	18
15	6h 33m	6h 34m	6h 35m	6h 37m	6h 38m	6h 40m	6h 24m[35]	6h 43m	6h 45m	6h 47m	6h 49m	6h 51m	6h 53m	6h 55m	15
18	6h 39m	6h 41m	6h 42m	6h 44m	6h 46m	6h 48m	6h 50m	6h 52m	6h 54m	6h 57m	6h 59m	7h 1m	7h 4m	7h 6m	12
21	6h 46m	6h 48m	6h 49m	6h 51m	6h 53m	6h 56m	6h 58m	7h 0m	7h 3m	7h 6m	7h 9m	7h 12m	7h 15m	7h 18m	9
24	6h 52m	6h 54m	6h 56m	6h 59m	7h 1m	7h 4m	7h 6m	7h 9m	7h 12m	7h 16m	7h 19m	7h 22m	7h 26m	7h 29m	6
27	6h 59m	7h 1m	7h 3m	7h 6m	7h 8m	7h 12m	7h 15m	8h 17m [rectius 7h 17m]	7h 21m	7h 25m	7h 29m	7h 32m	7h 37m	7h 40m	3
♏ ♉	7h 5m	7h 8m	7h 10m	7h 13m	7h 16m	7h 19m	7h 23m	7h 26m	7h 30m	7h 34m	7h 38m	7h 43m	7h 48m	7h 51m	♍ ♓
3	7h 11m	7h 14m	7h 17m	7h 20m	7h 23m	7h 27m	7h 31m	7h 34m	7h 39m	7h 44m	7h 48m	7h 53m	7h 59m	8h 3m	27
6	7h 17m	7h 21m	7h 24m	7h 27m	7h 31m	7h 35m	7h 39m	7h 43m	7h 48m	7h 53m	7h 58m	8h 4m	8h 11m	8h 14m	24
9	7h 24m	7h 27m	7h 30m	7h 33m	7h 38m	7h 43m	7h 47m	7h 52m	7h 57m	8h 3m	8h 8m	8h 14m	8h 22m	8h 26m	21
12	7h 30m	7h 33m	7h 37m	7h 41m	7h 45m	7h 50m	7h 55m	8h 0m	8h 6m	8h 12m	8h 18m	8h 25m	8h 34m	8h 38m	18
15	7h 35m	7h 39m	7h 43m	7h 48m	7h 52m	7h 57m	8h 3m	8h 8m	8h 14m	8h 21m	8h 28m	8h 35m	8h 45m	8h 50m	15
18	7h 41m	7h 45m	7h 49m	7h 54m	7h 59m	8h 4m	8h 10m	8h 16m	8h 23m	8h 30m	8h 38m	8h 46m	8h 56m	9h 2m	12
21	7h 47m	7h 51m	7h 56m	8h 0m	8h 6m	8h 11m	8h 18m	8h 24m	8h 31m	8h 39m	8h 47m	8h 56m	9h 8m	9h 14m	9
24	7h 52m	7h 56m	8h 1m	8h 6m	8h 12m	8h 18m	8h 25m	8h 32m	8h 40m	8h 48m	8h 57m	9h 7m	9h 19m	9h 27m	6
27	7h 57m	8h 2m	8h 7m	8h 12m	8h 18m	8h 25m	8h 32m	8h 39m	8h 48m	8h 56m	9h 7m	9h 17m	9h 31m	9h 39m	3
♐ ♊	8h 2m	8h 7m	8h 12m	8h 18m	8h 24m	8h 31m	8h 38m	8h 47m	8h 55m	9h 5m	9h 16m	9h 28m	9h 42m	9h 52m	♌ ♒
3	8h 6m	8h 12m	8h 17m	8h 23m	8h 30m	8h 37m	8h 44m	8h 54m	9h 2m	9h 13m	9h 25m	9h 38m	[rectius 9h 54m	10h 4m	27
6	8h 10m	8h 16m	8h 22m	8h 28m	8h 35m	8h 43m	8h 50m	9h 2m	9h 9m	9h 21m	9h 33m	9h 48m	10h 5m	10h 16m	24
9	8h 14m	8h 20m	8h 26m	8h 33m	8h 40m	8h 48m	8h 56m	9h 7m	9h 15m	9h 28m	9h 41m	9h 57m	10h 16m	10h 29m	21
12	8h 17m	8h 23m	8h 30m	8h 37m	8h 44m	8h 53m	9h 1m	9h 12m	9h 21m	9h 34m	9h 48m	10h 6m	10h 27m	10h 42m	18
15	8h 20m	8h 26m	8h 33m	8h 40m	8h 48m	8h 57m	9h 5m	9h 16m	9h 26m	9h 40m	9h 55m	10h 14m	10h 37m	10h 55m	15
18	8h 23m	8h 29m	8h 36m	8h 43m	8h 51m	9h 0m	9h 9m [rectius 9h 9m]	9h 20m	9h 31m	9h 45m	10h 1m	10h 21m	10h 46m	11h 8m	12

[34] this heading continues, line for line, the two lines on the facing page.

[35] so printed; the entry must lie between 6h 30m and 6h 33m

[36] so printed; the entry must lie between 6h 40m and 6h 43m

Sig. Bor. / Sig. Au. — Sign / Grad	54	55	56	57	58	59	60	61	62	63	64	65	66	32	Grad / Sign — Sig. Bor. / Sig. Au.
21	8h 25m8h	31m8h	38m8h	45m8h	53m9h	2m9h	12m	9h 23m	9h 35m9h	49m10h	5m10h	27m	10h	55m11h	21m9
24	8h 26m8h	32m8h	39m8h	47m8h	55m9h	4m9h	14m	9h 25m	9h 37m9h	52m10h	9m10h	31m	11h	3m11h	34m8
27	8h 27m8h	33m8h	40m8h	48m8h	56m9h	5m9h	15m	9h 26m	9h 39m9h	54m10h	11m10h	34m	11h	7m11h	47m
30	8h 27m8h	34m8h	41m8h	48m8h	56m9h	5m9h	15m	9h 27m	9h 40m9h	55m10h	12m10h	35m	11h	9m12h	0m♋ ♍
Polus															

Reliqui in sphæra obliquâ extra intersectiones æquinoctiales dies, vel noctes superant, cum Sol in Septentrionali Zodiaci medietate versatur; propterea quod horizon obliquius Septentrionalis, circulos dierum civilium ab æquatore versus Septentrionem deviantes infra centra secet, maioráque segmenta supra, minora infra horizontem habeat; quodq; plures Zodiaci gradus rectè pauciores oblique de die ascendant & descendant. Vel á noctibus superantur, cum Sol signa Australia tenet, quod horizon circulos dierum Australes supra centrum secet, pluresque Zodiaci gradus obliquè pauciores rectè de die oriantur.

The remaining days in the oblique sphere, away from the equinoctial intersections, exceed the nights while the Sun is in the northern half of the zodiac. The reason is that the more oblique northern horizon cuts the circles of the civil days below their centres as those circles run away from the equator towards the north, and so has the larger segments above the horizon and the smaller below; and because more degrees of the zodiac rise and set straight, and fewer obliquely, during the day. Or else they are exceeded by the nights, when the Sun holds the southern signs, because there the horizon cuts the southern day-circles above the centre, and more degrees of the zodiac rise obliquely by day, and fewer straight.

Table of the length of days, showing the semidiurnal time and the hour of the Sun's setting while the Sun holds the northern signs; and the seminocturnal time and the hour of the Sun's rising while the Sun occupies the southern signs, ♎, ♏, ♐, ♍, ♒, and ♓

Tabula quantitatis dierum monstrans tempus semidiurnum, & horam occasus Solis, tenente Sole signa Borealia: Tempus verò seminocturnum, & horam ortus Solis, occupante Sole signa Australia ♎, ♏, ♐, ♍, ♒, & ♓.

Sign / Grad	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Grad / Sign
♎ ♈	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	6h 0m	30

Sign / Grad	67	68	69	70	71	72	73	74	75	76	77	78	79	80	Grad / Sign
3	6h 11m	6h 12m	6h 12m	9h 13m [recte: 6h 13m]	6h 13m	6h 14m	6h 15m	6h 16m	6h 18m	6h 19m	6h 21m	6h 23m	6h 25m	6h 27m	27
6	6h 23m	6h 24m	6h 25m	6h 26m	6h 27m	6h 29m	6h 31m	6h 33m	6h 36m	6h 38m	6h 42m	6h 46m	6h 50m	6h 55m	24
9	6h 34m	6h 35m	6h 37m	6h 39m	6h 41m	6h 44m	6h 47m	6h 50m	6h 54m	6h 58m	7h 3m	7h 9m	7h 15m	7h 23m	21
12	6h 45m	6h 47m	6h 50m	6h 53m	6h 56m	7h 0m	7h 3m	7h 7m	7h 12m	7h 18m	7h 24m	7h 32m	7h 41m	7h 52m	18
15	6h 56m	6h 59m	7h 2m	7h 6m	7h 10m	7h 16m	7h 20m	7h 24m	7h 31m	7h 38m	7h 46m	7h 57m	8h 9m	8h 24m	15
18	7h 8m	7h 11m	7h 15m	7h 20m	7h 25m	7h 31m	7h 36m	7h 42m	7h 50m	7h 59m	8h 10m	8h 23m	8h 39m	9h 0m	12
21	7h 20m	7h 23m	7h 28m	7h 33m	7h 40m	7h 46m	7h 52m	8h 1m	8h 10m	8h 21m	8h 35m	8h 51m	9h 11m	9h 40m	9
24	7h 31m	7h 36m	7h 41m	7h 47m	7h 55m	8h 2m	8h 9m	8h 20m	8h 31m	8h 44m	9h 1m	9h 22m	9h 50m	10h 32m	♍
27	7h 42m	7h 48m	7h 55m	8h 2m	8h 10m	8h 18m	8h 27m	8h 40m	8h 53m	9h 9m	9h 31m	10h 4m	10h 46m		3
♍ ♉	7h 54m	8h 1m	8h 8m	8h 16m	8h 25m	8h 35m	8h 46m	9h 0m	9h 17m	9h 38m	10h 6m	10h 52m			♍ ♓
3	8h 6m	8h 13m	8h 22m	8h 31m	8h 40m	8h 52m	9h 6m	9h 23m	9h 44m	10h 12m	10h 57m				27
6	8h 18m	8h 26m	8h 35m	8h 46m	8h 56m	9h 10m	9h 28m	9h 48m	10h 16m	11h 0m					24
9	8h 30m	8h 39m	8h 49m	9h 2m	9h 14m	9h 31m	9h 51m	10h 18m	11h 0m						21
12	8h 42m	8h 53m	9h 4m	9h 18m	9h 33m	9h 53m	10h 19m	10h 59m							18
15	8h 55m	9h 6m	9h 20m	9h 35m	9h 54m	10h 18m	10h 55m								15
18	9h 7m	9h 20m	9h 36m	9h 53m	10h 16m	10h 50m									12
21	9h 20m	9h 34m	9h 52m	10h 13m	10h 44m										9
24	9h 33m	9h 49m	10h 10m	10h 37m	11h 35m										6
27	9h 46m	10h 5m	10h 30m	11h 7m											3
♐ ♊	10h 0m	10h 22m	10h 52m												30
3	10h 13m	10h 40m	11h 26m												27
6	10h 26m	11h 0m													24
9	10h 38m	11h 30m													21
12	10h 59m														18
15	11h 16m														15
18	11h 41m														12
21															9 ♋ ♈

In his locis, quæ numeris horarum & minutorum destituuntur; in Septentrionali quidem terræ medietate, Sol dum in Septentrionalibus signis versatur, semper supra horizontem est, & lucem continuat, in Antalib. [recte: Australib.] infra horizontem commoratur & tenebras supra terram relinquit. In Australi verò terræ medietate contrarium fit, Sol enim dū in Australib. signis est lucem efficit. In Septētrionalib. sua absentia tenebras relinquit.

In the places that are left without figures of hours and minutes: in the northern half of the earth, the Sun is always above the horizon while it is in the northern signs, and keeps the light unbroken; while it is in the southern signs it stays below the horizon and leaves darkness over the land. In the southern half of the earth the opposite happens, for there the Sun makes daylight while it is in the southern signs, and by its absence leaves darkness while it is in the northern.

Sign / Grad	81	82	83	84	85	86	87	88	89 / 90	Grad / Sign
♎ ♈ 0	6^h 0^m	6^h 0^m	6^h 0^m	6^h 0^m	6^h 0^m	6^h 0^m	6^h 0^m	6^h 0^m		30
3	6^h 30^m	6^h 34^m	6^h 46^m	6^h 55^m	7^h 9^m	7^h 34^m	8^h 26^m			27
6	7^h 1^m	7^h 9^m	7^h 35^m	7^h 54^m	8^h 26^m	9^h 31^m				24
9	7^h 33^m	7^h 46^m	8^h 26^m	9^h 2^m	10^h 13^m					21
12	8^h 6^m	8^h 25^m	9^h 29^m	10^h 48^m						18
15	8^h 44^m	9^h 10^m	11^h 22^m							15
18	9^h 26^m	10^h 8^m								12
21	10^h 2^m									9
24										♍ ♓
♏ ♉										♌ ♒
♐ ♊										♋ ♑
Polus										

In locis sub polis, ut nox ita & dies medietatem integram anni continet. Et exiguum admodum est ſpacium temporis in quo fit vicissitudo dierum & noctium.

At the places under the poles the day, like the night, takes up a whole half of the year; and the interval of time within which the change from day to night occurs is very short indeed.

[Margin: "The various beginnings of the civil day."]

—held by all nations, but that they differ by a certain design of their own, some beginning the day and the numbering of the hours from sunrise, others from noon, others from sunset, and others again from midnight.

[Margin: "Some begin the day from the Sun's rising."]

First, then, the Babylonians — a practice the people of Nuremberg also observe — begin the day from the Sun's rising, perhaps because that beginning is the one best suited to nature, and because, as it is the beginning of the natural day, so it is also the beginning of the civil day.

[Margin: "Others from noon."]

2. The Umbrians — and with them the greater part of the world, the Egyptians, the Arabs and the astronomers — take the day's start from noon, on the ground that the meridian everywhere imitates the right horizon, and so the manner of numbering the days would be the same everywhere as well.

[Margin: "Others from sunset."]

3. The Jews begin from the setting of the Sun, as the Athenians once did too, and as the Silesians, Bohemians, Marcomanni, Austrians and Italians do now, whose clocks end the numbering of the civil day at the 24th hour at sunset.

[Margin: "Others from midnight."]

3. The Mysians begin the day at midnight; and it is to that beginning that the Prutenic Tables too are constructed, as being the hour of the Nativity of Christ. The Germans, however, commonly begin the day both from midnight and from noon, since the clocks in ordinary use return to the start of their numbering at each of these two times.

[Margin: "The method of reducing civil time to astronomical time."]

In reducing civil days to astronomical ones, then, the first thing to see is whether the day's beginning is taken from sunset or from sunrise, or whether it is taken from noon or from midnight. If the day begins at noon, no reduction at all is needed. If it begins at midnight, one has only to add 12 hours to the hours counted from midnight, and astronomical time results. But if the day's beginning is taken from the setting of the Sun, then the second step is to find the length of the natural day just completed, and from that to gather the semidiurnal time — that is, the hours elapsed from noon to the Sun's setting. Finally the given time, counted in hours from sunset, is added to the semidiurnal time, and astronomical time is produced.

For example: by this manner of counting there is given, at Frankfurt for the year 1605 March 19, $19^h\ 30^m$; and it is asked what the astronomical hour is. Here, since the day's beginning is taken from sunset, I first look for the length of the immediately preceding day, that is of March 18, by the precepts laid down; and since by the Prutenic calculation the Sun stands in 7° 18′ 19″ ♈, I find $12^h\ 30^m\ 11^s$. Next I halve this figure, and the semidiurnal time comes out at $6^h\ 15^m\ 5^s$. To this I add at the end the given 19 hours, and from that comes the astronomical time, $25^h\ 45^m\ 5^s$. From this I subtract 24 hours, since it exceeds noon, and $1^h\ 45^m\ 5^s$ remains. In some places, however, a further half-hour must be added, because some reckon the first minute of the first hour from half an hour after the Sun's setting.

So if the day's beginning is taken from the Sun's rising, then one must consider carefully into what hour and what minute the Sun's rising falls by the astronomical numbering of the hours. For the given time added to those hours produces the astronomical time.

For example: by the Nuremberg clock, on our own horizon of Frankfurt, there is given for the year 1605 March 19 the hour $8^h\ 2^m\ 12^s$; and it is asked what the astronomical hour is. Here, since the day's beginning is taken from sunrise, I first look for the length of the day proposed, and from it gather the Sun's rising. I find the length from the Sun's place in 8° 17′ 31″ ♈ to be $12^h\ 34^m\ 15^s$, and the semidiurnal time $6^h\ 17^m\ 7^s$. From this the Sun's rising, after the semidiurnal time has been taken from 24 hours, falls at the astronomical hour $17^h\ 42^m\ 53^s$. I then add the given hours, and the astronomical time emerges, after 24 hours have been cast away, as $1^h\ 45^m\ 5^s$ — answering to the hour $8^h\ 2^m\ 12^s$ as counted on a clock reckoning from sunrise.

Caput VI.

De æquatione temporis & reductione Ephemeridum ad alia terræ loca.

(Chapter VI. On the equation of time, and on the reduction of the Ephemerides to other places on the earth.)

[Margin: "The heaven in perpetual motion."]

[Margin: "Motion is the measure of time, and time of motion itself."]

[Margin: "Motion and time are necessarily presupposed to be uniform."]

The heavenly bodies are in unceasing motion, and at every interval of time and place — however small — they are found differently disposed. Their disposition has to be learned from the time, just as the quantity of time has to be learned from the motion, and that at some one definite place on the earth; and both measures have to be uniform. Astronomers have therefore supposed and established not only uniform or mean motions and uniform or mean times, but also fixed meridians on the earth, by which the heaven is variously divided along its longitude. To these they refer every variety of motion and of time as to a standard, and with admirable force and deftness of mind they explain it, making a comparison as well wherever one is needed.

[Margin: "Afterwards, however, they are brought back to the apparent state by equations."]

[Margin: "The Ephemerides are written to uniform time, and are brought back to apparent time by the equation."]

This is why all astronomical tables set out first the mean motions and then the fixed προθαφερέσεις *[Greek: prosthaphereseis, "the prosthaphaereses, the equations"] by which the mean motions are reduced to the true or apparent ones. Our own Ephemerides are framed in just the same way: they give the true places of the planets, and their syzygies, for each single day of the months, and they are computed to a time everywhere alike and uniform and to one definite meridian, to which alone they answer. So unless the equation of time is applied within that same meridian, they can in no way answer to the true or apparent time; and unless a reduction is made to other places on the earth, they can in no way serve different meridians. We judged it worth the labour, therefore, to set out briefly here whatever seemed necessary concerning the equation and the reduction of time, for a fuller understanding and use of our Ephemerides.*

To take first the equation, as the more general matter: apparent time is certainly not uniform — neither on Copernicus's reckoning, nor in the Prutenic Tables which Erasmus Reinhold derived from him, nor in our Ephemerides — and that for the following two causes.

[Margin: "Apparent time is non-uniform, on Copernicus's account, for two causes. 1"]

The first cause is that the annual periods of the Sun do not agree with one another.

They cannot agree, first, because the precession of the equinoxes is not uniform, but now faster and now slower. It is faster when the prosthaphaeresis of precession — which is obtained from the doubled anomaly of the equinoxes, as precept 10 of the Prutenic Tables teaches, out of Revolutions bk. 2 ch. 12 (Copernicus, De revolutionibus *II.12) — is subtractive and decreasing, or additive and increasing. It is slower when that same prosthaphaeresis is either additive and decreasing or subtractive and increasing; yet it never exceeds 1° 11′ 22″ 30‴. Secondly, because the advance of the Sun's apogee along the longitude of the zodiac is not uniform: partly on account of the varying equation of the Sun's centre, which is at one time to be added to, at another subtracted from, the difference that emerges when the Sun's annual anomaly is subtracted from the motion in longitude; and partly on account of the unequal precession of the equinoxes,*

as precept 16 of the Prutenic Tables teaches, out of bk. 3 ch. 20 of Copernicus's Revolutions. For this is why the quantity of the true or apparent tropical year comes out different in different cases: the greatest is $365^d\ 5^h\ 55^m\ 53^s$, while the least, over and above the days and hours just stated, is $42^m\ 38^s$, so that the difference between —the greatest and the least, of $13^m\ 15^s$. See precept 21 of the Prutenic Tables.

The second cause is that the daily revolutions of the Sun also differ from one another.

They differ for these reasons. 1. Because the Sun's motion is found to be non-uniform — slower towards apogee, faster towards perigee. And this inequality of motion is not always the same, such that it should increase and decrease in the same way in any year whatever; rather, as the eccentricity is greater or smaller, so the inequality itself becomes greater or smaller. For the inequality grows as the eccentricity increases and shrinks as it decreases; and it is at its greatest when the eccentricity too is greatest. For then the swiftest motion, at the perigee of the eccentric, is 1° 1′ 43″, while at apogee the slowest is 56′ 46″. At the least eccentricity, on the other hand, the swiftest motion is found to be 1° 1′ 6″ and the slowest 57′ 18″. On this subject one may consult, for the eccentricity, precept 17 of the Prutenic Tables, and for the Sun's daily motion, precept 20.

2. Because, on account of the obliquity of the Sun's path — that is, of the ecliptic — even in the right sphere equal arcs of the ecliptic answer sometimes to more and sometimes to less of the equator, which is the measure of time; and so the right ascensions of the ecliptic, or the culminations, differ, and the arcs that ascend more directly lengthen the day while those that ascend more obliquely shorten it. Since that obliquity itself also varies, a difference of the days arises from this cause as well.

Since, then, for these causes the civil days — numbered from the meridian in the astronomers' manner — are unequal among themselves, it is plain, given that the measure of the motions has to be uniform, that an equation of time is thoroughly necessary; one by which not only are the unequal or true days brought back to mean or equal ones, but the mean days are in turn brought back to the true and apparent ones.

[Margin: "The precepts of the equation of time."]

That equation is made from the Canon of the προθαφαιρέσεων [Greek: prosthaphaireseōn, "of the prosthaphaereses", the equations] of civil days, which we composed for the year 1620 and which can be applied, without perceptible error, to the 50 years before and after it, for investigating the motions in the Ephemerides derived from the Prutenic Tables. The procedure is this.

[Margin: 1]

First, for the time proposed, for which the equation is to be made, let the Sun's place answering to the prescribed time be sought in the Ephemeris.

[Margin: 2]

Second, with the Sun's place, let the Canon of the equation of civil days be consulted; and from it — the proportional part having been noted, if minutes attach to the degrees of the Sun's place — let the προθαφαίρεσις [Greek: prosthaphairesis] of time be sought, together with its mark, either **A** for addition or **S** for subtraction, written at the head of the table.

[Margin: 3]

Third, let the προθαφαίρεσις of time, as the mark requires, either be taken from the given time or else added to it, when uniform time is being converted into apparent; and apparent time comes out. But when apparent time is being converted into uniform, let the contrary be done to what the headings direct, and the mean time results.

[Margin: 1]

[Margin: 2]

For example. There is given 25 January of the reformed year 1595, on which the full moon fell at $11^h\ 55^m$ after noon, in our meridian of Frankfurt. This time, being uniform, is converted into apparent in the following way. First I look for the Sun's place from the Ephemeris, and find it at about 5° 7′ ♒. Then, with this place of the Sun, I consult the table of equations and seek from it the corresponding equation, looking for the sign ♒ at the head and the degrees at the left-hand side of the table. And since minutes attach to the degrees, I first see what the common angle for 5 degrees contains: there are found at 5° ♒, $5^m\ 34^s$ of an hour, with the mark S. Next I compare the common angle with the following one, which has $5^m\ 47^s$, subtracting the lesser from the greater; and the difference gathered is 13^s. I then set this out as a proportion, for the proportional part answering to the [numeral: ?] minutes, in this way: 1 degree, or 60 minutes, gives 13^s — what will 7 minutes give? There result $1^s\ 31'''$,

Canon προθαφαιρέσεως dierum Civilium, motibus ex tabulis Prutenicis deductis accommodatus

(Canon of the προθαφαιρέσεως [Greek: prosthaphaireseōs — "of the prosthaphaeresis"] of civil days, fitted to the motions derived from the Prutenic Tables.)

Gradus ♈ S	♉ A	♊ A	♋ A	♌ A	♍ A	♎ A	♏ A	♐ A	♑ A	♒ S	♓ S
0	$0^m\ 16^s$	$8^m\ 24^s$	$10^m\ 58^s$	$5^m\ 41^s$	$0^m\ 45^s$	$4^m\ 16^s$	$14^m\ 17^s$	$22^m\ 18^s$	$20^m\ 30^s$	$8^m\ 18^s$	$4^m\ 17^s$	$7^m\ 3^s$
	A											
1	$0^m\ 2^s$	$8^m\ 37^s$	$10^m\ 54^s$	$5^m\ 27^s$	$0^m\ 43^s$	$4^m\ 32^s$	$14^m\ 38^s$	$22^m\ 26^s$	$20^m\ 14^s$	$7^m\ 49^s$	$4^m\ 34^s$	$6^m\ 57^s$
2	$0^m\ 19^s$	$8^m\ 50^s$	$10^m\ 49^s$	$5^m\ 13^s$	$0^m\ 41^s$	$4^m\ 48^s$	$14^m\ 59^s$	$22^m\ 33^s$	$19^m\ 57^s$	$7^m\ 19^s$	$4^m\ 50^s$	$6^m\ 50^s$
3	$0^m\ 37^s$	$9^m\ 3^s$	$10^m\ 44^s$	$4^m\ 59^s$	$0^m\ 40^s$	$5^m\ 5^s$	$15^m\ 19^s$	$22^m\ 39^s$	$19^m\ 39^s$	$6^m\ 50^s$	$5^m\ 5^s$	$6^m\ 43^s$
4	$0^m\ 55^s$	$9^m\ 15^s$	$10^m\ 38^s$	$4^m\ 45^s$	$0^m\ 39^s$	$5^m\ 22^s$	$15^m\ 39^s$	$22^m\ 45^s$	$19^m\ 21^s$	$6^m\ 21^s$	$5^m\ 20^s$	$6^m\ 35^s$
5	$1^m\ 13^s$	$9^m\ 27^s$	$10^m\ 32^s$	$4^m\ 32^s$	$0^m\ 39^s$	$5^m\ 39^s$	$15^m\ 59^s$	$22^m\ 50^s$	$19^m\ 2^s$	$5^m\ 52^s$	$5^m\ 34^s$	$6^m\ 26^s$
6	$1^m\ 32^s$	$9^m\ 38^s$	$10^m\ 25^s$	$4^m\ 18^s$	$0^m\ 39^s$	$5^m\ 57^s$	$16^m\ 19^s$	$22^m\ 54^s$	$18^m\ 42^s$	$5^m\ 23^s$	$5^m\ 47^s$	$6^m\ 17^s$
7	$1^m\ 51^s$	$9^m\ 48^s$	$10^m\ 18^s$	$4^m\ 5^s$	$0^m\ 40^s$	$6^m\ 15^s$	$16^m\ 39^s$	$22^m\ 57^s$	$18^m\ 21^s$	$4^m\ 54^s$	$5^m\ 59^s$	$6^m\ 7^s$
8	$2^m\ 11^s$	$9^m\ 58^s$	$10^m\ 10^s$	$3^m\ 52^s$	$0^m\ 42^s$	$6^m\ 34^s$	$16^m\ 59^s$	$23^m\ 0^s$	$18^m\ 0^s$	$4^m\ 26^s$	$6^m\ 10^s$	$5^m\ 56^s$
9	$2^m\ 31^s$	$10^m\ 7^s$	$10^m\ 2^s$	$3^m\ 39^s$	$0^m\ 45^s$	$6^m\ 53^s$	$17^m\ 18^s$	$23^m\ 2^s$	$17^m\ 38^s$	$3^m\ 58^s$	$6^m\ 21^s$	$5^m\ 45^s$
10	$2^m\ 51^s$	$10^m\ 15^s$	$9^m\ 53^s$	$3^m\ 26^s$	$0^m\ 49^s$	$7^m\ 13^s$	$17^m\ 37^s$	$23^m\ 3^s$	$17^m\ 16^s$	$3^m\ 30^s$	$6^m\ 31^s$	$5^m\ 33^s$
11	$3^m\ 10^s$	$10^m\ 23^s$	$9^m\ 43^s$	$3^m\ 14^s$	$0^m\ 54^s$	$7^m\ 33^s$	$17^m\ 56^s$	$23^m\ 3^s$	$16^m\ 53^s$	$3^m\ 2^s$	$6^m\ 40^s$	$5^m\ 21^s$
12	$3^m\ 29^s$	$10^m\ 30^s$	$9^m\ 33^s$	$3^m\ 2^s$	$1^m\ 0^s$	$7^m\ 54^s$	$18^m\ 14^s$	$23^m\ 3^s$	$16^m\ 29^s$	$2^m\ 35^s$	$6^m\ 48^s$	$5^m\ 9^s$
13	$3^m\ 48^s$	$10^m\ 37^s$	$9^m\ 22^s$	$2^m\ 51^s$	$1^m\ 6^s$	$8^m\ 14^s$	$18^m\ 32^s$	$23^m\ 2^s$	$16^m\ 5^s$	$2^m\ 8^s$	$6^m\ 55^s$	$4^m\ 56^s$
14	$4^m\ 6^s$	$10^m\ 43^s$	$9^m\ 11^s$	$2^m\ 40^s$	$1^m\ 13^s$	$8^m\ 34^s$	$18^m\ 49^s$	$23^m\ 0^s$	$15^m\ 40^s$	$1^m\ 41^s$	$7^m\ 1^s$	$4^m\ 43^s$
15	$4^m\ 24^s$	$10^m\ 49^s$	$8^m\ 59^s$	$2^m\ 29^s$	$1^m\ 21^s$	$8^m\ 55^s$	$19^m\ 6^s$	$22^m\ 57^s$	$15^m\ 15^s$	$1^m\ 15^s$	$7^m\ 7^s$	$4^m\ 29^s$
16	$4^m\ 42^s$	$10^m\ 54^s$	$8^m\ 47^s$	$2^m\ 18^s$	$1^m\ 28^s$	$9^m\ 15^s$	$19^m\ 22^s$	$22^m\ 52^s$	$14^m\ 50^s$	$0^m\ 49^s$	$7^m\ 12^s$	$4^m\ 15^s$

Gradus ♈ S	♉ A	♊ A	♋ A	♌ A	♍ A	♎ A	♏ A	♐ A	♑ A	♒ S	♓ S
17	5^m 0^s	10^m 58^s	8^m 35^s	2^m 8^s	1^m 36^s	9^m 36^s	19^m 39^s	22^m 47^s	14^m 24^s	0^m 23^s S	7^m 16^s	4^m 0^s
18	5^m 18^s	11^m 2^s	8^m 23^s	1^m 58^s	1^m 44^s	9^m 57^s	19^m 55^s	22^m 41^s	13^m 58^s	0^m 2^s	7^m 19^s	3^m 45^s
19	5^m 35^s	11^m 5^s	8^m 11^s	1^m 49^s	1^m 53^s	10^m 18^s	20^m 10^s	22^m 34^s	13^m 31^s	0^m 27^s	7^m 22^s	3^m 29^s
20	5^m 52^s	11^m 7^s	7^m 58^s	1^m 40^s	2^m 3^s	10^m 40^s	20^m 25^s	22^m 27^s	13^m 4^s	0^m 52^s	7^m 24^s	3^m 13^s
21	6^m 9^s	11^m 9^s	7^m 45^s	1^m 32^s	2^m 14^s	11^m 1^s	20^m 39^s	22^m 19^s	12^m 36^s	1^m 15^s	7^m 25^s	2^m 57^s
22	6^m 25^s	11^m 10^s	7^m 32^s	1^m 25^s	2^m 25^s	11^m 23^s	20^m 52^s	22^m 10^s	12^m 8^s	1^m 38^s	7^m 25^s	2^m 40^s
23	6^m 41^s	11^m 11^s	7^m 19^s	1^m 18^s	2^m 37^s	11^m 44^s	21^m 5^s	22^m 1^s	11^m 40^s	2^m 0^s	7^m 25^s	2^m 23^s
24	6^m 57^s	11^m 11^s	7^m 5^s	1^m 12^s	2^m 49^s	12^m 6^s	21^m 17^s	21^m 50^s	11^m 12^s	2^m 22^s	7^m 24^s	2^m 5^s
25	7^m 13^s	11^m 10^s	6^m 51^s	1^m 6^s	3^m 2^s	12^m 28^s	21^m 29^s	21^m 38^s	10^m 43^s	2^m 43^s	7^m 23^s	1^m 47^s
26	7^m 28^s	11^m 9^s	6^m 37^s	1^m 1^s	3^m 16^s	12^m 50^s	21^m 40^s	21^m 26^s	10^m 14^s	3^m 3^s	7^m 21^s	1^m 29^s
27	7^m 43^s	11^m 7^s	6^m 23^s	0^m 56^s	3^m 30^s	13^m 12^s	21^m 50^s	21^m 13^s	9^m 45^s	3^m 22^s	7^m 18^s	1^m 11^s
28	7^m 57^s	11^m 5^s	6^m 9^s	0^m 52^s	3^m 45^s	13^m 34^s	22^m 0^s	20^m 59^s	9^m 16^s	3^m 41^s	7^m 14^s	0^m 52^s
29	8^m 11^s	11^m 2^s	5^m 55^s	0^m 48^s	4^m 0^s	13^m 56^s	22^m 9^s	20^m 45^s	8^m 47^s	3^m 59^s	7^m 9^s	0^m 34^s
30	8^m 24^s	10^m 58^s	5^m 41^s	0^m 45^s	4^m 16^s	14^m 17^s	22^m 18^s	20^m 30^s	8^m 18^s	4^m 17^s	7^m 3^s	0^m 16^s

The letters set beneath the signs are to be used when mean time is being changed into true or apparent time. The contrary is to be done with the letters when true time is being converted into mean.

—to be added to the common angle, since the number increases as one descends; and so the true equation of time emerges, 5^m 36^s of an hour or thereabouts, with the mark S. Finally I subtract this equation from the proposed time of 11^h 55^m, on account of the mark S, and what remains is the apparent time at which the full moon falls on our Frankfurt meridian: 11^h 49^m 24^s. Every other example can be worked out the same way.

The civil day of 24 hours is, by common usage, divided into two equal parts, 12 hours after noon and 12 before noon. Note, then, that in the Ephemerides the 24 hours of the civil day are not divided but counted straight through from the noon of whatever day is in question, whereas in calendars they are divided, so as to suit ordinary use. Consequently, when fewer than 12 hours are given in the Ephemeris, those hours are the afternoon hours of the day proposed; but when more than 12 are set down, they belong to the morning of the following day, once 12 hours have first been subtracted. Since, therefore, in our example fewer than 12 hours are given, they show at what time, by the customary reckoning, the full moon occurs.

[Margin: "On the equation of time as Tycho Brahe presents it in the motion of the Sun."]

As for Tycho Brahe, he too requires a certain equation, one that has to be applied to the Sun's motion — computed in our Ephemerides to uniform or mean time — so that it may be properly fitted to true or apparent time; and this although he does not set out all the causes adduced above in the same distinct fashion. The first he all but passes over, since he expressly rejects that excessive irregularity of the solar year which Copernicus, and Erasmus Reinhold his expositor, proposed in the Prutenic Tables. The second he does himself

establish, when he writes, in the first part of the *Progymnasmata*, that he has framed a table of the equation to the apogee and the eccentricity of the Sun — a table which everyone recognizes was drawn out without neglecting the diversity of the ascensions that arises from the obliquity of the zodiac. But how it is to be altered for different times he does not explain. For he meant only to exhibit to us an accurate solar motion, one corresponding quite exactly to the observations of these times, even if only for a few centuries; while repeatedly urging and pressing the point that posterity should, on his own example, contribute something in this field as well — especially since in the heavenly bodies we detect a stability and constancy of motion rather than that perpetuity which most philosophers imagine for themselves in the heavens. This very point we shall demonstrate at greater length in the second part of our *Cosmographia*, which will treat of uranography.

Since, however, the method of equating according to Tycho Brahe's teaching, from the adjoining table — which we have wished to give fuller and more accurate — is the same as the earlier one, and in the investigation of the Sun's motion according to Tycho Brahe's limitation it is applied in exactly the same way as we use the earlier Copernican one, we judge it superfluous to illustrate it with precepts and examples. We give this warning instead: the Moon's motion calls for a different equation from the Sun's.

[Margin: "The equation of time is a different one when the Moon's motion is sought."]

For when the Moon's apparent motion is to be sought from the Ephemerides for some given time, that apparent time is first equated in this way. For the given time the Sun's motion is sought, and with it the table of the Moon's equations is consulted; the small portion of time is then added to, or subtracted from, the apparent time according to the mark of the letter A or S, so that uniform or mean time results. Then, for that equated time, safely from the

Tabula æquationis temporis, calculo motus Solis Tychonici ex Ephemeridibus deducendo, accommodata

Table of the equation of time, fitted for deriving the Tychonic motion of the Sun from the Ephemerides.

Gradus	♈ S	♉ A	♊ A	♋ A	♌ A	♍ A	♎ A	♏ A	♐ A	♑ A	♒ S	♓ S
0	0m 40s	8m 30s	11m 45s	7m 0s	2m 0s	5m 40s	15m 40s	23m 40s	21m 20s	8m 35s	4m 35s	7m 35s
1	0m 20s	8m 45s	11m 40s	6m 45s	2m 0s	6m 0s	16m 0s	23m 45s	21m 0s	8m 5s	4m 55s	7m 30s
2	0m 0s	9m 0s	11m 35s	6m 30s	2m 0s	6m 20s	16m 20s	23m 50s	20m 40s	7m 35s	5m 15s	7m 25s
3	0m 20s	9m 15s	11m 30s	6m 15s	2m 0s	6m 40s	16m 40s	23m 55s	20m 20s	7m 5s	5m 35s	7m 20s
4	0m 40s	9m 30s	11m 25s	6m 0s	2m 0s	7m 0s	17m 0s	24m 0s	20m 0s	6m 35s	5m 50s	7m 10s
5	1m 0s	9m 45s	11m 20s	5m 45s	2m 0s	7m 20s	17m 20s	24m 5s	19m 40s	6m 5s	6m 5s	7m 0s
6	1m 20s	10m 0s	11m 15s	5m 30s	2m 0s	7m 40s	17m 40s	24m 10s	19m 20s	5m 35s	6m 20s	6m 50s
7	1m 40s	10m 15s	11m 10s	5m 15s	2m 5s	8m 0s	18m 0s	24m 15s	19m 0s	5m 5s	6m 35s	6m 40s

Gradus	♈ S	♉ A	♊ A	♋ A	♌ A	♍ A	♎ A	♏ A	♐ A	♑ A	♒ S	♓ S
8	2m 0s	10m 25s	11m 5s	5m 0s	2m 10s	8m 20s	18m 20s	24m 20s	18m 40s	4m 35s	6m 50s	6m 30s
9	2m 20s	10m 35s	11m 0s	4m 50s	2m 15s	8m 40s	18m 40s	24m 20s	18m 20s	4m 5s	7m 0s	6m 20s
10	2m 40s	10m 45s	10m 50s	4m 40s	2m 20s	9m 0s	19m 0s	24m 20s	18m 0s	3m 35s	7m 10s	6m 10s
11	3m 0s	10m 55s	10m 40s	4m 30s	2m 25s	9m 20s	19m 20s	24m 15s	17m 35s	3m 5s	7m 20s	6m 0s
12	3m 20s	11m 5s	10m 30s	4m 20s	2m 30s	9m 40s	19m 40s	24m 10s	17m 10s	2m 35s	7m 30s	4m 50s [recte: 5m 50s]
13	3m 40s	11m 10s	10m 20s	4m 10s	2m 35s	10m 0s	20m 0s	24m 5s	16m 45s	2m 5s	7m 40s	5m 40s
14	4m 0s	11m 15s	10m 10s	4m 0s	2m 40s	10m 20s	20m 20s	24m 0s	16m 20s	1m 40s	7m 45s	5m 30s
15	4m 20s	11m 20s	10m 0s	3m 50s	2m 45s	10m 40s	20m 40s	23m 55s	15m 55s	1m 15s	7m 50s	5m 15s
16	4m 40s	11m 25s	9m 50s	3m 40s	2m 50s	11m 0s	21m 0s	23m 50s	15m 30s	0m 50s	5m 55s [recte: 7m 55s]	5m 0s
17	5m 0s	11m 30s	9m 40s	3m 30s	2m 55s	11m 20s	21m 20s	23m 45s	15m 5s	0m 25s	8m 0s	4m 45s
18	5m 20s	11m 35s	9m 30s	3m 20s	3m 0s	11m 40s	21m 35s	23m 40s	14m 35s	0m 0s	8m 5s	4m 30s
19	5m 40s	11m 40s	9m 20s	3m 10s	3m 10s	12m 0s	21m 50s	23m 35s	14m 5s	0m 25s	8m 10s	4m 15s
20	6m 0s	11m 45s	9m 10s	3m 0s	3m 20s	12m 20s	22m 5s	22m 30s [recte: 23m 30s]	13m 35s	0m 50s	8m 10s	4m 0s
21	6m 15s	11m 50s	9m 0s	2m 50s	3m 30s	12m 40s	22m 20s	23m 25s	13m 5s	1m 15s	8m 10s	3m 40s
22	6m 30s	11m 55s	8m 50s	2m 40s	3m 40s	13m 0s	22m 35s	23m 15s	12m 35s	1m 40s	8m 10s	3m 20s
23	6m 4[?]s	12m 0s	8m 40s	2m 35s	3m 50s	13m 20s	22m 45s	23m 5s	12m 5s	2m 5s	8m 10s	3m 0s
24	7m 0s	12m 0s	8m 30s	2m 30s	4m 0s	13m 40s	22m 55s	22m 55s	11m 35s	2m 30s	8m 5s	2m 40s
25	7m 15s	12m 0s	8m 15s	2m 25s	4m 15s	14m 0s	23m 5s	22m 45s	11m 5s	2m 55s	8m 0s	2m 20s
26	7m 30s	12m 0s	8m 0s	2m 20s	4m 30s	14m 20s	23m 15s	22m 30s	10m 35s	3m 15s	7m 55s	2m 0s
27	7m 45s	12m 0s	7m 45s	2m 15s	4m 45s	14m 40s	23m 25s	22m 15s	10m 5s	3m 35s	7m 50s	1m 40s
28	8m 0s	11m 55s	7m 30s	2m 10s	5m 0s	15m 0s	23m 30s	22m 0s	9m 35s	3m 55s	7m 45s	1m 20s
29	8m 15s	11m 50s	7m 15s	2m 5s	5m 20s	15m 20s	23m 35s	21m 40s	9m 5s	4m 15s	7m 40s	1m 0s
30	8m 30s	11m 45s	7m 0s	2m 0s	5m 40s	15m 40s	23m 40s	21m 20s	8m 35s	4m 35s	7m 35s	0m 40s

The letters set at the head hold good when mean time is being converted into apparent time; but when apparent time is to be turned into mean, the contrary is to be done.

Tabula æquationis temporis motui ☽ inquirendo conveniens

Table of the equation of time suited to the investigation of the Moon's motion.

Grad.	♈ ♎ · S	♉ ♏ · S	♊ ♐ · S	
0	0m 0s	8m 25s	8m 47s	30
1	0m 20s	8m 36s	8m 37s	29
2	0m 40s	8m 45s	8m 26s	28
3	0m 59s	8m 55s	8m 15s	27
4	1m 19s	9m 4s	8m 3s	26
5	1m 39s	9m 12s	7m 50s	25
6	1m 59s	9m 19s	7m 36s	24
7	2m 18s	9m 26s	7m 22s	23
8	2m 38s	9m 32s	7m 7s	22
9	2m 57s	9m 37s	6m 52s	21

Grad.	♈ ♎ · S	♉ ♏ · S	♊ ♐ · S	
10	3^m 16^s	9^m 42^s	6^m 36^s	20
11	3^m 35^s	9^m 46^s	6^m 20^s	19
12	3^m 53^s	9^m 50^s	6^m 3^s	18
13	4^m 12^s	9^m 52^s	5^m 46^s	17
14	4^m 30^s	9^m 54^s	5^m 28^s	16
15	4^m 47^s	9^m 56^s	5^m 10^s	15
16	5^m 5^s	9^m 56^s	4^m 51^s	14
17	5^m 22^s	9^m 56^s	4^m 32^s	13
18	5^m 38^s	9^m 55^s	4^m 12^s	12
19	5^m 55^s	9^m 53^s	3^m 53^s	11
20	6^m 11^s	9^m 51^s	3^m 33^s	10
21	6^m 26^s	9^m 48^s	3^m 12^s	9
22	6^m 41^s	9^m 44^s	2^m 51^s	8
23	6^m 56^s	9^m 40^s	2^m 31^s	7
24	7^m 10^s	9^m 34^s	2^m 9^s	6
25	7^m 24^s	9^m 28^s	1^m 48^s	5
26	7^m 37^s	9^m 21^s	1^m 27^s	4
27	7^m 50^s	9^m 14^s	1^m 5^s	3
28	8^m 2^s	9^m 6^s	0^m 43^s	2
29	8^m 14^s	8^m 57^s	0^m 22^s	1
30	8^m 25^s	8^m 47^s	0^m 0^s	0
	♓ ♍ · A	♒ ♌ · A	♑ ♋ · A	Gradus

—*Ephemerides the Moon's place is sought.*

[Margin: "Yet another equation of time, when the syzygies of the luminaries are sought."]

So that a similar table might be ready to hand for determining apparent time at the syzygies, we have chosen to add this one. From it the equation is taken in exactly the same way, and is then added to, or subtracted from, the mean time of the syzygy as noted in the Ephemerides, according as the letters A or S require, so that the apparent time may be had.

Suppose, for instance, the new moon of 1595 February 8 is given, and the question is asked, at what apparent time it occurred according to Tycho Brahe. The Ephemeris shows the mean time as 20^h 40^m after noon; the Sun at that moment stands, by the Tychonic calculation and with the seconds neglected, in ♒ 20° 16′. From this last table the equation of time appears to be 9^m 57^s, to be subtracted. From which the proposed new moon is determined to fall, on our meridian, at 20^h 30^m 3^s after noon — that is, on February 9 at 8^h 30^m 3^s in the morning.

[Margin: "The reduction of time is needed in those places that differ in longitude from the place of the Ephemerides."]

Let us treat the reduction of time as well. In the places for which the Ephemerides were drawn up we do not use it; but it is necessary if we wish to investigate either the motions or the syzygies of the stars for places on the earth other than the place of the Ephemerides, the reckoning being made according

to longitude. For it is not only that the celestial motions present themselves differently in different places of the earth — this on account of the roundness of the earth, which is proved in the doctrine of the sphere, since for easterly places the Sun, the Moon and the remaining stars rise, culminate on the meridian and sink below the horizon sooner than they do for westerly ones. Eclipses too, lunar as well as solar, and the other syzygies of the stars, appear — on account of that same roundness of the earth — later to easterly places and earlier to westerly ones, so far as the numbering of the hours of the day is concerned.

For the reduction to be made correctly, then, and for both the motions and the syzygies to be applied suitably to every place on earth, one must know this: places that agree in longitude agree also in their astronomical hours and in all the φαινομένοις [Greek: phainomenois, "appearances" — the celestial phenomena] of the heavens, with the single exception of solar eclipses, which vary according to latitude as well; whereas places that differ in longitude have their astronomical hours and their celestial φαινόμενα [?] [Greek: phainomena [?], "phenomena"] altered.

[Margin: "Which places agree in longitude."]

[Margin: "Which differ."]

Those places agree that are set under the same meridian and have the same numbers of longitude — longitude being counted from west towards east along the equator, or along the parallels of the equator. Those differ, which

Tabula æquationis dierum Civilium, accommodata Syzygiis luminarium Tychonicis, ostendēs quomodo æquale tempus in Ephemeridib. annotatum ad apparens seu usuale Astronomicum reducatur

Table of the equation of civil days, fitted to the Tychonic syzygies of the luminaries, showing how the equal time noted in the Ephemerides is reduced to apparent, or ordinary astronomical, time.

	♈	♉	♊	♋		♍	♎	♏	♐	♑		
Gradus	Sub	Ad	Ad	Ad	♌ Sub	Sub	Ad	Ad	Ad	Ad	♒ Sub	♓ Sub
0	$0^m\ 2^s$	$8^m\ 42^s$	$9^m\ 11^s$	$0^m\ 14^s$	$8^m\ 43^s$	$8^m\ 14^s$	$0^m\ 31^s$	$9^m\ 12^s$	$9^m\ 30^s$	$0^m\ 17^s$	$8^m\ 57^s$	$8^m\ 40^s$
	A			**Su**						**Su**		
1	$0^m\ 19^s$	$8^m\ 53^s$	$9^m\ 0^s$	$0^m\ 8^s$	$8^m\ 53^s$	$8^m\ 2^s$	$0^m\ 52^s$	$9^m\ 23^s$	$9^m\ 19^s$	$0^m\ 6^s$	$9^m\ 7^s$	$8^m\ 29^s$
2	$0^m\ 40^s$	$9^m\ 3^s$	$8^m\ 49^s$	$0^m\ 30^s$	$9^m\ 2^s$	$7^m\ 50^s$	$1^m\ 13^s$	$9^m\ 33^s$	$9^m\ 7^s$	$0^m\ 28^s$	$9^m\ 16^s$	$8^m\ 17^s$
3	$1^m\ 0^s$	$9^m\ 13^s$	$8^m\ 37^s$	$0^m\ 53^s$	$9^m\ 10^s$	$7^m\ 37^s$	$1^m\ 33^s$	$9^m\ 43^s$	$8^m\ 55^s$	$0^m\ 51^s$	$9^m\ 25^s$	$8^m\ 4^s$
4	$1^m\ 20^s$	$9^m\ 22^s$	$8^m\ 25^s$	$1^m\ 15^s$	$9^m\ 17^s$	$7^m\ 24^s$	$1^m\ 54^s$	$9^m\ 52^s$	$8^m\ 42^s$	$1^m\ 14^s$	$9^m\ 33^s$	$7^m\ 51^s$
5	$1^m\ 40^s$	$9^m\ 31^s$	$8^m\ 12^s$	$1^m\ 37^s$	$9^m\ 24^s$	$7^m\ 10^s$	$2^m\ 14^s$	$10^m\ 0^s$	$8^m\ 29^s$	$1^m\ 36^s$	$9^m\ 40^s$	$7^m\ 38^s$
6	$2^m\ 1^s$	$9^m\ 39^s$	$7^m\ 58^s$	$1^m\ 59^s$	$9^m\ 30^s$	$6^m\ 55^s$	$2^m\ 34^s$	$10^m\ 7^s$	$8^m\ 15^s$	$1^m\ 58^s$	$9^m\ 46^s$	$7^m\ 24^s$
7	$2^m\ 21^s$	$9^m\ 46^s$	$7^m\ 44^s$	$2^m\ 21^s$	$9^m\ 35^s$	$6^m\ 40^s$	$2^m\ 54^s$	$10^m\ 14^s$	$8^m\ 0^s$	$2^m\ 20^s$	$9^m\ 52^s$	$7^m\ 9^s$
8	$2^m\ 42^s$	$9^m\ 53^s$	$7^m\ 29^s$	$2^m\ 42^s$	$9^m\ 40^s$	$6^m\ 25^s$	$3^m\ 14^s$	$10^m\ 20^s$	$7^m\ 44^s$	$2^m\ 42^s$	$9^m\ 57^s$	$6^m\ 54^s$

Gradus	♈ Sub	♉ Ad	♊ Ad	♋ Ad	♌ Sub	♍ Sub	♎ Ad	♏ Ad	♐ Ad	♑ Sub	♓ Sub
9	3m 2s	9m 59s	7m 14s	3m 33s	9m 44s	6m 9s	3m 34s	10m 25s	7m 28s	3m 4s 10m 1s	6m 39s
10	3m 22s	10m 4s	6m 58s	3m 24s	9m 47s	5m 53s	3m 54s	10m 30s	7m 11s	3m 26s 10m 5s	6m 23s
11	3m 41s	10m 8s	6m 41s	3m 44s	9m 49s	5m 37s	4m 13s	10m 34s	6m 54s	3m 47s 10m 8s	6m 7s
12	4m 0s	10m 11s	6m 24s	4m 4s	9m 50s	5m 20s	4m 33s	10m 37s	6m 37s	4m 8s 10m 10s	5m 50s
13	4m 19s	10m 14s	6m 6s	4m 24s	9m 51s	5m 3s	4m 52s	10m 40s	6m 19s	4m 28s 10m 11s	5m 33s
14	4m 38s	10m 16s	5m 48s	4m 43s	9m 51s	4m 45s	5m 11s	10m 42s	6m 1s	4m 48s 10m 11s	5m 16s
15	4m 56s	10m 18s	5m 29s	5m 2s	9m 50s	4m 27s	5m 30s	10m 43s	5m 42s	5m 7s 10m 11s	4m 58s
16	5m 14s	10m 19s	5m 10s	5m 21s	9m 48s	4m 8s	5m 48s	10m 43s	5m 22s	5m 26s 10m 10s	4m 40s
17	5m 32s	10m 19s	4m 51s	5m 39s	9m 46s	3m 49s	6m 5s	10m 43s	5m 2s	5m 45s 10m 8s	4m 21s
18	5m 49s	10m 18s	4m 31s	5m 56s	9m 43s	3m 30s	6m 22s	10m 42s	4m 41s	6m 3s 10m 5s	4m 2s
19	6m 6s	10m 16s	4m 11s	6m 13s	9m 40s	3m 11s	6m 39s	10m 40s	4m 21s	6m 21s 10m 2s	3m 43s
20	6m 22s	10m 14s	3m 51s	6m 30s	9m 36s	2m 52s	6m 55s	10m 37s	4m 0s	6m 38s 9m 58s	3m 24s
21	6m 38s	10m 11s	3m 30s	6m 46s	9m 31s	2m 32s	7m 11s	10m 34s	3m 39s	6m 55s 9m 53s	3m 4s
22	6m 54s	10m 7s	3m 9s	7m 2s	9m 25s	2m 12s	7m 26s	10m 30s	3m 17s	7m 11s 9m 48s	2m 44s
23	7m 9s	10m 3s	2m 48s	7m 17s	9m 18s	1m 52s	7m 41s	10m 25s	2m 55s	7m 26s 9m 42s	2m 24s
24	7m 24s	9m 58s	2m 26s	7m 31s	9m 11s	1m 32s	7m 55s	10m 19s	2m 33s	7m 41s 9m 35s	2m 4s
25	7m 38s	9m 52s	2m 4s	7m 45s	9m 3s	1m 12s	8m 9s	10m 13s	2m 11s	7m 55s 9m 28s	1m 44s
26	7m 52s	9m 45s	1m 42s	7m 58s	8m 55s	0m 51s	8m 23s	10m 6s	1m 48s	8m 9s 9m 20s	0m 23s [recte: 1m 23s]
27	8m 5s	9m 38s	1m 20s	8m 10s	8m 4[numeral: ?]s	0m 30s	8m 36s	9m 58s	1m 25s	8m 22s 6m 11s [recte: 9m 11s]	1m 3s
28	8m 18s	9m 30s	0m 58s	8m 22s	8m 36s	0m 10s	8m 49s	9m 49s	1m 2s	8m 34s 9m 1s	0m 43s
						Ad					
29	8m 30s	9m 21s	0m 36s	8m 33s	8m 25s	0m 10s	9m 1s	9m 40s	0m 40s	8m 46s 8m 51s	0m 22s
30	8m 42s	9m 11s	0m 14s	8m 43s	8m 14s	0m 31s	9m 12s	9m 30s	0m 17s	8m 57s 8m 40s	0m 2s

These letters hold good when equal time is converted into unequal — that is, into apparent — time. The contrary is to be done when apparent time is reduced to mean.

—stand under different meridians and are determined by different numbers of longitude. So, wherever places on the earth have different numbers of longitude, the difference of longitude — that is, of the meridians — must be sought for them; and that difference is nothing other than the arc of the equinoctial circle, or of the vertical parallel, intercepted between those same meridians.

[Margin: "What the difference of longitude is."]

It is gathered in this way. **First**, look up in the writings of the geographers — Peter Apian [Appiano], Gemma Frisius [Frisio], Mercator [Mercatore], Ortelius [Ortelio], Hondius [Hondio] or others — the longitude of both places: of the one for which the Ephemerides were drawn up, and of the one to which the tables are to be fitted by reduction; take neighbouring places if the ones we want are not to be found. **Next**, subtract the smaller longitude from the greater, and the remainder will be the difference of longitude, that is, of the meridians. **Third**, convert this difference into time, reckoning one hour for 15 degrees, 4

[37] so printed; the column's own entries for Gradus 8 and 10 (2m 42s, 3m 24s) require 3m and fewer than 24s here

minutes of an hour for one degree, one minute of an hour for 15 minutes, 4 seconds of an hour for 1 minute, and so on; and the difference of meridians will emerge, counted in hours and in time.

[Margin: "The precepts of reduction."]

[Margin: a capital L standing alone with the figure 1 beside it, then 2, then 3 on the lines below — the three numbered steps of the precept.]

For example, suppose the question is what the difference of meridians is between Frankfurt and Königsberg in Prussia, the place for which the Prutenic Tables were constructed. First, then, I look up the longitude of both places in the writings of the geographers — in Apian [Appiano] as corrected by Gemma Frisius [Gemma Frisio]. Frankfurt, in the March of Brandenburg, is found to have longitude 36° 0′, while Königsberg, in Prussia, has 45° 15′. Next I look for the difference, which comes to 9° 15′. Finally I convert the difference into time, and 37^{m} result — which is the difference of meridians between these two proposed places, and the very difference that the Prutenic Tables themselves set down. One must proceed in the same way with other examples.

[Margin: 1, then 2, then 3 — the same three steps numbered again down the margin beside the worked example.]

Since authors are accustomed to add to their tables catalogues of notable places, in which the difference of the meridians is already worked out, we too follow their example and present here a generous table of a good many places, corrected in several entries by a more careful examination of the geographers. From it anyone can obtain the difference with respect to Frankfurt without any trouble, by taking the very place to which the Ephemerides are to be reduced, if it stands in the catalogue, or a nearer one if the place proposed is not found there.

[Margin: "On the catalogue of notable places."]

Once the difference of the meridians has been found in time, proceed as follows. If the motion of some planet is to be sought from the Ephemerides and your place lies further east than the meridian of the Ephemerides — which is gathered from the longitude of the proposed place being greater than that of the place of the Ephemerides — subtract the difference you have found from the time proposed, because the Sun and the rest of the stars reach an eastern meridian sooner than a western one. But add it if your place lies further west than the meridian of the Ephemerides, which is evident from its smaller longitude, because the Sun and the rest of the stars reach a more westerly meridian later than an easterly one. This operation yields a properly reduced time, fit for investigating the motions.

[Margin: "With the difference, one proceeds in one way for the motions."]

If, on the other hand, the times of aspects and conjunctions written in the Ephemerides are to be transferred to your own meridian, and your place lies further east than the meridian of the Ephemerides, then add the difference of meridians you have found to the time set down in the Ephemerides at which some syzygy is to fall, because more easterly places count more hours at the same moment of time than western ones do. But subtract it if your place lies

further west than the meridian of the Ephemerides, because more westerly places count fewer hours at the same moment of time than eastern ones. This yields the true time at which the syzygy will occur.

[Margin: "and in another way in the syzygies."]

For example, the question is asked when the new moon that falls, by the Tychonic reckoning, here at Frankfurt on 1595 February 9 at the morning hour $8^h\ 30^m\ 3^s$, occurs at Königsberg in Prussia. And since Königsberg lies further east than our own place, I add the difference I found, 37^m, to the time of the proposed new moon; and the time is produced at which it occurs at Königsberg in Prussia — February 9, at $9^h\ 7^m\ 3^s$ in the morning. Other examples are worked out the same way.

Catalogus Locorum in diversis terræ regionibus.

Catalogue of places in the various regions of the earth.

Civitates & Oppida insigniora.	Tempus (Hor. Scr.)	Latitudo (Gr. scru.)
Abusina Bavariæ **Abensberg**	S $0^h\ 7^m$	48° 40′
Adona Arabiæ Emporium.	A $2^h\ 57^m$	11° 30′
Adrianopolis Mysiæ.	A $1^h\ 18^m$	42° 45′
Ægina Insula vul: Legina	A $1^h\ 5^m$	36° 45′
Agrigentum Siciliæ.	A $0^h\ 11^m$	36° 26′
Aichstadium Bavariæ	S $0^h\ 17^m$	48° 50′
Albana Metropol. Albaniæ.	A $3^h\ 8^m$	45° 50′
Alba regalis Hungar.	A $0^h\ 16^m$	46° 48′
Alcayram Ægypti	A $1^h\ 45^m$	30° 15′
Algeria Mauritaniæ	S $0^h\ 52^m$	32° 30′
Alexandria Ægypti	A $1^h\ 38^m$	31° 0′
Almeria Granatæ	S $1^h\ 38^m$	32° 50′
Alopetia Insula iuxta Tanaim	A $2^h\ 2^m$	53° 30′
Amathus Epiri	A $0^h\ 48^m$	38° 20′
Amberga in montanis Bohem.	A $0^h\ 14^m$	49° 24′
Ambiam ad Nilum	A $1^h\ 32^m$	2° Mer.
Amsterodamum Holland.	S $0^h\ 38^m$	52° 40′
Ancona Ital.	A $0^h\ 15^m$	43° 4′
Ancyra Galatiæ	A $1^h\ 48^m$	42° 0′
Angliæ medium	S $1^h\ 10^m$	53° 30′
Andegavia Galliæ	S $1^h\ 9^m$	46° 0′
Andernacum German. infer.	S $0^h\ 37^m$	50° 25′
Andros Insula & civitas	A $1^h\ 17^m$	37° 30′
Anspachium Franconiæ	S $0^h\ 19^m$	49° 25′
Antiochia Cassiotidis Alep.	A $2^h\ 13^m$	35° 30′
Antiochia Margiana	A $4^h\ 46^m$	40° 20′
Antiochia penes Taurum	A $2^h\ 19^m$	37° 30′
Antuerpia Brabant.	S $0^h\ 42^m$	51° 20′
Aphrodisium Affriæ minoris.	A $0^h\ 6^m$	32° 40′
Apollonia Affricæ	A $0^h\ 58^m$	31° 40′
Apollonia Thraciæ	A $1^h\ 15^m$	44° 20′
Aquilegium Histriæ.	A $0^h\ 7^m$	45° 12′

Civitates & Oppida insigniora.	Tempus (Hor. Scr.)	Latitudo (Gr. scru.)
Aquis granum Imperiale **Ach**	S 0^h 35^m	51° 5′
Arbela Assyriæ	A 2^h 58^m	37° 15′
Civitates & oppida insigniora.	**Tempus (Hor. Sc)**	**Latitud (Gr. Scr.)**
Arelatum Galliæ.	S 0^h 52^m	43° 18′
Argentina superioris German.	S 0^h 32^m	48° 45′
Aromata Æthiop.	A 2^h 48^m	6° 0′
Ascalon Palestinæ.	A 1^h 58^m	31° 40′
Assovia in finibus Præcopiens.	A 2^h 2^m	50° 0′
Atacama in Chyli regione	S 5^h 28^m	31° Mer.
Athenæ nunc Sethine in Attica	A 1^h 0^m	37° 15′
Avenio Gallia	S 0^h 47^m	43° 50′
Augusta Vindelicor. Germ. sup.	S 0^h 12^m	48° 22′
Aurelia Galliæ Orliens.	S 0^h 58^m	47° 30′
Azabut Novæ Franciæ Mexic.	S 5^h 28^m	58° 0′
Babylon Chaldæorum	A 2^h 53^m	35° 0′
Bactria Carassanorum	A 5^h 12^m	41° 20′
Badena Helvet.	S 0^h 30^m	48° 44′
Balonga sinus magni	A 8^h 46^m	7° 0′
Bamberga Francon.	S 0^h 18^m	49° 56′
Barsellona Cathaloniæ	S 1^h 15^m	41° 30′
Basilæa Rauracorum	S 0^h 33^m	47° 40′
Bellogradum Hungariæ	A 0^h 50^m	44° 30′
Bergæ Norveg.	S 0^h 34^m	61° 15′
Berna Helvetiæ	S 0^h 33^m	46° 25′
Berolinum Marchiæ	S 0^h 4^m	52° 40′ [recte: 52° 28′]
Bethlehem Iudeæ	A 2^h 0^m	31° 50′
Biatla Moscoviæ	A 1^h 32^m	*(cell ruled but blank)*
Bibracum Sueviæ superioris	S 0^h 23^m	48° 4′
Bilda Litvania	A 1^h 9^m	54° 30′
Bipontum Palatinatus	S 0^h 33^m	49° 38′
Bizantium Burgundiæ	S 0^h 35^m	47° 36′
Bonna inferioris Germaniæ	S 0^h 32^m	50° 47′
Bononia Italiæ in Romandiola.	A 0^h 2^m	44° 4′
Bosphorus Franconiæ	S 0^h 21^m	49° 49′
Bracara Portugaliæ	S 1^h 58^m	43° 40′
Brandenburgum Marchiæ	S 0^h 8^m	52° 36′

Civitates & Oppida insigniora.	Latitud (Gr. Scr.)	Tempus. (Hor.Scr)
Bravum Hispaniæ	S 1^h 38^m	43° 40′
Brega Silesiæ	A 0^h 9^m	50° 54′
Brema Saxoniæ	S 0^h 31^m	53° 40′
Bretta Marchiæ Badenæ	S 0^h 27^m	49° 12′
Brixia Tirolensis comitatus	S 0^h 12^m	46° 6′
Brugæ Flandriæ	S 0^h 48^m	41° 30′
Brundusium Apuliæ	A 0^h 38^m	40° 20′
Brunna Moraviæ	A 0^h 9^m	49° 8′
Brunsuiga Saxoniæ	S 0^h 18^m	52° 34′

Civitates & Oppida insigniora.	Latitud (Gr. Scr.)	Tempus. (Hor.Scr)
Bruxella Brabantiæ	S 0^h 42^m	51° 4′
Buda Hungariæ	A 0^h 20^m	47° 0′
Burdigala Averniæ **Bordeaux**	S 1^h 10^m	46° 0′
Budissina Lusatiæ	S 0^h 2^m	51° 0′
Bainara insula ad Peruvianam	S 5^h 28^m	11° 0′
Buscum ducis **HertZogenpusch**	S 0^h 40^m	52° 0′
Cæsarea Augusta Arragoniæ	S 1^h 26^m	41° 45′
Cæsaromontanum Alsatiæ	S 0^h 36^m	48° 14′
Celagurium Navarræ.	S 1^h 22^m	42° 55′
Calecutum Indiæ	A 5^h 4^m	11° 0′
Caletum Flandriæ	S 0^h 52^m	51° 36′
Calliopolis prope Hellespontum	A 1^h 13^m	41° 30′
Calpe mons columna Hercul.	S 1^h 50^m	[numeral: ?]6° 15′
Calu[?]an Persiæ	A 3^h 44^m	[numeral: ?]0° 0′
Cameracum Picardiæ	S 0^h 53^m	50° 0′
Campena Hollandiæ	S 0^h 37^m	52° 50′
Canaria Insula.	S 2^h 20^m	11° 0′
Cantuaria Angliæ.	S 1^h 2^m	51° 20′
Capua Italiæ	A 0^h 31^m	40° 32′
Caracol Tartariæ magnæ	A 4^h 41^m	50° 0′
Carmana Carmaniæ	A 4^h 18^m	29° 0′
Carolostadium Franconiæ	S 0^h 22^m	50° 5′
Carthago Affricæ	S 0^h 2^m	32° 20′
Carthago nova Cathaloniæ.	S 1^h 13^m	38° 0′
Casam Arac seu Parthiæ	A 3^h 44^m	36° 0′
Casanum ad Volgam	A 2^h 58^m	56° 20′
Caschovia Hungar.	A 0^h 31^m	48° 36′
Cassilia Hassiæ	S 0^h 25^m	51° 30′
Cata[?]ora civitas	A 8^h 0^m	70° 0′
Civitates & Oppida insigniora.	**Latitud (Gr. Scr.)**	**Tempus. (Hor.Scr.)**
Cephalenia, Dulichium	A 0^h 47^m	37° 0′
Chalcedon Ponti	A 1^h 23^m	43° 6′
Chameching ana Peruvianæ	S 4^h 48^m	31 Mer
Chaschaer civitas Moscoviæ	A 3^h 24^m	57° 0′
Chremsa Austriæ	S 0^h 8^m	48° 24′
Chylia Daciæ	A 0^h 51^m	45° 45′
Cibinium Transsylvaniæ	A 0^h 52^m	46° 45′
Claudiopolis Transsylvan.	A 0^h 55^m	47° 36′
Clevia inferioris Germaniæ	S 0^h 35^m	51° 58′
Coburgum	S 0^h 18^m	50° 18′
Colmaria Alsatiæ	S 0^h 35^m	48° 12′
Colonia Agrippina infer.. Germ	S 0^h 37^m	50° 58′
Complutum ⎫ Hispaniæ.	S 1^h 39^m	41° 40′
Compostellū ⎭	S 2^h 0^m	44° 16′
Confluentia inf. Ger. **KoblentZ**	S 0^h 35^m	50° 25′
Constantia Helvetior. **Costnitz**	S 0^h 25^m	47° 30′
Constantinopolis Thraciæ	A 1^h 20^m	43° 5′
Coppenhaga Selandiæ insulæ.	S 0^h 13^m	55° 50′
Curasan maior Persiæ	A 4^h 42^m	39° 0′

Civitates & Oppida insigniora.	Latitud (Gr. Scr.)	Tempus. (Hor.Scr)
Corduba Hispaniæ	[38] 1h 52m	37° 50′
Corfunium insula prope Epirum	[?] 0h 38m	37° 45′
Corgatha Metropolis Sin Mag. Af.	A 8h 45m	12° 30′
Corinthus nunc Corante Achaiæ	A 0h 55m	36° 55′
Corsica Insula	S 0h 11m	40° 30′
Cosidantium Podoliæ	A 1h 32m	51° 30′
Cracovia Poloniæ	A 0h 38m	50° 12′
Cretæ vel Candiæ insulæ medium	A 1h 13m	36° 15′
CreutZnacum Lucenburgiæ	S 0h 29m	50° 2′
Cumæ Italiæ	A 0h 28m	41° 30′
Curia Rhetiæ	S 0h 16m	46° 29′
Curia Voitlandiæ	S 0h 13m	50° 20′
Castrinum Neomarchiæ castrum	A 0h 1m	52° 32′
Cuttenberga Bohemiæ	A 0h 2m	49° 51′
Cignea Voitlandiæ **Zvvickau**	S 0h 11m	50° 46′
Cyrenæ Aphricæ	A 0h 58m	31° 15′
Cythera insula	A 0h 57m	44° 40′
Damascus Syriæ curvæ	A 2h 12m	33° 0′

Civitates & Oppida insigniora.	Latitud. (Gr: Scr.)	Tempus (Hor.Scr.)
Dantiscum Prussiæ	A 0h 25m	54° 20′
Darapsa Sogdianæ	A 5h 38m	45° 0′
Daventria Geldriæ	S 0h 33m	52° 30′
Delphi Phocidis	A 0h 56m	37° 20′
Dietphurdium Bavariæ	S 0h 14m	48° 52′
Dio insula adiacens Cambaiæ	A 4h 40m	21° 0′
Divionum Burgundiæ	S 0h 41m	46° 0′
Dordracum Hollandiæ	S 0h 43m	52° 16′
Dresena Misniæ	S 0h 7m	51° 0′
Dublina Hyberniæ	S 1h 28m	59° 30′
Dyrrachium Macedoniæ	A 0h 36m	40° 50′
Eboracum Scotiæ **[?]urgk**	S 0h 50m	57° 0′
Edenburgum Scotiæ	S 0h 45m	57° 13′
Edessa vel Rases Mesopotamiæ	A 2h 22m	37° 30′
Egra Bohemiæ	S 0h 12m	50° 5′
Elbinga Borussiæ	A 0h 29m	54° 14′
Embda Phrysiæ	S 0h 33m	53° 42′
Embecka Saxoniæ	S 0h 20m	52° 6′
Epidaurus in Argiæ sinu.	A 0h 57m	36° 25′
Ephesus Asiæ	A 1h 26m	37° 40′
Erphordia Thuringiæ	S 0h 17m	51° 10′
Ervel oppidum Persiæ	A 3h 24m	33° 30′
Eslinga imperialis	S 0h 24m	48° 38′
Euga Persiæ	A 4h 42m	27° 0′
Famagusta Cypri	A 2h 3m	35° 30′

[38] no note letter printed

Civitates & Oppida insigniora.	Latitud. (Gr: Scr.)	Tempus (Hor.Scr.)
Ferraria Italiæ	S 0^h 1^m	44° 28′
Fessa Aphricæ	S 2^h 7^m	34° 40′
Ficaria insula.	S 0^h 3^m	37° 0′
Fiessena Algoiæ	S 0^h 18^m	47° 30′
Finis terræ Hispaniæ	S 2^h 6^m	44° 2′
Flensburgum Holsatiæ	S 0^h 18^m	56° 7′
Florentia Hetruriæ	[39] 0^h 0^m	42° 56′
Forum Iulium **Friaul**	A 0^h 5^m	45° 0′
Francofordia Oderæ	[40] 0^h 0^m	42° 20′ [recte: 52° 20′]
Francofordia Mœni Franc.	S 0^h 28^m	50° 12′
Friburgum Brisgoiæ	S 0^h 33^m	48° 33′
Friburgum Misniæ	S 0^h 9^m	50° 58′
Friburgum Uchlandiæ	S 0^h 34^m	46° 25′
Civitates & Oppida insigniora.	**Latitud (Gr. Scr.)**	**Tempus (Hor.Scr)**
Fruenburgum Prussiæ	A 0^h 33^m	54° 22′
Gadyra Insula	S 2^h 1^m	36° 30′
Gandavum Flandriæ	S 0^h 44^m	51° 16′
Garama Lybiæ	A 0^h 29^m	21° 30′
Geldria inferior Germ.	S 0^h 33^m	51° 42′
Geneva Sabaudiæ.	S 0^h 35^m	44° 50′
Genua Longobardiæ	S 0^h 15^m	43° 32′
Giena Tartariæ magnæ	A 4^h 40^m	46° 30′
GlaZium in finib. Bohem.	A 0^h 7^m	50° 24′
Glogovia magna Silesiæ	A 0^h 4^m	51° 31′
Gnisnavia Poloniæ	A 0^h 12^m	52° 53′
Gorlicium Silesiæ	A 0^h 0^m	51° 0′
Gothia Insula	A 0^h 20^m	57° 0′
Gotlandia insula	A 1^h 55^m	60° 0′
Granata Hispaniæ	S 1^h 50^m	37° 50′
GretZa Stiriæ	A 0^h 9^m	46° 50′
GretZa regia Bohemiæ	A 0^h 5^m	50° 8′
Groclandiæ Insulæ medium	S 3^h 41^m	75° 30′
Groninga Phrysiæ.	S 0^h 34^m	53° 16′
Gryma Misniæ	S 0^h 10^m	51° 15′
Gryphisvvaldum Pomeran.	S 0^h 2^m	54° 18′
GuntZenhausa Norici	S 0^h 20^m	49° 18′
Hagenoa Alsatiæ	S 0^h 31^m	48° 58′
Hala Saxonum	S 0^h 13^m	51° 41′
Halberstadium Saxoniæ	S 0^h 18^m	52° 11′
Halicarnassus Asiæ maritima	A 1^h 28^m	36° 10′
Hamburgum Saxoniæ.	S 0^h 23^m	54° 24′
Hammaria Norvegiæ	S 0^h 17^m	60° 0′
Hapselia Livoniæ	A 1^h 14^m	60° 40′
Hasphordia Franconiæ	S 0^h 18^m	50° 12′
Havelburgum Marchiæ	S 0^h 12^m	53° 15′
Haidenheimia S[?]eviæ	S 0^h 29^m	48° 32′

[39] no note letter printed
[40] no note letter printed

Civitates & Oppida insigniora.	Latitud. (Gr: Scr.)	Tempus (Hor.Scr.)
Haidelberga Palatinatus	S 0^h 21^m	49° 24′
Hailbrunna Sueviæ	S 0^h 26^m	49° 10′
Hecatompylon Parthiæ	A 3^h 58^m	37° 50′
Herbipolis Franconiæ **VVirtZburg**	S 0^h 26^m	49° 54′
HartZburgum Saxoniæ	S 0^h 6^m	51° 42′
Hierosolyma Iudeæ propriæ	A 2^h 2^m	31° 40′

Civitates & Oppida insigniora.	Tempus. (Hor.Scr)	Latitud (Gr. Scr)
Hispalis seu Sevilia Hispania	S 1^h 59^m	37° 0′
Huena insula Uraniburgica.	S 0^h 12^m	55° 54′
Humos oppidum Peruvianæ	S 4^h 10^m	7 Mer
Hybernia insula	S 1^h 31^m	57° 0′
Hyrcaniæ medium.	A 4^h 12^m	41° 30′
Iglavia Moraviæ.	A 0^h 5^m	49° 15′
Iena Thuringiæ	S 0^h 14^m	51° 8′
Ilium seu Troia Natoliæ	A 1^h 19^m	41° 0′
Ingolstadium Bavariæ.	S 0^h 16^m	48° 42′
Inipons **Insbruck** Tirolens. Co:	S 0^h 11^m	46° 55′
Ioppe Palæstinæ	A 2^h 1^m	32° 5′
Ioan de Lixa Insula ad **Madag**	A 3^h 4^m	26 Mer
Isenacum Thuringiæ.	S 0^h 20^m	51° 6′
Islandia insula	S 1^h 56^m	65° 30′
Islebia **HartZæ**	S 0^h 14^m	51° 46′
Issedon Scythica **Appiano**	A 7^h 38^m	48° 30′
Issedon Serica **Appiano**	A 8^h 28^m	45° 0′
Ithaca Insula	A 0^h 48^m	37° 10′
Iulia Cæsarea Aphrica	S 1^h 13^m	33° 20′
Iuliacum **Gulich**	S 0^h 34^m	51° 2′
KitZingum Franconiæ	S 0^h 20^m	49° 53′
Lacedemon, Sparta	A 0^h 52^m	35° 30′
Landovia Palatinatus	S 0^h 30^m	49° 10′
Landshutta Boiariæ	S 0^h 11^m	48° 19′
Laodicea Natoliæ	A 1^h 32^m	40° 0′
Laodicea Rhamata Syriæ	A 2^h 12^m	35° 0′
Latoa vel Christiana Insula	A 1^h 14^m	34° 10′
Lavinga nigræ sylvæ	S 0^h 15^m	48° 25′
Lausanna Sabaudiæ	S 0^h 34^m	46° 13′
Legio Germanica Hisp.	S 1^h 44^m	44° 20′
LeobschutZium Silesiæ	A 0^h 12^m	50° 15′
Leoburgum Russiæ	S 0^h 18^m	54° 10′
Leoburgum Saxoniæ	A 0^h 51^m	50° 33′
Lemnos insula.	A 1^h 6^m	41° 0′
Lesbos vel Mitylena	A 1^h 18^m	39° 48′
Lignitium Hegitmatia Ptol. Sil.	A 0^h 5^m	51° 12′
Lilybæum Siciliæ.	A 0^h 9^m	36° 0′
Civitates & Oppida insigniora.	**Tempus. (Hor.Scr.)**	**Latitud (Gr. Scr.)**
Lincopia Gotthiæ	A 0^h 8^m	61° 0′

Civitates & Oppida insigniora.	Tempus. (Hor.Scr)	Latitud (Gr. Scr)
LintZa Austriæ	A 0^h 2^m	48° 4′
Lipara Insula	A 0^h 12^m	38° 50′
Lipsia Misniæ	S 0^h 11^m	51° 24′
Lira Brabantiæ	S 0^h 41^m	51° 13′
Lisibona Portugaliæ	S 2^h 3^m	39° 38′
Londinum Angliæ	S 1^h 7^m	51° 40′
Lovanium Brabantiæ	S 0^h 40^m	50° 50′
Lubecum Saxoniæ.	S 0^h 17^m	54° 48′
Lucenburgum ducatus homonymi	S 0^h 25^m	50° 0′
Lucerna Helvetiæ	S 0^h 31^m	46° 34′
Lugdunum Galliæ	S 0^h 46^m	45° 10′
Lundis Gothiæ	A 0^h 15^m	57° 24′
Luneburgum Saxoniæ	S 0^h 19^m	54° 0′
Lutetia Parisiorum	S 0^h 55^m	47° 55′
Macao Chinensium	A 7^h 44^m	22° 50′
Machilinia Brabantiæ	S 0^h 41^m	51° 8′
Magdeburgum Saxoniæ	S 0^h 11^m	52° 20′
Maiaco civitas in provin. Mexos	S 5^h 28^m	13 Mer
Maiorica Insula	S 1^h 18^m	39° 20′
Malaca civitas Indiæ	A 6^h 50^m	4° 0′
Malaca Hispaniæ	S 1^h 45^m	37° 30′
Maldivæ Insulæ	A 4^h 45^m	2° 0′
Mantua Longobardiæ	S 0^h 4^m	44° 56′
Marca Badensis	S 0^h 30^m	49° 35′
Margiana Asiæ	A 4^h 46^m	41° 10′
Mariæburgum Livoniæ	A 1^h 14^m	58° 32′
Mariæburgum Prussiæ	A 0^h 27^m	54° 8′
Marpurgum Hassiæ	S 0^h 28^m	51° 0′
Marsilia Galliæ.	S 0^h 42^m	42° 10′
Martisburgum Misniæ	S 0^h 12^m	51° 34′
Mecha Arabiæ	A 1^h 59^m	29° 15′
Mediolanum Longobardiæ	S 0^h 13^m	44° 48′
Megara	A 0^h 57^m	37° 20′
Melita Insula	A 0^h 11^m	34° 40′
Memmella castrum Borussiæ.	A 0^h 42^m	55° 27′
Meroe Æthiopiæ.	A 1^h 42^m	16° 25′

Civitates & Oppida insigniora.	Tempus (Hor.Scr.)	Latitud. (Gr : Scr.)
Metis Lutzenburgi	S 0^h 39^m	49° 16′
Middelburgum Zelandiæ.	S 0^h 4[numeral: ?]^m	51° 40′
Miletus Cariæ	A 1^h 31^m	37° 0′
Milteburgum Franconiæ	S 0^h 20^m	49° 44′
Mindena Saxoniæ	S 0^h 29^m	52° 50′
Minoa Cretæ	A 1^h 12^m	35° 0′
Minorica Insula	S 1^h 14^m	39° 30′
Moguntia superioris German.	S 0^h 31^m	50° 8′
Monachum Bavariæ	S 0^h 13^m	48° 0′

Civitates & Oppida insigniora.	Tempus (Hor.Scr.)	Latitud. (Gr : Scr.)
Monasterium VVestphaliæ	S 0^h 34^m	52° 0′
Mons Pessulanus	S 0^h 45^m	43° 5′
Mons regius Franconiæ	S 0^h 18^m	50° 16′
Mons regius Prussiæ	A 0^h 37^m	54° 57′
Mons S. Annæ Misniæ	S 0^h 10^m	50° 31′
Mosqua regia Moscoviæ	A 1^h 58^m	55° 30′
Mutina Italiæ.	S 0^h 2^m	44° 8′
Mycenæ Argiæ	A 0^h 57^m	36° 10′
Naim Persiæ	A 3^h 44^m	33° 0′
Narbona Galliæ	S 0^h 52^m	43° 30′
Naupactus vel Lepantum	A 0^h 46^m	37° 35′
Neapolis Austriæ	A 0^h 8^m	47° 54′
Neapolis Italiæ	A 0^h 29^m	40° 20′
Neobrandenburgum Megapolit.	S 0^h 6^m	53° 44′
Neoburgum ad Danub.	S 0^h 17^m	48° 40′
Neoburgum Thuringiæ	S 0^h 20^m	51° 20′
Nicæa Ponti	A 1^h 28^m	41° 40′
Nicomedia Ponti	A 1^h 28^m	42° 30′
Nicopolis Armeniæ	A 1^h 58^m	41° 40′
Nicopolis Thraciæ	A 0^h 2^m	42° 20′
Nidrosra Norvegiæ	S 0^h 47^m	60° 50′
Nigira Libyæ	A 0^h 1^m	17° 40′
Nigropontus Insula	A 1^h 11^m	38° 15′
Ninive Assyriæ.	A 2^h 50^m	36° 40′
Nissa Silesiæ.	A 0^h 9^m	50° 30′
Nordlinga Nigræ sylvæ	S 0^h 14^m	48° 49′
Noriberga Franconiæ	S 0^h 17^m	49° 26′
Northusium Thuringiæ	S 0^h 18^m	51° 43′
Civitates & Oppida insigniora.	**Tempus (Hor.Scr.)**	**Latitud (Gr. Scr)**
Novogardia Russia	A 1^h 30^m	60° 10′
Numidiæ medium Affricæ.	S 0^h 6^m	31° 0′
Olmuntha Moravia	A 0^h 10^m	49° 30′
Onolsbachium	S 0^h 19^m	49° 43′
Oppenheim.	S 0^h 31^m	49° 52′
Orliens Aurelia	S 1^h 5^m	47° 13′
Ormus Insula in Persico sinu	A 3^h 28^m	27° 0′
Osnaburgum VVestphaliæ.	S 0^h 34^m	52° 0′
Ottinga Boiariæ	A 0^h 6^m	48° 8′
Ottinga Sueviæ.	S 0^h 20^m	48° 58′
Ox[?]nium Angliæ	S 1^h 44^m	51° 51′
Padeborna VVestphaliæ.	S 0^h 28^m	52° 0′
Palybotra Prasiorum.	A 7^h 10^m	27° 0′
Panormus Siciliæ	A 0^h 9^m	36° 0′
Paphos Cypri civitas **Baffo**	A 1^h 53^m	35° 10′
Papia Longobardiæ	S 0^h 12^m	44° 28′
Parma Flaminiæ in Italia	S 0^h 5^m	44° 20′
ParnormusGræciæ	A 1^h 0^m	41° 0′
Parsis Gedrosiæ	A 4^h 43^m	23° 30′
Parthenope vel Palmosa.	A 0^h 10^m	40° 45′

Civitates & Oppida insigniora.	Tempus (Hor.Scr.)	Latitud. (Gr : Scr.)
Patavium Bavar. **Passau**	S 0^h 7^m	48° 42′
Patavia Italiæ **Padua**	S 0^h 1^m	45° 24′
Pergamus Doridis	A 1^h 26^m	39° 45′
Persepolis Persiæ	A 3^h 41^m	33° 30′
Petra Arabiæ seu Arach	A 2^h 4^m	5[?]0° 20′
Petrichovia Poloniæ	A 0^h 35^m	51° 41′
Peurbachium Austriæ	S 0^h 6^m	48° 14′
Phacusa Metrop. Arabiæ	A 1^h 50^m	30° 50′
Philadelphia curva Syriæ	A 2^h 4^m	31° 20′
Philadelphia Lydiæ	A 1^h 32^m	38° 50′
Phorcena Marchiæ Badena	S 0^h 28^m	49° 7′
Pictavium Avernia	S 1^h 11^m	48° 20′
Picora ad Oreglenianam Peruv.	S 4^h 54^m	10 Mer.
Pisa Thusciæ	S 0^h 5^m	42° 56′
PolocZcovia ad Dunam	A 1^h 18^m	56° 30′
Pompeiopolis Navarræ.	S 1^h 26^m	43° 9′

Civitates & oppida insigniora.	Tempus (Hor. Scr)	Latitud (Grad.Sc)
Posnania poloniæ	A 0^h 10^m	52° 44′
Posonium Hungariæ	A 0^h 14^m	48° 8′
Præneste Italiæ	A 0^h 20^m	41° 55′
Praga Bohemiæ	S 0^h 2^m	50° 6′
Przecopia in isthmo Taur. Chers.	A 1^h 48^m	48° 0′
Ptolemais Phænic:	A 2^h 5^m	33° 10′
PutZbachium	S 0^h 28^m	50° 35′
Quinsai	A 8^h 14^m	41° 0′
Ragusia Dalmatiæ	A 0^h 49^m	42° 20′
Rapta Aethiopiæ Metrop.	A 2^h 20^m	7 Meri.
Ratisbona ad Danubium	S 0^h 10^m	48° 57′
Ravenna Italiæ	A 0^h 5^m	43° 44′
Regium Iulium Calabr.	A 0^h 33^m	38° 0′
Reichenbachia SiL.	A 0^h 7^m	50° 41′
Resan Moscovitici regni	A 2^h 5^m	54° 40′
Revalia Livoniæ	A 1^h 2^m	60° 5′
Rhemis Campaniæ	S 0^h 48^m	48° 45′
Rhodus Insula	A 1^h 30^m	35° 30′
Riga Livoniæ	A 1^h 0^m	57° 36′
Roma Ital.	A 0^h 16^m	42° 4′
Roquelai Norembeg.	S 5^h 32^m	48° 0′
Rostochium Megapolit.	S 0^h 10^m	54° 19′
Rostovia ad Volgam	A 2^h 0^m	57° 20′
Rothomagus	S 1^h 0^m	49° 10′
Saba Arabiæ felicis	A 2^h 42^m	13° 0′
Sabat Aethiop.	A 2^h 8^m	12° 30′
Sænis Thusciæ	[41] 0^h 0^m	42° 32′

[41]no note letter printed

Civitates & oppida insigniora.	Tempus (Hor. Scr)	Latitud (Grad.Sc)
Saganum SiL.	A 0^h 1^m	51° 30′
Saguntum Valentiæ	S 1^h 26^m	39° 40′
Salboy Mexicanæ	S 10^h 37^m	57° 0′
Salernum Campan.	A 0^h 17^m	40° 30′
Salisburgum Bojar. inferioris	S 0^h 9^m	47° 44′
Salmantica Castiliæ	S 1^h 49^m	40° 15′
Salveldia Thuring.	S 0^h 14^m	50° 46′
Samarchand Tartar. magn.	A 4^h 42^m	45° 0′
Samaria Regia	A 2^h 1^m	32° 20′
Sambiensis Episcopatus	A 0^h 45^m	55° 0′
Samothracia Insula	A 1^h 23^m	37° 35′
Civitates & oppida insigniora.	**Tempus (Hor. Scr)**	**Latitud (Grad.Sc)**
Sardinia Insula	S 0^h 15^m	37° 30′
Schaffhusia Helvetiorum	S 0^h 27^m	47° 28′
Scotia Insula	S 0^h 42^m	52° 0′
Scyros Insula Aegæa	A 1^h 12^m	39° 0′
Scyros Insula Cyclad.	A 1^h 19^m	37° 15′
Segnia Illyr.	A 0^h 7^m	44° 45′
Selestadium Alsatiæ	S 0^h 35^m	48° 20′
Seleucia Pisidiæ vulgo Scandalor	A 1^h 51^m	38° 30′
Sera Serica Appiano	A 9^h 6^m	38° 35′
Sicilia Insula	A 0^h 12^m	37° 0′
Sidon Phœnic.	A 2^h 7^m	33° 0′
sittavia Lusat.	S 0^h 1^m	50° 52′
Slesbigum Holsatiæ	S 0^h 18^m	55° 54′
Smirna Asia	A 1^h 28^m	38° 25′
Smolenscovia in finibus Litvan.	A 1^h 25^m	55° 26′
Sotzama Metropolis Muldav.	A 1^h 7^m	47° 20′
Spira superioris German.	S 0^h 29^m	49° 20′
Spoletum umbriæ	A 0^h 15^m	42° 4′
Stargardia Pommeran.	A 0^h 5^m	53° 20′
Stetinum Pomeraniæ	A 0^h 3^m	53° 30′
Stockolmia Sueciæ	A 0^h 14^m	59° 30′
Stralsundum Pomeran.	S 0^h 6^m	54° 22′
Strictum victoriæ in freto Magel	S 4^h 50^m	50 Meri.
Straubinga Bavar.	S 0^h 11^m	48° 46′
Stridona	A 0^h 30^m	44° 30′
Strupili castrum Moscov. sept.	A 3^h 24^m	63° 0′
Stulslaud Lapp.	A 1^h 32^m	66° 30′
Sturgardia VVirtenberg. Duc.	S 0^h 25^m	48° 40′
Susa nunc Baldach Susianæ	A 3^h 13^m	34° 15′
Susdalia Moscovitici regni	A 2^h 5^m	57° 0′
Svueinphordia	S 0^h 20^m	50° 10′
Suidnitium SiL.	A 0^h 6^m	50° 48′
Syenæ Aphricæ	A 0^h 45^m	25° 50′
Syngidunum Mysiæ	A 0^h 52^m	44° 30′
Syracusa Sicil.	A 0^h 14^m	37° 15′
Syr oppidum Arab. felicis	A 3^h 24^m	22° 0′

Civitates & oppida insigniora.	Tempus (Hor. Scr)	Latitud (Grad.Sc)
Tanis Metrop. Aegypti	A 1^h 47^m	30° 50′
Tarbacan Persiæ	A 4^h 42^m	38° 0′
Tarentum Apuliæ	A 0^h 35^m	40° 0′
Tarracon Cathalon.	S 1^h 16^m	41° 0′
Tarsus Cilic.	A 2^h 8^m	36° 50′
Taurinum Longobard.	S 0^h 19^m	44° 4′
Taursium Mediæ	A 3^h 28^m	38° 0′
Tenedos Insula	A 1^h 16^m	40° 45′
Ternate Insula ex Moluc.	A 8^h 0^m	2° 0′
Tervisium March. Taurisan.	[42] 0^h 0^m	45° 32′
Thessalonica	A 0^h 55^m	40° 20′
Thebæquæ & Heliop. Affric.	A 0^h 47^m	29° 30′
Thebæ Arab. felicis	A 2^h 15^m	21° 0′
Thebæ Bœot.	A 0^h 51^m	37° 55′
Thebæ Metropolis Ind.	A 11^h 11^m	3° 20′
Thunetum Affric.	S 0^h 9^m	32° 30′
Thul. Insul. medium	S 0^h 51^m	63° 0′
Tidore Insula ex Moluccis	A 8^h 0^m	1° 0′
Tiguex ad mare **del Sur**	S 10^h 34^m	30° 30′
Tigurum Helvet.	S 0^h 28^m	46° 48′
Tingis Aphr.	S 1^h 57^m	35° 50′
Toletum Hispan.	S 1^h 44^m	39° 55′
Tolossa Gall.	S 1^h 1^m	43° 30′
Torga Misn.	S 0^h 9^m	51° 30′
Tornacum Flandr.	S 0^h 47^m	51° 32′
Torunium in finibus Boruss.	A 0^h 22^m	52° 56′
Trajectum Holland.	S 0^h 39^m	52° 20′
Trapezus Cappadoc.	A 2^h 16^m	43° 5′
Treveris LutZenburgi	S 0^h 38^m	49° 55′
Tridentum Taurisan. March.	S 0^h 5^m	46° 6′
Tripolis Barbar.	S 0^h 33^m	31° 40′
Tripolis Phænit.	A 2^h 8^m	34° 20′
Trutavia Francon.	S 0^h 17^m	49° 46′
Tubinga Virtenberg.	S 0^h 25^m	48° 47′
Tueria ad Volgam	A 1^h 52^m	56° 57′
Turonia Galliæ	S 1^h 5^m	47° 20′
Tybur Ital.	A 0^h 17^m	42° 0′
Tyrus Phænit.	A 2^h 6^m	33° 20′
Valentia Allobrogum	S 0^h 43^m	44° 40′
Civitates & oppida insigniora.	**Tempus (Hor.Scr)**	**Latitud (Grad.Sc)**
Vallis Doleti	S 1^h 51^m	42° 20′
Vallis Ioachimi Bohemiæ	S 0^h 10^m	50° 20′
Vallis Ioach. March. Br. Gymn.	S 0^h 3^m	53° 0′
Varadinum Hungariæ	A 0^h 43^m	48° 3′
Varna Misiæ	A 1^h 25^m	45° 15′
Vberlinga Germ. magn.	S 0^h 20^m	47° 43′
Velsnacum Marchia	S 0^h 12^m	53° 15′

[42] no note letter printed

Civitates & oppida insigniora.	Tempus (Hor. Scr)	Latitud (Grad.Sc)
Venetiæ	A 0^h 1^m	45° 50′
Verona Helvetiorum **Bern**	S 0^h 34^m	46° 25′
Verona Italiæ	S 0^h 6^m	45° 16′
Viberga Daniæ	S 0^h 16^m	57° 0′
Viburgum Finlandiæ	A 1^h 40^m	61° 40′
Vienna Pannoniæ	A 0^h 11^m	48° 22′
Vienna Provinc. Delph.	S 0^h 47^m	44° 48′
Villacum Carinth.	A 0^h 3^m	46° 8′
Villinga nigr. sylv.	S 0^h 29^m	47° 12′
Vimaria Thuringiæ	S 0^h 16^m	51° 15′
Vincentia Thaurisan.	S 0^h 3^m	45° 36′
Viterbium Thusciæ	A 0^h 12^m	41° 40′
Vlma Suev.	S 0^h 22^m	48° 26′
Vpsalia Suec.	A 0^h 14^m	60° 30′
Vraniburgum Huenæ Ins.	S 0^h 12^m	55° 55′
Vratisl. SiL.	A 0^h 8^m	51° 10′
Vueliki Derm Sebiriæ.	A 3^h 45^m	60° 0′
Vueliki Tumen Sebir.	A 3^h 48^m	56° 0′
Vverdena	S 0^h 26^m	53° 25′
Vuologda Moscoviti regni	A 2^h 5^m	59° 57′
Vuiteberga Saxon:	S 0^h 8^m	51° 52′
Vuormatia superioris Germ.	S 0^h 30^m	49° 44′
Zaba Insul. Taproban. adja.	A 6^h 35^m	0° 0′
Zacynthus Insula	A 0^h 6^m	36° 30′
Zara Illir.	A 0^h 25^m	44° 11′
Zerbestum Anhald.	S 0^h 10^m	52° 8′
Zingerhusa	S 0^h 14^m	51° 39′
Zirizæa Insula	S 0^h 44^m	52° 0′
Znoimia Morav:	S 0^h 6^m	48° 49′

I am obliged at this point to warn the lover of the stars about a controversy that has arisen between me and a certain Italian, Giovanni Antonio Magini, concerning the difference of meridians between these three notable cities — Venice, Königsberg in Prussia, and Frankfurt an der Oder — since I see him challenging me in that strawy *Apologia* of his, a book certainly full of mud, that is to say, of slanders and a taste for abuse. I shall therefore recount briefly the beginnings from which the controversy arose, and afterwards submit the matter itself to the judgement of fair-minded men. As for the calculation of the Ephemerides itself, I have dealt with it sufficiently above, in the Letter to the Reader.

[Margin: The error of Magini in the difference of meridians is noted.]

In the previous edition of my Ephemerides I first set out for the reader the reasons that had moved me to calculate Ephemerides. I then showed that it was at the urging of others that I sent mine to press, even after I had seen Magini's, and that I did so precisely in order to serve these regions of ours by my own labour. Finally I added that I had found certain things in Magini's

work that ought not to be passed over or suppressed, and among these I noted in the first place the discrepancy of the meridians. I declared, for my part, that I had computed my Ephemerides from the Prutenic Tables to that difference of meridians which Reinhold himself sets at 37^m of time, and which I made plain by working an example. For I determined that Frankfurt is removed by exactly that much from the meridian of Königsberg in Prussia, as the catalogue of places appended to my Ephemerides also shows. My opponent differs from me by only two minutes of time, which he makes fewer, since in his own catalogue of notable places he gives Frankfurt the same longitude as Venice. And so Frankfurt itself will likewise be 35^m of time further west than Königsberg, on his placing of Venice.

[Margin: The author constructed his Ephemerides to the meridian of Frankfurt an der Oder, 37^m of time further west than the meridian of the Prutenic Tables.]

But I found that Magini had composed his Ephemerides to a difference of 50^m, which is likewise expressed in the Prutenic Tables — something he does not dare deny in his *Apologia*, but is forced to admit in these words: "For when I was reducing the roots of the celestial motions of the Prutenic canons to the meridian of Venice, I supposed, with Apianus, that the longitude of Venice was 32½°, and that Reinhold had assumed the longitude of Königsberg to be 45°, since nowhere does he express the longitude of his own city in degrees. I therefore observed a difference of 50^m between the two meridians, just as Reinhold himself left it noted in the Prutenic Tables."

[Margin: Magini composed his Ephemerides to the meridian of Venice, 50^m of time further west than Königsberg in Prussia.]

Nor would there have been any need for Magini to appeal to his own calculation against himself, when he goes on to say: "This truth will be established from my roots reckoned to the year 1581, and set at the beginning of that year 1581 in my Ephemerides, if an operation of this kind be repeated" — since even without his prompting in the Ephemerides, which was the one thing required, I had already noticed well enough from the calculation that the matter stands so. He therefore confirms the very thing I objected: that his Ephemerides are computed to a difference of longitude of 50^m. With what face, then, did the deceiver dare, in his catalogue of notable places, to alter that difference and set it at 35^m? Does he suppose that Reinhold and Copernicus, who each fixed on a definite meridian for himself — the latter Frombork [Fruenburgum], the former the neighbouring Königsberg in Prussia — went astray in it, and that he is the very man who can correct the error of these craftsmen without a single observation carried out in those places?

[Margin: But he imprudently says that this same meridian is only 35^m of time distant.]

Such, indeed, seems to be the cast of a windy intellect. But Magini the pupil is much mistaken, and unjustly flogs his own German teacher Reinhold, as though — to use Magini's words — it were not Magini himself who went astray

in the meridian of Venice, but Reinhold in fixing the longitude of Königsberg, and as though Reinhold had applied his tables not to Königsberg, as he believed, but rather to some other meridian (perhaps of a place in Utopia). Adriaan van Roomen is mistaken too — in other respects an outstanding mathematician — who, having failed to grasp my meaning correctly, ventured to write that in publishing my Ephemerides I had set out to diminish Magini's reputation and to convict his whole work of Ephemerides of imperfection. For have so many students of mathematics used the Prutenic Tables so carelessly that not one of them noticed the error which Magini alone has pointed out? Is not everyone free to write and publish something in the art he professes? Or do the two of them imagine that Magini has obtained this privilege in the whole world, that he alone and no one else may compute and publish Ephemerides? Does a man who gives a friendly warning about the truth at once injure another's reputation? We are human; to err is not foreign to us, but to persist in error is devilish?

[Margin: Magini indeed arrogates a great deal to himself, but in the difference of longitude he is held fast.]

What the reasons were that drove me to compute and publish Ephemerides, the Letter to the Reader shows clearly enough — written in the most courteous manner and without any bitterness — and to it I refer anyone who judges in good faith. But Magini, who has convinced himself that he has snatched the palm from the Germans in astronomy, and who now seems to himself to be the only man with any understanding of it, invents a great deal in order to extricate and free himself from the difference of longitude he rashly altered, while he strives to show that I have gone wrong — now by six minutes of time, and presently by a quarter of an hour — from the true calculation of the Prutenic Tables, on the strength of longitude figures which he supposes serve his case. For my part I refer Magini back to the Prutenic Tables themselves, which he would gladly shake out for the studious youth with his patchwork Tables of the Secondary Mobiles, if only he could; and I draw this inference. With Reinhold as my guide, I assigned Frankfurt a meridian 37^{m} further west than the meridian of Königsberg; he, with the same Reinhold as his guide, assigned Venice a meridian 50^{m} further west than the meridian of Königsberg. Then, without cause and rashly, he abandoned the meridian he had fixed for himself, and now contends in vain that the difference of longitude is 35^{m} of time. This is how the controversy stands. Let every fair-minded man now judge how Magini can demonstrate from Ptolemy that the meridian of Königsberg was set too far east by Reinhold with respect to Venice, and must be drawn back 15^{m} of time towards the west, on the ground that the difference of longitude which Ptolemy puts between Venice and Alexandria — 55^{m} — should remain whole and unimpaired; when he himself, in his catalogue of places, puts that same difference at $1^{h}\ 52^{m}$. Is he not playing to no purpose and pouring out empty words, disgracefully confounding himself and rendering his own catalogue thoroughly suspect?

[Margin: Magini appeals in vain to Ptolemy and others, since he has abandoned them in determining longitudes.]

Ptolemy knew nothing of Königsberg, and therefore pronounced nothing about its meridian; and nevertheless Magini contends that the meridian of Königsberg was rightly determined with respect to Alexandria, but wrongly with respect to Venice, as determined by Reinhold. Magini certainly plays here, as he does elsewhere, with his hypotheses and his own imagination. I could wish, though, that I had the opportunity of reading the whole *Apologia* written against Francesco Giuntini the Jesuit; I might perhaps find Magini still more entangled. But I long for it in vain, since Italian writings rarely reach us. And in vain, too, do I detain the reader here any longer. I conclude rather that Magini's error has now been made more obvious by an ill-fitting defence than it was before, and that greater fairness is to be required of him — towards Reinhold, a teacher who deserved excellently of astronomical studies, and towards the others whom he slanders too rashly and too boldly.

As for the meridian of Frankfurt an der Oder with respect to that of Uraniborg on Hven, I frankly admit that I set it 12^m of time further east than Hven itself. This is what the observation of the eclipse of the year 1598 taught me, before I had noticed what meridian the most noble astronomer Tycho Brahe assigned to it — a point which I also set out at greater length in my account of the solar eclipse of that year. Since, then, I dissemble nothing but openly declare what longitude I observed, those who may wish to dispute at length with me about an error committed in the matter will have no proper cause for it. Let them rather explore carefully, with instruments, how far the syzygies of the luminaries described here agree with the meridians they have adopted for themselves, and pronounce from that on the difference of longitude. If this is done by many observers in different places on earth, we shall at last be brought to the determination of longitudes we all want — a thing which is harder on land because of the many windings of the roads, and so too at sea for sailors, precisely because the parallels are of unequal size, and there is no fixed index for them in the sky as there is for latitudes. About the geographers I need say nothing: their disagreements are familiar even to beginners in mathematics. Gemma Frisius, in his revised edition of Apianus, puts the longitude of Prague at 35° 30′ and that of Hafnia, or Copenhagen, at 40° 30′; and so Hafnia would be 20^m of time further east than Prague. Tycho Brahe, however, on p. 131 of the first part, makes Prague 5^m of time further east than Hven.

And if I were to add the 2^m by which Prague is further west than Frankfurt, Frankfurt would differ from Hven by only seven minutes.

Pars Secunda. DE MOTIBVS.

Caput I.

De ſtellis, orbibus, circulis & aſpectibus generalia quædam.

(Part Two. On Motions. Chapter I. Some general matters concerning the stars, the orbs, the circles and the aspects.)

[Margin: "The stars in the heaven are either…"]

Now that the first Part has worked through everything bearing on the exact determination of times, three things must be settled at the outset if we are to study the motions of the heavenly bodies to any profit: 1. how the heavenly bodies are to be told apart; 2. what hypotheses are needed for separating and determining them, so that their positions may be known for any time whatever; and 3. by what rays or aspects they mingle their powers with one another. As to the first: the only bodies in the higher heaven that we recognize as acting upon our sight are the stars, and that they are solid, dense and full of light is something no one fails to see.

[Margin: "…fixed or wandering."]

They divide into fixed stars, called by the Greeks ἀπλανεῖς [Greek: aplaneis, "non-wandering" — the fixed stars], and wandering stars, which the Greeks call πλανῆται [Greek: planētai, "wanderers" — the planets].

[Margin: "The fixed stars are those that keep an almost fixed distance from one another."]

The fixed stars are the highest stars, those said to belong to the firmament. They keep the same distance from one another perpetually, and they always retain the same figures they have borne since they were first assigned — which is where their name comes from.

[Margin: "The fixed stars are distinguished, first, by the figures."]

Of these, the more conspicuous ones — those the ancient astronomers, Ptolemy, al-Battānī [Albategnius], the Alphonsine astronomers and Copernicus, could detect by eye and by instrument, since not all of them are open to the eye and the instrument — were counted at 1022; and all of these have been determined in longitude and latitude as well. Most of them the ancients enclosed within figures or images, and these are accordingly called ἀστρόθεται *or in* θέσει [?] *[Greek: astrothetai, "set among the stars", and thesei [?], "in position"] — that is, stars in a definite constellation. The rest, outside the figures, they called* informes, ἀθέτας *or* ἀνωνύμους *[Greek: athetas, "unplaced", and anōnymous, "nameless"].*

[Margin: "Secondly, by position."]

The figures are distributed, by their position, into those that lie in the zodiac and those that lie outside it. The stars themselves are divided on another principle into 6 magnitudes. Those are called of the first magnitude which surpass the rest in size and in abundance of light; of the second, those that are largest after the first; of the third, those smaller than the second; of the fourth, those again smaller than the third; of the fifth, those smaller than the fourth and larger than the stars of the sixth magnitude;

and of the sixth, finally, those that are smallest of all. To these Copernicus and the Prutenic Tables add 9 obscure and 5 nebulous stars.

[Margin: "Thirdly, by magnitude."]

[Margin: "The figures in the zodiac are 12."]

The figures in the zodiac are reckoned at 12, and the ancients assign 346 stars to them, if we count in the neighbouring unformed stars.

Tycho Brahe, the restorer of the astronomy of our own age, has described and determined for us the stars in the zodiac as of the year of Christ 1600 — 306 of them, being those he was able to observe with his instruments on the island of Hven, where he kept his castle of Uraniborg. These are publicly available in bk. 1 of the *Progymnasmata* (Tycho Brahe, *Astronomiae instauratae progymnasmata*). There are a further 27 that are not yet published, though perhaps they soon will be; these were communicated to me by the mathematician of the Most Illustrious Elector of Bran- —denburg, my most gracious lord: Johann Müller Variscus [Ioanne Mullero Variſco], a most learned man and my particular friend.

[Margin: Aries.]

The first of the zodiacal figures is Aries, to which the ancients assign 13 stars — 2 of the third magnitude, 4 of the fourth, 6 of the fifth, 1 of the sixth — together with 5 unformed stars [informes]: 1 of the third magnitude, 1 of the fourth, 3 of the fifth. Tycho, however, counts 21 stars in ♈, among which, the unformed included, there are 2 of the third magnitude, 5 of the fourth, 4 of the fifth, 10 of the sixth.

[Margin: Taurus.]

The second is Taurus. To this the ancients assigned 33 stars — 1 of the first magnitude, 7 of the third, 11 of the fourth, 13 of the fifth, 1 of the sixth — and 11 unformed: 1 of the fourth magnitude and 10 of the fifth. Tycho attributes 43 stars to Taurus: 1 of the first magnitude, 1 of the second, 5 of the third, 8 of the fourth, 17 of the fifth, 11 of the sixth.

[Margin: Gemini.]

The third is Gemini. In this asterism the ancients counted 18 stars — 2 of the second magnitude, 5 of the third, 9 of the fourth, 2 of the fifth — and 7 unformed: 3 of the fourth magnitude and 4 of the fifth. Tycho counts 25 stars in ♊: 3 of the second magnitude, 4 of the third, 8 of the fourth, 4 of the fifth, 6 of the sixth; and 5 unformed, all of the sixth magnitude, which are not found in bk. 1 of the *Progymnasmata*.

[Margin: Cancer.]

The fourth is Cancer. To this the ancients ascribed 9 stars — 7 of the fourth magnitude, 1 of the fifth, and 1 nebulous — and 4 unformed: 2 of the fourth magnitude and 2 of the fifth. Tycho describes 15 stars: 1 of the third magnitude, 3 of the fourth, 6 of the fifth, 4 of the sixth, and 1 nebulous.

[Margin: Leo.]

The fifth is Leo. To this the ancients attributed 27 stars — 2 of the first magnitude, 2 of the second, 6 of the third, 8 of the fourth, 5 of the fifth, 4 of the sixth — and 8 unformed: 1 of the fourth magnitude, 4 of the fifth, 1 luminous,

2 obscure. Tycho gives Leo 30: 2 of the first magnitude, 2 of the second, 5 of the third, 11 of the fourth, 4 of the fifth, 6 of the sixth; and 10 unformed, which do not appear in the *Progymnasmata* — 3 of the fourth magnitude, 6 of the fifth, 1 of the sixth.

[Margin: Virgo.]

The sixth is Virgo. To this the ancients assigned 26 stars — 1 of the first magnitude, 6 of the third, 6 of the fourth, 11 of the fifth, 2 of the sixth — and 6 unformed: 4 of the fifth magnitude and 2 of the sixth. Tycho counts 33: 1 of the first magnitude, 5 of the third, 7 of the fourth, 8 of the fifth, 12 of the sixth; and 6 unformed, all of the fifth magnitude, which are not listed in the *Progymnasmata*.

[Margin: Libra.]

The seventh is Libra. Its stars are set by the ancients at 8 — 2 of the second magnitude, 4 of the fourth, 2 of the fifth — and 9 unformed: 1 of the third magnitude, 5 of the fourth, 2 of the fifth, 1 of the sixth. Tycho counts 10: 2 of the second magnitude, 1 of the third, 4 of the fourth, 2 of the fifth, 1 of the sixth; and 8 unformed, 2 of the third magnitude, 5 of the fourth, 1 of the fifth, which do not yet appear in the *Progymnasmata*.

[Margin: Scorpius.]

The eighth is Scorpius. The ancients count its stars at 21 — 1 of the second magnitude, 13 of the third, 5 of the fourth, 2 of the fifth — and three unformed: 2 of the fifth magnitude and 1 nebulous. But since this asterism of Scorpius leans far into the south, so that in Denmark the greater part of it lies below the horizon, Tycho described only ten stars of Scorpius: 1 of the first magnitude, 1 of the second, 2 of the third, 4 of the fourth, 2 of the fifth.

[Margin: Sagittarius.]

The ninth is Sagittarius. To this the ancients ascribe 31 stars — 2 of the second magnitude, 9 of the third, 9 of the fourth, 8 of the fifth, 2 of the sixth, and 1 nebulous. Of these Tycho, for the reason just given, lists only 14: 7 of the fourth magnitude, 2 of the fifth, 5 of the sixth.

[Margin: Capricornus.]

The tenth is Capricorn, whose stars the ancients describe as 28 — 4 of the third magnitude, 9 of the fourth, 9 of the fifth, 6 of the sixth. Tycho counts exactly as many: 4 of the third magnitude, 1 of the fourth, 7 of the fifth, 13 of the sixth, and 3 nebulous.

[Margin: Aquarius.]

The eleventh is Aquarius. His stars are set by the ancients at 42 — 1 of the first magnitude, 9 of the third, 18 of the fourth, 13 of the fifth, 1 of the sixth — with 3 unformed, all of the fourth magnitude. Tycho, however, describes 41 stars of Aquarius: 1 of the first magnitude, 4 of the third, 7 of the fourth, 22 of the fifth, 7 of the sixth.

[Margin: Pisces.]

The last figure, that of the Fishes, is of two joined by a cord. All their stars are counted by the ancients at 34: 2 of the third magnitude, 22 of the fourth, 3 of

the fifth, 7 of the sixth; and 4 unformed, all of the fourth magnitude. Tycho, for his part, lists 36: 1 of the third magnitude, 5 of the fourth, 17 of the fifth, 13 of the sixth.

[Margin: "The figures outside the zodiac."]

The figures that lie outside the zodiac are constituted partly towards the north and the arctic pole, which is raised above us, and partly towards the south and the antarctic pole, which is depressed below us.

[Margin: "Northern."]

The northern figures, those that appear outside the zodiac towards the north, are 21, and the ancients reckon 360 stars to them. Tycho, however, lists 341 in the *Progymnasmata*, and in later years added a further 127 stars, which are not yet published.

[Margin: Ursa Minor]

The first figure — at present the nearest of all to the northern or arctic pole of the world — is ἄρκτος μικρά [Greek: arktos mikra, "the Little Bear"], *the Lesser Bear, which is also called Cynosura, and likewise the Lesser Wain.*

To this the ancients assign 7 stars: 2 of the second magnitude; one of the third, which is the outermost in the tail and is the pole star, called Alrukaba by the Arabs — so called not because it is set at the pole itself, since by the reckoning of the Prutenic Tables it stands nearly 3° 21′ away from it, but because no bright star in the heaven lies nearer the pole; and 4 of the fourth magnitude, together with one unformed star of the fourth magnitude.

[Margin: Stella polaris.]

Tycho likewise attributes 7 stars to the Lesser Bear: 2 of the second magnitude, one of which is the pole star, which on his reckoning now stands 2° 50′ from the pole — as observations also confirm — while the other is the upper of the two leading stars of the quadrangle; then 1 of the third magnitude, 3 of the fourth, 1 of the fifth. To these he adds 11 further unformed stars, all of the sixth magnitude, which have not yet been published.

[Margin: Ursa Major]

The second is Ἄρκτος μεγάλη [Greek: Arktos megalē, "the Great Bear"], *the Great Bear, which is also called* ἑλίκη [Greek: helikē, "the coiling one"], παρὰ τὸ ἑλίσσεσθαι ἢ στρέφεσθαι περὶ τὸν πόλον ἤτοι ἄξονα *[Greek: para to helissesthai ē strephesthai peri ton polon ētoi axona, "from its winding or turning about the pole, that is, the axis"]. It is likewise* ἅμαξα [Greek: hamaxa, "wagon"], *the Greater Wain.*

By the ancients' account this figure has 27 stars: 6 of the second magnitude, 8 of the third, 8 of the fourth, 5 of the fifth. Unformed, 8: 1 of the third magnitude, 2 of the fourth, 1 of the fifth, and 4 obscure. Tycho, though, places 29 stars within the figure: 8 of the second magnitude, 3 of the third, 12 of the fourth, 6 of the fifth. Outside the figure he separately observed and described 27 stars, not yet published: 1 of the third magnitude, 8 of the fourth, 5 of the fifth, 13 of the sixth.

[Margin: Draco]

The third is Draco, or the Serpent, which embraces the Lesser Bear with its winding body.[43] By the ancients' prescription it consists of 31 stars: 8 of the third magnitude, 16 of the fourth, 5 of the fifth, 2 of the sixth. Tycho counts 32: 1 of the second magnitude, 11 of the third, 13 of the fourth, 7 of the fifth.

[Margin: Cepheus.]

The fourth is κηφεύς [Greek: Kēpheus], *Cepheus,* close by the Lesser Bear, with both hands stretched up into the sky. The ancients assign him eleven stars: 1 of the third magnitude, 7 of the fourth, 3 of the fifth; and two unformed, one of the fourth magnitude, the other of the fifth. Tycho, it is true, recounts only four in the *Progymnasmata* — 2 of the third magnitude and 2 of the fourth — but in later years he added 7 more: 1 of the third magnitude, 5 of the fourth, 1 of the fifth, which have not yet been published.

[Margin: Bootes.]

The fifth is Bootes, or Arctophylax, who is set beside the Great Bear as her guardian. The ancients marked him with 22 stars: 4 of the third magnitude, 9 of the fourth, 9 of the fifth. He also has one unformed star, called Alramech by the Arabs and commonly Arcturus. Tycho sets out 18 stars of Bootes in the *Progymnasmata*: 1 of the first magnitude, 6 of the third, 11 of the fourth. Afterwards he added 11 more: 2 of the fourth magnitude, 5 of the fifth, 4 of the sixth.

[Margin: Corona Borealis.]

The sixth is στέφανος βόρειος [Greek: stephanos boreios, "the Northern Crown"], *the Northern Crown, the Gnosian Crown,* which the ancients draw with 8 stars: 1 of the second magnitude, 5 of the fourth, 1 of the fifth, 1 of the sixth. Tycho likewise puts 8: 1 of the second magnitude, 4 of the fourth, 1 of the fifth, 2 of the sixth.

[Margin: Hercules.]

The seventh is Hercules, who is also called Ergonaſi[44]. He is drawn resting on his right knee, holding a club in his right hand and the lion's skin in his left, so that he may look as much as possible like a man in combat. By the ancients' account he has 27 stars: 6 of the third magnitude, 17 of the fourth, 2 of the fifth, 2 of the sixth, and 1 unformed star of the fifth magnitude. Tycho counts 28: 9 of the third magnitude, 15 of the fourth, 1 of the fifth, 2 of the sixth, and 1 nebulous.

[Margin: Lyra.]

The eighth is Lyra, which is also called Fidicula, and likewise the Falling Vulture. In it —the ancients set out 10 stars: 1 of the first magnitude, 2 of the third, 7 of the fourth. Tycho, however, describes 11: 1 of the first magnitude, 2 of the third, 1 of the fourth, 5 of the fifth, 2 of the sixth.

[Margin: Cygnus,]

The ninth is Cygnus, which is also called Gallina (the Hen), and in the general sense ὄρνις [Greek: ornis, "bird"], *the Bird.* In it the ancients placed 17 stars: 1

[43] the leaf prints *compectitur*.
[44] so printed

of the second magnitude, 5 of the third, 9 of the fourth, 2 of the fifth; and two unformed stars of the fourth magnitude. Tycho, for his part, counts 18 in the *Progymnasmata*: 1 of the second magnitude, 5 of the third, 11 of the fourth, 1 of the fifth.

[Margin: On the new star in Cygnus.]

And although he later joined eight others to those stars — descriptions of which have not yet been published, three of them of the fourth magnitude and 5 of the sixth — nevertheless some time ago, around the beginning of the year 1601, yet another new star of the third magnitude, previously remarked by no one, newly appeared. It is at the root of the neck of Cygnus, not far from a star likewise of the third magnitude in the breast of Cygnus, and it is still to be seen at the present time, unchanging in its former size. Its longitude is 16° 18′ of ♒, with north latitude 55° 30′. This star too is mentioned at the end of the appendix to the first volume of Tycho's *Progymnasmata*, which his heirs added; and the most distinguished Imperial Mathematician Johannes Kepler [Ioannes Kepplerus] described it at length in a treatise of its own.

[Margin: Cassiopeia.]

The tenth is Cassiopeia [Cassiopea], to which the ancients assigned 13 stars: 4 of the third magnitude, 6 of the fourth, 1 of the fifth, 2 of the sixth. Tycho — leaving aside that famous star which was seen for nearly a year and a half, from the month of November 1572 until March 1574, in the seat of Cassiopeia, not far from her haunches, and which from its first appearance, when it surpassed even the stars of the first magnitude, gradually dwindled until it disappeared altogether — lists 26 stars in the *Progymnasmata*: 5 of the third magnitude, 5 of the fourth, 1 of the fifth, 15 of the sixth; and 19 unformed stars, all of the sixth magnitude, none of which have yet been published.

[Margin: Perseus.]

The eleventh is Perseus, who holds a sickle in his right hand and in his left the head of Algol, or the Medusa. To him the ancients assign 26 stars: 2 of the second magnitude, 5 of the third, 16 of the fourth, 2 of the fifth, and one nebulous; and three unformed stars, 2 of the fifth magnitude and 1 obscure. Tycho, however, ascribes 29 stars to Perseus: 1 of the second magnitude, 5 of the third, 11 of the fourth, 10 of the fifth, 2 of the sixth; and 4 unformed stars of the sixth magnitude.

[Margin: Erichthonius, Auriga.]

The twelfth is ἡνίοχος [Greek: hēniochos, "the Charioteer"], *Erichthonius or Auriga,* close by the feet of Perseus. In his left hand he holds two kids of the fourth magnitude, which are called ἔριφοι [Greek: eriphoi, "kids"], and the She-goat, or Capella, called αἴξ [Greek: aix, "goat"] by the Greeks and Alhajoth by the Arabs, of the first magnitude. This figure consists, for the ancients, of 14 stars: 1 of the first magnitude, 1 of the second, 2 of the third, 7 of the fourth, 2 of the fifth, 1 of the sixth. For Tycho it has 41 stars, of which he described 23 in the *Progymnasmata* and the remaining 18 at a later time. In the *Progymnasmata*, indeed, the magnitudes are: 1 of the first, 1 of the second, 1 of

the third, 18 of the fourth, 1 of the fifth, 1 of the sixth; while outside it, 1 of the fourth magnitude, 14 of the fifth, 3 of the sixth.

[Margin: Serpentarius]

The thirteenth figure is Ὀφιοῦχος [Greek: Ophiouchos, "the Serpent-holder"], *or Serpentarius,* whose middle body the serpent encircles. The ancients allot 24 stars to this figure: 5 of the third magnitude, 13 of the fourth, 6 of the fifth, together with 5 unformed stars, all of the fourth magnitude. Tycho counts 15 stars in Ophiuchus: 8 of the third magnitude, 6 of the fourth, 1 of the fifth. To these he afterwards joined 11 more, set partly within the figure and partly outside it: 1 of the third magnitude, 9 of the fourth, 1 of the fifth. And to all of these there was added, in the year 1604 about the 2nd day of October, another star, newly appeared near the left foot and extremely scintillating, at 17° 42′ of ♐, with north latitude 1° 56′. Although at first it appeared to surpass the stars of the first magnitude, in the time that followed it so dwindled little by little that at the beginning of the year 1606 it vanished completely.

[Margin: Serpens Ophiuchi.]

The fourteenth is the Serpent of Ophiuchus, to which the ancients assign 18 stars: 5 of the third magnitude, 12 of the fourth, 1 of the fifth. Tycho, though, describes 13: 1 of the second magnitude, 8 of the third, 3 of the fourth, 1 of the fifth.

[Margin: Sagitta.]

The fifteenth is Sagitta, or the Dart of Hercules, which by the ancients' account has five stars: 1 of the fourth magnitude, 3 of the fifth, 1 of the sixth. By Tycho's account it likewise has 5: 3 of the fourth magnitude, 1 of the fifth, 1 of the sixth. To these he added three unformed stars of the fourth magnitude.

[Margin: Aquila.]

The sixteenth is Aquila, which is also called *the Flying Vulture.* For the ancients it consists of 9 stars: 1 of the second magnitude, 4 of the third, 1 of the fourth, 3 of the fifth; with 6 unformed stars: 4 of the third magnitude, 1 of the fourth, 1 of the fifth. Tycho counts 12 stars: 1 of the second magnitude, 4 of the third, 3 of the fourth, 2 of the fifth, 2 of the sixth.

[Margin: Delphin.]

The seventeenth is Delphin, conspicuous by the ancients' reckoning with 10 stars: 5 of the third magnitude, 2 of the fourth, 3 of the sixth. By Tycho's reckoning likewise 10: 5 of the third magnitude, 1 of the fifth, 4 of the sixth.

[Margin: Equisectio.]

The eighteenth is Equuleus, or Equisectio, consisting of 4 stars, which the ancients made obscure but Tycho made of the fourth magnitude.

[Margin: Pegasus.]

The nineteenth is Pegasus, or the winged Horse, whose navel is joined to the head of Andromeda and whose neck lies close to the right hand of Aquarius. The ancients assign it 20 stars: 4 of the second magnitude, 4 of the third, 9 of the fourth, 3 of the fifth. Tycho lists 18 in the *Progymnasmata*: 3 of the second

magnitude, 6 of the fourth, 5 of the fifth, 4 of the sixth; to which he afterwards joined four others, all of the fourth magnitude.

[Margin: Andromeda.]

The twentieth is Andromeda. In it the ancients placed 23 stars: 7 of the third magnitude, 12 of the fourth, 4 of the fifth. Tycho sets down just as many, but with the magnitudes: 3 of the second, 1 of the third, 10 of the fourth, 9 of the fifth.

[Margin: Deltoton.]

The twenty-first is Δέλτωτον [Greek: deltōton, "the delta-shaped figure"] *or the Triangle,* whose stars are counted by the ancients and by Tycho alike as 4: 3 of the third magnitude, and 1 which the ancients assigned to the fourth magnitude and Tycho to the fifth.

[Margin: Antinous.]

Besides these figures, Tycho also describes *Antinous,* within the Milky Way between Aquila and Sagittarius. In the *Progymnasmata* he allots it three stars of the third magnitude, to which in later years he added four more: 3 of the third magnitude, 1 of the fourth.

The southern figures, which lie outside the Zodiac toward the south, are commonly reckoned at 15 only, and 316 stars are assigned to them. But certain astronomers who in the last century sailed to America and the East Indies added four more figures, as is plain from the geographical chart of Petrus Plancius [Petii Plancii][45]*: namely the Cross, made up of 5 rather conspicuous stars below Eridanus, where more recent authorities place the Phoenix; the Dove of Noah, which has seven stars below Lepus and Canis Maior; the Southern Triangle, containing 3 stars; and the Polophylax, below the Southern Fish. These, however, can nowhere be seen in Europe, because of the depression of the south pole, with which these figures too are depressed.*

[Margin: Triangulum Australe.]

On the globe published by Tycho in the year 1601, however, fourteen figures discovered by the labour of that most skilled navigator Petrus Theodorus [Petri Theodori] [?] are listed over and above the ancient ones. *The first is the Triangle,* made up of 5 stars, below the beast of the Centaur and the Altar.

[Margin: Avis Indica.]

The second, the Bird of India, Paradißvogel [German, set in Fraktur: "bird of paradise"], 12 stars.

[Margin: Chameleon.]

III, *the Chameleon,* 10 stars, darting its tongue at *the Indian Hornet* — the fourth figure, which consists of 4 stars.

[Margin: Crabro.]

[Margin: Crux.]

V, *the Cross, which the Spaniards call Cruzero,* having 4 stars.

[Margin: Piscis Volatilis.]

VI, *the Flying Fish,* in the ship Argo, with 7 stars.

[45]so printed

[Margin: Dorado.]
VII, *the Dorado Fish,* 5 stars.
[Margin: Hydrus.]
VIII, *Hydrus,* Wasserschlange [German, set in Fraktur: "water-snake"], 15 stars, on which sits IX the bird *Toucan,* holding a branch in its beak, 8 stars.
[Margin: Toucan.]
Likewise, between the Southern Fish and Eridanus, X *the Phoenix,* 14 stars.
[Margin: Phoenix.]
XI, *the Crane,* 13 stars.
[Margin: Grus.]
XII, *the Dove of Noah,* carrying an olive branch in its beak, below Lepus and Canis Maior, 11 stars.
[Margin: Columba Nohae]
XIII, *the Indian man,* holding arrows in each hand, with 12 stars.
[Margin: Indus.]
And XIV, *the Peacock,* 16 stars, together with the two clouds, the greater and the lesser.
[Margin: Pavo.]
The names of the common figures are these. *The first is called Cete,* the Sea-monster or the Whale, which lays its snout under Aries and reaches Eridanus with its body. The ancients assign it 22 stars: 10 of the third magnitude, 8 of the fourth, 4 of the fifth. Tycho re-
[Margin: Cete.]
—counts 21 stars: 2 of the second magnitude, 7 of the third, 10 of the fourth, 2 of the fifth.
[Margin: Orion,]
The second is called Orion, to which the ancients assign 38 stars: 2 of the first magnitude, 4 of the second, 8 of the third, 15 of the fourth, 3 of the fifth, 5 of the sixth, and 1 nebulous. Tycho, however, describes 42 stars in the *Progymnasmata*: 1 of the first magnitude — the one in the left foot, which is called Rigel [Regel] — 5 of the second, 4 of the third, 15 of the fourth, 10 of the fifth, 7 of the sixth. In later years he observed 20 more: 8 of the fourth magnitude, 8 of the fifth, 4 of the sixth.
[Margin: Eridanus,]
The third is Eridanus, or the River, which some also call the Nile. The ancients describe 34 stars in this figure: 1 of the first magnitude, 5 of the third, 27 of the fourth, 1 of the fifth. But since most of them lie hidden below the horizon in Denmark, Tycho mentions only 10 of them in the *Progymnasmata*: 4 of the third magnitude, 4 of the fourth, 2 of the fifth. To these he finally added 10 more, which he did not publish: 2 of the third magnitude, 6 of the fourth, 2 of the fifth.
[Margin: Lepus:]

The fourth is Lepus, consisting by the ancients' account of 12 stars: 2 of the third magnitude, 6 of the fourth, 4 of the fifth. By Tycho's account 13: 4 of the third magnitude, 4 of the fourth, 4 of the fifth, 1 of the sixth.

[Margin: Canis major.]

The fifth is Canis Maior, whose stars the ancients count as 18: 1 of the first magnitude, 5 of the third, 5 of the fourth, 7 of the fifth; and 11 unformed stars: 2 of the second magnitude, 9 of the fourth. Tycho, though, describes only 13 all told: 1 of the first magnitude, 1 of the second, 5 of the third, 2 of the fourth, 4 of the fifth.

[Margin: Procyon.]

The sixth is Canis Minor, which is also called Procyon, that is, as it were, the Fore-dog. The ancients describe 2 stars in it, one of the first magnitude and the other of the fourth. Tycho too mentions two in the *Progymnasmata*, and makes one of the second magnitude and the other of the third. In later years he added three more: one of the fifth magnitude, the remaining 2 of the sixth.

[Margin: Argo.]

The seventh is Argo, or the Ship of Jason, which is also called Noah's Ark. The ancients indeed count 45 stars in it: 1 of the first magnitude — the one at the end of the rudder, which is called Canopus — 6 of the second, 8 of the third, 22 of the fourth, 7 of the fifth, 1 of the sixth. Tycho, though, describes only 3 of the third magnitude in the *Progymnasmata*, to which in later years he joined 8: 2 of the third magnitude, 5 of the fourth, 1 of the sixth, which have not yet been published. The rest, sunk below the horizon, he could not observe.

[Margin: Hydra.]

The eighth is Hydra, the longest constellation in the sky: with its tail it almost touches the shield of the Centaur, and with its head Canis Minor; and Corvus and Crater sit upon it. It has 25 stars: 1 of the second magnitude, 3 of the third, 19 of the fourth, 1 of the fifth, 1 of the sixth; and 2 unformed of the third magnitude. Tycho notes 19 in the *Progymnasmata*: 1 of the first magnitude, which he calls the Heart, 10 of the fourth, 7 of the fifth, 1 of the sixth. In later years he added 5 more: 2 of the third magnitude, 1 of the fourth, 1 of the fifth, and 1 of the sixth.

[Margin: Crater.]

The ninth is Crater, set in the middle of Hydra, having seven stars of the fourth magnitude. Of these Tycho described only three in the *Progymnasmata*; in later years he added 5: 4 of the fourth magnitude, 1 of the fifth.

[Margin: Corvus.]

The tenth is Corvus, which sits upon the tail of Hydra and attacks it with its beak. It has seven stars: 5 of the third magnitude, 1 of the fourth, 1 of the fifth. Tycho described 4: 3 of the third magnitude, 1 of the fourth. Afterwards he added three others, 1 of the fourth and 2 of the third magnitude.

[Margin: Centaurus.]

The eleventh is Centaurus. To it the ancients assign 38 stars: 1 of the first magnitude, at the tip of the forward right foot; 5 of the second, 7 of the third,

15 of the fourth, 9 of the fifth[46]. Tycho describes no star of this figure in the *Progymnasmata*, but noted four of the fifth magnitude in later years.

[Margin: Lupus.]

The twelfth is the Beast, Lupus or the Wild Animal which the Centaur holds. Its stars are counted as 19: 2 of the third magnitude, 11 of the fourth, 6 of the fifth.

[Margin: Ara.]

The thirteenth is Ara, or the Censer. Seven stars are assigned to it: 5 of the fourth magnitude, 2 of the fifth.

[Margin: Corona Australis.]

After it comes *the fourteenth figure, which is called the Southern Crown, and also the Wheel of Ixion.* Its stars are 13: 5 of the fourth magnitude, 6 of the fifth, 2 of the sixth magnitude.

[Margin: Piscis Notius.]

The last figure is called ἰχθὺς νότιος [Greek: ichthys notios, "the southern fish"] *, that is,* the Southern Fish, whose stars are listed as 11: 9 of the fourth magnitude, 2 of the fifth. Unformed, 6: 3 of the third magnitude, 2 of the fourth, 1 of the fifth.

[Margin: What the wandering stars are.]

The wandering stars, or planets, are those which carry out their motions with great variety: they are borne now in a swifter course, now in a slower, now direct, now retrograde. Seven such stars are counted, in this order.

[Margin: The wandering stars: 7. 1 The Moon]

The first, lowest and nearest the earth, is the Moon, which traverses the whole Zodiac with uniform motion in about 27 days, $7^{h}\ 43^{m}\ 6^{s}$. It is marked by the figure of a horned or sickle-shaped Moon, the shape in which it is most often seen, thus: ☽.

[Margin: 2 Mercury.]

The second, which follows next after the Moon in respect of the variety and speed of its motion, is the star of Mercury. By its own uniform motion it runs through the zodiac in about 365 days, $5^{h}\ 49^{m}\ 15^{s}\ 46‴$ — that is, in a Julian year, falling short only by $10^{m}\ 44^{s}\ 14‴$ of one hour; while about the Sun it moves in the space of 115 days, 21^{h}. It is depicted as a girded youth whose head is covered by a cap, in this form: ☿.

[Margin: 3 Venus.]

The third is the star of Venus, which has the same period as Mercury, but completes its circle about the Sun in 583 days, 22^{h}. Going before the Sun it is called φωσφόρος [Greek: phōsphoros, "light-bearer"], that is, Lucifer; following the Sun, it is called Hesperus. It is marked with this form ♀, which represents either a mirror — since this star is believed to make men devoted to Venus, to love, to elegance and to pleasures — or else the image of a girl girded below.

[Margin: 4 The Sun.]

[46]so printed; the itemized figures sum to 37, not the stated 38

The fourth is the Sun's, whose period is the same as that of ♀ and ☿; and so Plato in the *Timaeus* calls them ἰσόδρομοι καὶ ὁμόδρομοι τῷ ἡλίῳ [Greek: isodromoi kai homodromoi tō hēliō, "running an equal course and running the same course with the Sun"]. Its character is a circle with a point in the middle ⊙. For the image of Apollo holds a golden apple in its hand, and the Sun is therefore rightly figured by that roundness.

[Margin: 5 Mars]

The fifth is the star of Mars, which runs through the Zodiac in one year, 321 days, 22^{h}, and a third of an hour, or thereabouts. For each month it covers about 16° by its uniform motion. It is marked by the figure of a weapon of war — or, as some prefer, of a shield with a spear fixed to it, Mars being set up as the Lord of wars — in this manner: ♂

[Margin: 6 Jupiter]

The sixth is Jupiter's, which completes the Zodiac in 11 years, among them two bissextile years, and 313 days, 15^{h}, or thereabouts. For each year it traverses somewhat more than a single sign by its uniform motion. It is marked by this character ♃, to signify his threefold thunderbolt: for the Babylonian devotees of astrology believed that Jupiter Belus hurled lightning and thundered. Or else because the Greeks call him Ζεύς [Greek: Zeus], and so he is denoted by the first letter of that name. Or because the binary, the number 2, is the number of fortune, seeing that Jupiter too is called the greater fortune.

[Margin: 7 Saturn]

The seventh and highest of the wandering stars is Saturn, which completes its own period in 29 years — among them 7 bissextiles — and 155 days, or thereabouts. For each year it accomplishes somewhat more than 12°. Its character is this: ♄, by which is denoted either an old man leaning on a staff, on account of the cold and dry quality with which old men — whom this planet signifies — are agreed to be endowed; or else a scythe, the farmer's implement with which the crops are reaped, on account of agriculture. For the Babylonians credited their founder Nimrod, that is the Babylonian Saturn, with the gift of agriculture.

[Margin: The planets are distinguished from the fixed stars in three ways.]

[Margin: 1 By light]

Now although the two luminaries, the Sun and the Moon, are distinguished from all the other stars by their light and their size, the remaining planets are not so readily told apart from the fixed stars by ordinary observers. They can be recognized by these three marks, as Cardano [Girolamo Cardano] notes at the beginning

[Margin: 1. By light.]

—of the *Supplement to the Almanac* [ſuppl: Alm:]: **First, by twinkling light.** For while the planets appear with a steady light, we see the fixed stars quiver and twinkle — not because they really waver, but because our sight falters in taking them in, on account of their excessive distance, as Aristotle teaches in *On the Heavens* II, chapter 8.

[Margin: 2. By distance.]

Second, by distance, which to anyone who watches the sky attentively is found to be smaller in the planets and greater in the fixed stars.

[Margin: 3. By position.]

Third, by position. For the fixed stars always keep the same position relative to one another, whereas the planets are continually varying theirs, not only with respect to the fixed stars but also among themselves.

[Margin: On orbs and circles]

[Margin: Orbs and circles, although there are none in the heaven,]

[Margin: are nevertheless of necessity set up for the sake of teaching.]

As for the hypotheses of orbs and circles: optics makes it certain that there are no physical orbs in the heaven and no real circles, but that the stars are moved spherically and in a circular manner through the purest air, or aether, by a power divinely implanted in them, as we established in chapter 2 of the general Cosmography. Yet since, for the sake of fuller understanding, that motion has necessarily to be described by means of orbs and circles — because without those geometrical figures the motion in the heaven can neither be conveniently represented nor understood — for, as Cort Aslakssøn [Aslachus] says in *On the nature of the threefold heaven* II, chapter 21: "Come now, explain to me the motion of an arrow driven by the bowstring to the mark opposite; or show me the course of a ship sailing from the East Indies across the vast plain of the Ocean to Spain. Will you not have to draw a straight line in the one case and a curved one in the other? In the same way, if you wish to unravel and demonstrate the motions of the heavenly bodies in the sky, you must assume figures that match those motions — and circles are the first of these."

[Margin: The five greater orbs of the planets.]

First, then, we divide the heaven by orbs in this way. Granted that the planets are seven in number, and that each of them is carried by its own particular motions, so that 7 orbs would seem to be needed to represent their motion (which are also commonly called the 7 spheres of the planets), we nevertheless do not set up seven orbs. We prefer — so that we may at the same time avoid the hypotheses of Copernicus, which extend the world as it were into the infinite — the example of Apollonius of Perga, whom Copernicus mentions in *On the Revolutions* I.10 and in V.3 and 35; the imitators of Apollonius are the most noble Tycho Brahe and the most acute Ursus [Nicolaus Reimers Ursus]. So we enclose the planets in five greater orbs, or spheres, and no more.

[Margin: 1 Of the Moon]

The first place — the lowest, and the one nearest the earth — we assign to the orb of ☽.

[Margin: 2 Of the Sun, containing two epicycles: the inner ☿, the outer and wider ♀]

Then, since it is disputed on various sides which planet next encircles the Moon, and since Plato calls Venus and Mercury ἰσοδρόμους & ὁμοδρόμους τῷ ἡλίῳ [Greek: isodromous kai homodromous tō hēliō, "running an equal

course and the same course with the Sun"], we gather them into a single orb together with the Sun — but on this plan: the Sun holds the middle place in an orb thick enough for the purpose; then ☿ revolves close about it, as though on an epicycle; and finally Venus in a wider one.

[Margin: 3 Of Mars.]

[Margin: 4 Of Jupiter.]

[Margin: 5 Of Saturn.]

From the Sun's centre we then conceive three orbs for the three remaining planets, the nearest being assigned to Mars, the more remote to Jupiter, the most remote to Saturn — yet in such a way that the orb of Mars takes a large part away from the Sun's orb on the side opposite the Sun, since, by the most accurate observations of Copernicus and Tycho Brahe, acronychal Mars sometimes comes closer to the earth than the Sun itself does.

[Margin: The outermost orb, that of the fixed stars.]

Finally, since the fixed stars too are not without a slow motion from west to east — in which, however, they keep their mutual distances very largely unchanged — we have assigned them all to one and the same orb, thick enough to hold the fixed stars as they lie at their various distances from the centre of the earth; and this orb may be called either the sixth, or the sphere of the fixed stars.

The anomalies that arise partly in the variation of the greatest obliquity of the Ecliptic, partly in the equinoxes' unequal precession —we explain by means of certain particular orbs, exactly as we are forced to do in the spheres of the planets on account of their unlike motions. This is not the place to speak of the matter more fully.

Schema ſyſtematis orbium cœleſtium, quo ordo & diſtinctio ſtellarum generatim adumbratur.

A scheme of the system of the celestial orbs, in which the order and distinction of the stars is sketched in outline.

Diagram. A large woodcut occupying the middle two-thirds of the leaf: a set of concentric circles drawn in a single fine line, with a second, off-centre group of circles near the middle. Working inward from the rim there are four large circles, but they do not all share one centre: the outermost is centred on the single point at the middle of the lowest small circle, and the three within it are concentric with one another and centred on the sun-figure. The outermost is studded all the way round with asterisk-form star-marks, set at irregular intervals and sometimes in close pairs or triples. The three inner concentric circles are plain except at the points where a star-mark and a planetary glyph stand together on the line. The three inner concentric circles are centred on a radiant sun-figure (a disc with rays struck all round it). Round the sun-figure stand two further small circles, also centred on it, an inner and an outer. Below them, and overlapping them, is a larger circle centred on a single point; and,

lowest, a small circle round that point. Star-marks with glyphs beside them stand on both of the small circles round the sun-figure.

Labels:

- Lower left, on the second concentric circle in from the rim (about the 7 o'clock position): an asterisk immediately followed by ♄.
- Upper left, on the fourth (innermost) concentric circle (about 11 o'clock): an asterisk followed by ♂.
- Right, on the third concentric circle in from the rim (about 3 o'clock): ♃ above an asterisk.
- On the outer of the two small circles round the sun-figure, at about 1 o'clock: a solid dot on the line with asterisks below it, [?].
- On the inner of the two small circles round the sun-figure, at about 7–8 o'clock: asterisks with ☿.
- On the lowest small circle (the one with the central point), at about 1 o'clock: a crescent, ☽, without an accompanying asterisk.
- On the outermost starred ring, at about 3–4 o'clock: an asterisk with a small ring and strokes beside it, [?].
- At the centre of the upper small circle: a radiant sun-figure. This is a drawn device, not a lettered label.
- At the centre of the lowest small circle: a single inked point. Drawn device, not a lettered label.

[Margin: The use of the circles of the sphere]

Next, as regards the Circles. It should be understood that we too establish them in the heaven κατὰ θέσιν, not κατὰ φύσιν [Greek: kata thesin … kata physin, "by position" — that is, by convention — and not "by nature"], so that by their help the heaven may first be divided into parts; so that the motion of each part may then be more conveniently observed and brought to rule; so that the causes of the various appearances may be more easily understood and more firmly held in memory; and so that they may be more exactly worked out by calculation.

[Margin: The primary circles of the sphere.]

The primary Circles — those out of whose rings material spheres are commonly built, and by whose arrangement the heaven is parcelled out — are established as of two kinds.

[Margin: The extrinsic ones]

The **extrinsic**, or immobile ones, which we make mobile in the world, [are] —two, the Horizon and the Meridian. The intrinsic or mobile ones — the ones we judge to be immobile and external in the world — [are] eight: the Equator, the Zodiac, the two Colures, the two Tropics, and the two polar circles.

[Margin: The intrinsic ones.]

Of all these, six are great, or greatest: the Horizon, the Meridian, the Equator, the Zodiac, and the two Colures — one of the equinoxes, the other of the solstices — since their planes pass through the centre of the sphere and of the world, and so cut the sphere itself and the world into two equal parts.

[Margin: Great]

Four are lesser: the two Tropics, one of Cancer and the other of Capricorn; and the two polar circles, one Arctic and the other Antarctic. These are lesser because their planes are not drawn through the centre of the sphere or of the world, nor do they divide the sphere or the world into two equal parts, but rather into unequal segments.

[Margin: Lesser.]

Figure of the armillary sphere. [*Figura ſphæræ armillaris.*]

Diagram. A woodcut armillary sphere drawn in perspective, occupying the middle third of the leaf. Its construction, described without interpreting it into any claim the page does not make:

- An outer great ring standing vertically (drawn as a full circle at the sphere's outline), crossed by a second vertical ring running front-to-back through the poles.
- At the very top, two small arcs crossing to form a cap, with a small pointed knob standing above the outer ring.
- A vertical axis rod running down through the sphere.
- Three plain narrow rings set crosswise to the axis at different heights (the widest of them at the middle of the sphere), and two narrower plain rings nearer the top and bottom.
- One broad band, twice as wide as the plain rings, set obliquely to them: it runs from the lower left of the sphere up to the upper right, is ruled into a ladder of short cross-ticks along its whole visible length, and passes behind the sphere and out of sight on the far side.
- A second broad ruled band of the same construction crossing the first, running from the lower right upward to the left.
- At the centre of the sphere, a small globe rendered in dense stipple.
- Below the sphere, a short pendant stem ending in a small turned finial.

Labels. The figure carries, on the visible face of the broad ruled bands, a row of small cut marks standing between the cross-ticks; four of them are glyph-shaped rather than tick marks or star marks. In addition, three or four asterisk-form star marks stand on the bands; those are pictorial.

- Band glyph, upper-left run of the oblique band: `[?]` — a dark cluster roughly as wide as it is tall; no stroke separates from its neighbours.
- Band glyph, upper-middle of the same band: `[?]` — presents as two or three short verticals joined at the foot; will not segment.
- Band glyph, right-hand run of the same band: `[?]` — presents as a similar joined cluster.
- Band glyph, lower run of the crossing band: `[?]` — a small mark overlapped by the arm of an adjacent star mark.

The Horizon is so called from ὁρίζεσθαι [Greek: horizesthai, "to be bounded, to be marked off"], ὅταν ἐστι ὅρος τῆς ὄψεως [Greek: hotan esti horos tēs opseōs, "when it is the boundary of sight"]. From this it is also called the *finitor* or the *finiens*, the bounder. It is the circle that separates the visible

part of the world from the hidden. Its two poles stand thus. The upper is the vertical point, which stands directly over the crown of the head, or over any place whatever; the Arabs call it *Zenith*, and the Greeks σημεῖον κ[abbrev.] κορυφ[?] [Greek: sēmeion k[abbrev.] koryph[?], "the point …"]. The lower, the point diametrically opposite the vertex, is called *Nadir*.

[Margin: Horizon.]

Although only one horizon is set up in a material sphere, three nevertheless arise from the different position of the sphere. The **Right** horizon is the one that makes right angles with the equator and whose poles lie on the equator (Theodosius, *Sphaerica* I.17 [per 17 primi Theodoſij], and Regiomontanus, *De triangulis* III.18 [& 18 tertii de triang: Regiom.]). Hence, conversely, its plane passes through the poles of the equator, and it has the axis of the world lying in its own plane.

[Margin: Right.]

The **Oblique** horizon is the one that makes oblique or unequal angles with the equator, and whose poles lie outside the equator. Its plane therefore does not pass through the poles of the equator or of the sphere, but cuts the axis of the sphere at the centre of the world, and it has one of the poles of the sphere raised above it and the other depressed below it.

[Margin: Oblique.]

And the **Parallel** [is the one]

[Margin: Parallel.]

—which is united with the plane of the equinoctial, and whose poles coincide with the poles of the sphere. Since its plane does not cut the plane of the equator, it follows that the parallels of the equator are also parallels of this horizon itself; and it is from those parallels that this horizon too takes its name.

Right Horizon [*Horizon Rectus*] — **Oblique** [*Obliquus*] — **Parallel** [*Parallelus*]

Diagram. The first of three woodcut spheres standing side by side across the head of the leaf, each with its own printed caption above it. This one is a plain circle; the lower half is filled with dense stipple, the upper half left white, and a straight rule runs across the circle at the level of the diameter, dividing them. Across the circle, from top to bottom, runs a band of closely set straight lines parallel to one another and perpendicular to the dividing rule, crossed at intervals by a second set of lines parallel to that rule, so that the two sets make a ladder-like grid down the middle of the sphere. An asterisk-form star mark stands at each end of the dividing rule and at the top and the bottom of the grid.

Labels — a census of what is cut on the block, not of what the prose beside it would supply:

- Two scales of small woodcut figures run along the grid, one in the white upper half and one in the stippled lower half, each reading along the ends of the grid lines. The figures are set sideways. Right edge, top to

bottom: 1 2 3 4 5 6 (upper half), 7 8 9 10 11 12 (lower half). Left edge, top to bottom: 12 11 10 9 8 7 (upper half), 6 5 4 3 2 1 (lower half).

- A lettered group at the left end of the dividing rule, roughly five or six capitals wide: `[?]` — the sorts do not separate from one another.
- A lettered group at the right end of the dividing rule, three capitals wide: `XIS`.
- A lettered group set vertically within the grid in the upper half: AEQU[?]; and in the lower half, in white: TOR. Sign-like marks along an oblique line across the grid, about seven, not identified: [?].

⚠ Nothing here has been supplied from the caption, from the facing prose, or from the two neighbouring spheres.

Diagram. The second sphere. Same construction as the first — circle, stippled lower half, white upper half, straight dividing rule across the diameter — but the ladder-like grid is set obliquely to the dividing rule rather than square to it, and a further straight line crosses the sphere from lower left to upper right, running out beyond the circle's edge at the upper right. Asterisk-form star marks stand at each end of that oblique line and at each end of the dividing rule.

Labels:

- `XIS` — set along the oblique line at the upper right, the letters following the slope of the line; three sorts. A single A-shaped mark, in white, stands on the same line at its lower-left end within the stipple. ⚠ **Read off the block as letterforms. It was not taken from the geometry of the figure, from the caption, or from the prose.**
- Figures set along both edges of the band: on one edge 1 2 3 4 5 6 7 (upper half) and 8 9 10 11 [?] (lower half); on the other edge 12 11 10 9 8 (upper half) and 7 6 5 4 3 2 1 (lower half).
- A lettered group set along the grid in the upper half, running obliquely: [?]QUIN[?]; and in white in the lower half: [?]ALIS.
- A lettered group at the left end of the dividing rule: `[?]`.

Diagram. The third sphere. Circle, stippled lower half, white upper half, straight dividing rule across the diameter; but here the ruled lines run *parallel* to the dividing rule, filling both halves as a stack of horizontals, and a single straight line runs vertically from the top of the circle to the bottom, crossing them all at right angles. A short arc is drawn near the top of the vertical line. Asterisk-form star marks stand at the top and the bottom of the vertical line and at the right end of the dividing rule.

Labels:

- `XIS` — set vertically in the stippled lower half, beside the lower part of the vertical line, reading in white against the stipple; three sorts. ⚠ Again read as letterforms, not taken from the figure's construction.
- A lettered group running along the horizontals in the upper half, left of centre: `[?]`.

- A lettered group running along the horizontals just above the dividing rule: `[?]`.
- A lettered group running along the horizontals in the stippled half, right of centre: `[?]`.
- A single capital A, black, on the vertical line in the upper half, with a small two-dot mark below it.

Let us pass over the division of the horizon into the Rational and the Sensible — the distinction commonly handed down — since these are not species of one genus, but rather two different significations of the homonymous word *horizon*. The horizon is also divided by another division, into the true and the visual.

[Margin: True.] [Margin: Visual.]

The **true** horizon is the one whose plane is drawn through the centre of the earth. The **visual** is the one described all round from the eyes of a man standing on the flat surface of the earth. As the accompanying diagram shows, the difference between these two horizons, taken as parallel planes, is one semidiameter of the earth. In the immense extent of the world this is of almost no account, so that for the contemplation of the fixed stars the two may rightly be used as one and the same horizon. Yet in considering the nearer Φαινομένων [Greek: phainomenōn, "the appearances"] of the heaven — comets, and the Moon ☽, Venus ♀, Mercury ☿, the Sun ☉ and Mars ♂ — it introduces a certain difference of aspect, which the Greeks call παράλλαξιν [Greek: parallaxin, "parallax"]. That difference seems by no means to be neglected in the description of solar eclipses, and must be brought to bear on the distances of the heaven's Φαινομένων from the earth.

Diagram. An uncaptioned woodcut standing in the outer half of the leaf, beside the paragraph it illustrates. A circle; its upper portion left white, its lower two-thirds filled with dense stipple. A straight rule runs horizontally across the upper third of the circle from edge to edge. A little below it a second horizontal band, hatched with close diagonal strokes, runs across the circle. A straight vertical line drops from the top of the circle, through both horizontals, to the centre. Where it meets the lower band, a small circle is drawn about that point, straddling the band.

Labels — four groups, three committed and one committed in part:

- `HORIZON VISUALIS.` — set in spaced capitals along the upper horizontal rule, the vertical line passing between `HORIZON` and `VISUALIS`. Black on white; every sort separates.
- `HORIZ[?]` — set in capitals in white against the stipple, to the left of the small circle, on the level of the lower band. The sorts `H O R I Z` separate; the ending runs under the drawn small circle and its rule and does not separate. **Not supplied.**
- `VERUS` — set in the same white capitals to the right of the small circle, on the same level. All five sorts separate.
- `TERRA` — set in the same white capitals immediately below the small circle. All five sorts separate.

The two flanking groups HORIZ[?] and VERUS stand on one line and are plainly one label broken by the drawn circle.

[Margin: Meridian.]

The **Meridian**, which is also called the circle of mid-day and mid-night, is a great circle passing through the poles of the sphere or of the world and through the zenith of the place. Carried to it by the appearance of the first motion, the Sun — or the meridian, brought to the Sun by the daily motion of the earth — makes noon by day and midnight by night.

It has this connection with the horizon: the two cut one another equally and at right angles.

[Margin: The connection of the meridian and the horizon.]

Hence, first, any horizon divides any meridian into two semicircles. The one above shows the greatest altitudes of the Sun ⊙ and of the stars; the one below the horizon shows their lowest depressions. Then, conversely, any meridian splits any horizon into two hemispheres. The one inclining toward the rising of the stars is called the Eastern Horizon, or the Cardinal Point of the East; the other, toward the setting, is called the western horizon, or the Cardinal Point of the West.

The **Equinoctial**[47] — which the Latins name from *nox*, night, and the Greeks from the day, ἰσημέρινος [Greek: isēmerinos, "equinoctial," literally "of equal day"], as it were *aequidialis*, is so called because, when the Sun passes through it at the first points of ♈ and ♎, night is made equal to day and day to night over the whole earth, except only in the places under the poles of the world.

[Margin: Equinoctial]

It is likewise called the **Equator**, since it is the common measure by which the motions of all the other circles and points of the heaven are equalized and tested. It is a great circle equidistant from the poles of the sphere or of the world, and it cuts the Zodiac at the first points of ♈ and ♎.

[Margin: Equator]

Its poles, which are also called the poles of the earth or of the world, are named the one Northern, or Arctic, the other Southern, or Antarctic.

[Margin: Two poles.] [Margin: Arctic.] [Margin: Antarctic]

This circle has the greatest use in astronomy, being the canon and measure not only of motions but of times.

[Margin: The uses of the equator.]

For first, it is certain that it is the measure of the first motion. For alone among the greatest circles — whose quantity is known without comparison with the lesser, though that of the lesser is not likewise known without comparison with the greatest — it has a motion equal in every position of the sphere. Alone too it is divided in half at the same place by every horizon, except only by the doubly parallel one; and this greatly assists the numbering of the motion.

[47] the body sets Acquinoctialis here, where the marginal note beside it sets Aequinoctialis; both are given as printed

Therefore, however much of it passes the horizon or the meridian in appearance, just so much of the first motion is established to have gone by, so that one revolution of the whole equator is reckoned the period of the first motion.

[Margin: 1. It is the measure of the daily motion.]

Next, it is also the canon of the ascensions — and not only of the ascensions of the parts of the zodiac, the circle which the secondary mobiles observe, so that all risings and settings of the stars are referred to its middle line, the ecliptic, but of the ascensions of the other stars set outside the zodiac as well, as will become clear from the doctrine of ascensions.

[Margin: 2. Of the proper motion of the stars.]

Third, it is the index of times, since time is indicated from the first motion — as the swiftest and most uniform of all — which takes place upon the poles of the equator, and from the equator itself. For although the Sun ☉, which makes the alternation of days and nights and the differences of the civil days, is carried perpetually in the ecliptic, so that the reckoning of the days would seem to have to be sought from the ecliptic, yet the exact spaces of the days are not known before the arc of the equator answering to the Sun's motion in the ecliptic is known. It follows that the determination of the quantity of the days — from which then months and years are constituted, and likewise hours and the other measures of time — is taken from no circle other than the equinoctial.

[Margin: 3. Of time.]

Hence the time from the Sun's rising in the east to the Sun's setting, which we have called the natural day, lasts, in whatever region and at whatever time of year, exactly as long as the arc of the equinoctial circle which appears to ascend above the hemisphere while the Sun remains above it. And its opposite, the time from the Sun's setting to its rising, which is called night, lasts exactly as long as the arc of the equinoctial which appears to be raised above the horizon while the Sun stands below it. And since the revolution of the whole circle is accomplished in the space of a civil day, which contains 24 hours, while the celestial circles are divided into 360 equal parts, it is manifest that the period of the first motion is a revolution of 360 parts, which takes place in the space of 24 hours; and that by proportion it follows that 15 parts of the equinoctial are always the number belonging to one hour.

[Margin: The resolution of motion into time.]

The **Zodiac** takes its name ἀπὸ τῶν Ζωδίων [Greek: *apo tōn Zōdiōn*, "from the living figures"] — that is, from the figures of animals which the fixed stars, by their arrangement, form within this circle. By another name it is called σημ[?]όφερος [Greek: *sēm[?]opheros*], the Signifer, or circle of the signs. It is a great and broad circle of the sphere, beneath which the planets are perpetually carried.

[Margin: The Zodiac]

Since the planets range over a wider space as they traverse this circle, moving now toward the south and now toward the north away from its middle line — the line called the Ecliptic, or the Sun's path — a breadth of 16 degrees has been

assigned to it. It is therefore to be conceived as a girdle or zone bounded by two lines drawn across the surface of the sphere, one toward the north and the other toward the south, and enclosing the surface between them.

[Margin: Why the Zodiac is given a breadth, and how great a one.]

The Ecliptic lies in the middle of this belt, and is rightly defined as the great circle of the sphere beneath which the Sun perpetually moves. The Sun is always upon it, and so is said to have no latitude — latitude being reckoned from the Ecliptic toward the poles of the Zodiac. The other planets, correspondingly, complete their courses for the most part off the Ecliptic. When they stand on the Ecliptic they are said to have none; when they are drawn off it toward the north, northern latitude; and when they sink toward the south, southern.

[Margin: The Sun describes the Ecliptic.]

The Zodiac's own poles are other than the poles of the world, standing away from them, namely, by the amount of the Ecliptic's greatest declination. By the Prutenic Tables that amount is at present about 23° 28′; by Tycho Brahe's observations for our own time, 23° 31′ 30″; whereas before Ptolemy's day, about the birth of Christ, it was 23° 52′.

[Margin: The poles of the Zodiac.]

Further, in longitude both the Zodiac and the Ecliptic are divided into 12 parts, which the Greeks call δωδεκατημόρια [Greek: *dōdekatēmoria*, "twelfth-parts"], that is, twelfth-parts. They are also called signs, because they mark out the parts of the year. Their order is the one we set out above in the account of the Zodiac's constellations, and it is contained in these verses:

> *Sunt Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libraq̃ Scorpius, Arcitenens, Caper, Amphora, Piſces.*
>
> They are Aries, Taurus, Gemini, Cancer, Leo, Virgo, and Libra, Scorpius, Arcitenens, Caper, Amphora, Pisces.

The **first**, then, is called Aries. When the Sun reaches its beginning the vernal equinox falls and spring begins. Since the animal is horned, and the stars in its horns are brighter than the rest, it is usually marked by its two horns, in this way: ♈.

[Margin: The Zodiac is divided into 12 signs.]

[Margin: 1. Aries.]

II. It is called Taurus, and is represented by a horned head, thus: ♉.

[Margin: 2. Taurus.]

III. This is the sign of the Twins, at whose end, when the Sun arrives, spring closes. It is drawn as two bodies clasping one another with hands and feet, in this form: ♊.

[Margin: 3. Gemini.]

The fourth is Cancer. When the Sun is brought down to its beginning the summer solstice falls and summer begins. It is marked by reversed claws, thus: ♋, so that it may be signified at the same time that the Sun, once brought to the Crab, bends its course back toward the opposite part of the world.

[Margin: 4. Cancer]

V is Leo, drawn with a tail curved in this way: ♌.

[Margin: 5. Leo.]

VI. is called Virgo. She is usually represented by three lines signifying the folds at the back of her dress, together with a curved line standing for the hand that holds or lifts those folds, in this form: ♍.

[Margin: 6 Virgo]

The seventh is Libra. When the Sun by its own proper motion reaches this sign, the autumnal equinox occurs and autumn begins. It is signified by the upper part of the instrument of the balance, thus: ♎.

[Margin: 7 Libra.]

The eighth is Scorpius. Since it has a knotted tail with a sting at the end, it too is usually represented by three small lines joined to one another, the last of them curved after the fashion of a sting, in this

[Margin: 8 Scorpius.]

—way: ♏.

IX is Sagittarius, who is marked by an arrow.

The tenth is Capricornus. When the Sun is carried down to its beginning the winter solstice falls and winter begins. It is usually marked in this form: ♑.

[Margin: 10.Capricornus]

XI is Aquarius, who is signified by waves driven by the wind, in this way: ♒.

[Margin: 11 Aquarius]

The last is the sign of the Fishes, usually expressed by two curved lines standing for two fishes, tied together by a band or straight line, thus: ♓.

[Margin: 12. Pisces.]

This division was certainly not laid down by the astronomers at random. It was shown to them partly by the Sun and the Moon, the greatest lights of the heaven so far as sense can judge. For while the Sun walks through the whole length of the Zodiac in the space of a year, the Moon completes twelve monthly lunations, joining the Sun twelve times and standing opposite it twelve times. Hence, just as the year's time is divided into 12 months, so too the Zodiac is divided into 12 parts.

[Margin: The reason for the division is evident either from the syzygies of the luminaries…]

It was drawn partly, too, from the notable variations of season that the Sun brings about in the Zodiac. For since there are 12 perceptible differences of season in the year, it is plain that 12 signs are rightly counted in the Zodiac as well.

[Margin: … or from the distribution of the seasons.]

First, there are the 4 commonly recognized parts of the year, at odds with one another in their qualities: spring moist and warm, summer warm and dry, autumn dry and cold, and winter cold and moist. To these correspond the 4 quadrants of the Zodiac. Next, within each of these quarters of the year three further plain differences can be discerned — a beginning, a middle, and an end.

The extremes share something with the nature of the neighbouring seasons, whereas the middles hold the exact temper of their own quarter. Hence, although spring is warm and moist, its beginning, from its nearness to the winter just past, which is cold and moist, is more moist than warm; its middle is moderately moist and warm; and its end, from its nearness to summer, which is warm and dry, turns out warmer than it is moist. The same account holds for the other three seasons of the year. So when, on this basis, each quadrant is distributed into three further parts, it follows that the signs of the Zodiac are 12.

Nor, it seems, should the argument be neglected that is drawn from the excellence of the number twelve. For it is certain that twelve is the first number of all to have a half, a third, a fourth, a sixth, and a 12th part — all of which the Zodiac requires: partly so that it might be conveniently distributed into 12 parts answering to the 12 varieties of season, and into four quadrants which make spring, summer, autumn and winter; and partly so that the aspects of the planets might be easily exhibited, since the opposition is marked out by half the Zodiac, the trine aspect by a third, the quartile by a fourth, and the sextile by a sixth — as will also be demonstrated more fully a little further on.

[Margin: Or from the excellence of the number twelve.]

Each sign is next divided into 30 parts. What gave occasion for this section was either the span of 30 days which very nearly elapses between two oppositions or two conjunctions, or else the Sun's daily step, which advances each day by about the interval that makes up the thirtieth part of one sign. It is from the Sun's daily gradations that these parts of the signs are called degrees. Each degree in turn is subdivided into 60 first minutes, each first minute into 60 seconds, and so on.

[Margin: The division of the signs into 30 degrees, and of each single degree into 60 minutes.]

Nature has given a circle neither beginning nor end; but since θέσει [Greek: *thesei*] a beginning may be established anywhere, the astronomers were content to make the Zodiac start from the first point of ♈. One reason is that when the Sun stands at the first point of ♈, the earth — bound fast by winter's frost and stiff with ice — thaws once more; the pent-up moistures are loosened and spread abroad, grasses and crops are drawn forth, and the earth is clothed in a new garment. In our northern regions that season is like in temper to the

[Margin: Why the Zodiac begins from Aries.]

—first age of human life, which is moist and warm.

Another reason is that it is the most principal point among the 4 cardinal points: there the Sun stands equally distant from both poles of the world, describes the greatest parallel with respect to the earth, changes its declination abruptly, and withdraws into the northern part, which is the nobler of the two. For if one considers the arrangement of the universe, the northern part always lies to the right of the Sun as it rises above any horizon whatever, and the southern to the left.

A further reason is that we see God commanding, in the law of Moses at Exodus 12, that the Jews should begin their year from the new moon nearest to the vernal equinox — that is, to the Sun's entry into Aries.

Finally the signs of the Zodiac are divided in various ways. **1** By the equator, or by the colure of the equinoxes, into six northern signs, which make up the half that declines from the equator toward the north — these are ♈, ♉, ♊, ♋, ♌, ♍ — and 6 southern, which make up the half that declines from the equator toward the south: these are ♎, ♏, ♐, ♑, ♒, ♓.

[Margin: The divisions of the signs of the Zodiac.]

[Margin: 1.]

2 By the colure of the solstices, into six ascending signs, which form the half of the Zodiac in which the Sun and the other planets climb from the south northward toward our zenith — these are ♑, ♒, ♓, ♈, ♉, ♊ — and six descending, which hold the half of the Zodiac in which the Sun and the other planets go down from our zenith, or from the north, into the south: these are ♋, ♌, ♍, ♎, ♏ and ♐.

[Margin: 2.]

3 By the two colures together, into the three spring signs of the first quadrant, ♈, ♉ and ♊; the three summer signs of the second quadrant, ♋, ♌, ♍; the three autumn signs of the third quadrant, ♎, ♏, ♐; and the three winter signs of the fourth quadrant, ♑, ♒, ♓.

[Margin: 3.]

4. According to the tetragons: into the four cardinal signs, κεντρικὰ [Greek: *kentrika*, "central, cardinal"], which follow the 4 cardinal points or centres of the world. Such are the signs of the first tetragon, of which two are ἰσημερινὰ [Greek: *isēmerina*, "equinoctial"], namely ♈ and ♎, and two τροπικὰ [Greek: *tropika*, "tropical, turning"], namely ♋ and ♑. These are otherwise called movable, because in them one season changes into another.

[Margin: 4.]

The firm, fixed or solid signs — in Greek στερεὰ [Greek: *sterea*, "solid"], also called ἁπλᾶ [Greek: *hapla*, "simple"], simple — are 4, and they follow the cardinal signs: the signs of the second tetragon, ♉, ♌, ♏ and ♒, in which the temper of each quarter of the year is firm and settled. And the common, two-bodied or double signs, δίσωμα [Greek: *disōma*, "two-bodied"], are 4, and are counted after the fixed: the signs of the third tetragon, ♊, ♍, ♐ and ♓. Since these stand at the ends of their seasons, each such season has something in common with the qualities of the seasons that follow.

They are called Δίσωμα from the figures, which they have doubled in the Aplane [the sphere of the fixed stars]. The first, ♊, is drawn with two bodies; the next, ♍, with the ear of corn she holds in her left hand; the third, ♐, who has the form of a man and of a horse; and the Fishes, drawn as two joined by a thread.

5 According to the trigons: into the fiery or choleric, that is warm and dry — three of them, ♈, ♌ and ♐; the earthy or melancholic, that is dry and cold

— three, ♉, ♍ and ♑; the airy or sanguine, that is moist and dry — three, ♊, ♎ and ♒; and the watery or phlegmatic, that is cold and moist — three, ♋, ♏ and ♓. Of these, however, as of the other divisions of the signs, we shall give fuller notice below at chapter 3 of the first member, in the third part of the Introduction, which will treat astrological matters.

[Margin: 5.]

The **Colures** take their name either from κολάω [Greek: *kolaō*, "I join, I glue"], which means *I join* and *I glue*, because the other movable circles of the sphere are glued together by them; or else from κόλος [Greek: *kolos*, "docked, curtailed"] — or κόλοβος [Greek: *kolobos*, "docked, maimed"] — together with οὐρά [Greek: *oura*, "tail"], that is, *a docked tail* — because in the revolution of the world they are never seen whole, but docked, in most places of the earth. They are great circles drawn through the poles of the sphere, and they divide the equator at right angles.

[Margin: The colures.]

An unlimited number of them is indeed rightly set up and imagined in astronomy, for reckoning the various declinations of the various places of the heaven, since they are nothing other than circles of declination, on which the declinations —or the distances of stars and of other points in the heaven from the equator, are reckoned as though in their subject. In a material sphere, however, and on globes, only two are actually set down: one of the equinoxes, the other of the solstices. The colure **of the equinoxes** passes through the equinoctial points and marks the places on the Ecliptic which the Sun reaches to produce the equinoxes. The colure **of the solstices** passes through the solstitial points and marks the places on the Ecliptic in which the Sun halts its course toward the north and toward the south, and makes the longest or the shortest day of the year.

[Margin: The colure of the equinoxes; of the solstices.]

Besides these great circles there are also the **circles of latitude**, drawn through the poles of the Zodiac and through the true places of the stars, cutting the Zodiac at right spherical angles. On these the latitudes — that is, the distances of stars and of other points in the heaven from the middle of the Zodiac, the Ecliptic — are reckoned as though in their subject.

[Margin: The circles of latitude.]

There are likewise the **circles of position**, drawn through the common intersections of the Meridian and the horizon and through the true places of the stars or of other points in the heaven, showing the relation of those places to the Meridian. From this they are also called, by another name, Horizons. The use of these circles lies in erecting figures of the heaven, since the Zodiac in the equal manner, but the equator in the rational manner, is divided by six such circles into 12 equal parts. Once the six great circles of the sphere are understood, the remaining great circles — if any are still to be conceived — are also very easily recognized.

[Margin: The circles of position.]

The **lesser or parallel circles** are those which stand equally distant, toward the poles of one or the other, from either of the great circles drawn crosswise over the sphere — the equator or the Zodiac — and which divide the sphere into two unequal parts. They are of two kinds. Some are referred to the plane of the Zodiac, and are described by stars both fixed and wandering that are placed outside the Ecliptic and carried round the axis of the Zodiac by their own proper motion. Others are referred to the plane of the equator, and are described by the apparent motion of stars placed outside the equator and carried round the axis of the world.

[Margin: The lesser circles.]

On spherical instruments, however, only four are set out, and these are referred to the equator. First of all come the **Tropics**, so called from τροπέω [Greek: tropeō, "I turn"], that is, they are called *turned* or *turned back*, because in them the Sun checks its course toward the north and toward the south and turns back to the opposite quarter of the world. One is the northern, which touches the Ecliptic at the beginning of ♋, that is, at its greatest northern remove, and it is the Tropic of ♋; it is also for us the summer Tropic, or the Circle of the summer Solstice. The other is the southern, which touches the Ecliptic at the beginning of ♑, that is, at its greatest southern remove, and it is the Tropic of ♑; it is also for us the winter Tropic, the Brumal, or the Circle of the winter Solstice.

[Margin: The Tropics.] [Margin: Northern.] [Margin: Southern.]

Next come the **Polar circles**, likewise two, which have their name either because they are described about the poles of the Zodiac, or because they lie very close to the poles of the sphere. One of them, the northern, is described from the northern or Arctic pole of the Zodiac, and is called Arctic. The other, the southern, is marked out from the southern pole of the Zodiac and is called Antarctic, as being, so to speak, set opposite to the Arctic.

[Margin: The Polar circles.] [Margin: Arctic; Antarctic.]

With these hypotheses of the orbs and circles now set out, nearly the whole variety of the celestial motions is conveniently brought back to rule, explained, and displayed as if for inspection by anyone, for any times proposed.

Since the planets acquire varying distances not only among themselves but also with respect to the fixed stars — which is evident from the diversity of their periodic motions — it follows that the various **aspects** of the planets arise and exist. The Greeks call these σχηματισμοὺς [Greek: *schēmatismous*, "configurations"] and συζυγείας [Greek: syzygeias, "pairings"]; the Latins call them rays, configurations and combinations.

[Margin: On the aspects.]

Aspects are nothing other than fixed relations and distances of the stars within the Zodiac, by which the stars can perceptibly help or hinder one another, and can communicate their powers to one another by mutual irradiation in this lower part of the world, which they principally move. If we count

the conjunction among them, these aspects are commonly reckoned as five: conjunction, sextile, quadrate, *trogonus* [recte: trigonus], and the opposite ray.

[Margin: What an aspect is.]

Conjunction, which the Greeks call σύνοδος [Greek: synodos, "a coming together"], that is, a meeting, an assembly, a coming together or a union, is the meeting of stars in the same longitude of the heaven. It is held to occur when the lines that show their motions coincide at one point of the heaven, so that both the longitude and the latitude of the stars are the same. From this, such a conjunction is called σωματώδης [Greek: sōmatōdēs, "bodily"], that is, corporeal. Or else they stand in the same semicircle of latitudes, so that the longitude is indeed the same but the latitude different — and a conjunction of that kind is called partile. Stars are therefore said to be conjoined when they are found in the same sign, degree and minute, however far apart they may be in latitude. It is marked with this figure, ☌, as if a ray went out from a single body.

[Margin: Conjunction.]

The **sextile** or six-angled aspect, called by the Greeks ἑξάγωνος [Greek: hexagōnos, "six-angled"], is a distance of stars through a sixth part of the Signifer, that is, two signs or 60 degrees — when, for instance, stars look at one another from the third sign, so that one standing in Aries regards another standing in ♒ or in ♊, though at the same degrees; or again, one in Taurus and the other in ♓ or ♋. Its mark is an asterisk of this kind, ✳, which consists of six little lines going out from one centre; and if you arrange it upon the centre of the world, they will divide it into 6 parts.

[Margin: Sextile.]

The **quadrate**, quadrangle or quadrangular aspect, called by the Greeks τετράγωνος [Greek: tetragōnos, "four-angled"], is a distance of stars through a fourth part of the circle, that is, three signs or 90 degrees — when, that is, they strike one another with their rays from the fourth sign, so that one standing in Aries has the other in ♋ or ♑, though at the same degrees; or one standing in Taurus has the other in ♌ or ♒, and so on. Its mark is a square, □.

[Margin: Quadrate.]

The **trine**, triple, triquetrous or triangular aspect is a distance of stars through a third part of the circle, that is, four complete signs, or 120 degrees — when, that is, they regard one another from the fifth sign, so that one standing in Aries has the other in ♌ or ♐, though at the same number of degrees; or one standing in Taurus has the other in ♍ or ♑, and so on. Its mark is a triangle, △.

[Margin: Trine.]

The **opposition**, finally, or diametral aspect, is a distance of stars through a semicircle, that is, six signs or 180 degrees — when, that is, they stand opposite one another diametrically in the degrees of the Zodiac. Stars have this configuration when they are 6 whole signs apart from one another, so that one standing in Aries has the other in ♎, though at the same degrees; or one

standing in Taurus has the other in ♏, and so on. Its mark is a straight line marking a diameter, with two bodies at its ends, in this figure: ☍.

[Margin: Opposition.]

Apart from these 4 aspects — leaving the conjunction out of the count — we do not think any other irradiations of the stars worth the name of aspect. First, because the Zodiac, divided into 12 signs, has no more than 4 aliquot parts which, if taken many times over, restore it — namely the binary, which comprehends the sixth part and so produces the sextile aspect; the ternary, which takes in the fourth part, and

[Margin: The reasons for which we do not count other aspects beyond these 4.]

—produces the quadrate aspect; the quaternary, which contains the third part, and yields the trine aspect; and finally the senary, which contains the half, and begets the aspect of opposition.

Secondly, because when a circle is divided into 12 parts, no more than three figures can be inscribed in it without mutilating the segments — namely the triangle, the square and the hexagon — to which is added the diameter, drawn through the centre, which is common to the circle and to all these inscribed figures. Ptolemy sets out this reasoning in this way at *lib. 1 cap. 12 quadr.* [Ptolemy, *Quadripartitum*, book 1, chapter 12]: *The ratio of the diameter*, he says, *is self-evident, for the opposition lies in one straight line. But if the parts of the diameter and of its square are considered, the remaining aspects will be accounted for. For the half of the square of the diameter produces the quadrate aspect, since by the penultimate proposition of Euclid's first book of the* Elements of Geometry *the squares of two lines enclosing a right angle in a triangle are equal to the square of the hypotenuse. The third part, however, begets the hexagonal aspect, and this doubled gives the trine — so that the ratio of the opposition to the quadrate is the same as that of the trine to the sextile, namely double; and the ratio of the opposition to the trine is the same as that of the quadrate to the sextile, namely sesquialterate.*

[Margin: 2]

Thirdly, because in music too no more than 4 harmonies are given. The diapason, which is commonly called the octave, is likened to the aspect of opposition. The greater diapente, commonly called the fifth, answers to the trine aspect. The diatessaron, or fourth, answers to the quadrate; and the lesser diapente, or third, shows the sextile aspect.

	2		2
6	3	4	2

6⁄4 or 1½. 3⁄2 or 1½.

[Margin: 3]

Fourthly, because there are only four distinctions of the Φάσεων [Greek: phaseōn, "of the phases"], that is, of the illuminations of the Moon: the horned,

which fits the sextile; the halved, which fits the quadrate; the gibbous, which fits the trine; and the full, which fits the ray of opposition.

[Margin: 4]

Fifthly, because experience has taught careful observers of the stars that — the antiscia excepted, to which we cannot deny a power of their own — the stars nowhere exert their effects more than in the places just named. This is most fully established in the case of the Moon, whose operations in altering the humours we find to be of one kind in the ✳ and the △, and of another in the quadrate and the ☍ ray.

[Margin: 5]

Now these aspects are divided as follows. **First**, by reason of mean and true motions. They are **mean** when the lines of the mean motions of any two stars hold one of the configurations named, with respect to one another, according to longitude of the Zodiac; and these are known from tables of mean motions. They are **true** when the line of the true motions — that is, the bodies of the stars themselves — hold such an aspect to one another; and these are known from computations of the true motions. Besides this division, some conjunctions are also called visible or apparent: those in which two or more stars meet in one straight line drawn from our eyes out to the heaven. In these, the reckoning and determination of the motions has regard rather to a station on the surface of the earth, that is, to the eye, than to the centre of the earth.

[Margin: The division of the aspects.] [Margin: I. Mean; true.]

Secondly, by reason of exactness, the same aspects are divided into partile or perfect, and platic or imperfect. Those are called **partile** — also strict and exact — in which precisely as many degrees are found between the places of the planets as constitute each given aspect. So a partile ✳ consists of exactly 60 degrees of distance; a partile □, of 90; and so on. They are called partile because they fall in the same parts or degrees of the signs. **Platic** aspects, on the other hand, which are also called looser, since they admit latitude, are those in which precisely as many degrees are not found between the places of the stars as constitute each aspect, but either more or fewer. So if two stars were 57 or 63 degrees apart, there would be a platic ✳ between them; if 8s or 94

[Margin: II. Partile.] [Margin: Platic.]

—there would be a platic □, and so on.

Thirdly, by reason of position, these three aspects — ✳, □ and △ — are twofold: sinister and dexter. **Dexter** aspects, which are also called eastern, are those cast from an eastern starting point toward the west, against the order of the signs. So the dexter ✳ is the one thrown from ♈ into ♒; the dexter □, from ♈ into ♑; and the △, lastly, is directed from ♈ into ♐. **Sinister** aspects, by contrast, which are also named western, are those which extend from the star ſ. ſ. ſ., from a western place toward the east. So the sinister ✳ is the one from ♈ into ♊; the □, from ♈ into ♋; and the △ is thrown from ♈ into ♌.

[Margin: III. Dexter.] [Margin: Sinister.]

Caput II.

DE MOTU COELI EIUSq; DIVISIONIBUS.

Chapter II. On the motion of the heaven and its divisions.

If we are to understand the motion of the heaven rightly, we must first distinguish its longitude from its latitude. For in a round body it is hard to tell longitude from latitude, and latitude from longitude, since in a sphere or in orbs the likeness and agreement of all the parts is at its greatest. (We hold the heaven to be round on this ground: that the dispositions of the heaven — by whose compass the whole world is enclosed — and the appearances of all the celestial motions agree rightly with observations and with hypotheses only when they are not merely observed by instruments that are round, or fitted to the roundness of a circle, but are also explained by the hypotheses of circles and orbs.) Even so, it is certain — by the common consent of all astronomers and cosmographers — that the longitude of the heaven is reckoned from west to east, and conversely from east to west, as being that along which the motion runs; while latitude is reckoned from pole to pole.

[Margin: Distinguishing the heaven in longitude and latitude helps us to understand the motion of the heaven.] [Margin: Longitude.] [Margin: Latitude.]

Longitude is considered in two ways: with, and against, the succession of the signs. It is considered **with** the succession or sequence of the signs — or, as the Greeks say, εἰς τὰ ἑπόμ[?]α [Greek: *eis ta hepom[?]a*, "into the following signs"] — when it is weighed from west to east, in accordance with the proper motion of the whole world: that is, of the earth, which turns daily about the poles of the equator, or of the world; and of all the stars, which move about the poles of the Zodiac, or of the heaven. It is considered **against** the succession, order and sequence of the signs — or, as the Greeks say, εἰς τὰ προηγούμ[?]α [Greek: *eis ta proēgoum[?]a*, "into the earlier"], that is, into the earlier or preceding signs — when it is estimated from east to west, in accordance with the apparent motion of the stars.

[Margin: Longitude is considered either f. f. or against f. f.]

Latitude too is considered in two ways. For although in general it runs from pole to pole, it is nevertheless directed from the Ecliptic — from which latitudes are counted — either toward the north, which is the one latitude, or toward the south, which is the other.

[Margin: One latitude is northern, the other southern.]

To treat first of the motion in longitude: it is divided into the first and the second. The **first** is that most evident and swiftest motion of all the stars, the one that strikes everybody's eyes, which runs from east to west about the poles of the world in the space of 24 hours. From this it is also named the *raptus*; and νυχθημερινός [Greek: *nychthēmerinos*, "of a night-and-day"], that is, daily, because it is completed within the space of a civil day; and εἰς τὰ προηγού[?]α [Greek: *eis ta proēgou[?]a*], that is, into the preceding signs; and common, since

it appears to belong to all the stars. But this motion properly belongs to the earth, which, keeping the same place in the middle of the world,

[Margin: The first motion.]

—is turned once daily from west to east about the poles and axis of the world — exactly like a small ball free to move, fixed to a wall by a nail that serves it as an axis. This is why all the stars in the heaven are observed to be swept the contrary way: from east through the meridian to the west, and from west back again through the lowest point of the heaven to the east, in the space of a civil day. It is much as sailors judge the shore to be moving the other way, when in fact it is the ship and not the shore that moves. If this motion did not exist, the Sun would rise only once and set only once in the space of a single year; the Moon, in the space of a month; ♄, in the space of nearly 30 years; and so on. That this motion cannot properly be assigned to the stars, and that by physical necessity it belongs to the earth, we have demonstrated in our cosmographical writings [*in Cosmographicis*].

The **second** motion is the stars' own, by which each of them moves of itself from west to east — or εἰς τὰ ἑπόμ[?]α [Greek: *eis ta hepom[?]a*, "into the following signs"] — about the poles of the Zodiac, that is, of the heaven. This motion is not noticed in the stars at first glance, but only after longer observation. For from such observation we gather that not the Sun and Moon only, but the rest of the stars as well, fixed and wandering alike, are carried from ♈ into ♉, from ♉ into ♊, and so on — each, however, in a different manner and with a different rate of advance.

[Margin: The second motion.]

This motion is itself twofold: **mean**, and **true** or apparent. The mean motion is a uniform motion, always alike, by which the stars describe equal arcs in equal times on the circles along which they are carried, and equal angles about the centres about which they move — as the adjoining table shows.

[Margin: The mean motion is uniform.]

Astronomers introduced this motion for this purpose: that it should serve as index and standard for the true motions. For once the mean motions are known, the true motions are found from them by fixed προθαφαιρέσεις [Greek: *prosthaphaireseis*, the prosthaphaereses], as is evident from the computation of the true motions.

Tabella mediorum motuum Planetarum diurnorum — Table of the mean diurnal motions of the planets

	Mean diurnal motion
☉	0° 59′ 8″
☽	13° 10′ 35″
♄	0° 2′ 0″
♃	0° 4′ 59″
♂	0° 31′ 27″
♀ & ☿	0° 59′ 8″

True motion is that by which the stars, with respect to us, really move about the centre of the world. That centre — since it was proved in the preceding chapter to differ in nothing from our own station, that is, from the surface of the earth, in the case of the higher planets and the fixed stars — is why the same motion is also called apparent. In the Moon's case, however, the true motion is one thing and the apparent another, on account of parallax [*parallaxin*], as is clear from the more accurate observations and from solar eclipses.

[Margin: The true motion, which varies.]

Further, this true motion — the one commonly entered in ephemerides, since it is what falls under daily observation — is so unlike itself that it is not merely at one time faster, when it exceeds the mean, at another slower, when it is less than the mean, and at another middling, when its true motion f. the sequence of the signs is equal to the mean motion; but is also at one time **direct**, when it is carried out with f. f.; at another **retrograde**, when it is carried out against f. f.; and at another **stationary**, when it makes no advance at all but holds the star fixed in the same place of the heaven — either before a retrogression, which is called the first station, or before a return to direct motion, which is called the second station.

[Margin: Direct; retrograde; stationary.]

The cause of this unlikeness is shown from the hypotheses of the orbs and circles in the following way. The motion takes place partly on **eccentric** circles, whose circumferences do indeed enclose the centre of the world, though their own centres are distinct from the centre of the world; and partly on **epicycles**, or small orbs, whose centres and whole circumferences alike lie outside the centre of the world — as the *Theoricae* of the planets teach. For ☽ and ☉ are swift when they are in the lower part of the epicycle, or — what comes to the same thing in the case of ☉ — in the lower part of the eccentric, below the mean longitudes. They are slow when they stand in the upper part, above the mean longitudes. They are middling in course when they hold the points of contact, that is, the mean longitudes.

[Margin: The causes of the unlikeness are plain from the hypotheses — the eccentric and the epicycle.] [Margin: Swift.] [Margin: Slow.] [Margin: Middling.]

The remaining five planets, by contrast, are swift when they are in the upper parts of the epicycles, above the points of contact; slow when they are found below the points of contact, in the lower parts of the epicycles; and middling in course when they occupy the points of contact. So too, although ☉ and ☽ always advance with direct motion, the remaining five planets are direct only when they range over the upper parts of the epicycles, those enclosed above the points of station; retrograde when they complete the lower parts; and stationary when they hold the points of station themselves.

And since this true motion is supposed to take place on eccentrics and epicycles, it follows that the same motion is also called **ascending** and **descending**. It is called *ascending*, on the score of the eccentric, when it presses on from the

lowest place of the eccentric, the one nearest the earth — which the Greeks call ὑπόγειον [Greek: *hypogeion*, "under the earth"] or περίγειον [Greek: *perigeion*, the perigee], and Pliny the *ima absis* — toward the highest place, the one most remote from the earth, which the Greeks call ἀπόγειον [Greek: *apogeion*, the apogee], the Arabs *aux*, and Pliny the *summa absis*. In astronomical computation this is established by the equated annual anomaly in the case of ☉, by the doubled longitude in the case of ☽, and by the anomaly of the eccentric in the remaining planets, being greater than a semicircle — that is, than 3 sexagenae, or 6 common signs.

[Margin: The planet ascending on the eccentric.]

With respect to the epicycle, on the other hand, it is called ascending when it presses on from the perigee of the epicycle toward the apogee; which happens when, in the case of ☽, the anomaly, and in the remaining planets the commutation or argument, exceeds a semicircle. In the same way a planet is called **descending**, on the score of the eccentric, when it is carried down from apogee to perigee; which occurs when the equated anomaly of ☉, or the doubled longitude of ☽, or the anomaly of the eccentric in the remaining five planets, is less than a semicircle. On the score of the epicycle, it is called descending when the planet likewise goes down from apogee to perigee; and this is held to happen when the anomaly of ☽, or that of commutation, has not yet completed a semicircle.

[Margin: Ascending on the epicycle.] [Margin: The planet descending on the eccentric.] [Margin: On the epicycle.]

But when the anomaly of ☉, the doubled longitude of ☽, or the anomaly of the *Eccentri* has no degree at all, then the planet is held to be at the apogee of the eccentric; just as it is reckoned to be at perigee when it is of 6 signs. For since by these anomalies, and by the doubled longitude of ☽, are understood the distances of the centre of the epicycles from the apogee of the eccentric, it follows that the planets stand at the apogee of the eccentric when those quantities hold nothing in degrees and minutes, and conversely that they hold the perigee when they are removed by a semicircle. The perigee, after all, always holds the place opposite the apogee. In the same way a planet is set at the apogee of the epicycle when the anomaly of the Moon, or that of commutation, is nil; and it is found at the perigee when it is of 6 signs.

[Margin: When a planet is said to be at apogee and when at perigee.]

And so that no doubt may arise for the student of the stars as to what place each of the planets occupies at any given time, on the eccentric as well as on the epicycle, and when each is direct or retrograde: in the Addition, or Corollary, to the ephemerides of any year, not only are the apogees of the individual planets noted down, but it is also set out plainly at what times they will reach their apogees on their own circles, and on what days they become direct and retrograde.

[Margin: The Addition, consectary or corollary in each of the ephemerides.]

I have also thought it well to append at this point, first, a diagram setting out in general the hypotheses of the eccentrics and the epicycles; and then a table containing the daily —motions of the planets, both at the apogees and at the perigees of the eccentrics, drawn up from the Prutenic Tables [tabulæ Prutenicæ], so that anyone may see how the account of the motions is to be sought from the hypotheses; how the true motions differ from the mean; and finally within roughly what limits the swiftest and the slowest motion of each several planet is confined. The rest must be looked for in the fuller derivation of the motions, which belongs to the doctrine of the second movables.

Schema generaliter diſpoſitionem orbium Eccentrici & Epicycli & diverſitatem motuum, Item aſcenſus & deſcenſus Planetarum adumbrans,

A schema sketching out in general the arrangement of the orbs of the eccentric and of the epicycle, and the diversity of the motions; likewise the ascent and descent of the planets.

Diagram. A large circular woodcut, roughly square in its measure, occupying the middle half of the leaf. Its construction, described without interpretation: **an outermost thin circle**; within it **a broad band hatched with fine oblique ruling**, and inside that **a broad solid black band**; then a further **obliquely hatched band**, then a further **solid black band**; and at the centre **a plain white disc**. The bands are not concentric on one point — the hatched and black bands run wide at the foot of the figure and narrow at its head, so that the whole nest is set eccentrically with respect to the outer circle. Two or three fine circles are drawn between the bands.

At the centre stands a **small circle** carrying letters, and a **larger white disc** around it. A **single straight line runs vertically** from the head of the figure down through the centre and on to the foot, crossing the bands; two further fine lines descend from the small circle at the head of the figure and converge toward the centre, enclosing a very narrow wedge. At the head of the figure, straddling the bands, is drawn a **second small circle**, also lettered.

Round the **outermost circumference** there runs a ring of small marks, each set on a short radial tick that crosses the outer rule.

Label-groups on this figure: 14. Committed whole: 13. Committed in part: 0. Flagged: 1.

- A (centre of the figure, below the small central circle): `A`
- B (upper left of the small central circle): `B`
- C (upper right of the small central circle, on its circumference): `C`
- D (head of the figure, within the upper small circle, right of centre): `D`
- E (left of the figure, on a fine circle within the inner hatched band): `E`
- F (below the centre, on the vertical line where it crosses the inner white disc's edge): `F`
- G (right of the figure, on a fine circle within the inner hatched band): `G`
- H (head of the figure, within the upper small circle, upper left): `H`
- I (head of the figure, at the left outside the upper small circle): `I`
- K (head of the figure, at the foot of the upper small circle, centre): `K`

- L (head of the figure, at the right outside the upper small circle): L
- N (head of the figure, within the upper small circle, lower right): N
- (head of the figure, within the upper small circle, lower **left**, standing below H and left of K): M
- (the outer circumference): **a ring of small marks, each on its own short radial tick.** There are **twelve** ticks around the rule. The marks themselves are of the order of two millimetres on the leaf, and **none of them is identified.** Their shapes: at the head of the figure a mark of two short parallel strokes; on the right side a mark shaped like a lowercase m finished with a rightward barb, and below it a single open curl; on the left side a mark of two stacked shallow waves, and below it a closed loop drawn out into a tail.

A is the centre of the world, or of the earth; B the centre of the eccentric; A B the eccentricity. The change of the eccentricity is set out by means of the little circle BC, on whose circumference the centre of the eccentric moves, so that at B it is nearest the earth and the eccentricity least, at C most remote and the ἐκκε[?]τρότης [Greek: *ekke—trotēs*, the eccentricity; if ἐκκεντρότης] the greatest that can occur. D E F G is the eccentric; and since in the case of the Sun, once a fixed eccentricity has been assumed, it suffices to account for the ἀνωμαλίαν [Greek: *anōmalian*, the anomaly] of the motion, the motion that is uniform on the eccentric about its own centre B will, when referred to the centre of the world A, be slowest at D, the apogee; swiftest at F, the perigee; and middling about the points E and G, the points of the mean longitudes. Nor does the account of the motions as regards the eccentric differ much in the remaining planets.

The planet is also **descending** from D through E to F — where the annual anomaly, in the case of the Sun, and the anomaly of the eccentric, in the case of the remaining planets, is less than a semicircle. From F, on the other hand, through G to D it is **ascending**, and the anomaly is greater than a semicircle.

H I K L is the epicycle. Here, if we attend first to ☽ — which it is right to look at before all else — the motion runs from H through L, K, I, back to H; and so about the ἀπόγειον [Greek: *apogeion*, the apogee] H, that is, in the upper part I H L, it is carried against f. f. f. And since the motion of the second epicycle and of the concentric according to Copernicus — of the eccentric according to Tycho Brahe — is the swifter along f. f., the motion of ☽ is only made the slower. About the π[?]ίγειον [Greek: *p—igeion*, the perigee] v. K, that is, in the lower part L K I, it is carried along f. f. f.

This leaf is given over entirely to one table. It carries no running text, no marginal note, no signature and no catchword.

Tabula oſtendens motus veros diurnos ſingulorum Planetarum ad apogeia & pe rigeia Eccentricorum & Epicyclorum iuxta calculum Prutenicum.

A table showing the true daily motions of each of the planets at the apogees and perigees of the eccentrics and of the epicycles, according to the Prutenic calculation.

Motus [Motion]

Planet		At	Of the	True daily motion	
☉	Velociſſimus in	Maxima	Eccentricitate	1° 1′ 43″	
☉	Velociſſimus in	Minima	Eccentricitate	1° 1′ 6″	
☉	Tardiſſimus in	Maxima	Eccentricitate	0° 56′ 46″	
☉	Tardiſſimus in	Minima	Eccentricitate	0° 57′ 18″	
☽	Velociſſimus in	Apogæo	Eccentrici	15° 1′ 50″	
☽	Velociſſimus in	Perigæo	Eccentrici	14° 31′ 31″	
☽	Tardiſſimus in	Apogæo	Eccentrici	11° 37′ 10″	
☽	Tardiſſimus in	Perigæo	Eccentrici	12° 8′ 28″	
♄	Velociſſimus in	Apogæo	Eccentrici	0° 7′ 7″	Directus
♄	Velociſſimus in	Perigæo	Eccentrici	0° 8′ 9″	Directus
♄	Tardiſſimus in	Apogæo	Eccentrici	0° 4′ 45″	Retrograd.
♄	Tardiſſimus in	Perigæo	Eccentrici	0° 5′ 13″	Retrograd.
♃	Velociſſimus in	Apogæo	Eccentrici	0° 12′ 58″	Directus
♃	Velociſſimus in	Perigæo	Eccentrici	0° 14′ 24″	Directus
♃	Tardiſſimus in	Apogæo	Eccentrici	0° 7′ 36″	Retrograd.
♃	Tardiſſimus in	Perigæo	Eccentrici	0° 7′ 57″	Retrograd.
♂	Velociſſimus in	Apogæo	Eccentrici	0° 38′ 21″	Directus
♂	Velociſſimus in	Perigæo	Eccentrici	0° 47′ 2″	Directus
♂	Tardiſſimus in	Apogæo	Eccentrici	0° 24′ 15″	Retrograd.
♂	Tardiſſimus in	Perigæo	Eccentrici	0° 17′ 40″	Retrograd.
♀	Velociſſimus in	Apogæo	Eccentrici	1° 13′	Directus
♀	Velociſſimus in	Perigæo	Eccentrici	1° 16′	Directus
♀	Tardiſſimus in	Apogæo	Eccentrici	0° 38′	Retrograd.
♀	Tardiſſimus in	Perigæo	Eccentrici	0° 33′	Retrograd.
☿	Velociſſimus in	Apogæo	Eccentrici	1° 43′	Directus
☿	Velociſſimus in	Perigæo	Eccentrici	0° 54′	Directus
☿	Tardiſſimus in	Apogæo	Eccentrici	0° 35′	Retrograd.
☿	Tardiſſimus in	Perigæo	Eccentrici	0° 57′	Retrograd.
☿		Loco terræ proximo		[numeral: ?]° 5′	Retrograd.

—and from this it is made the swifter in its motion. ☽ is likewise **ascending** on the epicycle from K through I to H, where the Moon's anomaly is greater than a semicircle; and **descending** from H through L to K, where the anomaly is less than a semicircle. In the remaining 5 planets the epicycle moves from H through I, K, L to H. Hence in the upper part of the epicycle the planets are carried along ſ. ſ. ſ. the more swiftly, in the lower part the more slowly; indeed below the points of contact, when the contrary motion of the epicycle overcomes the motion of the eccentric along ſ. ſ. ſ., the planet is made outright retrograde — so that at M it stands in its first station, beginning its retrogradation, and at N in its second station, ending its backward course. They are ascending, again, from K through L to H, so long as the anomaly of commutation is greater than a semicircle; and descending from H through I to K, so long as the anomaly is less than a semicircle. So it is that here they are seen to grow in quantity, and there to be diminished.

The motion in latitude is that which proceeds from the middle of the Zodiac, the Ecliptic, either northward or southward. *When this motion increases the northern latitude*, it is called **Septentrionalis Aſcendens** [northern ascending], *and is noted in the Ephemerides by the letters* S & A. *For in our northern regions it brings the planet nearer the zenith, and sets it higher above the horizon than is the part of the Ecliptic to which it is referred. When it diminishes the northern latitude, it is called* **Septentrionalis Deſcendens** [northern descending], *and is signed by the letters* S & D; *for it brings the planet to the Ecliptic from a higher place, and one nearer the zenith. So too, when the planet increases the southern latitude, it is named* **Meridionalis Deſcendens** [southern descending], *and is noted by the letters* M & D. *For in such a position it acquires from day to day a lower elevation above the horizon than is the place of the Ecliptic to which it is referred. When it diminishes that same latitude, it is called* **Meridionalis Aſcendens** [southern ascending], *and is expressed by the letters* M & A; *for it carries the planet up to the Ecliptic from a lower place.*

[Margin: What the motion of a planet in latitude is.]

This motion, however, falls only to the Moon and to the five planets. For the Sun always completes its course in the Ecliptic, and the fixed stars keep very nearly for ever the latitude from the Ecliptic that they once received. The Moon, since according to Copernicus it is supposed to move in a concentric orb bent obliquely to the Ecliptic — an orb to which the two epicycles answer with their plane — necessarily departs from the Ecliptic by reason of that orb, now northward, now southward, though at a fixed angle. According to Tycho Brahe, by contrast, it is held to move in an eccentric orb and in two epicycles inflected in different ways to the Ecliptic, at a smaller angle in the ☌ and the ☍ of the luminaries and at a greater in the quadratures; and so it is carried off from the Ecliptic likewise, now northward, now southward, but at a mobile angle, sometimes greater and sometimes less — as is plain to anyone who examines the latitudes of the Moon computed according to Tycho Brahe in the Ephemerides. In the same way the remaining planets too necessarily acquire latitude, now northward, now southward, inasmuch as they move: **I** in eccentric orbs, either bent obliquely to the Ecliptic at a fixed angle, as the three superior planets ♄, ♃ and ♂; or receding from the Ecliptic at a mobile angle — Venus in an orb tending always toward the north, Mercury in an orb tending always toward the south. **II** in epicycles, by the motion of inclination and of reflexion, departing from the planes of the eccentrics.

[Margin: The motion in latitude belongs to the Moon and to the five planets only.]

Caput III — On the Calculation of a Planet's True Motion in Longitude, for Any Proposed Time and Any Place

[Margin: What a planet's motion in longitude is.]

Motion of a planet in longitude, true motion, is the motion by which a planet moves beneath the plane of the zodiac from west to east, or from east to west — that is, with or against f. f.[48] — about the centre of the earth, so that it takes up a different position from one moment to the next.

This motion, as it stands for each and every planet and for the Moon's Dragon's Head, through the whole civil year and for every single day of any month you please, is usually entered on the left-hand face of the Ephemerides. The Ephemerides, however, give the several planets' various motions only for the 12th hour of midday, on the meridian for which they were computed, and only in equal time. Those motions do not agree with usual or apparent time, nor with any other meridian, until the meridian has first been reduced and apparent time restored by the rules of chapter 6 of the preceding part. Yet nothing happens more rarely than that meridian time should be given, and conversely nothing more often than that other hours from midday should be proposed — and it is for those hours that the places of the planets, which change from moment to moment, have to be found. I shall therefore show how the place of a planet, and of the lunar node ☊, is to be investigated for another hour, or for a scruple of an hour, outside the 12th of midday, once the time has been properly equated and, if need be, reduced for the difference of meridians. But since that investigation cannot conveniently be made without a knowledge of the daily motion, I shall first teach by what method the daily motion — that is, the motion of [numeral: ?]4 hours — is to be found. For from that we also judge a planet swift, middling or slow, by comparing it with the mean motions prescribed in the preceding chapter, and at the same time direct or retrograde.

[Margin: The method of finding the daily motion.]

It is found by this rule. Enter the Ephemerides at the given year and month, and opposite the day proposed (which you will find in the left-hand face, under the name of the month, in the first line of the descending numbers) take the planet's true motion in degrees and minutes, under the character of whichever planet you please. Then take the same planet's true motion for the following day, and compare it with the first. If this later number is greater than the earlier one, in degrees and minutes or in minutes only, set the planet down as direct; but as retrograde if this later number is less than the earlier. Once the comparison has been made, subtract the smaller number from the larger, and the planet's daily motion will remain.

[Margin: From what a planet is said to be direct, and from what retrograde.]

For example: let the true daily motion of ☉, ☽ and ♄ be sought for the year 1596, the 6th day of February of the reformed calendar, computed from the Prutenic Tables [tabulae Prutenicae]. I therefore enter the Ephemerides drawn up for the year 1596, and under the month of February, at days 6 and 7, I find the motions entered in this way:

[48] an abbreviation, printed thus and not expanded on this page.

Febr:	☉ ♒	☽ ♉	♄ ♍
6	16° 31′ 46″	17° 0′	6° 25′
7	17° 32′ 27″	29° 17′	6° 20′
	1° 0′ 41″	12° 17′	0° 5′

Now, the comparison made, I see that the motion of ☉ and ☽ is direct, as indeed they never are retrograde; for the earlier day's number is smaller than the later day's. But I observe that Saturn's motion is retrograde, since the later day's number is smaller than the earlier day's. When at last there has been made —the subtraction, the daily motion stands as ☉ 1° 0′ 41″, ☽ 12° 17′, ♄ 5′, as is plain.

[Margin: A note needed in places where a change of sign occurs.]

It often happens that the signs in the little columns change. When this occurs, attention must be paid first to the sign and to the number of the following day. For if both the number is smaller and the sign the following one, the planet is set down as direct; but as retrograde, if both the number is greater and the preceding sign is offered. Then, so that the subtraction can be made, 30 degrees must be added — in a direct planet to the following day, in a retrograde one to the preceding day — and once the subtraction has been made the daily motion is left.

For example: let the true daily motion of ☽ and ☿ be sought for the 13th day of August in the year 1596.

Aug:	☽ ♈	☿ ♍
13	21° 42′	0° 18′
	♉	30 Adde
14	3° 55′	♌
	30 Adde	29° 17′
	12° 13′	1° 1′

I therefore consult the Ephemerides for the proposed time and find the motions for the 13th and 14th day of August written thus. Since now, on making the comparison, I observe that the Moon moves directly and ☿ retrograde — because in the Moon the number of the 14th day is smaller, and it advances from ♈ into ♉, the following sign, whereas in Mercury the number is greater and it is carried from ♍ into ♌, the preceding sign — I add 30 degrees to the motion of the Moon on the following day, but to the motion of ☿ on the preceding day 30 degrees. And when the subtraction has been made, the Moon's daily motion comes out 12° 13′, Mercury's 1° 1′, as may be seen.

[Margin: The method of finding the hourly motion.]

Secondly, once the daily motion is known, the hourly motion is gathered by dividing it by 24 hours, according to this proportion:

24 hours give the daily motion — for example, in the Moon 12° 13′; what will 1 hour give? Resolve the degrees into minutes by multiplying by sixty, and add to the product of 720 minutes the 13 minutes, so that 733 result. Then set up the division of

these by 24, and there come out 30′ 32″ 30‴, which are the Moon's hourly motion for the proposed day, the 13th of June of the year 1596.[49]

[Margin: The method of finding the motion for any proposed time.]

In the same way — which was the third thing I proposed — for any given civil time: reduce it first, if need be, to astronomical time, equate it by the rules of chapters 5 and 6 of the preceding part, and reckon it from midday; then the planets' true motions are sought from the known daily motions. Only let this be observed: that the product emerging from the proportion is added in a direct planet, but in a retrograde one subtracted, from the motion of that day whose hours after midday these are — and the desired motion of the planet results.

Let, for instance, the true motion of ☉, ☽ and ♄ be sought, derived from the Prutenic Tables, for the year 1596, the 5th day of October, 20^h 57^m, at which time an ecliptic full moon [i.e. a lunar eclipse] occurred. Now since the Ephemerides for the 5th and 6th of October show the motions thus:

Octob:	☉ ♎	☽ ♈	♄ ♉
5	12° 5′ 34″	2° 28′	7° 50′
6	13° 4′ 49″	14° 29′	7° 43′
	0° 59′ 15″	12° 1′	0° 7′

the daily motion will be: ☉ 59′ 15″; ☽ 12° 1′; ♄ 7′, retrograde. The operation therefore being performed by the proportion prescribed: 24 hours give 59′ 15″ of the Sun's motion; what will 20^h 57^m give? With the resolution first set up so that the example stands thus: 1440 minutes of the hour give 3555 — what do 1257 minutes of the hour give? There emerge in the Sun 51′ 43″; and adding 12° 5′ 34″ ♎, there results the Sun's motion answering to the proposed time, 12° 57′ 17″ ♎. In the same way by this proportion: 1440 minutes of the hour give in ☽ 12 degrees, 1 minute; what do 1257 minutes of the hour give? There come out 10° 29′ 22″.

These, added to 2° 28′ ♈, produce the Moon's true motion for the proposed time, 12° 57′ 22″ ♈. In Jupiter there are produced 6′ 7″, which, subtracted from 7° 50′ ♉ — since the motion is retrograde — leave ♄'s true motion for the assumed time at about 7° 44′ ♉.

Refer here the proportional table of the planets' daily motion, marked with this sign ⊕.

[Margin: The method of finding the motion from the proportional table of the planets' daily motion.]

The same investigation is carried through by a shorter road, from the proportional table of the planets' daily motion which I have chosen to append, since I see that other writers of Ephemerides fill many pages with tables of this kind. In it, from unity up to 60, all the daily motions are distributed through hours and scruples of hours in such a way that, given any daily motion in

[49] the month is printed Iunii (June), although the example is of 13 August.

degrees or in minutes or in both together, and given any time in hours or in minutes, the investigation of the motion can be made with no trouble — provided only this is known: that with a time and a daily motion the table is to be consulted sideways; that the smaller number, whether of time or of motion, is always to be sought in the transverse side, lower or upper, and the greater in the descending or ascending side; and that the corresponding motion sought is to be taken from the body of the table, and indeed from the common angle, by one entry or by several. And since the greatest difficulty arises over what kind of product emerges when number is multiplied into number, I have decided to add the rules here, showing the quality of the products — although these too are to be found at the foot of the table.

Prima Regula. Hours multiplied into degrees yield three distinct numbers, which any common angle contains: in the first, signs; in the second, degrees; in the third, minutes. A point, too, wherever it is found placed after the three numbers, marks the half of the kind to which it is attached, or 30 minutes of the kind next following — as in this case, 30 seconds. So hours multiplied into first minutes give Degrees, Minutes and Seconds; but hours multiplied into seconds give first minutes, seconds and thirds.

Secunda. First minutes of hours multiplied into degrees exhibit Degrees, Minutes and Seconds; multiplied into a first minute they exhibit firsts, seconds and thirds; multiplied into a second they exhibit Seconds, Thirds and Fourths.

Tertia. Second minutes of Hours multiplied into degrees give Firsts, Seconds and Thirds; multiplied into a first minute they give Seconds and Thirds and Fourths; multiplied into a second they yield Thirds, Fourths and Fifths.

Sept:	☉ ♍	☾ ♍
21	28° 19′ 32″	18° ♎ 44′
22	29° 18′ 19″	2° 51′
	0° 58′ 47″	14° 7′

But the particulars belonging to this matter become clearer through examples. Let the motion of the Sun and Moon be sought by the calculation of the Prutenic Tables for the 21st day of September, 17^h 32^m, of the year 1596, at which an ecliptic new moon occurred. The motions for the 21st and 22nd day stand thus in the Ephemeris. From which, first, the Sun's daily motion is gathered as 58′ 47″, the ☽'s as 14° 7′. But if in the second place the Sun's motion is multiplied separately into the hours and minutes, then 17 hours multiplied into the 58 minutes will exhibit 0° 41′ 5″; and 17 hours multiplied into the 47 seconds, 0′ [numeral: ?]3″ 17‴ 30⁗; and the 32 first minutes of the hour multiplied into the 58 minutes will give 1′ 17″ 20‴; while the 32 first minutes of the hour multiplied into the 47 seconds will yield 1″ 2‴ 40⁗. And at last the sum of the products, which is about 42′ 57″, the thirds and fourths being neglected,

Tabula proportionalis motus diurni Planetarum

The proportional table of the planets' daily motion — the oversize folded plate.

[Margin: none — this leaf carries no marginal-note column.]

Heading, upper left, set in Fraktur German and running the full width of the left half of the sheet:

> Diſe Tabel gehört in die Introduction zum 140 blat bey dieſes zeichen ⊕

[German: "This table belongs to the Introduction, at leaf 140, at this sign ⊕."]

Heading, upper right, set in roman:

> Tabula proportionalis motus diurni Planetarum ad xxiiii horas, & minuta horarum, pro inveſtigando motu ad quodvis tempus.

A proportional table of the planets' daily motion, for 24 hours and for minutes of the hour, for investigating the motion at any proposed time.

Construction of the plate. One oversize leaf, printed on the recto only, ruled as a single grid across the whole sheet. The grid is **entered from both ends**, and each of its four edges carries its own argument series:

- the **top** edge carries a row of 30 column-heads running **60, 59, 58 … 32, 31**, left to right;
- the **foot** carries a second row of 30 column-labels running **1, 2, 3 … 29, 30**, left to right, so that every column group stands under a pair of labels (60 over 1, 59 over 2, … 31 over 30);
- the **left** edge carries row-labels running **1 … 60** downward, beginning four lines below the top rule;
- the **right** edge carries row-labels running **60 … 31** downward over the upper part of the sheet and then, after two unlabelled lines, **30 … 60** downward over the lower part; 30 is printed once.

Each column group holds **three fields**. The grid is divided into two triangles by a staircase of large figures running diagonally from the upper left to the lower right; the staircase figures read **1, 2, 3 … 29, 30** and each stands in the column group of its own number. Above and to the right of the staircase the entries are read with the **top** heads and the **right** row-labels; below and to the left of it with the **foot** labels and the **left** row-labels. There is no figure, woodcut, ornament, rule-band or lettered construction anywhere on the plate; it is grid and type throughout.

The three legend blocks set beneath the foot label-row, each with its braces as printed:

Legend block	Standing under foot labels	Verbatim
1	3–8	Horæ per ⌈ grad. / minut. / ſecund. ⌉ faciunt ⌈ ſigna grad minut. ⎪ grad. minu. ſecund. ⎪ minu. ſecund. tert.
2	10–16	Minuta horæ per ⌈ grad. / minu. / ſecund. ⌉ faciunt ⌈ grad. minu. ſecund. ⎪ minu. ſecund. tert. ⎪ ſecund. tert. quart.
3	19–25	Secunda horæ per ⌈ grad. / minu. / ſecund. ⌉ faciunt, ⌈ minu. ſecund. tert. ⎪ ſecund. tert. quart. ⎪ tert. quart. quint.

That is: hours multiplied by (degrees, minutes, seconds) give (signs, degrees, minutes), or (degrees, minutes, seconds), or (minutes, seconds, thirds); minutes of an hour so multiplied give (degrees, minutes, seconds), or (minutes, seconds, thirds), or (seconds, thirds, fourths); seconds of an hour give (minutes, seconds, thirds), or (seconds, thirds, fourths), or (thirds, fourths, fifths).

The top head-row, all thirty groups.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	4[?]	41	40	39	38	37	36	35	34	33	32	31

The foot label-row, all thirty groups.

1	2	3	4	5	6	7	8	9	10	[?]	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

The nineteenth group from the left — the one whose head is `4[?]` above — lies directly on the vertical crease of the fold, and in this copy the crease carries away one figure from most of its cells. Its entries are given below as read, with `[numeral: ?]` for the figure the crease takes.

The upper triangle, first four lines, across all thirty heads.

The upper triangle is entered with the **top** head and the **right-edge** row-label. The right-edge labels of these four lines are printed `60`, `50`, `58`, `57`.

Right-edge row-label	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	4[?]	41	40	39	38	37	36	35	34	33	32	31
60	2 30 0	2 27 30	2 25 0	2 22 30	2 20 0	2 17 30	2 15 0	2 12 30	2 10 0	2 7 30	2 5 0	2 2 30	2 0 0	1 57 30	1 55 0	1 52 30	1 50 0	1 47 30	1 4[numeral: ?] 0	1 42 30	1 40 0	1 37 30	1 35 0	1 32 30	1 30 0	1 27 30	1 25 0	1 22 30	1 20 0	1 17 30
50 [recte: 59]	—	2 25 2.	2 22 35	2 20 7.	2 17 40	2 15 12.	2 12 45	2 10 17.	2 7 50	2 5 22.	2 2 55	2 0 27.	1 58 0	1 55 32.	1 53 5	1 50 37.	1 48 10	1 45 42.	1 4[numeral: ?] 15	1 40 47.	1 38 20	1 35 52.	1 33 25	1 30 57.	1 28 30	1 26 2.	1 23 35	1 21 7.	1 18 40	1 16 12.
58	—	—	2 20 10	2 17 45	2 15 20	2 12 55	2 10 30	2 8 5	2 5 40	2 3 15	2 0 50	1 58 25	1 56 0	1 53 35	1 51 10	1 48 45	1 46 20	1 43 55	1 4[numeral: ?] 30	1 41 30	1 39 5	1 36 40	1 34 15	1 31 50	1 29 25	1 27 0	1 24 35	1 22 10	1 19 45	1 17 20	1 14 55
57	—	—	—	2 15 22.	2 13 0	2 10 37.	2 8 15	2 5 52.	2 3 30	2 1 7.	1 58 45	1 56 22.	1 54 0	1 51 37.	1 49 15	1 46 52.	1 44 30	1 42 7.	1 [numeral: ?] 45	1 37 22.	1 35 0	1 32 37.	1 30 15	1 27 52.	1 25 30	1 23 7.	1 20 45	1 18 22.	1 16 0	1 13 37.

The lower-left triangle, foot-labels 1–8, all sixty rows.

Entered with the **foot** label and the **left-edge** row-label. Blank cells stand blank on the leaf, above the staircase. The large staircase figure standing in each group is shown as **(1)**, **(2)** … in its own cell.

Left row-label	1	2	3	4	5	6	7	8
(staircase)	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
1	0 0 2.							
2	0 0 5	0 0 10						
3	0 0 7.	0 0 15	0 0 22.					
4	0 0 10	0 0 20	0 0 30	0 0 40				
5	0 0 12.	0 0 25	0 0 37.	0 0 50	0 0 2. [recte: 0 1 2.]			
6	0 0 15	0 0 30	0 0 45	0 1 0	0 1 15	0 1 30		
7	0 0 17.	0 0 35	0 0 52.	0 1 10	0 1 27.	0 1 45	0 2 2.	
8	0 0 20	0 0 40	0 1 0	0 1 20	0 1 40	0 2 0	0 2 20	0 2 40
9	0 0 22.	0 0 45	0 1 7.	0 1 30	0 1 52.	0 2 15	0 2 37.	0 3 0
10	0 0 25	0 0 50	0 1 15	0 1 40	0 2 5	0 2 30	0 2 55	0 3 20
11	0 0 27.	0 0 55	0 1 22.	0 1 50	0 2 17.	0 2 45	0 3 12.	0 3 40
12	0 0 30	0 1 0	0 1 30	0 2 0	0 2 30	0 3 0	0 3 30	0 4 0
13	0 0 32.	0 1 5	0 1 37.	0 2 10	0 2 42.	0 3 15	0 3 47.	0 4 20
14	0 0 35	0 1 10	0 1 45	0 2 20	0 2 55	0 3 30	0 4 5	0 4 40
15	0 0 37.	0 1 15	0 1 52.	0 2 30	0 3 7.	0 3 45	0 4 22.	0 5 0
16	0 0 40	0 1 20	0 2 0	0 2 40	0 3 20	0 4 0	0 4 40	0 5 20
17	0 0 42.	0 1 25	0 2 7.	0 2 50	0 3 32.	0 4 15	0 4 57.	0 5 40
18	0 0 45	0 1 30	0 2 15	0 3 0	0 3 45	0 4 30	0 5 15	0 6 0
19	0 0 47.	0 1 35	0 2 22.	0 3 10	0 3 57.	0 4 45	0 5 32.	0 6 20
20	0 0 50	0 1 40	0 2 30	0 3 20	0 4 10	0 5 0	0 5 50	0 6 40
21	0 0 52.	0 1 45	0 2 37.	0 3 30	0 4 22.	0 5 15	0 6 7.	0 7 0
22	0 0 55	0 1 50	0 2 45	0 3 40	0 4 35	0 5 30	0 6 25	0 7 20
23	0 0 57.	0 1 55	0 2 52.	0 3 50	0 4 47.	0 5 45	0 6 42.	0 7 40
24	0 1 0	0 2 0	0 3 0	0 4 0	0 5 0	0 6 0	0 7 0	0 8 0
25	0 1 2.	0 2 5	0 3 7.	0 4 10	0 5 12.	0 6 15	0 7 17.	0 8 20
26	0 1 5	0 2 10	0 3 15	0 4 20	0 5 25	0 6 30	0 7 35	0 8 40
27	0 1 7.	0 2 15	0 3 22.	0 4 30	0 5 37.	0 6 45	0 7 52.	0 9 0
28	0 1 10	0 2 20	0 3 30	0 4 40	0 5 50	0 7 0	0 8 10	0 9 20
29	0 1 12.	0 2 25	0 3 37.	0 4 50	0 6 2.	0 7 15	0 8 27.	0 9 40
30	0 1 15	0 2 30	0 3 45	0 5 0	0 6 15	0 7 30	0 8 45	0 10 0
31	0 1 17.	0 2 35	0 3 52.	0 5 10	0 6 27.	0 7 45	0 9 2.	0 10 20
32	0 1 20	0 2 40	0 4 0	0 5 20	0 6 40	0 8 0	0 9 20	0 10 40
33	0 1 22.	0 2 45	0 4 7.	0 5 30	0 6 52.	0 8 15	0 9 37.	0 11 0
34	0 1 25	0 2 50	0 4 15	0 5 40	0 7 5	0 8 30	0 9 55	0 11 20
35	0 1 27.	0 2 55	0 4 22.	0 5 50	0 7 17.	0 8 45	0 10 12.	0 11 40
36	0 1 30	0 3 0	0 4 30	0 6 0	0 7 30	0 9 0	0 10 30	0 12 0
37	0 1 32	0 3 5	0 4 37.	0 6 10	0 7 42.	0 9 15	0 10 47.	0 12 20
38	0 1 35	0 3 10	0 4 45	0 6 20	0 7 55	0 9 30	0 11 5	0 12 40
39	0 1 37.	0 3 15	0 4 52.	0 6 30	0 8 7.	0 9 45	0 11 22.	0 13 0
40	0 1 40	0 3 20	0 5 0	0 6 40	0 8 20	0 10 0	0 11 40	0 13 20
41	0 1 42.	0 3 25	0 5 7.	0 6 50	0 8 32.	0 10 15	0 11 57.	0 13 40

Left row-label	1	2	3	4	5	6	7	8
42	0 1 45	0 3 30	0 5 15	0 7 0	0 8 45	0 10 30	0 12 15	0 14 0
43	0 1 47.	0 3 35	0 5 22.	0 7 10	0 8 57.	0 10 45	0 12 32.	0 14 20
44	0 1 50	0 3 40	0 5 30	0 7 20	0 9 10	0 11 0	0 12 50	0 14 40
45	0 1 52.	0 3 45	0 5 37.	0 7 30	0 9 22.	0 11 15	0 13 7.	0 15 0
46	0 1 55	0 3 50	0 5 45	0 7 40	0 9 35	0 11 30	0 13 25	0 15 20
47	0 1 57.	0 3 55	0 5 52.	0 7 50	0 9 47.	0 11 45	0 13 42.	0 15 40
48	0 2 0	0 4 0	0 6 0	0 8 0	0 10 0	0 12 0	0 14 0	0 16 0
49	0 2 2.	0 4 5	0 6 7.	0 8 10	0 10 12.	0 12 15	0 14 17.	0 16 20
50	0 2 5	0 4 10	0 6 15	0 8 20	0 10 25	0 12 30	0 14 35	0 16 40
51	0 2 7.	0 4 15	0 6 22	0 8 30	0 10 37.	0 12 45	0 14 52.	0 17 0
52	0 2 10	0 4 20	0 6 30	0 8 40	0 10 50	0 13 0	0 15 10	0 17 20
53	0 2 12.	0 4 25	0 6 37.	0 8 50	0 11 2.	0 13 15	0 15 27.	0 17 40
54	0 2 15	0 4 30	0 6 45	0 9 0	0 11 15	0 13 30	0 15 45	0 18 0
55	0 2 17.	0 4 35	0 6 52.	0 9 10	0 11 27.	0 13 45	0 16 2.	0 18 20
56	0 2 20	0 4 40	0 7 0	0 9 20	0 11 40	0 14 0	0 16 20	0 18 40
57	0 2 22.	0 4 45	0 7 7.	0 9 30	0 11 52.	0 14 15	0 16 37.	0 19 0
58	0 2 25	0 4 50	0 7 15	0 9 40	0 12 5	0 14 30	0 16 55	0 19 20
59	0 2 27.	0 4 55	0 7 22.	0 9 50	0 12 17.	0 14 45	0 17 12.	0 19 40
60	0 2 30	0 5 0	0 7 30	0 10 0	0 12 30	0 15 0	0 17 30	0 20 0

The last row of the sheet, across all thirty foot-labels.

Left row-label	1	2	3	4	5	6	7	8	9	10	[?]	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	2	5	7	10	12	15	17	20	22	25	[nu-	30	32	35	37	40	42	45	47	50	52	55	57	0	2	5	7	10	12	15
	30	0	30	0	30	0	30	0	30	0	meral:	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
											?]																			
											30																			

	58 min. 47 sec.				
	Grad.	**/**	**//**	**///**	**Iv**
Hor. 17	0	41	5		
Hor. 17		0	33	17	30
Min. 32		1	17	20	
Min. 32			1	2	40
	0	42	56	40	10

	Grad. 14 min. 7				
	Sex:	**Grad.**	**/**	**//**	**///**	**Iv**
Hor. 17	0	9	55			
Hor. 17		0	4	57	30	
Min. 32		0	18	40		

	Grad. 14 min. 7					
Min. 32			0	9	20	30
	0	10	18	46	50	30

—is added to the Sun's place of 28° 19′ 32″. The Sun's place for the proposed time is produced: 29° 2′ 29″ ♍.

The Moon's motion is multiplied into the time in the same way. First the 17 hours into 14 degrees; then into 7 minutes. Next 32 minutes of an hour into 14 degrees, and again into 7 minutes. Fourfold products come out, and their sum is about 10° 18′ 47″, the thirds and fourths being neglected. Added to the Moon's place of 18° 44′ ♍, it shows the Moon at the proposed time to be in 29° 2′ 46″ ♍.

[Margin: *How to find a planet's motion for any proposed place on earth and for any time whatever.*]

Finally, so that the student of the stars may see clearly how the investigation of the motions is to be set up for any other place — one differing from the meridian of the Ephemerides — and for any civil time; and so that certain rules necessary for computing the motions exactly may be more fully understood, rules on which the unskilled run of astrologers very often happens to go astray and stumble.

Let this then be the example. By the reckoning of the Prutenic Tables we are to find the positions of the Sun, the Moon and Mercury on the meridian of Vienna in Austria, for 15 April 1596, at hour 19 of the civil clock reckoned from sunset.

First, then, I convert this common time into astronomical time, by the rules of chapter 5 of the preceding part, as follows. I begin by looking in the table of the length of the day for the semidiurnal time of the preceding day, 14 April, for the meridian of Vienna, whose latitude is 48° 22′, and for the Sun's place as the Ephemerides give it, 24° 13′ 14″ ♈; I find it to be $6^h\ 43^m$. Then to this semidiurnal time I add the 19 hours given, casting out 24 hours from the total collected, since it exceeds a civil day. Out comes the astronomical time: 15 April, $1^h\ 43^m$ P.M.

Secondly, so that the time may be fitted to our own meridian of Frankfurt, for which the Ephemerides are drawn up, I reduce it by the rules of chapter 6 of the preceding part. That is, I take the difference of time between the meridians of Vienna and Frankfurt, which the Catalogue of places gives as 11^m, and subtract it from the astronomical time found. There remains the time proper to our meridian: $1^h\ 32^m$.

Thirdly, since the time is apparent, I convert it into mean time by the same chapter 6. For I look in the Canon of the equation of days, fitted to the Prutenic computation, to see what answers to the place of the Sun, which on 15 April stands at about 25° 12′ ♈. There are found $7^m\ 16^s$ of an hour, to be subtracted from the earlier time. From this the time properly equated and reduced — fit

for collecting the motions out of the Ephemerides — comes out as: of the year 1596, 15 April, $1^h\ 24^m\ 44^s$. **Now if, by the rules of this chapter, I look for** the motions of the Sun, the Moon and Mercury — and first indeed the daily motions of these planets — in this way: ⊕

⊕ *April:*	☉ ♈			☽ ♐		☿ ♉	
	Grad:	**/**	**//**	**Grad:**	**/**	**Grad:**	**/**
15	25	11	52	2	2	1	50
16	26	10	28	16	43	1	3
	0	58	36	14	41	0	47

	58 min. 36 sec. mot.☉				
	Grad.	**/**	**//**	**///**	**Iv**
Hor. 1	0	2	25		
Hor. 1		0	1	30	
Min.24		0	58	0	
Min.24			0	36	0
Sec. 44			1	46	20
Sec. 44				1	6
Summ.	0	3	26	53	26

	14 gr. 41 min. motus ☽				
	Grad.	**/**	**//**	**///**	**/v**
Hor. 1	0	35			
Hor: 1	0	1	42	30	
Min.24	0	14	0		
Min.24		0	41	0	
Sec. 44		0	25	40	
Sec. 44			1	15	10
Summ.	0	51	50	25	10

	47 min. Motus ☿				
	Grad.	**/**	**//**	**///**	**/v**
Hor. 1	0	1	57	30	
Min.24		0	47	0	
Sec. 44		0	1	26	10
Summ.	0	2	45	56	10

Next I look to see what, out of these daily motions, answers to $1^h\ 24^m\ 44^s$. What answers is: in the Sun about 3′ 27″; in the Moon 51′ 50″; in Mercury about 2′ 46″.

And finally I apply those parts to the motion of the 5th day. Out come the true motions, answering to the time proposed on the meridian of Vienna: the Sun at 25° 15′ 19″ ♈; the Moon at 2° 53′ 50″ ♐; Mercury at 1° 47′ 14″ ♉.

Caput IV

DE CALCULO MOTUS PLANETARUM IN LATUM ad quodvis tempus, & quemvis locum, & Canone ſinuum.

Chapter IV. On computing the planets' motion in latitude, for any time and any place, and by the Canon of Sines.

[Margin: All latitudes are reckoned from the ecliptic.]

In chapter 1 of this part, in the doctrine of the circles, it was said that the ecliptic line — the circle passing through the middle of the zodiac, which the Greeks call κύκλον διὰ μέσου τῶν ζωδίων [Greek: kyklon dia mesou tōn zōdiōn, "the circle through the middle of the signs"] — is the boundary from which all the latitudes of all the stars in the heavens are reckoned; and that the Sun describes that line by its annual motion, never deviating from it and never acquiring any latitude — that line which lies between the two poles of the heavens, or the middle of the zodiac. This is why the circle is also called the Sun's orbit or path.

[Margin: The fixed stars, indeed, do not change their latitudes.]

[Margin: But the Moon and the other planets vary their latitudes.]

The fixed stars scarcely ever change their distances from this middle line — the latitudes they first received from the most wise architect of this world. The Moon, however, together with the other five wandering stars, varies hers by her own motion, so that they are found now on the ecliptic, now off it, and either toward the north or toward the south, as we showed in chapter 2.

[Margin: When the planets are on the ecliptic they occupy the nodes.]

[Margin: The ascending node.]

When they are on the ecliptic they are said to occupy one or other of the nodes, that is, of the points of intersection. The ascending node — συνδεσμὸν ἀναβιβάζοντα [Greek: syndesmon anabibazonta, "the ascending bond"] — is occupied when, crossing the ecliptic from southern latitude, they are carried toward the north; this node is otherwise called the Head of the Dragon, and is expressed by this mark ☊, which signifies that the planet is tending upward from the ecliptic.

[Margin: The descending node.]

The descending node — συνδεσμὸν καταβιβάζοντα [Greek: syndesmon katabibazonta, "the descending bond"] — is occupied when, passing across the ecliptic from northern latitude, they descend into the south; this node is otherwise called the Tail of the Dragon, and is marked by this figure ☋, which shows that the planet is carried downward from the ecliptic.

[Margin: The planets' latitudes are entered at the foot of the Ephemerides for 6 days.]

In the preceding chapter we taught how to find the planets' motion in longitude along the zodiac, for any proposed time, out of the Ephemerides. It is only right that we now show by what method the planets' motion in latitude is

to be sought from those same tables. It should be understood that the latitudes of the five planets stand entered at the foot of each month, under the planet's own character, for the 1st, 6th, 11th, 16th, 21st and 26th day, in degrees and minutes, with the denomination at the head. So, when the investigation has to be set up for a proposed

[Margin: The method of finding the latitudes.]

time, first let it be seen by how much the latitude of the planet in question changes within those 5 — sometimes also 3, 4 or 6 — days that enclose the given moment. This is done by subtracting the smaller latitude figure from the larger, if the denomination of the latitude stays the same; or else by adding the two latitude figures together, if the denomination changes from northern to southern, or from southern to northern, which is apparent from the letters S and M set between them. Next, attend to the quantity of the intervening time over which that change of latitude takes place. Thirdly, subtract the beginning of that time from the given time. Finally, multiply the time by which the beginning differs from the given time into the motion in latitude; then divide the product by the tables' intervening time, and out comes the proportional part, to be added to — or subtracted from — the motion in latitude belonging to the beginning of the time. And so at last the latitude answering to the prescribed time comes out.

For example, let the motion in latitude of ♃, ♀ and ☿ be sought for 27 January 1596, at hour 15. First I see by how much the motion in latitude of these three planets changes from 26 January to the day of February, setting up the comparison in this way. And I find that within the 6 days falling between 26 January and 1 February the motion of ♃'s latitude changes by 2′, ♀'s by 4′, and ☿'s by 47′. Next I subtract 26 January, which is the beginning of the time, from the given 27 days and 15 hours. There remains 1 day, 15 hours. And finally I frame a proportion of this kind:

	♃		♀		☿	
	Gr:	**/**	**Gr:**	**/**	**Gr:**	**/**
Ian. 26	1	15	1	2	0	30
Feb. 1	1	13	1	6	0	17
		2		4		47

6 Dies ſeu Horæ 144 } dant in { ♃ **2 min: · ♀ 4 min: · ☿ 47 min:** } **latitudinis, Quid dant** { **1 Dies Hora 15 · Seu Horæ 39**

— that is: 6 days, or 144 hours, give in latitude ♃ 2′, ♀ 4′, ☿ 47′; what do 1 day 15 hours, or 39 hours, give?

And when the operation of the Rule is carried out, there is produced for Jupiter 0′ 32″, which is subtracted from the earlier figure, since the later one is the smaller; and there remains ♃'s motion in latitude, 1° 14′ 28″. For Venus there come out 1′ 5″, which, added to the earlier figure since the later one is the greater, give the latitude of ♀ as 1° 3′ 5″. For Mercury there emerge about 12′

41″, which, taken from the earlier figure since the later one is the smaller, leave ☿'s motion in latitude as 0° 17′ 19″.

[Margin: How to know the denomination of a planet's latitude.]

Further, of what denomination the latitudes are is known in this way. Consider the letters written at the head of each little column, and see whether they admit any change as the columns run on; those letters will show the denomination, as we noted in chapter 2 of this part. The letters written at the head hold good right up to the day at which the change of letter occurs.

For instance, in our own worked examples, for the month of January 1596, above the character of ♃ stand the letters M and A, and they undergo no change in that month. I therefore pronounce Jupiter, at the proposed time, southern and ascending. In the same way, since above the character of ♀ the letters M and D are found, I say that Venus is southern and descending. Mercury, by contrast, I declare northern and descending, since we see the change of the letter written at the head take place only after the 29th day. And it is in just this way that the latitudes of the five planets are traced out of the Ephemerides for a proposed time.

[Margin: The Moon's latitude is set out day by day, following Tycho Brahe.]

In finding the Moon's latitudes by Tycho Brahe's computation, no difficulty at all presents itself in these Ephemerides, since they are worked out for each single day, as are the motions of the luminaries and of the other planets. And the inquiry, for any

[Margin: But by the Prutenic computation it has to be worked out.]

proposed time is simply like the one we set out in the preceding chapter. By the computation of the Prutenic Tables, however, more labour is required; for since those latitudes are not entered in the Ephemerides, they will have to be sought in the following way.

[Margin: The method of computing.]

First, for the proposed time, let the true places of the Moon and of the ascending node be sought by the preceding chapter, and let them be noted down by the number of signs. Next let the distance of the Moon from the node be sought, by taking the sign, degree and minute of the node's place from the Moon's place — 12 signs being added to the Moon's place if the subtraction cannot be made, because the Moon's number of signs is smaller than the node's. The remainder will be the distance of the Moon from the node, which is otherwise called the argument, or anomaly, of the Moon's latitude. Thirdly, with the anomaly of latitude, let the Canon of the Moon's latitude be consulted, looking for the degrees on the left-hand side if the dodecatemories were found at the head, but on the right-hand side if they were found at the foot of the Canon. The angle common to the two will give the Moon's latitude; and whether it is northern or southern, ascending or descending, the titles joined to the dodecatemories will show. Note that a proportional part is needed if minutes are attached to the degrees being looked up: it is got by multiplying the attached minutes into the difference of latitude that stands between the two

nearest degrees. That proportional part is added to the figure of the common angle when the following one increases, and subtracted when it decreases.

For example: let the Moon's latitude be sought for the time proposed a little earlier, namely 27 January 1596 [?], at hour 15. First, then, let the true places of the Moon and of the ascending node be sought by the preceding chapter. The Moon's true place is found in ♑ at 20° 46′, that is, 9ˢ 20° 46′; the node at 17° 12′ ♈, that is, 0ˢ 17° 12′. Next let the node's place be subtracted from the Moon's place; there remain 9ˢ 3° 34′, which are the argument of the Moon's latitude. Finally, with this argument let the Canon of the Moon's latitude be consulted. And since the sign is found at the foot, let the 3 degrees be looked for on the right-hand side, going upward; and the common angle gives 4° 59′ 35″. But because minutes are attached to the degrees, a proportional

Ian.	☽ ♑		☊ ♈	
	Gr:	**/**	**Gr:**	**/**
27	12	30	17	14
28	25	44	17	11
	13	14		3
	6	37	1	30
	1	39		22
	8	16	1	52
	20	46	17	12

Canon latitudinis Lunæ — the Canon of the Moon's latitude. Head block, as set (two lines above the column heads):

Dodecate	0	1	2	Sept. Afc.
mor.	6	7	8	Mer. Def

gr:	**Dodecatemoria 0 · 6**	**1 · 7**	**2 · 8**	**gr.**
0	0° 0′ 0″	2° 29′ 52″	4° 19′ 43″	30
1	0° 5′ 14″	2° 34′ 22″	4° 22′ 18″	29
2	0° 10′ 27″	2° 38′ 50″	4° 24′ 49″	28
3	0° 15′ 41″	2° 43′ 15″	4° 27′ 14″	27
4	0° 20′ 54″	2° 47′ 37″	4° 29′ 34″	26
5	0° 26′ 7″	2° 51′ 56″	4° 31′ 50″	25
6	0° 31′ 19″	2° 56′ 11″	4° 34′ 0″	24
7	0° 36′ 31″	3° 0′ 24″	4° 36′ 6″	23
8	0° 41′ 42″	3° 4′ 33″	4° 38′ 6″	22
9	0° 46′ 52″	3° 8′ 39″	4° 40′ 2″	21
10	0° 52′ 2″	3° 12′ 42″	4° 41′ 52″	20
11	0° 57′ 10″	3° 16′ 41″	4° 43′ 37″	19
12	1° 2′ 18″	3° 20′ 36″	4° 45′ 17″	18

gr:	Dodecatemoria 0 · 6	1 · 7	2 · 8	gr.
13	1° 7′ 24″	3° 24′ 28″	4° 46′ 52″	17
14	1° 12′ 29″	4° 28′ 16″ [recte: 3° 28′ 16″]	4° 48′ 21″	16
15	1° 17′ 33″	3° 32′ 0″	4° 49′ 45″	15
16	1° 22′ 35″	3° 35′ 40″	4° 51′ 4″	14
17	1° 27′ 36″	3° 39′ 17″	4° 52′ 17″	13
18	1° 32′ 36″	3° 42′ 49″	4° 53′ 26″	12
19	1° 37′ 34″	3° 46′ 17″	4° 54′ 29″	11
20	1° 42′ 30″	3° 49′ 42″	4° 55′ 26″	10
21	1° 47′ 24″	3° 53′ 2″	4° 56′ 18″	9
22	1° 52′ 16″	3° 56′ 17″	4° 57′ 4″	8
23	1° 57′ 6″	3° 59′ 29″	4° 57′ 45″	7
24	2° 1′ 54″	4° 2′ 36″	4° 58′ 21″	6
25	2° 6′ 40″	4° 5′ 38″	4° 58′ 51″	5
26	2° 11′ 23″	4° 8′ 37″	4° 59′ 16″	4
27	2° 16′ 4″	4° 11′ 30″	4° 59′ 35″	3
28	2° 20′ 42″	4° 14′ 19″	4° 59′ 49″	2
29	2° 25′ 18″	4° 17′ 4″	4° 59′ 57″	1
30	2° 29′ 52″	4° 19′ 43″	5° 0′ 0″	0

Foot block, as set (two lines below the last data row):

Dodeca	11	10	9	Mer. Aſc.
tem:	5	4	3	Sept. Def

part is needed. It is obtained from the difference of 19″; corresponding to the 34′ annexed to the 3°, it comes to nearly 11″. Subtracted from the common angle — since the number decreases as one ascends — this leaves the Moon's true latitude at the proposed time as 4° 59′ 24″, southern and ascending; and according to Tycho Brahe it comes out at very nearly the same quantity and denomination.

Our purpose is to teach students of astronomy certain fundamental computations drawn from the doctrine of triangles, so that they may see the sources of the astronomical tables and, once equipped with some first principles, may begin to love them. I have therefore decided to add here not only a Canon of Sines [Canon ſinuum], by whose help most calculations are dispatched, but also to show what sines are, how many kinds of them there are, and how the Canon itself is rightly used. Let us begin with the definitions.

[Margin: The definition of the Canon of Sines.]

A Canon of Sines is a table of this kind: it shows the ratio and the magnitude of the halves of those straight lines which, within a circle, are subtended to the parts of the circumference, and which are cut at right angles either by the diameter or by its half, the radius.

[Margin: The use of the Canon.]

The use of this Canon is as follows. The heavens are spherical and are measured by circles; the measurement of circles cannot be carried out without straight lines; and so from the Canon it is established which straight lines are subtended to which arcs or angles, and conversely which arcs or angles correspond to which straight lines, so that once one of the two is known the other is not in the least hidden.

[Margin: What a subtense is]

A subtense, then, or chord, is a straight line drawn within a circle and terminated at both ends on the circumference, which cuts the circle — the diameter alone excepted — into two unequal parts, and is subtended to each of them. In the accompanying figure the line D E is called the subtense; for it is subtended both to the arc D H E, the lesser semicircle, and to E B D, the greater.

[Margin: What a sine is.]

A sine, however, is the half of a subtense: the half which falls perpendicularly from the end of the arc onto the diameter or the radius, and divides the semicircle into two unequal segments, to each of which it is likewise referred. Thus D G is a sine, namely the half of the subtense D E, which from D, the end of the arc, is perpendicular to the diameter B H, and divides the semicircle B C D H into two segments, the lesser D H and the greater D C B.

Diagram. A circle with its centre at A. A horizontal diameter runs across it from B at the left to H at the right. A vertical radius rises from A to C on the circumference at the top. D stands on the circumference in the upper right quadrant; from D a horizontal line runs left to F, which lies on the radius A C, and a vertical line runs down from D through G, which lies on the diameter A H, to E on the circumference in the lower right quadrant. The diagonal D A is drawn, closing the triangle A F D. Eight labels are set on the figure, all legible; none is flagged.

- A (centre of the circle): A
- B (left end of the horizontal diameter): B
- C (top of the circle, on the vertical radius): C
- D (on the circumference, upper right quadrant): D
- E (on the circumference, lower right quadrant, directly below D): E
- F (on the vertical radius A C, level with D): F
- G (on the horizontal diameter, directly below D and above E): G
- H (right end of the horizontal diameter): H

The sine is divided into the right sine and the versed sine.

[Margin: The sine is twofold. Right. 1 Simple. 2 Of the complement.]

The right sine is given either simply, or else its remainder to the quadrant — what is called the complement — is the thing considered. Thus the right sine of the arc D H, when it is given simply, is D G; but when the complement is attended to, the arc D H has D C for its complement to the quadrant, and D F is the sine of that complement. The squares of these two sines together equal the square of the radius. For D F equals A G; and A F, by Euclid I.34, is

parallel and equal to G D; and D F together with F A equal A D in power, by the penultimate proposition of Book I [printed parellela].

[Margin: The versed sine.]

The versed sine, which some also call the arrow [Sagitta], is a segment of the radius, that is, a straight line drawn in a semicircle perpendicularly from the other end of the arc to the right sine

TABULA [SINUUM] — the Table of Sines. The head-line is set across the opening: this leaf carries TABULA, the facing leaf SINUUM.

Min.	Gradus 0	1	2	3	4	5	6
0	0000	174524	348995	523360	697565	871557	1045285
1	2909	177432	351902	526264	700467	874455	1048178
2	5818	180341	354809	529169	703368	877353	1051070
3	8727	183249	357716	532074	706270	880251	1053963
4	11636	186158	360623	534979	709171	883148	1056856
5	14544	189066	363530	537883	712073	886046	1059748
6	17453	191974	366437	540788	714974	888943	1062641
7	20362	194883	369344	543693	717876	891840	1065533
8	23271	197791	372251	546597	720777	894738	1068425
9	26180	200699	375158	549502	723678	897635	1071318
10	29089	203608	378065	552406	726580	900532	1074210
11	31998	206516	380971	555311	729481	903429	1077102
12	34906	209424	383878	558215	732382	906326	1079996[50]
13	37815	212332	386785	561119	735283	909223	1082885
14	40724	215241	389692	564024	738184	912119	1085777
15	43633	218149	392598	566928	741085	915016	1088669
16	46542	221057	395505	569832	743986	917913	1091560
17	49451	223965	398411	572736	746887	920809	1094452
18	52360	226873	401318	575640	749787	923706	1097343
19	55268	229781	404224	578544	752688	926602	1100234
20	58177	232690	407131	581448	755589	929499	1103126
21	61086	235598	410037	584352	758489	932395	1106017
22	63995	238506	412944	587256	761390	935291	1108908
23	66904	241414	415850	590160	764290	938187	1111799
24	69813	244322	418757	593064	767190	941083	1114689
25	72721	247230	421663	595967	770091	943979	1117580
26	75630	250138	424569	598871	772991	946875	1120471
27	78539	253046	427475	601775	775891	949771	1123361
28	81448	255954	430382	604678	778791	952666	1126252
29	84357	258862	433288	607582	781691	955562	1129142
30	87265	261769	436194	610485	784591	958458	1132032

The unheaded difference columns, transcribed separately so that the grid is not padded. Seven narrow columns are ruled, one standing immediately to the right of each value column. **None of the seven carries a head.** A figure

[50] so printed; the neighbouring values of this column show the figure is wrong in its last place

is set in them on three rows only — the first row, the last row, and one interior row — and the remaining cells are blank on the leaf:

Row (Min.)	after *Gradus 0*	after *1*	after *2*	after *3*	after *4*	after *5*	after *6*
0	48.5	48 5	48.4	48.4	48.4	48 3	48 2
16	—	—	—	—	48.3	—	—
30	48 5	48.5	48 4	48.4	48 3	48 3	48.2

—and together with the right sine of the complement it equals the radius. In the figure the versed sine is the straight line H G; for it is drawn from H, the other end of the arc D H, perpendicularly onto the right sine G D, and together with F D — or A G — the right sine of the complement, it completes the radius.

[Margin: the use of the table of sines.]

As for its use, it is boundless in the solution of triangles, both rectilinear and spherical, provided it is known: given an arc of a circle less than a quadrant

[TABULA] SINUUM — the Table of Sines. The argument runs on from the facing leaf; its first row, `30`, is **printed a second time here**, and is rendered at each of the two places it stands (facing leaf, last row; this leaf, first row).

Min.	**Gradus 0**	**1.**	**2**	**3**	**4**	**5**	**6**
30	87265	261769	436194	610485	784591	958458	1132032
31	90174	264677	439100	613389	787491	961353	1134922
32	93083	267585	442006	616292	790391	964248	1137812
33	95992	270493	444912	619196	793290	967144	1140702
34	98900	273401	447818	622099	796190	970039	1143592
35	101809	276309	450724	625002	799090	972934	1146482
36	104718	279216	453630	627905	801989	975829	1149372
37	107627	282124	456536	630808	804889	978724	1152261
38	110535	285032	459442	633711	807789	981619	1155151
39	113444	287940	462347	636614	810687	984514	1158040
40	116353	290847	465253	639517	813587	987408	1160929
41	119261	293755	468159	642420	816486	990303	1163818
42	122170	296662	471065	645323	819385	993197	1166707
43	125079	299570	473970	648226	822284	996092	1169596
44	127987	302478	476876	651129	825183	998986	1172485
45	130896	305385	479781	654031	828082	1001881	1175374
46	133805	308293	482687	656934	830981	1004775	1178263
47	136713	311200	485592	659836	833880	1007669	1181151
48	139622	314108	488498	662739	836778	1010563	1184040
49	142530	317015	491403	665641	839677	1013457	1186929
50	145439	319922	494308	668544	842576	1016351	1189816
51	148348	322830	497214	671446	845474	1019245	1192704
52	151256	325737	500119	674349	848373	1022138	1195593
53	154165	328644	503024	677251	851271	1025032	1198481
54	157073	331552	505929	680153	854169	1027925	1201368
55	159982	334459	508835	683055	857067	1030819	1204256

Min.	Gradus 0	1.	2	3	4	5	6
56	162890	337366	511740	685957	859966	1033712	1207144
57	165799	340274	514645	688859	862864	1036605	1210031
58	168707	343181	517550	691761	865762	1039499	1212919
59	171616	346088	520455	694663	868660	1042392	1215806
60	174524	348995	523360	697565	871557	1045285	1218693

The unheaded difference columns of this leaf, transcribed separately so that the grid is not padded. As on the facing leaf, seven narrow columns are ruled, one immediately to the right of each value column, and **none carries a head**. On this leaf figures are set on **five** rows, not three; every other cell in those seven columns is blank on the leaf:

Row (Min.)	after *Gradus 0*	after *1.*	after *2*	after *3*	after *4*	after *5*	after *6*
30	48.5	48.5	48 4	48.4	48 3	48.3	48 2
33	—	—	—	—	—	48.,2	—
36	—	—	—	—	—	—	48 1
58	—	48.4	—	—	—	—	—
60	48.5	—	48.4	48.4	48 3	48.2	48.1

— or, if a greater arc is given, then after subtracting it from a semicircle so that what remains is less than a quadrant. Enter at the side, with the degrees at the head and the minutes down the left-hand margin, and the sine is to be looked for in the common angle of the field. And conversely, when a sine is given, one must enter by the field and find the arc in the sides: the degrees at the head, the minutes down the left-hand margin.

[Margin: Given an arc, how the sine is to be found; and conversely, given a sine, how the arc is to be found.]

For example, let an arc of 25° 16′ be given first, whose right sine is to be sought…

Column heads as printed: the argument column is headed `Min.`, set rotated through 90° at the head of the column; the seven value columns are headed `7`, `8`, `9`, `10`, `11`, `12`, `13`. The seven narrow channels that carry the paired difference figures are printed **without any head at all**.

Min.	7	8	9	10	11	12	13
0	1218693 48.1	1391734 48 0	1564345 47.9	1736482 47.7	1908090 47.6	2079147 47 4	2246511 [recte: 2249511] 47 2
1	1221581	1394612	1567218	1739346	1910945	2081962	2252345
2	1224468	1397492	1570091	1742211	1913800	2084807	2255179
3	1227355	1400372	1572963	1745075	1916655	2087652	2258013
4	1230241	1403252	1575836	1747939	1919510	2090497	2260846
5	1233128	1406132	1578708	1750803	1922365	2093341	2263680
6	1236015	1409012	1581581	1753667	1925220	2096186	2266513

Min.	7		8		9		10		11		12		13	
7	1238901		1411892		1584453		1756531		1928074		2099030		2269346	
8	1241788		1414772		1587325		1759395		1930928		2101874		2272179	
9	1244674		1417651		1590197		1762258		1933782		2104718		2275012	
10	1247560		1420531		1593069		1765121		1936636		2107561		2277844	
11	1250446		1423410		1595940		1767984		1939490		2110405		2180677 [recte: 2280677]	
12	1253332		1426289		1598812		1770847		1942344		2113248		2283509	
13	1256218		1429168		1601683		1773710		1945197		2116091		2286341	
14	1259104		1432047		1604555		1776573		1948050		2118934		2289172	
15	1261990		1434926		1607426	47.8	1779435		1950903	47.5	2121777		2292004	
16	1264875		1437805		1610297		1782268 [recte: 1782298]		1953756		2124619		2294835	
17	1267761		1440684		1613167		1785160		1956609		2127462		2297666	
18	1270646		1443562		1616038		1788022		1959461		2120304		2300497	
19	1273531		1446440		1618909		1790884		1962314		2133146		2303328	
20	1276416		1449319		1621779		1793746		1965166		2135988		2306159	
21	1279302		1452197		1624650		1796607		1998018 [recte: 1968018]		2138829		2308989	47.1
22	1282186		1455075		1627520		1799469		1970870		2141671	47.3	2311819	
23	1285071		1457953		1630390		1802330		1973722		2144512		2314649	
24	1287956		1460830		1633260		1805191		1976573		2147353		2317479	
25	1290841		1463708		1636129		1808052		1979425		2150194		2320399	
26	1293725		1466585		1638999		1810913		1982276		2153035		2323138	
27	1296609		1469463	47.9	1641868		1813774		1985127		2155876		2325967	
28	1299494		1472340		1644738		1816635		1987978		2158716		2338796	
29	1302378		1475217		1647607		1819495		1990829		2161556		2331625	
30	1305262	48.1	1478094	47.9	1650477	47.8	1822355	47.7	1993679	47.5	2164396	47.3	2334454	47.1

[Margin: The proportional part for the adhering seconds…]

—and once the entry has been made at the side — 25° at the head, 16′ in the left-hand margin of the left-hand page — the right sine 4268318 is offered in the field, at the angle common to the two. In the same way, let the right sine 4511372 be given, whose arc is to be found: entering by the field, the given number answers to 26° at the head and, in the left-hand margin of the right-hand page, to 49′. But if not only degrees and minutes of the first order are given, but seconds as well; or if sines present themselves which in the tables…

Heads printed on this leaf, quoted verbatim: `Min.` over the argument column, again set rotated through 90°, then `7`, `8`, `9`, `10`, `11`, `12`, `13`. No head at all stands over any difference channel.

Min.	7		8		9	10	11	12	13	
30	1305262	48.1	1478094	47.9	1650477	1822357	1993677	2164397	2334454	47.1
31	1308146		1480971		1653345	1825215	1996530	2167236	2337282	
32	1311030		1483848		1656214	1828075	1999380	2170076	234001[?] [recte: 2340110]	
33	1313913		1486724		1659082	1830936	2002230	2172915	2342938	
34	1316797		1489601		1661951	1833795	2005080	2175754	2345766	
35	1319681	480	1492277 [recte: 1492477]		1664819	1836654	2007930	2178593	2348594	
36	1322564		1495353		1667687	1839514	2010779	2181432	2351421	
37	1325447		1498230		1670555	1842373	2013629	2184271	2354248	
38	1328330		1501106		1673423	1845232	2016478	2187110	2357075	
39	1331213		1503981		1676291	1848091	2019327	2189948	2359902	
40	1334096		1506857		1679159	1850949	2022176	2192786	2362729	
41	1336979		1509733		1682026	1853808	2025024	2195624	2365555	
42	1339862		1512608		1684894	1856666	2027873	2198462	2368381	
43	1342744		1515484		1687761	1859524	2030721	2201300	2371207	
44	1345627		1518359		1690628	1862382	2033569	2204137	2374033	
45	1348509		1521234		1693495	1865240	2036418	2206974	2376859	
46	1351392		1524109		1696362	1868098	2039265	2209811	2379684	
47	1354274		1526984		1699228	1870956	2042113	2212648	2382510	
48	1357156		1529858		1702095	1873813	2044967	2215485	2385335	
49	1360038		1532733		1704961	1876670	2047808	2218321	2388159	
50	1362919		1535607		1707828	1879528	2050655	2221158	2390984	
51	1365801		1538482		1710694	1882385	2053502	2223994	2393808	
52	1368683		1541356		1713560	1885241	2056349	2226830	2396633	
53	1371564		1544230		1716425	1888098	2059195	2229666	2399457	
54	1374445		1547104		1719291	1890954	2062042	2232501	2402280	
55	2377327 [recte: 1377327]		1549978		1722156	1893811	2064888	2235337	2405104	
56	1380208		1552851		1725047	1896667	2067734	2238174	2407927	
57	1383089		1555725		1727887	1899523	2070580	2241007	2410750	47.0
58	1385970		1558598		1730752	1902379	2073426	2243841	2413573	
59	1388850		1561472		1733617	1905234	2076272	2246676	2416396	
60	1391731	48.0	1564345	479	1736484	1908090	2079147	2249541	2419219	47.0

—are not found exactly, then the proportional part will be needed, and it is very easily gathered by this device, with the help of the paired numbers set between the columns of sines. Those paired numbers show what answers to a single second — first in units of the difference between two neighbouring sines, and then in tenths of one such unit.

[Margin: …how it is to be sought.]

First, suppose the right sine of some arc is to be found, the arc consisting of degrees, minutes and seconds:

[Margin: First, if an arc is given and the right sine is to be sought.]

Heads printed on this leaf, quoted verbatim: `Min.` over the argument column, rotated as before, then `14`, `15`, `16`, `17`, `18`, `19`, `20`. Nothing is set over any difference channel.

Min.	14		15		16		17		18		19		20	
0	2419219	47.0	2588190	46.8	2756774 [recte: 2756374]	46.6	2923747	46.4	3090170	46 1	3255683	45.8	3420201	45. 5
1	2422041		2591000		2759170		2926499		3092936		3258432		3422935	
2	2424863		2593810		2761966		2929280		3095702		3261182		3425668	
3	2427685		2596619		2764762		2932061	46.3	3098468		3263931		3428401	
4	2430507		2599428		2767557		2934842		3101234		3266681		3431133	
5	2433329		2602237		2770352		2937623		3103999		3269430		3433865	
6	2436150		2605045		2773147		2940403		3106764		3272179		3436597	
7	2438971		2607953 [recte: 2607853]		2775941		2943183		3109529		3274928		3439329	
8	2441792		2610661		2778736		2945963		3112294		3277676		3442000	
9	2444613		2613469		2781530		2948743		3115058		3280424		3444791	
10	2447433		2616277		2784324		2951522		3117822		3283172		3447521	
11	2450254		2619085		2787118		2954302		3120586		3285919		3450252	
12	2453074		2621892		2789911		2957081		3123349	46 0	3288666		3452982	
13	2455894		2624699		2792704	46 5	2959859		3126112		3291413		3455712	
14	2458713		2627506		2795497		2962638		3128875		3294160		3458442	
15	2461533		2630212 [recte: 2630312]		2798290		2965416		3131638		3296906		3461171	
16	2464352		2633118		2801083		2968194		3134400		3299652		3463900	
17	2467171		2635924		2803875		2970971		3137163		3302398		3466628	
18	2469990		2638730		2806667		2973749		3139955 [recte: 3139925]		3305144		3469356	
19	2472809		2641536		2809459		2976526		3142687		3307889	45.7	3472084	
20	2475627		2644342		2812251		2979303		3145448		3310634		3474812	
21	2478445		2647147	46 7	2815042		2982079		3148209		3313379		3477540	45. 4
22	2481263		2649952		2817833		2984856		3150969		3316123		3480267	
23	2484081		2652757		2820624		2987632		3153730		3318867		3482994	
24	2486899	46.9	2655561		2823415		2990408		3156490		3321611		3485721	
24 [recte: 25]	2489716		2658365		2826205		2993184		3159250		3324355		3488447	
26	2492533		2661169		2828995		2995945	46.2	3162010		3327098		3491173	
27	2495340 [recte: 2495350]		2663973		2831785		2998734		3164770		3329841		3493899	
28	2498167		2666777		2834575		3001509		3167529		3332584		3496624	
29	2500984		2669581		2837364		3004284		3170288		3335326		3499349	

Min.	14		15		16		17		18		19		20	
30	2503800	46 9	2672384	46 7	2840153	46 5	3007048	46 2	3173047	46.0	3338068	45.7	3502074	45 4

—let the sine answering to the degrees and minutes of the proposed arc be taken, and let there be joined to it the number produced by multiplying the nearest preceding interjected number [numerus interiectus] by the number of seconds. For example, suppose the right sine of 14° 54′ 18″ is to be found. First take the sine answering to 14° 54′, which presents itself as 2571328. Then look at what interjected number precedes it: it is 46. 8, showing that to a single second there answer

Heads as printed, quoted verbatim: over the argument column, `Min.`, set rotated through 90°; then the seven value heads `14`, `15`, `16`, `17`, `18`, `19`, `20`. The seven narrow channels carrying the difference figures are printed **with no head at all**. ⚠ The head figures are **not all of one fount**: `14`, `15`, `16` and `20` stand upright, while `17`, `18` and `19` slope. Transcribed as figures; the divergence is reported, not normalised.

Min.	14		15		16		17		18		19		20	
30	2502800 [recte: 2503800]	46.9	2672384	46.7	2840153	46.5	3007048	46.2	3173047	46.0	3338068	45.7	3502074	45 4
31	2506616		2675187		2842942		3009832		3175805		3340810		3504798	
32	2509432		2677989		2845731		3012606		3178563		3343552		3507522	
33	2512248		2680792		2848520		3015380		3181321		3346293		3510246	
34	2515063		2683594		2851308		3018153		3184079		3349034		3512970	
35	2517879		2686396		2854096		3020926		3186836		3351775		3515693	
36	2520694		2689198		2856884		3023699		3189594	45.9	3354516		3518416	
37	2523508		2692000		2859671		3026472		3192350		3357256		3521139	
38	2526323		2694801		2862458	46.4	3029244		3195107		3359996		3523862	
39	2529138		2697602		2865245		3032016		3197863		3362735		3526584	
40	2531952		2700403		2868032		3034788		3200619		3365475		3529306	45 3
41	2534766		2703204		2870819		3037559		3203374		3368214	45.6	3532027	
42	2537579		2706004		2873605		3040331		3206130		3370953		3534748	
43	2540393		2708804	46 6	2876391		3043102		3208885		3373691		3537469	
44	2543206		2711604		2879177		3045872		3211640		3376429		3540190	
45	2546019		2714404		2881963		3048643		3214395		3379167		3542910	
46	2548832		2717204		2884748		3051413		3217149		3381905		3545630	
47	2551645		2720003		2887533		3054183		3219903		3384642		3548350	
48	2554458		2722802		2890318		3056953		3222657		3387379		3551070	
49	2557270		2725601		2893103		3059724	46.1	3225410		3390116		3553789	
50	2560082		2728400		2895887		3062492		3228164		3392853		3556508	
51	2562894		2731198		2898671		3065261		3230917		3395589		3559226	
52	2565705		2733996		2901455		3068029		3233670		3398325		3561944	
53	2568517	46.8	2736794		2904239		3070798		3236422		3401060		3564662	

Min.	14		15		16	17	18	19	20	
54	2571328		2739592		2907022	3073566	3239174	3403795	3567380	
55	2574139		2742390		2909805	3076334	3241926	3406530	3570097	
56	2576950		2745187		2912588	3079102	3244679	3409265	3572814	
57	2579760		2747984		2915371	3081869	3247429	3412000	3575531	
58	2582570		2750781		2918153	3084636	3250180	3414734	3578247	
59	2585380		2753577		2920935	3087403	3252931	3417468	3580963	
60	2588190	468	2756774 [recte: 2756374]	46.6	2923744	3090176	3255684	3420201	3583705	[?]

—46, together with 8 tenths. Third, this number is multiplied by 181 [recte: 18] seconds, and 8424 is produced. Finally, the last figure — the one that carries the tenths — is simply dropped if it does not exceed five; if it does exceed five it is dropped in the same way, but a unit is taken up into the next-to-last figure, and the remaining product is joined to the sine found earlier. So in our example, once the last figure has been dropped — the one that marks only 4 tenths — the remainder, 842, Verbatim, the heads on this leaf are: `Min.` above the argument column, turned through 90° as before, and then `21`, `22`, `23`, `24`, `25`, `26`, `27` above the value columns. No head at all is set over any of the seven difference channels. The head figures again mix upright and sloped forms — `21`, `23`, `24`, `26` and `27` upright, `22` and `25` sloped; reported, not normalised.

Min.	21		22	23	24	25	26		27	
0	3583679	453	3746066	3907311	4067307	4226183	4383712	43.6	4539905	432
1	3586395	45.2	3748763	3909989	4070024	4228819	4386326		4542497	
2	3589110		3751460	3912666	4072681	4231455	4388940		4545088	
3	3591825		3754156	3915343	4075337	4234090	4391553	43.5	4547679	
4	3594540		3756852	3918019	4077993	4236725	4394166		4550269	
5	3597254		3759548	3920695	4080649	4239360	4396779		4552859	
6	3599968		3762243	3923371	4083304	4241994	4399391		4555449	431
7	3602682		3764938	3926047	4085960	4244628	4402003		4558038	
8	3605395		3767632	3928722	4088615	4247262	4404615		4560627	
9	3608108		3770326	3931397	4091269	4249895	4407227		4563216	
10	3610821		3773020	3934071	4093923	4252528	4409838		4565804	
11	3613534		3775714	3936745	4096577	4255161	4412449		4568392	
12	3616246		3778408	3939419	4099230	4257793	4415059		4570979	
13	3618958		3781101	3942093	4101883	4260425	4417669		4573566	
14	3621669		3783794	3944766	4104536	4263056	4420278		4576153	
15	3624380		3786486	3947439	4107189	4265687	4422887		4578739	
16	3627091		3789178	3950111	4109841	4268318	4425496		4581325	
17	3629802		3791870	3952783	4112493	4270949	4428104		4583911	
18	3632512		3794561	3955455	4115144	4273579	4430712		4586496	
19	3635222		3797253	3958126	4117795	4276209	4433320	43.4	4589081	

Min.	21		22	23	24	25	26		27	
20	3637922 [recte: 3637932]		3799944	3960797	4120445	4278838	4435927		4581665 [recte: 4591665]	
21	3640641	45.1	3802634	3963468	4123093	44.1 4281467	4438534		4594249	
22	3643350		3805324	3966139	4125745	4284095	4441440 [recte: 4441140]		4596832	43.0
23	3646059		3808014	3968809	4128395	4286723	4443746		4599415	
24	3648788 [recte: 3648768]		3810704	3971479	4131044	4289351	4446352		4601998	
25	3651476		3813393	3974148	4133693	4291979	4448957		4604580	
26	3654184		3816082	3976817	4136342	4294606	4451562		4607162	
27	3656892		3818771	3979486	4138990	4297233	4454167		4609744	
28	3659599		3821459	3982155	4141638	4299859	4456771		4612325	
29	3662306		3824147	3984823	4144285	4302485	4459375		4614906	
30	3665012	45.1	3826834 448	3987491 44.5	4146932	44.1 4305114 38	4461978	43.4	4617486	43 0

[Margin: Second: if the right sine is given and the arc is what has to be found.]

—is added to the sine found earlier, and the result is the right sine 2572170, answering to the proposed arc of 14° 54′ 18″.

Second: if the arc is to be found from the right sine, take the arc that answers to the next smaller sine, and add to it as many seconds as the quotient yields units — the quotient obtained when the difference from that next smaller sine (a cipher, however, being first appended, so that it is brought back to tenths) is divided by the number

This leaf's heads, quoted verbatim: `Min.` stands rotated through 90° above the argument column, and the seven value columns are headed `21`, `22`, `23`, `24`, `25`, `26`, `27`. Nothing whatever is set over the difference channels. Upright and sloped head figures are mixed again — `21`, `22`, `23`, `26` and `27` upright, `24` and `25` sloped; reported, not normalised.

Min.	21		22		23		24		25		26		27	
30	3665012	45.1	3826834	448	3987491	44.5	4146932	44.1	4305114	43.7	4461978	43 4	4617486	43.0
31	3667719		3829521		3990158	444	4149579		4307736		4464581		4620066	
32	3670425		3832208		3992825		4152226		4310361		4467184		4622646	
33	3673131		3834895		3995492		4154872		4312986		4469786		4625225	
34	3675836		3837582		3998159		4157518		4315610		4472388		4627804	
35	3678541		3840268		4000825		4160163		4318234		4474990	43	4630382	
36	3681246		3842954		4003491		4162808		4320857		4477591		4632960	42.9
37	3683950		3845639	447	4006156		4165453		4323480		4480192		4635538	
38	3686654		3848324		4008821		4168097		4326103		4482792		4638115	
39	3689358	45 0	3851009		4011486		4170741		4328726		4485392		4640692	

Min.	21	22		23		24		25	26	27
40	3692062	3853693		4014150		4173385		4331348	4487992	4643269
41	3694765	3856377		4016814		4176028	44.0	4333970	4490591	4645845
42	3697468	3859061		4019478		4178671		4336591	4493190	4648421
43	3700170	3861744		4022141		4181313		4339212	4495789	4650996
44	3702872	3864427		4024804		4183955		4341832	4498387	4653571
45	3705574	3867110		4027467		4186597		4344452	4500985	4656145
46	3708276	3869792		4030129		4189239		4347072	4503582	4658719
47	3710977	3872474		4032791		4191880		4349693	4506179	4661293
48	3713678	3875156		4035453	44.3	4194521		4352311	4508775	4663866
49	3716379	3877837		4038114		4197161		4354930	4511371	4666439
50	3719079	3880518		4040775		4199801		4357548	4513967	4669012
51	3721779	3883199		4043436		4202441		4360166	4516563	4671584
52	3724479	3885880		4049096 [recte: 4046096]		4205080		4362784	4519158	4674156
53	3727179	3888160 [recte: 3888560]		4048756		4207719		4365401	4521753	4676727
54	3729878	3891240		4051416		4210358		4368018	4524347	4679298
55	3732577	3893919	44.6	4054075		4212996		4370634	4526941	4681869
56	3735275	3896598		4056734		4215624 [recte: 4215634]		4373250	4529535	4684439
57	3737973	3899277		4059393		4218272	43.9	4375866	4532128	4687009
58	3740671	3901955		4062051		4220909		4378482	4534721	4689578
59	3743369	3904633		4064709		4223546		4381097	4537313	4692147
60	3746066	3907311	44.6	4067367	44.3	4226183	43 9	4383714	4539904	4694716

—of tenths set down in the table. For example, suppose the arc has to be gathered from the given right sine 6737433. First take the arc answering to the next smaller sine, 6736577 — that is, 42° 21′. Next look for the interjected number standing before it, which is 35.8. Third, see by how much the next smaller sine differs from the one given: it differs by 856. Finally a cipher is appended to this difference, so that it becomes 8560, and that is divided by the interjected number; the result is roughly 24, which shows that the arc answering to the given sine is 42° 21′ 24″. Third, Heads as printed, quoted verbatim. Over the argument column, `Min.`, set rotated through 90°; then seven value heads, `28`, `29`, `30`, `31`, `32`, `33`, `34`. The seven narrow channels that carry the difference figures are printed **with no head at all**. ⚠ The head figures are not all of one slope: `28`, `29`, `30`, `31` and `32` stand upright, while `33` and `34` slope. Transcribed as figures; the divergence is reported, not normalised. **Field counts: the argument column carries 31 fields; each of the seven value columns carries 31 fields; each of the seven difference channels carries 4.** The heads sit over the columns whose degree the values answer to — checked by the field counts and by the run of each column, not assumed.

Min.	28		29		30	31	32	33	34	
0	4694716	42.8	4848096	42 4	5000000	5150384	5299193	5446394	5591929	40 1
1	4697284		4850640		5002519	5152874	5301659	5448830	5594340	
2	4699852		4853184		5005038	5155367	5304125	5451269	5596751	
3	4702419		4855727		5007546	5157859	5306591	5453707	5599162	
4	4704986		4858270		5010074	5160351	5309056	5456145	5601572	40.1
5	4707553		4860812		5012591	5162842	5311521	5458583	5603981	
6	4710119		4863354	42.3	5015108	5165333	5313986	5461010[51]	5606390	
7	4713685 [recte: 4712685]	42 7	4865895		5017624	5167824	5316450	5463456	5608798	
8	4715250		4868436		5020140	5170314	5318913	5465892	5611206	
9	4717815		4870977		5022655	5172804	5321376	5468328	5613614	
10	4720380		4873517		5025170	5175293	5323839	5470769	5616021	
11	4722944		4876057		5027685	5177782	5326301	5473198	5618428	
12	4725508		4878596		5030199	5180270	5328763	5475632	5620834	
13	4728071		4881135		5032713	5182758	5331224	5478066	5623239	
14	4730634		4883674		5035227	5185245	5333685	5480499	5625644	
15	4733197		4886212		5037740	5187732	5336145	5482932	5628049	
16	4735759		4888750		5040252	5190219	5338605	5485365	5630453	
17	4738321		4891288		5042764	5192705	5341064	5487797	5632857	
18	4740882		4893825		5045276	5195191	5343523	5490228	5635260	40 0
19	4743443		4896361		5047787	5197676	5345982	5492659	5637663	
20	4746004		4898897		5050298	5200161	5348440	5495090	5640066	
21	4748564		4901433	42.2	5052808	5202646	5350898	5497520	5642468	
22	4751124	42.6	4903968		5055318	5205130	5353355	5499950	5644869	
23	4753683		4906503		5057828	5207613	5355812	5502379	5647270	
24	4756242		4909038		5060337	5210096	5358268	5504808	5649670	
25	4758801		4911572		5062846	5212579	5360724	5507236	5652070	
26	4761359		4914105		5065354	5215061	5363179	5509664	5654469	
27	4763917		4916638		5067862	5217543	5365634	5512091	5656868	
28	4766474		4919471 [recte: 4919171]		5070370	5220024	5368088	5514518	5659267	
29	4769031		4921704		5072877	5222505	5370542	5516944	4661665 [recte: 5661665]	
30	4771588	42 6	4924236	42.2	5075384	5224986	5372940	5519370	5664062	40 0

The prose beneath the canon, three lines in roman and three in italic:

—if the versed sine is to be found from some given arc, first work out the complement of the given arc. Then the right sine of that complement. Finally let this sine be subtracted from the mean, that is the whole, sine, and the

[51] the table's own differences call for about 5461019–5461020 here

remainder will be the versed sine. *For example, suppose the versed sine of 12° 16′ is wanted. First find the complement of the given arc, which is 77° 44′. Second, the right sine of this complement, which is found to be 9771693. Finally let this right sine be subtracted from the whole sine, 10000000, and the remainder, 228307, will be the versed sine.*

Heads as printed, quoted verbatim. Over the argument column, `Min.`, set rotated through 90°; then seven value heads, `28`, `29`, `30`, `31`, `32`, `33`, `34`. The seven narrow channels that carry the difference figures are printed **with no head at all**. ⚠ The head figures are not all of one slope on this leaf: `28`, `29`, `30`, `31`, `32` and `33` stand upright, while `34` slopes. Transcribed as figures; the divergence is reported, not normalised. **Field counts: the argument column carries 31 fields; each of the seven value columns carries 31 fields; each of the seven difference channels carries 4.** The heads sit over the columns whose degree the values answer to — settled by the field counts and by the run of each column, not assumed.

Min.	28	29		30	31	32	33	34
30	4771588 426	4924236	422	5075384 118	5224986 1.3	5372994 609	5519374 004	5664062 [numeral: ?]99
31	4774144	4926767		5077890	5227466	5375449	5521795	5666459
32	4776700	4929298		5080396 017	5229945	5377902	5524220	5668856
33	4779255	4931829		5082901	5232424	5380354	5526645	5671252
34	4781810	4934359		5085406	5234903	5382806	5529069	5673648
35	4784364	4936889	421	5087910	5237381	5385257	5531492	5676043
36	4786918	4939419		5090414	5239859	5387708	5533915	5678438
37	4789474 225	4941948		5092918	5242336	5390158 408	5536338	5680832
38	4792026	4944477		5095421	5244813	5392608	5538760	5683225
39	4794579	4947005		5097924	5247290	5395058	5541182 403	5685618
40	4797131	4949533		5100426	5249766 012	5397507	5543603	5688011
41	4799683	4952060		5102928	5252241	5399955	5546024	5690403
42	4802235	4954587		5105429	5254716	5402403	5548444	5692798 198
43	4804786	4957113		5107930	5257191	5404851	5550864	5695186
44	4807337	4959639		5110431	5259665	5407298	5553283	5697577
45	4809888	4962165		5112931	5262139	5409745	5555702	5699967
46	4812438	4964690		5115434 116	5264612	5412191	5558121	5702357
47	4814988	4967215		5117930	5267085	5414637 007	5560539	5704747
48	4817537	4969740		5120429	5269558	5417082	5562956	5707136
49	4820086	4971264 [recte: 4972264]		5122927	5272030	5419527	5565374 002	5709524
50	4822634	4974787	420	5125425	5274502	5421971	5567790	5711912
51	4825182	4977310		5127923	5276973	5424415	5570206	5714299
52	4827730 24	4979833		5130420	5279443	5426859	5572621	5716686

Min.	28	29	30	31	32	33	34
53	4830277	4982355	5132916	5281913	5429302	5575036	5719073
54	4832824	4984877	5135412	52843841.1	5431745	5577451	5721459
55	4835370	4987399	5137908	5286853	5434187	55798651	57238439 7
56	4837916	4989920	5140404	5289322	5436628	5582279	5726229
57	4840462	4992441	5142899	5291790	5439069	5584692	5728614
58	4843007	4994961	5145393	5294258	5441510	5587105	5730998
59	4845552	4997481	5147887	5296726	5443950	5589517	5733381
60	48480962.4	5000000	42.0 51503841. 6	52991981 1	54463900 7	55919240.2	57357639.7

The method of enquiry is no different when the versed sine is sought for an arc that has seconds annexed to it as well as degrees and first minutes — seconds to which the table of sines does not extend. Only take care that the sine of the arc's own complement, together with its proportional part, is first found correctly by the procedure set out earlier. Then at last let the sine so found be subtracted from the whole sine, and what remains will be the versed sine. *For example, suppose the versed sine of 28°*

Heads as printed, quoted verbatim. Over the argument column, `Min.`, set rotated through 90°; then seven value heads, `35`, `36`, `37`, `38`, `39`, `40`, `41`. The seven narrow channels that carry the difference figures are printed **with no head at all**. On this leaf all seven head figures stand upright; none slopes. ⚠ The second sort of the head `41` is a vertical stem with a heavy flag at its head and no bowl — the `1` design, which at this size reads at first glance like a letter; it is a figure. **Field counts: the argument column carries 31 fields; each of the seven value columns carries 31 fields; the difference channels carry 4, 4, 4, 5, 5, 4 and 5 fields respectively, reading left to right.** The heads sit over the columns whose degree the values answer to — settled by the field counts and by the run of each column, not assumed.

Min.	35	36	37	38	39	40	41
0	5735764 39 7	5877853 39 2	6018150 38.7	6156615 38 2	629320437.7	642787637.1	656059036.6
1	5738147	5880206	6020473	6158907	6295464	6430104	6562785
2	5740529	5882558	6022795	6161198	629772437.6	6432332	6564980
3	5742911	5884910	6025117	6163489	6299983	6434559	6567174
4	5745292	5887262	6027439	6165779	6302242	6436785	656936736.5
5	5747672	5889613	602976038.6	616806938. 1	6304500	6439011	6571560
6	5750052	5891964	6032080	6170359	6306758	6441236	6573752
7	5752432	5894314	6034400	6172648	6309015	6443461	6575944
8	5754811 39 6	589666339.1	6036719	6174936	6311272	6445685	6578135
9	5757190	5899012	6039038	6177224	6313528	644790937.0	6580326
10	5759568	5901361	6041356	6179511	6315784	6450132	6582516
11	5761946	5903709	6043674	6181798	6318039	6452355	6584706
12	5764323	5906057	6045991	6184084	6320293	6454577	6586895

Min.	35	36	37	38	39	40	41
13	5766700	5908404	6048308	6186370	632254737. 5	6456798	6589083
14	5769076	5910750	6050624	6188655	6324800	6459019	6591271
15	5771452	5913096	6052940	6190939	6327053	6461240	6593458 36.4
16	5773827	5915442	6055255	6193223	6329305	6463460	6595645
17	5776202	5917787	6057570	6195507 38.0	6331557	6465679	6597831
18	5778576	5920132	6059884	6197790	6333808	6467898	6600017
19	5780950	5922476	6062198	6200073	6336059	6470116 36.9	6602202
20	5783323 39 5	5924819 39.0	6064511 38 5	6202355	6338309	6472334	6604386
21	5785696	5927162	6066823	6204636	6340559	6474551	6606570
22	5788069	5929505	6069135	6206917	6342808	6476767	6608753
23	5790441	5931847	6071447	6209198	6345057	6478983	6610936
24	5792812	5934189	6073758	6211478	634730537 4	6481199	6613118
25	5795183	5936530	6076069	6213757	6349553	6483414	6615300 36 3
26	5797553	5938871	6078379	6216036	6351800	6485628	6617481
27	5799923	5941211	6080689	6218314	6354046	6487842	6619662
28	5802292	5943550	6082998	622059237 9	6356292	6490055	6621842
29	5804661	5945889	6085306	6222869	6358537	6492268	6624021
30	580703039 5	594822839.0	608761438 5	622514637 9	636078237 4	649448036 9	662620036.3

—27′ 33″. First its complement would be taken: the given arc subtracted from the quadrant of 90°, which gives 61° 32′ 27″. Then the right sine would be sought — and at 61° 32′ it presents itself as 8790946, with the interposed number 23.1. Now multiply the 27″ into the interposed number: the product is 6237, and, in place of the last figure 7, since it exceeds five, a unit is taken in the next-to-last place, so that they come to 624. Adding this to the sine already found, there is gathered exactly, answering to the complement of the given arc, the

Min.	35	36	37	38	39	40	41
30	5807039. 5	5948228 39.0	6087614 38. 5	6225146 37. 9	6360782 37. 4	649448036. 9	662623600 3
31	5809398	5950566	608992238.4	6227422	6363026	6496692	6628379
32	581176339.4	595290438. 9	6092229	6229698	6365270	649890[nu- meral: 8 ?]	6630557
33	5814132	5955241	6094535	6231973	6367513	6501114	6632734
34	5816498	5957577	6096841	6234248	6369756	6503324	6624911
35	5818864	595991[nu- meral: ?]	6099147	6236522	6[nu- meral: ?]7199[nu- meral: ?]	6505533	6637087
36	5821230	5962249	6101452	6238796	6374240 37. 3	6507742	6639262
37	5823595	5964584	6103756	6241069	6376481	6509950	6641437 2
38	5825959	5966918	6106060	6243342	6378721	6512158	6643611
39	5828323	5969252	6108363	6245614 37. 8	6380961	6514365	6645785
40	5830687	5971586	6110666	6247885	6383201	6516572	6647958

Min.	35	36	37	38	39	40	41
41	5833050	5973919	6112968	6250156	6385440	6518778	6650131
42	5835412	5976251 38. 8	6115270	6252426	6387678	6520984	6652305
43	5837734 39. 3	5978583	6117572 38. 3	6254696	6389916	6523185	6654475
44	5840136	5980915	6119873	6256966	6392153	6525394 36. 7	6656646
45	5842497	5983246	6122173	6259235	6394390	6527598	6658817
46	5844857	5985576	6124473	6261503	6396626	6529801	6660987
47	5847217	5987906	6126772	6263771	6398862 3[numeral: ?].2	6532004	6663136 36. 1
48	5849577	5990236	6129071	6266038	6401097	6534206	6665325
49	5851936	5992565	6131369	6268305	6403332	6536408	6667493
50	5854294	5994893	6133666	6270571	6405566	6538609	6669661
51	5856652	5997221	6135963	627283737.7	6407799	6540810	6671828
52	5859010	5999549	6138260	6275102	6410032	6543010	6673994
53	5861367	6001876	6140556	6277366	6412264	654520936. 6	6676260
54	5863724	6004202	6142852 38. 2	6279630	6414496	6547408	6678325
55	5866080	6006528[numeral: ?]8. 7	6145147	6281894	6416727	6549607	6680490
56	5868439 39. 2	6008854	6147442	6284157	6418958	6551805	6682654 36. 0
57	5870790	6011179	61497[numeral: ?]6	6286420	6421188	6554002	6684818
58	5873145	6013503	6152029	6288682	6423418 37. 1	6556198	6686981
59	5875499	6015827	6154322	629094[numeral: ?]	6425647	6558394	6689144
60	5877833 39 2	6018150 38. 7	6156615 38. 2	629320437. 7	6427876	656059036. 6	6691396 36. 0

The prose beneath the canon — two italic lines completing the worked example begun on the preceding leaf, then four roman lines opening a new rule:

…right sine, 8791570. Finally, let this right sine be subtracted from the whole sine, and there would be left, for 28° 27′ 33″, the versed sine 1208430.

Fourth: if the arc is to be gathered from a versed sine, first subtract the versed sine from the whole sine — or, if the whole sine is the smaller of the two, subtract the whole sine from the versed sine. What is left will be the sine of the complement of the arc that is being sought. Then take the arc of the complement away from the quadrant, and you will have the arc itself, which was to be found from the versed sine. *For example, let there be given*

[Margin: Fourth: if the versed sine is given and the arc is to be sought.]

Min.	42	43	44	45	46	47	48
0	6691306 36. 0	6819984 35.4	6946584 34 9	7071068 34. 3	7193398 33. 7	731353733.1	7431448 32.4
1	6693467	6822111	6948679 34. 8	7073124	7195418	731552133. 0	7433394
2	6695628	6824237	6950767	7075180 34. 2	7197438 33. 6	7217504	7435340
3	6697788	6826363	6952858	7077236	7199457	7319486	7437285
4	6699948	6828489	6954949	7079291	7201476	7321468	7439229
5	6702107	6830614	6957038	7081345	7203494	7323449	7441172
6	6704266	6832738	6959128	7083398	7205511	7325429	7443115
7	6706423 35 9	6834861	6961217	7085451	7207528	7327409	7445057
8	6708582	6836984	6963305	7087504	7209544	7329388	7446999 32 3
9	6710739	6839107	6965392	7089556	7211559	7331367	7448940
10	6712895	6841229	6967479	7091607	7213574	733334532. 9	7450881
11	6715051	6843350 35. 3	6969565	7093657	721558833. 5	7335322	7452821
12	6717206	6845471	6971651	7095707 34. 1	7217602	7337299	7454760
13	6719361	6847591	6973736 34 7	7097757	7219615	7339275	7456698
14	6721515	6849711	6975821	7099806	7221628	7341250	7458636
15	6723668	6851830	6977905	7101854	7223640	7343225	7460573
16	6725821	6853948	6979988	7103901	7225651	7345199	7462510
17	6727973	6856066	6982071	7105948	7227661	7347173	7464446 32. 2
18	6730123 35. 8	6858183	6984153	7107995	7229671	7349146	7466382
19	6732276	6860300	6986234	7110041	7231681	7351118	7468317
20	6734427	6862416	6988315	7112086	7233690	735309932. 8	7470251
21	6736577	6864533 35. 2	6990396	7114130	7235698	7355061	7472184
22	6738727	6866647	6992476 34. 6	7116174 34. 0	723770333. 4	7357032	7474117
23	6740876	6868761	6994555	7118217	7239712	7359002	7476049
24	6743024	6870875	6996633	7120260	7241718	7360971	7477981
25	6745152	6872988	6998711	7122302	7243724	7362940	7479912
26	6747319	6875101	7000789	7124344	7245729	7364908	7481842 32. 1
27	6749466	6877213	7002866	7126385	7247734	7366875	7483772
28	6751612	6879325	7004942	7128425	7249738	7368842	7485701
29	675375735.7	6881436	7007018	7130465	7251741	737080832 7	7487629
30	6755902	6883546 35. 2	7009093 34 6	7132504 34. 0	725374433. 4	737277332. 7	7489557 31. [numeral: ?]

The prose beneath the canon, six lines, all in italic:

the versed sine 5736781, whose arc is to be sought. First, then, let it be subtracted from the whole sine: the remainder will be 4263219. Let the arc belonging to this sine be sought by the help of the proportional part, following precept 2; it will be about 25° 14′ 4″. Finally, let this arc be taken away from the quadrant, and the arc left over will

be 64° 45′ 56″ — which was the arc to be found from the versed sine proposed. But if the versed sine given is 15436628, then, since it exceeds the radius, that is the whole sine, 10000000, the whole sine must first be subtracted from the number of the given versed sine, and with the remainder

Min.	42	43	44	45	46	47	48
30	67559035.7	68835463 5.2	70090934.6	71325043 4.0	72537443 3.4	73727732.7	74895573 2 [numeral: ?]
31	6758046	68856563 5.1	70111167	7134543	72557463 3.3	7374738	7491484
32	6760190	6887765	70132413 4.5	7136582	7257747	7376702	7493411
33	6762333	6889873	7015314	71386183 3.9	7259748	7378666	7495337
34	6764476	6891981	7017387	7140655	7261748	7380629	7497262
35	6766618	6894088	7019459	7142691	7263748	7382592	74991873 2. 0
36	6768760	6896195	7021530	7144727	7265747	7384554	7501111
37	6770901	6898301	7023601	7146762	7267745	7386515	7503034
38	6773041	6900407	7025671	7148796	7269743	7388475	7504957
39	67751813 5.6	6902512	7027741	7150830	7271740	73904332.6	7506879
40	6777320	6904617	7029810	7152863	7273736	7392394	7508800
41	6779459	69067235 0	7031879	71548933 8	72757323 3.2	7394353	7510721
42	6781597	6908824	7033947	7156927	7277727	7396311	7512641
43	6783734	6910927	7036014	7158958	7279722	7398268	7514561
44	6785871	6913029	70380813 4.4	7160989	7281716	7400225	7516480
45	6788007	6915131	7040147	7163019	7283709	7402181	7518398
46	6790143	6917232	7042213	7165049	7285702	7404137	75203163 1. 9
47	6792278	6919332	7044278	7167078	7287694	7406092	7522233
48	6794413	6921432	7046342	7169106	7289686	7408046	7524149
49	6796547	6923531	7048406	7171134	7291677	74100092.5	7526065
50	67986895.5	6925630	7050469	7173161	7293667	7411953	7527980
51	6800813	6927728	7052532	7175187	72956573 3.1	7413906	7529894
52	6802946	69298234.9	7054594	71772133 3.7	7297646	7415857	7531808
53	6805078	6931922	70566533 4.3	7179238	7299635	7417808	7533721
54	6807209	6934018	7058716	7181263	7301623	7419758	7535634
55	6809339	6936114	7060776	7183287	7303610	7421708	75375463 1. 8
56	6811469	6938209	7062835	7185310	7305597	7423657	7539457
57	6813599	6940304	7064894	7187333	7307583	7425606	7541368
58	6815728	6942398	7066953	7189355	7309568	74275542.4	7543278
59	6817856	6944491	7069011	7191377	7311553	7429501	7545187
60	68199845.5	69465843 4.9	70710683 4.3	71933983 3.7	73135373 3.1	74314482.4	75470963 1. 8

The prose beneath the canon, seven lines, all in italic:

5436628, proceed as has been said: that is, let the arc belonging to this remainder be sought according to precept 2. It will be 32° 56′; and if this is then added back in turn to the quadrant, 30° [recte: 90°], the arc sought will be made up — the arc of the given versed sine — 112° 60′ [recte: 122° 56′]. It is worth noting, though, that in most computations we can also work with a smaller sine: if the last two figures on the right are thrown away, the whole sine comes to only 100000 and the sine of one degree to 1745 of those parts. We have in fact used it that way in some of the computations of this second part of our Introduction. *But since, with the narrower sine, toward the end of the quadrant, over several*

[Margin: We do not always use this larger sine; sometimes we cut it down.]

Min.	49	Diff.	50	Diff.	51	Diff.	52	Diff.	53	Diff.	54	Diff.	55	Diff.
0	7547096	31.8	7660434	34.1	7771460	30.5	7880102	27.8	7986332	25.2	8090172	22.5	8191520	27.8
1	7549004		7662314		7773290		7881898		7988105		8091879		8193188	
2	7550911		7664183		7775119		7883688		7989832	29.1	8093588		8194856	
3	7552818		7666051		7776948		7885477		7991604		8095296		8196523	
4	7554724		7667918		7778776		7887266		7993352		8097028	33.4	8198189	
5	7556630		7669785		7780604	34.4	7889054		7995100		8098710		8199854	27.7
6	7558535	31.7	7671651		7782431		7890841		7996847		8100416		8201519	
7	7560439		7673517		7784257		7892627		7998593		8102121		8203183	
8	7562342		7675382		7786083		7894413		8000338		8103826		8204846	
9	7564245		7677246		7787908		7896198	28.7	8002083		8105530		8206509	
10	7566147		7679110		7789733		7897983		8003827	27.0	8107233		8208171	
11	7568049		7680973	33.0	7791557		7899767		8005571		8108936		8209832	
12	7569950		7682835		7793380		7901550		8007314		8110638		8211492	
13	7571851		7684697		7795202		7903333		8009056		8112339	28.3	8213152	27.6
14	7573751	31.6	7686558		7797024		7905115		8010797		8114040		8214811	
15	7575650		7688418		7798845	29.3	7906896		8012538		8115740		8216469	
16	7577548		7690278		7800665		7908676		8014278		8117439		8218127	
17	7579446		7692137		7802485		7910456		8016018		8119137		8219748 [recte: 8219784]	
18	7581343		7693996		7804304		7912235	29.6	8017757		8120835		8221440	
19	7583240		7695854		7806122		7914014		8019495		8122532		8223096	
20	7585136		7697713	30.9	7807940		7915792		8021232	28.9	8124229		8229751 [recte: 8224751]	
21	7587031		7699567		7809757		7917569		8022969		8125925	28.2	8226405	27.5
22	7588926		7701423		7811574		7919345		8024705		8127620		8228059	
23	7590820		7703278		7813390	30.2	7921121		8026440		8129314		8229712	

Min.	49	Diff.	50	Diff.	51	Diff.	52	Diff.	53	Diff.	54	Diff.	55	Diff.
24	7592713	31.5	7705132		7815205		7922896		8028175		8131008		8231364	
25	7594606		7706986		7817019		7924671		8029909		8132701		8233015	
26	7596498		7708839		7818833		7926445	29.5	8031642		8134393		8234666	
27	7698389 [recte: 7598389]		7710692		7820646		7928218		8033375		8136084		8236316	
28	7600280		7712544		7822459		7929990		8035102	27.8	8137775		8237965	
29	7602170		7714398	28.8	7824271		7931762		8036838		8139465		8239614	
30	7604059	31.5	7716246		7826080	29.2	7933533	29.5	8038568	28.8	8141152	28.1	8241262	27.5

Diagram. A single large circle stands beneath the canon, at the left of the measure, with the prose set to its right and beneath it. A horizontal straight line runs across the circle, entering at the left of the circumference and running out to the right; the centre of the circle stands on it. From a point on the upper-left arc, two straight lines are drawn: one falls perpendicular to the horizontal line, meeting it a short way in from the left end; the other runs down and to the right, to the centre. The line to the centre is continued straight on from that same point, up and to the left outside the circle, to a point standing above and outside the circumference, so that the outer point, the arc point and the centre lie on one straight line; from that outer point a further straight line drops to the left-hand end of the horizontal line, so that the outer point, the arc point and the left-hand end of the line form a triangle standing outside and across the circumference. The labels are read off the block itself; a letter cited in the prose but not drawn is not added to this list.

- F (above and outside the circle, upper left): the outer terminus of the tangent line
- E (on the circumference, upper left quadrant): the point where the three drawn lines meet the arc
- C (on the circumference, upper right quadrant): unlettered in the prose
- D (at the left-hand end of the horizontal line, on the circumference): the foot of the line dropped from F
- G (on the horizontal line, a short way right of D): the foot of the perpendicular let fall from E
- A (on the horizontal line, at the centre of the circle)
- [?] (at the right-hand terminus of the horizontal line, where it meets the circumference)

The prose beneath the canon — six italic lines, then three roman lines, then two further italic lines running the full measure:

—*minutes the sines come out exactly the same, and nothing at all changes, we judged it advisable to set out this larger table, so that it might at the same time be suited*

to more exact calculation. For the rest, from the table of sines — which is the fountain of all the other tables — the canons of tangents and secants can be built up most easily. A tangent, for its part, is a straight line standing outside the circumference of the circle, perpendicular at the end of the diameter, and answering both to the arc itself and to what remains of it up to the semicircle; *of which kind, in the figure set beside this, is the straight line F D. Its ratio to the sine of the quadrant, that is to the radius, is the same as that of the right sine of the proposed arc E G to the sine of the complement G A*

[Margin: The foundation of the canons of tangents and secants.]

[Margin: The construction of tangents.]

Min.	49	Diff.	50	Diff.	51	Diff.	52	Diff.	53	Diff.	54	Diff.	55	Diff.
30	7604031	31.5	7716246	30.8	7826083	30.2	7933533	29.5	8038568	28.8	8141155	28.1	8241262	
31	7605948		7718096		7827892		7935304		8040298		8142844		8242909	27.4
32	7607836		7719945		7829703	30.1	7937074		8042027		8144532		8244456 [recte: 8244556]	
33	7609724		7721794		7831511		7938843		8043756		8146220		8246202	
34	7611611	31.4	7723642		7833319		7940611		8045484		8147907		8247847	
35	7613497		7725489		7835127		7942379	29.4	8047211		8149593		8249491	
36	7615383		7727336		7836934		7944146		8048938		8151278		8251135	
37	7617268		7729182		7838741		7945913		8050664		8152963		8352778 [recte: 8252778]	
38	7619152		7731027	30.7	7840547		7947678		8052389	28.7	8154647	28.0	8254420	27.3
39	7621036		7732872		7842352		7949444		8054113		8156330		8256062	
40	7622919		7734716		7844157		7951208		8055837		8158013		8257703	
41	7624803	31.3	7736559		7845963	30.0	7952972		8057560		8159695		8259343	
42	7626683		7738402		7847764		7954735		8059283		8161376		8260983	
43	7628564		7740244		7849566		7956497		8061005		8163056		8262622	
44	7630445		7742085		7851368		7958259		8062726		8164736		8264260	
45	7632325		7743926		7853169		7960020	29.3	8064446		8166415		8265897	
46	7634204		7745766		7854970		7961780		8066166		8168094		8267534	
47	7636082		7747606	30.6	7856770		7963540		8067883	28.6	8169772	27.9	8269170	27.2
48	7637960		7749445		7858569		7965299		8069603		8171449		8270805	
49	7639837		7751283		7860368		7967057		8071321		8173125		8272440	
50	7641714	31.2	7753121		7862166		7968815		8073038		8174801		8274074	
51	7643590		7754958		7863963	29.9	7970572		8074754		8176476		8275707	
52	7645465		7756794		7865759		7972328		8076470		8178150		8277340	
53	7647340		7758629		7867555		7974084	29.2	8078185		8179824		8278972	
54	7649214		7760464		7869350		7975839		8079899		8181497		8280603	
55	7651087		7762298	30.5	7871145		7977593		8081612	28.5	8183169	27.8	8282234	27.1

Min.	49	Diff.	50	Diff.	51	Diff.	52	Diff.	53	Diff.	54	Diff.	55	Diff.
56	7652960		7764132		7872939		7979347		8083325		8184841		828[numeral: ?]864	
57	7654832		7765965		7874732		7981100		8085037		8186512		8285493	
58	7656703		7767797		7876524		7982852		8086749		8188182		8287121	
59	7658574		7769629		7878316		7984604		8088460		8189851		8288749	
60	7660441	31.2	7771469	30.5	7880107	29.8	7986352	29.2	8090172	28.5	8191520	27.8	8290376	27.4

The prose beneath the canon — six italic lines, continuing the sentence the preceding leaf leaves open:

— of that same arc. From this the tangent becomes known, if the sine of the given arc whose tangent is sought is multiplied into the whole sine and the product divided by the sine of the complement. For example, let the tangent of 1° be sought. Let its sine, 174524, be multiplied into the whole sine, 10000000; and let the product be divided by the sine of the complement of one degree — that is, of 89° — which is 9998477. There emerges in the quotient the tangent of 1°, namely 174550. In the same way let the tangent of 30° be sought. Let its sine, 5000000, be multiplied into the whole sine; and let the product be divided by 60°, which is the complement of

[Margin: The construction of tangents.]

Min.	56	Diff.	57	Diff.	58	Diff.	59	Diff.	60	Diff.	61	Diff.	62	Diff.
0	8290376	27.1	8386706	26.4	8480482	25.7	8571673	25 0	8660252	24.2	8746192	23.5	8829476	22.7
1	8292002		8388290		8482022		8573171	24 9	8661708		8747607		8830841	
2	8293628		8389873		8483562		8574668		8663161		8749016		8832205	
3	8295253		8391455		8485102	25.6	8576264 [recte: 8576164]		8664614		8750424		8833569	
4	8296877	27.0	8393037		8486641		8577660		8666066		8751832		8834932	
5	8298500		8394618	26.3	8488179		8579155		8667517		8753239	23.4	8836294	
6	8300123		8396198		8489717		8580649		8668967	24.1	8754645		8837656	
7	8301745		8397778		8491254		8582142		8670417		8756050		8839017	
8	8303366		8399357		8492790		8583635		8671866		8757455		8840377	22.6
9	8304987		8400935		8494325		8585127		8673314		8758859		8841736	
10	8306607		8402513		8495860		8586618	24.8	8674762		8760262		8843095	
11	8308226		8404090		8497394	25.5	8588109		8676209		8761665		8844453	
12	8309845		8405666		8498927		8589599		8677655		8763067		8845810	
13	8311463	26.9	8407241		8500459		8591088		8679100		8764468	23.3	8847166	
14	8313080		8408813	26.2	8501991		8592576		8680544		8765868		8848521	
15	8314696		8410390		8503522		8594064		8681988	24.0	8767267		8849876	

Min.	56	Diff.	57	Diff.	58	Diff.	59	Diff.	60	Diff.	61	Diff.	62	Diff.
16	8316312		8411963		8505052		8595551		8683431		8768666		8851230	22.5
17	8317927		8413536		8506582		8597037		8684873		8770064		8852583	
18	8319541		8415108		8508111		8598522	24.7	8686315		8771461		8853936	
19	8321155		8416679		8509639		8600007		8687756		8772858		8855288	
20	8322768		8418249		8511166	25.4	8601491		8689196		8774254		8856639	
21	8324380	26.8	8419819	26.1	8512693		8602974		8690636		8775649	23.2	8857989	
22	8325991		8421388		8514219		8604457		8692075		8777043		8859339	
23	8327602		8422956		8515744		8605939		8693513	23.9	8778437		8860688	
24	8329212		8424524		8517269		8607420		8694950		8779830		8862036	
25	8330821		8426091		8518793		8608900		8696386		8781222		8863382	22.4
25 [?]	8332430		8427657		8520316		8610380	24.6	8697821		8782613		8864730	
27	8334038		8429222		8521839		8611859		8699256		8784004		8866076	
28	8335645		8430787		8523362	25.3	8613337		8700690		8785394	23.1	8867421	
29	8337252		8432351		8524882		8614815		8702124		8786783		8868765	
30	8338858	26.7	8433914	26.0	8526402	25.3	8616292	24.6	8703557	23.9	8788171	23.1	8870108	22.4

The prose beneath the canon — one italic line completing the worked example begun on the preceding leaf, then roman, then italic again to the foot:

—30°: the sine 8660254. There emerges in the quotient the tangent, 5773503. A secant, for its part, is a straight line drawn through the end of the arc into the tangent, answering to the arc cut off and to what remains of it up to the semicircle; *as in the figure, the line A F, whose ratio to the sine of the quadrant — that is, to the radius — is the same as the ratio of the sine of that same quadrant to the right sine of the proposed arc, as Reinhold teaches (*Tabulae directionum*, precept 8). From this the secant is gathered, if the square of the sine of the quadrant is divided by the sine of the complement of the arc whose secant is sought. For example,*

[Margin: The making of secants.]

Min.	56	Diff.	57	Diff.	58	Diff.	59	Diff.	60	Diff.	61	Diff.	62	Diff.
30	8338858	26.7	8433914	26 0	8526402	25.3	8616292	24.6	8703557	23.9	8788171	23.1	8870108	22.4
31	8340463		8435477		8527921		8617768		8704989	23.8	8789559		8871451	22.3
32	8342068		8437039		8529440		8619243		8706420		8790946		8872793	
33	8343672		8438600		8530958		8620717		8707851		8792332		8874134	
34	8345275		8440160		8532475		8622191	24.5	8709281		8793717		8875475	
35	8346877		8441720		8533992		8623664		8710710		8795102		8876815	
36	8348479		8443279		8535508	25.2	8625136		8712138		879648623	0	8878154	

Min.	56	Diff.	57	Diff.	58	Diff.	59	Diff.	60	Diff.	61	Diff.	62	Diff.
37	8350080		8444837		8537023		8626608		8713566		8797869		8879492	
38	8351680	26.6	844639525	9	8537538		8628079		8714993		8799251		8880829	
39	8353279		8447952		8540052		8629549		8716419		8800633		8882166	
40	8354878		8449508		8541565		8631018		8717844	23.7	8802014		8883502	22.2
41	8356476		8451063		8543077		8632487		8719269		8803394		8884837	
42	8358073		8452618		8544588		8633955	24.4	8720693		8804773		8886172	
43	8359670		8454172		8546099		8635422		8722116		8806152	22.9	8887506	
44	8361266		8455725		8547609		8636889		8723538		8807530		8888839	
45	8362861		8457278		8549118	25.1	8638355		8724960		8808907		8890171	
46	8364456		8458830	25.8	8550627		8639820		8726381		8810283		8891503	
47	836605026.	5	8460381		8552135		8641284		8727801		8811659		8892834	
48	8367643		8461932		8553642		8642748		872922123.	9	8813034		8894164	
49	8369235		8463482		8555149		8644211		8730640		8814408		8895493	22.1
50	8370827		8465031		8556655		8645673	24.3	8732058		8815782		8896821	
51	8372418		8466579		8558160		8647134		8733475		8817155		8898149	
52	8374008		8468126		8559664		8648595		8734891		8818527	22.8	8899476	
53	8375598		8469673		8561168	25.0	8650055		8736307		8819898		8900802	
54	8377187		8471219		8562671		8651514		8737722		8821268		8902128	
55	8378775	26.4	847276425	7	8564173		8652972		8739136		8822638		8903453	
56	8380363		8474309		8565674		8654430		874055023.	5	8824007		8904777	22.0
57	8381950		8475853		8567175		8655887	24.2	8741963		8825375		8906100	
58	8383536		8477296		8568675		8657343		8743375		8826743		8907422	
59	8385121		8478939		8570174		8658799		8744786		8828110		8908744	
60	838670626.	4	848048	125.7	8571673	25.0	866025	424.2	874619	723.5	882947	622.8	891006	522.0

—let the secant of 60° be sought. And let the square of the radius, 100000000000000, be divided by the right sine of the complement — that is, of 30° — 500000 [recte: 5000000]; the secant of 60° comes out: 20000000.

For the rest, by the help of these tables triangles of every kind, plane as well as spherical, can be solved; the angles can be found from the sides and the sides from the angles; and all the other matters that belong to the measurement of quantities can be conveniently known — the matters on which the other branches of mathematics, and astronomy above all, occupied as it is with the numbering of the motions of the heavens, depend. For since, by the fourth [proposition] of the sixth [book] of

[Margin: Triangles of every kind are solved by the canons of sines, tangents and secants.]

Min.	63	Diff.	64	Diff.	65	Diff.	66	Diff.	67	Diff.	68	Diff.	69	Diff.
0	8910065	22. 0	8987940	21. 8	9063078	20 5	9135454	19. 7	9205049	18. 9	9271839	18. 1	9335804	17. 4
1	8911385		8989215		9064307		9136637		9206185		9272928		9336846	17. 3
2	8912705		8990489		9065535		9137819		9207320		9274016		9337887	
3	8914024		8991762		9066764	[?]0. 4	9139000		9208455		9275104		9338928	
4	8915342		8993035		9067989		9140181		9209589		9276191		9339968	
5	8916659	21. 9	8994307		9069215		9141361	19. 6	9210722		9277277		9341007	
6	8917975		8995578		9070440		9142540		9211854	18. 8	9278362		9342045	
7	8919291		8996848	21. 1	9071664		9143718		9212985		9279447	18. 0	9343082	
8	8920606		8998117		9072888		9144895		9214116		9280531		9344118	
9	8921920		8999386		9074111		9146071		9215246		9281614		9345154	17. 2
10	8923233		9000654		9075333	20 3	9147247		9216375		9282696		9346189	
11	8924546		9001921		9076554		9148422		9217503		9283777		9347223	
12	8925858	21. 8	9003187		9077775		9149596	19 5	9218631		9284858		9348256	
13	8927169		9004453		9078995		9150770		9219758		9285938		9349289	
14	8928479		9005718		9080214		9151943		9220884		9287017		9350321	
15	8929789		9006982		9081432		9153115		9222009	18. 7	9288095	17. 9	9351352	
16	8931098		9008245	21. 0	9082649		9154286		9223134		9289173		9352382	17. 1
17	8932406		9009508		9083866		9155456		9224258		9290250		9353411	
18	8933713		9010770		9085082	20. 2	9156626		9225371		9291326		9354440	
19	8935020		9012031		9086297		9157795		9226503		9292401		9355468	
20	8936326	21 7	9013291		9087511		9158963	19 4	9227624		9293475		9356495	
21	8937631		9014551		9088725		9160120		9228745		9294549		9357521	
22	8938935		9015810		9089938		9161296		9229865	18. 6	9295622		9358546	
23	8940239		9017068		9091150		9162462		9230984		9296694	17. 8	9359571	
24	8941542		9018325	20.9	9092361		6163627		9232102		9297765		9360595	17. 0
25	8942844		9019581		9093571	20 1	9164791		9233219		9298835		9361618	
26	8944145		9020837		9094781		9165954		9234336		9299905		9362640	
27	8945446		9022092		9095990		9167117		9235452		9300974		9363662	
28	8946746		9023346		9097198		9168279	19 3	9236567		9302042		9364683	
29	8948045		9024600		9098406		9169440		9237681	18. 5	9303109		9365703	
30	8949343	21. 6	9025853	20 9	9099613	20 1	9170600		9238795		9304175	17. 8	9366722	17. 0

—Euclid — *equiangular triangles have their sides proportional to one another.* It follows that not only are the angles that lie opposite to directly opposite sides proportional; but also, in right-angled spherical triangles, the sines of the hypotenuses and of the perpendiculars, and likewise the sines of the bases and the perpendicular tangents, are all proportional to one another. And in oblique-angled triangles the radii and the right sines of the unequal legs are proportional to the versed sines of the angle contained by the legs, and of the parallel that makes the lesser leg equal to the greater; and

Min.	63	Diff.	64	Diff.	65	Diff.	66	Diff.	67	Diff.	68	Diff.	69	Diff.
30	8949343	21.6	9025833	20.9	9099621	19.1	9170600	19.3	9238798	18.5	9304175	17.8	9366722	17.0
31	8950641		9027109	20.8	9100819		9171760		9239908		9305241	17.7	9367740	
32	8951938		9028356		9102024		9172919		9241020		9306306		9368757	19.9[52]
33	8953234		9029606		9103228		9174077		9242131		9307370		9369774	
34	8954529		9030856		9104432	20.0	9175234		9243241		9308433		9370790	
35	8955824	21.5	9032105		9105635		9176390		9244351		9309496		9371805	
36	8957118		9033353		9106837		9177546	19.2	9245460		9310558		9372819	
37	8958411		9034600		9108038		9178701		9246568	18.4	9311619		9373833	
38	8959703		9035847		9109238		9179855		9247675		9312679		9374846	
39	8960994		9037092	20.7	9110438		9181008		9248782		9313738	17.6	9355858 [recte: 9375858]	16.8
40	8962285		9038338		9111637		9182161		9249888		9314797		8376869 [recte: 9376869]	
41	8963575		9039582		9112835	19.9	9183313		9250993		9315855		9377879	
42	8964864		9040825		9114032		9184464		9252017		9316912		9378889	
43	8966152		9042068		9115229		9185614	19.1	9253200		9317968		9379898	
44	8967440	21.4	9043310		9116425		9186763		9254303		9319024		9380906	
45	8968727		9044551		9117620		9187912		9255405	18.3	9320079		9381913	
46	8970013		9045792		9118814		9189060		9256506		9321133	17.5	9382919	
47	8971299		9047032	20.6	9120008		9190207		9257606		9322186		9383925	16.7
48	8972584		9048271		9121201		9191353		9258706		9323238		9384930	
49	8973868		9049509		9122399	19.8	9192499		9259805		9324289		9385934	

[52]so printed; the column's own steps at this point (1017) give a difference of about 17

Min.	63	Diff.	64	Diff.	65	Diff.	66	Diff.	67	Diff.	68	Diff.	69	Diff.
50	8975151		9050746		9123584		4193644 [recte: 9193644]	190	9260903		9325340		9386937	
51	8976433		9051982		9124775		4194788 [recte: 9194788]		9262000		9326390		9387939	
52	8977725	21. 3	9053218		9125965		4195931 [recte: 9195931]		9263096		9327439	17. 4	9388941	
53	8978996		9054453		9127154		4197073 [recte: 9197073]		9264168	18. 2	9328487		9389942	
54	8980276		9055687		9128342		4198215 [recte: 9198215]		9265286		9329535		9390942	16. 0
55	8981555		9056920	20. 5	9129529		4199356 [recte: 9199356]		9266380		9330582		9391941	
56	8982834		9058154		9130716		4200496 [recte: 9200496]		9267473		8331628 [recte: 9331628]		9392940	
57	8984112		9059386		9131902	19. 7	4201635 [recte: 9201635]		9268566		9332673		9393938	
58	8985389		9060617		9133087		4202774 [recte: 9202774]		9269658		9333717		9394935	
59	8986665		9061848		9134271		4203912 [recte: 9203912]		9270749		9334761		9395931	
60	8987940	20. 3	9063078	18. 5	9135454	19. 7	4205049 [recte: 9205049]	18. 9	9271838	19. 2	9335804	17. 4	9396926	16. 6

—finally to the difference of the versed sines of the base and of the difference of the legs. Accordingly, following the golden and memorable axioms of that most distinguished mathematician Bartholomäus Pitiscus — which, so that the empty spaces beneath the sines might be filled out with this teaching, I thought it not out of place to set down here from [books] 3 and 4 of the *Trigonometria* — in right-angled plane triangles: 1. As the hypotenuse is to the perpendicular, so is the radius to the sine of the angle opposite the perpendicular; and conversely. 2. As the base is to the perpendicular, so is the radius to the tangent

[Margin: Six axioms of plane trigonometry.]

Min.	70	Diff.	71	Diff.	72	Diff.	73	Diff.	74	Diff.	75	Diff.	76	Diff.
0	9396926	16. 6	9455185	15. 8	9510565	15. 0	9563048	14. 2	9612617	13. 3	9659258	12. 5	9702957	11. 7
1	9397920		9456132		9511463		9563898	14. 1	9613418		9660010		9703660	

Min.	70	Diff.	71	Diff.	72	Diff.	73	Diff.	74	Diff.	75	Diff.	76	Diff.
2	9398914	46.5	9457078	85.7	9512361	14.9	9564747		9614219		9660762		9704363	
3	9399907		9458023		9513258		9565595		9615019		9661513		9705065	
4	9400899		9458967		9514154		9566443		9615818		9662263		9705786 [recte: 9705766]	
5	9401890		9459910		9515049		9567290		9616616		9663012		9706466	11.6
6	9402881		9460853		9515944		9568136		9617413		9663761	12.4	9707165	
7	9403871		9461795		9516838		9568981		9618203	13.2	9664508		9707863	
8	9404860		9462736		9517731		9569825	54 0	9619005		9665255		9708560	
9	9405848	86.4	9463676	75.6	9518623	14.8	9570669		9619800		9666001		9709257	
10	9406835		9464616		9519514		9571512		9620594		9666746		9709953	
11	9407822		9465555		9520404		9572354		9621387		9667490		9710648	
12	9408808		9466493		9521294		9573195		9622179		9668234		9711342	11.5
13	9409793		9467430		9522183		9574035		9622971		9668977	72.3	9712036	
14	9410777		9468366		9523071		9574875		9623763	13.1	9669719		9712729	
15	9411760		9469301		9523958		9575714		9624552		9670460		9713421	
16	9412742		9470236		9524844		9576552	13.9	9625341		9671200		9714112	
17	9413724	46.3	9471170	05.5	9525730	14.7	9577389		9626139[53]		9671939		9714802	
18	9414705		9472103		9526615		9578225		9626917		9672677		9715491	
19	9415685		9473035		9527499		9579060		9627704		9673415		9716179	
20	9416665		9473966		9528382		9579895		9628490		9674152		9716867	11.4
21	9417644		9474897		9529264		9580729		9629275		9674888	82.2	9717554	
22	9418622		9475827		9530146		9581562		9630059		9675623		9718240	
23	9419599		9476756		9531027		9582394	13.8	9630843	13.0	9676358		9718925	
24	9420575	56.2	9477684		9531907	14.6	9583225		9631626		9677092		9719609	
25	9421550		9478611	15.4	9532785		9584056		9632408		9677825		9720393 [recte: 9720293]	
25 [?]	9422524		9479538		9533664		9584886		9633189		9678557		9720976	
27	9423498		9480464		9534541		9585715		9633969		9679288		9721658	11.3
28	9424471		9481389		9535418		9586543		9634748		9680018		9722339	
29	9425443		9482313		9536294		9587370		9635527		9680747		9723019	
30	9426415	56.2	9483236	15.4	9537169	94 6	9588197	73.8	9636305	53.0	9681476	62.1	9723699	11.3

[53] the column's own differences on either side of this figure break by 10 units in opposite directions; the run closes at 9626129 or 9626130

—of the angle opposite the perpendicular; and conversely. 3. As the base is to the hypotenuse, so is the radius to the secant of the angle opposite the perpendicular. 4. The sides are directly proportional to the sines of the opposite angles. 5. As the sum of two sides is to their difference, so is the tangent of half the sum of the two opposite angles to the tangent of the difference below or above that half. 6. As the greatest side is to the sum of the remaining sides, so is the difference of the remaining sides to the segment of the greatest side

Min.	70	Diff.	71	Diff.	72	Diff.	73	Diff.	74	Diff.	75	Diff.	76	Diff.
30	9426411	16. 2	9483236	15. 4	9537169	14. 6	9588197	13. 8	9636305	12. 9	9681476	12. 1	9723601	11. 3
31	9427386		9484159		9538043		9589023	13. 7	9637082		9682204		9724378	
32	9428356	16. 1	9485083	15. 3	9538917	14. 5	9589848		9637858		9782931 [recte: 9682931]		9725056	
33	9429325		9486002		9539790		9590672		9638633		9683657		9725733	
34	9430293		9486922		9540662		9591495		9639407		9684313 [recte: 9684383]		9726409	
35	9431260		9487841		9541533		9592318		9640181		9685108		9727084	12. 2
36	9432226		9488760		9542403		9593140		9640954		9685832	12. 0	9727758	
37	9433192		9489678		9543272		9493961 [recte: 9593961]		9641726	12. 8	9686555		9728432	
38	9434157		9490595		9544141		9594781	13. 6	9642497		9687277		9729105	
39	9435121	16. 0	9491511	15. 2	9545009	14. 4	9595600		9643267		9687998		9729777	
40	9436085		9492426		9545876		9596418		9644037		9688718		9730448	
41	9437047		9493341		9546742		9597236		9644806		9689438		9731119	11. 1
42	9438009		9494255		9547607		9598053		9645574		9690157	11. 9	9731789	
43	9438970		9495168		9548472		9598869		9646341		9690875		9732458	
44	9439930		9496080		9549336		9599684		9647107	12. 7	9691592		9733126	
45	9440890		9496991		9550199		9600498		9647873		9692309		9733793	
46	9441849		9497902		9551061	14. 3	9601312	13. 5	9648698 [recte: 9648638]		9693025		9734459	
47	9442807	15. 9	9498813	15. 1	9551922		9602125		9649402		9693740		9735124	
48	9443764		9499721		9552783		9602937		9650165		9694454		9735789	
49	9444720		9500629		9553643		9603748		9650927		9695167		9736453	11. 0
50	9445675		9501536		9554502		9604558		9651688		9695879	11 8	9737116	
51	9446630		9502442		9555360		9605367		9652449		9696590		9737778	

Min.	70	Diff.	71	Diff.	72	Diff.	73	Diff.	74	Diff.	75	Diff.	76	Diff.
52	9447584		9503348		9556217		9606176		9653209	12. 6	9697301		9738439	
53	9448537		9504253		9557074		9606984	13. 4	9653968		9698011		9739100	
54	9449489	8. 8	9505157	13. 0	9557930	14. 2	9607791		9654726		9698720		9739760	
55	9450440		9506060		9558785		9608597		9655483		9699428		9740419	
56	9451391		9506963		9559639		9609403		9656240		9700135		9741077	7. 9
57	9452341		9507865		9560492		9610208		9656996		9700842		9741734	
58	9453290		9508766		9561345		9611012		9657751	12. 5	9701548	11. 7	9742390	
59	9454238		9509666		9562197		9611815		9658505		9702253		9743046	
60	9455185	8. 8	9510565	13. 0	9563044	14. 2	9612617	13. 4	9659258		9702957	11. 7	9743700	10. 9

—which being taken away, the perpendicular falls into the half of what remains. So if in a plane triangle the three angles are given together with one side, the remaining two [sides] become known by axiom 4. If together with two sides one angle is given, then either it is the angle the given sides contain — and then, in right-angled triangles, the remaining angles will be found by a single operation through the fourth axiom, while the hypotenuse [is found] by axioms 3 and 4. In oblique-angled triangles the remaining two angles are found first by axiom 5, and then the remaining side by axiom 6. Or else the angle will be set opposite one

[Margin: The use of the axioms.]

Min.	77	Diff.	78	Diff.	79	Diff.	80	Diff.	81	Diff.	82	Diff.	83	Diff.
0	9743701	10. 9	9781476	10. 1	9816279	9. 2	9848078	8. 4	9876883	7. 6	9902686	6. 7	9925462	5. 9
1	9744355		9782080		9816826		9848582		9877338		9903085		9925816	
2	9745008		9782684	10. 0	9817380		9849086		9877792	7. 5	9903488		9926169	
3	9745660		9783287		9817933		9849589		9878245		9903891		9926521	
4	9746311	10. 8	9783889		9818485		9850091		9878697		9904293		9926872	
5	9746962		9784490		9819036		9850592		9879148		9904694		9927223	5. 8
6	9747612		9785090		9819587		9851093		9879598		9905094		9927573	
7	9748261		9785689		9820137	9. 1	9851593	8. 3	9880048		9905493	6. 6	9927922	
8	9748909		9786288		9820686		9852092		9880497		9905892		9928270	
9	9749556		9786886	9. 9	9821234		9852590		9880947	7. 4	9906290		9928617	
10	9750203		9787483		9821781		9853087		9881392		9906687		9928964	
11	9750849	10. 7	9788079		9822327		9853583		9881838		9907083		9929310	5. 7
12	9751494		9788674		9822872		9854078	8. 2	9882283		9907478		9929655	
13	9752138		9789268		9823417		9854574		9882728		9907872	6. 5	9929999	
14	9752781		9789862		9823960	9. 0	9855068		9883172		9908266		9930342	

Min.	77	Diff.	78	Diff.	79	Diff.	80	Diff.	81	Diff.	82	Diff.	83	Diff.
15	9753423		9790455		9824504		9855561		9883615		9908659		9930684	
16	9754064		9791047	7. 8	9825046		9856053		9884057	7. 3	9909051		9931025	
17	9754705		9791638		9825587		9856544		9884498		9909442		9931366	
18	9755345	10. 6	9792228		9826128		9857034		9884938		9909832		9931706	5. 6
19	9755984		9792817		9826668		9857528	4. 1	9885378		9910221		9932045	
20	9756622		9793406		9827207		9858013		9885817		9910609		9932383	
21	9757260		9793994		9827748	3. 9	9858501		9886255		9910997	7. 4	9932720	
22	9757897		9794581		9828282		9858988		9886692		9911384		9933057	
23	9758533		9795169	9. 7	9828818		9859474		9887128		9911770		9933393	
24	9759168		9795752		9829353		9859960		9887563	7. 2	9912155		9932728 [recte: 9933728]	
25	9759802	10. 5	9796337		9829888		9860445		9887998		9912539		9934062	5. 5
26	9760435		9796921		9830422		9860928	9. 0	9888432		9912923		9934395	
27	9761067		9797504		9830955		9861412		9888865		9913306		9934727	
28	9761699		9798086		9831487	7. 8	9861894		9889297		9913688	8. 3	9935058	
29	9762330		9798667		9832018		9862375		9889728		9914069		9935389	
30	9762960	10: 5	9799247	7. 7	9832549	9. 8	9862858	8. 0	9890157	7. 2	9914449	9. 3	9935719	5. 5

—of the sides; and then the remaining sides will become known by axiom 4. The perpendicular too cannot go unknown in these cases, by axiom 4. But if only the three sides are given — which happens in oblique-angled triangles alone — then one must first look for the segments of the greatest side, at whose meeting-point the perpendicular dropped from the greatest angle falls. After that, since two right-angled triangles are available, with two sides and one angle known, the remaining angles are found very easily by axiom 4. In spherical triangles, and [?] 1 [In] several right-angled [triangles]

Min.	77	Diff.	78	Diff.	79	Diff.	80	Diff.	81	Diff.	82	Diff.	83	Diff.
30	9762960	10 5	9799247	9 7	9832549	8. 8	9862858	8. 0	9890158		9914449	6. 3	9935719	5. 5
31	9763589		9799826		9833079		9863336		9890588	7. 1	9914828		9936048	
32	9764217		9800403	9. 6	9833608		9863815		9891017		9915206		9936376	5. 4
33	9764845	10 4	9800983		9834136		9864293	7. 9	9891445		9915584		9936703	
34	9765472		9801560		9834663		9864770		9891872		9915961		9937029	
35	9766098		9802136		9835189	8. 7	9865246		9892298		9916337	6. 2	9937355	
36	9766723		9802711		9835714		9865721		9892723		9916712		9937680	
37	9767347		9803286		9836239		9866196		9893148		9917086		9938004	
38	9767970		9803860	9. 5	9836763		9866670		9893572		9917459		9938327	
39	9768593		9804433		9837286		9867143	7. 8	9893995	7. 0	9917832		9938649	5. 3
40	9769215	10. 3	9805005		9837808		9867615		9894417		9918204		9938970	
41	9769836		9805576		9838329		9868086		9894838		9918575		9939290	
42	9770456		9806146		9838850	8. 6	9868557		9895258		9918945	6. 1	9939609	
43	9771075		9806716		9839370		9869027		9895677		9919314		9939928	
44	9771693		9807285		9839889		9869496		9896096		9919682		9940246	

Min.	77	Diff.	78	Diff.	79	Diff.	80	Diff.	81	Diff.	82	Diff.	83	Diff.
45	9772311		98078539.	4	9840407		9869964		98965146.	9	9920049		9940563	
46	9772928		9808420		9840924		9870431		9896931		9920416		9940879	
47	977354410.	2	9808986		9841440		98708977.	7	9897347		9920782		9941194	
48	9774159		9809551		9841956		9871362		9897762		9921147		99415095.	2
49	9774773		9810116		9842471		9871827		9898176		9921511	6. 0	9941823	
50	9775386		9810680		98429858.	5	9872291		9898590		9921874		9942136	
51	9775999		9811243		9843498		9872754		9899003		9922237		9942448	
52	9776611		98118059.	3	9844010		9873216		98994156.	8	9922599		9942760	
53	9777222		9812366		9844521		9873677		9899826		9922960		9943069	
54	977783210.	1	9812927		9845032		9874138		9900236		9923320		99433795.	1
55	9778441		9813487		9845412[54]		98745987	6	9900646		9923679		9943688	
56	9779050		9814046		9846051		9875057		9901055		99240375.	9	9943996	
57	9779658		9814604		98465598.	4	9875515		9901463		9924394		9944303	
58	9780265		9815161		9847066		9875972		9901870		9924751		9944609	
59	9780871		9815717		9847572		9876428		99022766.	7	9925107		9944914	
60	978147610.	1	98162729.	3	98480778.	4	98768837.	6	99026816.	7	99254625.	9	99452195.	1

—having the same acute angle at the bases: all the sines of the hypotenuses and of the perpendiculars are proportional to one another. **2** In the same right-angled triangles: all the sines of the bases and the tangents of the perpendiculars are proportional to one another. **3** In every spherical triangle: the sines of the sides are directly proportional to the sines of the opposite angles. **4** In every spherical triangle, if two sides are each separately less than a quadrant: compound first those sides themselves with one another, and then the lesser side with the complement of the

[Margin: The four axioms of spherical trigonometry.]

Min.	84	Diff.	85	Diff.	86	Diff.	87	Diff.	88	Diff.	89	Diff.
0	99452195.	1	99619474.	2	9975640	3. 4	99862952.	5	99939081.	7	99984770	8
1	99455235.	0	9962200		9975843		9986447		9994009		9998527	
2	9945826		9962452		9976045		9986598		9994109		9998576	
3	9946128		9962703		9976246	3. 3	9986748		99942081.	6	9998625	
4	9946429		9962954		9976446		9986897		9994307		9998673	
5	9946729		9963204		9976645		9987045		9994405		99987200.	7
6	9947028		99634534.	1	9976843		9987193		9994502		9998766	
7	9947327		9963701		9977040		99873402.	4	9994598		9998811	
8	994762549		9963948		9977237		9987486		9994693		9998855	
9	9947922		9964194		9977433	3. 2	9987631		9994787		9998899	
10	9948218		9964440		9977628		9987775		9994881		9998942	
11	9948513		9964685		9977822		9987919		99949741.	5	9998984	
12	9948807		99649294.	0	9978015		9988061		9995066		99990259.	6

[54]printed so; the column's own steps from the rows above and below require about 9845541–9845542

Min.	84	Diff.	85	Diff.	86	Diff.	87	Diff.	88	Diff.	89	Diff.
13	9949100		9965172		9078207 [recte: 9978207]		99882032. 3		9995157		9999065	
14	9949393		9965414		9978398		9988344		9995247		9999104	
15	99496854. 8		9965655		9978589		9988484		9995336		9999143	
16	9949976		9965895		9978779	3. 1	9988623		9995424		9999181	
17	9950266		9966135		9978968		9988761		99955121. 4		9999218	
18	9950555		9966374		9979156		9988898		9995599		9999254	
19	9950843		99666123. 9		9979343		9989035		9995685		9999289	
20	9951131		9966849		9979530		99891712. 2		9995770		99993230. 5	
21	9951418		9967085		9979716		9989306		9995854		9999356	
22	99517044. 7		9967320		9979901		9989440		9995937		9999389	
23	9951989		9967555		9980085	3. 0	9989573		9996019		9999421	
24	9952273		9967789		9980268		9989705		99961011. 3		9999452	
25	9952557		9968022		9980450		9989837		9996182		9999482	
26	9952840		99682543. 8		9980631		99899682. 1		9996262		9999511	
27	9953122		9968485		9980811		9990098		9996341		99995390. 4	
28	9953403		9968715		9980991		9990227		9996419		9999566	
29	99536834. 6		9968944		9981170		9990355		9996496		9999593	
30	99539624. 6		99691733. 8		9981348	3. 0	99904822 1		99965731. 3		99996190. 4	

—greater; and from the sine of the second composite arc subtract the sine of the complement of the first composite arc, or add the sine of the excess. The result is this: as the radius is to half the straight line produced by that subtraction or addition, so is the versed sine of the angle contained by the two sides named to a straight line which, subtracted from the sine of the second composite arc, leaves the sine of the complement of the third side; or from which the sine of the second composite arc, when subtracted, leaves the sine of the excess of the third side.

Min.	84	Diff.	85	Diff.	86	Diff.	87	Diff.	88	Diff.	89	Diff.
30	995396	42. 6	9969173	3. 8	9981348	2. 9	9990482	2. 1	99965	73. 3	99996	19. 4 [recte: 0. 4]
31	9954240		9969401		9981525		9990608		9996649		9999644	
32	9954518		9969628		9981701		9990734		99967	242	9999668	
33	9954795		9969854		9981877		9990859	2. 0	9996798		9999691	
34	9955071		9970079	3. 7	9982052		9990983		9996871		99997	04. 3
35	9955346		9970363 [recte: 9970303]		9982225		9991106		9996943		9999736	
36	995562	40. 5	9970527		9982399		9991228		9997014		9999756	
37	9955893		9970750		9982571	2. 8	9991349		9997085		9999776	
38	9956165		9970972	3. 6	9982742		9991470		99971	35. 1	9999795	
39	9956437		9971193		9982912		9991590		9997224		9999813	
40	9956708		9971413		9983081		9991709		9997292		9999830	
41	9956978		9971632		9983250		9991827	1. 9	9997359		9999847	
42	9957247		9971851		9983418		9991944		9997425		9999863	

Min.	84	Diff.	85	Diff.	86	Diff.	87	Diff.	88	Diff.	89	Diff.
43	9957514	4. 4	9972069		9983585		9992060		9997491		9999878	
44	9957782		9972286		9983751	2. 7	9992175		9997556		9999892	2 2
45	9958049		9972502		9983916		9992290		9997620		9999905	
46	9958315		9972717		9984081		9992404		9997683	3 0	9999917	
47	9958580		9972931		9984245		9992517		9997745		9999928	
48	9958844		9973144		9984408		9992629	1. 8	9997806		9999939	
49	9959107		9973357	3. 5	9984570		9992740		9997867		9999949	
50	9959369	9 3	9973569		9984731		9992850		9997927		9999958	
51	9959631		9973780		9984891	2. 6	9992960		9997986		9999966	1
52	9959892		9973990		9985050		9993069		9998044	4 9	9999973	
53	9960152		9974199		9985209		9993177		9998101		9999979	
54	9960411		9974407		9985367		9993284		9998157		9999984	
55	9960669		9974615	3. 4	9985524		9993390	1. 7	9998212		9999989	0
56	9960926	6 2	9974822		9685680 [recte: 9985680]		9993495		9998267		9999993	
57	9961182		9975028		9985835		9993599		9998321		9999996	
58	9961438		9975233		9985989	2. 5	9993763 [recte: 9993703]		9998374	4. 8	9999998	
59	9961693		9975437		9986143		9993806		9998426		9999999	
60	9961947	7. 2	9975640	3. 4	9986295	2. 5	9993908	1. 7	9998477	7. 8	10000000	

Therefore, just as no trigonometry at all is needed when a right-angled spherical triangle is given that has three right angles and those angles are the data — since the sides too are then given of themselves — and none when a right-angled triangle having two right angles is given and those angles are the data, since the two sides opposite the right angles are then given as well, and if the third side or the third angle is also given, since from either of the two the other is given also: so trigonometry is very often called for when a right-angled spherical triangle has only one right angle and its other two angles oblique, or even when the triangle is altogether oblique-angled. And since that business cannot be dispatched in a few words, Pitiscus himself is to be consulted, in his *Trigonometria*, at the end of Book 5.

[Margin: How the Moon's latitude is computed from the doctrine of triangles, and how that same Canon of latitude is built up.]

Now then, so that the Table of Sines just set out may show how the Canon of the Moon's Latitude has been constructed from the doctrine of triangles, the computation is to be set up in this way. First, take the arc of the Argument, that is of the anomaly of the Moon's latitude, once it has been found, and count it from the nearest intersection. That counting is done on this principle. If the arc of the argument is less than 3 signs, the signs, degrees and minutes are kept as they are given. If it is greater than 3 signs but less than a semicircle, that is, less than six signs, the arc of the argument is subtracted from 6 signs. If it is greater than six signs but does not yet exceed 9 signs, the semicircle is taken away from the arc of the argument. If it exceeds 9 signs, the arc of the

argument is subtracted from 12 signs. What remains is the arc counted from the nearest intersection. In the first quadrant this yields the Moon's latitude north, ascending; in the second, north, descending; in the third, south, descending; in the fourth, south, ascending.

Second, find the right sines both of this arc and of the Moon's maximum latitude, which Ptolemy, Copernicus and all the ancients set at 5°. Then, finally, arrange them in a proportion as follows: as the whole sine, that of the quadrant A B of the Moon's path, is to B C, the sine of the maximum latitude — by which the Moon, placed at B, stands off along the circle of latitudes D C from the ecliptic A C — so the sine of the arc A E, counted from the mutual intersection of the ecliptic and the Moon's path at A, is to the sine of the arc E F, by which the latitude of the given point E is determined.

Diagram. An uncaptioned line figure standing in the left half of the page, in the space beside the first worked example. Two long arcs spring from the point **D** at the apex and sweep down to the right, the outer one running to **C** at the lower right and the inner one crossing the lower work of the figure; from **A**, at the left, one curve runs rightward through **E** and up to **B** on the right-hand side, and a second, flatter curve runs from A rightward through **F** at the foot and on to C. A short, nearly straight stroke joins **B** down to **C**. **E** stands at the crossing in the middle of the figure, on the stroke that descends from D to F.

- A (left extremity): A
- B (right side, above C): B
- C (lower right): C
- D (apex): D
- E (centre of the figure): E
- F (foot): F

For example, let the day taken be 1596 January 5, the third hour after noon in equated time, at which the Moon is in 22° 15′ of ♓, and the ascending node ☊ in 18° 24′ of ♈; the argument of the Moon's latitude being 1ˢ 3° 51′. Then let this proportion be set up: the ratio that the whole sine, 10000000, has to the right sine of the maximum latitude of 5°, 871557, the right sine of the arc of the argument, 33° 51′, namely 5570206, will have to the right sine of the latitude of the Moon proposed. When the operation has been carried out, this comes to 485475; from which the latitude is 2° 46′ 57″, in the first quadrant, north, ascending.

[Margin: Another way of finding the same thing, by prosthaphaeresis alone.]

The operation can also be set up more expeditiously in this way, by prosthaphaeresis [prosthaphæresis]. Take two arcs: first, that of the maximum latitude, and second, that of the given argument counted from the nearest intersection. Then add the smaller arc to the complement of the greater, and find the right sine of the sum if it is less than a quadrant of the circle, or of the excess above the quadrant if it is greater than a quadrant. Next see whether the smaller arc is equal to the complement of the greater, or less, or greater. For if it is equal, half of the sine already found will give the arc of the latitude. If it is

less, the right sine of the difference subtracted from the former; if it is greater, the right sine of the difference added to the former, will give a number half of which shows the right sine of the latitude sought.

For example, let the same inquiry into the former latitude be proposed. From the two given arcs, then — the maximum latitude 5° 0′, and the arc of the argument 33° 51′ — I first seek the complement of the greater, which is 56° 9′. To this I add the smaller arc, 5°, and I look up the sine of the sum, 61° 9′: 8758860. Then, since the smaller arc is less than the complement of the greater, I subtract the smaller arc from the complement, and subtract the sine of the difference, 51° 9′, namely 7785909, from the earlier sine. Half of the remainder 972951, that is 486475, is the sine of the latitude, as before.

Caput V — DE VERA LONGITUDINE ET LATITUDINE STELLARUM fixarum

(On the true longitude and latitude of the fixed stars)

Since the astronomer must contemplate not only the planets but the fixed stars as well: in the two preceding chapters we taught how to find from the Ephemerides the true places of the planets in longitude and latitude for any time proposed. Now we shall raise our thoughts to the fixed stars too, and in this chapter teach how to find their longitudes and latitudes for any given time.

[Margin: In the Prutenic Tables and in Copernicus the longitudes of the stars are reckoned from the first ✳ of ♈. According to Tycho Brahe, from the vernal equinox.]

As for the longitudes, it should be known that Copernicus, in De revolutionibus *II — followed by Erasmus Reinhold in the canonical description of the fixed stars that stands in the Prutenic Tables — recorded the longitudes of all the fixed stars that astronomers take any account of, reckoning them from the first star of the asterism: the one in the horn of ♈, the leading star of the two of third magnitude, taken as a fixed starting point and one that catches the eye. Tycho Brahe in our own day has derived those same longitudes from the vernal equinox for the beginning of the year of Christ 1600, out of his own most accurate observations.*

[Margin: How to find the longitudes according to Copernicus.]

So, to learn from the longitudes handed down by Copernicus and Reinhold the position reckoned from the vernal equinox — that beginning of the heavens from which we count the twelve signs of the zodiac, 30° each, and all the longitudes of all the planets — first look up the places of the stars as they stand recorded in Copernicus or in the Prutenic Tables. Then add to the longitude the true precession of the equinoxes appropriate to the given time: that is, the arc of the zodiac contained between two great circles, each of them drawn through the poles of the zodiac, but one of them also through the first star of ♈ and the other through the place of the apparent equinox. What emerges is the star's true longitude, counted from the vernal equinox, that is from the first degree and minute of ♈.

[Margin: The latitudes according to Copernicus do not change.]

As for the latitudes, since they remain very nearly the same always, they need no fresh reduction to our own or to any other time; they are ordinarily used at any time just as they are given.

For example, suppose I wish to know the longitude and latitude, for the year 1620, of the first-magnitude star in the eye of ♉ which is called Palilicium. I consult the canonical description of the fixed stars found in the Prutenic Tables, from folio 20 to folio 38; and under the asterism ♉ I look for the star proposed. I find its longitude to be 36° 0′ and its latitude 5° 10′ south. Then I add to the longitude the precession of the equinoxes, which in the year 1620 is 28° 17′. This yields the true longitude of Palilicium, 64° 17′, corresponding to 4° 17′ of ♊.

[Margin: How to find the longitudes of the stars according to Tycho Brahe.]

If anyone wishes to determine the same star, or others, for his own time from Tycho Brahe, let him observe what we noted a moment ago: that the stars were described by Tycho Brahe for the beginning of the year of Christ 1600. But since the heaven is in perpetual motion, and the fixed stars themselves advance 51″ each year, as this table of the monthly motion shows, it follows that for each single year counted from 1600 of Christ, 51″ must be added going forward and subtracted going back.

Month	
Ianuarius	4.
Februarius	8
Martius	12
Aprilis	17
Maius	21
Iunius	25
Iulius	30
Augustus	34
September	38
October	42
November	47
December	51

Hence, for the year 1620, we must add 17′ for the 20 years. And since for Tycho Brahe, at the year of Christ 1600, the Bull's Eye stands in 4° 12′ 30″ of ♊ *with a southern latitude of 5° 31′, the longitude will be 4° 29′ 30″ of* ♊*, greater by 12′ 30″ than the Copernican longitude. In the same way, if anyone wishes to determine the longitude of this star for the beginning of the year of Christ 1578: then, on what Copernicus and the Prutenic Tables hand down, and on account of the true precession of the equinox, 27° 52′, the true longitude will be 63° 52′, that is, in 3° 52′ of* ♊ *— whereas by Tycho Brahe's doctrine it stands in 3° 53′ 48″ of* ♊*. For 18′ 42″, which belong to the 22 years counted backwards, subtracted from the place of Palilicium, leave 3° 53′ 48″ of* ♊*, a longitude that exceeds the Copernican by only 1′ 48″.*

But so that the true longitudes and latitudes of the more notable stars for the year of Christ 1620 — which can be fitted without gross error to 40 years before and after as well — might be ready to hand on both reckonings, the Copernican and the Tychonic, we have chosen to append this table containing the stars, some of which lie outside and some within the Zodiac.

In it, however, this is to be noted. Where a point is found added to a star's latitude according to Tycho Brahe, 30 seconds are to be taken there. Likewise, where the letter O stands under the magnitude of the stars, obscure stars are to be understood there; and where N stands, nebulous ones.

Tabulæ generales continentes veras longitudines & latitudines insigniorum stellarum fixarum ad annum Christi 1620

(General tables containing the true longitudes and latitudes of the more notable fixed stars for the year of Christ 1620)

Prima tabula stellarum Borealium, latitudinem ultra 8 gradus habentium

(First table: the northern stars having a latitude beyond 8 degrees)

#	Names of the northern stars set outside the latitude of the Zodiac	Long. (Copernicus)	Lat. (Copernicus)	Magn.	Long. (Tycho Brahe)	Lat. (Tycho Brahe)	Magn.	Nature
2	In the last link of the chain, at Andromeda's right hand	3° 17′	44° 0′	5	2° 31′	46° 15′	2	♀
1	The tip of Pegasus' wing	3° 47′ ♈	12° 30′	2	3° 55′ ♈	12° 35′	4	♂ ☿
3	Cepheus' right shoulder	8° 17′	69° 0′	3	7° 30′	68° 54′	3	♄ ♃
4	The navel of Pegasus, or Andromeda's head, Alpheratz	9° 27′	26° 0′	1	9° 4′	25° 42′	2	♀ ♃
5	Of Andromeda — the brighter star of the left shoulder-blade	16° 57′	24° 30′	3	16° 36′	24° 20′	3	
6	Of Andromeda — the left elbow	17° 17′	15° 50′	3	17° 10′	15° 58′	5	♀
7	In the northern cord of ♓, the last and furthest north	22° 7′	9° 0′	4	21° 53′	9° 24′	5	♄ ☿
8	In Andromeda's girdle — the middle one	23° 27′	30° 0′	3	24° 23′	30° 33′.	4	
9	In Andromeda's girdle — the northern one	23° 37′	32° 30′	3	23° 53′	32° 30′.	4	♀
10	In Andromeda's girdle — the southern one, Mirach	25° 27′	25° 20′	3	25° 6′	25° 59′	2	
11	The following star in the horn of ♈, the northern one	29° 17′	8° 20′	3	28° 40′	8° 29′	4	♄ ♂
12	The bright star of Cassiopeia's chair	29° 27′	51° 40′	3	29° 52′	51° 14′.	3	♄ ♀
13	An unformed star above the head of ♈; for Tycho Brahe, the bright star at the crown	2° 2′ ♉[55]	10° 0′	3	2° 23′ ♉	9° 57′	3	♂ ♄
14	Cassiopeia's breast, Scheder	2° 27′	46° 45′	3	2° 34′	46° 35′.	3	♄ ♀
15	The apex of the Triangle: Deltoton	2° 37′	16° 30′	3	1° 36′	16° 49′	4	☿
16	In the base of the Triangle — the preceding one	7° 37′	20° 40′	3	7° 6′	20° 33′	4	

[55] The minutes figure stands in the tens place of its field, with the units place left empty.

#	Names of the northern stars set outside the latitude of the Zodiac	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Tycho Brahe)	Lat. (Tycho Brahe)	Magn.	Na-ture
17	In the base of the Triangle — the middle one	7° 47′	20° 20′	4	8° 16′	19° 29′	5	☿

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
18	Super Cathedram Cassiopeæ ad femora — above Cassiopeia's chair, at the thighs	8° 17′	49° 0′	3	7° 2[nu-meral: ?]′	52° 14′	4	♀
19	In basi trianguli sequens — in the base of the Triangle, the following one	8° 27′	19° 0′	3	8° 15′	18° 57′	4	☿
20	Sinister pes Andromedæ Alamac — Andromeda's left foot, Alamac	8° 27′	23° 0′	3	8° 56′	27° 46′.	2	♀
21	Ad genua Cassiopeiæ — at Cassiopeia's knees	11° 57′	45° 30′	3	12° 38′	46° 22′	3	♄ ♀
22	Antecedens a Capite Medusæ — the preceding star of Medusa's head	16° 17′	20° 40′	O.	16° 33′	20° 53′	4	♂
23	In crure Cassiopeiæ — in Cassiopeia's leg	18° 37′	45° 39′	3	19° 30′	47° 29′	3	♄ ♀
24	In extremo dextræ manus Persei — at the end of Perseus' right hand	19° 17′	40° 30′	N.	18° 48′	39° 0′.	6	♄ ♃
25	✳ Caput Medusæ Rasdalgol — the head of Medusa, Rasdalgol	21° 17′	23° 0′	2	20° 54′	22° 22′	3	
26	In dextro humero Persei — on Perseus' right shoulder	24° 17′	34° 30′	4	24° 43′	34° 30′	3	♃ ♄
27	Persei — Sinister calcaneus — Perseus' left heel	25° 47′	12° 0′	3	25° 50′	12° 8′	4	
28	Persei — Dextrum latus Algenib fulgens — Perseus' right side, Algenib, shining	26° 27′	30° 0′	2	26° 34′	30° 5′	2	♄ ♃
29	Persei — Extremum sinistri pedis sequens — the tip of the left foot, the following one	27° 57′	11° 0′	3	27° 53′	11° 17′.	3	
30	Persei — ultima trium dextri latens ad flexuram — the last of the three of the right one, hidden at the bend	29° 17′	27° 30′	3	29° 32′	27° 14′	3	
31	Persei — Sinistrum crus — the left shin	29° 57′	14° 45′	3	29° 40′	14° 53′.	5	♄ ♃
32	Persei — Sinistrum genu — the left knee	0° 17′ ♊	19° 50′	3	0° 25′ ♊	19° 4′	3	
33	Sinister talus Aurigæ — the Charioteer's left ankle	11° 27′	10° 10′	3	11° 21′	10° 22′	4	♂ ☿ ♃
34	Hædorum in Auriga — Prior — of the Kids in the Charioteer, the earlier	13° 47′	18° 0′	4	13° 22′	18° 8′.	4	
35	Hædorum in Auriga — Posterior — of the Kids in the Charioteer, the later	14° 17′	18° 0′	4	14° 6′	18° 11′.	4	♂ ♀
36	✳ Capella, Hircus, Alhajoth	16° 37′	22° 30′	1	16° 33′	22° 50′.	1	♂ ☿
37	Stella polaris in Cauda Cinosuræ Alrukaba — the pole star in the Little Bear's tail, Alrukaba	21° 47′	66° 0′	3	23° 19′	66° 2′	2	♄ ♀
38	Dexter humerus aurigæ — the Charioteer's right shoulder	24° 27′	20° 0′	2	24° 45′	21° 27′.	2	♂ ☿

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
39	Caput præcedens ♊ Apollinis — the preceding head of ♊, Apollo's	14° 57′ ♋	9° 30′	2	14° 58′ ♋	10° 2′	2	♂ ♀ ♄
40	Helicis seu ursæ maioris — In rostro — of Helice, the Great Bear: in the muzzle	16° 57′	39° 50′	4	17° 53′	40° 2′.	4	
41	Helicis seu ursæ maioris — In pede dextro priore Australis — in the right fore-foot, the southern	26° 57′	28° 30′	3	27° 27′	28° 38′	3	
42	Helicis seu ursæ maioris — In genu dextro priore — in the right fore-knee	27° 17′	35° 0′	3	27° 43′	36° 3′	5	♂
43	Helicis seu ursæ maioris — In pede dextro priore Borealis — in the right fore-foot, the northern	28° 7′ ♌	29° 20′	3	26° 13′ ♌	29° 15′.	3	
44	Ex obscuris circa Helicem — Prima — of the faint stars around Helice, the first	2° 47′	23° 15′	O.	2° 13′	20° 51′	4	☽ ♀
45	Ex obscuris circa Helicem — Secunda — the second	3° 47′	22° 45′	O.	5° 17′	20° 5′	4	
46	In extrema cauda Draconis — at the very end of the Dragon's tail	4° 47′	56° 15′	3	4° 54′	57° 7′	3	♄ ♂
47	Ex obscuris circa Helicem — Tertia — the third	7° 47′	20° 0′	O.	6° 34′	17° 55′	3	☽ ♀
48	Ex obscuris circa Helicem — Quarta — the fourth	8° 37′	22° 15′	O	8° 27′	20° 42′	4	
49	Lucida Cynosuræ in quadrang. Australis — the bright star of the Little Bear in the quadrangle, the southern	8° 47′	72° 40′	2	7° 33′	72° 51′.	2	♄ P. ♀
50	Proxima extrema in Cauda Draconis — the next-to-last in the Dragon's tail	10° 47′	61° 15′	3	10° 43′	61° 33′	3	♄ ♃
51	Helicis — humerus 4 — Rotæ plaustri — of Helice: the shoulder, 4, of the Wain's wheels	12° 17′	49° 0′	2	9° 51′	49° 40′	2	
52	Helicis — Ilia 3 — the flanks, 3	13° 47′	44° 30′	2	14° 0′	45° 3′.	2	
53	Helicis — In pede posteriore sinistro, Borealis — in the left hind foot, the northern	14° 17′	29° 30′	3	14° 13′	29° 51′.	4	♂
54	Helicis — In pede posteriore sinistro, Australis — in the left hind foot, the southern	15° 37′	28° 15′	3	15° 21′	28° 45′	4	
55	In capite ♌ duarum — Australis — of the two in the head of ♌, the southern	15° 47′	9° 30′	3	15° 22′	9° 40′	3	♄ P. ♂
56	In capite ♌ duarum — Borea — the northern	15° 57′	12° 0′	3	16°. 8′	12° 21′	4	

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-nicus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
57	Lucida Cynosuræ in quadrang. Boreal. — the bright star of the Little Bear in the quadrangle, the northern	17° 47′	74° 50′	2	14° 58′ ♌	75° 23′.	3	♄ P. ☿
58	In collo ♌ trium — Borea — of the three in the neck of ♌, the northern	21° 47′	11° 0′	3	21° 1[?]′	11° 50′	3	♄ P. ☿
59	In collo ♌ trium — Media — the middle one	23° 47′	8° 30′	2	24° 16′	8° 47′	2	
60	Helicis seu ursæ maioris — Eductio caudæ 2 — Rotæ plaustri — of Helice, the Great Bear: the springing of the tail, 2, of the Wain's wheels	24° 47′	51° 0′	3	25° 42′	51° 37′	2	
61	Helicis seu ursæ maioris — Crus sinistr poster. 1 — Rotæ plaustri — the left hind leg, 1	25° 37′	46° 30′	2	25° 2′	47° 6′.	2	♂
62	Helicis seu ursæ maioris — In pede dextro poster. — Borealis — in the right hind foot, the northern	1° 27′ ♍	25° 50′	3	1° 12′ ♍	26° 14′	4	
63	Helicis seu ursæ maioris — In pede dextro poster. — Australis — the southern	1° 57′	25° 0′	3.	1° 53′	24° 54′	4	
64	Tertia ab extrema in cauda Draconis — the third from the end in the Dragon's tail	2° 47′	65° 30′	3	2° 27′	66° 36′	2	♄ ♂
65	Prima trium in cauda Helicis, 3 Equus — the first of the three in Helice's tail, 3, the Horse	3° 47′	53° 30′	2	3° 27′	54° 18′	2	♂
66	Sequens in lumbis seu Tergum ♌ — the following star in the loins, or the back of ♌	5° 47′	13° 40′	2	5° 58′	14° 20′	2	♄ ♀
67	In clune ♌ — in the haunch of ♌	7° 57′	9° 40′	3	8° 7′	9° 41′.	3	♀ ♂ ☿
68	Media in cauda Helicis, 2 Equus — the middle one in Helice's tail, 2, the Horse	9° 37′	55° 40′	2	10° 13′	56° 22′	2	♂
69	Duarum Austral. Comæ Berenicis præced. — of the two southern stars of Berenice's Hair, the preceding	12° 7′	25° 0′	O.	--	--	-	☽ ♀
70	Cauda ♌ Deneb eleced. — the tail of ♌, Deneb eleced	16° 7′	11° 50′	1	16° 20′	12° 18′	1	♄ ♀ ☿
71	Coma Berenicis — Berenice's Hair	16° 27′	30° 0′	lũ	--	--	-	☽ ♀
72	Informis Helice circa caudam — an unformed star of Helice about the tail	19° 27′	39° 45′	3	18° 0′	40° 6′	2	☽ P. ♀
73	Duarum Austral : Comæ Berenicis sequens — of the two southern stars of Berenice's Hair, the following	20° 7′	25° 30′	O.	--	--	-	☽ ♀
74	Vltima in cauda Helicis 1 Equus — the last in Helice's tail, 1, the Horse	21° 27′	54° 0′	2	21° 29′	54° 25′	2	♂
75	Vindemiator προτρυγητὴρ — the Vintager	3° 47′ ♎	15° 10′	3	4° 40′ ♎	16° 15′.	3	♄ ♀ ☿
76	In dextro latere sub cingulo ♍ — on the right side below the girdle of ♍	5° 57′	8° 30′	3	6° 12′	8° 41′	3	♀ P. ☿
77	Bootis — Sinister humerus — the Herdsman's left shoulder	11° 17′	49° 0′	3	13° 22′	49° 33′.	3	♂ ♄
78	Bootis — Sinistra tibia Borealis — the left shin, the northern	12° 57′	28° 0′	3	13° 59′	28° 9′	3	
79	Sub cingulo ♍ in dextra clune — below the girdle of ♍, in the right haunch	16° 27′	8° 40′	3	16° 41′	8° 39′	3	☿ P ♀

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-nicus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
80	✳ Arcturus, Alramech	18° 37′	31° 30′	1	18° 56′	31° 2′.	1	♂ ♃
81	Bootis — Dextrum femur — the right thigh	21° 37′	40° 15′	3	22° 46′	40° 40′	3	♂ ♄
82	Bootis — Calcaneus dexter — the right heel	26° 57′	28° 0′	3	26° 30′	30° 27′.	4	
83	Virginis dexter seu Boreus pes — the Maiden's right, that is northern, foot	4° 17′ ♍	9° 50′	3	4° 47′ ♍	9° 49′	4	♀ P. ♂
84	Lucida Coronæ Gnosiæ Alpheta, Mumir — the bright star of the Cretan Crown, Alpheta, Mumir	6° 17′	44° 36′	2	6° 55′	44° 23′	2	♀ ☿
85	Serpentis Ophiuchi — Prima conversionis colli — of the Serpent-bearer's Serpent: the first of the coil of the neck	13° 17′	29° 15′	3	13° 3′	28° 58′	3	♄ ♂
86	Serpentis Ophiuchi — Eductio colli — the drawing-out of the neck	13° 37′	34° 15′	3	14° 38′	34° 27′.	3	♃ ☿
87	Lucida lancis Boreæ — the bright star of the northern scale-pan	13° 47′	8° 30′	2	14° 5′	8° 35′	2	
88	Serpentis Ophiuchi — In temporibus — at the temples	15° 57′	35° 0′	3	17° 23′	35° 25′	3	
89	Serpentis Ophiuchi — In convers. colli — Media in nexu — in the coil of the neck, the middle one in the knot	15° 57′	25° 20′	3	16° 47′	25° 35′.	2	♄ ♂
90	Serpentis Ophiuchi — In convers. colli — Australis — the southern	17° 57′	24° 0′	3	19° 3′	24° 5′.	3	
91	Draconis lingua — the Dragon's tongue	18° 17′	76° 30′	4	19° 13′	76° 17′	4	♄ ♂ ♃
92	Herculis seu Engonasi — Brachium dextrum — of Hercules, the Kneeler: the right arm	23° 17′	40° 10′	3	23° 53′	40° 5′.	3	
93	Herculis seu Engonasi — Humerus dexter — the right shoulder	25° 17′	43° 0′	3	25° 44′	42° 48′	3	☿
94	Ophiuchi in sinistra manu — Præcedens — in the Serpent-bearer's left hand, the preceding	26° 37′	17° 0′	4	27° 3′	17° 19′	3	
95	Ophiuchi in sinistra manu — Sequens — the following	27° 37′	12° 30′	3	28° 14′	16° 30′.	3	♄ P. ♀

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
96	In sinistro genu Ophiuchi — in the Serpent-bearer's left knee	3° 47′ ♐	11° 50′	3	3° 56′ ♐	11° 30′	3	♄ P. ♀
97	Supra oculum Draconis — above the Dragon's eye	4° 47′	75° 40′	3	6° 36′	75° 21′	3	♄ ♃
98	Herculis — In femore sinistro præcedens — of Hercules: in the left thigh, the preceding	5° 37′	59° 50′	3	6° 38′	59° 38′	4	☿
99	Herculis — Sinister humerus — the left shoulder	8° 17′	48° 0′	3	9° 27′	47° 47′	3	
100	Herculis — Caput Ras algeti — the head, Ras algeti	9° 17′	37° 30′	3	10° 48′	37° 23′	3	☿ ♂

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Copernicus)	Lat. (Copernicus)	Magn.	Long. (Tycho Brahe)	Lat. (Tycho Brahe)	Magn.	Natura
101	Ophiuchi caput Ras aben — the Serpent-bearer's head, Ras aben	16° 27′	36° 0′	3	17° 7′	35° 57′	3	♄ P ♀
102	Lucida capitis Draconis — the bright star of the Dragon's head	21° 47′	75° 30′	3	22° 41′	75° 3′.	3	♄ ♂ ♃
103	Lucida Lyræ seu fidicula, Asange vel Vega — the bright star of the Lyre, or the little lyre, Asange or Vega	8° 57′ ♑	62° 0′	1	10° 0′ ♑	61° 47′	1	♀ ☿
104	Prima Antinoi in dextro pede — the first star of Antinous, in the right foot	12° 47′	18° 10′	3	12° 3′	17° 41′	3	♂ ♃
105	Caudam aquilæ proxime præced. informis Tychonis — next preceding the Eagle's tail, an unformed star of Tycho Brahe's	--	--	-	13° 1′	37° 40′	3	
106	Cauda Aquilæ — the Eagle's tail	13° 47′	36° 30′	3	14° 32′	36° 16′	3	♂ ♃
107	In dextro brachio Antinoi — in Antinous' right arm	17° 37′	25° 0′	4	18° 18′	24° 56′	3	
108	Genu Antinoi — Antinous' knee	21° 17′	15° 30′	5	19° 34′	14° 28′	3	
109	Latus dextrum Antinoi — Antinous' right side	19° 47′	20° 0′	3	20° 34′	20° 14′	3	
110	Antecedens duarum sinistri humeri Aquilæ — the preceding of the two in the Eagle's left shoulder	24° 47′	31° 30′	3	25° 43′	31° 18′	3	
111	Aquila, Vultur volans, Alchair — the Eagle, the flying Vulture, Alchair	25° 27′	29° 10′	2	26° 26′	29° 21′	2	♂ ♃
112	Rostrum Gallinæ seu os Cygni — the Hen's beak, or the Swan's mouth	26° 7′	49° 20′	3	26° 3′	49° 2′	3	♀ ☿
113	Proxima lucidæ in scapulis Aquilæ parva Tychoni — next to the bright star in the Eagle's shoulder-blades; small, for Tycho Brahe	26° 17′	30° 0′	3	26° 25′	31° 59′	5	♂ ♃
114	Antecedens in collo Aquilæ — the preceding star in the Eagle's neck	26° 27′	27° 10′	3	27° 10′	26° 49′	3	*(the ♂ ♃ above is set once, between rows 113 and 114)*
115	Antinoi manus sinistra — Antinous' left hand	0° 17′ ♒	21° 40′	3	29° 38′	18° 48′	3	
116	Aquarii sub sinistra manu in Veste — Antecedens — of the Water-bearer, under the left hand in the robe: the preceding	6° 17′	8° 30′	3	6° 29′ ♒	9° 10′	4	♄ ☿

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
117	Aquarii sub sinistra manu in Veste — Media — the middle one	7° 47′	8° 0′	4	7° 45′	8° 19′	5	*(the ♄ ☿ above is set once, between rows 116 and 117)*
118	Cauda Delphini — the Dolphin's tail	9° 17′	29° 10′	3	8° 49′	29° 8′	3	♄ ♂
119	Rhomboides Delphini Austr. præcedentis lateris — of the Dolphin's rhomboid, the southern star of the preceding side	10° 7′	32° 0′	3	11° 13′	31° 57′.3		♄ ♂
120	In ancone alæ dextræ Gallinæ — at the elbow of the Hen's right wing	10° 57′	64° 40′	3	11° 10′	64° 28′	3	♀ ☿
121	Rhomboides Delphini lateris — Præcedentis Borealis — of the Dolphin's rhomboid side: of the preceding, the northern	11° 47′	33° 50′	3	12° 7′	33° 5′	3	
122	Rhomboides Delphini lateris — Sequentis Australis — of the following, the southern	12° 57′	32° 0′	3	12° 53′	32° 2′	3	♄ ♂
123	Rhomboides Delphini lateris — Sequentis Borealis, In capite (Tychon. — of the following, the northern, in the head (for Tycho Brahe	15° 7′	33° 10′	3	14° 9′	32° 47′	3	
124	Equulei præcedens in — Capite — of Equuleus, the preceding star: in the head	17° 57′	20° 30′	O.	17° 49′	20° 12′	4	
125	Equulei præcedens in — Ore — in the mouth	17° 57′	25° 30′	*(the O. above is set once, between rows 124 and 125)*	18° 11′	25° 16′	4	♂ ♃
126	Aquarii clara in humero sinistro — the bright star in the Water-bearer's left shoulder	18° 17′	8° 50′	3	18° 8′	8° 42′	3	♄ ☿
127	Equulei sequens in — Ore — of Equuleus, the following star: in the mouth	19° 17′	25° 0′	O.	19° 11′	24° 52′	4	♂ ♃
128	Equulei sequens in — Capite — in the head	19° 37′	20° 40′	*(the O. above is set once, between rows 127 and 128)*	20° 11′	21° 6′	4	*(the ♂ ♃ above is set once, between rows 127 and 128)*
129	Pectus Cygni seu Gallinæ — the breast of the Swan, or the Hen	20° 7′	56° 20′	3	19° 42′	57° 9′.	4	♀ ☿
130	In ancone sinistra alæ Gallinæ — at the elbow of the Hen's left wing	22° 27′	49° 30′	3	22° 26′	49° 26′	3	

#	Nomina stellarum Borealium extra latitudinem Zodiaci existentium	Long. (Copernicus)	Lat. (Copernicus)	Magn.	Long. (Tycho Brahe)	Lat. (Tycho Brahe)	Magn.	Natura
131	In rictu Pegasi — in Pegasus' open mouth	26° 57′	21° 30′	3	26° 39′	22° 7′.	3	♂ ♃ ♀
132	Aquarii clara in humero dextro — the bright star in the Water-bearer's right shoulder	27° 57′	11° 0′	3	28° 6′	0° 42′	3	♄ ☿
133	In extremo sinistræ alæ Gallinæ — at the tip of the Hen's left wing	28° 17′	44° 0′	3	28° 0′	43° 44′	3	♀ ☿
134	Cauda Cygni seu Gallinæ, Deneb Adigege — the tail of the Swan, or the Hen, Deneb Adigege	0° 47′ ♓	60° 0′	2	0° 10′ ♓	59° 56′.	2	*(the ♀ ☿ above is set once, between rows 133 and 134)*

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Copernicus)	Lat. (Copernicus)	Magn.	Long. (Tycho Brahe)	Lat. (Tycho Brahe)	Magn.	Natura
135	In capite Pegasi Borealior — on Pegasus' head, the more northern	0° 57′ ♓	16° 50′	3	1° 32′ ♓	16° 25′	4	♂ ♃ ☿
136	Cubitus dexter ♒ — the Water-bearer's right elbow	1° 7′	8° 45′	3	1° 27′	8° 17′.	3	♄ ☿
137	In dextra manu ♒ — Borea — in the Water-bearer's right hand: the northern	1° 17′	10° 45′	3	3° 21′	10° 31′	5	
138	In dextra manu ♒ — Australium — Præcedens — of the southern ones, the preceding	3° 37′	9° 0′	3	3° 40′	8° 52′.	4	♄ ☿
139	In dextra manu ♒ — Australium — Sequens — the following	4° 57′	8° 30′	3	5° 10′	8° 10′	4	
140	In Pegasi — Cervice præcedens, seu lucida colli — of Pegasus: in the neck, the preceding, that is the bright star of the neck	10° 27′	18° 0′	4	10° 56′	17° 41′	3	
141	In Pegasi — Scapulis — in the shoulder-blades	18° 17′	19° 40′	2	18° 13′	19° 26′	2	♂ & ♃
142	In Pegasi — Genu dextro Borealis — in the right knee, the northern	20° 37′	35° 0′	3	20° 27′	35° 7′.	3	*vel ☿ (the two-line note ♂ & ♃ / vel ☿ is set once, across rows 141–142)*
143	In Pegasi — Dextro humero & eductione cruris — in the right shoulder and at the springing of the leg	23° 47′	31° 0′	2	24° 6′	31° 7′.	2	

Canon insigniorum stellarum, quæ intra latitudinem Zodiaci comprehenduntur, quibusq; Planetæ corporeo congressu iungi possunt.

A canon of the notable stars comprised within the latitude of the Zodiac, and with which the planets can be joined in bodily conjunction.

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
144	Trium lucidarum in lino ♓ — Præcedens — of the three bright stars in the Fishes' cord: the preceding	8° 47′ ♑	2° 15′ B	4	8° 53′ ♈	2° 11′ B	4	
145	Trium lucidarum in lino ♓ — Media — the middle one	12° 7′	1° 10′ B	4	12° 15′	1° 5′. B	4	
146	Trium lucidarum in lino ♓ — Sequens — the following	14° 37′	1° 20′ B	4	14° 36′	0° 57′. B	4	♄ P. ☿
147	Trium post flexum ♓ — Præcedens — of the three after the bend: the preceding	18° 37′	2° 20′ A	4	17° 50′	3° 3′ A	5	
148	Trium post flexum ♓ — Media — the middle one	20° 17′	4° 40′ A	4	20° 13′	5° 40′. A	5	
149	Trium in Boreo lino ♓ — Australis — of the three in the northern cord: the southern	21° 47′	1° 30′ B	5	21° 33′	1° 51′ B	5	♄ P. ☿
150	Trium in Boreo lino ♓ — Media — the middle one	21° 57′	1° 20′ B	3	21° 33′	5° 21′ B	4	*(the ♄ P. ☿ above is set once, between rows 149 and 150)*
151	In boreo lino ♓ a connexu præcedens — in the northern cord, the one preceding from the junction	22° 17′	4° 20′ A	4	22° 29′	1° 38′. B	5	
152	Sequens trium post flexum ♓ — the following of the three after the bend	22° 17′	7° 45′ A	4	22° 14′	7° 56′ A	5	
153	Australis in præcedenti cornu ♈ omnium prima Copern. — the southern star in the preceding horn of the Ram, the first of all for Copernicus	28° 17′	7° 20′ B	3	27° 54′	7° 8′. B	4	♂ ♄
154	Præcedens in juba Ceti, quam Tycho in occipite collocat. — the preceding star in the Whale's mane, which Tycho Brahe places at the back of the head	29° 17′	4° 10′ A	4	28° 46′	4° 19′ A	4	♄
155	In capillamento Ceti Tychoni infra oculum — in the Whale's hair; for Tycho Brahe, below the eye	3° 47′ ♉	6° 20′ A	4	2° 11′ ♉	5° 52′ A	4	♄
156	In extremo pede post ♈ quam Tycho in Cete supra oculũ ponit — at the tip of the foot behind the Ram, which Tycho Brahe puts in the Whale above the eye	6° 37′	5° 15′ A	4	6° 24′	5° 36′ A	4	♂
157	In cauda ♈ trium — Præcedens — of the three in the Ram's tail: the preceding	15° 27′	1° 40′ B	4	15° 32′	1° 46′. B	4	♀

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
158	In cauda ♈ trium — Media — the middle one	16° 57′	2° 30′ B	4	16° 41′	2° 50′. B	5	
159	Ex 4 in sectione ♉ — Secunda — of the 4 in the cleft of the Bull: the second	17° 37′	7° 15′ A	4	17° 47′	7° 29′ A	6	♀ P. ♄
160	Ex 4 in sectione ♉ — Borealior — the more northern	17° 57′	6° 0′ A	4	18° 17′	5° 57′ A	5	
161	Vltima caudæ ♈ — the last star of the Ram's tail	18° 37′	1° 50′ B	4	18° 7′	2° 36′ A	6	♀
162	Virgiliarum seu Plejadum Athorajè — Borealior Occid. — of the Virgiliae, that is the Pleiades, Athorajè: the more northern, western	23° 47′	4° 30′ B	5	24° 7′	4° 11′ B	5	
163	Virgiliarum seu Plejadum Athorajè — Australior proxima — the next more southern	24° 7′	4° 40′ B	5	24° 20′	4° 2′ B	6	♂ ☽
164	Virgiliarum seu Plejadum Athorajè — Exigua, Tychoni Media — the small one; for Tycho Brahe, the middle one	24° 17′	3° 0′ B	5	24° 41′	4° 0′ B	3	
165	Virgiliarum seu Plejadum Athorajè — Angust: terminus in cuspide. — Angust:[56] the boundary at the cusp	24° 17′	5° 20′ B	5	25° 3′	3° 55′ B	5	
166	Hyadum seu Succularum — Prima in naribus — of the Hyades, that is the Suculae: the first, in the nostrils	0° 17′ ♊	5° 45′ A	3	0° 29′ ♊	5° 46′. A	3	
167	Hyadum seu Succularum — Quæ ad oculum Boreum — the one at the northern eye	1° 57′	4° 15′ A	3	1° 33′	4° 2′ A	3	♂
168	Hyadum seu Succularum — Quæ ad oculum Australem — the one at the southern eye	2° 27′	5° 50′ A	3	2° 39′	5° 53′ A	4	

#	Nomina stellarum intra latitudinem zodiaci 8 grad. existentium	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Mag-nit:	Natura
169	Oculus Boreus ♉ — the Bull's northern eye	3° 27′	3° 0′ A	3	3° 10′	2° 36′. A	3	
170	✳ Austrinus oculus, Palilicium, Λαμπαδίας, Aldebaran — the southern eye, Palilicium, Λαμπαδίας [Greek: Lampadias, "torch-like"], Aldebaran	4° 17′	5° 10′ A	1	4° 29′	5° 31′ A	1	♂
171	In origine cornu Borealis quæ est 20 Copernici in ♉ — at the root of the northern horn, which is Copernicus' 20th in ♉	7° 17′	4° 0′ B	4	6° 52′	0° 40′ B	5	
172	Ad radicem cornu Australis — at the root of the southern horn	8° 47′	4° 0′ A	4	8° 29′	3° 40′ A	6	

[56] abbreviation left unexpanded on the leaf; the stem means "narrow"

#	Nomina stellarum intra latitudinem zodiaci 8 grad. existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Mag-nit:	Natura
173	Australior in cornu Australi ♉ — the more southern in the southern horn	11° 57′	5° 0′ A	4	12° 30′	2° 30′. A	6	♂
174	In extremo cornu Boreali & dexter talus Aurigæ — at the tip of the northern horn, and the Charioteer's right ankle	17° 17′	5° 0′ B	3	17° 16′	5° 20′ B	2	♂ P. ☿
175	In extremitate Australis cornu — at the end of the southern horn	18° 47′	2° 30′ A	3	19° 29′	2° 14′ A	3	♂
176	Præcedens summitatem pedis ♊ Πρόπους — the star preceding the top of the Twins' foot, Πρόπους [Greek: Propous, "forefoot"]	25° 47′	0° 40′ A	4	25° 22′	0° 13′ A	4	☿ P. ♀
177	Lucens ante genu inter Erichthon : & pedem ♊ — shining before the knee, between Erichthonius and the Twins' foot	28° 7′	5° 50′ B	4	28° 4′	6° 4′ B	4	
178	Præcedentis ♊ pes — Prior — of the preceding Twin, the foot: the earlier	28° 7′	1° 30′ A	4	28° 10′	♋ 0° 58′ A	4	
179	Præcedentis ♊ pes — Sequens calx — the following heel	29° 47′	1° 15′ A	4	0° 1′	0° 53′ A	3	☿ P. ♀
180	Sequentis ♊ — In extremo pede dextro — of the following Twin: at the tip of the right foot	1° 47′	♋ 3° 30′ A	4	1° 31′	3° 8′ A	4	
181	Sequentis ♊ — In summo pede sinistro Tych. lucida pedis — at the top of the left foot; for Tycho Brahe, the bright star of the foot	3° 37′	7° 30′ A	3	3° 48′	6° 48′. A	2	
182	In sinistro seu Boreali genu ♊ præcedentis — in the left, that is northern, knee of the preceding Twin	4° 47′	1° 30′ B	3	4° 39′	2° 11′ B	3	
183	In sinistro genu ♊ sequentis — in the left knee of the following Twin	9° 57′	2° 30′ A	3	9° 43′	2° 6′. A	3	♄
184	In sinistro brachio præcedentis ♊ — in the left arm of the preceding Twin	10° 17′	7° 20′ B	4	10° 11′	7° 43′ B	4	
185	In poplite inferioris seu sequentis ♊ — in the hollow of the knee of the lower, that is following, Twin	12° 57′	6° 40′ A	3	13° 30′	5° 41′ A	4	♄
186	In sinistro bubone seu ventre sequentis ♊ — in the left groin, that is the belly, of the following Twin	13° 17′	0° 30′ A	3	13° 13′	0° 13′. A	3	
187	In scapulis — præcedentis ♊ — in the shoulder-blades of the preceding Twin	13° 37′	5° 30′ B	4	13° 41′	5° 42′. B	4	
188	Dexter humerus — præcedentis ♊ — the right shoulder of the preceding Twin	15° 37′	4° 50′ B	4	16° 4′	5° 10′ B	5	
189	Caput sequens ♊ Hercules vel Pollux — the following head of the Twins, Hercules or Pollux	18° 7′	6° 15′ B	2	18° 0′	6° 38′ B	3	♂
190	In sinistro humero sequentis ♊ — in the left shoulder of the following Twin	18° 17′	2° 40′ B	4	18° 6′	3° 3′ B	4	♄
191	Lucida extra formam ♊, Tychoni in radice caudæ ♋ — the bright star outside the figure of the Twins; for Tycho Brahe, at the root of the Crab's tail	22° 17′	2° 40′ A	4	25° 45′	2° 18′. A	4	
192	Extremum pedis ♋ — Borei — the tip of the Crab's foot: the northern	24° 17′	1° 0′ B	3	24° 13′	1° 15′. B	5	♂ ☿

#	Nomina stellarum intra latitudinem zodiaci 8 grad. existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Mag-nit:	Natura
193	Extremum pedis ♋ — Austrini — the southern	28° 47′	7° 30′ A	4	25° 21′	7° 5′ A	5	
194	Duarum præced. □ ♋ — Borea — of the two preceding the □ [quadrilateral] of the Crab: the northern	29° 17′	1° 15′ B	4	0° 6′ ♌	1° 31′ A	5	
195	Duarum præced. □ ♋ — Austrina — the southern	29° 37′	1° 10′ A	4	0° 26′	0° 47′. B	5	♂ ☽
196	Præsepe, Pectus ♋ — the Manger, the Crab's breast	1° 57′ ♌	0° 40′ B	N.	2° 3′	1° 14′ B	N.	
197	Ambo aselli — Boreus — both Asses: the northern	1° 57′	2° 40′ B	4	2° 13′	3° 8′ B	4	♂ ☉
198	Ambo aselli — Austrinus — the southern	2° 57′	0° 10′ A	4	3° 25′	0° 4′ B	4	
199	Brachium Austrinum ♋ — the Crab's southern claw	8° 7′	5° 30′ A	4	8° 20′	5° 8′ A	3	♄ ☿
200	Informis supra Australẽ chelẽ ♋ Tychoni in brachio Aust. — an unformed star above the Crab's southern claw; for Tycho Brahe, in the southern arm	11° 17′	2° 40′ A	4	10° 53′	5° 36′ A	5	
201	In ore seu hiatu ♌ — in the Lion's mouth, that is his gape	12° 47′	7° 30′ B	4	12° 33′	7° 52′ B	4	♄ ♂
202	Informis supra chelem ♋ seq. Tychoni in ungula pedis ♌ — an unformed star above the Crab's following claw; for Tycho Brahe, in the hoof of the Lion's foot	13° 17′	5° 40′ A	4	16° 18′	5° 43′ A	5	
203	Dextrum genu ♌ — the Lion's right knee	18° 57′	0° 0′	5	18° 11′	0° 16′ B	5	♀ P. ☿
204	In sinistro genu anterior — the forward star in the left knee	20° 47′	4° 10′ A	4	18° 57′	3° 47′ A	4	♄ ♀ ☿
205	Antecedens regulum proxime in ♌ — the star immediately preceding Regulus, in ♌	--	--	-	22° 0′	0° 0′. B	4	
206	♌ Australior trium colli — the more southern of the three of the Lion's neck	22° 17′	4° 30′ B	3	22° 37′	4° 52′ B	3	♄ ☿
207	♌ ✳ Cor, Regulus, Basiliscus, Calb eleced — the Heart, Regulus, the Basilisk, Calb eleced	24° 7′	0° 10′ B	1	24° 34′	0° 26′. B	1	♂ ♃

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
208	In drace sinistra priori — in the left *drace*[57], the earlier one	24° 7′ ♌	1° 15′ A	4	24° 3′ ♌	1° 55′ A	4	
209	♌ In pectore Australior — in the Lion's breast, the more southern	25° 7′	1° 50′ A	4	25° 7′	1° 25′. A	5	♄ ♀ &

[57]so printed; the word does not construe as Latin

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
210	Sinistra axilla — the left armpit	0° 47′ ♍	10′ A	4	1° 5′ ♍	0° 8′ B	4	P. ☿ *(the two-line note ♄ ♀ & / P. ☿ is set once, across rows 209–210)*
211	Informis sub ventre — an unformed star below the belly	8° 7′	1° 10′ B	4	9° 15′	1° 20′. B	4	
212	In posteriori femore ♌ — in the Lion's hind thigh	11° 57′	5° 50′ B	3	12° 15′	6° 7′ B	3	
213	♌ Poples posterior — the hind hollow of the knee	13° 17′	1° 15′ B	4	13° 25′	1° 40′ B	4	♀ P. ☿
214	♌ Sub cubitis, Tychoni media in pede — below the elbows; for Tycho Brahe, the middle star in the foot	13° 17′	0° 50′ A	4	16° 14′	0° 33′ A	4	☿ P. ♂
215	In extremo alæ sinistræ ♍ — at the tip of the Maiden's left wing	20° 37′	0° 10′ B	3	21° 49′	0° 43′ B	3	
216	♍ ex 4 alæ sinistræ — Prima — of the 4 of the Maiden's left wing: the first	29° 47′	1° 10′ B	3	29° 33′	1° 25′ B	4	
217	♍ ex 4 alæ sinistræ — Secunda — the second	4° 47′ ♎	0° 50′ B	3	4° 52′ ♎	0° 50′ B	3	☿ P. ♀
218	♍ ex 4 alæ sinistræ — Tertia — the third	8° 47′	2° 50′ B	5	9° 45′	2° 23′. B	6	
219	♍ ex 4 alæ sinistræ — Quarta — the fourth	12° 37′	1° 40′ B	4	12° 54′	1° 45′ B	4	
220	Spica, Arista, AZimech, in sinistra manu — Spica, the Ear of Corn, AZimech, in the left hand	18° 17′	2° 0′ A	1	18° 33′	1° 59′ A	1	♀ P. ♂
221	♍ In quadrilatero sinistri femoris — in the quadrilateral of the left thigh	21° 37′	1° 30′ B	4	21° 26′	1° 45′. B	6	
222	♍ In Syrmate seu fimbria — Media — in the train, that is the hem: the middle one	28° 17′	7° 30′ B	4	28° 26′	7° 18′. B	4	☿ Par.
223	♍ In Syrmate seu fimbria — Austrina — the southern	28° 57′	2° 40′ B	4	29° 6′	2° 57′. B	4	♀ & ♂
224	♍ Sinister seu Austrinus pes — the left, that is southern, foot	1° 37′ ♏	0° 30′ B	4	1° 39′ ♏	0° 31′. B	4	
225	Lucida — Lancis Australis — the bright star of the southern scale-pan	9° 37′	0° 40′ B	2	9° 48′	0° 26′ B	2	♄ P. ♂
226	Præcedens — Lancis Australis — the preceding star of the southern scale-pan	12° 57′	1° 15′ B	4	12° 43′	1° 14′ B	5	
227	Præcedentium trium sub Austrina lance — of the three preceding stars below the southern scale-pan	14° 37′	7° 30′ A	3	15° 44′	7° 37′ A	3	
228	In medio — Austrinæ — lancis, Tychoni sunt in eadem — in the middle of the southern scale-pan; for Tycho Brahe they are in the same pan	15° 37′	1° 40′ B	4	16° 36′	2° 58′. B	6	

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
229	In medio — Boreæ — lancis, Tychoni sunt in eadem — in the middle of the northern scale-pan	19° 7′	3° 45′ B	4	19° 50′	4° 28′ B	3	♄ P. ♂
230	Informis inter lances Borea — an unformed star between the scale-pans, the northern	21° 57′	2° 0′ B	4	22° 5′	4° 4′ B	4	
231	Sequens in lance Borea Tychoni informis — the following star in the northern pan; for Tycho Brahe an unformed star	24° 37′	4° 30′ B	4	24° 31′	3° 33′ B	4	♃ ☿
232	Informis supra lancem Boream — an unformed star above the northern pan	25° 17′	6° 40′ B	4	25° 5′	6° 10′ B	4	♄ P. ♂
233	Scorpii trium lucentium in fronte — Media — of the three shining stars in the Scorpion's forehead: the middle one	27° 17′	1° 40′ A	3	27° 16′	1° 54′. A	3	
234	Scorpii trium lucentium in fronte — Australis — the southern	27° 17′	5° 0′ A	3	27° 42′	5° 22′. A	3	
235	In pede ♏ ad Austrum — in the Scorpion's foot, towards the south	27° 37′	7° 50′ A	3	28° 0′	8° 27′. A	4	♂ P. ♄
236	♏ trium lucentium in fronte Borealis — of the three shining stars in the Scorpion's forehead, the northern	27° 57′	1° 20′ B	3	27° 51′	1° 5′ B	2	
237	Duarum coniunctarum in ♏ — Borea — of the two joined stars in the Scorpion: the northern	28° 37′	1° 40′ B	4	29° 20′	1° 42′ B	4	
238	Duarum coniunctarum in ♏ — Australis — the southern	28° 57′	0° 30′ B	4	28° 7′	0° 14′ B	5	
239	In cavo sinistri pedis Ophiuchi — in the hollow of the Serpent-bearer's left foot	2° 17′ ♐	0° 45′ B	4	--	--	-	♄ P. ♀
240	Lucentium in corpore ♏ — Præcedens — of the shining stars in the Scorpion's body: the preceding	2° 17′	3° 45′ A	3	2° 28′ ♐	3° 55′ A	4	
241	Lucentium in corpore ♏ — Media seu Cor, Antares — the middle one, that is the Heart, Antares	4° 17′	4° 0′ A	2	4° 30′	4° 27′ A	1	♂ & ♃
242	Lucentium in corpore ♏ — Sequens — the following	6° 7′	5° 30′ A	3	6° 10′	5° 50′ A	4	
243	Ophiuchi — in genu dextro — of the Serpent-bearer: in the right knee	12° 47′	7° 30′ B	3	12° 41′	7° 18′ B	3	
244	Ophiuchi — In pede dextro præcedens ex 4 — in the right foot, the preceding of the 4	14° 37′	2° 15′ B	4	--	--	-	♄ P. ♀
245	Ophiuchi — In dextra tibia — in the right shin	15° 17′	2° 15′ B	3	14° 40′	2° 12′ B	3	

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
246	Ophiuchi in calce dextri pedis secundum Tychonem — of the Serpent-bearer, in the heel of the right foot, according to Tycho Brahe	--	--	-	17° 17′	6° 15′ A	4	
247	Ex 4 pedis dextri Ophiuchi — Sequens — of the 4 of the Serpent-bearer's right foot: the following	15° 57′	1° 30′ B	4	--	--	-	
248	Ex 4 pedis dextri Ophiuchi — Tertia sequens — the third following	16° 37′	0° 20′ B	4	--	--	-	♄ ♀
249	Ex 4 pedis dextri Ophiuchi — Reliqua sequens — the remaining following one	17° 27′	0° 45′ B	5	--	--	-	
250	Sagittarii — Cuspis sagittæ — of the Archer: the point of the arrow	26° 7′	6° 30′ A	3	--	--	-	♂ ☽
251	Sagittarii — Borealior in extremitate arcus — the more northern at the end of the bow	28° 17′	2° 50′ B	4	27° 58′	2° 27′. B	4	♃ ♂

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
252	Manubrium sinistræ manus — the grip in the left hand	29° 17′	6° 30′ A	3	--	--	-	
253	Australior Sept : partis arcus — the more southern of the northern part of the bow	0° 37′ ♍	1° 30′ A	3	1° 4′ ♍	2° 0′ A	4	♃ ♂
254	Sagittarii — Iaculum — of the Archer: the javelin	4° 37′	3° 50′ A	4	4° 57′	3° 50′ A	5	
255	Oculi nebulosa duplex — the double nebulous star of the eye	6° 47′	0° 45′ B	N.	--	--	-	☉ ♂
256	Humerus sinister — the left shoulder	6° 57′	3° 10′ A	3	7° 8′	3° 31′ A	4	♃ ♂
257	Sagittarii trium capitis antecedens — of the Archer: the leading one of the three of the head	7° 17′	2° 10′ B	4	8° 13′	1° 44′. B	4	☉ ♂
258	Axilla — the armpit	7° 57′	6° 45′ A	3	--	--	-	♃ ♄
259	Media trium capitis — the middle of the three of the head	9° 17′	1° 30′ B	4	9° 45′	0° 59′ B	4	☉ ♂
260	Sagittarii — Media in armo — of the Archer: the middle one on the shoulder	9° 17′	4° 30′ A	4	--	--	-	
261	Sequens trium capitis — the following of the three of the head	10° 47′	2° 0′ B	4	11° 0′	1° 31′ B	4	
262	In contactu trium — Australior — of the three in contact: the more southern	12° 57′	2° 50′ B	4	13° 1′	3° 6′. B	4	♃ ☿

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
263	In contactu trium — Media — the middle	13° 57′	4° 30′ B	4	14° 11′	4° 17′ B	4	
264	In contactu trium — Sequens & Borea — the following and northern	14° 27′	6° 30′ B	4	14° 28′	6° 9′. B	4	
265	Borealis præcedens — the northern preceding star	28° 57′	7° 30′ B	3	28° 35′	7° 2′. B	3	
266	In ♑ præcedente cornu — Australis — in Capricorn's preceding horn: the southern	28° 57′	5° 0′ B	3	28° 48′	4° 41′ B	3	♀ P. ♂
267	In ♑ præcedente cornu — Media — the middle	29° 17′ ♒	6° 40′ B	6	29° 8′	6° 53′ B	6	
268	Ex tribus in ricta ♑ — Præcedens — of the three in Capricorn's [?][58]: the preceding	0° 17′	1° 45′ B	6	29° 50′	1° 20′ B	6	♄ P. ♀
269	Ex tribus in ricta ♑ — Media — the middle	0° 27′	1° 30′ B	6	29° 58′	1° 28′ B	N.	
270	Ex tribus in ricta ♑ — Sequens — the following	0° 37′	0° 45′ B	6	--	--	-	
271	In dextro genu ♑ — in Capricorn's right knee	2° 27′	6° 30′ A	4	2° 4′ ♒	6° 58′ A	6	♂ ☿
272	Sub sinistra manu ♒ sequens — below Aquarius' left hand, the following	8° 17′	5° 30′ B	3	11° 8′	4° 50′ B	5	♄ ☿
273	♑ — Sinister humerus — Capricorn's left shoulder	8° 17′	7° 40′ A	4	6° 30′	8° 8′ A	6	
274	♑ — In dorso antecedens — on the back, the leading one	8° 17′	0° 0′	4	8° 38′	0° 29′ A	5	♂ ☿
275	Contignarum sub ventre ♑ prior. — the earlier of those [?][59] below Capricorn's belly	11° 47′	6° 50′ A	4	11° 41′	6° 56′ A	5	
276	In dorso sequens — on the back, the following	12° 37′	0° 50′ A	4	12° 24′	1° 16′. A	5	♂ ☿
277	In Australi spina — Antecedens — on the southern spine: the leading	14° 57′	4° 45′ A	4	14° 42′	4° 48′ A	4	
278	In Australi spina — Sequens — the following	16° 37′	4° 30′ A	4	16° 23′	4° 49′ A	5	
279	Capricorni — In eductione caudæ — Præcedens — of Capricorn: at the springing of the tail, the preceding	16° 57′	2° 10′ A	3	16° 31′	2° 26′ A	3	♄ ♃
280	Capricorni — In eductione caudæ — Sequens — the following	17° 57′	2° 0′ A	3	18° 17′	2° 29′ A	3	
281	Præcedens in Borea parte caudæ — the preceding star in the northern part of the tail	18° 27′	2° 20′ B	4	18° 31′	2° 22′ B	5	
282	In sinistra clune ♒ Australis — on Aquarius' left haunch, the southern	23° 17′	1° 40′ A	4	23° 30′	2° 0′ A	4	
283	Prior — duarum in dextra Cotyla ♒ — the earlier of the two in Aquarius' right hip-socket	27° 47′	3° 0′ B	4	28° 2′	2° 46′ B	4	☿ P. ♄

[58] the page prints ricta, which does not construe
[59] the page prints Contignarum, which does not construe

#	Nomina stellarum intra latitudinem Zodiaci constitutarum	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
284	Sequens — duarum in dextra Cotyla ♒ — the following	28° 37′	2° 10′ B	5	28° 48′	2° 29′. B	6	
285	In dextra clune seu femore ♒ — on Aquarius' right haunch, that is the thigh	0° 17′ ♓	0° 50′ A	4	0° 10′ ♓	1° 10′ A	5	
286	In profusione aquæ ♒ Prima — in the outpouring of Aquarius' water: the first	1° 37′	2° 0′ B	4	4° 9′	4° 8′. B	4	♄ P. ♃
287	Dextra tibia ♒ — Borea — Aquarius' right shin: the northern	2° 57′	5° 0′ A	4	3° 22′	5° 37′ A	5	☿ P. ♄
288	Dextra tibia ♒ — Australis Scheat — the southern, Scheat	3° 17′	7° 30′ A	3	3° 39′	8° 10′ A	3	
289	In profusione aquæ ♒ sequens Australis — in the outpouring of Aquarius' water, the following southern one	6° 27′	2° 10′ A	4	6° 21′	0° 19′. A	4	♄ P. ♃
290	In primo flexu aquæ ♒ — at the first bend of Aquarius' water	9° 17′	1° 10′ A	4	9° 17′	1° 24′ A	6	♄ P ♃
291	Sequentium duarum in flexu aquæ — Borealior — of the two following in the bend of the water: the more northern	10° 47′	3° 20′ A	4	11° 0′	3° 58′. A	5	
292	Sequentium duarum in flexu aquæ — Australior — the more southern	11° 7′	4° 10′ A	4	11° 28′	4° 10′. A	5	

#	Nomina stellarum intra latitudinem Zodiaci constitutarum.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Tycho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
293	Sequens primam in primo flexu aquæ ♒ — the one following the first at the first bend of Aquarius' water	11° 37′	0° 30′ A	4	11° 55′	1° 0′ A	5	♄ P. ♃
294	In flexu altero Australi aquæ — at the other, southern bend of the water	12° 7′	1° 40′ A	4	11° 50′	2° 49′ A	5	
295	Australis in occipite præcedentis ♓ — the southern star on the back of the head of the preceding Fish	15° 47′	7° 30′ B	4	16° 6′	7° 17′. B	4	☿ P. ♄
296	In ventre ♓ antecedentis — Præcedens — in the belly of the leading Fish: the preceding	17° 37′	4° 30′ B	4	17° 38′	4° 27′ B	5	
297	In ventre ♓ antecedentis — Sequens — the following	21° 17′	1° 40′ B	4	21° 22′	3° 25′ B	5	♃ ☿
298	Sequens in dorso antecedentis ♓ — the following star on the back of the leading Fish	22° 17′	7° 30′ B	4	22° 13′	7° 13′. B	5	
299	Informium circa ♓ — Prima — of the unformed stars around the Fishes: the first	22° 17′	5° 50′ A	4	--	--	-	
300	Informium circa ♓ — Secunda — the second	22° 47′	3° 40′ A	4	--	--	-	
301	Informium circa ♓ — Tertia — the third	23° 57′	5° 20′ A	4	--	--	-	♃ P. ♀

#	Nomina stellarum intra latitudinem Zodiaci constitutarum.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Tycho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
302	Informium circa ♓ — Quarta — the fourth	24° 2′	2° 30′ A	4	--	--	-	
303	Cauda antecedentis ♓ — the tail of the leading Fish	27° 37′	6° 20′ B	4	27° 19′	6° 23′. B	5	♄ P. ☿

Canon præcipuarum stellarum Australium extra latitudinem Zodiaci 8 graduum versus Meridiem positarum.

Canon of the principal southern stars set outside the Zodiac's latitude of 8 degrees, towards the south.

#	Nomina stellarum	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
304	Ad Ceti caudam duarum — Præced. Tych. in dorso Occid. — of the two at the Whale's tail: the preceding; for Tycho Brahe, on the back, western	6° 37′ ♈	15° 40′	3	6° 28′ ♈	16° 55′	3	
305	Ad Ceti caudam duarum — Sequens Oriental. — the following, eastern	11° 17′	15° 20′	3	10° 59′	15° 46′.	3	♄
306	Ceti trium in corpore — Media — of the three in the Whale's body: the middle	13° 37′	25° 20′	3	12° 42′	25° 1′	4	
307	Ceti trium in corpore — Australis — the southern	14° 37′	30° 30′	4	14° 7′	31° 4′	4	
308	Ceti trium in corpore — Borea, Venter, Baten Kaiton — the northern, the Belly, Baten Kaiton	16° 37′	20° 0′	3	16° 42′	20° 19′	3	♄
309	✳ Extrema Eridani, Acarnar — the outermost star of Eridanus, Acarnar	21° 47′	53° 30′	1	--	--	-	♀ ♃
310	In nexu amborum linorum ♓ — at the knot of both cords of the Fishes	24° 7′	8° 30′	3	24° 4′	9° 4′.	3	♃ P. ☿
311	Borealis in pectore Ceti — the northern star in the Whale's breast	28° 17′	25° 10′	4	28° 4′	25° 58′	3	♄
312	Australis in eodem pectore — the southern in the same breast	28° 37′	27° 30′	3	28° 28′	29° 16′.	4	
313	Ceti præcedens trium in gena — of the Whale: the preceding of the three on the cheek	2° 7′ ♉	14° 0′	3	2° 19′ ♉	14° 32′	3	♄
314	Ex 4 fluvii præcedens Cete contigua — of the 4 of the River, the preceding, adjoining the Whale	3° 47′	23° 30′	3	3° 27′	24° 34′	3	
315	Medium oris Ceti — the middle of the Whale's mouth	4° 17′	11° 30′	3	4° 10′	12° 2′.	3	♄
316	Ex 4 fluvii Eridani sequens Tychoni tertia — of the 4 of the river Eridanus, the following; for Tycho Brahe the third	8° 47′	25° 30′	3	8° 33′	25° 59′	3	

#	Nomina stellarum	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
317	Extrema mandibula Ceti, lucida Tychoni dicta — the end of the Whale's jaw; called the bright one by Tycho Brahe	9° 17′	11° 20′	3	9° 4′	12° 37′	2	♄
318	Ex 4 sequen. post interval. fluvii præced. omnes — of the 4 following after the interval of the River, preceding them all	13° 47′	28° 0′	3	13° 2′	27° 47′	3	
319	Ex iisdem tertio præced. — of the same, the third preceding	15° 47′	28° 50′	3	15° 24′	28° 46′.	3	♄
320	Ex 4 in sectione ♉ Australi — Quarta Austrina — of the 4 in the southern section of the Bull: the fourth, southern	16° 7′	9° 15′	4	15° 52′	9° 22′.	4	
321	Ex 4 in sectione ♉ Australi — Tertia — the third	16° 17′	8° 30′	4	16° 35′	8° 49′.	4	♀ P. ♄
322	post intervallum fluvii ex 4 sequent : — Præcedens — after the interval of the River, of the 4 following: the preceding	16° 17′	31° 0′	4	15° 39′	31° 9′	4	♄
323	post intervallum fluvii ex 4 sequent : — Maxime sequens — the furthest following	18° 37′	32° 50′	4	18° 35′	33° 13′.	3	
324	In pectore ♉ — in the Bull's breast	25° 17′	8° 0′	3	25° 18′	8° 3′	4	♂ ☽
325	Clipei Orionis — Sexta — of Orion's shield: the sixth	6° 7′ ♊	15° 50′	3	6° 40′ ♊	15° 27′	4	
326	Clipei Orionis — Septima — the seventh	6° 27′	17° 10′	3	6° 50′	16° 50′	4	♃ ♄
327	Clipei Orionis — Octava — the eighth	6° 57′	20° 20′	3	7° 15′	20° 2′	4	
328	Clipei Orionis — Ultima Australis — the last, southern	7° 57′	21° 30′	3	8° 14′	20° 55′.	4	

#	Nomina stellarum Australium extra latitudinem zodiaci existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
329	Orionis — Sinister pes, Rigel Algeuze — of Orion: the left foot, Rigel Algeuze	10° 47′	31° 30′	1	11° 34′	31° 11′.	1	♃ ♄
330	Orionis — Humerus sinister, Bellatrix — the left shoulder, Bellatrix	11° 57′	17° 30′	2	15° 40′	16° 53′	2	♂ ☿
331	In manubrio ensis Orionis — on the hilt of Orion's sword	15° 27′	25° 50′	3	14° 54′	25° 36′	3	♃ ♄
332	Sub alvo seu ventre leporis — beneath the Hare's paunch, that is its belly	16° 27′	44° 20′	3	14° 23′	43° 57′.	3	♄ ☿
333	Cinguli seu Balthei Orionis prætedens trium fulgentium — of Orion's girdle, that is his belt: the leading of the three bright ones	16° 57′	24° 10′	2	17° 7′	23° 38′	2	♃ ♄
334	Leporis in medio corpore — in the middle of the Hare's body	17° 7′	41° 30′	3	16° 6′	41° 5′.	3	☿

#	Nomina stellarum Australium extra latitudinem zodiaci existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
335	Informium lucidar. circa Canem præced. quæ & Columbæ (Noe est — of the bright unformed stars around the Dog, the preceding, which also belongs to the Dove of Noah [Noe][60]	17° 37′	57° 40′	2	--	--	-	
336	In ense Orionis trium — Media — of the three in Orion's sword: the middle	18° 17′	29° 30′	3	17° 41′	28° 45′	3	♃ ♄
337	In ense Orionis trium — Borealis — the northern	18° 27′	28° 40′	4	17° 45′	28° 9′.	5	♃ ♄
338	In ense Orionis trium — Australis — the southern	18° 37′	29° 50′	3	17° 44′	29° 17′	3	
339	Orionis in cap. neb. Tycho tres facit — Occidentalem — in Orion's head, nebulous; Tycho Brahe makes three of it: the western	--	--	-	18° 23′	13° 54′	5	
340	Orionis in cap. neb. Tycho tres facit — Supremam — the highest	18° 37′	16° 30′	N.	18° 28′	13° 26′	4	♃ ♄
341	Orionis in cap. neb. Tycho tres facit — Ad ortum — the one towards the rising	--	--	-	18° 50′	14° 4′.	5	
342	Cinguli Orionis media trium fulgentium — of Orion's girdle: the middle of the three bright ones	18° 57′	24° 50′	2	18° 11′	24° 33′	2	
343	Inform. lucid. circa Can. seq. quæ in pect. Columb. ad alã est — of the bright unformed stars around the Dog, the following, which is in the Dove's breast, by the wing	20° 37′	59° 40′	2	--	--	-	♀
344	Cinguli seu Balthei Orionis tertia sequens — of Orion's girdle, that is his belt: the third, following	20° 57′	25° 30′	2	19° 23′	25° 21′.	2	♃ ♄
345	Orionis — Dextrum genu — of Orion: the right knee	21° 47′	33° 30′	3	21° 6′	33° 8′	3	♃ ♄
346	Orionis — ✳ Humeri dextri rubescens — the reddening star of the right shoulder	23° 37′	17° 0′	1	23° 29′	16° 6′	2	♂ ☿
347	In extremo dextri pedis Canis — at the tip of the Dog's right foot	1° 17′ ♋	55° 40′	3	1° 24′ ♋	51° 24′.	3	♀
348	In extremo pedis prioris Canis — at the tip of the Dog's forefoot	2° 37′	41° 20′	3	1° 59′	41° 18′.	2	
349	✳ Canobus in Argo Navi — Canopus, in the Ship Argo	8° 47′	75° 0′	1	--	--	-	♄ ♃
350	✳ Canis maior, Canicula, Sirius, Alhabor — the Greater Dog, the Dog-star, Sirius, Alhabor	9° 17′	39° 10′	1	8° 52′	39° 30′	1	♃ ♂
351	In temone Boreo Argo navis sequens — on the northern tiller of the Ship Argo, the following	11° 47′	65° 40′	3	--	--	-	♄ ♃
352	Canis maioris — Sub ventre inter femora — of the Greater Dog: beneath the belly, between the thighs	15° 17′	51° 40′	3	15° 38′	51° 24′.	3	♀
353	Canis maioris — Eductio femoris sinistri — the springing of the left thigh	18° 17′	48° 45′	3	18° 12′	48° 30′	3	
354	Reliqua sequens in temone Navis — the remaining following star on the Ship's tiller	20° 37′	71° 50′	3	--	--	-	♄ ♃
355	Canis minor, Procyon, Algomeisa — the Lesser Dog, Procyon, Algomeisa	20° 47′	16° 10′	1	20° 35′	15° 57′	2	☿ P. ♂

[60] the last three words are set on the next line, after an opening parenthesis that is not closed

#	Nomina stellarum Australium extra latitudinem zodiaci existentium	Long. (Coper-ni-cus)	Lat. (Coper-ni-cus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
356	Extremitas caudæ Canis maioris — the tip of the Greater Dog's tail	23° 47′ ♋	50° 30′	3	24° 28′ ♋	51° 24′.	3	☿
357	Argo navis in carina puppis Australis — of the Ship Argo: on the keel, the southern star of the stern	25° 37′ ♋	58° 30′	3	--	--	-	♄ ♃
358	In medio scuti Argi fulgens Markeb — shining in the middle of Argo's shield, Markeb	27° 57′ ♋	47° 15′	4	--	--	-	
359	Informis circa caput hydræ — an unformed star around the Water-snake's head	4° 7′ ♌	23° 15′	3	5° 2′ ♌	22° 27′	4	♄ ♀
360	Argo navis — Sequens duarum in extremo — of the Ship Argo: the following of the two at the end	5° 57′ ♌	43° 20′	3	--	--	-	
361	Argo navis — Sub tertia quæ sequitur scutum — below the third, which follows the shield	6° 47′ ♌	54° 30′	2	--	--	-	
362	Argo navis — In sectione instrati — in the section of the decking	9° 7′ ♌	51° 15′	2	--	--	-	♄ ♃
363	Argo navis — Lucida sequens in transtro — the bright following star on the thwart	12° 47′ ♌	58° 20′	2	--	--	-	
364	Argo navis — Lucida sequens in instratione — the bright following star in the decking	21° 37′ ♌	63° 50′	2	--	--	-	
365	Lucida hydræ sive cor, Alphard — the bright star of the Water-snake, that is its heart, Alphard	21° 37′ ♍	30° 30′	2	22° 2′ ♌	22° 24′	1	♄ ♀
366	Argo navis lucida Australis infra Carinam — the bright southern star of the Ship Argo, below the Keel	0° 7′ ♍	69° 40′	2	--	--	-	♄ ♃
367	Informis hydræ, Tychoni quarta á corde — an unformed star of the Water-snake; for Tycho Brahe the fourth from the heart	2° 37′ ♍	26° 0′	3	4° 8′ ♍	21° 25′	4	♄ ♀

#	Nomina stellarum Australium extra latitudinem Zodiaci existentium.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
368	Argo navis sequentium carinam trium anteced. — of the Ship Argo: the leading of the three that follow the keel	6° 47′ ♍	65° 40′	3	--	--	-	♄ ♃
369	Hydræ in recta linea trium præcedens — of the Water-snake: the preceding of the three in a straight line	9° 37′	24° 30′	3	9° 48′ ♍	24° 38′	4	♄ ♀
370	Argo navis sequentium carinam trium media — of the Ship Argo: the middle of the three that follow the keel	12° 57′	65° 50′	3	--	--	-	♄ ♃
371	Hydræ iu recta linea trium sequens — of the Water-snake: the following of the three in a straight line	14° 37′	22° 10′	3	15° 8′	21° 48′.	4	♄ ♀
372	Argo navis sequentium carinam trium sequens — of the Ship Argo: the following of the three that follow the keel	17° 37′	65° 50′	2	--	--	-	♄ ♃

#	Nomina stellarum Australium extra latitudinem Zodiaci existentium.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
373	In base Crateris hydræ communis — at the base of the Cup, a star shared with the Water-snake	17° 57′	23° 0′	4	18° 30′	22° 41′	4	♀ P. ☿
374	Sequent. in Argo navi ad sectionem — Præcedens — of those following in the Ship Argo, at the section: the preceding	22° 37′	62° 50′	3	--	--	-	♄ ♃
375	Sequent. in Argo navi ad sectionem — Sequens — the following	29° 37′	62° 15′	3	--	--	-	
376	Corvi — Oculus — of the Crow: the eye	5° 57′ ♎	19° 40′	3	6° 25′ ♎	19° 39′	4	♄ ♂
377	Corvi — Rostrum hydræ communis stella — the beak, a star shared with the Water-snake	6° 57′	21° 30′	3	6° 55′	21° 46′	4	
378	Hydræ antepenultima — the last but two of the Water-snake	7° 47′	31° 40′	3	--	--	-	♄ ♀
379	Corvi — Alæ sinistræ Antecedens — of the Crow: the leading star of the left wing	8° 17′	12° 30′	3	8° 12′	12° 7′	3	♄ ♂
380	Corvi — Ala dextra Algorab — the right wing, Algorab	9° 7′	14° 50′	3	5° 30′	14° 25′	3	
381	Corvi — Extremus pes communis hydræ — the end of the foot, shared with the Water-snake	12° 7′	18° 10′	3	12° 6′	17° 59′	3	
382	Centauri — In dextro femore — of the Centaur: on the right thigh	24° 17′	46° 10′	2	--	--	-	♃ ♀
383	Centauri — In lumbis trium sequens — the following of the three on the loins	27° 27′	40° 0′	3	--	--	-	
384	Centauri — Humerus sinister præcedens — the left shoulder, the preceding	27° 47′	25° 40′	3	--	--	-	♀ ☿
385	Centauri — ✳ In summo pede dextro priori — at the top of the right forefoot	29° 57′ ♏	41° 10′	1	--	--	-	
386	Centauri — Poples dextri pedis — the hough of the right foot	1° 37′	51° 10′	2	--	--	-	♃ ♀
387	Centauri — Sub dextro pede posteriori — beneath the right hind foot	6° 17′	49° 10′	3	--	--	-	
388	Centauri — Talus — the ankle	6° 57′	51° 40′	2	--	--	-	
389	Centauri — Humerus dexter — the right shoulder	7° 17′	22° 30′	3	--	--	-	♀ ☿
390	Centauri — Sub alvo — Præcedens — beneath the belly: the preceding	8° 7′	43° 0′	2	--	--	-	
391	Centauri — Sub alvo — Sequens — the following	9° 17′	43° 45′	3	--	--	-	♃ ♀
392	Centauri — Lucens in eductione corporis humani — the bright star at the springing of the human body	9° 37′	33° 30′	3	--	--	-	♀ ☿ ♂
393	Centauri — Cubitus dexter — the right elbow	14° 27′	25° 15′	3	--	--	-	
394	Centauri — Sinistrum genu — the left knee	15° 47′	45° 20′	2	--	--	-	♃ ♀
395	Bestiæ seu lupi — in poplite pedis posterioris — of the Beast, that is the Wolf: on the hough of the hind foot	17° 27′	20° 10′	3	--	--	-	

#	Nomina stellarum Australium extra latitudinem Zodiaci existentium.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
396	Bestiæ seu lupi — in summo eiusdem pedis — at the top of the same foot	19° 37′	40° 50′	3	--	--	-	♄ P. ♂
397	Scorpii. — In primo spondylo — of the Scorpion: on the first vertebra	10° 7′ ♐	11° 0′	3	--	--	-	
398	Scorpii. — Austrina duplex tertii Spondyli — the southern double star of the third vertebra	11° 47′	18° 0′	3	--	--	-	
399	Scorpii. — Quartus Spondylus — the fourth vertebra	14° 47′	19° 30′	3	--	--	-	♄ P. ♀
400	Scorpii — Aculeus seu cauda — of the Scorpion: the sting, that is the tail	19° 7′	13° 20′	3	--	--	-	☿ ♂
401	Scorpii — Quintus Spondylus — the fifth vertebra	19° 47′	18° 50′	3	--	--	-	
402	Scorpii — Septimus Spondylus proximus aculeo — the seventh vertebra, next to the sting	20° 37′	15° 10′	3	--	--	-	♄ P. ♀
403	Scorpii — Sextus Spondylus — the sixth vertebra	22° 7′	16° 40′	3	--	--	-	
404	Scorpii — Nebulosa sequens aculeum — the nebulous star following the sting	22° 47′	13° 15′	N.	--	--	-	♂ ☽
405	In Australi parte arcus — in the southern part of the bow	29° 37′	10° 50′	3	--	--	-	♃ ♂
406	♐ In priori dextra suffragine — in the right fore hough	8° 17′ ♑	13° 0′	3	--	--	-	

#	Nomina stellarum Australium extra latitudinem zodiaci constitutarum.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
407	In genu cruris sinistri — on the knee of the left leg	8° 37′ ♑	18° 0′	2	--	--	-	
408	♐ In suffragine sinistra priore — in the left fore hough	9° 17′	23° 0′	2	--	--	-	♄ ♃
409	In dextro genu anteriore — on the right fore knee	18° 17′	20° 10′	3	--	--	-	
410	Sinistrum femur — the left thigh	18° 57′	13° 30′	3	--	--	-	
411	Lucidarum præcedent: piscem Austrinum — Prior — of the bright stars preceding the Southern Fish: the earlier	29° 37′ ♒	22° 20′	3	--	--	-	
412	Lucidarum præcedent: piscem Austrinum — Media — the middle	2° 47′	22° 10′	3	--	--	-	♄
413	Lucidarum præcedent: piscem Austrinum — Sequens — the following	5° 37′	21° 20′	3	♒	--	-	
414	Ultima fusionis aquæ ♒ Fomahaud — the last star of Aquarius' outpouring of water, Fomahaud	28° 37′ ♓	23° 0′	1	28° 28′ ♓	21° 0′	1	♀ ☿

#	Nomina stellarum Australium extra latitudinem zodiaci constitutarum.	Long. (Coper-nicus)	Lat. (Coper-nicus)	Magn.	Long. (Ty-cho Brahe)	Lat. (Ty-cho Brahe)	Magn.	Natura
415	Ceti in extremitate Caudæ — Septentrionali — of the Whale, at the tip of the tail: the northern	25° 57′	9° 30′	3	25° 40′	10° 1′	3	♄
416	Ceti in extremitate Caudæ — Australi — the southern	27° 17′	20° 20′	3	27° 13′	20° 47′	2	

Caput VI.

DE DECLINATIONE ET ASCENSIONE RECTA ECLIPTICAE, ET STELLARUM tam errantium quam fixarum; Item de cœli mediationibus.

Chapter VI. On the declination and right ascension of the ecliptic, and of the stars both wandering and fixed; also on the culminations.

The standard and rule of the daily motion from east to west — the motion we observe in the heavenly bodies, and which arises from the earth's daily rotation, as I pointed out above in chapter 2, in the doctrine of the motions — is the equator. [Margin: The equator is the standard of the daily motion; and so the stars too must be referred to it.] It is therefore not enough for us to know how the stars are placed in a definite longitude of the Zodiac, against which, as has often been said, we examine the true motions; their disposition relative to the equator is required as well. To grasp that correctly, this chapter will take up first the declinations, then the right ascensions, and third the culminations that are drawn from them.

Now declinations are nothing other than distances from the equator — that is, the arcs of the circles of declination which are intercepted between given points of the heaven and the equator. [Margin: What declination is.] For just as in the heaven we count latitudes from the ecliptic, so we count declinations from the equator, either towards the north or towards the south. The Zodiac is bent obliquely to the equator and is the royal road of all the planets; and by reason of its declinations the planets at one time approach our zenith and at another withdraw further from it. The simplest declination is the one produced by the middle of the Zodiac, that is the ecliptic, the path of the Sun. We shall therefore proceed in order. First we shall consider what the declination of the degrees of the ecliptic from the equator is, since it is presupposed as a foundation in investigating the other declinations; and after that, what the declination is of the other stars set outside the ecliptic. For Tycho Brahe the greatest declination of the ecliptic at this time is 23° 31′ 30″, which the first table serves; [Margin: What the greatest declination of the ecliptic is according to Tycho Brahe.] for Reinhold and Copernicus, following precept 13 of the Prutenic Tables, it is about 23° 28′, which the second table serves.

Canon declinationum Eclipticæ & Solis — Prior Tychonicæ · Posterior Copern. observationi conveniens

Canon of the declinations of the ecliptic and of the Sun. The first, suited to the Tychonic [observation]; the second, agreeing with Copernicus' observation.

Gr : Eclipti :	♈ ♎ (Prior, Tychonic)	☉ ☊ (Prior)	♊ ♐ (Prior)	♈ ♎ (Posterior, Copernican)	☉ ☊ (Poste-rior)	♊ ♐ (Posterior) — Sept. Asc / Mer. Desc.	gr.
0	0° 0′ 0″	11° 30′ 42″	20° 13′ 20″	0° 0′ 0″	11° 29′ 5″	20° 10′ 25″	30
1	0° 23′ 56″	11° 51′ 46″	20° 23′ 33″	0° 25′ 57″	11° 50′ 6″	20° 22′ 57″	29
2	0° 47′ 52″	12° 12′ 39″	20° 38′ 9″	0° 47′ 46″	12° 10′ 56″	20° 35′ 7″	28
3	1° 11′ 48″	12° 33′ 20″	20° 49′ 38″	1° 11′ 39″	12° 31′ 34″	20° 46′ 55″	27
4	1° 35′ 44″	12° 53′ 49″	21° 1′ 25″	2° 35′ 30″ [recte: 1° 35′ 30″]	12° 51′ 59″	20° 58′ 20″	26
5	1° 59′ 37″	13° 14′ 5″	21° 12′ 28″	1° 59′ 20″	13° 12′ 12″	21° 9′ 21″	25
6	2° 23′ 28″	13° 54′ 7″ [recte: 13° 34′ 7″]	21° 23′ 7″	2° 23′ 8″	13° 32′ 12″	21° 19′ 59″	24
7	2° 47′ 17″	13° 53′ 57″	21° 33′ 23″	2° 46′ 54″	13° 51′ 58″	21° 30′ 13″	23
8	3° 11′ 4″	14° 13′ 32″	21° 43′ 13″	3° 10′ 37″	14° 11′ 30″	21° 40′ 3″	22
9	3° 34′ 48″	14° 32′ 53″	21° 52′ 43″	3° 34′ 18″	14° 30′ 48″	21° 49′ 29″	21
10	3° 58′ 28″	14° 51′ 59″	22° 1′ 45″	3° 57′ 54″	14° 49′ 51″	21° 58′ 29″	20
11	4° 22′ 5″	15° 10′ 50″	22° 10′ 28″	4° 21′ 28″	15° 8′ 40″	22° 7′ 6″	19
12	4° 45′ 37″	15° 29′ 26″	22° 18′ 34″	4° 44′ 57″	15° 27′ 13″	22° 15′ 17″	18
13	5° 9′ 5″	15° 47′ 47″	22° 26′ 57″	5° 8′ 22″	15° 45′ 30″	22° 23′ 3″	17
14	5° 32′ 28″	16° 5′ 51″	22° 33′ 44″	5° 31′ 42″	16° 3′ 32″	22° 30′ 24″	16
15	5° 55′ 47″	16° 23′ 39″	22° 40′ 40″	5° 54′ 57″	16° 21′ 17″	22° 37′ 19″	15
16	6° 18′ 59″	16° 41′ 9″	22° 47′ 16″	6° 18′ 6″	16° 38′ 44″	22° 43′ 48″	14
17	6° 42′ 6″	16° 58′ 22″	22° 53′ 19″	6° 41′ 9″	16° 55′ 55″	22° 49′ 50″	13
18	7° 5′ 6″	17° 15′ 18″	22° 58′ 57″	7° 4′ 6″	17° 12′ 48″	22° 55′ 27″	12
19	7° 28′ 0″	17° 31′ 55″	23° 4′ 3″	7° 26′ 57″	17° 29′ 23″	23° 0′ 38″	11
20	7° 50′ 46″	17° 48′ 14″	23° 8′ 47″	7° 49′ 40″	17° 45′ 40″	23° 5′ 22″	10
21	8° 13′ 26″	18° 4′ 15″	23° 13′ 58″	8° 12′ 16″	18° 1′ 39″	23° 9′ 35″	9
22	8° 35′ 58″	18° 19′ 57″	23° 16′ 58″	8° 34′ 45″	18° 17′ 18″	23° 13′ 29″	8
23	8° 58′ 21″	18° 35′ 18″	23° 20′ 28″	8° 57′ 5″	18° 32′ 37″	23° 16′ 53″	7
24	9° 20′ 35″	18° 50′ 21″	23° 23′ 19″	9° 19′ 16″	18° 47′ 38″	23° 19′ 50″	6
25	9° 42′ 41″	19° 5′ 4″	23° 25′ 49″	9° 41′ 19″	19° 2′ 18″	23° 22′ 19″	5
26	10° 4′ 38″	19° 19′ 26″	23° 27′ 51″	10° 3′ 12″	19° 16′ 37″	23° 24′ 22″	4
27	10° 26′ 25″	19° 33′ 27″	23° 29′ 27″	10° 24′ 56″	19° 30′ 36″	23° 25′ 57″	3
28	10° 48′ 2″	19° 47′ 7″	23° 30′ 35″	10° 46′ 30″	19° 44′ 14″	23° 27′ 5″	2
29	11° 9′ 27″	20° 0′ 25″	23° 31′ 17″	11° 7′ 53″	19° 57′ 30″	23° 27′ 46″	1
30	11° 30′ 42″	20° 13′ 22″	23° 31′ 30″	11° 29′ 5″	20° 10′ 25″	23° 28′ 0″	0
Dodeca-temoria	♓ ♍	♒ ♌	♍ ♋	♓ ♍	♒ ♌	♍ ♋ — Mer. As[c.] / Sept. Des.	

So, following what both authorities have handed down, the declination of any point of the ecliptic is found from the appropriate canon, in exactly the way we investigated the Moon's latitude in chapter 4 above. Given a place on the ecliptic — that is, a place of the Sun — consult either the first canon or

the second, according as we wish to know the declination on Tycho Brahe's reckoning or on Copernicus'. If the sign is found at the head of the table, look for the degrees down the left-hand side; if at the foot, look for them up the right-hand side. The cell where the two meet will then give the declination, once the proportional part has been applied in case minutes are attached to the degrees.

[Margin: What it is at the present time, on Copernicus' reckoning.]

[Margin: The way to find the declination from the canon.]

Suppose, for example, that the declination is to be found for 6 January of the reformed calendar, 1595, when at noon the Sun stood at 15° 48′ 31″ ♑, on Tycho Brahe's reckoning. It is taken first at 15° ♑: 22° 40′ 40″. Then, from the difference of 6′ 56″ by which this declination exceeds the next one, at 16° [♑], the proportional part answering to the attached 48′ 31″ works out at 5′ 36″ 22‴ 56⁗, and must be subtracted. So, neglecting the thirds and fourths, the verified declination is 22° 35′ 4″, southern and ascending. In the same way, given the Sun's place by the Prutenic calculation for the time proposed earlier, 15° 17′ 39″ ♑, the second canon yields a declination of 22° 35′ 17″, southern and ascending.

By the doctrine of triangles the computation is carried through by these means. The arc of the ecliptic proposed by the Prutenic calculation, 9 signs 15° 17′ 39″, falls in the fourth quadrant, and so is first counted from the nearest vernal equinox by subtraction from the whole circle of 12 signs, in precisely the manner set out in the doctrine of the Moon's latitude. There remain 2 signs 14° 42′ 21″. Next the right sines of that arc — 74 degrees and the rest — and of the maximum declination, 23° 28′, are looked up; and the sine of the declination proposed is then sought by this proportion. As A B, the quadrant, that is the whole sine, 10000000, is to B C, the sine of the maximum declination, 3982155, so is A E, the sine of the given arc, 9645846, to E D, the sine of the declination that is sought. The sine comes out at 3841125, and from it the declination will be 22° 35′ 19″, southern, ascending.

[Margin: The way to find the declination by the doctrine of triangles, using a proportion.]

Diagram. A figure of intersecting arcs standing in the lower left of the text block, unframed and without a caption. A long arc runs from **A**, at the right, leftwards and slightly downwards to **B**, at the left, passing through **E**. A second, more strongly curved arc runs from **A** up and to the left through **D** and on to **C**, which stands above **B**. A third arc descends from **D** through **E** and continues to **F**, at the foot of the figure. The left side of the figure is closed by a short arc from **C** down to **B**, and a further arc runs from **B** down and to the right to meet **F**.

- A (right-hand extremity, set against the arrowhead-like thickening of the long arc): `A`
- B (left-hand extremity of the long arc): `B`
- C (upper left, above B): `C`
- D (top of the figure, right of C): `D`

• E (centre, at the crossing of the long arc and the descending arc): E
• F (foot of the figure): F

Or, if we should like to know it more expeditiously, by προθαφαίρεσιν [?] *[Greek: prosthaphairesis — addition-and-subtraction]. First, to the complement of the greater given arc of 74° 42′ 21″ — namely 15° 17′ 39″ — let the lesser arc, that is the maximum declination, 23° 28′, be added; and let the right sine of the sum, 38° 45′ 39″, be looked up: 6260709. Then the sine of the difference between that complement and the lesser arc, 8° 10′ 21″, is 1421539; and since the lesser arc exceeds the complement, this is to be added to the former sine. Half the sum 7682248 — that is, 3841124 — gives the right sine of the declination, the same that came out of the earlier operation as well.*

[Margin: By prosthaphairesis.]

The declinations, however, of the stars that lie off the ecliptic — the wandering as well as the fixed — are investigated in the following way, from the general canons, which we have adjusted to the greatest λόξωσιν *[Greek: loxōsis, the obliquity] such as it stands at this time, not only on Copernicus' reckoning but on Tycho Brahe's as well; and this follows precept 2 of the* Tabulae Directionum *of Regiomontanus and precept 13 of Reinhold's tables of the same kind.*

[Margin: On the declinations of the stars.]

First, with the star's true longitude known from the preceding chapter, consult the canon and look up, under the sign and the degree of the longitude, the arc together with the multiplier number,

[Margin: Modus inquirendi stellarum declinationes — The way to find the declinations of the stars.]

Canon declinationum generalis ad obliquitatem Eclipticæ grad. 23 31′ 30″

A general canon of declinations, for an obliquity of the ecliptic of 23° 31′ 30″.

Gra.	Arcus ♈ ♎	Di A	Numer. multipl. ♈ ♎	Diff A	Arcus ♉ ♏	Di A	Numer. multipl. ♉ ♏	Diff A	Arcus ♊ ♐	Di A	Numer. multipl. ♊ ♐	Diff A	gra.
0	0° 0′	26	91688	3	12° 17′	21	93836	129	20° 39′	11	97989	121	30
1	0° 26′	26	91691	8	12° 38′	21	93965	132	20° 50′	11	98111	118	29
2	0° 52′	26	91699	13	12° 59′	21	94097	134	21° 1′	10	98229	115	28
3	1° 18′	26	91712	18	13° 20′	21	94231	135	21° 11′	10	98344	112	27
4	1° 44′	26	91730	24	13° 41′	20	94366	137	21° 21′	10	98456	110	26
5	2° 10′	26	91754	29	14° 1′	20	94503	139	21° 31′	9	98566	107	25
6	2° 36′	26	91783	34	14° 21′	19	94642	140	21° 40′	9	98673	103	24
7	3° 2′	26	91817	39	14° 40′	20	94782	142	21° 49′	9	98776	100	23
8	3° 28′	26	91856	44	15° 0′	19	94924	143	21° 58′	8	98876	96	22
9	3° 54′	25	91900	50	15° 19′	19	95067	144	22° 6′	8	98972	91	21
10	4° 19′	26	91950	55	15° 38′	18	95211	144	22° 14′	8	99063	88	20
11	4° 45′	25	92005	59	15° 56′	18	95355	144	22° 22′	7	99151	85	19
12	5° 10′	25	92064	64	16° 14′	18	95499	145	22° 29′	7	99236	81	18

Gra.	Arcus ♈ ♎	Di A	Numer. multipl. ♈ ♎	Diff A	Arcus ♉ ♏	Di A	Numer. multipl. ♉ ♏	Diff A	Arcus ♊ ♐	Di A	Numer. multipl. ♊ ♐	Diff A	gra.
13	5° 35′	25	92128	68	16° 32′	17	95644	145	22° 36′	6	99317	76	17
14	6° 0′	25	92196	72	16° 49′	17	95789	145	22° 42′	6	99393	71	16
15	6° 25′	25	92268	77	17° 6′	17	95934	145	22° 48′	5	99464	68	15
16	6° 50′	25	92345	82	17° 23′	16	96079	145	22° 53′	5	99532	64	14
17	7° 15′	24	92427	87	17° 39′	16	96224	144	22° 58′	5	99596	59	13
18	7° 39′	25	92514	91	17° 55′	16	96368	143	23° 3′	5	99655	55	12
19	8° 4′	24	92605	95	18° 11′	15	96511	142	23° 8′	4	99710	50	11
20	8° 28′	24	92700	98	18° 26′	15	96653	141	23° 12′	3	99760	45	10
21	8° 52′	23	92798	102	18° 41′	14	96794	140	23° 15′	4	99805	40	9
22	9° 15′	24	92900	105	18° 55′	14	96934	138	23° 19′	3	99845	36	8
23	9° 39′	23	93005	109	19° 9′	14	97072	137	23° 22′	2	99881	31	7
24	10° 2′	23	93114	113	19° 23′	14	97209	135	23° 24′	2	99912	28	6
25	10° 25′	23	93227	116	19° 37′	13	97344	133	23° 26′	2	99940	21	5
26	10° 48′	23	93343	119	19° 50′	13	97477	132	23° 28′	1	99961	17	4
27	11° 11′	22	93462	122	20° 3′	12	97609	128	23° 29′	1	99978	12	3
28	11° 33′	22	93584	125	20° 15′	12	97737	127	23° 30′	1	99990	8	2
29	11° 55′	22	93709	127	20° 27′	12	97864	125	23° 31′	0.	99998	2	1
30	12° 17′		93836		20° 39′		97989		23° 51′.		100000		0
Dodecatemoria	Grad. / Arcus ♍ ♓	Di S	Numer. multipl.	Diff S	Grad. / Arcus ♌ ♒	Di S	Numer. multipl.	Diff S	Grad. / Arcus ♋ Septent : / ♑ Austral.	Di S	Numer. multipl.	Diff S	grad.

Canon declinationum generalis ad obliquitatem Eclipticæ grad. 23 28′

A general canon of declinations, for an obliquity of the ecliptic of 23° 28′.

Gra.	Arcus ♈ ♎	Di A	Numer. multipl. ♈ ♎	Diff A	Arcus ♉ ♏	Di A	Numer. multipl. ♉ ♏	Diff A	Arcus ♊ ♐	Di A	Numer. multipl. ♊ ♐	Diff A	gra.
0	0° 0′	26	91729	3	12° 15′	21	93865	129	20° 36′	11	97998	121	30
1	0° 26′	26	91732	8	12° 36′	21	93994	131	20° 47′	11	98119	118	29
2	0° 52′	26	91740	13	12° 57′	21	94125	133	20° 58′	11	98237	115	28
3	1° 18′	26	91753	18	13° 18′	21	94258	135	21° 9′	10	98352	112	27
4	1° 44′	26	91771	24	13° 39′	20	94393	137	21° 19′	10	98464	110	26
5	2° 10′	26	91795	29	13° 59′	20	94530	138	21° 29′	9	98574	106	25
6	2° 36′	26	91824	33	14° 19′	19	94668	140	21° 38′	9	98680	102	24
7	3° 2′	25	91857	39	14° 38′	20	94808	141	21° 47′	9	98782	99	23
8	3° 27′	26	91896	44	14° 58′	19	94949	142	21° 56′	8	98881	95	22
9	3° 53′	26	91940	49	15° 17′	18	95091	143	22° 4′	8	98976	92	21
10	4° 19′	25	91989	54	15° 35′	19	95234	143	22° 12′	7	99068	88	20
11	4° 44′	25	92043	59	15° 54′	18	95377	144	22° 19′	7	99156	84	19
12	5° 9′	25	92102	63	16° 12′	18	95521	144	22° 26′	7	99240	80	18
13	5° 34′	25	92165	69	16° 30′	17	95665	144	22° 33′	6	99320	76	17

Gra.	Arcus ♈ ♎	Di A	Numer. multipl. ♈ ♎	Diff A	Arcus ♉ ♏	Di A	Numer. multipl. ♉ ♏	Diff A	Arcus ♊ ♐	Di A	Numer. multipl. ♊ ♐	Diff A	gra.
14	5° 59′	25	92234	72	16° 47′	17	95809	145	22° 39′	6	99396	71	16
15	6° 24′	25	92306	77	17° 4′	17	95954	144	22° 45′	5	99467	68	15
16	6° 49′	25	92383	82	17° 21′	16	96098	144	22° 50′	5	99535	63	14
17	7° 14′	24	92465	86	17° 37′	16	96242	143	22° 55′	5	99598	59	13
18	7° 38′	25	92551	90	17° 53′	15	96385	142	23° 0′	5	99657	54	12
19	8° 3′	24	92641	94	18° 8′	16	96527	141	23° 5′	4	99711	50	11
20	8° 27′	24	92735	98	18° 24′	15	96668	141	23° 9′	4	99761	45	10
21	8° 51′	23	92833	101	18° 39′	14	96809	139	23° 13′	3	99806	40	9
22	9° 14′	24	92934	105	18° 53′	14	96948	138	23° 16′	3	99846	36	8
23	9° 38′	23	93039	109	19° 7′	14	97086	136	23° 19′	2	99882	31	7
24	10° 1′	23	93148	112	19° 21′	13	97222	134	23° 21′	2	99913	27	6
25	10° 24′	23	93260	115	19° 34′	13	97356	133	23° 23′	2	99940	21	5
26	10° 47′	22	93375	119	19° 47′	13	97489	131	23° 25′	1	99961	17	4
27	11° 9′	22	93494	121	20° 0′	12	97620	128	23° 26′	1	99978	12	3
28	11° 31′	22	93615	124	20° 12′	12	97748	126	23° 27′	1	99990	8	2
29	11° 53′	22	93739	126	20° 24′	12	97874	124	23° 28′	0	99998	2	1
30	12° 15′		93865		20° 36′		97998		23° 28′		100000		0
Dodecatemoria	Grad. Arcus ♍ ♓	Di S	Numer. multipl.	Diff S	Grad. / Arcus ♌ ♒	Di S	Numer. multipl	Diff S	Grad. / Arcus ♋ Septent : / ♑ Austral.	Di S	Numer. multipl.	Diff S	gra.

[Margin: from the adjoined canons.]

—and with the lateral differences set beside them, by whose help the proportional part can easily be found if need be.

The arc is the segment of the latitude circle intercepted between the equator and the ecliptic; and the multiplier number is the sine of that arc which bounds the angle contained by the equinoctial and the latitude circle.

Next, the star's latitude is to be added to the arc, if the arc and the latitude are of the same denomination. (They are of the same denomination when the star belongs to a northern sign and its latitude is northern as well; or again when the star is referred to a southern sign and the star's own latitude is southern.) But if they are of different denominations, subtract the smaller from the larger. What emerges is the star's distance from the equinoctial, reckoned along that same latitude circle, and this is everywhere called the argument of declination [argumentum declinationis]. The argument is set down as northern if the denomination of the remaining or aggregated arc is northern, and as southern if it is southern. Third, multiply the right sine of the argument into the multiplier number and divide the product by the whole sine, 100000. A right sine emerges, and its arc will show the star's declination as sought, of the same denomination as the argument of declination.

Suppose, for example, that Spica's ♍ declination is to be found on Tycho Brahe's reckoning for the year 1620. In the preceding chapter we found its longitude at 18° 33′ ♎

and its latitude 1° 59′ south. First, then, I look up the arc in the table provided; it comes out at 7° 53′ south, because ♎ is a southern sign, and the multiplier number 92564. Next I add the latitude, 1° 59′, to the arc, since both are of the same denomination. Finally I multiply the right sine of the aggregate, 9° 52′ — that is, 17136 — into the multiplier number and divide the product by the whole sine; the sine 15862 is produced, and its arc, 9° 7′ 37″, shows that Spica's southern declination is just so much at the time proposed. In the same way let Palilicium's declination be sought on Copernicus' calculation for the year of Christ 1620. Its longitude is noted at ♊ *4° 17′, its latitude 5° 10′ south. First let the arc be investigated: 21° 22′, which is northern on account of the sign* ♊*, southern [recte: northern], together with the multiplier number 98495. Next let Palilicium's latitude be subtracted from the arc; and let the sine of the remainder, 16° 12′ — that is, 27899 — be multiplied into the multiplier number and the product divided by the whole sine. The sine 27479 arises, and its arc, 15° 57′, gives Palilicium's northern declination.*

[Margin: The way to find the declinations of the stars from the doctrine of triangles.]

From the doctrine of triangles, by chapter 4 of book 2 of Copernicus' *Revolutions*, with the figure set out beforehand to illustrate the case of Palilicium, the declination is sought from the given longitude and latitude in this way. Let A B C D be the solstitial colure, and B E D the semicircle of the ecliptic, whose poles are O and G; likewise let A E C be the semicircle of the equator, cutting the ecliptic at E, the vernal equinox, and let its poles be F P. Let the eye of ☉ be at H, and through its centre let two circles pass: one of latitude, G H O, cutting the ecliptic at K and the equator at L; the other of declination, F H P, cutting the equator at M and the ecliptic at N. Then E K will be the longitude, H K the latitude, and H N the star's declination. And since in the triangle K E L three things are known — E K, the distance of the star's point K on the ecliptic from the vernal equinox, 64° 17′; the angle E K L, a right angle, which the latitude circle G K O makes with the ecliptic; and likewise K E L, the angle of greatest obliquity, 23° 28′ — the rest will be known by the fourth of Copernicus' spherical [propositions].

[Margin: Prima analogia — The first analogy.]

And first the angle K L E, by this analogy: as the sine of the quadrant G B, 100000, is to the sine of the complement of the star's longitude K B, 25° 43′, namely 43392, so the sine of the greatest declination of the ecliptic — that is, of the distance of the poles G F,

Diagram. An uncaptioned woodcut of the celestial sphere drawn in perspective, occupying the upper left of the leaf beside the first column of text. A bounding circle carries several great circles crossing one another: one passes over the top of the globe and down to the bottom, two others cross it obliquely and meet low on the left, and a further arc runs from the left limb across to the right limb. The labels are set in small roman capitals immediately outside or beside the arcs they mark, and are listed here as they stand on the block, reading clockwise from the top and then inward.

- top of the globe: G
- on the arc just below and to the left of the top: Q
- upper left, on the bounding circle: F
- right limb, upper: C
- left limb, at mid-height: B
- right limb, level with the middle: D
- inside the globe, right of centre: R
- inside the globe, centre, upper left of K: M
- inside the globe, centre: K
- inside the globe, below M and K: H
- far left, on the bounding circle: A
- inside the globe, below H, two letters set close together: L and N
- inside the globe, right of H: E
- low centre, on the bounding circle: P
- lower left, outside the bounding circle: O

—G F, 23° 28′, namely 39822, is to the sine of F Q, whose complement Q R shows the angle Q L R, that is K L E. When the operation is carried through, this comes to 17279, whose arc, 10° 6′ 8″, taken from the quadrant, leaves the angle K L E as 80° 3′ — to which the angle A L O, being κατὰ κορυφὴν [Greek: kata koryphēn, "vertically opposite"], is equal.

[Margin: II]

Second, the side K I [recte: K L], by this analogy: as the sine of the angle A L O, 98496, is to the sine of the complement of the greatest declination O A, 66° 32′, namely 91729, so the whole sine of the right angle L A O, 100000, is to the sine of L O, the complement of the arc K L by which the star's place on the ecliptic stands away from the equator along the latitude circle. From the operation this comes out at 93129, whose arc, 68° 38′ 16″, subtracted from the quadrant, leaves 21° 21′ 44″ — the arc K L, that is. It is set down as northern, since ♊, the sign in which the star stands, is northern too. And because the star's latitude K H is now southern, 5° 10′, I take K H away from the arc K L, and there remains H L, the argument of declination, northern, 16° 11′ 44″.

[Margin: III]

Third, the declination H N is sought by this analogy: as the whole sine of the right angle H N L is to 27893, the sine of H L, the argument of declination, 16° 11′ 44″, so 98496, the sine of the angle H L N found in the first analogy, 80° 3′, is to the sine of the declination H N. From the operation it is found to be 27473. Its arc, therefore, 15° 56′ 45″, will be the sought northern declination of the eye of ♉ — northern, because the argument is northern.

[Margin: Another and shorter way of finding the declinations.]

The ingenious Bartholomäus Pitiscus, in his Trigonometry*, book I, Astronomical Problems, last problem, teaches how to find the declination more compendiously by* προθαφαίρεσιν [?] *[Greek: prothaphairesin[?], "the method of prosthaphaeresis"]. For he takes the triangle H P O, in which these three things are known. I. The side P O, which represents the distance between the poles of the world*

and of the ecliptic, and is equal to the side A B, that is, to the greatest declination, 23° 28′. Second, the side O H, which is the complement of the star's latitude, 84° 50′. III. The angle K O P, which is the complement of the angle K O B — this because it is determined from the side K B, the complement of the star's longitude from the vernal equinox, 25° 43′. H O P will therefore be 154° 17′. Since, then, the two known sides enclose a known angle, the side P H is sought by 4 Ax. 4 of the Trigonometry*, in this way. I. Because the two sides taken together exceed a quadrant, the lesser side P O, 23° 28′, is joined to the greater side O H, 84° 50′, and to its complement, 5° 10′; they make 108° 18′. Next, the sines of this and of the excess of the former over the quadrant, namely 18° 18′, are sought: 47920 and 31396; and half of their sum, 79316, is taken, which is 39658. Third, the sines of the angle H O P, 154° 17′, are investigated: first the whole 90°, 100000; then 64° 17′, which is 90095; and these are put together. Finally the analogy is set up in this way: as 100000 is to 39658, so 190095 is to 75388; and when the former sine, 47920, is taken away, the sine 27468 remains. Its arc, 15° 56′ 35″, is the star's declination sought, differing little from the earlier calculation.*

[Margin: What the ascensions are.]

Ascensions — which are nothing other than arcs or points of the equator that rise above the horizon together with some given arc of the ecliptic, or with a given star or point, in whatever position of the sphere — are established as twofold, by reason of the twofold sphere and horizon, right and oblique: *right ascensions, which belong to a right horizon, and oblique, which belong to an oblique one.*

[Margin: Ascensions are twofold: some of the right sphere, others of the oblique sphere.]

No parallel ascension is spoken of, since in a parallel horizon the equator is made one with the plane of the horizon, and no star or point of the heavens rises by the first or apparent motion; everything rather ascends and descends above and below the horizon — that is, the equator — by its own proper motion alone. Above it, too, the apparent stars or points of the heavens describe either almost exact parallels to the horizon and the equator, as the fixed stars do, or spiral windings, upward toward the zenith or downward toward the horizon, as the wandering stars do. Ascensions, both right and oblique, are either of continuous arcs or of discrete ones. Ascensions of continuous arcs *are those reckoned from the beginning of the zodiac and the equator, that is, from the vernal intersection;* of discrete arcs, *those reckoned from some other starting point. And since the equator, because its ascensions are perpetually alike and equal, is the number and the measure of time, one commonly judges of time from the equator's ascensions and, conversely, of the ascensions from time. For 15 times or degrees of the equator make an hour, and any equal hours require the ascension of 15 times of the equator. The same cannot be judged of the ecliptic's arcs. For since these rise unequally not only in an oblique but also in a right sphere, to mark the difference those are said* to ascend rightly *which rise more slowly — that is, with which a greater portion of the equator ascends than they themselves occupy on the ecliptic; and those* to ascend obliquely *which rise more quickly — that is, with which a lesser*

portion of the equator ascends than they themselves occupy on the ecliptic. Both names are taken from the angles which the ecliptic and the equator make with the horizon: for that portion of the ecliptic which makes a more upright angle with the horizon than the equator does is said to rise rightly, or slowly; and the portion which makes a more slanting angle, obliquely, or quickly.

[Margin: Some ascensions are of continuous arcs, others of discrete arcs.]

[Margin: To ascend rightly is to ascend slowly; obliquely, to ascend quickly.]

But to speak first, in this chapter, of right ascensions, that is, of those that occur in a right sphere: they are defined as arcs of the equator that rise above the horizon in a right sphere together with some given arc of the ecliptic or some given star or point, or that cross the meridian — which imitates a right horizon — in any sphere whatever. *And they are considered, as declinations are, either in respect of the ecliptic or in respect of stars lying outside the ecliptic.*

[Margin: What the ascension of the right sphere is.]

[Margin: Ascensions are twofold: I. of the ecliptic.]

Those that are weighed on the ecliptic can be had without any trouble from the tables of right ascensions, which we chose to append for easier consultation. With the given point of the ecliptic whose right ascension is sought, enter one or the other table, Tycho Brahe's or Copernicus'; look for the sign at the head of the table and the degrees down the left-hand side. The cell where the two meet will show the ascension; and if minutes are attached to the degrees of the ecliptic, it may be corrected by working out the proportional part to be added.

[Margin: The way to find the right ascensions of the ecliptic from the canon of right ascensions.]

Suppose, for example, that the right ascension is to be sought from the Copernican table

for 7° 20′ of Taurus. Under 7° of Taurus the right ascension 34° 39′ 12″ presents itself. To the attached 20 minutes there answers, out of the difference 58′ 29″, a proportional part of 19′ 30″ to be added; so the right ascension of the proposed point of the ecliptic will be 34° 58′ 42″.

[Margin: The foundation of the canon of right ascensions.]

The table itself is usually constructed from the doctrine of triangles in this way. First the right ascensions are worked out for some one quadrant and for every degree of it. Then, once the ascension of one quadrant — especially of the first, the vernal — has been found, it is kept as it stands. In the second, the summer quadrant, it is subtracted from 180 degrees; in the third, the autumn quadrant, it is added to 180 degrees; in the fourth, the winter quadrant, it is subtracted from the whole circle. In this way the right ascension of any single arc becomes known, as the preceding figure shows.

Diagram. An uncaptioned woodcut of a spherical quadrant, set into the left half of the text block, with the text running down a narrow measure to its right. Two arcs spring from a point at the top left. The outer one sweeps down and to the right to the right-hand edge of the figure, which then runs straight down to the lower right corner. The inner one curves down through

the middle of the figure to its foot. A shallower arc runs from a point on the left edge across to the right-hand edge, crossing the inner arc a little below and left of centre. A deeper arc runs from the same point on the left edge, sags to the foot of the figure, where the inner arc meets it, and rises to the lower right corner. Six labels are printed on the block:

- D (top): D
- B (right-hand edge, at the end of the shallower arc): B
- C (right-hand edge, lower, at the end of the deep arc): C
- A (left-hand edge, at the common springing of the shallower and the deep arc): A
- E (centre, where the inner arc crosses the shallower arc): E
- F (foot of the figure, where the inner arc meets the deeper arc): F

First, then, in the vernal quadrant of the ecliptic A B here set out, find the distance of the given arc — 26° 0′ of Taurus — from the nearest vernal intersection: it is 56° 0′. Next, since the declination E F is known from what was set out earlier, being 19° 19′ 26″ according to Tycho Brahe, the right ascension A F will be found by this proportion: as D E, the complement of the declination, 70° 40′ 34″, whose sine is 9436629, is to E B, the complement of the given arc to a quadrant, 34° 0′, whose sine is 5591929, so the sine of the quadrant D F, 10000000, is to the sine of C F, the complement of the right ascension. When the working is carried through, this comes out at 5925769; from which the arc C F, the complement, is 36° 20′ 24″, and this, subtracted from the quadrant C A, yields the right ascension A F, 53° 39′ 36″.

And if I subtract this ascension from 180 degrees, there is left the ascension of 4° Leo, 126° 20′ 24″. If I add it to 180 degrees, there comes out the right ascension of 26° Scorpio, 233° 39′ 36″. If I subtract it from 360°, there remains the ascension of 4° Aquarius, 306° 20′ 24″.

[Margin: Ratio alia. — Another method.]

The right ascension can also be found in this way, without knowing the declination, from the given longitude and the greatest declination of the ecliptic, following problem 4 of the first book of the *Astronomia* of Bartholomäus Pitiscus — provided that a canon of tangents is also at hand. For as the whole sine, 10000000, is to the sine of the complement of the greatest declination, 66° 28′ 30″, which is 9168860, so is the tangent of the longitude reckoned from the nearest intersection, 56°, which is 14825610, to the tangent of the right ascension; and that, gathered from the working, is 13593594. Its arc, 53° 39′ 36″, gives a right ascension in exact agreement with the earlier one.

[Margin: 2 Stellarum extra Eclipticam. — 2. Of stars outside the ecliptic.]

As for stars set outside the ecliptic, whether fixed or wandering, their right ascension is gathered from the given longitude and latitude in the following way.

[Margin: 1. The root of the declinations is sought.]

First, following the two earlier proportions set out in the calculation of declinations, find the distance from the equator, along the circle of latitude,

of that point of the ecliptic to which the star is referred — that is, the arc K L, which we may call the root of the declinations. Next, for the arc E L, the ascensional root — that is, the arc of the equator reckoned from the vernal intersection as far as the intersection where the star's circle of latitude cuts the equator — set up this proportion: as the sine of the quadrant O K is to the sine of K B, the complement of the star's longitude, so the sine of O L, the complement of the root of the declinations, is to A L, the sine of the complement of the side

[Margin: 2. The root of the ascensions.]

Canon of the Right Ascensions of the Ecliptic and the Sun, for the greatest obliquity of the zodiac, 23° 28′

Gradus	♈ Temp.	♈ Diff.	♉ Temp.	♉ Diff.	♊ Temp.	♊ Diff.	♋ Temp.	♋ Diff.	♌ Temp.	♌ Diff.	♍ Temp.	♍ Diff.
0	0° 0′ 0″	55′ 2″	27° 54′ 20″	57′ 23″	57° 48′ 48″	62′ 33″	90° 0′ 0″	65′ 25″	122° 11′ 12″	62′ 23″	152° 5′ 40″	57′ 14″
1	0° 55′ 2″	55′ 3″	28° 51′ 43″	57′ 32″	58° 51′ 21″	62′ 43″	91° 5′ 25″	65′ 24″	123° 13′ 35″	62′ 12″	153° 2′ 54″	57′ 6″
2	1° 50′ 5″	55′ 3″	29° 49′ 15″	57′ 41″	59° 54′ 4″	62′ 53″	92° 10′ 49″	65′ 23″	124° 15′ 47″	62′ 2″	154° 0′ 0″	56′ 58″
3	2° 45′ 8″	55′ 5″	30° 46′ 56″	57′ 50″	60° 56′ 57″	63′ 3″	93° 16′ 12″	65′ 22″	125° 17′ 49″	61′ 52″	154° 56′ 58″	56′ 50″
4	3° 40′ 13″	55′ 5″	31° 44′ 46″	57′ 59″	62° 0′ 0″	63′ 12″	94° 21′ 34″	65′ 20″	126° 19′ 41″	61′ 41″	155° 53′ 48″	56′ 42″
5	4° 35′ 18″	55′ 7″	32° 42′ 45″	58′ 9″	63° 3′ 12″	63′ 22″	95° 26′ 54″	65′ 18″	127° 21′ 22″	61′ 30″	156° 50′ 30″	56′ 35″
6	5° 30′ 25″	55′ 9″	33° 40′ 54″	58′ 18″	64° 6′ 34″	63′ 30″	96° 32′ 12″	65′ 15″	128° 22′ 52″	61′ 19″	157° 47′ 5″	56′ 28″
7	6° 25′ 34″	55′ 11″	34° 39′ 12″	58′ 29″	65° 10′ 4″	63′ 39″	97° 37′ 27″	65′ 12″	129° 24′ 11″	61′ 9″	158° 43′ 33″	56′ 20″
8	7° 20′ 45″	55′ 14″	35° 37′ 41″	58′ 38″	66° 13′ 43″	63′ 48″	98° 42′ 39″	65′ 8″	130° 25′ 20″	60′ 57″	159° 39′ 53″	56′ 14″
9	8° 15′ 59″	55′ 16″	36° 36′ 19″	58′ 48″	67° 17′ 31″	63′ 56″	99° 47′ 47″	65′ 5″	131° 26′ 17″	60′ 46″	160° 36′ 7″	56′ 8″
10	9° 11′ 15″	55′ 20″	37° 35′ 7″	59′ 0″	68° 21′ 27″	64′ 4″	100° 52′ 52″	65′ 0″	132° 27′ 3″	60′ 36″	161° 32′ 15″	56′ 2″
11	10° 6′ 35″	55′ 23″	38° 34′ 7″	59′ 9″	69° 25′ 31″	64′ 11″	101° 57′ 52″	64′ 55″	133° 27′ 39″	60′ 25″	162° 28′ 17″	55′ 56″
12	11° 1′ 58″	55′ 27″	39° 33′ 16″	59′ 20″	70° 29′ 42″	64′ 19″	103° 2′ 47″	64′ 50″	134° 28′ 4″	60′ 13″	163° 24′ 13″	55′ 50″
13	11° 57′ 25″	55′ 32″	40° 32′ 36″	59′ 30″	71° 34′ 1″	64′ 26″	104° 7′ 37″	64′ 45″	135° 28′ 17″	60′ 5″	164° 20′ 3″	55′ 45″
14	12° 52′ 57″	55′ 35″	41° 32′ 6″	59′ 42″	72° 38′ 27″	64′ 33″	105° 12′ 22″	64′ 39″	136° 28′ 20″	59′ 52″	165° 15′ 48″	55′ 40″
15	13° 48′ 32″	55′ 40″	42° 31′ 48″	59′ 52″	73° 42′ 59″	64′ 39″	106° 17′ 1″	64′ 33″	137° 28′ 12″	59′ 42″	166° 11′ 28″	55′ 35″
16	14° 44′ 12″	55′ 45″	43° 31′ 40″	60′ 3″	74° 47′ 38″	64′ 45″	107° 21′ 33″	64′ 26″	138° 27′ 54″	59′ 30″	167° 7′ 3″	55′ 32″
17	15° 39′ 57″	55′ 50″	44° 31′ 43″	60′ 13″	75° 52′ 23″	64′ 50″	108° 25′ 59″	64′ 19″	139° 27′ 24″	59′ 20″	168° 2′ 35″	55′ 27″
18	16° 35′ 47″	55′ 56″	45° 31′ 56″	60′ 25″	76° 57′ 13″	64′ 55″	109° 30′ 18″	64′ 11″	140° 26′ 44″	59′ 9″	168° 58′ 2″	55′ 23″
19	17° 31′ 43″	56′ 2″	46° 32′ 21″	60′ 36″	78° 2′ 8″	65′ 0″	110° 34′ 29″	64′ 4″	141° 25′ 53″	59′ 0″	169° 53′ 25″	55′ 20″
20	18° 27′ 45″	56′ 8″	47° 32′ 57″	60′ 46″	79° 7′ 8″	65′ 5″	111° 38′ 33″	63′ 56″	142° 24′ 53″	58′ 48″	170° 48′ 45″	55′ 16″
21	19° 23′ 53″	56′ 14″	48° 33′ 43″	60′ 57″	80° 12′ 13″	65′ 8″	112° 42′ 29″	63′ 48″	143° 23′ 41″	58′ 38″	171° 44′ 1″	55′ 14″
22	20° 20′ 7″	56′ 20″	49° 34′ 40″	61′ 9″	81° 17′ 21″	65′ 12″	113° 46′ 17″	63′ 39″	144° 22′ 19″	58′ 29″	172° 39′ 15″	55′ 11″
23	21° 16′ 27″	56′ 28″	50° 35′ 49″	61′ 19″	82° 22′ 33″	65′ 15″	114° 49′ 56″	63′ 30″	145° 20′ 48″	58′ 18″	173° 34′ 26″	55′ 9″
24	22° 12′ 55″	56′ 35″	51° 37′ 8″	61′ 30″	83° 27′ 48″	65′ 18″	115° 53′ 26″	63′ 22″	146° 19′ 6″	58′ 9″	174° 29′ 35″	55′ 7″
25	23° 9′ 30″	56′ 42″	52° 38′ 38″	61′ 41″	84° 33′ 6″	65′ 20″	116° 56′ 48″	63′ 12″	147° 17′ 15″	57′ 59″	175° 24′ 42″	55′ 5″
26	24° 6′ 12″	56′ 50″	53° 40′ 19″	61′ 52″	85° 38′ 26″	65′ 22″	118° 0′ 0″	63′ 3″	148° 15′ 14″	57′ 50″	176° 19′ 47″	55′ 5″
27	25° 3′ 2″	56′ 58″	54° 42′ 11″	62′ 2″	86° 43′ 48″	65′ 23″	119° 3′ 3″	62′ 53″	149° 13′ 4″	57′ 41″	177° 14′ 52″	55′ 2″[61]
28	26° 0′ 0″	57′ 6″	55° 44′ 13″	62′ 12″	87° 49′ 11″	65′ 24″	120° 5′ 56″	62′ 43″	150° 10′ 45″	57′ 32″	178° 9′ 55″	55′ 3″
29	26° 57′ 6″	57′ 14″	56° 46′ 25″	62′ 23″	88° 54′ 35″	65′ 25″	121° 8′ 39″	62′ 33″	151° 8′ 17″	57′ 23″	179° 4′ 58″	55′ 2″
30	27° 54′ 20″		57° 48′ 48″		90° 0′ 0″		122° 11′ 12″		152° 5′ 40″		180° 0′ 0″	

[61] the right ascensions on either side, 177° 14′ 52″ and 178° 9′ 55″, differ by 55′ 3″

Gradus	♎ Temp.	♎ Diff.	♏ Temp.	♏ Diff.	♐ Temp.	♐ Diff.	♑ Temp.	♑ Diff.	♒ Temp.	♒ Diff.	♓ Temp.	♓ Diff.
0	180° 0′ 0″	55′ 2″	207° 54′ 20″	57′ 23″	237° 48′ 48″	62′ 33″	270° 0′ 0″	65′ 25″	302° 11′ 12″	62′ 23″	332° 5′ 40″	57′ 14″
1	180° 55′ 2″	55′ 3″	208° 51′ 43″	57′ 32″	238° 51′ 21″	62′ 43″	271° 5′ 25″	65′ 24″	303° 13′ 35″	62′ 12″	333° 2′ 54″	57′ 6″
2	181° 50′ 5″	55′ 3″	209° 49′ 15″	57′ 41″	239° 54′ 4″	62′ 53″	272° 10′ 49″	65′ 23″	304° 15′ 47″	62′ 2″	334° 0′ 0″	56′ 58″
3	182° 45′ 8″	55′ 5″	210° 46′ 56″	57′ 50″	240° 56′ 57″	63′ 3″	273° 16′ 12″	65′ 22″	305° 17′ 49″	61′ 52″	334° 56′ 58″	56′ 50″
4	183° 40′ 13″	55′ 5″	211° 44′ 46″	57′ 59″	242° 0′ 0″	63′ 12″	274° 21′ 34″	65′ 20″	306° 19′ 41″	61′ 41″	335° 53′ 48″	56′ 42″
5	184° 35′ 18″	55′ 7″	212° 42′ 45″	58′ 9″	243° 3′ 12″	63′ 22″	275° 26′ 54″	65′ 18″	307° 21′ 22″	61′ 30″	336° 50′ 30″	56′ 35″
6	185° 30′ 25″	55′ 9″	213° 40′ 54″	58′ 18″	244° 6′ 34″	63′ 30″	276° 32′ 12″	65′ 15″	308° 22′ 52″	61′ 19″	337° 47′ 5″	56′ 28″
7	186° 25′ 34″	55′ 11″	214° 39′ 12″	58′ 29″	245° 10′ 4″	63′ 39″	277° 37′ 27″	65′ 12″	309° 24′ 11″	61′ 9″	338° 43′ 33″	56′ 20″
8	187° 20′ 43″	55′ 14″	215° 37′ 41″	58′ 38″	246° 13′ 43″	63′ 48″	278° 42′ 39″	65′ 8″	310° 25′ 20″	60′ 57″	339° 39′ 53″	56′ 14″
9	188° 15′ 59″	55′ 16″	216° 36′ 19″	58′ 48″	247° 17′ 31″	63′ 56″	279° 47′ 47″	65′ 5″	311° 26′ 17″	60′ 46″	340° 36′ 7″	56′ 8″
10	189° 11′ 15″	55′ 20″	217° 35′ 7″	59′ 0″	248° 21′ 27″	64′ 4″	280° 52′ 52″	65′ 0″	312° 27′ 3″	60′ 36″	341° 32′ 15″	56′ 2″
11	190° 6′ 35″	55′ 23″	218° 34′ 7″	59′ 9″	249° 25′ 31″	64′ 11″	281° 57′ 52″	64′ 55″	313° 27′ 39″	60′ 25″	342° 28′ 17″	55′ 56″
12	191° 1′ 58″	55′ 27″	219° 33′ 16″	59′ 20″	250° 29′ 46″	64′ 19″	283° 2′ 47″	64′ 50″	314° 28′ 4″	60′ 13″	343° 24′ 13″	55′ 50″
13	191° 57′ 25″	55′ 32″	220° 32′ 36″	59′ 30″	251° 34′ 1″	64′ 26″	284° 7′ 37″	64′ 45″	315° 28′ 17″	60′ 3″	344° 20′ 3″	55′ 45″
14	192° 52′ 57″	55′ 35″	221° 32′ 6″	59′ 42″	252° 38′ 27″	64′ 33″	285° 12′ 22″	64′ 39″	316° 28′ 20″	59′ 52″	345° 15′ 48″	55′ 40″
15	193° 48′ 32″	55′ 40″	222° 31′ 48″	59′ 52″	253° 42′ 59″	64′ 39″	286° 17′ 1″	64′ 33″	317° 28′ 12″	59′ 42″	346° 11′ 28″	55′ 35″
16	194° 44′ 12″	55′ 45″	223° 31′ 40″	60′ 3″	254° 47′ 38″	64′ 45″	287° 21′ 33″	64′ 26″	318° 27′ 54″	59′ 30″	347° 7′ 3″	55′ 32″
17	195° 39′ 57″	55′ 50″	224° 31′ 43″	60′ 13″	255° 52′ 23″	64′ 50″	288° 25′ 59″	64′ 19″	319° 27′ 24″	59′ 20″	348° 2′ 35″	55′ 27″
18	196° 35′ 47″	55′ 56″	225° 31′ 56″	60′ 25″	256° 57′ 13″	64′ 55″	289° 30′ 18″	64′ 11″	320° 26′ 44″	59′ 9″	348° 58′ 2″	55′ 23″
19	197° 31′ 43″	56′ 2″	226° 32′ 21″	60′ 36″	258° 2′ 8″	65′ 0″	290° 34′ 26″	64′ 4″	321° 25′ 53″	59′ 0″	349° 53′ 25″	55′ 20″
20	198° 27′ 45″	56′ 8″	227° 32′ 57″	60′ 46″	259° 7′ 8″	65′ 5″	291° 38′ 33″	63′ 56″	322° 24′ 53″	58′ 48″	350° 48′ 45″	55′ 16″
21	199° 23′ 53″	56′ 14″	228° 33′ 43″	60′ 57″	260° 12′ 13″	65′ 8″	292° 42′ 29″	63′ 48″	323° 23′ 41″	58′ 38″	351° 44′ 1″	55′ 14″
22	200° 20′ 7″	56′ 20″	229° 34′ 40″	61′ 9″	261° 17′ 21″	65′ 12″	293° 46′ 17″	63′ 39″	324° 22′ 19″	58′ 29″	352° 39′ 15″	55′ 11″
23	201° 16′ 27″	56′ 28″	230° 35′ 49″	61′ 19″	262° 22′ 36″	65′ 15″	294° 49′ 56″	63′ 30″	325° 20′ 48″	58′ 18″	353° 34′ 26″	55′ 9″
24	202° 12′ 53″	56′ 35″	231° 37′ 8″	61′ 30″	263° 27′ 48″	65′ 18″	295° 53′ 26″	63′ 22″	326° 19′ 6″	58′ 9″	354° 29′ 33″	55′ 7″
25	203° 9′ 30″	56′ 42″	232° 38′ 38″	61′ 41″	264° 33′ 6″	65′ 20″	296° 56′ 48″	63′ 12″	327° 17′ 15″	57′ 59″	355° 24′ 42″	55′ 5″
26	204° 6′ 12″	56′ 50″	233° 40′ 19″	61′ 52″	265° 38′ 26″	65′ 22″	298° 0′ 0″	63′ 3″	328° 15′ 14″	57′ 50″	356° 19′ 47″	55′ 5″
27	205° 3′ 2″	56′ 58″	234° 42′ 11″	62′ 2″	266° 43′ 48″	65′ 23″	299° 3′ 3″	62′ 53″	329° 13′ 4″	57′ 41″	357° 14′ 52″	55′ 3″
28	206° 0′ 0″	57′ 6″	235° 44′ 13″	62′ 12″	267° 49′ 11″	65′ 24″	300° 5′ 56″	62′ 43″	330° 10′ 43″	57′ 32″	358° 9′ 55″	55′ 3″
29	206° 57′ 6″	57′ 14″	236° 46′ 29″	62′ 23″	268° 54′ 35″	65′ 25″	301° 8′ 39″	62′ 33″	331° 8′ 17″	57′ 23″	359° 4′ 58″	55′ 2″
30	207° 54′ 20″		237° 48′ 48″		270° 0′ 0″		302° 11′ 12″		332° 5′ 40″		360° 0′ 0″	

Table of Right Ascensions, to the greatest λόξωσιν [Greek: loxōsin, "obliquity"]

Gradus	♈ Temp.	♈ Diff. A	♉ Temp.	♉ Diff. A	♊ Temp.	♊ Diff. A	♋ Temp.	♋ Diff. A	♌ Temp.	♌ Diff. A	♍ Temp.	♍ Diff. A
0	0° 0′ 0″	55′ 1″	27° 53′ 43″	57′ 22″	57° 48′ 7″	62′ 33″	90° 0′ 0″	65′ 27″	122° 11′ 48″	63′ 23″	152° 6′ 17″	57′ 13″
1	0° 55′ 1″	55′ 1″	28° 51′ 5″	57′ 31″	58° 50′ 40″	62′ 43″	91° 5′ 27″	65′ 26″	123° 14′ 61″	63′ 13″	153° 3′ 30″	57′ 5″
2	1° 50′ 2″	55′ 2″	29° 48′ 37″	57′ 40″	59° 53′ 23″	62′ 53″	92° 10′ 53″	65′ 25″	124° 16′ 28″	63′ 3″	154° 0′ 35″	56′ 57″
3	2° 45′ 3″	55′ 3″	30° 46′ 17″	57′ 49″	60° 56′ 16″	63′ 3″	93° 16′ 18″	65′ 24″	125° 18′ 12″	62′ 53″	154° 57′ 32″	56′ 59″ [recte: 56′ 49″]
4	3° 40′ 5″	55′ 4″	31° 44′ 57″	57′ 58″	61° 59′ 19″	63′ 13″	94° 21′ 42″	65′ 23″	126° 20′ 41″	62′ 43″	155° 54′ 21″	56′ 41″
5	4° 35′ 8″	55′ 6″	32° 42′ 55″	58′ 8″	63° 2′ 32″	63′ 23″	95° 27′ 5″	65′ 20″	127° 22′ 30″	62′ 33″	156° 51′ 2″	56′ 34″
6	5° 30′ 15″	55′ 8″	33° 40′ 53″	58′ 18″	64° 5′ 55″	63′ 32″	96° 32′ 25″	65′ 17″	128° 23′ 59″	62′ 23″	157° 47′ 36″	56′ 27″
7	6° 25′ 23″	55′ 10″	34° 38′ 51″	58′ 28″	65° 9′ 27″	63′ 41″	97° 37′ 42″	65′ 14″	129° 24′ 59″	62′ 13″	158° 44′ 3″	56′ 20″

Gradus	♈ Temp.	♈ Diff. A	♉ Temp.	♉ Diff. A	♊ Temp.	♊ Diff. A	♋ Temp.	♋ Diff. A	♌ Temp.	♌ Diff. A	♍ Temp.	♍ Diff. A
8	7° 20′ 35″ 12‴	35″ 38‴	35° 36′ 57″	38″ 48‴	66° 13′ 8″	63′ 49″ 38‴	98° 42′ 56″	10‴	130° 26′ 3″	58‴	159° 40′ 23″	56′ 13″
9	8° 15′ 47″ 15‴	36° 35′ 33″ 48‴	67° 16′ 57″	63′ 57″ 39‴	99° 48′ 6″	6‴	131° 27′ 0″ 47‴	160° 36′ 36″	56′ 7″			
10	9° 11′ 25″ 18‴	37° 34′ 28″ 59‴	68° 20′ 54″	64′ 5″	100° 53′ 21‴		132° 27′ 48″ 36‴	161° 32′ 42″ [rect: 161° 32′ 43″]	56′ 1″			
11	10° 6′ 39″ 21‴	38° 33′ 22″ 10‴	69° 24′ 59″	64′ 13″	101° 58′ 15″ 56‴		133° 28′ 42″ 25‴	162° 28′ 44″	55′ 55″			
12	11° 1′ 45″ 25‴	39° 32′ 2″ 20‴	70° 29′ 12″	64′ 20″	103° 3′ 9″ 52‴		134° 28′ 9″ 3‴	163° 24′ 39″	55′ 49″			
13	11° 57′ 55″ 29‴	40° 31′ 32″ 30‴	71° 33′ 32″	64′ 27″	104° 8′ 14″ 46‴		135° 29′ 2″ 3‴	164° 20′ 28″	55′ 44″			
14	12° 52′ 38″ 34‴	41° 31′ 2″ 41‴	72° 37′ 59″	64′ 34″	105° 12′ 47″ 40‴		136° 29′ 9″ 52‴	165° 16′ 12″	55′ 39″			
15	13° 48′ 52″ 39‴	42° 31′ 31″ 52‴	73° 42′ 33″	64′ 40″	106° 17′ 34″ 34‴		137° 28′ 59″ 41‴	166° 11′ 51″	55′ 34″			
16	14° 43′ 48″ 44‴	43° 30′ 55″ 3‴	74° 47′ 13″	64′ 46″	107° 22′ 4″ 27‴		138° 28′ 38″ 30‴	167° 7′ 25″	55′ 29″			
17	15° 39′ 32″ 49‴	44° 30′ 58″ 13‴	75° 51′ 59″	64′ 52″	108° 26′ 48″ 20‴		139° 28′ 8″ 20‴	168° 2′ 54″	55′ 25″			
18	16° 35′ 25″ 55‴	45° 31′ 6″ 25‴	76° 56′ 51″	64′ 56″	109° 30′ 48″ 3‴		140° 27′ 37″ 28‴	168° 58′ 19″	55′ 21″			
19	17° 31′ 16″ 1‴	46° 31′ 36″ 36‴	78° 1′ 47″	65′ 1″	110° 35′ 14″ 5‴		141° 26′ 58″ 9‴	169° 53′ 40″	55′ 18″			
20	18° 27′ 16″ 7‴	47° 32′ 2″ 47‴	79° 6′ 48″	65′ 6″	111° 39′ 53″ 57‴		142° 25′ 37″ 18‴	170° 48′ 58″	55′ 15″			
21	19° 23′ 24″ 13‴	48° 32′ 39″ 58‴	80° 11′ 54″	65′ 10″	112° 43′ 3″ 45‴		143° 24′ 23″ 38‴	171° 44′ 13″	55′ 12″			
						[rect: 63′ 49″]						
22	20° 19′ 56″ 20‴	49° 33′ 17″ 9‴	81° 17′ 4″	65′ 14″	113° 46′ 32″ 41‴		144° 23′ 28″ 28‴	172° 39′ 25″	55′ 10″			
23	21° 15′ 56″ 27‴	50° 33′ 56″ 19‴	82° 22′ 18″	65′ 17″	114° 50′ 33″ 32‴		145° 21′ 58″ 18‴	173° 34′ 35″	55′ 8″			
24	22° 12′ 56″ 34‴	51° 34′ 25″ 30‴	83° 27′ 35″	65′ 20″	115° 54′ 53″ 23‴		146° 19′ 48″ 9‴	174° 29′ 43″	55′ 6″			
25	23° 8′ 56″ 41‴	52° 37′ 55″ 41‴	84° 32′ 55″	65′ 23″	116° 57′ 38″ 13‴		147° 17′ 37″ 58‴	175° 24′ 49″	55′ 4″			
26	24° 5′ 39″ 49‴	53° 39′ 36″ 52‴	85° 38′ 18″	65′ 24″	118° 0′ 43″ 3‴		148° 15′ 35″ 49‴	176° 19′ 53″	55′ 3″			
27	25° 2′ 38″ 57‴	54° 41′ 28″ 3‴	86° 43′ 42″	65′ 25″	119° 3′ 44″ 53‴		149° 13′ 44″ 0‴	177° 14′ 56″	55′ 2″			
28	25° 59′ 25″ 5‴	55° 43′ 21″ 13‴	87° 49′ 7″	65′ 26″	120° 6′ 37″ 43‴		150° 11′ 52″ 51‴	178° 9′ 58″	55′ 1″			
29	26° 56′ 13″ 13‴	56° 45′ 4″ 23‴	88° 54′ 32″ [rect: 88° 54′ 33″]	65′ 27″	121° 9′ 22″ 33‴		151° 8′ 55″ 22‴	179° 4′ 59″	55′ 1″			
30	27° 53′ 43″	57° 48′ 7″	90° 0′ 0″		122° 11′ 53″		152° 6′ 17″	180° 0′ 0″				

of the ecliptic, 23° 31′ 30″, the value Tycho Brahe lays down.

Gradus	♎ Temp.	♎ Diff.	♏ Temp.	♏ Diff.	♐ Temp.	♐ Diff.	♑ Temp.	♑ Diff.	♒ Temp.	♒ Diff.	♓ Temp.	♓ Diff.
0	180° 0′ 0″ 1‴		207° 53′ 43″ 22‴		237° 48′ 27″ 33‴		270° 0′ 0″ 27‴		302° 11′ 53″	62′ 23″	332° 6′ 37″ 13‴	
1	180° 55′ 55″ 1‴		208° 51′ 57″ 31‴		238° 50′ 4″ 43‴		271° 5′ 27″ 26‴		303° 14′ 16″	62′ 13″	333° 3′ 37″ 5‴	
2	181° 50′ 53″ 2‴		209° 48′ 7″ 40‴		239° 53′ 23″ 33‴		272° 10′ 53″ 25‴		304° 16′ 29″	62′ 3″	334° 0′ 39″ 57‴	
3	182° 45′ 54″ 3‴		210° 46′ 17″ 49‴		240° 56′ 39″ 3‴		273° 16′ 58″ 24‴		305° 18′ 32″	61′ 52″	334° 57′ 59″ 49‴	
4	183° 40′ 55″ 4‴		211° 44′ 57″ 58‴		241° 59′ 39″ 13‴		274° 21′ 22″ 3‴		306° 20′ 24″	61′ 41″	335° 54′ 20″ 41‴	
5	184° 35′ 51″ 6‴		212° 42′ 58″ 8‴		243° 2′ 33″ 23‴		275° 27′ 5″ 20‴		307° 22′ 5″	61′ 30″	336° 51′ 50″ 34‴	
6	185° 30′ 57″ 8‴		213° 40′ 11″ 18‴		244° 5′ 33″ 32‴		276° 32′ 51″ 7‴		308° 23′ 35″	61′ 19″	337° 47′ 59″ 27‴	
7	186° 25′ 53″ 10‴		214° 38′ 28″ 28‴		245° 9′ 23″ 41‴		277° 37′ 21″ 4‴		309° 24′ 54″	61′ 9″	338° 44′ 59″ 20‴	
8	187° 20′ 51″ 12‴		215° 36′ 37″ 38‴		246° 13′ 8″ 49‴		278° 42′ 56″ 0‴		310° 26′ 3″	60′ 58″	339° 40′ 0″ 33‴	
9	188° 15′ 47″ 15‴		216° 35′ 55″ 48‴		247° 16′ 57″ 57‴		279° 48′ 6″ 6‴		311° 27′ 1″	60′ 47″	340° 36′ 0″ 7‴	
10	189° 11′ 35″ 18‴		217° 34′ 58″ 59‴		248° 20′ 45″ 5‴		280° 53′ 52″ 1‴		312° 27′ 48″	60′ 36″	341° 32′ 0″ 31‴	
11	190° 6′ 20″ 21‴		218° 33′ 2″ 10‴		249° 24′ 0″ 13‴		281° 58′ 14″ 56‴		312° 28′ 24″ [rect: 313° 28′ 24″]	60′ 25″	342° 28′ 14″ 5‴	
12	191° 1′ 45″ 25‴		219° 32′ 59″ 20″		250° 26′ 42″ 20″		283° 3′ 6″ 52″		314° 28′ 49″	60′ 13″	343° 24′ 59″ 9″	
13	191° 57′ 55″ 29″		220° 31′ 59″ 30″		251° 33′ 42″ 27″		284° 8′ 6″ 46″		315° 29′ 2″	60′ 3″	344° 20′ 58″ 44″	

Gradus	♎ Temp.	♎ Diff.	♏ Temp.	♏ Diff.	♐ Temp.	♐ Diff.	♑ Temp.	♑ Diff.	♒ Temp.	♒ Diff.	♓ Temp.	♓ Diff.
14	192° 52′ 53″	34″	221° 31′ 52″	41″	252° 37′ 49″	34″	285° 12′ 47″	40″	316° 29′ 5″	59′ 52″	345° 16′ 52″	39″
15	193° 48′ 59″	39″	222° 31′ 59″	52″	253° 42′ 43″	40″	286° 17′ 47″	34″	317° 28′ 57″	59′ 41″	346° 11′ 51″	34″
16	194° 43′ 58″	44″	223° 30′ 59″	53″	254° 47′ 43″	46″	287° 22′ 41″	27″	318° 28′ 38″	59′ 30″	347° 7′ 25″	29″
17	195° 39′ 52″	49″	224° 30′ 58″	53″	255° 51′ 39″	52″	288° 26′ 48″	20″	319° 28′ 8″	59′ 20″	348° 2′ 54″	25″
18	196° 35′ 31″	55″	225° 31′ 0″	25″	256° 56′ 41″	56″	289° 30′ 48″	13″	320° 27′ 28″	59′ 10″	348° 58′ 59″	21″
19	197° 31′ 16″	1″	226° 31′ 36″	58° 1′ 45″	1″	290° 35′ 4″	5″	321° 26′ 38″	58′ 59″	349° 53′ 4″	18″	
20	198° 27′ 6″	7″	227° 32′ 2″	47″	259° 6′ 48″	6″	291° 39′ 9″	57″	322° 25′ 37″	58′ 48″	350° 48′ 58″	5″
21	199° 23′ 4″	3″	228° 32′ 9″	58″	260° 11′ 54″	0″	292° 43′ 3″	49″	323° 24′ 25″	58′ 38″	351° 44′ 53″	12″
22	200° 19′ 7″	0″	229° 33′ 5″	9″	261° 17′ 6″	14″	293° 46′ 52″	41″	324° 23′ 3″	58′ 28″	352° 39′ 52″	0″
23	201° 15′ 7″	27″	230° 35′ 6″	19″	262° 22′ 18″	7″	294° 50′ 33″	32″	325° 21′ 31″	58′ 18″	353° 34′ 53″	8″
24	202° 12′ 4″	41″	231° 36′ 2″	30″	263° 27′ 32″	0″	295° 54′ 23″	23″	326° 19′ 49″	58′ 8″	354° 29′ 43″	
25	203° 8′ 58″	41″	232° 37′ 5″	41″	264° 32′ 53″	296° 57′ 28″	13″	327° 17′ 57″	57′ 58″	355° 24′ 34″		
26	204° 5′ 39″	49″	233° 39′ 6″	52″	265° 38′ 24″	298° 0′ 43″	3″	328° 15′ 55″	57′ 49″	356° 19′ 53″		
27	205° 2′ 28″	57″	234° 41′ 28″	3″	266° 43′ 25″	299° 3′ 44″	53″	329° 13′ 44″	57′ 40″	357° 14′ 56″		
28	205° 59′ 25″	235° 43′ 21″	13″	267° 49′ 26″	300° 6′ 37″	42″ [recte 62′ 43″]	330° 11′ 24″	57′ 31″	358° 9′ 58″	1″		
29	206° 56′ 23″	236° 45′ 44″	23″	268° 54′ 33″	27″	301° 9′ 20″	33″	331° 8′ 55″	57′ 23″ [recte 57′ 22″]	359° 4′ 59″	1″	
30	207° 53′ 43″	237° 48′ 7″	270° 0′ 0″	302° 11′ 53″	332° 6′ 17″	360° 0′ 0″						

Table of the ascensional radices, computed for

Gradus	♈ Radix	♉ Diff.	♉ Radix	♉ Diff.	♊ Radix	♊ Diff.	♋ Radix	♋ Diff.	♌ Radix	♌ Diff.	♍ Radix	♍ Diff.
0	0° 0′ 0″	65′ 25″	32° 11′ 6″	23″	62° 5′ 39″	57′ 15″	90° 0′ 9″	1″	117° 54′ 21″	57′ 23″	147° 48′ 48″	33″
1	1° 5′ 25″	65′ 24″	33° 13′ 3″	12″	63° 2′ 54″	57′ 6″	90° 55′ 5″	2″	118° 51′ 44″	57′ 32″	148° 51′ 21″	43″
2	2° 10′ 49″	65′ 23″	34° 15′ 0″	2″	64° 0′ 0″	56′ 58″	91° 50′ 3″	3″	119° 49′ 16″	57′ 41″	149° 54′ 4″	53″
3	3° 16′ 12″	65′ 22″	35° 17′ 0″	52″	64° 56′ 58″	56′ 50″	92° 45′ 4″	4″	120° 46′ 57″	57′ 49″	150° 56′ 37″	
4	4° 21′ 34″	65′ 20″	36° 19′ 1″	41″	65° 53′ 48″	56′ 43″	93° 40′ 5″	6″	121° 44′ 46″	57′ 59″	152° 0′ 6″	12″
5	5° 26′ 54″	65′ 18″	37° 21′ 2″	30″	60° 50′ 31″ [recte 66° 50′ 31″]	56′ 35″	94° 35′ 8″	122° 42′ 45″	58′ 8″	153° 3′ 2″	22″	
6	6° 32′ 12″	65′ 15″	38° 22′ 19″	67° 47′ 6″	56′ 28″	95° 30′ 10″	123° 40′ 53″	58′ 18″	154° 6′ 4″	30″		
7	7° 37′ 27″	65′ 12″	39° 24′ 11″	68° 43′ 34″	56′ 21″	96° 25′ 12″	124° 39′ 11″	58′ 29″	155° 10′ 4″	39″		
8	8° 42′ 39″	65′ 8″	40° 25′ 26″	57″	69° 39′ 55″	56′ 13″	97° 20′ 14″	125° 37′ 40″	58′ 39″	156° 13′ 43″	48″	
9	9° 47′ 47″	65′ 5″	41° 26′ 47″	46″	70° 36′ 8″	56′ 7″	98° 16′ 15″	16″	126° 36′ 19″	58′ 49″	157° 17′ 31″	56″
10	10° 52′ 52″	65′ 1″	42° 27′ 8″	36″	71° 32′ 15″	56′ 2″	99° 11′ 16″	19″	127° 35′ 8″	58′ 59″	158° 21′ 47″	
11	11° 57′ 53″	64′ 55″	43° 27′ 39″	25″	72° 28′ 17″	55′ 56″	100° 6′ 35″	23″	128° 34′ 7″	59′ 9″	159° 25′ 41″	11″
12	13° 2′ 48″	64′ 49″	44° 28′ 4″	13″	73° 24′ 13″	55′ 50″	101° 1′ 58″	27″	129° 33′ 16″	59′ 20″	160° 29′ 44″	29″
13	14° 7′ 37″	64′ 45″	45° 28′ 27″	3″	74° 20′ 3″	55′ 45″	101° 57′ 52″	31″	130° 32′ 36″	59′ 30″	161° 34′ 1″	26″
14	15° 12′ 22″	64′ 39″	46° 28′ 50″	52″	75° 15′ 48″	55′ 40″	102° 52′ 56″	36″	131° 32′ 6″	59′ 42″	162° 38′ 47″	32″
15	16° 17′ 1″	64′ 32″	47° 29′ 12″	42″	76° 11′ 28″	55′ 36″	103° 48′ 52″	40″	132° 31′ 48″	59′ 52″	163° 42′ 49″	39″
16	17° 21′ 33″	64′ 26″	48° 27′ 59″	30″	77° 7′ 4″	55′ 31″	104° 44′ 51″	45″	133° 31′ 40″	60′ 3″	164° 47′ 48″	45″
17	18° 26′ 59″ [recte 18° 25′ 59″]	64′ 19″	49° 27′ 59″	20″	78° 2′ 35″	55′ 27″	105° 39′ 57″	0″	134° 31′ 43″	60′ 13″	165° 52′ 43″	49″
18	19° 30′ 18″	64′ 11″	50° 26′ 59″	49″	78° 58′ 2″	55′ 23″	106° 35′ 47″	6″	135° 31′ 56″	60′ 25″	166° 57′ 42″	55″
19	20° 34′ 29″	64′ 4″	51° 25′ 58″	59″	79° 53′ 25″	55′ 19″	107° 31′ 54″	32″	136° 32′ 21″	60′ 36″	168° 2′ 7″	1″
20	21° 38′ 33″	63′ 56″	52° 24′ 58″	49″	80° 48′ 44″	55′ 16″	108° 27′ 46″	57″	137° 32′ 57″	60′ 46″	169° 7′ 8″	5″

Gradus	♈ Radix	♈ Diff.	♉ Radix	♉ Diff.	♊ Radix	♊ Diff.	♋ Radix	♋ Diff.	♌ Radix	♌ Diff.	♍ Radix	♍ Diff.
21	22° 42′ 29″	63′ 48″	53° 23′ 38″	39″	81° 44′ 0″	55′ 14″	109° 23′ 23″	138° 33′ 43″		60′ 57″	170° 12′ 38″	
22	23° 46′ 17″	63′ 39″	54° 22′ 58″	29″	82° 39′ 14″	55′ 12″	110° 20′ 56″	139° 34′ 40″		61′ 9″	171° 17′ 51″	12″
23	24° 49′ 56″	63′ 30″	55° 20′ 49″	18″	83° 34′ 26″	55′ 10″	111° 16′ 56″	140° 35′ 49″		61′ 19″	172° 22′ 53″	35″
24	25° 53′ 26″	63′ 22″	56° 19′ 58″	8″	84° 29′ 36″	55′ 8″	112° 12′ 56″	141° 37′ 8″		61′ 30″	173° 27′ 48″	48″
25	26° 56′ 48″	63′ 12″	57° 17′ 57″	59″	85° 24′ 44″	55′ 6″	113° 9′ 39″	142° 38′ 38″		61′ 41″	174° 33′ 56″	20″
26	28° 0′ 0″	63′ 3″	58° 15′ 54″	49″	86° 19′ 50″	55′ 4″	114° 6′ 50″	143° 40′ 19″		61′ 52″	175° 38′ 52″	22″
27	29° 3′ 3″	62′ 53″	59° 13′ 37″	41″	87° 14′ 54″	55′ 3″	115° 3′ 56″	144° 42′ 11″		62′ 2″	176° 43′ 48″	23″
28	30° 5′ 56″	62′ 43″	60° 10′ 54″	32″	88° 9′ 57″	55′ 2″	116° 0′ 57″	143° 44′ 13″ [recte: 145° 44′ 13″]		62′ 12″	177° 49′ 24″	
29	31° 8′ 39″	62′ 33″	61° 8′ 16″	23″	89° 4′ 59″	55′ 1″	116° 57′ 7″	146° 46′ 25″		62′ 23″	178° 54′ 25″	
30	32° 11′ 12″		62° 5′ 39″		90° 0′ 0″		117° 54′ 21″	147° 48′ 48″			180° 0′ 0″	

THE GREATEST OBLIQUITY OF THE ECLIPTIC, 23° 28′.

Gradus	♈ Radix[62]	♉ Diff.	♉ Radix[61]	♐ Diff.	♐ Radix	♐ Diff.	♑ Radix	♓ Diff.	♓ Radix	♓ Diff.	♓ Radix	♓ Diff.
0	180° 0′ 0″	65′ 25″	212° 11′ 22″	23″	242° 5′ 53″	15″	270° 0′ 0″	55′ 1″	297° 54′ 21″	57′ 23″	327° 48′ 48″	23″
1	181° 5′ 25″	65′ 24″	213° 13′ 35″	12″	243° 2′ 55″	46″	270° 55′ 1″	55′ 2″	298° 51′ 44″	57′ 32″	328° 51′ 21″	43″
2	182° 10′ 49″	65′ 23″	214° 15′ 47″	2″	244° 0′ 56″	58″	271° 50′ 3″	55′ 3″	299° 49′ 16″	57′ 41″	329° 54′ 24″	53″
3	183° 16′ 12″	65′ 22″	215° 17′ 49″	52″	244° 59′ 58″	0″	272° 45′ 6″	55′ 4″	300° 46′ 57″	57′ 49″	330° 56′ 37″	
4	184° 21′ 34″	65′ 20″	216° 19′ 41″	41″	245° 58′ 48″	3″	273° 40′ 10″	55′ 6″	301° 44′ 46″	57′ 59″	332° 0′ 59″	12″
5	185° 26′ 54″	65′ 18″	217° 21′ 23″	30″	246° 59′ 33″	5″	274° 35′ 16″	55′ 8″	302° 42′ 45″	58′ 8″	333° 3′ 6″	22″
6	186° 32′ 12″	65′ 15″	218° 23′ 5″	19″	247° 59′ 28″	7″	275° 30′ 24″	55′ 10″	303° 40′ 53″	58′ 18″	334° 6′ 33″	30″
7	187° 37′ 27″	65′ 12″	219° 24′ 48″	8″	248° 59′ 41″	11″	276° 25′ 34″	55′ 12″	304° 39′ 11″	58′ 29″	335° 10′ 4″	39″
8	188° 42′ 39″	65′ 8″	220° 26′ 32″	57″	249° 59′ 53″	17″	277° 20′ 46″	55′ 14″	305° 37′ 40″	58′ 39″	336° 13′ 34″	48″
9	189° 47′ 47″	65′ 5″	221° 28′ 16″	46″	250° 0′ 7″	23″	278° 16′ 0″	55′ 16″	306° 36′ 19″	58′ 49″	337° 17′ 3″	56″
10	190° 52′ 52″	65′ 1″	222° 29′ 59″	36″	251° 0′ 20″	29″	279° 11′ 16″	55′ 19″	307° 35′ 8″	58′ 59″	338° 20′ 47″	
11	191° 57′ 53″	64′ 55″	223° 31′ 39″	25″	252° 0′ 33″	36″	280° 6′ 35″	55′ 23″	308° 34′ 7″	59′ 9″	339° 24′ 11″	
12	193° 2′ 48″	64′ 49″	224° 33′ 13″	53″	253° 0′ 51″	36″	281° 1′ 58″	55′ 27″	308° 33′ 16″ [recte: 309° 33′ 16″]	59′ 20″	340° 26′ 44″	29″
13	194° 7′ 37″	64′ 45″	225° 34′ 47″	20″	254° 1′ 15″	34″	281° 57′ 25″	55′ 31″	310° 32′ 36″	59′ 30″	341° 29′ 17″	26″
14	195° 12′ 22″	64′ 39″	226° 36′ 22″	47″	255° 1′ 38″	40″	282° 52′ 56″	55′ 36″	311° 32′ 6″	59′ 42″	342° 32′ 4″	32″
15	196° 17′ 1″	64′ 32″	227° 37′ 56″	14″	256° 2′ 2″	46″	283° 48′ 32″	55′ 40″	312° 31′ 48″	59′ 52″	343° 34′ 50″	39″
16	197° 21′ 33″	64′ 26″	228° 39′ 30″	7″	257° 2′ 31″	54″	284° 44′ 12″	55′ 45″	312° 31′ 40″ [recte: 313° 31′ 40″]	60′ 3″	344° 37′ 38″	45″
17	198° 26′ 59″ [recte: 198° 25′ 59″]	64′ 19″	229° 39′ 24″	58″	258° 2′ 55″	27″	285° 39′ 57″	55′ 50″	314° 31′ 43″	60′ 13″	345° 52′ 43″	49″
18	199° 30′ 18″	64′ 11″	230° 40′ 49″		258° 58′ 23″		286° 35′ 47″	55′ 56″	315° 31′ 56″	60′ 25″	346° 57′ 42″	55″
19	200° 34′ 29″	64′ 4″	231° 42′ 35″	39″	259° 53′ 53″	39″	287° 31′ 43″	56′ 2″	316° 32′ 21″	60′ 36″	348° 2′ 6″	1″
20	201° 38′ 33″	63′ 56″	232° 44′ 21″	9″	260° 48′ 44″	6″	288° 27′ 45″	56′ 7″	317° 32′ 57″	60′ 46″	349° 7′ 8″	5″
21	202° 42′ 29″	63′ 48″	233° 45′ 59″	26″	261° 44′ 50″	14″	289° 23′ 52″	56′ 13″	318° 33′ 43″	60′ 57″	350° 12′ 38″	
22	203° 46′ 17″	63′ 39″	234° 47′ 29″	29″	262° 39′ 51″	42″	290° 20′ 5″	56′ 21″	319° 34′ 40″	61′ 9″	351° 17′ 51″	12″
23	204° 49′ 56″	63′ 30″	235° 48′ 58″	8″	263° 34′ 52″	60″	291° 16′ 26″	56′ 28″	320° 35′ 49″	61′ 19″	352° 22′ 53″	35″
24	205° 53′ 26″	63′ 22″	236° 50′ 28″	48″	264° 29′ 53″	38″	292° 12′ 54″	56′ 35″	321° 37′ 8″	61′ 30″	353° 27′ 48″	48″
25	206° 56′ 48″	63′ 12″	237° 51′ 57″	59″	265° 24′ 54″	44″	293° 9′ 29″	56′ 43″	322° 38′ 38″	61′ 41″	354° 33′ 56″	20″
26	208° 0′ 0″	63′ 3″	238° 53′ 25″	49″	266° 19′ 55″	4″	294° 6′ 12″	56′ 50″	323° 40′ 19″	61′ 52″	355° 38′ 52″	22″
27	209° 3′ 3″	62′ 53″	239° 54′ 53″	41″	267° 14′ 55″	54″	295° 3′ 2″	56′ 58″	324° 42′ 11″	62′ 2″	356° 43′ 48″	23″

Gradus	♈ Radix[62]	Diff.	♉ Radix	Diff.	♐ Radix	Diff.	♑ Radix	Diff.	♒ Radix	Diff.	♓ Radix	Diff.
28	210° 5′ 56″	62′ 43″	240° 19′ 42″	57′ 42″	268° 9′ 55″	57′ 72″	296° 0′ 0″	57′ 6″	325° 44′ 13″	62′ 12″	357° 49′ 12″	63′ 24″
29	211° 8′ 39″	62′ 33″	241° 8′ 37″	57′ 23″	269° 4′ 55″	57′ 1″	297° 57′ 6″ [recte: 296° 57′ 6″]	57′ 15″	326° 46′ 25″	62′ 23″	358° 54′ 35″	63′ 25″
30	212° 11′ 12″		242° 5′ 39″		270° 0′ 0″		298° 54′ 21″ [recte: 297° 54′ 21″]		327° 48′ 48″		360° 0′ 0″	

Table of the ascensional radices, computed for

Gradus	♈ Radix	♈ Diff. A	♉ Radix	♉ Diff. A	♊ Radix	♊ Diff. A	♋ Radix	♋ Diff. A	♌ Radix	♌ Diff: A	♍ Radix	♍ Diff. A
0	0° 0′ 0″	65′ 26″	32° 11′ 53″	62′ 23″	62° 6′ 15″	57′ 14″	90° 0′ 0″	55′ 0″	117° 53′ 45″	57′ 22″	147° 48′ 7″	62′ 33″
1	1° 5′ 26″	65′ 25″	33° 14′ 16″	62′ 13″	63° 3′ 29″	57′ 6″	90° 55′ 0″	55′ 1″	118° 51′ 7″	57′ 31″	148° 50′ 40″	62″ 43″
2	2° 10′ 51″	65′ 24″	34° 16′ 20″	62′ 2″	64° 0′ 35″	56′ 58″	91° 50′ 1″	55′ 2″	119° 48′ 38″	57′ 40″	149° 53′ 22″	62″ 53″
3	3° 16′ 15″	65′ 24″	35° 18′ 31″	61′ 52″	64° 57′ 33″	56′ 50″	92° 45′ 35″	55′ 3″	120° 46′ 58″	57′ 49″	150° 56′ 16″	63″ 3″
4	4° 21′ 39″	65′ 22″	36° 20′ 23″	61′ 42″	65° 54′ 23″	56′ 42″	93° 40′ 65″	55′ 5″	121° 44′ 7″	57′ 58″	151° 59′ 10″	63″ 13″
5	5° 27′ 1″	65′ 20″	37° 22′ 5″	61′ 31″	66° 51′ 5″	56′ 34″	94° 35′ 11″	55′ 6″	122° 42′ 5″	58′ 8″	153° 2′ 32″	63′ 23″
6	6° 32′ 21″	65′ 17″	38° 23′ 36″	61′ 20″	67° 47′ 39″	56′ 26″	95° 30′ 17″	55′ 8″	123° 40′ 13″	58′ 18″	154° 5′ 55″	63′ 32″
7	7° 37′ 38″	65′ 14″	39° 24′ 56″	61′ 9″	68° 44′ 5″	56′ 18″	96° 25′ 25″	55′ 10″	124° 38′ 38″	58′ 28″	155° 9′ 27″	63′ 41″
8	8° 42′ 52″	65′ 10″	40° 26′ 5″	60′ 58″	69° 40′ 35″	56′ 11″	97° 20′ 35″	55′ 12″	125° 36′ 50″	58′ 38″	156° 13′ 8″	63′ 50″
9	9° 48′ 2″	65′ 6″	41° 27′ 3″	60′ 47″	70° 36′ 34″	56′ 5″	98° 15′ 47″	55′ 14″	126° 35′ 3″	58′ 48″	157° 16′ 58″	63′ 58″
10	10° 53′ 8″	65′ 1″	42° 27′ 50″	60′ 36″	71° 32′ 39″	55′ 59″	99° 11′ 1″	55′ 16″	127° 34′ 38″	58′ 59″	158° 20′ 54″	64′ 6″
11	11° 58′ 9″	64′ 56″	43° 28′ 26″	60′ 25″	72° 28′ 35″	55′ 54″	100° 6′ 17″	55′ 21″	128° 33′ 24″	59′ 9″	159° 25′ 24″	64′ 14″
12	13° 3′ 5″	64′ 51″	44° 28′ 50″	60′ 14″	73° 24′ 32″	55′ 50″	101° 1′ 38″	55′ 26″	129° 32′ 33″	59′ 19″	160° 29′ 14″	64′ 21″
13	14° 7′ 5″ [recte: 14° 7′ 56″]	64′ 45″	45° 29′ 50″	60′ 2″	74° 20′ 33″	55′ 46″	101° 57′ 45″	55′ 31″	130° 31′ 59″	59′ 30″	161° 33′ 30″	64′ 28″
14	15° 12′ 41″	64′ 40″	46° 29′ 49″	59′ 51″	75° 16′ 8″	55′ 41″	102° 52′ 35″	55′ 36″	131° 31′ 23″	59′ 40″	162° 38′ 5″	64′ 34″
15	16° 17′ 21″	64′ 34″	47° 28′ 58″	59′ 40″	76° 11′ 49″	55′ 36″	103° 48′ 15″	55′ 41″	132° 31′ 25″	59′ 51″	163° 42′ 39″	64′ 40″
16	17° 21′ 55″	64′ 28″	48° 28′ 38″	59′ 30″	77° 7′ 25″	55′ 31″	104° 43′ 53″	55′ 46″	133° 30′ 56″	60′ 2″	164° 47′ 19″	64′ 45″
17	18° 26′ 23″	64′ 21″	49° 28′ 8″	59′ 19″	78° 2′ 56″	55′ 26″	105° 39′ 38″	55′ 50″	134° 30′ 56″	60′ 14″	165° 52′ 4″	64′ 51″
18	19° 30′ 44″	64′ 14″	50° 27′ 27″	59′ 9″	78° 58′ 22″	55′ 21″	106° 35′ 23″	55′ 54″	135° 31′ 0″	60′ 25″	166° 56′ 54″	64′ 56″
19	20° 34′ 58″	64′ 6″	51° 26′ 36″	58′ 59″	79° 53′ 43″	55′ 16″	107° 31′ 23″	55′ 59″	136° 31′ 36″	60′ 36″	168° 1′ 51″	65′ 1″
20	21° 39′ 4″	63′ 58″	52° 25′ 35″	58′ 48″	80° 48′ 59″	55′ 14″	108° 27′ 30″	55′ 5″	137° 32′ 10″	60′ 47″	169° 6′ 52″	65′ 6″

[62] so printed; the rows are those of ♎

[63] so printed; the rows are those of ♏

Gradus	♈ Radix	♈ Diff. A	♉ Radix	♉ Diff. A	♊ Radix	♊ Diff. A	♋ Radix	♋ Diff. A	♌ Radix	♌ Diff: A	♍ Radix	♍ Diff. A
21	22° 43′ 2″	63′ 50″	53° 24′ 29″	38″	81° 44′ 13″	12″	109° 23′ 36″	11″	138° 32′ 57″	58″	170° 11′ 58″	10″
22	23° 46′ 52″	63′ 41″	54° 23′ 1″	28″	82° 39′ 25″	10″	110° 19′ 35″	18″	139° 33′ 56″	9″	171° 17′ 8″	14″
23	24° 50′ 33″	63′ 32″	55° 21′ 29″	18″	83° 34′ 35″	8″	111° 15′ 55″	26″	140° 35′ 4″	20″	172° 22′ 23″	17″
24	25° 54′ 5″	63′ 23″	56° 19′ 45″	8″	84° 29′ 43″	6″	112° 12′ 21″	34″	141° 36′ 24″	31″	173° 27′ 39″	20″
25	26° 57′ 28″	63′ 13″	57° 17′ 55″	58″	85° 24′ 49″	5″	113° 8′ 55″	42″	142° 37′ 55″	42″	174° 32′ 59″	22″
26	28° 0′ 41″	63′ 3″	58° 15′ 53″	49″	86° 19′ 54″	3″	114° 5′ 37″	50″	143° 39′ 37″	52″	175° 38′ 20″	24″
27	29° 3′ 44″	62′ 53″	59° 13′ 43″	40″	87° 14′ 57″	2″	115° 2′ 27″	58″	144° 41′ 29″	2″	176° 43′ 45″	24″
28	30° 6′ 37″	62′ 43″	60° 11′ 23″	31″	88° 9′ 59″	1″	115° 59′ 25″	6″	145° 43′ 31″	13″	177° 49′ 9″	25″
29	31° 9′ 20″	62′ 33″	61° 8′ 53″	22″	89° 5′ 0″	0″	116° 56′ 33″	14″	146° 45′ 44″	23″	178° 54′ 34″	26″
30	32° 11′ 53″		62° 6′ 15″		90° 0′ 0″		117° 53′ 45″		147° 48′ 7″		180° 0′ 0″	

THE GREATEST OBLIQUITY OF THE ECLIPTIC, 23° 31′ 30″.

Gradus	♎ Radix	Diff.	♏ Radix	Diff.	♐ Radix	Diff.	♑ Radix	Diff.	♒ Radix	Diff.	♓ Radix	Diff.
0	180° 0′ 0″	65′ 26″	212° 11′ 56″	23″	242° 6′ 15″	14″	270° 0′ 0″	55′ 0″	297° 53′ 45″	22″	327° 48′ 7″	33″
1	181° 5′ 26″	65′ 25″	213° 14′ 16″	13″	243° 3′ 29″	6″	270° 55′ 0″	1″	298° 51′ 7″	31″	328° 50′ 40″	43″
2	182° 10′ 51″	24″	214° 16′ 36″	2″	244° 0′ 35″	58″	271° 50′ 1″	2″	299° 48′ 38″	40″	329° 53′ 13″	53″
3	183° 16′ 15″	24″	215° 18′ 36″	52″	244° 57′ 35″	50″	272° 45′ 3″	3″	300° 46′ 38″	49″	330° 56′ 16″	3″
4	184° 21′ 39″	22″	216° 20′ 63″	42″	245° 54′ 35″	42″	273° 40′ 5″	5″	301° 44′ 37″	58″	331° 59′ 19″	13″
5	185° 27′ 1″	20″	217° 22′ 51″	31″	246° 51′ 36″	34″	274° 35′ 9″	6″	302° 42′ 58″	8″	333° 2′ 23″	23″
6	186° 32′ 25″	17″	218° 23′ 36″	20″	247° 47′ 39″	26″	275° 30′ 15″	8″	303° 40′ 15″	18″	334° 5′ 56″	32″
7	187° 37′ 38″	14″	219° 24′ 50″	9″	248° 44′ 56″	18″	276° 25′ 35″	10″	304° 38′ 38″	28″	335° 9′ 27″	41″
8	188° 42′ 52″	10″	220° 26′ 56″	58″	249° 40′ 23″	11″	277° 20′ 55″	12″	305° 36′ 59″	38″	336° 13′ 8″	50″
9	189° 48′ 6″	6″	221° 27′ 30″	47″	250° 36′ 54″	5″	278° 15′ 45″	14″	306° 35′ 38″	48″	337° 16′ 58″	58″
10	190° 53′ 18″	1″	222° 27′ 60″	36″	251° 32′ 35″	59″	279° 11′ 15″	16″	307° 34′ 38″	59″	338° 20′ 56″	6″
11	191° 58′ 96″	56″	223° 28′ 26″	25″	252° 28′ 38″	54″	280° 6′ 13″	21″	308° 33′ 34″	9″	339° 25′ 24″	14″
12	193° 3′ 5″	64′ 51″	224° 28′ 60″	14″	253° 24′ 33″	50″	281° 1′ 38″	55′ 26″	309° 32′ 39″	19″	340° 29′ 66″	21″
13	194° 7′ 56″	64′ 45″	225° 29′ 56″	2″	254° 20′ 32″	46″	281° 57′ 45″	31″	310° 31′ 53″	30″	341° 33′ 74″	28″
14	195° 12′ 46″	64′ 40″	226° 29′ 59″	51″	255° 16′ 85″	41″	282° 52′ 55″	36″	311° 31′ 23″	40″	342° 38′ 54″	34″
15	196° 17′ 24″	34″	227° 28′ 58″	40″	256° 11′ 45″	36″	283° 48′ 55″	41″	312° 31′ 25″	51″	343° 42′ 59″	40″
16	197° 21′ 54″	28″	228° 28′ 39″	30″	257° 7′ 25″	31″	284° 43′ 53″	46″	313° 30′ 56″	2″	344° 47′ 64″	45″
17	198° 26′ 23″	21″	229° 28′ 89″	19″	258° 2′ 56″	26″	285° 39′ 38″	50″	314° 30′ 56″	14″	345° 52′ 44″	51″
18	199° 30′ 44″	14″	230° 27′ 39″	9″	258° 58′ 23″	21″	286° 35′ 38″	54″	315° 31′ 96″	25″	346° 56′ 54″	56″
19	200° 34′ 84″	6″	231° 26′ 38″	59″	259° 53′ 45″	16″	287° 31′ 25″	59″	316° 31′ 46″	36″	348° 1′ 56″	1″
20	201° 39′ 43″	58″	232° 25′ 38″	48″	260° 48′ 59″	14″	288° 27′ 36″	5″	317° 32′ 06″	47″	349° 6′ 56″	6″
21	202° 43′ 03″	50″	233° 24′ 38″	38″	261° 44′ 13″	12″	289° 23′ 36″	11″	318° 32′ 56″	58″	350° 11′ 58″	10″
22	203° 46′ 63″	41″	234° 23′ 58″	28″	262° 39′ 25″	10″	290° 19′ 37″	18″	319° 33′ 56″	9″	351° 17′ 8″	14″
23	204° 50′ 93″	32″	235° 21′ 39″	18″	263° 34′ 35″	8″	291° 15′ 55″	26″	320° 35′ 41″	20″	352° 22′ 23″	17″
24	205° 54′ 53″	23″	236° 19′ 45″	8″	264° 29′ 43″	6″	292° 12′ 36″	34″	321° 36′ 24″	31″	353° 27′ 39″	20″
25	206° 57′ 68″	13″	237° 17′ 55″	58″	265° 24′ 49″	5″	293° 8′ 55″	42″	322° 37′ 55″	42″	354° 32′ 59″	22″
26	208° 0′ 46″	3″	238° 15′ 53″	49″	266° 19′ 54″	3″	294° 5′ 37″	50″	323° 39′ 37″	52″	355° 38′ 26″	24″
27	209° 3′ 44″	53″	239° 13′ 42″	40″	267° 14′ 57″	2″	295° 2′ 27″	58″	324° 41′ 29″	2″	356° 43′ 45″	24″
28	210° 6′ 37″	43″	240° 11′ 23″	31″	268° 9′ 59″	1″	295° 59′ 25″	6″	325° 43′ 31″	13″	357° 49′ 9″	2[?]″ [recte: 25″]
29	211° 9′ 20″	33″	241° 8′ 53″	22″	269° 5′ 0″	0″	296° 56′ 33″	14″	326° 45′ 44″	23″	358° 54′ 34″	26″

Gradus	♎ Radix	Diff.	♏ Radix	Diff.	♐ Radix	Diff.	♑ Radix	Diff.	♒ Radix	Diff.	♓ Radix	Diff.
30	212° 11′ 53″		242° 6′ 15″		270° 0′ 0″		297° 53′ 45″		327° 48′ 7″		360° 0′ 0″	

—E L. Once that operation has been correctly carried out, the ascensional radix E L is obtained. More briefly, however, the ascensional radix is got from the present little tables — fitted to the Copernican and Tychonic declination of the ecliptic for our own time — if they are consulted together with the star's longitude and the arc answering to that longitude is taken out of them; it will be of the same quantity as the one the calculation proposes.

[Margin: 3. The arc of the difference of ascension.]

Third, find the arc of the difference of ascension above the right horizon. That arc is nothing other than the arc of the equator caught between the two circles drawn through the star — on the one of which we reckon the star's latitude, on the other its declination — and it is found by this proportion.

Diagram. A woodcut sphere set into the upper right of the text block, drawn as a circle carrying several great circles in perspective: an outer bounding circle, two circles crossing near the top and running down to the lower left and lower right, and a further circle cutting across the lower half. Letters stand at the crossings and at the circumference.

- F (upper left of the sphere, on the circumference of the upper crossing circle)
- G (top, at the meeting of two circles)
- Q (just below and right of G, at a crossing)
- C (upper right, on the circumference)
- D (right edge, on the circumference, below C)
- R (inside the sphere, left of D, at a crossing)
- B (left edge, on the circumference)
- A (lower left, at a crossing on the circumference)
- M (centre, upper left of the central cluster)
- K (centre, right of M, at a crossing)
- H (centre, below M and K)
- N (centre-low, below H, at a crossing)
- L (immediately left of N and touching it: a vertical with a foot running right, standing clear of the N; no middle arm in either copy)
- E (right of centre, low, at a crossing)
- O (bottom centre, on the circumference)
- P (bottom right, on the circumference)

As the sine of the complement of the declination — that declination being shown by the arc H N — is to the sine of the complement of the arc of the latitude circle (the arc contained between the star and the equator, which is either got by adding together the star's latitude and the arc of the table of declinations, when the two agree in denomination, or else, when they differ in denomination as in our figure, is what remains in the residue when the one, H

K, is subtracted from the other, K L, and is H L): so is the whole sine to the sine of the complement of the arc of the difference of ascension, L N.

[Margin: 4. The arc of the difference is either added to, or taken from, the radix of ascensions.]

Fourth, consider carefully to which half of the ecliptic the star is referred by its longitude, and what declination it has. For when it is southern in the ascending half, or northern in the descending half, the arc of the difference of the star's right ascension is added to the ascensional radix; but when it is northern in the ascending half, or southern in the descending half, it is taken away — and the right ascension results.

For example: let the right ascension of Aldebaran [Palilicium] be sought for the year of Christ 1620. First, then, its longitude being given as 64° 17′ from the vernal intersection, and its latitude 5° 10′ south, we seek — by the two proportions of the calculation of declinations — the radix of declinations, that is, the distance from the equator, along the circle of latitudes, of 4° 17′ ♊: the arc K L, which comes out as 21° 21′ 44″, as above. Next the radix of ascensions, E L, by this proportion: as the whole sine, 100000, is to 43392, the sine of the complement of the longitude, 25° 43′, so is 93130, the sine of the complement of the radix of declination, 68° 38′ 16″, to the sine of the complement of the ascensional radix. The sine produced is 40411, to which belongs the arc 23° 50′ 7″; from which the ascensional radix is 66° 9′ 53″. The same radix is gathered concisely from the table appended. Third, the difference of ascension, L N, by this proportion: as 96152, the sine of the complement of the declination, 74° 3′ 15″, is to the arc of the circle of latitude intercepted between the star and the equator — which we called above the argument of declination, and found to be 16° —11′ 44″: the sine of its complement, 73° 48′ 16″, is 96031; so is the whole sine, 100000, to the right sine of the complement of the arc of the difference of ascension. Carrying out that operation gives 59874 [recte: 99874], whose arc, 87° 8′, taken from the quadrant, leaves the arc of the difference itself, 2° 52′. Fourth: this arc, subtracted from the radix of ascensions already found, 66° 9′ 53″ — since the star belongs to the ascending half and has northern declination — leaves the right ascension of Palilicium at very nearly 63° 18′.

[Margin: A short way, from Pitiscus.]

Pitiscus, in Book 1 of his *Astronomical Problems*, last problem, teaches a quicker way to find the same thing from a declination already known, by axiom 3 on spherical triangles in Book 4 of his *Trigonometry*. For as the sine of the complement, to a semicircle, of the side P H — which side is made up of the star's declination H N, 15° 56′ 45″, and the quadrant N P, and is therefore 105° 56′ 45″, and whose sine, suiting both it and its complement to a semicircle, 74° 3′ 15″, is 96152 — is to 43392, the sine of the complement to a semicircle, 25° 43′, of the angle H O P, 154° 17′: so is 99594, the sine of the complement of the star's latitude, H O, 84° 50′, to the right sine of the angle H P O. Carrying out the operation, that comes to 44945; and hence the angle is 26° 42′ 30″, whose complement, 63° 17′ 30″, gives the right ascension. Other examples are worked out by much the same method.

[Margin: What the culmination of the heaven is.]

Finally, once the right ascensions are known, the culminations of the heaven — which Ptolemy calls μεσουρανούσας [Greek: mesouranousas, "culminating", that is, the culminating degrees] — *must be sought as well.* We hold these to be nothing other than the segments of the ecliptic which rise together with some given arc of the equator, that is, with a given right ascension, on the right horizon.

[Margin: How to find the culmination of the heaven from a given right ascension.]

These culminations of the heaven may of course be got easily from the table of right ascensions of the ecliptic, if one has it to hand. Enter the table of right ascensions with the given right ascension[64]*, and look for the degree and sign of the ecliptic that answers to it, in the side and at the head, bringing in the search for the proportional part as well where that is needed. For instance, to the right ascension of Palilicium, 63° 18′, according to Copernicus there corresponds very nearly* ♊ *5° 14′, which is the culmination sought — the point with which Palilicium both rises on the right horizon and crosses the meridian. All the same, so as to pursue the matter from solid foundations, and to show students too how the culmination of the heaven may be found without a table of right ascensions, from the doctrine of triangles: know that the culminations are gathered from a given right ascension by these two proportions.*

I. As the sine of the quadrant, 100000, is to 39821, the sine of the greatest declination of the ecliptic, 23° 28′, so is 44932, the sine of the complement of the right ascension (let the right ascension of Palilicium be given as 63° 18′, and its complement will be 26° 42′), to the right sine of the complement of the angle which the circle of declinations makes with the ecliptic. That angle, in the earlier figure, is the one we are looking for, E M N. When the operation is correctly carried out the sine produced is 17892, whose arc is 10° 18′ 26″; hence the angle E M N will be 79° 41′ 34″.

II. As 98386, the sine of the angle E M N, is to 89337, the sine of the right ascension E N, 63° 18′, so is the sine of the quadrant, 100000 — that is, the right angle E N M — to the sine of the arc of the zodiac E M, with which the given right ascension, or the star, culminates. From the operation the sine 90803 comes out; and since the arc 65° 14′ 5″ belongs to it, that arc will be the culmination of the given ascension.

[Margin: A shorter method.]

If anyone should wish to carry out the same operation with a single proportion, let him proceed in this way — provided he has a canon of tangents to hand — as Pitiscus shows at the end of Book 1 of the *Astronomical Problems* of his *Trigonometry*. As F A, the sine of the quadrant, 100000, is to A N, 50295, the tangent of the complement of the right ascension, 26° 42′: so is F B, 91729, the sine of the complement of the declination, 66° 32′, to the tangent of the arc M B — that is, of the complement of the arc which culminates together with

[64] the page prints *ingreſſus arealis in tabulam*; the word *arealis*, set solid, does not construe here and is left unrendered.

the right ascension, and which is E M. The operation yields the tangent 46135, whose arc is 24° 46′. The culmination proposed will therefore be 65° 14′, as before.

To this belongs the table that follows, which contains the declinations, right ascensions and culminations of the principal stars according to both calculations, the Copernican and the Tychonic, computed for the year of Christ 1620 for the benefit of students of the stars; and it can be fitted, without error, to the forty years before and after.

Table of the declinations, right ascensions, and risings in the right sphere — that is, the culminations — of the notable fixed stars, for the year of Christ 1620.

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Aſc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Aſc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
415	Extremitas Septent: caudæ Ceti — the northern tip of Cetus' tail	M 10° 19′	0° 6′	0° ♈ 6′	M 10° 54′	359° 53′	29° ♓ 52′
14	Pectus Caſſiopeæ — Cassiopeia's breast	B 54° 33′	4° 41′	5° 6′	B 54° 28′	4° 51′	5° ♈ 17′
5	Andromedæ ſcapulæ ſiniſtra lucida — the bright star of Andromeda's left shoulder-blade	B 29° 5′	5° 9′	5° 37′	B 28° 48′	4° 52′	5° 19′
37	Stella polaris — the pole star	B 86° 39′	5° 24′	5° 54′	B 87° 17′	6° 4′	6° 37′
416	Extremitas Auſtralis Caudæ Ceti — the southern tip of Cetus' tail	M 19° 40′	5° 57′	6° 29′	M 20° 5′	6° 6′	6° 39′
18	Super Cæthedra Caſſiopeæ — above Cassiopeia's chair	B 58° 39′	7° 4′	7° 43′	B 60° 50′	3° 0′	3° 16′
9	Septentrionalis cinguli Andromedæ — the northern star of Andromeda's girdle	B 38° 52′	7° 7′	7° 46′	B 38° 59′	7° 16′	7° 56′
144	Præcedens in lino piſcium — the preceding star in the cord of the Fishes	B 5° 33′	7° 12′	7° 51′	B 5° 32′	7° 17′	7° 57′
8	Media cinguli Andromedæ — the middle star of Andromeda's girdle	B 36° 34′	8° 23′	9° 7′	B 37° 27′	8° 55′	9° 42′
6	Siniſter cubitus Andromedæ — Andromeda's left elbow	B 21° 21′	9° 30′	10° 20′	B 21° 26′	9° 18′	10° 7′
145	Media in lino piſcium — the middle star in the cord of the Fishes	B 5° 52′	10° 41′	10° 38′	B 5° 52′	10° 50′	11° 48′
304	Præcedens ad caudam Ceti — the preceding star at Cetus' tail	M 12° 9′	12° 16′	13° 20′	B 12° 56′	12° 44′	13° 51′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
10	Auſtralis cinguli Andromedæ — the southern star of Andromeda's girdle	B 33° 10′	12° 44′	13° 51′	B 33° 38′	12° 7′	13° 11′
146	Sequens in lino piſcium — the following star in the cord of the Fishes	B 6° 59′	12° 57′	14° 5′	B 6° 39′	13° 3′	14° 11′
21	Ad genua Caſſiopeæ — at Cassiopeia's knees	B 57° 14′	15° 38′	16° 58′	B 58° 14′	15° 23′	16° 42′
305	Sequens ad caudam Ceti — the following star at Cetus' tail	M 9° 39′	16° 24′	17° 47′	M 10° 8′	16° 19′	17° 43′
7	In Boreo lino piſcium Borealior — in the northern cord of the Fishes, the more northerly	B 16° 57′	16° 57′	18° 22′	B 17° 15′	16° 33′	17° 57′
147	Prima poſt flexum piſcium — the first after the bend of the Fishes	B 5° 7′	18° 6′	19° 30′	B 4° 12′	17° 36′	19° 5′
150	Media trium in Boreo lino ♓ — the middle of the three in the northern cord of Pisces	B 13° 30′	18° 15′	19° 50′	B 13° 23′	17° 51′	19° 21′
149	Auſtralior trium in Boreo lino ♓ — the more southerly of the three in the northern cord of Pisces	B 9° 54′	19° 34′	21° 10′	B 10° 9′	19° 11′	20° 47′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
148	Media poſt flexum ♓ — the middle star after the bend of the Fishes	B 3° 36′	20° 32′	22° ♈ 13′	B 3° 36′	20° 19′	21° ♈ 59′
151	In Boreo lino ♓ præcedens a connexu — in the northern cord of the Fishes, the star preceding from the knot	B 4° 40′	22° 16′	24° 3′	B 10° 18′	20° 9′	21° 49′
306	Media corporis Ceti — the middle star of Cetus' body	M 17° 56′	22° 37′	24° 25′	M 17° 57′	23° 10′	25° 1′
308	Venter Ceti — Cetus' belly	M 11° 56′	23° 1′	24° 52′	M 12° 10′	23° 14′	25° 5′
23	In crure Caſſiopeæ — in Cassiopeia's leg	B 59° 44′	23° 12′	25° 3′	B 61° 45′	22° 0′	23° 47′
153	Cornu ♈ præcedens — the preceding horn of Aries	B 17° 42′	23° 31′	25° 22′	B 17° 25′	23° 14′	25° 5′
152	Sequens trium poſt flexum ♓ — the following of the three after the bend of the Fishes	B 1° 29′	23° 37′	25° 28′	B 1° 19′	23° 30′	25° 22′
15	Apex trianguli — the apex of the Triangle	B 27° 48′	24° 6′	26° 0′	B 27° 45′	22° 54′	24° 44′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
11	Cornu ♈ ſequens — the following horn of Aries	B 19° 1′	24° 6′	26° 0′	B 18° 57′	23° 26′	25° 18′
310	In nexu amborum linorum ♓ — at the knot of both cords of the Fishes	B 1° 28′	25° 28′	27° 26′	B 0° 55′	25° 37′	27° 37′
307	Auſtralis trium in corpore Ceti — the southern of the three in Cetus' body	M 22° 17′	25° 46′	27° 45′	M 22° 56′	25° 34′	27° 34′
13	Informis ſuper ♈ caput lucida in vertice Tych. — the unformed bright star above the head of Aries, at the crown in Tycho	B 21° 34′	26° 6′	28° 6′	B 21° 39′	26° 30′	28° 33′
20	Siniſter pes Andromedæ — Andromeda's left foot	B 35° 53′	27° 4′	29° 7′	B 40° 29′	25° 12′	27° 10′
16	Præcedens baſis trianguli — the preceding star of the Triangle's base	B 33° 26′	27° 21′	29° 25′	B 33° 11′	26° 50′	28° 53′
17	In baſi trianguli media — the middle star in the Triangle's base	B 33° 14′	27° 40′	29° 45′	B 32° 36′	28° 31′	0° ♉ 39′
24	In extremo dextræ manus Perſei — at the end of Perseus' right hand	B 55° 36′	28° 35′	0° ♉ 43′	B 54° 9′	29° 6′	1° 15′
154	Præcedens in juba Ceti — the preceding star in Cetus' mane	B 7° 20′	28° 45′	0° 53′	B 7° 2′	28° 15′	0° 22′
19	Sequens baſis trianguli — the following star of the Triangle's base	B 32° 12′	28° 57′	1° 5′	B 32° 6′	28° 44′	0° 53′
155	In capillamento Ceti — in Cetus' hair	B 6° 50′	33° 42′	6° 1′	B 6° 46′	32° 1′	4° 18′
313	Præcedens trium in genu Ceti — the preceding of the three at Cetus' knee	M 0° 58′	34° 41′	7° 2′	M 1° 21′	35° 5′	7° 27′
311	Borealis in pectore Ceti — the northern star in Cetus' breast	M 12° 41′	35° 11′	7° 33′	M 13° 27′	35° 16′	7° 38′
315	Medium oris Ceti — the middle of Cetus' mouth	B 2° 7′	35° 52′	8° 15′	B 1° 26′	35° 57′	8° 21′
156	In extremo pede poſteriore ♈ — at the end of Aries' hind foot	B 8° 46′	36° 2′	8° 24′	B 8° 25′	35° 56′	8° 20′
312	Auſtralis ſequens in pectore Ceti — the southern following star in Cetus' breast	M 14° 45′	36° 23′	8° 47′	M 15° 30′	36° 33′	8° 57′
22	Antecedens a capite Meduſæ — the star preceding from Medusa's head	B 36° 22′	36° 35′	8° 59′	B 36° 42′	36° 44′	9° 9′
26	In dextro humero Perſei — in Perseus' right shoulder	B 51° 49′	38° 53′	11° 19′	B 51° 59′	39° 23′	11° 50′
314	Ex quatuor fluvii prima — the first of the four of the River	M 9° 2′	39° 18′	11° 45′	M 10° 26′	39° 30′	11° 57′
317	Extrema mandibula Ceti — the end of Cetus' jaw	B 3° 50′	40° 30′	12° 57′	B 2° 35′	40° 40′	13° 8′
25	Caput Meduſæ ſeu Algol — Medusa's head, or Algol	B 40° 7′	41° 12′	13° 40′	B 39° 27′	40° 57′	13° 25′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
157	Præcedens caudæ ♈ — the preceding star of Aries' tail	B 18° 4′	42° 33′	15° 1′	B 17° 46′	42° 39′	15° 8′
309	Lucida Eridani Acarnar — the bright star of Eridanus, Achernar	M 40° 40′	43° 25′	15° 53′			
158	Media caudæ ♈ — the middle star of Aries' tail	B 19° 17′	43° 44′	16° 12′	B 19° 36′	43° 20′	15° 49′
28	Dextrum latus Perſei — Perseus' right side	B 48° 15′	44° 3′	16° 32′	B 48° 24′	44° 6′	16° 35′
316	Sequens ex ✳ 4 fluvii Eridani Tychoni tertia — the following of the 4 stars of the river Eridanus, Tycho's third	M 9° 46′	44° 27′	16° 55′	M 10° 15′	44° 24′	16° 53′
161	ultima caudæ ♈ — the last star of Aries' tail	B 19° 8′	45° 37′	18° 5′	B 19° 47′	44° 49′	17° 18′
321	Ex 4 in ſect. ♉ Auſtrali tertia — of the 4 in the section of Taurus, the third southern	B 8° 33′	46° 18′	18° 46′	B 8° 23′	46° 39′	19° 7′
320	Ex 4 in ſect. ♉ Auſtrali quarta — of the 4 in the section of Taurus, the fourth southern	B 7° 48′	46° 22′	18° 50′	B 7° 40′	46° 7′	18° 36′
160	Borealior ſectionis ♉ — the more northerly of the section of Taurus	B 11° 25′	47° 12′	19° 39′	B 11° 37′	47° 29′	19° 57′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
159	Secunda ſectionis ♉ — the second of the section of Taurus	B 10° 8′	47° 14′	19° ♉ 41′	B 10° 0′	47° 26′	19° ♉ 54′
30	ultima dextri lateris Perſei — the last star of Perseus' right side	B 46° 38′	48° 41′	21° 7′	B 46° 31′	49° 5′	21° 31′
318	Præcedens omnes poſt intervallum fluvii — the star preceding them all, after the gap in the River	M 10° 48′	49° 33′	21° 58′	M 10° 45′	48° 50′	21° 16′
162	Borealior Plejadum — the more northerly of the Pleiades	B 23° 6′	50° 14′	22° 39′	B 22° 55′	50° 36′	23° 1′
27	Siniſter calcaneus Perſei — Perseus' left heel	B 30° 54′	50° 26′	22° 50′	B 31° 2′	50° 9′	22° 34′
163	Auſtralior Plejadum — the more southerly of the Pleiades	B 23° 21′	50° 30′	22° 55′	B 22° 50′	50° 52′	23° 16′
164	Exigua Plejadum — the small star of the Pleiades	B 21° 46′	51° 7′	23° 31′	B 22° 53′	51° 15′	23° 39′
319	Tertia præcedens poſt intervallum fluvii — the third preceding star after the gap in the River	M 11° 5′	51° 30′	23° 53′	M 11° 5′	51° 10′	23° 34′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Asc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Asc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
165	Anguſtiſſimus terminus Plejadum — the narrowest limit of the Pleiades	B 24° 16′	51° 33′	23° 56′	B 22° 54′	51° 39′	24° 2′
322	Præcedens ex 4 ſeq. poſt intervallum fluvii — the preceding of the 4 following stars after the gap in the River	M 13° 3′	52° 34′	24° 56′	B 13° 18′	52° 4′	24° 27′
32	Siniſtrum genu Perſei — Perseus' left knee	B 39° 32′	52° 50′	25° 12′	B 38° 52′	53° 11′	25° 32′
29	Extremum ſiniſtri pedis Perſei — the end of Perseus' left foot	B 30° 26′	52° 51′	25° 13′	B 30° 44′	52° 40′	25° 2′
31	Siniſtrum crus Perſei — Perseus' left shin	B 34° 32′	53° 59′	26° 18′	B 34° 39′	53° 37′	25° 57′
324	Pectus ♉ — the breast of Taurus	B 11° 20′	54° 55′	27° 12′	B 11° 20′	54° 55′	27° 12′
323	Maxime ſequens poſt intervallum fluvii — the last following star after the gap in the River	M 14° 13′	55° 12′	27° 28′	B 14° 35′	55° 13′	27° 30′
166	Prima hyadum in naribus — the first of the Hyades, in the nostrils	B 14° 36′	59° 22′	1° ♊ 29′	B 14° 31′	59° 35′	1° ♊ 42′
167	Secunda hyadum ad oculum Boreum — the second of the Hyades, at the northern eye	B 16° 25′	60° 49′	2° 53′	B 16° 36′	60° 16′	2° 22′
168	Tertia hyadum ad oculum Auſtrinum — the third of the Hyades, at the southern eye	B 14° 57′	61° 34′	3° 26′	B 14° 59′	61° 46′	3° 47′
169	Quarta hyadum oculus Boreus — the fourth of the Hyades, the northern eye	B 17° 56′	62° 2′	4° 2′	B 18° 18′	61° 39′	3° 41′
170	Oculus ♉ Aldebaran — the eye of Taurus, Aldebaran	B 15° 57′	63° 18′	5° 14′	B 15° 41′	63° 33′	5° 29′
171	In origine cornu Borealis ♉ 20 Copern. — at the root of the northern horn of Taurus; 20 in Copernicus	B 25° 30′	64° 42′	6° 33′	B 22° 11′	64° 54′	6° 45′
325	Sexta clypei Orionis — the sixth star of Orion's shield	B 5° 44′	66° 59′	8° 42′	B 6° 15′	67° 25′	9° 8′
326	Septima clypei Orionis — the seventh star of Orion's shield	B 4° 29′	67° 36′	9° 17′	B 4° 55′	67° 48′	9° 29′
172	Ad radicem cornu Auſtralis ♉ — at the root of the southern horn of Taurus	B 17° 50′	67° 43′	9° 24′	B 18° 11′	67° 20′	9° 3′
33	Siniſter talus Aurigæ — the Charioteer's left ankle	B 32° 16′	68° 13′	9° 52′	B 32° 29′	68° 6′	9° 46′
327	Octava clypei Orionis — the eighth star of Orion's shield	B 1° 26′	68° 27′	10° 5′	B 1° 49′	68° 41′	10° 19′
328	ultima clypei Orionis — the last star of Orion's shield	B 0° 26′	69° 34′	11° 8′	B 1° 5′	69° 44′	11° 18′
34	Prior hædorum — the earlier of the Kids	B 40° 20′	69° 40′	11° 14′	B 40° 28′	69° 3′	10° 40′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Afc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Afc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
35	Sequens hædorum — the following of the Kids	B 40° 24′	70° 17′	11° 48′	B 40° 37′	69° 57′	11° 30′
173	Auſtralis in cornu Auſtrali ♉ — the southern star in the southern horn of Taurus	B 17° 18′	71° 9′	12° 37′	B 19° 53′	71° 22′	12° 49′
36	Capella hircus — Capella, the She-goat	B 45° 8′	72° 21′	13° 44′	B 45° 32′	72° 11′	13° 35′
330	Siniſter humerus Orionis — Orion's left shoulder	B 4° 54′	72° 46′	14° 8′	B 5° 57′	76° 13′	17° 20′
329	Siniſter pes Orionis — Orion's left foot	B 9° 12′	73° 29′	14° 47′	B 8° 40′	74° 8′	15° 23′
174	In extremo cornu ♉ Bor. dexter talus Aurigæ — at the end of the northern horn of Taurus; the Charioteer's right ankle	B 27° 49′	75° 38′	16° 47′	B 28° 13′	75° 35′	16° 45′
331	In manubrio enſis Orionis — on the hilt of Orion's sword	M 3° 2′	76° 48′	17° 51′	M 2° 47′	76° 24′	17° 30′
175	In extremo cornu Auſtralis ♉ — at the end of the southern horn of Taurus	B 20° 30′	78° 3′	19° 1′	B 20° 53′	78° 45′	19° 40′
333	Præcedens trium cinguli Orionis — the preceding of the three in Orion's belt	M 1° 15′	78° 7′	19° 5′	M 0° 38′	78° 13′	19° 10′
336	Media enſis Orionis — the middle star of Orion's sword	M 6° 28′	79° 45′	20° 35′	M 5° 41′	79° 10′	20° 3′

#	Nomina stellarum — name of the star	Declinat. (Copernicus) — B north, M south	Afc. Rec. (Copernicus)	Med. cœ. (Copernicus)	Declinat. (Tycho Brahe) — B north, M south	Afc. Rec. (Tycho Brahe)	Med. cœ. (Tycho Brahe)
332	Sub alvo ſeu ventre leporis — under the belly, or paunch, of the Hare	M 21° 22′	79° 48′	20° ♊ 38′	M 21° 5′	78° 1′	18° ♊ 59′
334	Medium corporis leporis — the middle of the Hare's body	M 18° 29′	79° 50′	20° 40′	M 18° 6′	79° 1′	19° 55′
337	Borealis in enſe Orionis — the northern star in Orion's sword	M 5° 37′	79° 50′	20° 40′	M 5° 6′	79° 11′	20° 4′
340	Nebuloſa in capite Orionis — the nebulous star in Orion's head	B 6° 32′	80° 4′	20° 52′	B 9° 38′	78° 37′	19° 33′
339	Occidentalis in capite Orionis — the western star in Orion's head				B 9° 10′	78° 35′	19° 30′
338	Auſtralior enſis Orionis — the more southerly star of Orion's sword	M 6° 46′	80° 5′	20° 53′	M 6° 13′	79° 16′	20° 8′

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341	Orientalis in capite Orionis — the eastern star in Orion's head				B 9° 1′	79° 2′	19° 56′
342	Media cinguli Orionis — the middle star of Orion's belt	M 1° 45′	80° 7′	20° 55′	M 1° 28′	79° 15′	20° 7′
335	Prior extra formam Canis — the earlier star outside the figure of the Dog	M 34° 33′	82° 0′	22° 40′			
344	Sequens cinguli Orionis — the following star of Orion's belt	M 2° 17′	82° 5′	22° 44′	M 2° 11′	80° 19′	21° 7′
38	Auriga humerus dexter — the Charioteer's right shoulder	B 43° 20′	83° 2′	23° 37′	B 44° 51′	83° 6′	23° 40′
345	Dextrum genu Orionis — Orion's right knee	M 10° 11′	83° 3′	23° 38′	M 9° 51′	82° 27′	23° 4′
346	Humerus dexter Orionis — Orion's right shoulder	B 6° 20′	83° 51′	24° 22′	B 7° 17′	83° 41′	24° 12′
343	Sequens informium extra Canem — the following of the unformed stars outside the Dog	M 36° 24′	84° 6′	24° 35′			
176	Antecedens ſummitatem pedis præced. ♊ — the star preceding the top of the foot of the preceding Twin	B 22° 44′	85° 21′	25° 44′	B 23° 9′	84° 58′	25° 23′
177	Lucens ante genu præcedentis ♊ — the star shining before the knee of the preceding Twin	B 29° 17′	87° 42′	27° 53′	B 29° 35′	87° 47′	27° 58′
178	Prior pedis præcedentis ♊ — the earlier star of the foot of the preceding Twin	B 21° 57′	87° 54′	28° 5′	B 22° 33′	88° 7′	28° 17′
179	Sequens pedis præcedent : ♊ — the following star of the foot of the preceding Twin	B 22° 13′	89° 41′	29° 43′	B 22° 38′	90° 1′	0° ♋ 1′
347	In extremo dextri pedis Canis — at the end of the Dog's right foot	M 32° 13′	90° 51′	0° ♋ 47′	M 27° 53′	90° 59′	0° 54′
180	In extremo dextri pedis ſequentis ♊ — at the end of the right foot of the following Twin	B 19° 57′	91° 52′	1° 43′	B 20° 23′	91° 37′	1° 29′
348	In extremo pedis prioris Canis — at the end of the Dog's earlier foot	M 17° 54′	91° 59′	1° 50′	M 17° 52′	91° 34′	1° 27′
349	Canobus in Argo Navi — Canopus, in the ship Argo	M 51° 38′	93° 38′	3° 20′			
181	In ſummo pede ſiniſtro ſequentis ♊ — at the top of the left foot of the following Twin	B 15° 55′	93° 39′	3° 21′	B 16° 40′	93° 56′	3° 37′
182	Siniſtrum genu præcedentis ♊ — the left knee of the preceding Twin	B 24° 52′	95° 16′	4° 50′	B 25° 37′	95° 9′	4° 43′

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351	In temone Boreo Argo navis ſequens — the following star in the northern tiller of the ship Argo	M 42° 28′	96° 36′	6° 4′			
350	Canis maior Sirius — the Greater Dog, Sirius	M 15° 58′	97° 47′	7° 9′	M 16° 12′	97° 7′	6° 33′
354	Reliqua ſequens in temone Navis — the remaining following star in the ship's tiller	M 49° 3′	99° 38′	8° 51′			
183	Sub ſiniſtro genu ſequens — the following star under the left knee	B 20° 36′	100° 34′	9° 43′	B 21° 4′	100° 25′	9° 34′
352	Sub ventre & inter femora Canis — under the belly and between the thighs of the Dog	M 28° 37′	100° 46′	9° 54′	M 28° 29′	101° 1′	10° 7′
184	Brachium ſiniſtrum præcedentis ♊ — the left arm of the preceding Twin	B 30° 23′	101° 49′	10° 52′	B 30° 49′	101° 46′	10° 49′
353	Eductio femoris ſiniſtri Canis — the springing of the Dog's left thigh	M 26° 8′	103° 18′	12° 14′	M 25° 49′	103° 17′	12° 13′
185	Poples dexter ſequentis ♊ — the right hough of the following Twin	B 16° 12′	103° 24′	12° 20′	B 17° 11′	104° 4′	12° 56′
186	In ſiniſtro bubone ſequentis ♊ — in the left groin of the following Twin	B 22° 18′	104° 22′	13° 13′	B 22° 39′	104° 21′	13° 12′
187	Scapulæ præcedentis ♊ — the shoulder-blade of the preceding Twin	B 28° 14′	105° 23′	14° 10′	B 28° 30′	105° 32′	14° 18′
357	Argo navis in carina puppis — the ship Argo, in the keel of the stern	M 36° 29′	106° 25′	15° 7′			
39	Caput ♊ præcedens, Apollinis — the head of the preceding Twin, Apollo's	B 32° 4′	106° 33′	15° 15′	B 32° 39′	107° 35′	16° 12′
356	Extremitas caudæ Canis — the tip of the Dog's tail	M 28° 24′	106° 47′	15° 28′	M 29° 20′	107° 28′	16° 6′
188	Dexter humerus præcedentis ♊ — the right shoulder of the preceding Twin	B 27° 22′	107° 31′	16° 9′	B 27° 41′	108° 8′	16° 43′

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355	Canis minor Procyon — the Lesser Dog, Procyon	M 5° 52′	110° 2′	18° ♋ 30′	M 6° 10′	109° 53′	18° ♋ 21′
190	Siniſter humerus ſequentis ♊ — the left shoulder of the following Twin	B 24° 52′	110° 8′	18° 35′	B 25° 19′	110° 4′	18° 31′
189	Caput ♊ ſequens, Hercules — the head of the following Twin, Hercules	B 28° 26′	110° 34′	19° 0′	B 28° 53′	110° 31′	18° 56′
358	Fulgens ſcuti Argi — the bright star of Argo's shield	M 25° 46′	110° 44′	19° 9′	—	—	—
191	Lucida extra formam ♊ — the bright star outside the figure of the Twins	B 19° 0′	113° 37′	21° 51′	B 18° 48′	117° 18′	25° 19′
361	Sub tertia quæ ſequitur ſcutum Argi — beneath the third that follows Argo's shield	M 34° 10′	114° 51′	23° 1′	—	—	—
192	Pedis Borei ♋ extremum — the tip of the Crab's northern foot	B 22° 17′	116° 22′	24° 27′	B 22° 35′	116° 22′	24° 27′
363	Lucida ſequens in tranſtro Navis — the bright following star on the ship's thwart	M 38° 51′	117° 24′	25° 26′	—	—	—
362	In ſectione inſtrati Navis — in the section of the ship's decking	M 31° 29′	117° 36′	25° 37′	—	—	—
360	Sequens duarum in extremo Navis — the following of the two at the ship's end	M 23° 16′	117° 42′	25° 43′	—	—	—
40	Helicis in roſtro — in the muzzle of Helice	B 61° 39′	118° 7′	26° 7′	B 61° 44′	119° 45′	27° 40′
193	Pedis Auſtrini ♋ extremum — the tip of the Crab's southern foot	B 13° 4′	119° 23′	27° 19′	B 14° 11′	115° 59′	24° 5′
366	Lucida Auſtralis infra Carinam Navis — the bright southern star below the ship's keel	M 52° 18′	119° 30′	27° 26′	—	—	—
364	Lucida ſequens in ſtratione Navis — the bright following star in the ship's decking	M 45° 35′	119° 35′	27° 31′	—	—	—
359	Informis circa capu: hydræ — the unformed star about the Hydra's head	M 3° 15′	121° 6′	28° 57′	M 2° 45′	122° 5′	29° 53′
195	Auſtralis duarum præced : quadrilateri ♋ — the southern of the two preceding stars of the Crab's quadrilateral	B 19° 7′	121° 31′	29° 21′	B 20° 54′	122° 50′	0° ♌ 37′

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194	Borealis duarum præced : quadrilateri ♋ — the northern of the two preceding stars of the Crab's quadrilateral	B 21° 33′	121° 42′	29° 32′	B 18° 43′	121° 58′	29° ♋ 47′
196	Pectus ♋ Præſepe — the Crab's breast, Praesepe	B 20° 24′	124° 19′	2° ♌ 3′	B 20° 59′	124° 37′	2° ♌ 20′
197	Aſinus Boreus in ♋ — the northern Ass in Cancer	B 22° 20′	124° 50′	2° 33′	B 22° 47′	125° 16′	2° 58′
198	Aſinus Auſtrinus in ♋ — the southern Ass in Cancer	B 19° 22′	125° 11′	2° 53′	B 19° 32′	125° 45′	3° 25′
368	Argo Navis ſequentium Carinam Anteced. — of the stars of Argo following the keel, the preceding	M 50° 27′	126° 32′	4° 12′	—	—	—
41	Auſtralis in dextro pede priori Helicis — the southern star in the Bear's forward right foot	B 48° 33′	127° 1′	4° 40′	B 48° 37′	127° 44′	5° 21′
370	Argo Navis ſequentium Carinam Media — of the stars of Argo following the keel, the middle	M 52° 6′	128° 19′	5° 56′	—	—	—
43	In dextro pede priore Borealis Helicis — the northern star in the Bear's forward right foot	B 49° 4′	128° 53′	6° 30′	B 49° 31′	126° 25′	4° 4′
199	Brachium Auſtrinum ♋ — the Crab's southern arm	B 12° 56′	129° 5′	6° 42′	B 13° 17′	129° 24′	6° 59′
42	In genu dextro Helicis prior — the forward star in the Bear's right knee	B 54° 42′	130° 31′	8° 6′	B 55° 37′	131° 45′	9° 18′
44	Prima obſcurarum & informium circa Helicem — the first of the faint and unformed stars about the Bear	B 42° 2′	131° 42′	9° 16′	B 39° 56′	130° 31′	11° 19′
372	Sequentium carinam Argo Navis trium ſequens — of the three of Argo following the keel, the following	M 53° 19′	132° 0′	9° 33′	—	—	—
200	Informis ſupra chelem ♋ præcedens — the preceding unformed star above the Crab's claw	B 14° 50′	132° 59′	10° 32′	B 12° 10′	131° 47′	9° 20′
45	Secunda obſcurarum circa Helicem — the second of the faint stars about the Bear	B 41° 16′	133° 2′	10° 36′	B 38° 23′	133° 47′	11° 19′
202	Informis circa ♋ ſequens — the following unformed star about the Crab	B 11° 24′	134° 6′	11° 38′	B 10° 33′	137° 2′	14° 33′

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47	Tertia obſcurarum circa Helicem — the third of the faint stars about the Bear	B 37° 33′	136° 33′	13° 5′	B 36° 1′	134° 30′	12° 1′
201	Os ♌ — the Lion's mouth	B 24° 9′	137° 33′	15° 5′	B 24° 38′	137° 28′	14° 59′
365	Lucida hydræ — the bright star of the Hydra	M 5° 9′	137° 36′	15° 8′	M 7° 2′	137° 15′	14° 46′
374	Sequentium in Navi præcedens ad ſectionem — of the following stars in the ship, the one preceding toward the section	M 52° 26′	137° 58′	15° 30′	—	—	—
48	Quarta obſcurarum circa Helicem — the fourth of the faint stars about the Bear	B 39° 26′	138° 25′	15° 57′	B 38° 4′	137° 38′	15° 9′
55	In capite ♌ duarum Auſtralis — the southern of the two in the Lion's head	B 25° 10′	141° 19′	18° 53′	B 25° 30′	141° 0′	18° 33′
203	Dextrum genu ♌ — the Lion's right knee	B 15° 10′	141° 23′	18° 57′	B 15° 41′	140° 43′	16° 16′

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204	Siniſtrum genu anterius ♌ — the Lion's left forward knee	B 10° 38′	141° 53′	19° ♌ 26′	B 11° 36′	140° 11′	17° ♌ 43′
56	In capite ♌ duarum Borea — the northern of the two in the Lion's head	B 27° 29′	142° 26′	20° 1′	B 27° 48′	142° 46′	20° 20′
375	Sequentium in Navi ad ſectionem ſequens — of the following stars in the ship, the one following toward the section	M 54° 9′	142° 38′	20° 14′	—	—	—
305	Antecedens regulum proxime in ♌ — the star immediately preceding Regulus in Leo	—	—	—	B 14° 14′	144° 23′	22° 0′
208	In drace ſiniſtra priore ♌ — in the Lion's forward left *drace*	B 9° 30′	145° 0′	22° 39′	B 9° 51′	145° 3′	22° 41′
367	Informis circa collum hydræ — the unformed star about the Hydra's neck	M 13° 44′	145° 13′	22° 52′	M 9° 57′	148° 16′	26° 0′

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206	Auſtralior trium colli ♌ — the more southerly of the three in the Lion's neck	B 18° 22′	146° 10′	23° 51′	B 18° 37′	144° 19′	21° 56′
207	Cor ♌ Regulus — the Lion's Heart, Regulus	B 13° 40′	146° 29′	24° 10′	B 13° 48′	147° 2′	24° 44′
209	Pectus ♌ — the Lion's breast	B 11° 27′	146° 45′	24° 27′	B 11° 51′	146° 55′	24° 36′
58	In collo ♌ trium Borea — the northern of the three in the Lion's neck	B 24° 38′	148° 3′	25° 48′	B 25° 38′	147° 50′	25° 33′
53	In pede poſteriori ſiniſtro Helicis Borealis — the northern star in the Bear's left hind foot	B 44° 25′	148° 16′	26° 1′	B 44° 48′	148° 28′	26° 12′
54	In pede poſteriori ſiniſtro Helicis Auſtralis — the southern star in the Bear's left hind foot	B 42° 48′	149° 5′	26° 52′	B 43° 23′	149° 8′	26° 54′
59	Media cervicis vel colli ♌ — the middle star of the Lion's nape or neck	B 21° 36′	149° 5′	26° 52′	B 21° 44′	149° 44′	27° 31′
369	Hydræ in recta linea trium præcedens — of the three of the Hydra in a straight line, the preceding	M 14° 44′	151° 52′	29° 45′	M 14° 59′	151° 58′	29° 5[?]′
210	Siniſtra axilla ♌ — the Lion's left armpit	B 11° 3′	152° 47′	0° ♍ 43′	B 11° 15′	153° 11′	1° ♍ 7′
371	Hydræ in recta linea trium ſequens — of the three of the Hydra in a straight line, the following	M 14° 23′	156° 11′	4° 18′	M 14° 13′	157° 46′	5° 50′
52	Ilia urſæ maioris — the Great Bear's flank	B 58° 0′	158° 34′	6° 50′	B 58° 25′	159° 30′	7° 49′
373	Baſis crateris hydræ communis — the base of the Cup, shared with the Hydra	M 16° 23′	159° 46′	8° 6′	M 16° 16′	160° 22′	8° 45′
211	Informis ſub ventre ♌ — the unformed star under the Lion's belly	B 9° 37′	160° 12′	8° 34′	B 9° 22′	161° 21′	9° 47′
51	Humerus urſæ maioris — the Great Bear's shoulder	B 62° 19′	161° 51′	10° 20′	B 63° 48′	159° 58′	8° 18′
66	Tergum ♌ ſeu ſequens in lumbis — the Lion's back, that is the following star in the loins	B 22° 3′	162° 58′	11° 33′	B 22° 37′	163° 27′	12° 3′
67	In clune ♌ Auſtrina — in the Lion's southern haunch	B 17° 32′	163° 23′	11° 59′	B 17° 31′	163° 34′	12° 10′

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63	Auſtralis pedis dextri poſterioris Helicis — the southern star of the Bear's right hind foot	B 33° 53′	163° 44′	12° 22′	B 33° 49′	164° 22′	13° 1′
214	Sub cubit is ♌ — under the Lion's elbows	B 5° 48′	164° 15′	12° 55′	B 4° 57′	167° 7′	16° 0′
62	Borealis pedis dextri poſterioris Helicis — the northern star of the Bear's right hind foot	B 34° 49′	164° 22′	13° 2′	B 35° 18′	164° 23′	13° 3′
64	In extrema cauda Draconis — at the end of the Dragon's tail	B 70° 47′	164° 31′	13° 12′	B 71° 23′	166° 46′	15° 37′
213	Poples poſterior ♌ — the Lion's hind hock	B 7° 44′	165° 3′	13° 47′	B 8° 5′	165° 21′	14° 5′
212	In poſteriori femore ♌ — in the Lion's hind thigh	B 12° 28′	165° 37′	14° 23′	B 12° 38′	166° 2′	14° 50′
215	Extremitas alæ ſiniſtræ Auſtrinæ ♍ — the tip of the Virgin's southern left wing	B 4° 0′	171° 25′	20° 39′	B 3° 55′	172° 46′	22° 7′
70	Cauda ♌ — the Lion's tail	B 16° 20′	171° 56′	21° 13′	B 16° 42′	172° 23′	21° 43′
378	Hydræ antepenultima — the Hydra's antepenultimate star	M 31° 50′	172° 1′	21° 19′	—	—	—
61	Crus ſiniſtrum poſterius urſæ maioris — the Great Bear's left hind leg	B 55° 7′	173° 11′	22° 35′	B 55° 50′	173° 21′	22° 45′
69	Duarum Auſtralium Comæ Berenicis præced. — of the two southern stars of Berenice's Hair, the preceding	B 29° 53′	174° 14′	23° 44′	—	—	—
376	Corvi collum ſeu cervix, Tychoni oculus — the Raven's neck or nape; for Tycho, the eye	M 20° 21′	177° 17′	27° 2′	M 20° 30′	177° 41′	27° 28′
377	Roſtrum Corvi hydræ communis — the Raven's beak, shared with the Hydra	M 22° 27′	177° 20′	27° 6′	M 22° 37′	177° 14′	26° 59′
60	Eductio caudæ urſæ maioris — where the Great Bear's tail springs out	B 59° 2′	177° 24′	27° 10′	B 59° 8′	179° 16′	29° 12′
382	Femur dextrum Centauri — the Centaur's right thigh	M 50° 49′	177° 38′	27° 25′	—	—	—
386	Poples dextri pedis Centauri — the hock of the Centaur's right foot	M 57° 42′	179° 5′	29° 0′	—	—	—

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216	Prima ex 4 alæ ſiniſtræ ♍ — the first of the 4 in the Virgin's left wing	B 1° 9′	180° 14′	0° ♎ 15′	B 1° 29′	179° 51′	29° ♍ 50′
71	Crines Berenices — Berenice's Hair	B 32° 38′	180° 40′	0° 43′	—	—	—
73	Sequens duarum Auſtralium comæ Berenices — the following of the two southern stars of Berenice's Hair	B 27° 9′	181° 53′	2° 3′	—	—	♎
380	Ala dextra Corvi — the Raven's right wing	M 17° 12′	182° 19′	2° 32′	B 15° 23′	180° 50′	0° 55′
379	Antecedens alæ ſequentis Corvi — the preceding star of the Raven's following wing	M 14° 44′	182° 30′	2° 44′	M 14° 22′	182° 36′	2° 50′
50	Proxima extremæ in cauda Draconis — the star next to the last in the Dragon's tail	B 71° 39′	182° 44′	2° 59′	B 71° 52′	183° 30′	3° 49′
388	Talus Centauri — the Centaur's ankle	M 60° 13′	183° 27′	3° 46′	—	—	—
381	Pes extremus Corvi — the tip of the Raven's foot	M 21° 26′	183° 37′	3° 57′	M 21° 16′	183° 40′	4° 0′
217	Secunda alæ ſiniſtræ ♍ — the second in the Virgin's left wing	B 0° 42′	185° 30′	6° 0′	B 0° 40′	185° 35′	6° 5′
383	Centauri in lumbis trium ſequens — of the three in the Centaur's loins, the following	M 46° 54′	185° 42′	6° 13′	—	—	—
385	Summitas pedis dextri Centauri — the top of the Centaur's right foot	M 48° 53′	187° 13′	7° 52′	—	—	—
65	Prima trium caudæ urſæ maioris — the first of the three in the Great Bear's tail	B 57° 22′	188° 24′	9° 9′	B 58° 4′	189° 14′	10° 3′
387	Centauri ſub dextro pede poſteriori — the Centaur's star under the right hind foot	M 58° 0′	188° 29′	9° 14′	—	—	—
76	Sub cingulo ♍ in dextro latere — under the Virgin's girdle, on the right side	B 5° 26′	188° 49′	9° 36′	B 5° 30′	189° 9′	8° 58′
218	Ex 4 alæ ſiniſtræ ♍ Tertia — of the 4 in the Virgin's left wing, the third	M 0° 52′	189° 16′	10° 5′	M 1° 41′	189° 54′	10° 47′
72	Informis Helice circa Caudam — the unformed star about the Bear's tail	B 40° 0′	189° 24′	10° 14′	B 40° 51′	188° 27′	9° 12′

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75	Vindemiator — the Vintager	B 12° 15′	189° 36′	10° 27′	B 13° 2′	190° 52′	11° 49′
219	Quarta alæ ſiniſtræ ♍ — the fourth in the Virgin's left wing	M 3° 26′	192° 18′	13° 22′	M 3° 30′	192° 33′	13° 39′
390	Præcedens duarum ſub alvo Centauri — the preceding of the two under the Centaur's belly	M 53° 39′	193° 55′	15° 7′	—	—	—
391	Centauri ſub alvo ſequens — the Centaur's following star under the belly	M 54° 44′	194° 28′	15° 47′	—	—	—
384	Humerus ſiniſter præcedens Centauri — the Centaur's preceding left shoulder	M 35° 22′	194° 57′	16° 14′	—	—	—
68	Media caudæ urſæ maioris — the middle star of the Great Bear's tail	B 56° 41′	195° 39′	17° 1′	B 56° 57′	197° 6′	18° 33′
220	Spica ♍ — Spica, in Virgo	M 9° 1′	196° 6′	17° 28′	M 9° 8′	196° 20′	17° 44′
79	Sub cingulo ♍ in clune dextra — under the Virgin's girdle, on the right haunch	B 1° 32′	198° 28′	20° 0′	B 1° 25′	198° 41′	20° 15′
394	Siniſtrum genu Centauri — the Centaur's left knee	M 58° 37′	200° 0′	21° 39′	—	—	—
221	Borealis quadrilateri ſiniſtri femoris ♍ — the northern star of the quadrilateral of the Virgin's left thigh	M 7° 2′	200° 34′	22° 15′	B 6° 45′	200° 27′	22° 8′
74	ultima caudæ urſæ maioris — the last star of the Great Bear's tail	B 50° 59′	202° 36′	24° 25′	B 51° 16′	203° 7′	24° 58′
392	Lucida corporis humani Centauri — the bright star of the Centaur's human body	M 45° 53′	202° 40′	24° 29′	—	—	—
78	Borea ſiniſtræ tibiæ Bootis — the northern star of Boötes' left shin	B 20° 36′	203° 12′	25° 3′	B 20° 20′	204° 9′	26° 4′
389	Humerus dexter Centauri — the Centaur's right shoulder	M 35° 1′	206° 10′	28° 11′	—	—	—
64	Tertia ab extrema in cauda Draconis — the third from the end in the Dragon's tail	B 65° 32′	207° 4′	29° 7′	B 66° 11′	209° 20′	1° ♏ 30′
223	Auſtrina in Syrmate ♍ — the southern star in the Virgin's train	M 8° 37′	207° 47′	29° 52′	M 8° 33′	208° 4′	0° 11′
222	Media in Syrmate ♍ — the middle star in the Virgin's train	M 3° 51′	209° 0′	1° ♏ 9′	M 4° 4′	209° 1′	1° 10′

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80	Arcturus	B 21° 48′	209° 33′	1° 43′	B 21° 13′	209° 37′	1° 48′
224	Sinister pes ♍ — the Virgin's left foot	M 11° 35′	209° 38′	1° 48′	M 11° 36′	209° 40′	1° 51′
393	Centauri cubitus dexter — the Centaur's right elbow	M 40° 4′	212° 30′	4° 47′	—	—	—
77	Humerus sinister Bootis — Boötes' left shoulder	B 39° 53′	213° 2′	5° 28′	B 39° 38′	214° 58′	7° 20′
49	Lucida Cynosuræ in quadrangulo Austr. — the bright star of Cynosura, in the southern quadrangle	B 75° 29′	214° 59′	7° 21′	B 75° 50′	222° 48′	15° 17′

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82	Calcaneus dexter Bootis — the right heel of Boötes	B 15° 44′	215° 9′	7° ♏ 32′	B 18° 8′	215° 44′	8° ♏ 7′
83	Virginis dexter seu Boreus pes — the Virgin's right, that is northern, foot	M 3° 42′	215° 23′	7° 45′	M 3° 54′	215° 47′	8° 11′
81	Dextram femur Bootis — the right thigh of Boötes	B 28° 44′	216° 0′	8° 23′	B 28° 42′	217° 59′	9° 23′
225	Luminosior lancis Australis — the brighter star of the southern pan of the Balance	M 14° 5′	217° 28′	9° 33′	M 14° 48′	217° 23′	9° 48′
395	Lupi in poplite pedis posterioris — in the hock of the Wolf's hind foot	M 36° 17′	218° 4′	10° 29′	—	—	—
396	Lupi in summo pede posteriori — at the top of the Wolf's hind foot	M 41° 20′	218° 31′	10° 57′	—	—	—
227	Præcedens informem sub Austrina lance — the star preceding the unformed one beneath the southern pan	M 23° 23′	219° 46′	12° 13′	M 23° 53′	220° 56′	13° 25′
226	Præcedens Australis lancis — the preceding star of the southern pan	M 14° 33′	220° 54′	13° 21′	M 14° 33′	220° 38′	13° 6′
57	Lucida Cynosura in quadrangulo Boreæ — the bright star of Cynosura in the northern quadrangle	B 72° 45′	221° 35′	14° 3′	B 73° 26′	231° 19′	23° 43′

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228	In medio lancis Auſtrinæ — in the middle of the southern pan	M 14° 56′	223° 40′	16° 8′	M 14° 0′	225° 0′	17° 30′
87	Lancis Borealis lucens — the bright star of the northern pan	M 7° 57′	223° 54′	16° 22′	M 7° 55′	224° 11′	16° 40′
229	In medio lancis Boreæ — in the middle of the northern pan	M 13° 54′	227° 43′	20° 10′	M 13° 27′	228° 37′	21° 4′
84	Lucida Coronæ — the bright star of the Crown	B 28° 24′	229° 21′	21° 47′	B 28° 2′	229° 39′	22° 5′
85	Prima converſionis colli Serpentis — the first star of the coil of the Serpent's neck	B 12° 7′	229° 29′	21° 54′	B 11° 52′	229° 12′	21° 39′
230	Informis inter chelas — the unformed star between the Claws	M 16° 20′	230° 5′	22° 30′	M 14° 25′	230° 44′	23° 9′
89	Media converſionis colli Serpentis — the middle star of the coil of the Serpent's neck	B 7° 42′	230° 41′	23° 5′	B 7° 41′	231° 27′	23° 51′
86	Eductio colli Serpentis — where the Serpent's neck is drawn out	B 16° 48′	231° 15′	23° 38′	B 16° 43′	232° 13′	24° 36′
90	Auſtrina converſionis colli Serpentis — the southern star of the coil of the Serpent's neck	B 5° 56′	232° 0′	24° 23′	B 5° 41′	233° 2′	25° 29′
235	In pede ♏ ad Auſtrum — in the Scorpion's foot, toward the south	M 27° 15′	233° 23′	25° 43′	M 28° 1′	233° 35′	25° 56′
231	Sequens in lance Boreali — the following star in the northern pan	M 14° 35′	233° 23′	25° 43′	M 15° 32′	233° 2′	25° 23′
88	In tempore Serpentis — at the Serpent's temple	B 16° 58′	233° 30′	25° 50′	B 16° 59′	234° 46′	27° 4′
234	Auſtrina frontis ♏ — the southern star of the Scorpion's forehead	M 24° 25′	233° 46′	26° 5′	M 24° 57′	234° 4′	26° 24′
232	Informis ſupra lancem Boream — the unformed star above the northern pan	M 12° 37′	234° 36′	26° 54′	M 13° 9′	234° 14′	26° 33′
233	Media frontis ♏ — the middle star of the Scorpion's forehead	M 21° 11′	234° 37′	26° 55′	M 21° 29′	234° 30′	26° 49′

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236	Borea frontis ♏ — the northern star of the Scorpion's forehead	M 18° 25′	236° 2′	28° 17′	M 18° 27′	235° 53′	28° 9′
237	Borea coniunctarum in ♏ — the northern of the joined stars in Scorpio	M 18° 14′	236° 47′	29° 1′	M 18° 25′	238° 13′	0° ♐ 24′
238	Auſtrina coniunctarum in ♏ — the southern of the joined stars in Scorpio	M 19° 27′	236° 51′	29° 5′	M 19° 35′	235° 54′	28° ♏ 10′
94	Præcedens in ſiniſtra manu Ophiuchi — the preceding star in Ophiuchus's left hand	M 2° 51′	238° 13′	0° ♐ 23′	M 2° 41′	238° 41′	0° ♐ 51′
95	Sequens in ſiniſtra manu Ophiuchi — the following star in Ophiuchus's left hand	M 7° 26′	238° 13′	0° 23′	M 3° 43′	239° 37′	1° 44′
240	Præcedens in corpore ♏ — the preceding star in the Scorpion's body	M 24° 19′	239° 23′	1° 30′	M 24° 34′	239° 32′	1° 38′
239	Cavum ſiniſtri pedis Ophiuchi — the hollow of Ophiuchus's left foot	M 19° 55′	240° 22′	2° 27′	—	—	—
92	Brachium dextrum Engonaſi — the right arm of Engonasin, the Kneeler	B 20° 21′	240° 51′	2° 54′	B 20° 7′	241° 18′	3° 21′
241	Cor ♍ — the Heart of Virgo	M 24° 57′	241° 29′	3° 31′	M 25° 29′	241° 40′	3° 39′
93	Humerus dexter Engonaſi — the right shoulder of Engonasin	B 22° 43′	243° 10′	5° 7′	B 22° 24′	243° 28′	5° 24′
242	Sequens in corpore ♏ — the following star in the Scorpion's body	M 26° 46′	243° 11′	5° 8′	M 27° 9′	243° 8′	5° 5′
96	Siniſtrum genu Ophiuchi — Ophiuchus's left knee	M 9° 18′	244° 2′	5° 56′	M 9° 42′	244° 6′	5° 3′
397	Primus ſpondylus corporis ♏ — the first vertebra of the Scorpion's body	M 32° 52′	246° 36′	8° 21′	—	—	—
398	Auſtrina tertii ſpondyli — the southern star of the third vertebra	M 40° 2′	247° 12′	8° 55′	—	—	—

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399	Quartus ſpondylus ♏ — the fourth vertebra of the Scorpion	M 41° 57′	250° 35′	12° ♐ 5′	—	—	—
243	Dextrum genu Ophiuchi — Ophiuchus's right knee	M 14° 56′	252° 21′	13° 44′	M 15° 6′	252° 12′	13° ♐ 36′
100	Caput Herculis — the head of Hercules	B 15° 15′	253° 2′	14° 22′	B 14° 54′	254° 19′	15° 33′
244	Præcedens dextri pedis Ophiuchi — the preceding star of Ophiuchus's right foot	M 20° 21′	253° 37′	14° 54′	—	—	—
99	Siniſter Humerus Herculis — the left shoulder of Hercules	B 25° 43′	254° 8′	15° 24′	B 25° 20′	254° 52′	16° 5′
91	Draconis lingua — the Dragon's tongue	B 55° 21′	254° 9′	15° 25′	B 55° 0′	254° 20′	15° 35′
245	Dextra tibia Ophiuchi — Ophiuchus's right shin	M 20° 24′	254° 17′	15° 32′	M 20° 27′	253° 37′	14° 55′
98	Herculis in femore ſiniſtro præcedens — the preceding star in Hercules's left thigh	B 37° 39′	254° 51′	16° 3′	B 37° 17′	255° 24′	16° 34′
247	Secunda dextri pedis Ophiuchi — the second star of Ophiuchus's right foot	M 21° 14′	254° 55′	16° 7′	—	—	—
248	Tertia pedis dextri Ophiuchi — the third star of Ophiuchus's right foot	M 22° 27′	255° 30′	16° 40′	—	—	—
246	Ophiuchi in calce dextri pedis — in the heel of Ophiuchus's right foot	—	—	—	M 29° 8′	255° 30′	16° 40′
249	Reliqua ſequens ex 4 dextri pedis Ophiuchi — the remaining following star of the four of Ophiuchus's right foot	M 22° 8′	256° 42′	17° 46′	—	—	—
400	Aculeus ſeu cauda ♏ — the sting, that is the tail, of the Scorpion	M 36° 18′	256° 50′	17° 53′	—	—	—
401	Quintus ſpondylus ♏ — the fifth vertebra of the Scorpion	M 41° 50′	256° 59′	18° 2′	—	—	—
402	Septimus ſpondylus ♏ — the seventh vertebra of the Scorpion	M 38° 15′	258° 28′	19° 24′	—	—	—
101	Caput Ophiuchi — the head of Ophiuchus	B 13° 4′	258° 51′	19° 45′	B 12° 54′	259° 20′	20° 12′
97	Supra oculum Draconis — above the Dragon's eye	B 53° 4′	259° 58′	20° 47′	B 52° 36′	260° 29′	21° 16′
403	Sextus ſpondylus ♏ — the sixth vertebra of the Scorpion	M 39° 52′	260° 11′	20° 59′	—	—	—

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404	Nebuloſa ſequens aculeum ♏ — the nebulous star following the Scorpion's sting	M 36° 29′	261° 5′	21° 49′	—	—	—
250	Cuſpis ſagittæ — the point of the arrow	M 29° 54′	265° 32′	25° 54′	—	—	—
102	Supra caput Draconis — above the Dragon's head	B 52° 8′	266° 37′	26° 55′	B 51° 37′	266° 58′	27° 13′
251	Borea extremitatis arcus ♐ — the northern star at the end of the Archer's bow	M 20° 37′	268° 12′	28° 21′	M 21° 3′	267° 49′	28° 0′
252	Manubrium ſiniſtræ manus ♐ — the grip in the Archer's left hand	M 29° 57′	269° 10′	29° 14′	—	—	—
405	In Auſtrali parte arcus ♐ — in the southern part of the Archer's bow	M 34° 18′	269° 33′	29° 34′	—	—	—
253	Auſtralis Borealis partis arcus ♐ — the southern star of the northern part of the Archer's bow	M 24° 57′	270° 39′	0° ♑ 36′	M 25° 31′	271° 11′	1° ♑ 5′
103	Lucida lyræ Fidicula — the bright star of the Lyre, Fidicula	B 38° 42′	274° 51′	4° 27′	B 38° 29′	276° 1′	5° 31′
254	Iaculum ♐ — the Archer's dart	M 27° 13′	275° 10′	4° 45′	M 27° 16′	275° 33′	5° 6′
255	Nebuloſa oculi ♐ — the nebulous star of the Archer's eye	M 22° 32′	277° 20′	6° 44′	—	—	—
256	Humerus ſiniſter ♐ — the Archer's left shoulder	M 26° 27′	277° 43′	7° 5′	M 26° 51′	277° 59′	7° 20′
257	Antecedens Capitis ♐ — the star preceding the Archer's head	M 21° 6′	277° 46′	7° 8′	M 21° 32′	278° 50′	8° 6′
258	Axilla ♐ — the Archer's armpit	M 29° 58′	279° 5′	8° 22′	—	—	—
259	Media capitis ♐ — the middle star of the Archer's head	M 21° 39′	279° 57′	9° 9′	M 22° 11′	280° 32′	9° 41′
105`	Caudam Aquilæ præcedens — the star preceding the Eagle's tail	—	—	—	B 14° 37′	280° 37′	9° 45′
406	In priori dextra ſuffragine ♐ — in the Archer's forward right hock	M 36° 11′	280° 3′	9° 14′	—	—	—
260	Media in armo ♐ — the middle star in the Archer's shoulder	M 27° 42′	280° 27′	9° 37′	—	—	—

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106	Cauda Aquilæ — the Eagle's tail	B 13° 29′	280° 32′	9° 41′	B 13° 21′	282° 0′	11° 2′
407	Genu ſiniſtri cruris ♐ — the knee of the Archer's left leg	M 41° 10′	280° 34′	9° 44′	—	—	—
261	Sequens capitis ♐ — the following star of the Archer's head	M 21° 2′	281° 32′	10° 36′	M 21° 33′	281° 50′	10° 52′

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104	Prima Antinoi — the first star of Antinous	M 4° 46′	282° 6′	11° ♑ 9′	M 5° 22′	281° 31′	10° ♑ 35′
408	In ſuffragine ſiniſtra priori ♐ — in the Archer's forward left hock	M 46° 5′	282° 22′	11° 23′	—	—	—
262	Sagittarii in ſcapulis Auſtralior — the more southern of the stars in the Archer's shoulder-blades	M 20° 0′	283° 45′	12° 39′	M 19° 48′	283° 50′	12° 43′
263	Media in ſcapulis ♐ — the middle star in the Archer's shoulder-blades	M 18° 15′	284° 37′	13° 27′	M 18° 30′	284° 56′	13° 45′
264	Sequens in ſcapulis ♐ — the following star in the Archer's shoulder-blades	M 16° 13′	284° 56′	13° 43′	M 16° 37′	285° 1′	13° 49′
107	In dextro brachio Antinoi — in Antinous's right arm	B 2° 25′	286° 55′	15° 35′	B 2° 27′	286° 33′	15° 15′
109	Latus dextrum Antinoi — Antinous's right side	M 2° 13′	288° 16′	16° 51′	M 1° 55′	289° 15′	17° 46′
112	Roſtrum Gallinæ — the Hen's beak	B 27° 34′	288° 52′	17° 23′	B 27° 11′	288° 53′	17° 25′
108	Genu Antinoi — Antinous's knee	M 6° 31′	290° 6′	18° 33′	M 7° 46′	289° 6′	17° 37′
110	Antecedens duarum ſiniſtri humeri Aquilæ — the preceding of the two at the Eagle's left shoulder	B 9° 51′	291° 17′	19° 40′	B 9° 44′	292° 6′	20° 25′
111	Aquila ſeu Vultur volans — the Eagle, that is the Flying Vulture	B 7° 39′	292° 17′	20° 36′	B 7° 56′	293° 4′	21° 19′
410	Siniſtrum femur ♐ — the Archer's left thigh	M 35° 28′	292° 48′	21° 5′	—	—	—

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113	Proximæ lucidæ in ſcapulis Aquilæ — the star next to the bright one in the Eagle's shoulders	B 8° 36′	292° 51′	21° 8′	B 10° 31′	292° 34′	20° 52′
120	In ancone alæ dextra Gallinæ — at the bend of the Hen's right wing	B 44° 29′	293° 7′	21° 26′	B 44° 15′	293° 20′	21° 35′
409	Anterior in dextro genu ♐ — the forward star in the Archer's right knee	M 42° 9′	293° 24′	21° 39′	—	—	—
114	Antecedens in collo Aquilæ — the preceding star in the Eagle's neck	B 5° 50′	293° 29′	21° 44′	B 5° 34′	294° 10′	22° 22′
115	Antinoi manus ſiniſtra — Antinous's left hand	B 1° 6′	298° 7′	26° 7′	M 1° 53′	297° 56′	25° 55′
265	Borealis præcedentis cornu ♑ — the northern star of the Goat's preceding horn	M 13° 3′	299° 34′	27° 30′	M 13° 37′	299° 15′	27° 11′
267	Media in ♑ præcedente cornu — the middle star in the Goat's preceding horn	M 13° 47′	299° 59′	27° 54′	M 13° 40′	299° 50′	27° 44′
266	Auſtralis præcedentis cornu ♑ — the southern star of the Goat's preceding horn	M 15° 30′	300° 5′	28° 1′	M 15° 53′	299° 57′	27° 51′
268	Præcedens rictus ♑ — the preceding star of the Goat's gaping mouth	M 18° 24′	302° 4′	29° 53′	M 18° 37′	301° 44′	29° 34′
269	Media rictus ♑ — the middle star of the Goat's mouth	M 18° 37′	302° 18′	0° ♒ 6′	M 19° 46′	302° 3′	29° 52′
270	Sequens rictus ♑ — the following star of the Goat's mouth	M 19° 18′	302° 39′	0° 27′	—	—	♒
129	Pectus Gallinæ — the Hen's breast	B 38° 28′	302° 54′	0° 41′	B 39° 5′	302° 12′	0° 0′
119	Rhomboides Delphini præced. lateris Auſtr. — the preceding star of the southern side of the Dolphin's rhomboid	B 13° 11′	304° 8′	1° 51′	B 13° 20′	305° 4′	2° 46′
118	Cauda Delphini — the Dolphin's tail	B 10° 15′	304° 11′	1° 54′	B 9° 33′	303° 43′	1° 28′
121	Rhomboides Delphini præced. lateris Borea — the preceding star of the northern side of the Dolphin's rhomboid	B 15° 20′	305° 1′	2° 44′	B 14° 37′	305° 30′	3° 11′
271	Dextrum genu ♑ — the Goat's right knee	M 25° 57′	306° 20′	4° 0′	M 26° 33′	306° 6′	3° 46′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Asc.Rec. Temp. / (Copernicus)	Med. cœ Part : / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Asc.Rec. Temp. / (Tycho Brahe)	Med.cœ. Part. / (Tycho Brahe)
116	Præcedens ſub ſiniſtra manu ♒ — the preceding star beneath the Water-pourer's left hand	M 10° 29′	306° 29′	4° 9′	M 10° 48′	306° 49′	4° 28′
122	Auſtralis ſequentis lateris Delphini — the southern star of the Dolphin's following side	B 13° 50′	306° 31′	4° 11′	B 13° 48′	306° 27′	4° 6′
134	Cauda Cygni — the Swan's tail	B 44° 12′	307° 30′	5° 9′	B 43° 57′	307° 51′	5° 28′
130	In ancone ſiniſtræ alæ Gallinæ — at the bend of the Hen's left wing	B 32° 41′	307° 41′	5° 19′	B 32° 34′	307° 42′	5° 20′
411	Prior lucidar. præced piſcem Auſtrinum — the earlier of the bright stars preceding the Southern Fish	M 41° 58′	307° 56′	5° 34′	—	—	—
123	Borealis ſequentis lateris Delphini — the northern star of the Dolphin's following side	B 15° 28′	307° 58′	5° 36′	B 14° 49′	307° 17′	4° 55′
117	Sub ſiniſtra manu ♒ ≀ Media — beneath the Water-pourer's left hand: the middle star	M 10° 36′	308° 4′	5° 42′	M 10° 21′	308° 1′	5° 38′
272	Sub ſiniſtra manu ♒ ∫ Sequens — beneath the Water-pourer's left hand: the following star	M 12° 54′	309° 14′	6° 50′	M 12° 50′	312° 14′	9° 47′
274	Antecedens in dorſo — the preceding star on the back	M 18° 13′	310° 42′	8° 16′	M 18° 38′	311° 13′	8° 46′
412	Media lucidar. præced. ♓ Auſtrinum — the middle of the bright stars preceding the Southern Fish	M 41° 0′	311° 37′	9° 11′	—	—	—

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Aſc. Rec Temp. / (Copernicus)	Med. cœ Grad. / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Aſc. Rec Temp. / (Tycho Brahe)	Med.cœ. Grad./ (Tycho Brahe)
125	Præcedens oris Equulei — the preceding star of Equuleus's mouth	B 8° 52′	312° 45′	10° ♒ 18′	B 8° 40′	312° 59′	10° ♒ 31′
273	♑ ſiniſter humerus — the Goat's left shoulder	M 25° 36′	312° 55′	10° 28′	M 26° 34′	310° 35′	8° 9′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Aſc. Rec Temp. / (Copernicus)	Med. cœ Grad. / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Aſc. Rec Temp. / (Tycho Brahe)	Med.cœ. Grad./ (Tycho Brahe)
127	Sequens oris Equulei — the following star of Equuleus's mouth	B 8° 45′	314° 2′	11° 34′	B 8° 34′	313° 59′	11° 30′
124	Præcedens capitis Equulei — the preceding star of Equuleus's head	B 4° 5′	314° 14′	11° 46′	B 3° 44′	314° 10′	11° 42′
133	In extremo ſiniſtræ alæ Gallinæ — at the tip of the Hen's left wing	B 29° 6′	314° 22′	11° 54′	B 28° 45′	314° 20′	11° 51′
413	Sequens lucidar. præced. : piſcem Auſtrin : — the following of the bright stars preceding the Southern Fish	M 39° 26′	314° 37′	12° 9′	—	—	—
276	Sequens in dorſo ♑ — the following star on the Goat's back	M 17° 49′	315° 9′	12° 51′	M 18° 22′	315° 16′	12° 47′
128	Sequens capitis Equulei — the following star of Equuleus's head	B 4° 44′	315° 41′	13° 13′	B 5° 18′	316° 2′	13° 33′
275	Prior contiguarum ventris ♑ — the earlier of the adjacent stars of the Goat's belly	M 23° 49′	316° 18′	13° 50′	M 24° 0′	316° 6′	13° 37′
3	Dexter humerus Cephei — Cepheus's right shoulder	B 61° 16′	317° 34′	15° 6′	B 60° 57′	317° 18′	14° 49′
126	Humerus ſiniſter ♒ — the Water-pourer's left shoulder	M 6° 57′	318° 0′	15° 32′	M 7° 10′	317° 54′	15° 25′
277	Antecedens Auſtralis ſpinæ ♑ — the preceding star of the Goat's southern spine	M 20° 55′	318° 54′	16° 26′	M 21° 4′	318° 41′	16° 13′
279	Cauda ♑ præcedens — the preceding star of the Goat's tail	M 17° 51′	320° 5′	17° 38′	M 18° 16′	319° 46′	17° 18′
281	Præcedens in Boreali parte caudæ ♑ — the preceding star in the northern part of the Goat's tail	M 13° 6′	320° 6′	17° 39′	M 13° 5′	320° 13′	17° 45′
278	Sequens Auſtralis ſpinæ ♑ — the following star of the Goat's southern spine	M 20° 10′	320° 31′	18° 4′	M 20° 30′	320° 22′	17° 54′
280	Caudæ ♑ ſequens — the following star of the Goat's tail	M 17° 23′	321° 2′	18° 36′	M 17° 46′	321° 33′	19° 6′
131	Rictus Equi Pegaſi — the gaping mouth of the horse Pegasus	B 7° 42′	321° 53′	19° 28′	B 8° 10′	321° 25′	18° 58′
282	Auſtralis in ſiniſtro clune ♒ — the southern star in the Water-pourer's left haunch	M 15° 20′	326° 11′	23° 52′	M 15° 37′	326° 32′	24° 12′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Aſc. Rec Temp. / (Copernicus)	Med. cœ Grad. / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Aſc. Rec Temp. / (Tycho Brahe)	Med.cœ. Grad./ (Tycho Brahe)
132	Clara dextri humeri ♒ — the bright star of the Water-pourer's right shoulder	M 1° 51′	326° 18′	23° 59′	M 2° 7′	326° 35′	24° 16′
135	Borealis capitis Pegaſi — the northern star of Pegasus's head	B 4° 37′	327° 8′	24° 51′	B 4° 24′	327° 45′	25° 28′
283	Prior dextræ Cotylæ ♒ — the earlier star of the Water-pourer's right cup	M 9° 26′	328° 55′	26° 41′	M 9° 36′	329° 15′	27° 1′
137	Borea manus dextræ ♒ — the northern star of the Water-pourer's right hand	M 0° 57′	329° 27′	27° 15′	0° 0′	331° 30′	29° 21′
284	Sequens duarum in dextra Cotyla ♒ — the following of the two stars in the right cup	M 9° 56′	329° 59′	27° 48′	M 9° 35′	330° 4′	27° 52′
136	Cubitus dexter ♒ — the Water-pourer's right elbow	M 2° 53′	330° 0′	27° 49′	M 3° 14′	330° 32′	28° ♓ 21′
138	Præcedens Auſtralis manus dextræ ♒ — the preceding southern star of the right hand	M 1° 47′	332° 14′	0° ♓ 9′	M 1° 55′	332° 22′	0° 17′
285	In dextro clune ♒ — in the Water-pourer's right haunch	M 12° 10′	332° 40′	0° 36′	M 12° 33′	332° 41′	0° 37′
286	Prima fuſionis aquæ ♒ — the first star of the pouring of the water	M 9° 3′	332° 54′	0° 51′	M 6° 10′	331° 7′	28° ♒ 58′
139	Sequens Auſtralis dextræ manus ♒ — the following southern star of the right hand	M 1° 47′	333° 39′	1° 38′	M 2° 4′	332° 45′	0° ♓ 40′
140	In Pegaſi cervice præcedens — the preceding star in Pegasus's neck	B 8° 58′	335° 24′	3° 29′	B 8° 53′	335° 42′	3° 47′
142	In genu dextro Pegaſi Borea — the northern star in Pegasus's right knee	B 28° 13′	336° 32′	4° 41′	B 28° 15′	336° 18′	4° 25′
287	Borea tibiæ dextræ ♒ — the northern star of the right shin	M 15° 5′	336° 46′	4° 55′	M 15° 32′	337° 25′	5° 40′
288	Auſtralis tibiæ dextræ ♒ — the southern star of the right shin	M 17° 17′	338° 5′	6° 19′	M 17° 48′	338° 41′	6° 57′
289	Sequens fuſionis Aquæ Auſtralis — the following southern star of the pouring of the water	M 11° 11′	339° 0′	7° 17′	M 9° 31′	338° 15′	6° 29′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Afc. Rec Temp. / (Copernicus)	Med. cœ Grad. / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Afc. Rec Temp. / (Tycho Brahe)	Med.cœ. Grad./ (Tycho Brahe)
414	ultima fufionis aquæ ♒ — the last star of the pouring of the water	M 33° 19′	340° 6′	8° 28′	M 31° 34′	339° 3′	7° 20′
143	Dexter humerus Pegafi — Pegasus's right shoulder	B 25° 49′	341° 12′	9° 39′	B 26° 2′	341° 23′	9° 49′
290	In primo flexu aquæ ♒ — at the first bend of the water	M 9° 10′	341° 17′	9° 44′	M 9° 25′	341° 25′	9° 52′
141	Scapulæ Pegafi — Pegasus's shoulder-blades	B 13° 27′	341° 26′	9° 54′	B 13° 11′	341° 28′	9° 55′
1	In extremo annulo catenæ Andromedæ — at the last link of Andromeda's chain	B 40° 48′	341° 36′	10° 4′	B 42° 25′	339° 20′	7° 39′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Afc.Rec. Temp. / (Copernicus)	Med. cœ Part : / (Copernicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Afc.Rec. Temp. / (Tycho Brahe)	Med.cœ. Part. / (Tycho Brahe)
293	Sequens in primo flexu aquæ ♒ — the following star at the first bend of the water	M 7° 40′	343° 13′	11° ♓ 48′	M 8° 2′	343° 43′	12° ♓ 19′
291	Borealis fequens in flexu aquæ ♒ — the northern following star at the bend of the water	M 10° 36′	343° 32′	12° 9′	M 11° 8′	344° 11′	12° 50′
295	Auftralis occipitis ♓ præcedentis — the southern star at the back of the preceding Fish's head	B 1° 18′	343° 59′	12° 37′	B 1° 13′	344° 23′	13° 3′
294	In flexu Auftrali aquæ ♒ — at the southern bend of the water	M 8° 33′	344° 9′	12° 48′	M 9° 45′	344° 21′	13° 1′
292	Auftralior fequens in flexu aquæ ♒ — the more southerly following star at the bend of the water	M 11° 15′	344° 10′	12° 49′	M 11° 9′	344° 32′	13° 12′
296	Prior ventris ♓ antecedentis — the earlier star of the preceding Fish's belly	M 0° 45′	346° 50′	15° 41′	M 0° 48′	346° 54′	15° 46′
298	Sequens in dorfo ♓ antecedentis — the following star on the preceding Fish's back	B 3° 51′	349° 57′	19° 4′	B 3° 32′	340° 0′	19° 7′

#	Nomina stellarum — name of the star	Declinat. Part. / (Copernicus) — B north, M south	Aſc.Rec. Temp. / (Coper-nicus)	Med. cœ Part : / (Coper-nicus)	Declinat. Part. / (Tycho Brahe) — B north, M south	Aſc.Rec. Temp. / (Tycho Brahe)	Med.cœ. Part. / (Tycho Brahe)
297	Poſterior ventris ♓ — the later star of the Fish's belly	M 1° 10′	350° 59′	20° 11′	M 0° 18′	350° 43′	19° 54′
300	Secunda informiuin circa ♓ — the second of the unformed stars around the Fishes, the word as set	M 5° 20′	354° 24′	23° 54′	—	—	—
299	Prima informium circa ♓ — the first of the unformed stars around the Fishes	M 8° 25′	355° 14′	24° 48′	—	—	—
303	Cauda antecedentis ♓ — the tail of the preceding Fish	B 4° 52′	355° 19′	24° 54′	B 4° 47′	354° 59′	24° 32′
302	Quarta informium circa ♓ — the fourth of the unformed stars around the Fishes	M 4° 40′	355° 31′	25° 4′	—	—	—
12	Lucida Cathedrę Caſſiopeæ — the bright star of Cassiopeia's chair	B 57° 15′	356° 33′	26° 14′	B 57° 5′	357° 19′	27° 4′
301	Tertia informium circa ♓ — the third of the unformed stars around the Fishes	M 7° 18′	356° 36′	26° 17′	—	—	—
4	Umbilicus Pegaſi — Pegasus's navel	B 27° 26′	357° 28′	27° 14′	B 27° 1′	357° 11′	26° 56′
2	Extrema alæ Pegaſi — the tip of Pegasus's wing	B 12° 57′	358° 26′	28° 17′	B 13° 5′	358° 28′	28° 20′

Caput VII. — DE AMPLITUDINIBUS ORTIVIS, DIFFERENTIIS ASCENSIONALIBUS, & aſcenſionibus ac deſcenſionibus obliquis.

(On the rising amplitudes, the ascensional differences, and the oblique ascensions and descensions)

The doctrine of the preceding chapter set out for us, in a general way, the declinations of the ecliptic and of the stars from the equator — a doctrine that in the right horizon can be applied to the rising and setting amplitudes as well, since in the right sphere the rising and setting amplitude is as great as the declination, and conversely the declination as great as the rising amplitude, and so on. But it did more than that: it also opened up to us the reckoning of the ascensions in the right sphere, of the transits across the meridian of any horizon, and likewise of the culminations — that is, of the risings — in the right sphere.

[Margin: In the right sphere the rising amplitude agrees with the declination.]

Now in an oblique horizon the quantity is another and a different one — not only that of the rising amplitudes as against the declinations, but that of the ascensions as against the ascensions set out earlier. There the rising amplitudes are found first, from the declinations and the rising latitudes; then the ascensional differences, from the rising amplitudes; and from these, at last, the oblique ascensions and descensions. So in this chapter we shall set out the doctrine of all of them briefly.

[Margin: In an oblique horizon the rising amplitudes differ from the declinations, and the oblique ascensions from the right ascensions.]

We call the rising amplitude the arc of the horizon intercepted between the equinoctial rising and the true rising of the ecliptic, or of the Sun, or of another star.

[Margin: What the rising amplitude is.]

For since the Sun and the remaining stars are for the most part outside the

[Margin: The rising amplitudes vary with the obliquity of the place.]

—equator, and have different declinations according to their different positions, and are observed to describe different parallels in the primary motion, cutting the horizon at different places — who does not notice that there is great variety in the rising amplitudes too? And yet that variety itself also varies greatly, even in the same stars and the same points of the ecliptic, according to the different inclination of the equator to the horizon and the different places on the earth.

Nor, indeed, does a rising amplitude belong to all the stars and all the degrees of the ecliptic everywhere. In any given place it belongs only to those whose declination is less than the complement of the latitude of that place.

[Margin: Places of the heaven whose declination is greater than the complement of the latitude of the place on earth are not brought down to the horizon.]

For those that by their own declination exceed the complement of the latitude of the place — that is, the elevation of the equator — do not reach the horizon: either they stand permanently above the horizon in the daily revolution, as those do that lie toward the elevated pole, or they stay hidden below it, as those do that lie toward the depressed pole. In general, one kind of rising latitude is northern, which is also called summer, *from the equator's rising toward the north; the other is southern,* which is also called winter, *sloping from the equator's rising toward the south.*

[Margin: The rising latitude is of two kinds, northern and southern.]

Moreover, if the rising latitude of the ecliptic and of the stars, both fixed and wandering, is to be made plain for any latitude of place whatever and for any time whatever, two things must be known first: the latitude of the place, or the elevation of the pole; and, from the preceding chapter, the star's declination for the time proposed. Once these are known, finding the rising amplitude is easy.

[Margin: The way to compute the rising amplitudes.]

For in the accompanying figure — in which the circle A B C D represents the meridian, B E D the horizon, A E C the equator, E the equinoctial rising,

F G I the ecliptic, H the point Palilicium between the equator and the ecliptic, and K H L the semicircle of declinations — the ratio of the complement of the elevation of the pole, that is of the inclination of the equator, namely the angle H E M, to the declination H M is the ratio of the right angle E M H, or of the quadrant, to E H, the rising amplitude.

Diagram. A single large circle, uncaptioned, occupying the middle of the lower half of the leaf, drawn with a heavy circumference and three lighter arcs crossing its interior. One arc runs from the upper-left of the circumference down to the lower-right of it; a second runs from the left of the circumference across to the right; a third, the steepest, runs from the upper right down to the lower left. The three arcs cross one another near the centre, where two of the intersections are lettered. **Twelve labels are set on the block, and all twelve were read off the block itself; none was taken from the prose beside it, and none is [?].** Reading clockwise from the top:

- K (upper left of the circumference, at the head of the steep arc): K
- A (upper right of the circumference): A
- F (right of the circumference, above the midline): F
- B (right of the circumference, on the midline): B
- L (lower right of the circumference, at the foot of the steep arc): L
- C (lower left of the circumference): C
- I (left of the circumference, below the midline): I
- D (left of the circumference, above the midline): D
- G (interior, upper centre, at a crossing of two arcs): G
- H (interior, centre): H
- E (interior, centre right, at a crossing of two arcs): E
- M (interior, lower centre, at a crossing of two arcs): M

Suppose, for example, that the declination of Palilicium, the arc M H, is 15° 56′ 45″, and the latitude of Frankfurt an der Oder 52° 20″. Then the complement of the latitude of the place, D C, which is 37° 40′, will have a right sine of 6110667; and as that is to the right sine of Palilicium's declination, 15° 56′ 45″, which is 2747284, so is the sine of the quadrant E D, 10000000 H M *to the right sine of the rising amplitude E H — which, when the working is carried through, comes out as 4495882. The rising amplitude will therefore be 26° 43′ 2″, northern, on account of the northern declination.*

But so that the rising amplitude of each several place of the ecliptic in our own horizon of Frankfurt an der Oder might be had in view, according to both calculations, the Prutenic and the Tychonic, I have thought it best to append canons of the rising amplitudes of the Sun and of the ecliptic.

Canons of the rising amplitudes of the parts of the ecliptic, for the latitude of the place 52° 20′

The former, for an obliquity of the ecliptic of 23° 28′. · The latter, for an obliquity of the ecliptic of 23° 31′ 30″.

Dodeca-temoria / Gradus Ecl.	Prior — ♈ / ♎	Prior — ♉ / ♏	Prior — ♊ / ♐	Poste-rior — ♈ / ♎	Posterior — ♉ / ♏	Posterior — ♊ / ♐ — Sept. crescens / Mer. decres.	gr.
0	0° 0′ 0″	19° 0′ 56″	34° 21′ 27″	0° 0′ 0″	19° 3′ 41″	34° 27′ 1″	30
1	0° 39′ 5″	19° 36′ 40″	34° 44′ 53″	0° 39′ 8″	19° 39′ 30″	34° 50′ 29″	29
2	1° 18′ 11″	20° 12′ 7″	35° 7′ 38″	1° 18′ 18″	20° 15′ 1″	35° 13′ 19″	28
3	1° 57′ 15″	20° 47′ 19″	35° 29′ 47″	1° 57′ 28″	20° 50′ 18″	35° 35′ 28″	27
4	2° 36′ 18″	21° 22′ 16″	35° 51′ 13″	2° 36′ 36″	21° 25′ 22″	35° 57′ 2″	26
5	3° 15′ 20″	21° 56′ 57″	36° 12′ 3″	3° 15′ 43″	22° 0′ 12″	36° 17′ 55″	25
6	3° 54′ 19″	22° 31′ 20″	36° 32′ 13″	3° 54′ 49″	22° 34′ 40″	36° 38′ 8″	24
7	4° 33′ 15″	23° 5′ 27″	36° 51′ 42″	4° 33′ 53″	23° 8′ 52″	36° 57′ 40″	23
8	5° 12′ 9″	23° 39′ 14″	37° 10′ 21″	5° 12′ 52″	23° 42′ 46″	37° 16′ 29″	22
9	5° 51′ 0″	24° 12′ 44″	37° 28′ 23″	5° 51′ 50″	24° 16′ 20″	37° 34′ 35″	21
10	6° 29′ 49″	24° 45′ 51″	37° 45′ 40″	6° 30′ 45″	24° 49′ 30″	37° 51′ 55″	20
11	7° 8′ 33″	25° 18′ 37″	38° 2′ 11″	7° 9′ 34″	25° 22′ 27″	38° 8′ 31″	19
12	7° 47′ 12″	25° 51′ 6″	38° 17′ 47″	7° 48′ 18″	25° 55′ 0″	38° 24′ 12″	18
13	8° 25′ 46″	26° 23′ 11″	38° 33′ 0″	8° 26′ 57″	26° 27′ 13″	38° 39′ 25″	17
14	9° 4′ 14″	26° 54′ 58″	38° 47′ 19″	9° 5′ 31″	26° 59′ 5″	38° 53′ 41″	16
15	9° 42′ 37″	27° 26′ 25″	39° 0′ 43″	9° 43′ 59″	27° 30′ 33″	39° 7′ 10″	15
16	10° 20′ 52″	27° 57′ 14″	39° 13′ 19″	10° 22′ 20″	28° 1′ 34″	39° 19′ 51″	14
17	10° 59′ 0″	28° 27′ 51″	39° 25′ 3″	11° 0′ 35″	28° 32′ 13″	39° 31′ 41″	13
18	11° 37′ 2″	28° 57′ 57″	39° 36′ 3″	11° 38′ 42″	29° 2′ 29″	39° 42′ 44″	12
19	12° 14′ 56″	29° 27′ 33″	39° 46′ 8″	12° 16′ 42″	29° 32′ 8″	39° 52′ 56″	11
20	12° 52′ 43″	29° 56′ 57″	39° 55′ 28″	12° 54′ 33″	30° 1′ 28″	40° 2′ 17″	10
21	13° 30′ 19″	30° 25′ 45″	40° 3′ 55″	13° 32′ 17″	30° 30′ 20″	40° 10′ 44″	9
22	14° 7′ 49″	30° 53′ 53″	40° 11′ 29″	14° 9′ 51″	30° 58′ 47″	40° 18′ 18″	8
23	14° 45′ 6″	31° 21′ 43″	40° 18′ 8″	14° 47′ 14″	31° 26′ 40″	40° 24′ 59″	7
24	15° 22′ 10″	31° 49′ 2″	40° 23′ 58″	15° 24′ 25″	31° 54′ 2″	40° 30′ 48″	6
25	15° 59′ 9″	32° 15′ 50″	40° 28′ 50″	16° 1′ 30″	32° 20′ 57″	40° 35′ 43″	5
26	16° 35′ 57″	32° 42′ 3″	40° 32′ 52″	16° 38′ 21″	32° 47′ 17″	40° 39′ 48″	4
27	17° 12′ 33″	33° 7′ 47″	40° 36′ 3″	17° 15′ 1″	32° 13′ 3″ [recte: 33° 13′ 3″]	40° 42′ 58″	3
28	17° 48′ 51″	33° 32′ 55″	40° 38′ 14″	17° 51′ 26″	33° 38′ 17″	40° 45′ 12″	2
29	18° 25′ 0″	33° 57′ 29″	40° 39′ 38″	18° 27′ 38″	34° 2′ 57″	40° 46′ 36″	1
30	19° 0′ 56″	34° 21′ 27″	40° 40′ 5″	19° 3′ 41″	34° 27′ 1″	40° 47′ 2″	0
Dodeca-temoria	♓ / ♍	♒ / ♌	♑ / ♋	♓ / ♍	♒ / ♌	♑ [?] / ♋ — Aust. decresc. / Sept. decresc.	

[Margin: What the ascensional difference is.]

The ascensional difference is nothing else than the arc of the equator by which the oblique ascension of the ecliptic, or of a star, differs from the right ascension. On the equator it is contained between the circle of declination drawn through the star as placed in the given horizon, which cuts off one of its limits on the equator — in the diagram, the point M — and the horizon, that is the equinoctial rising, which supplies the other limit, E. The ascensional difference is therefore the arc E M. It is investigated to this end: that by its help the oblique ascension may be gathered from the right ascension, by means of a certain prosthaphaeresis, for whatever oblique horizon is proposed.

[Margin: How the ascensional differences are to be found.]

The method of investigation is this. The declination is known from the preceding chapter, and from the present one the rising amplitude; their complements are then taken. The proportion is this: as the complement of the declination, K H, is to the complement of the rising amplitude, H D, so is the whole quadrant K M to M C, the complement of the ascensional difference. From this E M, the ascensional difference itself, is gathered.

Diagram. A single circle standing in the lower half of the text block, crossed by four arcs that meet the circumference and cut one another within it. Twelve labels are set on the block. Reading the circumference clockwise from the upper left:

- K (on the circumference, upper left, where an arc meets it)
- A (on the circumference, upper right)
- F (on the circumference, right, below A)
- B (on the circumference, right, at about mid-height)
- L (on the circumference, at the foot, right of centre)
- C (at the inner edge of the circumference, lower left)
- I (at the inner edge of the circumference, lower left, above C)
- D (at the inner edge of the circumference, left, at about mid-height)

and within the circle:

- G (interior, upper right, at a crossing of two arcs)
- H (interior, at about the centre, at a crossing)
- E (interior, right of H and slightly below it)
- M (interior, lower centre, at a crossing, above and left of L)

Suppose, for example, that the ascensional difference of Palilicium is required. The proportion will be this: as the complement of the declination — 74° 3′ 15″, whose right sine is 9615218 — is to the complement of the rising amplitude — 63° 16′ 58″, whose right sine is 8932362 — so is the sine of the quadrant, 10000000, to the right sine of the complement of the ascensional difference. That last comes out of the working as 9289817, whose arc is 68° 16′ 34″; and this, subtracted from the quadrant, shows the ascensional difference to be 21° 43′ 26″.

What the ascensional differences are for the individual degrees of the ecliptic at latitude 52° 20′, the table set opposite shows.

[Margin: What the oblique ascension is.]

Lastly the oblique ascensions — which are arcs of the equator that rise above the horizon in the oblique sphere together with some given arc of the ecliptic or some given star — are gathered, as has been said, from the right ascensions and the ascensional differences, in this way. Having noted, from the preceding chapter, the right ascension of the proposed arc of the ecliptic or star, and, from the present chapter, its ascensional difference, consider only whether the arc of the ecliptic or the star has northern or southern declination. For if it has southern declination, let the ascensional difference be added to the right ascension; if northern, let it be taken away; and the oblique ascension will be produced.

[Margin: It is gathered from the right ascension, and by either adding or subtracting the ascensional difference.]

The reason is that in these regions of ours, because the north pole is elevated, the northern half is elevated along with it, and its parts offer themselves to be seen sooner in the oblique sphere than in the right; so, since the right ascension exceeds the oblique, the ascensional difference is rightly subtracted. But because the south pole is depressed, the southern half is depressed along with it, and its parts show themselves later in the oblique sphere than in the right:

Canons of the ascensional differences of the parts of the ecliptic, for the latitude of the place 52° 20′

The former, for an obliquity of the ecliptic of 23° 28′. · The latter, for an obliquity of the ecliptic of 23° 31′ 30″.

Dodeca-temoria / Gradus Ecl.	Prior — ♈ / ♎	Prior — ♉ / ♏	Prior — ♊ / ♐	Posterior — ♈ / ♎	Posterior — ♉ / ♏	Posterior — ♊ / ♐ — Subtrahend. / Addend.	gr.
0	0° 0′ 0″	15° 15′ 31″	28° 25′ 26″	0° 0′ 0″	15° 17′ 53″	28° 30′ 9″	30
1	0° 30′ 55″	15° 44′ 58″	28° 46′ 30″	0° 31′ 1″	15° 47′ 26″	28° 51′ 16″	29
2	1° 1′ 51″	16° 14′ 16″	29° 7′ 3″	1° 2′ 2″	16° 16′ 51″	29° 11′ 54″	28
3	1° 32′ 47″	16° 43′ 27″	29° 27′ 4″	1° 33′ 3″	16° 46′ 8″	29° 32′ 1″	27
4	2° 3′ 43″	17° 12′ 29″	29° 46′ 33″	2° 4′ 4″	17° 15′ 17″	29° 51′ 35″	26
5	2° 34′ 38″	17° 41′ 27″	30° 5′ 28″	2° 35′ 4″	17° 44′ 17″	30° 10′ 34″	25
6	3° 5′ 33″	18° 10′ 14″	30° 23′ 48″	3° 6′ 3″	18° 13′ 8″	30° 29′ 58″ [recte: 30° 28′ 58″]	24
7	3° 36′ 27″	18° 38′ 55″	30° 41′ 33″	3° 37′ 1″	18° 41′ 49″	30° 46′ 49″	23
8	4° 7′ 19″	19° 7′ 22″	30° 58′ 40″	4° 7′ 58″	19° 10′ 20″	31° 4′ 3″	22
9	4° 38′ 10″	19° 35′ 37″	31° 15′ 12″	4° 38′ 54″	19° 38′ 40″	31° 20′ 41″	21
10	5° 9′ 0″	20° 3′ 35″	31° 31′ 1″	5° 9′ 49″	20° 6′ 48″	31° 36′ 40″	20
11	5° 39′ 49″	20° 31′ 21″	31° 46′ 15″	5° 40′ 42″	20° 34′ 43″	31° 51′ 59″	19
12	6° 10′ 37″	20° 58′ 55″	32° 0′ 47″	6° 11′ 33″	21° 2′ 25″	32° 6′ 36″	18
13	6° 41′ 24″	21° 26′ 21″	32° 14′ 38″	6° 42′ 22″	21° 29′ 53″	32° 20′ 32″	17
14	7° 12′ 10″	21° 53′ 31″	32° 27′ 47″	7° 13′ 9″	21° 57′ 8″	32° 33′ 47″	16
15	7° 42′ 53″	22° 20′ 29″	32° 40′ 16″	7° 43′ 54″	22° 24′ 9″	32° 46′ 19″	15
16	8° 13′ 32″	22° 47′ 13″	32° 51′ 57″	8° 14′ 37″	22° 50′ 54″	22° 58′ 7″ [recte: 32° 58′ 7″]	14
17	8° 44′ 5″	23° 13′ 39″	33° 2′ 54″	8° 45′ 17″	23° 17′ 22″	33° 9′ 9″	13
18	9° 14′ 35″	23° 39′ 44″	33° 13′ 7″	9° 15′ 54″	23° 43′ 32″	33° 19′ 24″	12
19	9° 45′ 2″	24° 5′ 29″	33° 22′ 35″	9° 46′ 28″	24° 9′ 24″	33° 28′ 53″	11
20	10° 15′ 23″	24° 30′ 56″	33° 31′ 15″	10° 16′ 58″	24° 34′ 57″	33° 37′ 35″	10
21	10° 45′ 42″	24° 56′ 3″	33° 39′ 6″	10° 47′ 25″	25° 0′ 11″	33° 45′ 30″	9
22	11° 15′ 59″	25° 20′ 51″	33° 46′ 9″	11° 17′ 48″	25° 25′ 5″	33° 52′ 37″	8
23	11° 46′ 12″	25° 45′ 17″	33° 52′ 28″	11° 48′ 7″	25° 49′ 38″	33° 58′ 55″	7
24	12° 16′ 20″	26° 9′ 23″	33° 57′ 52″	12° 18′ 21″	26° 13′ 49″	34° 4′ 23″	6
25	12° 46′ 25″	26° 33′ 7″	34° 2′ 29″	12° 48′ 30″	26° 37′ 37″	34° 9′ 3″	5
26	13° 16′ 26″	26° 56′ 28″	34° 6′ 16″	13° 18′ 34″	27° 1′ 0″	34° 12′ 55″	4
27	13° 46′ 22″	27° 19′ 21″	34° 9′ 12″	13° 48′ 33″	27° 23′ 58″	34° 15′ 53″	3

Dodeca-temoria / Gradus Ecl.	Prior — ♈ / ♎	Prior — ♉ / ♏	Prior — ♊ / ♐	Posterior — ♈ / ♎	Posterior — ♉ / ♏	Posterior — ♊ / ♐ — Subtrahend. / Addend.	gr.
28	14° 16′ 11″	27° 41′ 53″	34° 11′ 18″	14° 8′ 26″ [recte: 14° 18′ 26″]	27° 46′ 29″	34° 17′ 57″	2
29	14° 45′ 52″	28° 3′ 53″	34° 12′ 34″	14° 48′ 13″	28° 8′ 33″	34° 19′ 13″	1
30	15° 15′ 31″	28° 25′ 26″	34° 13′ 0″	15° 17′ 53″	28° 30′ 9″	34° 19′ 40″	0
Dodeca-temoria	♍ / ♓	♌ / ♒	♋ / ♑	♍ / ♓	♌ / ♒	♋ / ♑ [?] — Subtrah. / Addend.	

Canon of the oblique ascensions, for the latitude 52° 20′

Gradus	♈ Temp.	♈ Diff. A	♉ Temp.	♉ Diff. A	♊ Temp.	♊ Diff. A	♋ Temp.	♋ Diff. A	♌ Temp.	♌ Diff. A	♍ Temp.	♍ Diff. A
0	0° 0′ 0″	24′ 7″	12° 38′ 49″	27′ 56″	29° 23′ 41″	29″	55° 47′ 0″	35′ 51″	93° 45′ 48″	36″	136° 50′ 9″	35′ 53″
1	0° 24′ 7″	24′ 7″	13° 6′ 45″	28′ 14″	30° 4′ 51″	2′ 10″	56° 52′ 51″	36′ 40″	95° 9′ 48″	34′ 12″	138° 17′ 2″	36′ 47″
2	0° 48′ 14″	24′ 7″	13° 34′ 59″	28′ 30″	30° 47′ 1″	2′ 52″	57° 59′ 31″	37′ 29″	96° 33′ 54″	34′ 34″	139° 43′ 49″	36′ 47″
3	1° 12′ 21″	24′ 9″	14° 3′ 29″	28′ 48″	31° 29′ 53″	34″	59° 7′ 0″	38′ 18″	97° 58′ 28″	34′ 45″	141° 10′ 36″	36′ 46″
4	1° 36′ 30″	24′ 10″	14° 32′ 17″	29′ 1″	32° 13′ 24″	17″	60° 15′ 38″	7″	99° 23′ 13″	2″	142° 37′ 22″	43″
5	2° 0′ 40″	24′ 12″	15° 1′ 18″	29′ 22″	32° 57′ 44″	2″	61° 24′ 26″	55″	100° 48′ 15″	14″	144° 4′ 58″	6 40″
6	2° 24′ 52″	24′ 15″	15° 30′ 40″	29′ 37″	33° 42′ 46″	45″	62° 34′ 7″	39″	102° 13′ 29″	25″	145° 30′ 46″	36″
7	2° 49′ 7″	24′ 19″	16° 0′ 17″	30′ 2″	34° 28′ 31″	32″	63° 44′ 59″	31″	103° 38′ 54″	35″	146° 57′ 20″	33″
8	3° 13′ 26″	24′ 23″	16° 30′ 19″	30′ 23″	35° 15′ 34″	16″	64° 56′ 32″	11″	105° 4′ 28″	45″	148° 23′ 54″	31″
9	3° 37′ 49″	24′ 26″	17° 0′ 43″	30′ 50″	36° 2′ 19″	7″	66° 8′ 4″	56″	106° 30′ 13″	53″	149° 50′ 26″	27″
10	4° 2′ 15″	24′ 31″	17° 31′ 33″	31′ 14″	36° 50′ 0″	50″	67° 21′ 37″	40″	107° 56′ 0″	3″	151° 16′ 52″	23″
11	4° 26′ 46″	24′ 35″	18° 2′ 46″	31′ 35″	37° 39′ 14″	39″	68° 35′ 17″	23″	109° 22′ 16″	10″	152° 43′ 15″	23″
12	4° 51′ 21″	24′ 40″	18° 34′ 21″	31′ 54″	38° 28′ 55″	28″	69° 49′ 45″	3″	110° 48′ 26″	18″	154° 9′ 38″	20″
13	5° 16′ 1″	24′ 46″	19° 6′ 15″	32′ 20″	39° 19′ 23″	17″	71° 4′ 45″	42″	112° 14′ 38″	29″	155° 35′ 38″	18″
14	5° 40′ 47″	24′ 52″	19° 38′ 35″	32′ 44″	40° 10′ 40″	3″	72° 20′ 26″	20″	113° 41′ 16″	36″	157° 2′ 16″	19″
15	6° 5′ 39″	25′ 1″	20° 11′ 19″	33′ 8″	41° 2′ 43″	58″	73° 36′ 47″	1″	115° 7′ 43″	40″	158° 28′ 36″	19″ [recte: 86′ 18″]
16	6° 30′ 40″	25′ 12″	20° 44′ 37″	33′ 37″	41° 55′ 43″	48″	74° 53′ 47″	35″	116° 34′ 26″	40″	159° 54′ 55″	18″
17	6° 55′ 52″	25′ 20″	21° 18′ 43″	34′ 8″	42° 49′ 34″	37″	76° 11′ 27″	10″	118° 1′ 3″	46″	161° 21′ 16″	18″ [recte: 86′ 14″]
18	7° 21′ 12″	25′ 29″	21° 52′ 13″	34′ 40″	43° 44′ 6″	27″	77° 29′ 38″	43″	119° 27′ 49″	43″	162° 47′ 29″	11″
19	7° 46′ 41″	25′ 41″	22° 26′ 53″	35′ 9″	44° 39′ 35″	20″	78° 48′ 14″	18″	120° 54′ 30″	46″	164° 13′ 36″	9″
20	8° 12′ 22″	25′ 49″	23° 2′ 1″	35′ 39″	45° 35′ 53″	14″	80° 7′ 32″	9′ 45″	122° 21′ 18″	46″	165° 39′ 46″	6″
21	8° 38′ 11″	25′ 57″	23° 37′ 40″	36″ 9″	46° 33′ 38″	5″	81° 27′ 18″	5′ 20″	123° 48′ 46″	53″	167° 5′ 56″	5″
22	9° 4′ 8″	26′ 7″	24° 13′ 49″	36″ 43″	47° 31′ 28″	53″	82° 47′ 38″	5′ 46″	125° 14′ 26″	56″	168° 31′ 36″	3″
23	9° 30′ 15″	26′ 20″	24° 50′ 37″	13″	48° 30′ 59″	51″	84° 8′ 23″	15″	126° 41′ 55″	59″	169° 57′ 39″	3″
24	9° 56′ 35″	26′ 30″	25° 27′ 45″	46″	49° 29′ 60″	41″	85° 29′ 38″	42″	128° 8′ 25″	56″	171° 24′ 26″	2″
25	10° 23′ 5″	26′ 41″	26° 5′ 38″	20″	50° 30′ 57″	33″	86° 51′ 20″	7″	129° 35′ 46″	57″	172° 50′ 40″	0″
26	10° 49′ 46″	26′ 54″	26° 43′ 38″	59″	51° 32′ 10″	2′ 26″	88° 13′ 28″	32″	131° 2′ 43″	52″	174° 16′ 46″	1″
27	11° 16′ 42″	27′ 9″	27° 22′ 30″	30″	52° 34′ 36″	17″	89° 35′ 32″	54″	132° 29′ 37″	52″	175° 42′ 55″	59″
28	11° 43′ 49″	27′ 25″	28° 2′ 40″	12″	53° 37′ 54″	8″	90° 58′ 33″	16″	133° 56′ 26″	50″	177° 8′ 48″	5′ 59″
29	12° 11′ 14″	7′ 35″	28° 42′ 31″	50″ [recte: 40′ 50″]	54° 42′ 16″	4′ 59″	92° 22′ 33″	37″	135° 23′ 16″	50″	178° 34′ 35″	57″
30	12° 38′ 49″		29° 23′ 22″		55° 47′ 0″		93° 45′ 46″		136° 50′ 9″		180° 0′ 0″	

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and for the obliquity of the ecliptic 23° 31′ 30″, such as Tycho Brahe has

Gradus	♎ Temp.	♎ Diff. A	♏ Temp.	♏ Diff. A	♐ Temp.	♐ Diff. A	♑ Temp.	♑ Diff. A	♒ Temp.	♒ Diff. A	♓ Temp.	♓ Diff. A
0	180° 0′ 0″	89′ 57″	223° 9′ 0″	86′ 50″	266° 14′ 14″	83′ 37″	304° 13′ 0″	64′ 59″	330° 36′ 38″	40′ 50″	347° 21′ 35″	
1	181° 29′ 57″	89′ 59″	224° 36′ 50″	86′ 45″	267° 37′ 51″	83′ 16″	305° 17′ 59″	64′ 0″ [recte 64′ 8″]	331° 17′ 2″ [nu-meral: ?]	40′ 12″	347° 48′ 40″	
2	182° 59′ 56″	89′ 59″	226° 3′ 52″		269° 1′ 7″	82′ 54″	306° 22′ 7″	63′ 17″	331° 57′ 4″ [nu-meral: ?]	39′ 30″	348° 16′ 10″	
3	184° 29′ 55″	89′ 51″	227° 30′ 50″ [recte 86′ 52″]		270° 24′ 1″	82′ 32″	307° 25′ 24″	62′ 26″	332° 37′ 10″	38′ 59″	348° 43′ 34″	
4	185° 59′ 46″	89′ 50″	228° 57′ 57″		271° 46′ 33″	82′ 7″	308° 27′ 50″	61′ 33″	333° 16′ 9″	38′ 20″	349° 12′ 44″	
5	187° 29′ 36″	89′ 42″	230° 26′ 36″		273° 8′ 40″	81′ 42″	309° 29′ 23″	60′ 41″	333° 54′ 29″	37′ 46″	349° 50′ 30″	
6	188° 59′ 18″	89′ 31″	231° 55′ 8″	86′ 59″	274° 30′ 22″	81′ 15″	310° 30′ 4″	59′ 31″ [recte 59′ 51″]	334° 32′ 15″	37′ 13″	350° 27′ 20″	
7	190° 28′ 49″	89′ 3″	233° 25′ 56″		275° 51′ 37″	80′ 46″	311° 25′ 55″ [recte 311° 29′]	58′ 53″	335° 9′ 28″	36′ 43″	350° 59′ 45″	
8	191° 58′ 4″	88′ 5″	234° 48′ 53″		277° 12′ 23″	80′ 20″	312° 28′ 48″	58′ 5″	335° 46′ 11″	36′ 9″	350° 55′ 57″	
9	193° 26′ 6″	87′ 6″	236° 11′ 46″		278° 32′ 43″	79′ 45″	313° 26′ 53″	57′ 14″	336° 22′ 20″	35′ 39″	351° 21′ 49″	
10	194° 53′ 12″	86′ 15″	237° 33′ 26″		279° 52′ 28″	79′ 18″	314° 24′ 7″	56′ 20″	336° 57′ 59″	35′ 9″	351° 47′ 41″	
11	196° 19′ 27″	85′ 24″	238° 54′ 43″		281° 11′ 46″	78′ 43″	315° 20′ 27″	55′ 27″	337° 33′ 8″	34′ 40″	352° 13′ 29″	
12	197° 44′ 51″	84′ 32″	240° 15′ 46″		282° 30′ 29″	78′ 10″	316° 15′ 54″	54′ 37″	338° 7′ 48″	34′ 8″	352° 38′ 20″	
13	199° 9′ 23″	83′ 38″	241° 36′ 40″		283° 48′ 39″	77′ 35″	317° 10′ 31″	53′ 48″	338° 41′ 56″	33′ 37″	353° 2′ 57″	
14	200° 32′ 41″	82′ 50″	243° 7′ 40″		285° 6′ 14″ [?]	77′ 1″	318° 4′ 19″	52′ 58″	339° 15′ 33″	33′ 8″	353° 29′ 20″	
15	201° 55′ 31″	82′ 9″	244° 38′ 36″		286° 23′ 15″	76′ 20″	318° 57′ 17″	52′ 3″	339° 48′ 41″	32′ 44″	353° 54′ 52″	
16	203° 17′ 40″	81′ 28″	246° 8′ 29″		287° 39′ 35″	75′ 42″	319° 49′ 20″	51′ 17″	340° 21′ 25″	32′ 20″	354° 19′ 46″	
17	204° 46′ 22″	80′ 47″	247° 38′ 18″		288° 55′ 17″	75′ 2″ [?]	320° 40′ 37″	50′ 28″	340° 54′ 45″ [recte 340° 53′ 45″]	31′ 54″	354° 43′ 40″	
18	206° 13′ 23″	80′ 6″	249° 7′ 6″		290° 10′ 20″	74′ 23″	321° 31′ 5″	49′ 39″	341° 25′ 39″	31′ 35″	355° 8′ 35″	
19	207° 40′ 43″	79′ 33″	250° 35′ 33″		291° 24′ 43″	73′ 40″	322° 20′ 44″	48′ 50″	341° 57′ 14″	31′ 14″	355° 33′ 31″	
20	208° 48′ 27″	78′ 53″	252° 3′ 53″		292° 38′ 23″	72′ 56″	323° 9′ 34″	48′ 7″	342° 28′ 28″	30′ 50″	355° 57′ 26″	
21	210° 9′ 31″	78′ 16″	253° 29′ 46″		293° 51′ 19″	72′ 11″	323° 57′ 41″	47′ 16″	342° 59′ 18″	30′ 23″	356° 22′ 23″	
22	211° 36′ 33″	77′ 35″	254° 55′ 35″		295° 3′ 30″	71′ 31″	324° 44′ 57″	46′ 32″	343° 29′ 41″	30′ 2″	356° 46′ 49″	
23	213° 2′ 36″	76′ 56″	256° 21′ 25″		296° 15′ 1″	70′ 39″	325° 31′ 29″	45′ 45″	343° 59′ 43″	29′ 37″	357° 10′ 15″	
24	214° 29′ 51″	76′ 15″	257° 46′ 14″		297° 25′ 40″	69′ 55″	326° 17′ 14″	45′ 2″	344° 29′ 20″	29′ 22″	357° 35′ 12″	
25	215° 55′ 43″	75′ 52″	259° 11′ 54″		298° 35′ 35″	69′ 7″	327° 2′ 16″	44′ 17″	344° 58′ 42″	29′ 1″	357° 59′ 26″	
26	217° 23′ 46″	75′ 5″	260° 37′ 45″		299° 44′ 42″	68′ 18″	327° 46′ 33″	43′ 34″	345° 27′ 43″	28′ 48″	358° 23′ 39″	

[65] Five cells of this canon disagree with the run of their own column. At 27° of ♈ the minutes field reads 15, where the tabular differences on either side of it give 16, and at 13° the ♌ difference reads 85, where its neighbours give 86; in both the figure itself is in doubt. At 29° the ♉ difference reads 41′ 50″, where the ascensions at 29° and 30° give 40′ 50″, and in the ♍ difference column the entries at 15° and 17° read 19″ and 18″ in the seconds, where their own ascensions give 18″ and 14″; these three are printer's errors, and the corrected value stands beside each.

Gradus	♎ Temp.	♎ Diff. A	♏ Temp.	♏ Diff. A	♐ Temp.	♐ Diff. A	♑ Temp.	♑ Diff. A	♒ Temp.	♒ Diff. A	♓ Temp.	♓ Diff. A
27	218° 49′ 24″	24′ 47″	262° 18′ 34″	31′ 34″	300° 52′ 0″ [recte: 300° 53′ 0″]	67′ 29″	328° 30′ 7″	42′ 52″	345° 56′ 31″	28′ 30″	358° 47′ 37″	4′ 37″
28	220° 18′ 11″	24′ 47″	263° 28′ 46″	31′ 12″	302° 0′ 29″	66′ 40″	329° 12′ 59″	42′ 10″	346° 25′ 1″	28′ 14″	359° 11′ 46″	4′ 37″
29	221° 43′ 58″	24′ 53″	264° 38′ 58″	31′ 36″	303° 7′ 9″	65′ 51″	329° 55′ 9″	41′ 29″	346° 53′ 15″	27′ 56″	359° 35′ 43″	4′ 37″
30	223° 9′ 51″		266° 14′ 14″		304° 13′ 0″		330° 36′ 38″		347° 21′ 11″		360° 0′ 0″	

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Canon of the oblique ascensions, for the latitude 52° 20′

Gradus	♈ Temp.	♈ Diff. A	♉ Temp.	♉ Diff. A	♊ Temp.	♊ Diff. A	♋ Temp.	♋ Diff. A	♌ Temp.	♌ Diff. A	♍ Temp.	♍ Diff. A
0	0° 0′ 0″	24′ 0″	12° 35′ 52″	24′ 49″	29° 17′ 38″	26″	55° 40′ 29″	54″	93° 41′ 44″	83′ 59″	136° 48′ 24″	53″
1	0° 24′ 0″	24′ 0″	13° 3′ 39″	28′ 6″	29° 59′ 44″	5″	56° 46′ 10″	42″	95° 5′ 43″	84′ 17″	138° 15′ 17″	52″
2	0° 48′ 0″	24′ 1″	13° 31′ 45″	28′ 23″	30° 41′ 29″	46″	57° 52′ 56″	29″	96° 30′ 0″	84′ 34″	139° 42′ 8″	50″
3	1° 12′ 1″	24′ 2″	14° 0′ 8″	28′ 40″	31° 24′ 14″	29″	59° 0′ 26″	22″	97° 54′ 34″	84′ 50″	141° 8′ 59″	48″
4	1° 36′ 3″	24′ 4″	14° 28′ 48″	28′ 58″	32° 7′ 44″	14″	60° 8′ 47″	15″	99° 19′ 24″	85′ 4″	142° 35′ 47″	45″
5	2° 0′ 7″	24′ 7″	14° 57′ 46″	29″ 17″	32° 51′ 54″	59″	61° 18′ 27″	0″	100° 44′ 28″	18″	144° 2′ 32″	43″
6	2° 24′ 14″	24′ 10″	15° 27′ 32″	29′ 37″	33° 36′ 45″	41″	62° 28′ 7″	45″	102° 9′ 46″	85′ 30″	145° 29′ 8″	41″
7	2° 48′ 24″	24′ 13″	15° 56′ 42″	29″ 57″	34° 22′ 38″	27″	63° 38′ 47″	32″	103° 35′ 16″	85′ 42″	146° 55′ 56″	39″
8	3° 12′ 37″	24′ 16″	16° 26′ 37″	30″ 18″	35° 9′ 5″	47′ 11″	64° 50′ 7″	17″	105° 0′ 58″	85′ 52″	148° 22′ 56″	36″
9	3° 36′ 53″	24′ 20″	16° 56′ 33″	30″ 40″	35° 56′ 16″	58″	66° 2′ 36″	1″	106° 26′ 58″	86′ 1″	149° 49′ 16″	34″
10	4° 1′ 13″	24′ 25″	17° 27′ 38″	31″ 4″	36° 44′ 14″	46″	67° 15′ 37″	43″	107° 52′ 58″	86′ 9″	151° 15′ 48″	31″
11	4° 25′ 38″	24′ 30″	17° 58′ 39″	31″ 28″	37° 33′ 49″	36″	68° 29′ 24″	25″	109° 19′ 0″	86′ 17″	152° 42′ 16″	29″
12	4° 50′ 8″	24′ 36″	18° 30′ 7″	31″ 52″	38° 22′ 30″	24″	69° 43′ 45″	7″	110° 45′ 17″	86′ 23″	154° 8′ 45″	26″
13	5° 14′ 44″	24′ 42″	19° 1′ 59″	32″ 15″	39° 13′ 0″	12″	70° 58′ 52″	48″	112° 11′ 40″	86′ 31″	155° 35′ 16″	24″
14	5° 39′ 26″	24′ 49″	19° 34′ 31″	32″ 40″	40° 4′ 13″	2″	72° 14′ 46″	28″	113° 38′ 11″	86′ 37″	157° 1′ 35″	22″
15	6° 4′ 15″	24′ 56″	20° 6′ 54″	33″ 7″	40° 56′ 54″ [recte: 52′ 52″]		73° 31′ 8″	7′ 6″	115° 4′ 48″	86′ 42″	158° 27′ 8″	19″
16	6° 29′ 12″	25′ 4″	20° 40′ 33″	35″	41° 49′ 6″	44″	74° 48′ 14″	42″	116° 31′ 30″	86′ 45″	159° 54′ 8″	16″
17	6° 54′ 15″	25′ 12″	21° 13′ 38″	3″	42° 42′ 56″	37″	76° 5′ 56″	16″	117° 58′ 15″	86′ 48″	161° 20′ 30″	14″
18	7° 19′ 27″	25′ 21″	21° 47′ 39″	33″	43° 37′ 37″	27″	77° 24′ 58″	50″	119° 25′ 3″	86′ 52″	162° 46′ 46″	12″
19	7° 44′ 48″	25′ 31″	22° 22′ 33″	3″	44° 32′ 54″	19″	78° 43′ 7″	24″	120° 51′ 55″	86′ 54″	164° 12′ 58″	11″
20	8° 10′ 19″	25′ 40″	22° 57′ 15″	33″	45° 29′ 57″	11″	80° 2′ 26″	56″	122° 18′ 49″	86′ 56″	165° 39′ 6″	10″
21	8° 35′ 59″	25′ 50″	23° 32′ 48″	4″	46° 26′ 28″	3″	81° 22′ 22″	27″	123° 45′ 45″	86′ 58″	167° 5′ 16″	8″
22	9° 1′ 49″	26′ 1″	24° 8′ 53″	36″	47° 24′ 28″	56″	82° 42′ 49″	55″	125° 12′ 42″	86′ 59″ [67]	168° 31′ 26″	7″
23	9° 27′ 50″	26′ 13″	24° 45′ 28″	8″	48° 23′ 39″	49″	84° 3′ 44″	23″	126° 39′ 48″	86′ 59″	169° 57′ 34″	6″
24	9° 54′ 3″	26′ 25″	25° 22′ 36″	42″	49° 23′ 10″	40″	85° 25′ 31″	47″	128° 6′ 41″	86′ 59″	171° 23′ 40″	5″
25	10° 20′ 28″	26′ 37″	26° 0′ 18″	18″	50° 23′ 51″	31″	86° 46′ 54″	12″	129° 33′ 48″	86′ 58″	172° 49′ 45″	4″
26	10° 47′ 26″	26′ 50″	26° 38′ 36″	54″	51° 25′ 23″	26″	88° 9′ 6″	37″	131° 0′ 38″	86′ 58″	174° 15′ 49″	4″
27	11° 13′ 52″	27′ 4″	27° 17′ 39″	32″	52° 27′ 49″	21″	89° 31′ 43″	0″	132° 27′ 36″	86′ 57″	175° 41′ 35″	3″

[66] The printed title runs across the opening: the half over the preceding page gives the latitude, and the half here gives the obliquity, such as Tycho Brahe has.

Gradus	♈ Temp.	♈ Diff. A	♉ Temp.	♉ Diff. A	♊ Temp.	♊ Diff. A	♋ Temp.	♋ Diff. A	♌ Temp.	♌ Diff. A	♍ Temp.	♍ Diff. A
28	11° 40′ 52″	27″	27° 57′ 40″	7″ [recte: 40′ 9″]	53° 31′ 10″	4″	90° 54′ 43″	21″	133° 54′ 33″	56″	177° 7′ 56″	2″
29	12° 8′ 17″	27′ 33″	28° 37′ 46″	47″	54° 35′ 26″	4″ [recte: 65′ 0″]	92° 18′ 4″	40″	135° 21′ 29″	55″	178° 33′ 38″	2″
30	12° 35′ 50″	*Diff. S*	29° 17′ 58″	*Diff. S*	55° 40′ 20″	*Diff. S*	93° 41′ 44″	*Diff. S*	136° 48′ 24″	*Diff. S*	180° 0′ 0″	*Diff. S*

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and for the obliquity of the ecliptic 23° 31′ 30″, such as Tycho Brahe has

Gradus	♎ Temp.	♎ Diff. A	♏ Temp.	♏ Diff. A	♐ Temp.	♐ Diff. A	♑ Temp.	♑ Diff. A	♒ Temp.	♒ Diff. A	♓ Temp.	♓ Diff. A
0	180° 0′ 0″	26′ 2″	223° 11′ 36″	55″	266° 18′ 16″	83′ 40″	304° 19′ 40″	0″	330° 42′ 40″	47″	347° 24′ 20″	33″
1	181° 26′ 2″	26′ 2″	224° 38′ 31″	56″	267° 41′ 56″	83′ 21″	305° 24′ 40″	10″	331° 22′ 49″	9″	347° 51′ 43″	18″
2	182° 52′ 4″	26′ 3″	226° 5′ 27″	57″	269° 5′ 17″	83′ 0″	306° 28′ 59″	21″	332° 2′ 58″	32″	348° 19′ 7″	4″
3	184° 18′ 7″	26′ 4″	227° 32′ 24″	58″	270° 28′ 17″	82′ 37″	307° 32′ 6″	26″	332° 42′ 30″	54″	348° 46′ 36″	50″
4	185° 44′ 11″	26′ 4″	228° 59′ 22″	58″	271° 50′ 54″	82′ 12″	308° 34′ 37″	31″	333° 20′ 24″	18″	349° 12′ 26″	37″
5	187° 10′ 15″	26′ 5″	230° 26′ 20″	59″	273° 13′ 6″	81′ 47″	309° 36′ 57″	40″	333° 59′ 42″	42″	349° 39′ 30″	25″
6	188° 36′ 20″	26′ 6″	231° 53′ 19″	59″	274° 34′ 53″	81′ 23″	310° 36′ 49″	49″	334° 37′ 24″	8″	350° 5′ 57″	13″
7	190° 2′ 26″	26′ 7″	233° 20′ 18″	59″	275° 56′ 16″	80′ 55″	311° 36′ 38″	56″	335° 14′ 30″	36″	350° 32′ 26″	1″
8	191° 28′ 33″	26′ 8″	224° 47′ 16″	58″	277° 17′ 11″	80′ 27″	312° 35′ 33″	3″	335° 51′ 56″	4″	350° 58′ 25″	50″
9	192° 54′ 46″	26′ 10″	236° 14′ 8″	56″	278° 37′ 38″	79′ 56″	313° 33′ 37″	11″	336° 27′ 33″	33″	351° 24′ 25″	40″
10	195° 20′ 56″	26′ 11″	237° 41′ 10″	54″	279° 57′ 34″	79′ 24″	314° 30′ 47″	19″	337° 2′ 43″	3″	351° 49′ 45″	31″
11	195° 47′ 22″	26′ 12″	239° 8′ 5″	52″	281° 16′ 58″	78′ 50″	315° 27′ 6″	27″	337° 37′ 14″	33″	352° 15′ 10″	21″
12	197° 13′ 48″	26′ 14″	240° 34′ 57″	48″	282° 35′ 48″	78′ 16″	316° 22′ 33″	37″	338° 12′ 34″	3″	352° 40′ 35″	12″
13	198° 39′ 28″	26′ 16″	242° 1′ 45″	45″	283° 54′ 4″	77′ 42″	317° 17′ 53″	44″	338° 46′ 24″	35″	353° 5′ 45″	4″
14	200° 5′ 44″	26′ 19″	243° 28′ 30″	42″	385° 11′ 46″ [recte: 285° 11′ 46″]	77′ 6″	318° 10′ 54″	48″	339° 19′ 39″	7″	353° 30′ 49″	55″
15	201° 32′ 10″	26′ 22″	244° 55′ 8″	37″	286° 28′ 52″	76′ 28″	319° 3′ 46″	2″	339° 53′ 52″	40″	353° 55′ 34″	49″
16	202° 58′ 36″	26′ 24″	246° 21′ 49″	31″	287° 45′ 20″	75′ 48″	319° 55′ 48″	12″	340° 25′ 36″	15″	354° 20′ 34″	42″
17	204° 25′ 0″	26′ 26″	247° 48′ 26″	23″	289° 1′ 8″	75′ 7″	320° 47′ 50″	24″	340° 58′ 31″	52″	354° 45′ 54″	36″
18	205° 51′ 26″	26′ 29″	249° 14′ 43″	17″	290° 16′ 15″	74′ 25″	321° 37′ 40″	36″	341° 29′ 35″	28″	355° 9′ 52″	30″
19	207° 18′ 44″	26′ 31″	240° 41′ 26″	9″	291° 30′ 40″	73′ 43″	322° 27′ 48″	46″	342° 1′ 23″	4″	355° 34′ 22″	25″
20	208° 44′ 59″	26′ 34″	252° 7′ 9″	6′ 1″	292° 44′ 23″	73′ 1″	323° 15′ 47″	58″	342° 32′ 39″	40″	355° 58′ 47″	20″
21	210° 10′ 49″	26′ 36″	253° 33′ 13″	52″	293° 57′ 24″	72′ 17″	324° 3′ 44″	11″	343° 3′ 5″	30′ 18″	356° 23′ 24″	16″
22	211° 37′ 26″	26′ 39″	254° 59′ 25″	42″	295° 9′ 41″	71′ 32″	324° 50′ 46″	27″	343° 33′ 23″	57″	356° 47′ 24″	13″

[67] This is a second canon of the oblique ascensions for the same latitude, not a reprint of the first: almost all its entries differ from those of the earlier canon — 0° 24′ 0″ here against 0° 24′ 7″ there at 1° of ♈, and 12° 35′ 50″ against 12° 38′ 49″ at the end of the first sign. The half-title over this page gives the latitude only; the obliquity stands in the half-title on the following page.

Gradus	♎ Temp.	♎ Diff. A	♍ Temp.	♍ Diff. A	♐ Temp.	♐ Diff. A	♑ Temp.	♑ Diff. A	♒ Temp.	♒ Diff. A	♓ Temp.	♓ Diff. A
23	213° 4′ 48″	86′ 41″	256° 24′ 30″	84′ 30″	296° 21′ 13″	70′ 47″	325° 37′ 41″	43″	344° 3′ 20″	39′ 37″	357° 11′ 36″	10″
24	214° 30′ 29″	86′ 43″	257° 50′ 18″	84′ 18″	297° 31′ 58″	70′ 0″	326° 23′ 44″	59″	344° 32′ 59″	39′ 17″	357° 35′ 40″	7″
25	215° 57′ 28″	86′ 45″	259° 15′ 32″	84′ 4″	298° 41′ 58″	69′ 15″	327° 8′ 24″	14″	354° 2′ 14″	38′ 58″	357° 59′ 23″	4″
26	217° 24′ 13″	86′ 48″	260° 40′ 36″	83′ 50″	299° 51′ 13″	68′ 22″	327° 52′ 16″	29″	345° 31′ 12″	38′ 40″	358° 23′ 37″	2″
27	218° 51′ 1″	86′ 50″	262° 5′ 26″	83′ 34″	300° 59′ 35″	67′ 29″	328° 35′ 42″	46″	345° 59′ 52″	38′ 23″	358° 47′ 29″	1″
28	220° 17′ 51″	86′ 52″	263° 30′ 0″	83′ 17″	302° 7′ 4″	66′ 42″	329° 18′ 31″	5″	346° 28′ 15″	38′ 6″	359° 12′ 0″	0″
29	221° 44′ 43″	86′ 53″	264° 54′ 0″	82′ 59″	303° 13′ 46″	65′ 54″	330° 0′ 34″	26″	346° 56′ 21″	37′ 49″	359° 36′ 0″	0″
30	223° 11′ 36″		266° 18′ 16″		304° 19′ 40″		330° 42′ 2″		347° 24′ 10″		360° 0′ 0″	
		Diff. S		Diff. S		Diff. S		Diff. S		Diff. S		Diff. S

And so, since the right ascension falls short of the oblique, the ascensional difference is rightly added to produce the oblique ascension.

For example: let the oblique ascension of Aldebaran [Palilicium] be sought, the one that suits our own horizon. First, then, take its right ascension from the preceding chapter, which was found to be 63° 18′. Next, from that same place, take the ascensional difference, 21° 43′ 26″. Finally, since Palilicium's declination has been found to be northern, I take the ascensional difference away from the right ascension, and what is left is the oblique ascension, 41° 34′ 34″.

[Margin: The method of finding the descensions.]

The method of finding the oblique descensions is no different. For in the right sphere the points of the ecliptic and the stars set with the same degrees they rise with, since in the right sphere the descension agrees exactly with the ascension; but in the oblique sphere it does not, and the whole difference between the oblique descensions and the right ones depends on the ascensional differences, which are also the descensional differences. Once these are known the oblique descensions will not escape you: one need only reverse the procedure of addition and subtraction. For if a star or a point of the ecliptic has northern declination, add the ascensional difference — which is also the descensional difference — to the right descension, and the oblique descension will emerge. But if it has southern declination, subtract that same difference from the right descension, and what remains will be the oblique descension.

So, to find the oblique descension of Palilicium, I add the ascensional difference, 21° 43′ 26″, to the right descension, which is the same as the right ascension, namely 63° 18′; and the oblique descension comes out as 85° 1′ 26″.

Finally, since there are no special tables to show the descensions — none, that is, among the other tables of directions, except in the *Centonibus* of Magini's tables of the primum mobile — and since building such tables from the ascensions is very easy and lies open even to beginners in astronomy, I simply add the semicircle of 180° to the descension I have found, and out comes the oblique ascension of the opposite point of the equator. From this a judgment

is formed both about the sign and degree of the zodiac rising at the opposite point and about the one setting together with the star, as the following chapter will show. And so that the oblique ascensions of all the degrees of the ecliptic, suited to our horizon, might be ready to hand according to both Copernicus and Tycho Brahe, we have chosen to append the canons here set out. To these we have added one further table as well, containing for the notable fixed stars not only their rising latitudes and their ascensional differences, but their oblique ascensions and descensions too.

Table of the rising amplitudes, of the ascensional differences, and of the oblique ascensions and descensions of the more notable fixed stars, computed for the latitude of the place, 52° 20′, and for the year of Christ 1620, according to the observations of Copernicus and Tycho Brahe

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. af. Temp. (Copernicus)	afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff af Temp (Tycho Brahe)	Afc. Ob Temp. (Tycho Brahe)	Def. Ob Temp. (Tycho Brahe)
150	Media trium in Boreo lino ♓ — the middle of the three in the northern cord of Pisces	B 22° 28′	18° 7′	0° 8′	36° 22′	B 22° 15′	17° 57′	359° 54′	35° 48′
410	Siniſtrum femur ♐ — the left thigh of Sagittarius	M 71° 44′	67° 21′	0° 9′	225° 27′	—	—	—	—
300	Secunda informium circa ♓ — the second of the unformed stars around the Fishes	M 8° 45′	6° 57′	1° 21′	347° 27′	—	—	—	—
302	Quarta informium circa ♓ — the fourth of the unformed stars around the Fishes	M 7° 39′	6° 4′	1° 35′	349° 27′	—	—	—	—
288	Auſtralis dextræ tibiæ ♒ — the southern star of the right shin of Aquarius	M 29° 5′	23° 46′	1° 51′	314° 19′	M 30° 1′	24° 35′	3° 16′	314° 6′
145	Media trium lucidarum in lino ♓ — the middle of the three bright stars in the cord of Pisces	B 9° 38′	7° 39′	3° 2′	18° 20′	B 9° 38′	7° 39′	3° 11′	18° 29′
29	Extremum ſiniſtri pedis Perſei — the end of the left foot of Perseus	B 55° 59′	49° 33′	3° 18′	102° 24′	B 56° 45′	50° 22′	2° 18′	103° 2′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. af. Temp. (Copernicus)	afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff af Temp (Tycho Brahe)	Afc. Ob Temp. (Tycho Brahe)	Def. Ob Temp. (Tycho Brahe)
146	Sequens trium lucidar. in lino ♓ — the following of the three bright stars in the cord of Pisces	B 11° 29′	9° 8′	3° 49′	22° 5′	B 10° 55′	8° 41′	4° 22′	21° 44′
301	Tertia informium circa ♓ — the third of the unformed stars around the Fishes	M 12° 0′	9° 3[?]′	6° 9′	347° 3′	—	—	—	—
299	Prima informium circa ♓ — the first of the unformed stars around the Fishes	M 13° 52′	11° 3′	6° 17′	344° 11′	—	—	—	—
149	Auſtralis trium in Boreo lino ♓ — the southern of the three in the northern cord of Pisces	B 16° 20′	13° 4′	6° 30′	32° 38′	B 16° 45′	13° 24′	5° 47′	37° 35′
147	Præcedens trium poſt flexum ♓ — the preceding of the three after the bend, Pisces	B 8° 24′	6° 40′	11° 26′	24° 46′	B 6° 53′	5° 28′	12° 8′	23° 4′
33	Siniſter talus Aurigæ — the left ankle of Auriga	B 60° 5[?]′	54° 52′	13° 21′	123° 5′	B 61° 31′	55° 34′	12° 32′	123° 40′
415	Extremitas Septent. caudæ Ceti — the northern tip of the tail of Cetus	M 17° 3′	13° 38′	13° 44′	346° 28′	M 18° 2′	14° 27′	14° 20′	345° 26′
165	Anguſtiſſimus terminus Plejadum — the narrowest end of the Pleiades	B 42° 16′	35° 44′	15° 49′	87° 17′	B 39° 33′	33° 10′	18° 29′	84° 49′
148	Media trium poſt flexum ♓ — the middle of the three after the bend, Pisces	B 5° 54′	4° 40′	15° 52′	25° 12′	B 5° 54′	4° 40′	15° 39′	24° 59′
151	In boreo lino ♓ præcedens a connexu — in the northern cord of Pisces, the one preceding from the junction	B 7° 39′	6° 4′	16° 12′	28° 20′	B 17° 1′	13° 57′	6° 34′	33° 6′
163	Auſtralior ⎫ Plejadum — the more southerly of the Pleiades	B 40° 26′	34° 0′	16° 30′	84° 30′	B 39° 25′	33° 3′	17° 49′	83° 55′
162	Borealior ⎭ — the more northerly of the Pleiades	B 39° 57′	33° 32′	16° 42′	86° 46′	B 39° 35′	33° 12′	17° 24′	83° 48′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. af. Temp. (Copernicus)	afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff af Temp (Tycho Brahe)	Afc. Ob Temp. (Tycho Brahe)	Def. Ob Temp. (Tycho Brahe)
158	Media trium in cauda ♈ — the middle of the three in the tail of Aries	B 32° 43′	26° 57′	16° 47′	70° 41′	B 33° 18′	28° 28′	15° 52′	74° 48′
157	Præcedens trium in cauda ♈ — the preceding of the three in the tail of Aries	B 30° 30′	25° 0′	17° 33′	67° 3′	B 29° 57′	24° 32′	18° 7′	67° 11′
161	ultima caudæ ♈ — the last star of the tail of Aries	B 32° 26′	26° 42′	18° 55′	72° 19′	B 33° 38′	7° 46′	17° 3′	72° 35′
154	Præcedens in iuba Ceti — the preceding star in the mane of Cetus	B 12° 3′	9° 36′	19° 9′	38° 21′	B 11° 34′	9° 12′	19° 3′	37° 27′
164	Exigua Plejadum — the faint star of the Pleiades	B 37° 22′	31° 9′	19° 58′	82° 16′	B 39° 31′	33° 9′	18° 6′	84° 24′
152	Sequens trium poſt flexum ♓ — the following of the three after the bend, Pisces	B 2° 26′	1° 55′	21° 42′	25° 32′	B 2° 8′	1° 42′	21° 48′	25° 12′
310	In nexu amborum linorum ♓ — at the knot of both cords of Pisces	B 2° 24′	1° 54′	23° 34′	27° 22′	B 1° 30′	1° 11′	24° 26′	26° 48′
156	In extremo pede poſteriore ♈ — at the end of the hind foot of Aries	B 14° 27′	11° 31′	24° 31′	47° 33′	B 13° 52′	11° 3′	24° 53′	46° 59′
155	In capillamento Ceti Borea — in the hair of Cetus, the northern one	B 11° 14′	8° 56′	24° 46′	42° 38′	B 11° 7′	8° 51′	23° 10′	40° 52′

Table of the rising amplitudes, of the ascensional differences and of the oblique ascensions and…

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. Af. Temp. (Copernicus)	Afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. (Tycho Brahe)	Afc. Ob Temp (Tycho Brahe)	Defc. Ob Temp. (Tycho Brahe)
171	In origine cornu Borealis ♉ — at the root of the northern horn of Taurus	B 45° 50′	38° 10′	26° 32′	102° 52′	B 38° 10′	31° 53′	33° 1′	96° 47′
304	Præcedens ⌊ duarum ad caudā Ceti — the preceding of the two at the tail of Cetus	M 20° 9′	16° 12′	28° 28′	356° 4′	M 21° 29′	17° 18′	30° 2′	355° 26′
305	Sequens ⌋ duarum ad caudā Ceti — the following of the two at the tail of Cetus	M 15° 55′	12° 43′	29° 7′	3° 41′	M 16° 44′	13° 23′	29° 42′	2° 56′
160	Ex 4 in ſectione ♉ Borealior — of the four in the cut of Taurus, the more northerly	B 18° 54′	15° 10′	32° 2′	62° 22′	B 19° 14′	15° 27′	32° 2′	62° 56′
174	In extremo cornu Borco ♉ — at the tip of the northern horn of Taurus	B 49° 47′	43° 7′	32° 31′	118° 45′	B 50° 42′	44° 2′	31° 33′	119° 37′
315	Medium oris Ceti — the middle of the mouth of Cetus	B 3° 28′	2° 45′	33° 7′	38° 37′	B 2° 37′	2° 4′	33° 53′	38° 1′
416	In extremitate Auſtrali caudæ Ceti — at the southern extremity of the tail of Cetus	M 33° 25′	27° 35′	33° 32′	338° 22′	M 34° 12′	28° 16′	34° 22′	337° 50′
159	Secunda ⌊ ex 4 in ſectione ♉ — the second of the four in the cut of Taurus	B 16° 44′	13° 23′	33° 51′	60° 37′	B 16° 31′	13° 12′	34° 14′	60° 38′
321	Tertia ⌋ ex 4 in ſectione ♉ — the third of the four in the cut of Taurus	B 14° 5′	11° 14′	35° 4′	57° 32′	B 13° 48′	11° 0′	35° 39′	57° 39′
317	Extrema mandibula Ceti — the end of the jaw of Cetus	B 6° 17′	4° 59′	35° 31′	45° 29′	B 4° 14′	3° 21′	37° 19′	44° 1′
313	Trium in gena Ceti præcedens — the preceding of the three in the cheek of Cetus	M 1° 35′	1° 15′	35° 56′	33° 26′	B 2° 13′	1° 45′	36° 50′	33° 20′
320	Ex 4 in ſectione ♉ Auſtr. Quarta — of the four in the cut of Taurus, the southern, the fourth	B 12° 50′	10° 13′	36° 9′	56° 35′	B 12° 37′	10° 2′	36° 5′	56° 9′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. Af. Temp. (Copernicus)	Afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. (Tycho Brahe)	Afc. Ob Temp (Tycho Brahe)	Defc. Ob Temp. (Tycho Brahe)
169	Oculus ♉ Boreus — the northern eye of Taurus	B 30° 16′	24° 47′	37° 15′	86° 49′	B 30° 55′	25° 22′	36° 17′	87° 1′
167	Hyadum ea quæ ad oculum Boreum — that one of the Hyades which is by the northern eye	B 27° 33′	22° 26′	38° 23′	83° 15′	B 27° 52′	22° 43′	37° 33′	82° 59′
414	ultima fufionis aquæ ♒ — the last of the pouring of the water, Aquarius	M 64° 1′	58° 22′	38° 28′	281° 44′	M 58° 57′	52° 44′	31° 47′	286° 19′
308	Venter Ceti — the belly of Cetus	M 19° 47′	15° 53′	38° 55′	7° 9′	M 20° 11′	16° 13′	39° 27′	7° 1′
166	Hyadum ea quæ in naribus — that one of the Hyades which is in the nostrils	B 24° 22′	19° 43′	39° 39′	79° 5′	B 24° 13′	19° 36′	39° 59′	79° 11′
324	In pectore ♉ — in the breast of Taurus	B 18° 46′	15° 3′	39° 52′	69° 58′	B 18° 46′	15° 3′	39° 52′	69° 58′
177	Lucens ante genu præced. ♊ — the bright star before the knee of the preceding Twin	B 53° 10′	46° 36′	41° 6′	134° 18′	B 53° 54′	47° 20′	40° 27′	135° 7′
168	Hyadum ea quæ ad oculum Auftr. — that one of the Hyades which is by the southern eye	B 24° 58′	20° 14′	41° 20′	81° 48′	B 25° 2′	20° 17′	41° 29′	82° 3′
170	Palilicium feu oculus ♉ — Palilicium, that is, the eye of Taurus	B 26° 43′	21° 44′	41° 34′	85° 2′	B 26° 15′	21° 20′	42° 13′	84° 53′
172	Inter aurem & cornu Auftr. ♉ — between the ear and the southern horn of Taurus	B 30° 5′	24° 38′	43° 5′	92° 21′	B 30° 43′	25° 11′	42° 9′	92° 31′
173	Auftralior in cornu Auftr. ♉ — the more southerly in the southern horn of Taurus	B 29° 7′	23° 48′	47° 21′	94° 57′	B 33° 49′	27° 56′	43° 26′	99° 18′
306	Trium in corpore Ceti media — the middle of the three in the body of Cetus	M 30° 15′	24° 47′	47° 24′	357° 50′	M 30° 17′	24° 49′	47° 59′	358° 21′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. Af. Temp. (Copernicus)	Afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. (Tycho Brahe)	Afc. Ob Temp (Tycho Brahe)	Defc. Ob Temp. (Tycho Brahe)
175	In extremo Auſtralis cornu ♉ — at the tip of the southern horn of Taurus	B 34° 58′	28° 58′	49° 5′	107° 1′	B 35° 41′	29° 37′	49° 8′	108° 22′
314	Præcedens ſecundam ex 4 Eridani — the star preceding the second of the four of Eridanus	M 14° 53′	11° 53′	51° 11′	27° 25′	M 17° 14′	13° 48′	53° 18′	25° 42′
47	Tertia ex 4 obſcuris circa Helicem — the third of the four faint stars about Helice	B 85° 48′	84° 44′	51° 49′	221° 17′	B 74° 14′	70° 22′	64° 8′	204° 52′
311	Borealis in pectore Ceti — the northern star in the breast of Cetus	M 21° 3′	16° 57′	52° 8′	14° 8′	M 22° 22′	18° 3′	53° 19′	17° 13′
39	Caput præcedens ♊ — the head of the preceding Twin	B 60° 18′	54° 13′	52° 21′	160° 45′	B 62° 0′	56° 6′	51° 29′	163° 41′
184	In ſiniſtro brachio præcedentis ♊ — in the left arm of the preceding Twin	B 55° 52′	49° 25′	52° 24′	151° 14′	B 56° 58′	50° 36′	51° 10′	151° 22′
176	Anteced. ſummitatem pedis præc. ♊ — the star going before the top of the foot of the preceding Twin	B 39° 14′	32° 52′	52° 29′	118° 13′	B 40° 3′	33° 38′	51° 20′	118° 36′
312	Auſtralis ſequens in pectore Ceti — the southern following star in the breast of Cetus	M 24° 37′	19° 56′	56° 19′	16° 27′	M 25° 56′	21° 3′	57° 36′	15° 30′
178	Pes prior præcedentis ♊ — the forward foot of the preceding Twin	B 37° 43′	31° 28′	56° 26′	119° 22′	B 38° 52′	32° 32′	55° 35′	120° 39′
316	Ex 4 fluvii Eridani ſequens — of the four of the river Eridanus, the following	M 16° 7′	12° 53′	57° 20′	31° 34′	M 16° 56′	13° 33′	57° 57′	30° 51′
179	Sequens pes præcedentis ♊ — the hinder foot of the preceding Twin	B 38° 14′	31° 57′	57° 44′	121° 38′	B 39° 2′	32° 42′	57° 19′	122° 43′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Coperni-cus) — B north, M south	Diff. Af. Temp. (Coper-nicus)	Afc. Ob Temp. (Coper-ni-cus)	Def. Ob Temp. (Coper-ni-cus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. (Ty-cho Brahe)	Afc. Ob Temp (Ty-cho Brahe)	Defc. Ob Temp. (Ty-cho Brahe)
307	Trium in corpore Ceti Auſtralis — the southern of the three in the body of Cetus	M 38° 21′	32° 4′	57° 50′	353° 42′	M 39° 37′	33° 14′	58° 48′	352° 20′
182	In ſiniſtro genu præcedentis ♊ — in the left knee of the preceding Twin	B 43° 29′	36° 54′	58° 22′	132° 10′	B 45° 2′	38° 24′	56° 45′	133° 33′
325	Sexta clypei Orionis — the sixth star of the shield of Orion	B 9° 25′	7° 28′	59° 31′	74° 27′	B 10° 16′	8° 9′	59° 16′	75° 30′

ascensions and oblique descensions of the fixed stars, for the latitude of the place, 52° 20′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Coperni-cus) — B north, M south	Diff. af. Temp. (Coper-nicus)	afc. Ob Temp. (Coper-ni-cus)	Def. Ob Temp. (Coper-ni-cus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. af. Temp. (Ty-cho Brahe)	Afc. Ob Temp (Ty-cho Brahe)	Defc. Ob Temp. (Ty-cho Brahe)
187	In ſcapulis præcedentis ♊ — in the shoulder-blades of the preceding Twin	B 50° 44′	44° 5′	61° 18′	149° 28′	B 51° 20′	44° 42′	60° 50′	150° 14′
326	Septima clypei Orionis — the seventh star of the shield of Orion	B 7° 21′	5° 50′	61° 46′	73° 26′	B 8° 4′	6° 24′	61° 24′	74° 12′
180	In extremo pede dextro præc. ♊ — at the end of the right foot of the preceding Twin	B 33° 57′	28° 3′	63° 49′	119° 55′	B 34° 45′	28° 47′	62° 50′	120° 24′
318	Præcedens 4 ſeq. poſt interv. fluv. — the star preceding the four that follow after the gap in the river	M 17° 51′	14° 18′	63° 51′	35° 15′	M 17° 46′	14° 14′	63° 4′	34° 36′
188	Dexter humerus præcedentis ♊ — the right shoulder of the preceding Twin	B 48° 47′	42° 6′	65° 25′	149° 37′	B 49° 29′	42° 49′	65° 19′	150° 57′
189	Caput ſequentis ♊ Herculis — the head of the following Twin, Hercules	B 51° 11′	44° 33′	66° 1′	155° 7′	B 52° 14′	45° 37′	64° 54′	156° 8′

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Copernicus) — B north, M south	Diff. af. Temp. (Copernicus)	afc. Ob Temp. (Copernicus)	Def. Ob Temp. (Copernicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. af. Temp. (Tycho Brahe)	Afc. Ob Temp (Tycho Brahe)	Defc. Ob Temp. (Tycho Brahe)
319	Tertio præced. 4 ſeq. poſt interv. fluv. — third before the four that follow after the gap in the river	M 18° 20′	14° 41′	66° 12′	36° 48′	M 18° 20′	14° 42′	65° 52′	36° 28′
330	Humerus ſiniſter Orionis — the left shoulder of Orion	B 8° 2′	6° 23′	66° 23′	79° 9′	B 9° 46′	7° 46′	68° 27′	83° 59′
327	Octava clypei Orionis — the eighth star of the shield of Orion	B 2° 21′	1° 51′	66° 36′	70° 18′	B 2° 58′	2° 21′	66° 20′	71° 2′
339	Occidentalis in capite Orionis — the western star in the head of Orion	—	—	—	—	B 15° 7′	12° 4′	66° 31′	90° 39′
341	Orientalis in capite Orionis — the eastern star in the head of Orion	—	—	—	—	B 14° 52′	11° 52′	67° 10′	90° 54′
328	ultima Auſtralis clypei Orionis — the last, southern star of the shield of Orion	B 0° 42′	0° 34′	69° 0′	70° 8′	B 1° 46′	1° 24′	68° 20′	71° 18′
322	Præced. poſt interv. fluvii ex 4 — the preceding of the four after the gap in the river	M 21° 41′	17° 28′	70° 2′	35° 6′	M 22° 7′	17° 50′	69° 54′	34° 14′
183	Sub ſiniſtro genu ſequentis II — below the left knee of the following Twin	B 35° 9′	29° 9′	71° 25′	129° 43′	B 36° 2′	29° 56′	70° 29′	130° 21′
181	In ſummo pede ſiniſtro ſequentis II — at the top of the left foot of the following Twin	B 26° 40′	21° 41′	71° 58′	115° 20′	B 28° 0′	22° 49′	71° 7′	116° 45′
186	In ſiniſtro bubone ſequentis II — in the left groin of the following Twin	B 38° 23′	32° 6′	72° 16′	136° 28′	B 39° 4′	32° 43′	71° 38′	137° 4′
190	In ſiniſtro humero ſequentis II — in the left shoulder of the following Twin	B 43° 29′	36° 54′	73° 14′	147° 2′	B 44° 25′	37° 48′	72° 16′	147° 52′
323	Maxime ſeq. poſt intervall. fluvii — the last of all after the gap in the river	M 23° 42′	19° 10′	74° 22′	36° 2′	M 24° 20′	19° 42′	77° 59′	38° 35′

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346	Humerus dexter Orionis — the right shoulder of Orion	B 10° 24′	8° 16′	75° 35′	92° 7′	M 11° 58′	9° 32′	74° 9′	93° 13′
333	Præcedens in cingulo Orionis — the preceding star in the belt of Orion	M 2° 3′	1° 37′	79° 44′	76° 30′	M 1° 2′	0° 49′	79° 2′	77° 24′
331	In manubrio enſis Orionis — on the hilt of the sword of Orion	M 4° 58′	3° 56′	80° 44′	72° 52′	M 4° 33′	3° 37′	79° 51′	72° 37′
185	In poplite dextro ſequentis ♊ — in the right ham of the following Twin	B 27° 10′	22° 6′	81° 18′	125° 30′	B 28° 55′	23° 37′	80° 48′	128° 2′
342	Media in cingulo Orionis — the middle star in the belt of Orion	M 2° 52′	2° 16′	82° 23′	77° 51′	M 2° 24′	1° 54′	81° 9′	77° 21′
192	Extremum pedis Borei ♋ — the end of the northern foot of Cancer	M 38° 21′	32° 4′	84° 18′	148° 26′	M 38° 56′	32° 36′	83° 46′	148° 58′
344	Sequens in cingulo Orionis — the following star in the belt of Orion	M 3° 44′	2° 58′	85° 3′	79° 7′	M 3° 34′	2° 50′	83° 9′	77° 29′
329	Siniſterpes Orionis — the left foot of Orion	M 15° 10′	12° 6′	85° 29′	61° 29′	M 14° 17′	11° 23′	85° 31′	62° 45′
191	Lucida extra formam ♊ — the bright star outside the figure of the Twins	B 32° 12′	26° 29′	87° 8′	140° 6′	B 31° 50′	26° 10′	84° 8′	136° 28′
337	Borealis trium in enſe Orionis — the northern of the three in the sword of Orion	M 9° 13′	7° 19′	87° 9′	72° 31′	M 8° 22′	6° 39′	85° 50′	72° 32′
336	Media trium in enſe Orionis — the middle of the three in the sword of Orion	M 10° 37′	8° 27′	88° 12′	71° 18′	M 9° 20′	7° 24′	86° 34′	71° 46′
340	Orionis in capite nebuloſa — the nebulous star in the head of Orion	M 10° 44′	8° 32′	88° 36′	71° 32′	M 15° 54′	12° 42′	91° 19′	65° 55′
338	Auſtralis trium in enſe Orionis — the southern of the three in the sword of Orion	M 11° 7′	8° 50′	88° 55′	71° 15′	M 10° 12′	8° 7′	87° 23′	71° 9′

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194	Borea duar. præced. quadrilateri ♋ — the northern of the two preceding stars of the quadrilateral of Cancer	B 36° 57′	30° 46′	90° 56′	152° 28′	B 31° 41′	26° 2′	95° 56′	148° 0′
197	Boreus aſellus ♋ — the northern Ass of Cancer	B 38° 27′	32° 9′	92° 41′	156° 59′	B 39° 20′	32° 58′	92° 47′	158° 43′
195	Auſtrina duar. præc. quadrilateri ♋ — the southern of the two preceding stars of the quadrilateral of Cancer	B 32° 25′	25° 41′	94° 50′	148° 12′	B 35° 43′	29° 39′	93° 11′	152° 29′
196	Pectus ♋, præſepe dictum — the breast of Cancer, called the Manger	B 34° 47′	28° 48′	95° 31′	153° 7′	B 35° 52′	29° 48′	94° 49′	154° 25′
345	Dextrum genu Orionis — the right knee of Orion	M 16° 50′	13° 27′	96° 34′	69° 32′	M 16° 15′	13° 0′	95° 27′	69° 27′
198	Auſtrinus aſellus ♋ — the southern Ass of Cancer	B 32° 52′	27° 5′	98° 6′	152° 16′	B 33° 10′	27° 22′	98° 23′	153° 7′
67	Borealis in pede dextro poſt: Helic. — the northern star in the right hind foot of Helice	B 69° 7′	64° 17′	99° 1′	227° 35′	B 70° 52′	66° 20′	97° 53′	230° 53′

Table of the rising amplitudes, of the ascensional differences and of the oblique ascensions and…

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56	Duarum in capite ♌ Borea — the northern of the two in the head of Leo	B 49° 3′	42° 22′	100° 4′	184° 48′	B 45° 43′	43° 5′	99° 41′	185° 51′
193	Extremum pedis Auſtrini ♋ — the end of the southern foot of Cancer	B 21° 43′	17° 30′	101° 53′	136° 53′	B 23° 38′	19° 7′	96° 52′	135° 6′

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201	In ore ♌ — in the mouth of Leo	B 42° 2′	35° 30′	102° 3′	173° 3′	B 43° 1′	36° 26′	101° 2′	173° 54′
355	Canis minor προκύων — the Lesser Dog [Greek: prokyōn, "Procyon", literally "before the dog"]	B 9° 38′	7° 39′	102° 23′	117° 41′	B 10° 7′	8° 3′	101° 50′	117° 56′
55	Auſtralis in capite ♌ — the southern star in the head of Leo	B 44° 6′	37° 30′	103° 49′	178° 49′	B 44° 46′	38° 10′	102° 50′	179° 10′
63	Auſtralis in pede dextro poſt: Helic. — the southern star in the right hind foot of Helice	B 65° 50′	60° 27′	103° 50′	223° 38′	B 65° 38′	60° 12′	104° 10′	224° 34′
334	Leporis in medio corpore — in the middle of the body of Lepus	M 31° 16′	25° 40′	105° 30′	54° 10′	M 30° 34′	25° 3′	104° 4′	53° 58′
332	Sub ventre Leporis — below the belly of Lepus	M 36° 36′	30° 27′	110° 15′	49° 21′	M 36° 4′	29° 58′	107° 59′	48° 3′
58	Borea trium in collo ♌ — the northern of the three in the neck of Leo	B 43° 0′	36° 26′	111° 37′	184° 29′	B 45° 4′	38° 26′	109° 24′	185° 16′
199	Brachium Auſtrinum ♋ — the southern arm of Cancer	B 21° 29′	17° 18′	111° 47′	146° 23′	B 22° 5′	17° 48′	111° 36′	147° 12′
200	Informis ſupra chelem ♋ præced. — the unformed star above the claw of Cancer, the preceding	B 24° 46′	20° 4′	112° 45′	153° 3′	B 20° 11′	16° 13′	115° 36′	148° 0′
343	In extremo pedis prioris Canis — at the end of the forward foot of Canis	M 30° 12′	24° 44′	116° 43′	67° 15′	M 30° 8′	24° 41′	116° 15′	66° 53′
59	Media trium in collo ♌ — the middle of the three in the neck of Leo	B 37° 3′	30° 52′	118° 17′	180° 1′	B 37° 18′	31° 6′	118° 38′	180° 50′
202	Informis ſupra chelem ♋ ſequens — the unformed star above the claw of Cancer, the following	B 18° 52′	15° 8′	118° 58′	149° 14′	B 17° 26′	13° 58′	123° 4′	151° 0′

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350	Canis maior, Sirius — the Greater Dog, Sirius	M 26° 45′	21° 45′	119° 32′	76° 2′	M 27° 10′	22° 6′	119° 13′	75° 1′
206	Trium colli ♌ Auſtralior — the more southerly of the three of the neck of Leo	B 31° 3′	25° 28′	120° 42′	171° 38′	B 31° 30′	25° 52′	118° 27′	170° 11′
203	Dextrum genu ♌ — the right knee of Leo	B 25° 21′	20° 33′	120° 50′	161° 56′	B 25° 15′	21° 20′	119° 23′	162° 3′
71	Coma Berenicis — the Hair of Berenice	B 61° 57′	56° 3′	124° 37′	236° 43′	—	—	—	—
205	Antecedens regulum proxime — the star going next before Regulus	—	—	—	—	B 23° 43′	19° 10′	125° 13′	163° 33′
359	Informis circa caput hydræ — the unformed star about the head of Hydra	M 5° 19′	4° 13′	125° 19′	116° 53′	M 4° 30′	3° 34′	125° 39′	118° 31′
69	Duarum Auſtral Comæ Beren præc. — the preceding of the two southern stars of the Hair of Berenice	B 54° 38′	48° 6′	126° 8′	222° 20′	—	—	—	—
204	In ſiniſtro genu ♌ anterior — in the left knee of Leo, the forward one	B 17° 35′	14° 4′	127° 49′	155° 57′	B 19° 12′	15° 25′	124° 46′	155° 36′
207	Cor ♌ — the Heart of Leo	B 22° 45′	18° 22′	128° 7′	164° 51′	B 22° 59′	18° 33′	128° 29′	165° 35′
66	Tergum ♌ — the back of Leo	B 37° 54′	31° 39′	131° 19′	194° 37′	B 39° 0′	32° 40′	130° 47′	196° 7′
209	Pectus ♌ — the breast of Leo	B 18° 57′	15° 13′	131° 52′	161° 58′	B 19° 38′	15° 46′	131° 9′	162° 41′
208	In drace[?] ſiniſtra priori ♌ — the left forward star of Leo	B 15° 40′	12° 31′	132° 29′	157° 31′	B 16° 16′	13° 0′	132° 3′	158° 3′
210	Siniſtra axilla ♌ — the left armpit of Leo	B 18° 17′	14° 39′	138° 8′	167° 26′	B 18° 37′	14° 56′	138° 15′	168° 7′
67	In clune ♌ Auſtrina — in the southern haunch of Leo	B 29° 32′	24° 10′	139° 13′	187° 33′	B 29° 31′	24° 8′	139° 26′	187° 42′
73	Duar. Auſtr. Comæ Beren. ſequens — the following of the two southern stars of the Hair of Berenice	B 48° 19′	41° 38′	140° 15′	223° 31′	—	—	—	—

#	Nomina stellarum — name of the star	Ampl. Or. Part. / (Coperni-cus) — B north, M south	Diff. af. Temp. (Coper-nicus)	afc. Ob Temp. (Coper-nicus)	Def. Ob Temp. (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. af. Temp. (Ty-cho Brahe)	Afc. Ob Temp (Ty-cho Brahe)	Defc. Ob Temp. (Ty-cho Brahe)
356	Extremitas caudæ Canis — the tip of the tail of Canis	M 51° 7′	44° 28′	141° 15′	62° 19′	M 53° 18′	46° 43′	154° 11′	60° 45′
353	Eductio femoris ſiniſtri Canis — where the left thigh of Canis comes out	M 46° 7′	39° 28′	142° 46′	63° 50′	M 45° 27′	38° 49′	142° 6′	64° 28′
365	Lucida hydræ — the bright star of Hydra	M 8° 27′	6° 42′	144° 18′	130° 54′	M 11° 34′	9° 12′	146° 27′	128° 3′
335	Inform. lucid. circa Canem Ant. — the bright unformed star about the Dog, the forward one	M 68° 8′	63° 8′	145° 8′	18° 52′	—	—	—	—
347	In extremo dextri pedis Canis — at the end of the right foot of Canis	M 60° 45′	54° 43′	145° 34′	36° 8′	M 49° 56′	43° 16′	134° 15′	47° 43′
352	Sub ventre inter femora Canis — below the belly, between the thighs of Canis	M 51° 35′	44° 58′	145° 44′	55° 48′	M 51° 18′	44° 40′	145° 41′	56° 21′
211	Informis ſub ventre ♌ — the unformed star below the belly of Leo	B 15° 52′	12° 41′	147° 31′	172° 53′	B 15° 27′	12° 20′	149° 1′	173° 41′
212	In poſteriori femore ♌ — in the hind thigh of Leo	B 20° 41′	16° 38′	148° 59′	182° 15′	B 20° 58′	16° 53′	149° 9′	182° 55′
358	In medio ſcuti Argi fulgens — the star shining in the middle of the shield of Argo	M 45° 21′	38° 42′	149° 26′	72° 2′	—	—	—	—

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-nicus)	Def. Ob Temp./ (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp / (Ty-cho Brahe)	Defc. Ob Tem. / (Ty-cho Brahe)
70	Cauda ♌ — the tail of Leo	B 27° 24′	22° 19′	149° 37′	193° 15′	B 28° 4′	22° 52′	149° 30′	195° 15′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-nicus)	Def. Ob Temp./ (Coper-ni-cus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp / (Ty-cho Brahe)	Defc. Ob Tem. / (Ty-cho Brahe)
360	Sequens duarum in extremo Navis — the following of the two at the end of the Ship	M 40° 15′	33° 51′	151° 33′	83° 51′				
213	Poples poſterior ♌ — the hind knee of Leo	B 12° 43′	10° 8′	154° 55′	175° 11′	B 13° 18′	10° 36′	154° 45′	175° 57′
214	Sub cubitis ♌ — beneath the elbows of Leo	B 9° 31′	7° 34′	156° 41′	171° 49′	B 8° 6′	6° 26′	160° 41′	173° 33′
343	informium luc. circa Canem ſequens — of the unformed bright stars about the Dog, the following one	M 76° 9′	72° 45′	156° 51′	11° 21′				
367	Informis hydræ ſequens eas in collo — the unformed star of the Watersnake, following those on the neck	M 22° 52′	18° 27′	163° 40′	126° 46′	M 16° 26′	13° 8′	161° 24′	135° 8′[68]
215	In extremo alæ ſiniſtræ Auſtrinæ ♍ — at the tip of the southern left wing of Virgo	B 6° 33′	5° 12′	166° 13′	176° 37′	B 6° 25′	5° 5′	167° 41′	177° 51′
98	In femore ſiniſtro Hercul. præced. — in the left thigh of Hercules, the preceding one	B 88° 10′	88° 0′	166° 51′	342° 51′	B 82° 27′	80° 26′	174° 58′	335° 50′
362	In ſectione inſtrati Argo navis — in the cut of the deck of the ship Argo	M 58° 42′	52° 30′	170° 6′	65° 6′				
81	Dextrum femur Bootis — the right thigh of Boötes	B 51° 53′	45° 15′	170° 45′	261° 15′	B 51° 49′	45° 10′	171° 49′	262° 9′
369	Hydræ in recta linea trium præced. — of the three of the Watersnake in a straight line, the preceding	M 24° 36′	19° 55′	171° 47′	131° 57′	M 25° 2′	20° 17′	172° 15′	130° 41′
75	Vindemiator — the Vintager	B 20° 19′	16° 20′	173° 16′	205° 56′	B 21° 39′	17° 27′	173° 25′	208° 19′

[68] a closing parenthesis is printed between the degrees and the minutes

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-nicus)	Def. Ob Temp./ (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp / (Ty-cho Brahe)	Defc. Ob Tem. / (Ty-cho Brahe)
78	Siniſtræ tibiæ Bootis Borealis — the northern star of the left shin of Boötes	B 35° 10′	29° 9′	174° 3′	232° 21′	B 34° 40′	28° 42′	175° 27′	232° 51′
371	Hydræ in recta linea trium ſequens — of the three of the Watersnake in a straight line, the following	M 23° 59′	19° 24′	175° 35′	136° 47′	M 23° 42′	19° 10′	176° 56′	148° 36′
361	Sub 3 quæ ſequitur ſcutum in Navi — beneath the three, the one which follows the shield in the Ship	M 66° 48′	61° 33′	176° 24′	53° 18′				
80	Arcturus — Arcturus	B 37° 26′	31° 13′	178° 20′	240° 46′	B 36° 19′	30° 12′	179° 25′	239° 49′
216	Prima ex 4 alæ ſiniſtræ ♍ — the first of the four of the left wing of Virgo	B 1° 53′	1° 29′	178° 45′	181° 43′	B 2° 26′	1° 55′	177° 56′	181° 46′
357	Argo navis in carina puppis Auſtr. — the ship Argo, in the keel of the stern, southern	M 76° 37′	73° 20′	179° 45′	33° 5′				
76	In dextro latere ſub cingulo ♍ — on the right side beneath the girdle of Virgo	B 8° 55′	7° 5′	181° 44′	195° 54′	B 9° 1′	7° 10′	181° 59′	196° 19′
373	In baſe Crateris hydræ communis — at the base of the Cup, shared with the Watersnake	M 27° 29′	22° 23′	182° 9′	137° 23′	M 27° 17′	22° 12′	182° 34′	138° 10′
217	Secunda ex 4 alæ ſiniſtræ ♍ — the second of the four of the left wing of Virgo	B 1° 9′	0° 54′	184° 36′	186° 24′	B 1° 4′	0° 52′	184° 43′	186° 27′
84	Lucida Corona Gnoſia — the bright star of the Cretan Crown	B 51° 7′	44° 28′	184° 53′	273° 49′	B 50° 17′	43° 37′	186° 2′	273° 16′
218	Tertia ex 4 alæ ſiniſtræ ♍ — the third of the four of the left wing of Virgo	M 1° 25′	1° 7′	190° 23′	188° 9′	M 2° 45′	2° 11′	192° 5′	187° 43′
82	Calcaneus dexter Bootis — the right heel of Boötes	B 26° 21′	21° 24′	193° 45′	236° 33′	B 30° 37′	25° 6′	190° 38′	240° 50′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-nicus)	Def. Ob Temp./ (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp / (Ty-cho Brahe)	Defc. Ob Tem. / (Ty-cho Brahe)
79	Sub cingulo ♍ in dextra clune — beneath the girdle of Virgo, on the right haunch	B 2° 31′	1° 59′	196° 31′	200° 29′	B 2° 18′	1° 50′	196° 51′	200° 31′
219	Quarta ex 4 alæ ſiniſtræ ♍ — the fourth of the four of the left wing of Virgo	M 5° 37′	4° 27′	196° 45′	187° 51′	M 5° 44′	4° 33′	197° 6′	188° 0′
379	Alæ ſiniſtræ Corvi antecedens — of the left wing of the Crow, the preceding star	M 24° 36′	19° 55′	202° 25′	162° 35′	M 23° 57′	19° 23′	201° 59′	163° 13′
380	Ala dextra Corvi — the right wing of the Crow	M 28° 57′	23° 38′	205° 57′	158° 41′	M 25° 44′	20° 53′	201° 43′	159° 57′
376	Collum ſeu cervix Corvi — the neck of the Crow	M 34° 41′	28° 43′	206° 0′	148° 34′	M 34° 58′	28° 58′	206° 39′	148° 43′
220	Spica ♍ — the Ear of Corn of Virgo	M 14° 52′	11° 52′	207° 58′	184° 14′	M 15° 3′	12° 1′	208° 21′	148° 19′ [recte: 184° 19′]
86	Eductio colli ſerpentis Ophiuchi — where the neck of the Serpent of Ophiuchus comes out	B 28° 14′	23° 2′	208° 13′	254° 17′	B 28° 4′	22° 54′	209° 19′	255° 7′
377	Roſtrum Corvi — the beak of the Crow	M 38° 41′	32° 22′	209° 42′	144° 58′	M 39° 0′	32° 40′	209° 54′	144° 34′
221	Borea quadrilateri ſiniſtri femoris ♍ — the northern star of the quadrilateral of the left thigh of Virgo	M 11° 34′	9° 12′	209° 46′	191° 22′	M 11° 6′	8° 49′	209° 17′	191° 39′
88	In tempore ſerpentis Ophiuchi — at the temple of the Serpent of Ophiuchus	B 29° 32′	23° 17′	210° 13′	256° 47′	B 28° 33′	23° 18′	211° 28′	258° 4′
93	Dexter humerus Herculis — the right shoulder of Hercules	B 39° 12′	32° 51′	210° 19′	276° 1′	B 38° 33′	32° 15′	211° 13′	275° 43′
92	Brachium dextram Herculis — the right arm of Hercules	B 34° 41′	28° 43′	212° 8′	269° 39′	B 34° 14′	28° 19′	212° 59′	269° 37′
222	Media in Syrmate ♍ — the middle star in the Train of Virgo	M 6° 18′	5° 0′	213° 0′	204° 0′	M 6° 40′	5° 17′	214° 18′	204° 44′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-nicus)	Def. Ob Temp./ (Coper-ni-cus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp / (Ty-cho Brahe)	Defc. Ob Tem. / (Ty-cho Brahe)
85	Prima converſionis colli Serp. Oph. — the first star of the turn of the neck of the Serpent of Ophiuchus	B 20° 5′	16° 9′	213° 20′	245° 38′	B 19° 40′	15° 48′	213° 24′	245° 0′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Afc. Ob Temp. / (Coper-ni-cus)	Defc.Ob Temp. / (Coper-ni-cus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff.Af. Temp. / (Ty-cho Brahe)	Afc. Ob Temp. / (Ty-cho Brahe)	Defc.Ob Temp. / (Ty-cho Brahe)
381	Extremus pes Corvi, hydræ communis — the outermost foot of the Crow, shared with the Watersnake	M 36° 44′	30° 34′	214° 11′	153° 3′	M 36° 25′	30° 17′	213° 57′	153° 23′
99	Siniſter humerus Herculis — the left shoulder of Hercules	B 45° 15′	38° 36′	215° 32′	292° 44′	B 44° 27′	37° 50′	217° 2′	292° 42′
223	Auſtrina in Syrmate ♍ — the southern star in the Train of Virgo	M 14° 12′	11° 19′	219° 6′	196° 28′	M 14° 5′	11° 14′	219° 18′	196° 50′
83	Dexter pes ♍ — the right foot of Virgo	M 6° 4′	4° 48′	220° 11′	210° 35′	M 6° 23′	5° 4′	220° 51′	210° 43′
89	Media ι converſ. colli Serp. Oph. — the middle star of the turn of the neck of the Serpent of Ophiuchus	B 12° 40′	10° 5′	220° 36′	240° 46′	B 12° 38′	10° 4′	221° 23′	241° 31′
90	Auſtralis ζ converſ. colli Serp. Oph. — the southern star of the turn of the neck of the Serpent of Ophiuchus	B 9° 44′	7° 44′	224° 16′	239° 44′	B 9° 20′	7° 24′	225° 38′	240° 26′
224	Siniſter pes ♍ — the left foot of Virgo	M 19° 11′	15° 24′	225° 2′	194° 14′	M 19° 12′	15° 25′	225° 5′	194° 15′
378	Hydræ antepenultima — the antepenultimate star of the Watersnake	M 59° 41′	53° 32′	225° 33′	118° 29′				
100	Caput Herculis — the head of Hercules	B 25° 30′	20° 41′	232° 21′	273° 43′	B 24° 53′	20° 10′	234° 9′	274° 29′
87	Lucida lancis Boreæ — the bright star of the northern Scale	M 13° 5′	10° 25′	234° 19′	213° 29′	M 13° 2′	10° 22′	234° 33′	213° 49′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Aſc. Ob Temp. / (Coper-nicus)	Deſc.Ob Temp. / (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff.Af. Temp. / (Ty-cho Brahe)	Aſc. Ob Temp. / (Ty-cho Brahe)	Deſc.Ob Temp. / (Ty-cho Brahe)
225	Lucida ⌊ lancis Auſtralis — the bright star of the southern Scale	M 23° 28′	18° 58′	236° 26′	198° 30′	M 24° 43′	20° 1′	237° 24′	197° 22′
226	Præcedens ∫ lancis Auſtralis — the preceding star of the southern Scale	M 24° 17′	19° 39′	240° 33′	201° 15′	M 24° 16′	19° 39′	240° 17′	200° 59′
101	Ophiuchi caput — the head of Ophiuchus	B 21° 43′	17° 30′	241° 21′	276° 21′	B 21° 26′	17° 15′	242° 5′	276° 35′
94	Præcedens in ſiniſtra manu Oph. — the preceding star in the left hand of Ophiuchus	M 4° 40′	3° 42′	241° 55′	234° 31′	M 4° 24′	3° 29′	242° 10′	235° 12′
228	In medio Auſtrina lancis — the southern star in the middle of the Scale	M 24° 57′	20° 13′	243° 53′	203° 27′	M 23° 19′	18° 51′	243° 51′	306° 9′ [recte: 206° 9′]
112	Roſtrum Gallinæ ſeu Os Cygni — the beak of the Hen, that is, the mouth of the Swan	B 49° 14′	42° 33′	246° 19′	331° 25′	B 48° 23′	41° 42′	247° 11′	330° 35′
229	In medio Boreæ lancis — the star in the middle of the northern Scale	M 23° 9′	18° 42′	246° 25′	209° 1′	M 22° 22′	18° 3′	246° 40′	210° 34′
95	Sequens in ſiniſtra manu Ophiuchi — the following star in the left hand of Ophiuchus	M 12° 13′	9° 44′	247° 57′	228° 29′	M 6° 5′	4° 50′	244° 27′	234° 47′
232	Informis ſupra lancem Boream — the unformed star above the northern Scale	M 20° 57′	16° 51′	251° 27′	217° 45′	M 21° 51′	17° 37′	251° 51′	216° 37′
130	In ancone ſiniſtræ alæ Gallinæ — at the bend of the left wing of the Hen	B 62° 6′	56° 13′	251° 28′	3° 54′	B 61° 45′	55° 50′	251° 52′	3° 32′
227	Præcedens trium ſub Auſtr. lance inf. — the preceding of the three below, beneath the southern Scale	M 40° 30′	32° 15′	252° 1′	187° 31′	M 41° 30′	35° 0′	255° 50′	185° 56′
230	Informis inter lances — the unformed star between the Scales	M 27° 24′	22° 19′	252° 24′	207° 46′	M 24° 3′	19° 27′	250° 11′	211° 17′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Aſc. Ob Temp. / (Coper-nicus)	Deſc.Ob Temp. / (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff.Af. Temp. / (Ty-cho Brahe)	Aſc. Ob Temp. / (Ty-cho Brahe)	Deſc.Ob Temp. / (Ty-cho Brahe)
231	Sequens in lance Borea — the following star in the northern Scale	M 24° 20′	19° 42′	253° 5′	213° 41′	M 25° 59′	21° 5′	254° 7′	211° 57′
96	In ſiniſtro genu Ophiuchi — in the left knee of Ophiuchus	M 15° 20′	12° 15′	256° 17′	231° 47′	M 16° 1′	12° 47′	256° 53′	231° 19′
384	Humerus ſiniſter præcedens Centauri — the left shoulder of the Centaur, the preceding one	M 67° 30′	62° 22′	257° 19′	132° 35′				
105	Caudam Aquilæ præcedens — the star going before the tail of the Eagle					B 24° 24′	19° 45′	260° 52′	300° 22′
236	Trium lucentium in fronte ♏ Borea — of the three bright stars in the forehead of Scorpio, the northern	M 31° 8′	25° 33′	261° 35′	210° 29′	M 31° 12′	25° 36′	261° 29′	210° 17′
237	Borea duar. coniunctar. in ♏ — the northern of the two conjoined stars in Scorpio	M 30° 48′	25° 16′	262° 3′	211° 31′	M 31° 8′	25° 33′	263° 46′	212° 40′
106	Cauda Aquilæ — the tail of the Eagle	B 22° 26′	18° 6′	262° 26′	298° 38′	B 22° 13′	17° 54′	264° 6′	299° 54′
238	Auſtralis duar. coniunct. in ♏ — the southern of the two conjoined stars in Scorpio	M 33° 1′	27° 13′	264° 4′	209° 38′	M 33° 16′	27° 27′	263° 21′	208° 27′
233	Media trium lucentium in fronte ♏ — the middle of the three bright stars in the forehead of Scorpio	M 36° 18′	30° 8′	264° 45′	204° 29′	M 36° 49′	30° 39′	265° 5′	203° 51′
133	In extremo ſiniſtræ alæ Gallinæ — at the tip of the left wing of the Hen	B 52° 44′	46° 8′	268° 14′	0° 30′	B 51° 55′	45° 18′	269° 2′	359° 38′
239	In cavo ſiniſtri pedis Ophiuchi — in the hollow of the left foot of Ophiuchus	M 33° 51′	27° 58′	268° 20′	212° 24′				

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234	Auſtralis trium lucentium in frontem — the southern of the three bright stars in the forehead	M 42° 34′	36° 1′	269° 47′	197° 45′	M 43° 39′	37° 4′	271° 8′	197° 0′
389	Humerus dexter Centauri — the right shoulder of the Centaur	M 69° 54′	65° 11′	271° 21′	140° 59′				
243	In genu dextro Ophiuchi — in the right knee of Ophiuchus	M 24° 57′	20° 13′	272° 34′	232° 8′	M 25° 14′	20° 29′	272° 41′	231° 43′
240	Præcedens lucentium in corpore ♏ — the preceding of the bright stars in the body of Scorpio	M 42° 22′	35° 50′	275° 13′	203° 33′	M 42° 52′	36° 19′	275° 51′	203° 13′
235	In pede ♏ ad Auſtrum — in the foot of Scorpio, toward the south	M 48° 32′	41° 51′	275° 14′	191° 32′	M 50° 14′	43° 34′	277° 9′	190° 1′

#	NOMINA STELLARUM — name of the star	Ampl. Or. Part. / (Coper-nicus) — B north, M south	Diff. Af. Temp. / (Coper-nicus)	Aſc. Ob Temp. / (Coper-nicus)	Def. Ob Temp. / (Coper-nicus)	Ampl. Or. Part. / (Tycho Brahe) — B north, M south	Diff. Af Temp. / (Ty-cho Brahe)	Aſc. Ob Temp / (Ty-cho Brahe)	Deſc.Ob Temp./ (Ty-cho Brahe)
110	Anteced. duar. ſiniſtri hum. Aquilæ — the preceding of the two of the left shoulder of the Eagle	B 16° 15′	13° 0′	278° 17′	304° 17′	B 16° 4′	12° 50′	279° 16′	304° 57′
241	Cor ♏ Antares — the Heart of Scorpio, Antares	M 43° 39′	37° 4′	278° 33′	204° 25′	M 44° 45′	38° 8′	279° 48′	203° 32′
113	Proxima lucidæ in ſcapulis Aquilæ — the star next to the bright one in the shoulder-blades of the Eagle	B 14° 10′	11° 18′	281° 33′	304° 9′	B 17° 23′	13° 55′	278° 39′	306° 29′
111	Aquila ſeu vultur volans — the Eagle, or the flying vulture	B 12° 35′	10° 1′	282° 16′	302° 18′	B 13° 3′	10° 24′	282° 40′	303° 28′

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244	Ophiuchi in pede dextro præced. ex 4 — of the four in the right foot of Ophiuchus, the preceding	M 34° 41′	28° 43′	282° 20′	224° 54′				
245	In dextra tibia Ophiuchi — in the right shin of Ophiuchus	M 34° 47′	28° 48′	283° 5′	225° 29′	M 34° 52′	28° 53′	282° 30′	224° 44′
107	In dextro brachio Antinoi — in the right arm of Antinous	B 3° 57′	3° 8′	283° 47′	290° 3′	B 4° 1′	3° 11′	283° 22′	289° 44′
242	Sequens lucentium in corpore ♏, — the following of the bright stars in the body of Scorpio	M 47° 29′	40° 48′	283° 59′	202° 23′	M 48° 19′	41° 38′	284° 46′	201° 30′
121	Rhomb. Delphini lateris præc. Bor. — of the rhombus of the Dolphin, the northern star of the preceding side	B 25° 38′	20° 48′	284° 13′	325° 49′	B 24° 24′	19° 45′	285° 45′	325° 15′
247	Sequens ex 4 pedis dextri Ophiuchi — of the four of the right foot of Ophiuchus, the following	M 36° 21′	30° 13′	285° 8′	224° 42′				
114	Antecedens in collo Aquilæ — the preceding star in the neck of the Eagle	B 9° 34′	7° 36′	285° 53′	301° 5′	B 9° 8′	7° 15′	286° 55′	301° 25′
119	Rhomboid. Delphini Auſtr. lat. præc. — of the rhomboid of the Dolphin, the southern star of the preceding side	B 21° 55′	17° 40′	286° 28′	321° 48′	B 22° 10′	17° 53′	287° 11′	322° 57′
123	Eiuſdem lateris ſequentis Borea — the northern star of the following side of the same [rhomboid]	B 25° 53′	21° 0′	286° 58′	328° 58′	B 24° 43′	20° 2′	287° 15′	327° 19′
248	Tertia ſeq. ex 4 pedis dextri Ophiuc. — the third following, of the four of the right foot of Ophiuchus	M 38° 41′	32° 22′	287° 52′	223° 8′				

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122	Rhomb. Delphini lateris ſeq. Auſtr. — of the rhombus of the Dolphin, the southern star of the following side	B 23° 2′	18° 36′	287° 55′	325° 7′	B 22° 59′	18° 33′	287° 54′	325° 0′
104	Prima Antin. præc. informes Aquilæ — the first of the unformed stars of the Eagle going before Antinous	M 7° 49′	6° 11′	288° 17′	275° 55′	M 8° 48′	6° 59′	288° 30′	274° 32′
249	Reliqua ſeq. ex 4 pedis dextri Ophi. — the remaining following star, of the four of the right foot of Ophiuchus	M 38° 4′	31° 48′	288° 30′	224° 54′				
395	In poplite pedis poſterioris Beſtiæ — in the knee-joint of the hind foot of the Beast	M 75° 35′	71° 59′	290° 3′	136° 5′ [recte: 146° 5′]				
118	Cauda Delphini — the tail of the Dolphin	B 16° 56′	13° 33′	290° 38′	317° 44′	B 15° 44′	12° 35′	291° 8′	316° 18′
109	Latus dextrum Antinoi — the right side of Antinous	M 3° 38′	2° 52′	291° 54′	285° 24′	M 3° 8′	2° 29′	291° 44′	286° 46′
142	In Pegaſi genu dextro Borealis — the northern star in the right knee of Pegasus	B 50° 42′	44° 2′	292° 30′	20° 34′	B 50° 46′	44° 7′	292° 11′	20° 25′
8	Media in cingulo vel umbilico Andr. — the middle star in the girdle, or the navel, of Andromeda	B 77° 9′	73° 55′	294° 28′	82° 18′	B 84° 19′	82° 57′	285° 58′	91° 52′
115	Caput Antinoi præc. informes Aquilæ — the head of Antinous, among the unformed stars going before the Eagle	B 1° 48′	1° 26′	296° 41′	299° 33′	B 3° 5′	2° 26′	300° 22′	295° 30′
251	Borealior in extremitate arcus ♐ — the more northerly at the end of the bow of Sagittarius	M 35° 11′	29° 10′	297° 22′	239° 2′	M 36° 0′	29° 55′	297° 44′	237° 54′
108	Genu Antinoi — the knee of Antinous	M 10° 42′	8° 31′	298° 37′	281° 35′	M 12° 46′	10° 10′	299° 16′	278° 56′

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125	In ore Equulei præcedens — the preceding star in the mouth of Equuleus	B 14° 37′	11° 39′	301° 6′	324° 24′	B 14° 17′	11° 23′	301° 36′	324° 22′
246	Ophiuchi in calce dextri pedis — at the heel of the right foot of Ophiuchus					M 52° 49′	46° 13′	301° 43′	209° 17′
143	Dexter humerus Pegaſi — the right shoulder of Pegasus	B 45° 27′	38° 49′	302° 23′	20° 1′	B 45° 55′	39° 15′	302° 8′	20° 38′
127	In ore Equulei ſequens — the following star in the mouth of Equuleus	B 14° 25′	11° 30′	302° 32′	325° 32′	B 14° 6′	11° 15′	302° 44′	325° 14′
397	In primo ſpondylo ♏ — in the first vertebra of Scorpio	M 62° 38′	56° 50′	303° 26′	189° 46′				
264	Trium in ſcapulis ♐ Borea & ſeq. — of the three in the shoulder-blades of Sagittarius, the northern and following	M 27° 12′	22° 8′	307° 4′	262° 48′	M 27° 54′	22° 45′	307° 46′	262° 16′
253	Auſtralior Sept. partis arcus ♐ — the more southerly of the northern part of the bow of Sagittarius	M 43° 39′	37° 4′	307° 43′	233° 35′	M 44° 50′	38° 12′	309° 23′	232° 59′
257	Trium capitis ♐ antecedens — of the three of the head of Sagittarius, the preceding	M 36° 6′	30° 0′	307° 46′	247° 46′	M 36° 55′	30° 45′	309° 35′	248° 5′
124	Præcedens in capite Equulei — the preceding star in the head of Equuleus	B 6° 42′	5° 18′	308° 56′	319° 32′	B 6° 7′	4° 51′	309° 15′	319° 1′
128	Sequens in capite Equulei — the following star in the head of Equuleus	B 7° 46′	6° 9′	309° 32′	321° 50′	B 8° 42′	6° 54′	309° 8′	322° 56′
255	Sagittarii oculi nebuloſa duplex — the double nebulous star of the eye of Sagittarius	M 38° 50′	32° 31′	309° 51′	244° 49′				

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263	Media in ſcapulis ♐ ex tribus — the middle of the three in the shoulder-blades of Sagittarius	M 30° 50′	25° 17′	309° 54′	259° 20′	M 31° 17′	25° 41′	310° 37′	259° 15′
131	In rictu Pegaſi — in the open mouth of Pegasus	B 12° 40′	10° 5′	310° 48′	331° 58′	B 13° 27′	10° 43′	310° 42′	332° 8′

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259	Media ⎫ trium capitis ♐ — the middle of the three of the head of Sagittarius	M 37° 8′	30° 57′	310° 54′	249° 0′	M 38° 10′	31° 53′	312° 25′	248° 39′
261	Sequens ⎭ — the following of the same three	M 35° 58′	29° 53′	311° 25′	251° 39′	M 36° 57′	30° 46′	312° 36′	251° 4′
262	Auſtralior trium in ſcapulis ♐ — the more southerly of the three in the shoulder-blades of Sagittarius	M 34° 2′	28° 8′	311° 53′	255° 37′	M 33° 40′	27° 48′	311° 38′	256° 2′
250	Cuſpis Sagittæ ♐ — the point of the arrow	M 54° 40′	48° 9′	313° 41′	217° 23′				
10	Auſtralis in umbilico Andromedæ — the southern star in the navel of Andromeda	B 63° 26′	57° 44′	315° 0′	70° 28′	B 65° 1′	59° 31′	312° 36′	71° 38′
4	Caput Andromedæ ſeu umbilicus Pegaſi — the head of Andromeda, or the navel of Pegasus	B 48° 56′	42° 15′	315° 13′	39° 43′	B 48° 1′	41° 20′	315° 51′	38° 31′
254	Iaculum ♐ — the dart	M 48° 27′	41° 46′	316° 56′	233° 24′	M 48° 34′	41° 53′	317° 26′	233° 40′
265	In ♑ præcedente cornu Borea — the northern star in the preceding horn of Capricorn	M 21° 41′	17° 28′	317° 2′	282° 6′	M 22° 40′	18° 17′	317° 32′	280° 58′

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252	Manubrium ſiniſtræ manus ♐ — the hilt in the left hand of Sagittarius	M 54° 47′	48° 17′	317° 27′	220° 53′				
20	Siniſter pes Andromedæ — the left foot of Andromeda	B 73° 35′	69° 36′	317° 28′	96° 40′				
256	Humerus ſiniſter ♐ — the left shoulder	M 46° 48′	40° 8′	317° 51′	237° 35′	M 47° 39′	40° 59′	318° 58′	237° 0′
267	in ♑ præcedente cornu media — the middle star in the preceding horn of Capricorn	M 22° 57′	18° 32′	318° 31′	281° 27′	M 22° 45′	18° 22′	318° 12′	281° 28′
5	Scapulæ Andromedæ — the shoulder-blades of Andromeda	B 52° 42′	46° 6′	319° 3′	51° 15′	B 52° 2′	45° 25′	319° 27′	50° 17′
116	Sub ſiniſtra manu ♒ in veſte ant. — under the left hand of Aquarius, in the garment, the preceding	M 17° 19′	13° 52′	320° 21′	292° 37′	M 17° 52′	14° 18′	321° 7′	292° 31′
135	In capite Pegaſi Borealior — the more northerly in the head of Pegasus	B 7° 34′	6° 0′	321° 8′	333° 37′	B 7° 12′	5° 43′	322° 2′	333° 28′
266	In ♑ præcedente cornu Auſtralis — the southern star in the preceding horn of Capricorn	M 25° 56′	21° 3′	321° 8′	279° 2′	M 26° 36′	21° 12′	321° 9′	278° 45′
117	Aquarii ſub ſiniſtra manu Media — the middle star under the left hand of Aquarius	M 17° 31′	14° 2′	322° 6′	294° 2′	M 17° 6′	13° 41′	321° 42′	294° 20′
260	Media in armo ♐ — the middle star in the shoulder of Sagittarius	M 49° 32′	42° 51′	323° 18′	237° 36′				
141	In ſcapulis Pegaſi — in the shoulder-blades of Pegasus	B 22° 22′	18° 3′	323° 23′	359° 29′	B 21° 55′	17° 40′	323° 48′	359° 8′
140	In Pegaſi cervice præcedens — the preceding star in the neck of Pegasus	B 14° 47′	11° 47′	323° 37′	347° 11′	B 14° 38′	11° 41′	324° 1′	347° 23′

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22	Antecedens à capite Meduſæ — the star going before, from the head of Medusa	B 76° 0′	72° 32′	324° 3′	109° 7′	B 77° 56′	74° 55′	321° 49′	111° 39′
272	Sub ſiniſtra manu ♒ ſequens — the following star under the left hand of Aquarius	M 21° 26′	17° 15′	326° 29′	291° 59′	M 21° 19′	17° 10′	329° 24′	295° 4′
126	Clara in humero ſiniſtro ♒ — the bright star in the left shoulder of Aquarius	M 11° 25′	9° 4′	327° 4′	308° 56′	M 11° 47′	9° 22′	327° 16′	308° 32′
258	Axilla ♐ — the armpit	M 54° 50′	48° 19′	327° 24′	230° 46′				
268	Præcedens ⎫ ex tribus in rictu ♑ — the preceding, of the three in the open mouth of Capricorn	M 31° 6′	25° 31′	327° 35′	276° 33′	M 32° 6′	26° 25′	328° 9′	275° 19′
269	Media ⎭ — the middle of the same three	M 31° 30′	25° 52′	328° 10′	276° 26′	M 33° 37′	27° 45′	329° 48′	274° 18′
16	In baſi trianguli præcedens — the preceding star in the base of the Triangle	B 64° 22′	58° 47′	328° 34′	86° 8′	B 63° 35′	57° 54′	328° 56′	84° 44′
132	Clara in humero dextro ♒ — the bright star in the right shoulder of Aquarius	M 3° 2′	2° 24′	328° 42′	323° 54′	M 3° 28′	2° 45′	329° 20′	323° 50′
400	Aculeus ſeu cauda ♏ — the sting, or tail, of Scorpio	M 75° 38′	72° 5′	328° 55′	184° 45′				
17	Media in baſi trianguli — the middle star in the base of the Triangle	B 63° 46′	58° 7′	329° 33′	85° 47′	B 61° 52′	55° 56′	332° 35′	84° 27′
270	Sequens ex tribus in rictu ♑ — the following, of the three in the open mouth of Capricorn	M 32° 45′	26° 59′	329° 38′	275° 40′				
137	Borea in dextra manu ♒ — the northern star in the right hand of Aquarius	M 1° 33′	1° 14′	330° 41′	328° 13′	0° 1′	0° 1′	331° 31′	331° 29′
405	In Auſtrali parte arcus ♐ — in the southern part of the bow	M 67° 15′	62° 5′	331° 38′	207° 28′				

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136	Cubitus dexter ♒ — the right elbow of Aquarius	M 4° 43′	3° 44′	333° 44′	326° 16′	M 5° 18′	4° 12′	334° 44′	326° 20′
19	In baſi trianguli ſequens — the following star in the base of the Triangle	B 60° 42′	54° 40′	334° 17′	83° 37′	B 60° 25′	54° 21′	334° 23′	83° 5′
404	Nebuloſa ſequens aculeum ♏ — the nebulous star following the sting of Scorpio	M 76° 41′	73° 19′	334° 24′	187° 46′				
138	In dextra manu ♒ Auſtral. præc. — in the right hand of Aquarius, the southern preceding star	M 2° 55′	2° 19′	334° 33′	329° 55′	M 3° 8′	2° 29′	334° 51′	329° 53′
274	In dorſo ♑ Antecedens — the preceding star on the back of Capricorn	M 30° 46′	25° 14′	335° 56′	285° 28′	M 31° 32′	25° 54′	337° 7′	285° 19′

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139	In dextra manu ♒ Auſtral. ſequ. — in the right hand of Aquarius, the southern following star	M 2° 55′	2° 19′	335° 58′	331° 20′	M 3° 23′	2° 41′	335° 26′	330° 4′
281	Præcedens in Borea parte caudæ ♑ — the preceding star in the northern part of the tail of Capricorn	M 21° 46′	17° 33′	337° 39′	302° 33′	M 21° 45′	17° 31′	337° 44′	302° 42′
6	Siniſter cubitus Andromedæ — the left elbow of Andromeda	B 36° 34′	30° 26′	339° 4′	39° 56′	B 36° 44′	30° 34′	338° 44′	39° 52′
276	In dorſo ♑ ſequens — the following star on the back of Capricorn	M 30° 3′	24° 36′	339° 55′	290° 43′	M 31° 2′	25° 28′	340° 44′	289° 48′

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15	Apex trianguli — the apex of the Triangle	B 49° 45′	43° 5′	341° 1′	67° 11′	B 49° 38′	42° 58′	339° 56′	65° 52′
2	Extrema ala Pegaſi — the tip of the wing of Pegasus	B 21° 31′	17° 20′	341° 6′	15° 46′	B 21° 45′	17° 31′	340° 57′	15° 59′
283	Prior duar. in dextra cotyla ♒ — the former of the two in the right hip of Aquarius	M 15° 33′	12° 26′	341° 21′	316° 29′	M 15° 50′	12° 39′	341° 54′	316° 36′
295	Auſtralis in occipite præced. ♓ — the southern star in the back of the head of the preceding Fish	B 2° 8′	1° 41′	342° 18′	345° 40′	B 1° 59′	1° 35′	344° 8′	347° 18′
284	Sequens duarum in dextra cotyla ♒ — the following of the two in the right hip of Aquarius	M 16° 24′	13° 7′	343° 6′	316° 52′	M 15° 49′	12° 38′	342° 42′	317° 26′
279	Præcedens caudæ ♑ — the preceding star of the tail of Capricorn	M 30° 6′	24° 39′	344° 44′	295° 26′	M 30° 52′	25° 19′	345° 5′	294° 27′
286	In profuſione aquæ ♒ prima — the first star in the outpouring of the water	M 14° 55′	11° 54′	344° 48′	321° 0′	M 10° 7′	8° 3′	339° 10′	323° 4′
298	Sequens in dorſo anteced. ♓ — the following star on the back of the preceding Fish	B 6° 18′	5° 0′	344° 57′	354° 57′	B 5° 47′	4° 35′	346° 25′	354° 35′
280	Sequens caudæ ♑ — the following star of the tail of Capricorn	M 29° 16′	23° 56′	344° 58′	297° 6′	M 29° 57′	24° 31′	346° 4′	297° 2′
271	Dextrum genu ♑ — the right knee of Capricorn	M 45° 44′	39° 5′	345° 25′	267° 15′	M 47° 1′	40° 20′	346° 26′	265° 46′
282	In ſiniſtro clune ♒ Auſtral. — in the left haunch of Aquarius, the southern star	M 25° 38′	20° 48′	346° 59′	305° 23′	M 26° 8′	21° 14′	347° 46′	305° 18′
296	Præcedens in ventre antecedentis ♓ — the preceding star in the belly of the preceding Fish	M 1° 14′	0° 58′	347° 48′	345° 52′	M 1° 19′	1° 2′	347° 56′	345° 52′

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277	Antecedens in Auſtrali ſpina ♑ — the preceding star in the southern spine of Capricorn	M 35° 45′	29° 41′	348° 35′	289° 13′	M 36° 2′	29° 56′	348° 37′	388° 45′ [recte: 288° 45′]
285	In dextro clune ♒ — in the right haunch of Aquarius	M 20° 11′	16° 13′	348° 53′	316° 27′	M 20° 50′	16° 45′	349° 26′	315° 56′
278	Sequens in Auſtrali ſpina ♑ — the following star in the southern spine of Capricorn	M 34° 21′	28° 25′	348° 56′	292° 6′	M 34° 58′	28° 58′	349° 20′	291° 24′
303	Cauda antecedentis ♓ — the tail of the preceding Fish	B 7° 59′	6° 20′	348° 59′	1° 39′	B 7° 51′	6° 8′	348° 51′	1° 7′
275	Contiguarum ſub ventre ♑ prior — the former of the adjoining pair under the belly of Capricorn	M 41° 22′	34° 52′	351° 0′	281° 26′	M 41° 44′	35° 13′	351° 19′	280° 53′
31	Siniſtrum crus Perſei — the left leg of Perseus	B 68° 5′	62° 59′	351° 0′	116° 58′	B 68° 30′	63° 33′	350° 3′	117° 9′
273	Siniſter humerus ♑ — the left shoulder of Capricorn	M 45° 0′	38° 22′	351° 17′	274° 33′	M 47° 3′	40° 22′	350° 57′	270° 13′
406	In priori dextra ſuffragine ♐ — in the forward right hock	M 75° 2′	71° 21′	351° 24′	208° 42′				
297	Sequens in ventre anteced. ♓ — the following star in the belly of the preceding Fish	M 1° 55′	1° 31′	352° 30′	349° 28′	M 0° 29′	0° 23′	351° 6′	350° 20′
293	Sequens in primo flexu aquæ ♒ — the following star at the first bend of the stream	M 12° 37′	10° 2′	353° 15′	333° 11′	M 13° 13′	10° 32′	354° 15′	333° 11′
290	In primo flexu aquæ ♒ — at the first bend of the stream	M 15° 7′	12° 4′	353° 21′	329° 13′	M 15° 32′	12° 24′	353° 49′	329° 1′
7	In Boreo lino ♓ maxime Auſtr. — in the northern cord of Pisces, the most southerly star	B 28° 30′	23° 15′	353° 42′	40° 12′	B 29° 2′	23° 43′	352° 50′	40° 16′

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289	In profuſione aquæ ♒ ſeq. Auſtr. — in the outpouring of the water, the following southern star	M 18° 30′	14° 50′	353° 50′	324° 10′	M 15° 42′	12° 32′	350° 47′	325° 43′
13	Informis ſuper caput ♈ lucida Tych. — the unformed star above the head of Aries, the bright one of Tycho	B 36° 59′	30° 48′	355° 18′	56° 54′	B 37° 8′	30° 57′	355° 33′	57° 27′
294	In flexu altero Auſtrali aquæ ♒ — at the other, southern bend of the stream	M 14° 5′	11° 14′	355° 21′	332° 53′	M 16° 5′	12° 51′	357° 12′	351° 30′
287	Borea tibiæ dextræ ♒ — the northern star of the right shin of Aquarius	M 25° 12′	20° 26′	357° 12′	316° 20′	M 26° 0′	21° 6′	358° 31′	316° 19′
291	Borealior ſeq. duar. in flexu aquæ — the more northerly of the two following, at the bend of the stream	M 17° 31′	14° 2′	357° 34′	329° 30′	M 18° 25′	14° 46′	358° 57′	329° 25′
11	Sequens in cornu ♈ — the following star in the horn of Aries	B 32° 14′	26° 31′	357° 35′	50° 37′	B 32° 6′	26° 25′	357° 1′	49° 51′
292	Auſtral. ſequent. 2 in flexu aquæ — the southern of the 2 following, at the bend of the stream	M 18° 37′	14° 56′	359° 6′	329° 14′	M 18° 27′	14° 47′	359° 19′	329° 45′
153	Prima ✳ ♈ Cornu ♈ præcedens — the first star of Aries, the preceding star of the horn	B 29° 50′	24° 25′	359° 6′	47° 56′	B 29° 20′	23° 59′	359° 15′	47° 13′
27	Siniſter calcaneus Perſei — the left heel of Perseus	B 57° 11′	50° 50′	359° 36′	101° 16′	B 57° 32′	51° 12′	358° 57′	101° 21′
144	Præced. trium lucid. in lino ♓ — the preceding of the three bright stars in the cord of Pisces	B 9° 7′	7° 14′	359° 58′	14° 26′	B 9° 5′	7° 13′	0° 4′	14° 30′

Caput VIII. — De ortu & occaſu ſtellarum. (On the rising and setting of the stars.)

[Margin: All the stars rise in the right horizon.]

In the right horizon all the stars do indeed rise and set. The poles of the world lie on the true horizon there; and since the earth stands as a mere point against the immense extent of the highest heaven, and so makes the visual horizon coincide exactly with the true one, it must follow that by the daily motion of the earth even the stars nearest the poles are lifted up and pressed down, and that no star is "exempt from the sea," as Lucan [Lucanus] puts it in book 9.

[Margin: In the oblique horizon those stars rise which have a declination smaller than the complement of the elevation of the pole.]

In the oblique horizon, by contrast, only those stars have the alternation of rising and setting whose declination is less than the complement of the elevation of the pole. The rest either stand always above the horizon or always lie hidden.

So in this northern obliquity of ours, 52° 20′, only those stars rise and set whose declination is less than 37° 40′. Of the remainder, those with a greater northern declination always stand above the horizon; those with a southern one are always sunk beneath the horizon and hidden from sight.

[Margin: Rising is twofold, true and heliacal.]

[Margin: The true rising is either cosmic or acronychal.]

The stars that do rise and set do so either together with the Sun — and this rising and setting astronomers and poets call *true* — or a little before or after the Sun, which they call *apparent*, or *heliacal*. Now the true rising and setting happens either in the morning, in which case it is called matutine, in Greek κοσμικὸς [Greek: kosmikos, "cosmic"]: a star that rises while the Sun is rising is then said to rise with a cosmic rising, and one that is setting is said to set with a cosmic setting. Or it happens in the evening, in which case it is called vespertine, in Greek ἀκρόνυκτος [Greek: akronyktos, "acronychal" — at nightfall]: a star that sets while the Sun is setting is then said to set with an acronychal setting, while one that is rising is said to rise with an acronychal rising. The accompanying diagrams show this.

Figuræ

Diagram. The left of the two figures standing side by side under the label Figuræ. A circle drawn in heavy outline represents the sphere; across it runs an elliptical horizon plane, drawn as a lens-shaped band shaded with fine hatching, with a straight rule through its long axis and a small solid black disc at the centre of that rule. The hemisphere below the horizon is filled with dense stipple; the hemisphere above is left blank. Small star-figures are set along the horizon band, four or five above it and four below. A disc bearing a human face and radiating rays — the Sun — stands in the lower, stippled hemisphere, close under the horizon band and toward the right. Labels:

- `Horiz.` (on the horizon band, upper left)

- `Occident.` (on the horizon band, upper right)
- `Horiz.` (in the stippled hemisphere, lower left)
- `orient`[?] (in the stippled hemisphere, lower right, beside the Sun)

Diagram. The right of the two figures, drawn to the same design as the first and the same size. Circle in heavy outline; elliptical hatched horizon band with a straight rule through its long axis and a solid black disc at the centre; the hemisphere below the horizon stippled dark, the hemisphere above blank; star-figures set along the band. ⚠ **The one difference between the two blocks is the position of the Sun: here the radiating, face-bearing disc stands ABOVE the horizon band, at the top centre, where in the first figure it stands below the band and to the right.** Labels:

- `Horiz.` (on the horizon band, upper left)
- `Occident.` (on the horizon band, upper right, to the right of the Sun)
- `Horiz.` (in the stippled hemisphere, lower left)
- `Orient.` (in the stippled hemisphere, lower right)

[Margin: How to find the rising of a star.]

First, then, to find the true rising of a star: in the right horizon, look up the star's right ascension by chapter six; in the oblique horizon, work out the star's oblique ascension to suit the obliquity of the place proposed, by the preceding chapter. Then, from the tables of ascensions fitted to the place assumed, having made an areal …

—entry, ask what degree of the ecliptic comes up together with the ascension so found. For when the Sun occupies that degree, the star will have its true morning rising; and when it holds the opposite degree, the star will come up at an evening rising.

For example. Let the rising of the eye of ♉ be sought, both the morning and the evening true rising, in the right horizon, for the year 1620 set out a little earlier, on Copernicus' calculation. First, then, I look up its right ascension by chapter six, and find it 63° 18′. Next, making the entry by the field into the table of right ascensions, I find that with 63° 18′ of the equator there rises 5° 14′ ♊. So when the Sun holds this degree — which, as the Ephemerides show, falls for the most part on 16 May — Aldebaran [Palilicium] rises at these seasons on the right horizon in the morning, and it crosses mid-heaven in the right and the oblique horizon alike. But when the Sun occupies the opposite place, namely 5° 14′ ♐, which falls on 17 November, this star rises in the evening on the right horizon; or, in the right and the oblique horizon alike, it culminates while the Sun is crossing the lower meridian.

In the same way let the true rising of the same star, morning and evening alike, be sought in our own obliquity of 52° 20′. First, then, I look up by the preceding chapter its oblique ascension as it suits our place, and find it 41° 34′. Next I consult the table of oblique ascensions for our place, and observe that to the ascension found there answers 15° 35′ ♊. So when the Sun is carried to this place of the zodiac, which falls on 27 May, Palilicium rises in the morning on our horizon. In the evening, on the other hand, it rises when the Sun holds 15° 35′ ♐, which falls on 27 November.

[Margin: The acronychal setting of a star coincides, in the right horizon, with its cosmic rising.]

Secondly, for knowing the true setting of a star: in the right horizon the evening setting does indeed coincide with the morning rising, and conversely the morning setting with the evening rising, according to the verses:

> *Chronice deſcendit ſydus quod Coſmice ſurgit: Coſmice deſcendit ſydus quod Chronice ſurgit.*
> That star goes down chronically which rises cosmically; that star goes down cosmically which rises chronically.

So, just as we found that on 16 May the eye of ♉ rises in the morning, so on that same day — or on the one immediately before or after, according to where the Sun stands — it sets in the evening; and this is a point always to be watched carefully in the Ephemerides. And just as we gathered that Palilicium rises in the evening on 17 November, so the same star sets in the morning on the following day. In the oblique horizon, however, the setting coincides with the rising only in stars placed near the ecliptic. With the rest the case stands thus: if the stars have northern latitude, they set with the points of the ecliptic that follow their true places, just as they rise with the points that precede those places. If they have southern latitude, they set with the points of the ecliptic that precede their true places, just as they rise with the points that follow them.

[Margin: In the oblique horizon it does not hold, except in stars placed near the ecliptic.]

[Margin: The method of calculation for finding the true settings of the stars.]

To investigate the settings of the stars, then, let their oblique descensions first be found by the preceding chapter. Then, these being known, let a semicircle be added to the oblique descension; and let it finally be seen which place of the ecliptic the sum answers to, making the entry by the field — as we advised above — into the appropriate table of oblique ascensions. For when the Sun holds that same place of the ecliptic, the star will have its true morning setting; and when it occupies the opposite place, the star will go down with the Sun at an evening setting.

Suppose, for instance, that the true setting of the eye of ♉, evening and morning alike, is to be sought in our obliquity of 52° 20′. First I gather its oblique descension by the preceding chapter: 85 tempora 2′. Next I add a semicircle, 180 tempora, to the descension found; 265 tempora 2′ are collected.

Finally I look for the arc of the ecliptic that ascends together with the sum, from the table of oblique ascensions suited to the obliquity of the place proposed; it presents itself as 29° 8′ ♏. So when the Sun is passing this place of the ecliptic — which falls on 11 November — the morning setting of Palilicium takes place in the morning, opposite the Sun. The evening setting occurs when the Sun holds the opposite place of the ecliptic, namely 29° 8′ ♉, which falls on 10 May.

[Margin: The apparent or heliacal rising and setting is likewise twofold — morning…]

The apparent, or heliacal, rising and setting is likewise either morning or evening. A morning rising is when a star that has not been seen before begins to appear for

the first time in the morning ahead of sunrise. *This happens when either the Sun has drawn away from the star, or the star from the Sun, far enough that the star is no longer covered by the Sun's rays. This rising befalls all the stars, fixed and wandering alike, except the Moon, which never rises with a heliacal morning rising.* A heliacal morning setting is *when a star seen in the morning before the rising of ☉ disappears for the first time: this happens when the star is carried toward the Sun in such a way that it begins to be buried in its rays. This setting belongs to ♀, ☿ and ☽ alone, and not to the other wandering stars or to the fixed ones.*

[Margin: …or evening.]

An evening rising is *when a star which had not appeared in the evening after sunset first comes into view. This rising happens when the star, with the swifter motion, draws away from the Sun and works itself clear of its rays. Like the setting just described, it befalls only ♀, ☿ and ☽.* An evening setting is *when a star previously seen in the evening after sunset is hidden for the first time. This setting happens when either the Sun moves toward the star, or the star toward the Sun, so that it begins to be dimmed by the Sun's rays: which we observe to happen in all the stars except the Moon alone, for the Moon never fades from sight at a heliacal evening setting. Consult the accompanying diagrams.*

[Margin: The heliacal morning rising follows the cosmic rising, and the heliacal evening rising the acronychal setting.]

Figuræ

Diagram. The left of two blocks standing side by side under the centred label Figuræ, and drawn to the same design as the pair on the preceding opening. A circle in heavy outline represents the sphere; across it lies the horizon plane, drawn as a lens-shaped band shaded with fine hatching, with a straight rule along its long axis and a small solid black disc at the centre of that rule. The hemisphere below the horizon is filled with dense stipple; the hemisphere above is left blank. A crescent moon stands just below the band, a little right of centre, with a small star-figure on either side of it and a third star-figure on the band further right. A disc bearing a human face and radiating rays — the Sun — stands low in the stippled hemisphere, below the centre. Labels:

- `Horiz.` (on the horizon band, upper left)
- `Occidens:` (on the horizon band, upper right)
- `Horiz.` (just inside the stippled hemisphere, lower left)
- `Oriens` (just inside the stippled hemisphere, lower right)

Diagram. The right of the two blocks, of the same design and size as the first: circle in heavy outline, hatched lens-shaped horizon band with a straight rule along its long axis and a solid black disc on that rule, the lower hemisphere stippled dark and the upper blank. ⚠ **The differences from the first block are two, and both are in the placing of the luminaries: the radiating, face-bearing Sun stands ON the horizon band, left of centre and left of the black disc, where in the first block it stands low in the stippled hemisphere; and the crescent moon stands ABOVE the band at the upper**

right, with three small star-figures in a row below and to the right of it, where in the first block the crescent stands below the band. Labels:

- `Horizon` (on the horizon band, upper left)
- `Occid.` (above the band, upper right, to the right of the crescent)
- `Horiz.` (just inside the stippled hemisphere, lower left)
- `Oriens` (just inside the stippled hemisphere, lower right)

[Margin: The heliacal setting precedes the cosmic rising, and the evening one…]

Although the heliacal morning rising follows the true cosmic rising, and the heliacal evening rising the true acronychal setting, by some days; and again the heliacal morning setting precedes the true cosmic rising, and the heliacal evening setting

[Margin: …the evening one the acronychal setting.]

—the true acronychal setting by some days: nevertheless it stands to reason that the interval belonging to this rising and setting cannot be the same in every star. For the magnitude and the light of the stars differ greatly, and we find by experience that in the evening the larger and brighter stars come into our sight sooner and the smaller ones later, while in the morning the smaller ones vanish and are dimmed by the Sun's rays sooner than the larger. It is established, then, that the larger and brighter stars require a smaller interval from the Sun, and the smaller ones a greater, both to appear and to disappear. And the varying inclination of the sphere certainly does much to increase the unlikeness of their appearing and disappearing.

[Margin: The intervals of the appearing and the occultation of the stars. In the fixed stars.]

From careful observation the practitioners have laid down general limits of appearance and occultation, counted along the vertical circle from the horizon down to the Sun. For the fixed stars: of the first magnitude 12°; of the second 13°; the third 14°; the fourth 15°; the fifth 16°; the sixth 17°; and of the very smallest 18°. If the Sun is still that far below the horizon, the morning twilight begins in the morning and the evening twilight ends in the evening.

[Margin: In the wandering stars.]

For the wandering stars, Ptolemy laid down the limits in `cap. 17 lib. 13` of the *Almagest*: for ♄ 11°; for ♃ 10°; for ♂ 10° 30′; ♀ 5°; ☿ 10°. To the Moon no fixed limit is assigned. Because its position relative to the Sun varies — in right or oblique ascensions of the zodiac, in northern or southern latitude, in swifter or slower motion, and with the greater or lesser obliquity of the horizon — it is at one time seen sooner and vanishes later, at another seen later and vanishes sooner. Indeed it is sometimes brought into our view immediately on the first day after conjunction, sometimes on the second, sometimes only on the third; and to unfold all this in detail is no business of this place.

[Margin: The method of finding the heliacal rising and setting.]

For the rest, to know the heliacal rising or setting of any star, it is enough to know first the angle which, in the horizon proposed, the point of the ecliptic rising with the star makes with the finitor. Then, since the limits of appearance and occultation already cited answer to that angle, and to a right angle answers

the Sun's distance in the ecliptic from the horizon, that distance need only be sought by a simple proportion, and the thing sought will be had. Nor does it seem advisable to use greater refinement in such matters.

[Margin: First the angle of the ecliptic is sought which the star, rising with it, forms with the horizon.]

The angle is made known, for instance, from the accompanying figure. In it the circle A B C represents the meridian; B D C the horizon; G I H the equator; E D F the zodiac; L D I the quadrant of the circle of declinations. In this last, for the point of the ecliptic D, the declination is D I; the arc of appearance counted on the vertical circle is N M, and on the ecliptic D M.

Diagram. An uncaptioned block set into the right-hand two-thirds of the text block, the prose running down the leaf beside it. A circle in heavy outline, its field crossed by five arcs drawn in a single fine line. One arc descends from the top of the circumference toward the lower left; a second runs from the upper left down and to the right, crossing the first near the centre and continuing to the right-hand circumference; a third comes down from the upper right, crosses the circumference again lower on the right, and continues toward the lower left; a fourth sweeps from the left-hand circumference across the lower half of the disc and rises to the right-hand circumference; a fifth, short, runs down from the lower centre to the lower-left circumference. Three of the arcs meet at one point low in the disc, and two more cross near the centre. Labels:

- A — on the circumference, at the top
- L — within the disc, upper left
- E — on the circumference, upper right
- G — on the circumference, right, below E
- K — within the disc, near the centre
- C — on the circumference, at the left
- B — on the circumference, at the right
- N — within the disc, lower left of centre
- D — within the disc, at the lower centre, where three arcs meet
- M — within the disc, below and left of D
- I — within the disc, below and right of D
- H — within the disc, lower left
- F — on the circumference, lower left, below H

First, then, let the angle be sought which the proposed place of the ecliptic D — the place with which the star rises — makes with the right horizon or with the meridian: the angle L D K, by this proportion. As the sine of the complement of the declination of the proposed place of the ecliptic, D L, is to the sine of the complement of the greatest declination, L K — so is the sine of the quadrant, that is of the right angle L K D, to the sine of the angle which the ecliptic makes with the meridian and with the right horizon, K D L. In the fourth and first quadrants of the ecliptic, the ascending half, this angle is north-eastern; in the second and third quadrants, the descending half, it is south-eastern.

Next, find the angle of difference L D C, which the proposed point of the ecliptic D makes with the right horizon L D and with the oblique horizon C D, by this proportion. As the sine of the complement of the declination D L is to the sine of the elevation of the pole L G, so is the sine of the quadrant, that is of the right angle D C L, to the sine of the angle of difference L D C. Once the angle of difference has been found, look to see whether the proposed point of the ecliptic belongs to the ascending or to the descending half. For if to the descending, the angle of difference must be added to the angle which that same point of the ecliptic makes with the meridian or with the right horizon, and the sum taken away from a semicircle. If to the ascending, it must be subtracted from the earlier angle. Either way, what remains is the required angle between the ecliptic and the horizon.

Suppose, for example, that the heliacal rising of the Heart of Leo — that is, of Regulus — is sought: a star which, on Tycho Brahe's reckoning, will rise on our horizon in the year of Christ 1620 with 24° 15′ ♌. We look first for the angle which the arc of the ecliptic rising along with it makes with the oblique horizon, taking its declination as 13° 29′ 7″ and the latitude of our own place as 52° 20′, and we do it by the two proportions prescribed, in this way. As the sine of the complement of the declination, D L 76° 30′ 53″, is 97243, to the sine of the complement of the greatest declination, K L 66° 28′ 30″), which is 91688, so is the sine of the right angle L K D — the sine of the quadrant, 100000 — to the sine of the angle L D K which the proposed place of the ecliptic, 24° 15′ ♌, makes with the right horizon. That comes out as 94288, so that the angle is 70° 32′ 26″. And as the sine of that same complement of the declination, D L 97243, is to the sine of the latitude of the place, L G 79158, so is the sine of the quadrant L C D, 100000, to the sine of the angle of difference L D C, 81402, so that the angle is 54° 29′ 28″. Add this angle L D C to the earlier one L D K; then subtract the sum C D K, 125° 1′ 54″, from the semicircle of 180°, and what is left — by Euclid I.13 — is the angle K D B, 54° 58′ 6″, which the proposed place of the ecliptic makes with our oblique horizon.

[Margin: Another way of finding the same angle.]

Or, if anyone would rather use another and shorter method, let him proceed according to the drawing here. In it, as before, the circle A B C represents the meridian, D B C the horizon, E D F the equator, A M L half the vertical circle, and the point O the pole of the world. Given, then, the oblique ascension G D of some star at I — of Palilicium, say, whose oblique ascension for the year of Christ 1620 we found in the preceding chapter, following Copernicus, to be 41° 34′ — then, adding the quadrant D F of 90°, the right ascension of the lower midheaven G D F will be known: 131° 34′. At the same time the canon of right ascensions gives the point of the ecliptic K passing through the lower midheaven, which is 9° 8′ ♌; and the canon of declinations of the ecliptic, chapter 6, gives the declination F K, 17° 59′ 30″. If this is taken away from the complement of the elevation of the pole, C F 37° 40′ — the declination being northern (for addition would be used if it were

Diagram. An uncaptioned block set into the lower right of the text block, the prose running down the leaf beside it. A circle in heavy outline. Two long arcs cross its field from the upper left to the lower right, meeting the circumference on both sides; a third, shallower arc runs from the left of the circumference across the lower half and rises to the right; and a short arc descends from the lower centre toward the lower right. Along the steepest of the arcs a row of small marks is set, with several six-rayed star marks (✳) standing beside them at intervals within the disc. Labels:

- A — inside the circumference, at the top
- O — inside the disc, upper right
- E — on the circumference, upper left
- G — inside the disc, below and right of E
- B — on the circumference, at the left
- C — on the circumference, at the right
- D — inside the disc, at the lower centre
- H — inside the disc, right of centre
- M — inside the disc, immediately right of H
- N — inside the disc, right, just below M, where the steep arc through H meets the near-vertical arc
- K — on the circumference, at the right, below N
- F — on the circumference, lower right
- L — on the circumference, at the foot
- I [?] — inside the disc, lower left, a bare upright beside a star mark
- I [?] — inside the disc, below the second star mark, between the first and D, a shorter bare upright
- I — inside the disc, right of D, beside the third star mark
- Along the steep arc, left to right, between short division ticks: ♒ [?] (at the left circumference), ♓ [?] (beside it; an X-shaped sort), ♈ (above the arc, right of G), ♉ (below the arc), ♊ (above the arc, left of H), ♋ (below the arc, right of H), ♌ (at the right, below K) —southern) — there remains the arc C K, 19° 40′ 30″. Further, since the oblique ascension G D is known to be 41° 34′, the canon of oblique ascensions fitted to the horizon proposed will also give the point of the ecliptic H rising along with it, 15° 35′ ♊, and consequently the arc of the ecliptic H K, 53° 33′. So I use this proportion, following the third axiom of Pitiscus: as H K, 53° 33′, whose sine is 80282, is to the whole sine of the right angle H C K, 100000, so C K, 19° 40′ 30″, whose sine is 33669, stands to the sine of the angle C H K. Working it through gives 41857, so that the angle is 24° 44′ 39″.

The same course is taken with the Heart of Leo. Its oblique ascension, on Copernicus's reckoning for the year of Christ 1620, is 128° 7′; adding the quadrant of 90°, the right ascension of the lower midheaven is 218° 7′, and the point of the ecliptic passing through the lower midheaven along with it is 11° 32′ ♏. The declination of that same place is 15° 19′ south, and when the complement of the

elevation of the pole, 37° 40′, is added, the arc by which the place of the ecliptic is depressed below the horizon on the meridian is 52° 59′. And since 23° 59′ ♌ answers to the oblique ascension 128° 7′, the arc of the ecliptic between the horizon and the lower midheaven will be 77° 33′. As, then, the right sine of this arc, 97649, is to the whole sine, 100000, so the right sine of the arc 52° 59′, which is 79846, is to the right sine of the angle proposed; and the working set out gives 54° 51′ 11″.

[Margin: From the angle alone, the arc of the ecliptic answering to the arc of vision is sought.]

Once the angle is known, the rest is dispatched by this proportion. As the sine of the angle C D F in the earlier figure — which is equal to the angle K D B, κ[?] κορυφὴν [Greek: *koryphēn*, "at the vertex," i.e. vertically opposite], by Euclid I.15, and which in the first example, that of Regulus, was found to be 54° 58′ 6″, its sine coming out as 81885 — is to the sine of the arc of vision reckoned on the vertical circle, N M, which by what was set out above is 12° for stars of the first magnitude, its sine being 20791, so is the sine of the quadrant, 100000 — that is, of the right angle D N M which the vertical circle makes with the horizon — to the sine of the arc of the zodiac D M. The working gives 25390, and its arc, 14° 42′ 30″, is the arc of the zodiac answering to the arc of vision. If I finally join this arc to the true morning rising of Regulus, which on Tycho Brahe's reckoning falls at 24° 15′ ♌, the heliacal rising of that star comes out at 8° 57′ 30″ ♍. So when the Sun stands at 8° 57′ 30″ ♍ — which falls on 1 September of the reformed year, or 22 August of the Julian — Regulus begins to appear in the morning before sunrise.

Exactly the same method is followed in the later figure. As the sine of the angle C H K, which for Palilicium was found to be 41857, is to the sine of the arc of vision N M — 12° in a star of the first magnitude — that is, 20791, so is the sine of the right angle H M N, 100000, to the sine of the arc of the zodiac H N. The working gives 49707, and its arc, 29° 48′ 23″, added to the true rising of Palilicium, which we find falls at 15° 35′ ♊, yields the heliacal rising of Palilicium with the Sun standing at about 15° 23′ ♋ — which falls on 7 July of the reformed year, and on 27 June of the old.

[Margin: The method of finding the heliacal settings of stars. Here too the angle which the ecliptic makes with the western horizon is sought first.]

The method of working is no different from the one already set out when it is the heliacal settings of stars that are to be found. Here too the angle at which the ecliptic cuts the western horizon is sought first; and in finding the angle of the ecliptic by the earlier construction, only the reverse is observed with the angle of difference: for it is added if the point of the ecliptic given belongs to the ascending half, subtracted if to the descending.

So, in investigating the heliacal setting of Regulus on Tycho Brahe's reckoning, the angle of difference 54° 29′ 28″, found above, is subtracted from the angle 70° 32′ 26″ which 24° 15′ ♌ makes with the right horizon; and there remains the angle 16° 2′ 58″ which that same degree of the ecliptic makes with our oblique horizon at setting.

In the later construction, though, for finding the angle, take the oblique descension of the star — of —Palilicium, on Copernicus's reckoning, which we found above to be 85 tempora 2′. From that same figure let a quadrant of the circle be subtracted — a whole circle being first added to the descension if the subtraction cannot otherwise be made, as in our example — and there is left the right ascension of the lower midheaven, for us 355 tempora 2′. From the canon of right ascensions let the answering arc of the ecliptic be sought, which is ♓ 25° 27′. Then its declination, added if southern and subtracted if northern from the complement of the elevation of the pole, gives the arc of the meridian between the horizon and the point of the ecliptic that bisects the sky below the horizon. In our example the declination comes out as 1° 48′ south, and when this is added to the complement of the elevation of the pole, 37° 40′, it shows the said arc to be 39° 28′. And if the point of the ecliptic that bisects the sky below the horizon is subtracted from the place of the ecliptic answering to the oblique descension of the star, there is left the arc of the ecliptic from the lower midheaven to the western horizon. In our example, if ♓ 25° 27′ is subtracted from 29° 9′ ♉, the arc proposed, 63° 42′, remains. From this let the following proportion at last be set up. As the sine of this arc of the ecliptic, between the lower midheaven and the western horizon — for us that arc is 63° 42′, and its sine is 89649 — is to the sine of the right angle, that is to the whole sine, 100000, so is the sine of the arc of the meridian intercepted between the horizon and the place of the ecliptic passing through the lower midheaven below the horizon — in our example that arc is 39° 28′, and its sine 63563 — to the sine of the angle which that degree of the ecliptic makes with the western horizon. Worked out properly this sine comes to 70902, and from it the angle sought is 45° 9′ 18″.

[Margin: Then the arc of the zodiac matching the arc of vision is sought from the angle.]

At last, the western angle being known, the arc of the zodiac matching the arc of vision by the earlier, final proportion is subtracted from the true setting, and the apparent setting is left. So, in seeking the heliacal setting of Regulus, by this proportion: as the right sine of the angle 16° 2′ 50″, which is 27643, is to the right sine of the arc of vision, 12°, so is the whole sine, 100000, to the sine of the arc of the ecliptic, 75212. The arc of 48° 46′ 30″ so found is subtracted from the true setting of Regulus, which on Tycho Brahe's reckoning falls at 26° 9′ ♌, and there remains 7° 22′ 30″ ♋. When the Sun is in that place — which happens on 28 June of the reformed year and 18 of the old — Regulus, seen in the evening up to then, disappears.

In the same way, in hunting the setting of Palilicium, by this proportion: as the sine of the angle 45° 9′ 18″, Sin. R. 70902, is to the sine of the arc of vision, 20791, so is the whole sine, 100000, to the sine of the arc of the ecliptic, 29324. The arc found is about 17° 3′; it is subtracted from the true evening setting of Palilicium, which agrees with 29° 9′ ♉, and there is left 12° 6′ ♉. When the Sun stands there — which happens on 3 May of the corrected year and 23 April of the old — Palilicium, seen up to then, sets heliacally.

We have added to this doctrine a table of the true risings and settings of the more notable fixed stars, computed for the first half of the zodiac, which begins

at the vernal equinox and ends at the autumnal equinox — since the remaining half behaves in much the same way, with only this change, that morning rising and setting become evening, and evening become morning.

For example: the middle star of the three in the neck of ♌ sets, on Copernicus's reckoning, in the evening when the Sun stands at 0° 3′ ♎. The middle star in the northern cord of ♓ rises in the evening when the Sun is placed at 0° 20′ ♎. The star at the far end of the left wing of the Hen sets in the morning when the Sun is placed at 0° 21′ ♎, and so on.

Table of the true risings and settings of the principal fixed stars, for the latitude of the place 52° 20′ and the year of Christ 1620, constructed for the determination of the Copernican and Tychonic longitude and latitude

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
59	Media trium in collo ♌ — the middle of the three in the neck of Leo	0° 3′ ♈	2° 5′ ♈	Occ. M
250	Media in Boreo lino ♓ — the middle star in the northern cord of Pisces	0° 20′	29° 45′ ♓	Orit. M
133	In extremo ſiniſtræ alæ Gallinæ ſeu Cygni — at the tip of the left wing of the Hen, that is the Swan	0° 21′	29° 46′	Occ. V
410	Siniſtrum femur ♐ — the left thigh of Sagittarius	0° 22′		Orit. M
303	Cauda antecedentis ♓ — the tail of the leading Fish	1° 9′	0° 47′ ♈	Occ. V
76	In dextro latere ſub cingulo ♍ — on the right side beneath the girdle of Virgo	1° 13′	1° 22′	Orit V
373	In baſe Crateris hydræ communis — at the base of the Cup, shared with the Watersnake	1° 30′	1° 47′	Orit: V
305	Sequens ad Ceti caudam — the following star at the tail of the Whale	2° 34′	2° 3′	Occ: V
130	In ancone ſiniſtræ alæ Gallinæ — at the bend of the left wing of the Hen	2° 43′	2° 28′	Occ. V
217	Secunda alæ ſiniſtræ ♍ — the second of the left wing of Virgo	3° 13′	3° 18′	Orit. V
300	Secunda informium circa ♓ — the second of the unformed stars about Pisces	3° 22′		Orit: M
84	Lucida coronæ Gnoſiæ — the bright star of the Cretan Crown	3° 24′	4° 13′	Orit: V
302	Quarta informium circa ♓ — the fourth of the unformed stars about Pisces	3° 57′		Orit: M
216	Prima alæ ſiniſtræ ♍ — the first of the left wing of Virgo	4° 17′	4° 25′	Occ: M
288	Auſtralis dextræ tibiæ ♒ — the southern star of the right shin of Aquarius	4° 37′	8° 8′	Orit: M
308	Venter Ceti — the belly of the Whale	5° 1′	4° 54′	Occ. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
212	In poſteriore femore ♌ — in the hind thigh of Leo	5° 39′	7° 23′	Occ. M
218	Tertia alæ ſiniſtræ ♍ — the third of the left wing of Virgo	7° 15′	8° 25′	Orit: V
145	Media lucidarum in lino ♓ — the middle of the bright stars in the cord of Pisces	7° 32′	7° 57′	Orit. M
243	Informis lucidarum circa Canem — the unformed star among the bright ones about the Dog	7° 55′		Occ: V
29	Extrema ſiniſtri pedis Perſei — the outermost star of the left foot of Perseus	8° 12′	5° 45′	Orit: M
146	Sequens trium lucidarum in lino ♓ — the following of the three bright stars in the cord of Pisces	9° 27′	10° 52′	Orit: M
82	Calcaneus dexter Bootis — the right heel of Boötes	9° 35′	7° 25′	Orit: V
311	Borealis in pectore Ceti — the northern star in the breast of the Whale	9° 51′	12° 0′	Occ. V
144	Præcedens lucidarum in lino ♓ — the leading one of the bright stars in the cord of Pisces	10° 4′	10° 7′	Occ. V
220	Spica ♍ — Spica	10° 29′	10° 40′	Occ. M
2	Extrema ala Pegaſi — the tip of the wing of Pegasus	11° 0′	11° 8′	Occ. V
58	Borea trium in collo ♌ — the northern of the three in the neck of Leo	11° 6′	15° 29′	Occ. M
312	Auſtralis in pectore Ceti — the southern star in the breast of the Whale	11° 29′	10° 48′	Occ. V
79	In dextro clune ſub cingulo ♍ — on the right haunch beneath the girdle of Virgo	11° 31′	11° 45′	Orit: V
219	Quarta alæ ſiniſtræ ♍ — the fourth of the left wing of Virgo	11° 41′	11° 55′	Orit: V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
400	Aculeus ſeu cauda ♏ — the sting, that is the tail, of Scorpio	11° 45′ ♈	♈	Occ. M
56	Borea duarum capitis ♌ — the northern of the two in the head of Leo	11° 53′	14° 30′	Occ. M
145	Media lucidarum in lino ♓ — the middle of the bright stars in the cord of Pisces	12° 47′	12° 53′	Occ. V
335	Informis lucidarum circa Canem — the unformed star among the bright ones about the Dog	13° 9′		Occ. V
143	Dexter humerus Pegaſi — the right shoulder of Pegasus	13° 57′	14° 39′	Occ. V
142	In genu dextro Pegaſi, Borealis — on the right knee of Pegasus, the northern one	14° 20′	14° 13′	Occ. V
301	Tertia informium circa ♓ — the third of the unformed stars about Pisces	15° 8′		Orit: M
146	Sequens trium lucidarum in lino ♓ — the following of the three bright stars in the cord of Pisces	15° 24′	15° 8′	Occ. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
299	Prima informium circa ♓ — the first of the unformed stars about Pisces	15° 28′		Orit: M
379	Alæ ſiniſtræ Corvi præcedens — the leading star of the left wing of the Crow	15° 37′	15° 8′	Orit. V
217	Secunda alæ ſiniſtræ ♍ — the second of the left wing of Virgo	15° 44′	15° 55′	Occ. M
149	Auſtralis trium in Boreo lino ♓ — the southern of the three in the northern cord of Pisces	15° 59′	14° 18′	Orit: M
147	Præcedens trium poſt flexum ♓ — the leading of the three beyond the bend of Pisces	17° 15′	16° 4′	Occ. V
148	Media trium poſt flexum ♓ — the middle of the three beyond the bend of Pisces	17° 34′	17° 23′	Occ. V
152	Sequens poſt flexum ♓ — the following star beyond the bend of Pisces	17° 47′	17° 32′	Occ: V
380	Ala dextra Corvi — the right wing of the Crow	18° 5′	15° 8′	Orit: V
376	Collum ſeu cervix Corvi — the neck of the Crow	18° 7′	18° 34′	Orit: V
227	Informis ſub Auſtrina lances præcedens — the unformed star beneath the southern scale, the leading one	18° 24′	14° 40′	Occ: M
67	In clune ♌ Auſtrina — the southern star on the haunch of Leo	18° 28′	18° 53′	Occ. M
404	Nebuloſa ſequens aculeum ♏ — the nebulous star following the sting of Scorpio	18° 59′		Occ. M
310	In nexu linorum ♓ — at the knot of the cords of Pisces	19° 4′	18° 40′	Occ. V
314	Ex 4 Eridani præcedens ſecundam — of the four of Eridanus, the one going before the second	19° 5′	17° 54′	Occ. V
319	Quarta alæ ſiniſtræ ♍ — the fourth of the left wing of Virgo	19° 10′	19° 36′	Occ. M
220	Spica Virginis — Spica	19° 28′	19° 44′	Orit: V
86	Eductio colli Serpentis Ophiuchi — where the neck of Ophiuchus's Serpent is drawn out	19° 40′	20° 24′	Orit: V
151	In boreo lino ♓ præcedens connexionem — in the northern cord of Pisces, the star before the knot	19° 44′	23° 30′	Occ. V
218	Tertia alæ ſiniſtræ ♍ — the third of the left wing of Virgo	19° 53′	18° 56′	Occ. M
377	Roſtrum corvi — the beak of the Crow	20° 42′	20° 48′	Orit. V
221	In quadrilatero ſiniſtri femoris ♍ — in the quadrilateral of the left thigh of Virgo	20° 44′	20° 23′	Orit: V
88	In tempore Serpentis Ophiuchi — at the temple of Ophiuchus's Serpent	21° 2′	21° 54′	Orit. V
93	Dexter humerus Herculis — the right shoulder of Hercules	21° 7′	21° 43′	Orit: V
316	Sequens ex 4 Eridani — the following one of the four of Eridanus	21° 58′	21° 28′	Occ. V
92	Brachium dextrum Herculis — the right arm of Hercules	22° 22′	22° 56′	Orit. V
149	Auſtralis trium in Boreo lino ♓ — the southern of the three in the northern cord of Pisces	22° 43′	22° 41′	Occ. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
222	Media in Syrmate ♍ — the middle star in the Train of Virgo	22° 58′	23° 52′	Orit. V
357	In carina puppis Auſtralis Navis — in the keel of the stern of the Ship, the southern star	23° 2′		Occi. V
85	Prima converſionis colli Serpentis — the first star of the coil of the Serpent's neck	23° 12′	23° 14′	Orit. V
313	Præcedens trium in gena Ceti — the leading of the three on the cheek of the Whale	23° 16′	23° 11′	Occi. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Ty-chon. grad. /	(no head)
397	In primo ſpondylo ♏ — in the first vertebra of Scorpio	23° 38′ ♈	♈	Occi. M
381	Extremius pes Corvi — the outermost foot of the Crow	23° 48′	23° 37′	Orit. V
322	Prȩcedens poſt intervallum fluvii — the leading star beyond the gap in the River	24° 26′	23° 48′	Occ. V
318	Ex 4 ſequentibus poſt intervallum fluvii — one of the four that follow beyond the gap in the River	24° 32′	24° 4′	Occi. V
99	Siniſter humerus Herculis — the left shoulder of Hercules	24° 44′	25° 45′	Orit. V
323	Maxime ſequens poſt intervallum fluvii — the last of those that follow beyond the gap in the River	25° 4′	26° 49′	Occi. V
347	Extremum dextri pedis Canis — the tip of the right foot of the Dog	25° 8′	3° 6′ ♉	Occ. V
150	Media trium in Boreo lino ♓ — the middle of the three in the northern cord of Pisces	25° 18′	24° 54′ ♈	Occ. V
319	Tertia præcedens 4 ſequentium poſt intervallum fluvii — the third, a leading one, of the four that follow beyond the gap in the River	25° 36′	25° 22′	Occ. V
154	Præcedens in juba Ceti — the leading star in the mane of the Whale	26° 41′	26° 2′	Occ. V
315	Medium oris Ceti — the middle of the mouth of the Whale	26° 51′	26° 27′	Occ: V
223	Auſtrina in Syrmate ♍ — the southern star in the Train of Virgo	27° 12′	27° 19′	Orit: V
221	Borea in quadrilatero ſiniſtri femoris ♍ — the northern star in the quadrilateral of the left thigh of Virgo	27° 13′	27° 55′	Occi. M
147	Præcedens 3 poſt flexum in Boreo lino ♓ — the leading of the three beyond the bend, in the northern cord of Pisces	27° 22′	29° 0′	Orit: M
235	In pede ♏ ad Auſtrum — in the foot of Scorpio, toward the south	27° 34′	24° 16′	Occi. M
4	Caput Andromedæ ſeu umbilicus Pegaſi — the head of Andromeda, that is the navel of Pegasus	27° 37′	26° 46′	Occ. V
6	Siniſter cubitus Andromedæ — the left elbow of Andromeda	27° 46′	27° 42′	Occ. V
7	Maxime Borea in boreo lino ♓ — the most northerly star in the northern cord of Pisces	27° 57′	27° 59′	Occ. V
83	Virginis dexter pes — the right foot of Virgo	27° 57′	28° 23′	Orit: V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Ty-chon. grad. /	(no head)
89	Media in converſione colli Serpentis — the middle star in the coil of the Serpent's neck	28° 14′	28° 45′	Orit. V
155	In capillamento Ceti Bo[?]ea — in the hair of the Whale, the northern star	29° 37′	28° 24′	Occ. V
90	Auſtralis converſionis colli ſerpentis Ophiuchi — the southern star of the coil of the neck of Ophiuchus's Serpent	0° 45′ ♉	1° 42′ ♉	Orit. V
224	Iniſter pes ♍ — the left foot of Virgo	1° 16′	1° 18′	Orit. V
70	Cauda ♌ — the tail of Leo	1° 18′	5° 35′	Occi. M
33	Iniſter talus Aurigæ — the left ankle of the Charioteer	1° 30′	29° 51′ ♈	Orit. M
378	Hydræ antepenultima — the last star but two of the Watersnake	1° 35′		Orit. V
317	Extrema mandibula Ceti — the outermost part of the jaw of the Whale	1° 36′	0° 35′ ♉	Occ. V
415	Septentrionalis in extremo caudæ Ceti — the northern star at the very end of the Whale's tail	2° 19′	3° 42′	Orit. M
156	In extremo pede poſteriore ♈ — at the tip of the hind foot of Aries	3° 2′	2° 37′	Occ. V
154	Cornu ♈ præcedens prima ✳ ♈ — the horn of Aries, the first preceding star of Aries	3° 18′	2° 48′	Occ. V
224	Iniſter pes ♍ — the left foot of Virgo	3° 22′	3° 32′	Occi. M
66	Tergum ♌ — the back of Leo	4° 10′	7° 20′	Occi. M
332	Venter leporis — the belly of the Hare	4° 16′	3° 22′	Occi. V
11	Sequens in cornu ♈ — the following star on the horn of Aries	5° 9′	4° 36′	Occi. V
5	Scapulæ Andromedæ — the shoulder-blades of Andromeda	5° 36′	4° 53′	Occi. V
100	Caput Herculis — the head of Hercules	6° 21′	7° 34′	Orit. V
165	Anguſtus terminus Plejadum — the narrow boundary of the Pleiades	6° 38′	11° 58′	Orit. M
148	Media 3 poſt flexum ♓ — the middle of the three beyond the bend of Pisces	6° 44′	6° 25′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co grad. /	Tychon. grad. /	(no head)
76	In dextro latere ſub cingulo ♍ — on the right side beneath the girdle of Virgo	6° 47′ ♉	7° 45′ ♉	Occi. M
361	Sub 3 quæ ſequitur ſcutum Navis — beneath the three that follow the shield of the Ship	7° 0′		Occ. V
[?]51	Præcedens a connexu in Boreo lino ♓ — the star going before, from the knot, in the northern cord of Pisces	7° 24′	16° 7′ ♈	Orit. M
334	In medio corpore leporis — in the middle of the body of the Hare	7° 36′	7° 26′ ♉	Occ. V

#	NOMINA STELLARUM — name of the star	Iux.Co grad. /	Tychon. grad. /	(no head)
87	Lucida lancis Boreæ — the bright star of the northern scale	7° 43′	7° 50′	Orit. V
223	Auſtrina in Syrmate ♍ — the southern star in the Train of Virgo	7° 56′	8° 46′	Occi. M
163	Auſtralior Plejadum — the more southerly of the Pleiades	8° 0′	10° 41′	Orit. M
162	Borealior Plejadum — the more northerly of the Pleiades	8° 24′	9° 53′	Orit: M
158	Media trium in cauda ♈ — the middle of the three in the tail of Aries	8° 33′	6° 50′	Orit. M
352	Sub ventre Canis — beneath the belly of the Dog	8° 43′	9° 5′	Occi. V
225	Lucida lancis Auſtralis — the bright star of the southern scale	9° 10′	9° 48′	Orit. V
320	Quarta ex 4 in ſectione ♉ — the fourth of the four in the section of Taurus	9° 16′	8° 57′	Occi. V
13	Informis ſuper caput ♈, lucida Tychoni — the unformed star above the head of Aries, bright in Tycho Brahe's reckoning	9° 29′	9° 50′	Occi. V
321	Tertia ex 4 in ſectione ♉ — the third of the four in the section of Taurus	9° 55′	9° 52′	Occ. V
157	Præcedens trium in cauda ♈ — the leading of the three in the tail of Aries	10° 3′	11° 15′	Orit: M
234	Auſtralis trium in fronte ♏ — the southern of the three in the forehead of Scorpio	10° 28′	9° 6′	Oc-cid. M
225	Lucida lancis Auſtralis — the bright star of the southern scale	11° 52′	9° 49′	Oc-cid. M
226	Præcedens lancis Auſtralis — the star going before the southern scale	12° 1′	11° 47′	Orit. V
159	Secunda ex 4 in ſectione ♉ — the second of the four in the section of Taurus	12° 3′	12° 2′	Occ. V
101	Ophiuchi caput — the head of Ophiuchus	12° 34′	13° 2′	Orit. V
329	Iniſter pes Orionis — the left foot of Orion	12° 39′	13° 30′	Occ. V
161	ultima caudæ ♈ — the last star of the tail of Aries	12° 40′	9° 6′	Orit: M
94	Præcedens in ſiniſtra manu Ophiuchi — the leading star in the left hand of Ophiuchus	12° 57′	13° 6′	Orit: V
154	Præcedens in juba Ceti — the leading star in the mane of the Whale	13° 6′	13° 2′	Orit. M
356	Extremitas caudæ Canis — the tip of the tail of the Dog	13° 14′	12° 7′	Occ. V
160	Borealis 4 in ſectione ♉ — the northern of the four in the section of Taurus	13° 16′	13° 38′	Occ. V
353	Eductio femoris ſiniſtri Canis — where the left thigh of the Dog is drawn out	14° 17′	14° 42′	Occ: V
228	In medio Auſtrinæ lancis — in the middle of the southern scale	14° 19′	14° 15′	Orit. V
164	Exigua Plejadum — the small one of the Pleiades	14° 36′	11° 14′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co grad. /	Tychon. grad. /	(no head)
362	In ſectione inſtrati Argo Navis — in the section of the decking of the ship Argo	15° 10′		Occ. V
79	Sub cingulo ♍ in dextro clune — beneath the girdle of Virgo, on the right haunch	15° 33′	15° 43′	Occ. M
112	Roſtrum Gallinæ ſeu os Cygni — the beak of the Hen, that is the mouth of the Swan	16° 0′	16° 34′	Orit: V
229	In medio Boreæ lancis — in the middle of the northern scale	16° 4′	16° 13′	Orit. V
15	Apex trianguli — the apex of the Triangle	16° 36′	15° 40′	Occ. V
348	In extremo pedis prioris Canis — at the tip of the fore foot of the Dog	16° 39′	16° 23′	Occ. V
157	Præcedens in cauda ♈ — the leading star in the tail of Aries	16° 51′	16° 34′	Occi. V
226	Præcedens lancis Auſtralis — the star going before the southern scale	16° 54′	16° 34′	Occ. M
95	Sequens Ophiuchi in ſiniſtra manu — the following star of Ophiuchus in the left hand	17° 9′	14° 40′	Orit. V
152	Sequens trium poſt flexum ♓ — the following of the three beyond the bend of Pisces	17° 42′	18° 1′	Orit: M

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
345	Dextrum genu Orionis — the right knee of Orion	18° 14′ ♉	18° 9′ ♉	Occi. V
324	In pectore ♉ — on the breast of Taurus	18° 33′	18° 30′	Occi. V
328	ultima Auſtralis clypei Orionis — the last, southern star of the shield of Orion	18° 40′	19° 19′	Occi. V
327	Octava clypei Orionis — the eighth star of the shield of Orion	18° 46′	19° 14′	Occ. V
10	Auſtralis cinguli Andromedæ — the southern star of the girdle of Andromeda	18° 53′	19° 47′	Occ. V
242	Sequens lucentium in corpore ♏ — the following of the bright stars in the body of Scorpio	18° 54′	17° 28′	Occi. M
158	Media trium in cauda ♈ — the middle of the three in the tail of Aries	19° 2′	19° 5′	Occ. V
338	Auſtralis trium in enſe Orionis — the southern of the three in the sword of Orion	19° 26′	19° 20′	Occ. V
336	Media trium in enſe Orionis — the middle of the three in the sword of Orion	19° 28′	19° 45′	Occ. V
232	Informis ſupra lancem Borealem — the unformed star above the northern scale	19° 34′	19° 49′	Orit. V
130	In ancone ſiniſtræ alæ Gallinæ — at the bend of the left wing of the Hen	19° 35′	19° 50′	Orit. V
340	Orionis in capite nebuloſa — the nebulous star in the head of Orion	19° 38′	15° 41′	Occ. V
227	Informis præcedens ſub Auſtrina lance — the unformed star going before, beneath the southern scale	19° 58′	22° 36′	Orit: V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
358	In medio ſcuti Argi fulgens — the bright star in the middle of the shield of Argo	19° 59′		Occi. V
161	ultima caudæ ♈ — the last star of the tail of Aries	20° 11′	20° 20′	Occ. V
230	Informis inter lances — the unformed star between the scales	20° 14′	18° 21′	Orit. V
337	Borealis trium in enſe Orionis — the northern of the three in the sword of Orion	20° 19′	20° 18′	Occ. V
331	In manubrio enſis Orionis — on the hilt of the sword of Orion	20° 34′	20° 21′	Occi. V
228	In medio Auſtrinæ lancis — in the middle of the southern scale	20° 42′	25° 14′	Occi. M
231	Sequens in lance Borea — the following star in the northern scale	20° 43′	21° 24′	Orit: V
240	Præcedens lucentium in corpore ♏ — the leading of the bright stars in the body of Scorpio	20° 51′	20° 27′	Occi. M
310	In nexu amborum linorum ♓ — at the knot of both cords of Pisces	20° 54′	22° 28′	Orit. M
326	Septima clypei Orionis — the seventh star of the shield of Orion	20° 58′	21° 27′	Occi. V
222	Media in Syrmate ♍ — the middle star in the Train of Virgo	21° 37′	22° 58′	Occi. M
325	Sexta clypei Orionis — the sixth star of the shield of Orion	21° 41′	22° 24′	Occi. V
241	Cor ♏ — the Heart of Scorpio	22° 19′	20° 59′	Occi. M
233	Media trium lucentium in fronte ♏ — the middle of the three bright stars in the forehead of Scorpio	22° 25′	21° 30′	Occ. M
156	In extremo pede poſteriori ♈ — at the tip of the hind foot of Aries	22° 27′	23° 13′	Orit. M
350	Canis maior — the Greater Dog	22° 46′	22° 2′	Occ. V
155	Borea in capillamento Ceti — the northern star in the hair of the Whale	22° 52′	20° 22′	Orit: M
96	In ſiniſtro genu Ophiuchi — on the left knee of Ophiuchus	22° 57′	23° 20′	Orit. V
333	Præcedens trium cinguli Orionis — the leading of the three in the belt of Orion	23° 6′	23° 40′	Occ. V
384	Humeri ſiniſtri Centauri præcedens — the star going before the left shoulder of the Centaur	23° 42′		Orit: V
342	Media trium cinguli Orionis — the middle of the three in the belt of Orion	24° 3′	23° 39′	Occi. V
166	Hyadum quæ in naribus — the one of the Hyades in the nostrils	24° 55′	24° 57′	Occ. V
75	Vindemiator — the Vintager	24° 55′	27° 33′	Occi. M
344	Sequens trium cinguli Orionis — the following of the three in the belt of Orion	24° 57′	23° 45′	Occ. V
330	Humerus ſiniſter Orionis — the left shoulder of Orion	24° 58′	28° 21′	Occ: V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
171	In origine cornu Borealis ♉ — at the root of the northern horn of Taurus	25° 41′ ♉	5° 21′ ♊	Orit: M
105	Caudam Aquilæ præcedens — the star going before the tail of the Eagle		26° 8′ ♉	Orit. V
236	Trium lucidarum in fronte ♏ Borealis — of the three bright stars in the forehead of Scorpio, the northern one	26° 42′	26° 35′	Orit. V
168	Hyadum quæ ad oculum Auſtrinum — the one of the Hyades at the southern eye	26° 51′	26° 58′	Occi. V
237	Borea 2 coniunctarum in ♏ — the northern of the two conjoined stars in Scorpio	27° 1′	28° 12′	Orit: V
405	In Auſtrali parte arcus ♐ — in the southern part of the bow of Sagittarius	27° 7′		Occi. M
164	Exigua Plejadum — the small one of the Pleiades	27° 11′	28° 21′	Occi. V
8	Media in cingulo Andromedæ — the middle star in the girdle of Andromeda	27° 12′	4° 1′ ♊	Occi. V
106	Cauda Aquilę — the tail of the Eagle	27° 18′	28° 26′ ♉	Orit. V
230	Informis inter lances — the unformed star between the scales	27° 35′	2° 50′ ♊	Occi. M
167	Hyadum quæ ad oculum Borealem — the one of the Hyades at the northern eye	27° 52′	27° 40′ ♉	Occ. V
19	In baſi trianguli ſequens — the following star at the base of the Triangle	28° 8′	27° 42′	Occ. V
360	Sequens duarum in extremo Navis — the following of the two at the end of the Ship	28° 18′		Occ. V
238	Auſtralis duarum coniunctarum in ♏ — the southern of the two conjoined stars in Scorpio	28° 27′	27° 51′	Orit: V
304	Præcedens ad Ceti caudam — the leading star at the tail of the Whale	28° 38′	1° 4′ ♊	Orit. M
163	Auſtralior Plejadum — the more southerly of the Pleiades	28° 46′	28° 18′ ♉	Occ. V
233	Media 3 lucentium in fronte ♏ — the middle of the three bright stars in the forehead of Scorpio	28° 56′	29° 11′	Orit. V
406	In dextra ſuffragine ♐ — on the right hock of Sagittarius	29° 0′		Occ. M
170	Oculus ♉ — the eye of Taurus	29° 9′	28° 59′	Occ. V
229	In medio Boreæ lancis — in the middle of the northern scale	29° 27′	1° 50′ ♊	Occi. M
305	Sequens duarum ad caudam Ceti — the following of the two at the tail of the Whale	29° 35′	0° 35′	Orit. M
17	Media in baſi trianguli — the middle star at the base of the Triangle	29° 41′	28° 41′ ♉	Occ. V
15	Præcedens in baſi trianguli — the leading star at the base of the Triangle	29° 56′	28° 53′	Occi. V
246	Ophiuchi in calce dextri pedis — at the heel of Ophiuchus's right foot		29° 58′	Occi. M
238	Auſtralis duarum coniunctarum in ♏ — the southern of the two conjoined stars in Scorpio	0° 22′ ♊	28° 45′	Occi. M
162	Borealior Plejadum — the more northerly of the Pleiades	0° 23′	28° 13′	Occ. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
169	Oculus Boreus ♉ — the northern eye of Taurus	0° 26′	0° 31′ ♊	Occ: V
165	Anguſtiſsimus terminus Plejadum — the narrowest boundary of the Pleiades	0° 46′	28° 56′ ♉	Occ. V
133	In extremo alæ ſiniſtræ Gallinæ — at the tip of the left wing of the Hen	1° 26′	1° 58′ ♊	Orit. V
239	In cavo ſiniſtri pedis Ophiuchi — in the hollow of Ophiuchus's left foot	1° 31′		Orit. V
236	♏ trium in fronte Borealis — of the three in the forehead of Scorpio, the northern one	1° 34′	1° 26′	Occi. M
83	♍ dexter pes — the right foot of Virgo	1° 44′	2° 3′	Occ. M
234	Auſtralis trium lucentium in fronte ♏ — the southern of the three bright stars in the forehead of Scorpio	2° 33′	3° 29′	Orit. V
237	Borea duarum coniunctarum in ♏ — the northern of the two conjoined stars in Scorpio	3° 2′	4° 44′	Occi. M
339	Occidentalis in capite Orionis — the western star in the head of Orion		3° 8′	Occ. V
341	Orientalis in capite Orionis — the eastern star in the head of Orion		3° 19′	Occi. V
389	Humerus dexter Cantauri — the right shoulder of the Centaur	3° 42′		Orit. V
160	Borealis ex 4 in ſectione ♉ — the northern of the four in the section of Taurus	3° 43′	3° 52′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
346	Humerus dexter Orionis — the right shoulder of Orion	4° 15′ ♊	5° 0′ ♊	Occi. V
239	In cavo ſiniſtri pedis Ophiuchi — in the hollow of Ophiuchus's left foot	4° 15′		Occ: M
174	Dexter talus Aurigæ — the right ankle of the Charioteer	4° 25′	3° 13′	Orit. M
172	Inter aurem & cornu Auſtrale ♉ — between the ear and the southern horn of Taurus	4° 26′	4° 28′	Occi. V
243	In genu dextro Ophiuchi — on the right knee of Ophiuchus	4° 35′	4° 37′	Orit. V
315	Medium oris Ceti — the middle of the mouth of the Whale	5° 13′	6° 21′	Orit. M
87	Lucida lancis Boreæ — the bright star of the northern scale	5° 41′	6° 16′	Occ. M
416	In extremitate Auſtrali caudæ Ceti — at the southern tip of the tail of the Whale	5° 46′	6° 59′	Orit. M
231	Sequens in lancę Borea — the following star in the northern scale	5° 58′	3° 45′	Occi. M
159	Secunda ex 4 in ſectione ♉ — the second of the four in the section of Taurus	6° 12′	6° 48′	Orit. M
173	Auſtralis in cornu Auſtrali ♉ — the southern star in the southern horn of Taurus	6° 20′	9° 30′	Occi. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
240	Præcedens lucentes in corpore ♏ — the star going before the bright stars in the body of Scorpio	6° 31′	6° 56′	Orit. V
235	In pede ♏ ad Auſtrum — on the foot of Scorpio, toward the south	6° 32′	7° 54′	Orit. V
20	Iniſter pes Andromedæ — the left foot of Andromeda	7° 36′		Occi. V
321	Tertia ex 4 in ſectione ♉ Auſtralis — the third of the four in the section of Taurus, the southern one	7° 46′	8° 39′	Orit. M
317	Extrema mandibula Ceti — the end of the jaw of the Whale	8° 20′	10° 42′	Orit. M
110	antecedens duarum ſiniſtri humeri Aquilæ — the leading of the two on the left shoulder of the Eagle	8° 48′	9° 28′	Orit. V
313	Ceti præcedens trium in gena — of the Whale, the leading of the three on the cheek	8° 53′	10° 8′	Orit. M
241	Cor ♏ Antares — the Heart of Scorpio, Antares	9° 0′	9° 52′	Orit: V
320	Quarta ex 4 in ſectione ♉ Auſtrali — the fourth of the four in the southern section of Taurus	9° 9′	9° 12′	Orit. M
169	Oculus Boreus ♉ — the northern eye of Taurus	10° 30′	9° 26′	Orit. M
250	Cuſpis Sagittæ ♐ — the point of the Arrow	10° 41′		Occi. M
27	Iniſter calcaneus Perſei — the left heel of Perseus	11° 3′	11° 3′	Occi. V
232	Informis ſupra lancem Borealem — the unformed star above the northern scale	11° 7′	9° 52′	Occi. M
113	Proxima lucidarum in ſcapulis Aquilæ — the nearest of the bright stars on the shoulder blades of the Eagle	11° 17′	9° 1′	Orit. V
111	Aquila ſeu vultur volans — the Eagle, that is the flying vulture	11° 50′	12° 3′	Orit. V
29	Extrema ſiniſtri pedis Perſei — the tip of the left foot of Perseus	11° 55′	12° 24′	Occi. V
167	Hyadum quæ ad oculum Boreum — the one of the Hyades at the northern eye	11° 53′	11° 0′	Orit. M
244	Præcedens in pede dextro Ophiuchi — the leading star on the right foot of Ophiuchus	11° 53′		Orit. V
414	Ultima fuſionis aquæ ♒ — the last star of the outpouring of the water of Aquarius	11° 59′	3° 33′	Orit. M
171	In origine cornu Borealis ♉ — at the root of the northern horn of Taurus	12° 14′	7° 38′	Occ: V
245	In dextra tibia Ophiuchi — on the right shin of Ophiuchus	12° 27′	11° 56′	Orit. V
308	Venter Ceti — the belly of the Whale	12° 32′	13° 17′	Orit. M
107	In dextro brachio Antinoi — on the right arm of Antinous	12° 59′	12° 35′	Orit. V
242	Sequens lucentium trium in corpore ♏ — the following of the three bright stars in the body of Scorpio	13° 8′	13° 40′	Orit. V
121	Rhomboides Delphini lateris præcedentis Borealis — of the Dolphin's rhomboid, the northern star of the leading side	13° 19′	14° 26′	Orit. V
166	Hyadum quæ in naribus — the one of the Hyades in the nostrils	13° 23′	13° 54′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
324	In pectore ♉ — on the breast of Taurus	13° 38′	13° 45′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
247	Sequens ex 4 dextri pedis Ophiuchi — the following of the four on Ophiuchus's right foot	14° 2′ ♊	♊	Orit. V
114	Antecedens in collo Aquilæ — the leading star on the neck of the Eagle	14° 37′	15° 20′	Orit: V
252	Manubrium ſiniſtræ manus ♐ — the hilt in the left hand of Sagittarius	14° 49′		Occ. M
119	Auſtralis præcedentis lateris Rhomboides Delphini — of the Dolphin's rhomboid, the southern star of the leading side	15° 4′	15° 33′	Orit. V
177	Lucens ante genu præcedentis ♊ — the star shining before the knee of the leading Twin	15° 4′	14° 27′ ♉	Orit. M
47	Tertia ex obſcuris 4 circa Helicem — the third of the four faint stars about Helice [the Great Bear]	15° 16′	23° 10′	Occi. M
168	Hyadum quæ ad oculum Auſtralem — the one of the Hyades at the southern eye	15° 21′	15° 37′ ♊	Orit. M
123	Borealis ſequentis lateris Rhomboides Delphini — of the Dolphin's rhomboid, the northern star of the following side	15° 27′	15° 36′	Orit. V
175	In extremo Auſtrino cornu ♉ — at the tip of the southern horn of Taurus	15° 30′	16° 29′	Occ. V
170	Oculus ♉ Palilicium — the eye of Taurus, Palilicium	15° 35′	16° 27′	Orit. M
248	Tertia ſequens ex 4 pedis dextri Ophiuchi — the third, following, of the four on Ophiuchus's right foot	16° 10′		Orit: V
122	Rhomboides Delphini lateris ſequentis Auſtralis — of the Dolphin's rhomboid, the southern star of the following side	16° 12′	16° 7′	Orit. V
69	Duarum Auſtralium Comæ Berenicis ſequens — the following of the two southern stars of Berenice's Hair	16° 27′		Occ. M
104	Prima Antinoi præcedens informes Aquilæ — the first star of Antinous, going before the unformed stars of the Eagle	16° 30′	16° 36′	Orit. V
249	Reliqua ſequentium dextri pedis Ophiuchi — the remaining one of those following on Ophiuchus's right foot	16° 40′		Orit. V
22	Antecedens a capite Meduſæ — the star going before, from the head of Medusa	17° 10′	19° 12′	Occ. V
172	Inter cornu Auſtrale ♉ & aurem — between the southern horn of Taurus and the ear	17° 17′	16° 22′	Orit. M
248	Tertia ſequentium pedis dextri Ophiuchi — the third of those following on Ophiuchus's right foot	17° 28′		Occ. M
73	Duarum Auſtralium Comæ Berenicis ſequens — the following of the two southern stars of Berenice's Hair	17° 44′		Occ. M
63	Auſtrales in pede dextro poſteriori Helicis — the southern stars on the right hind foot of Helice	17° 54′	19° 2′	Occ. M
395	In poplite pedis Beſtiæ — at the hollow of the knee of the Beast's foot	17° 55′		Orit. V
118	Cauda Delphini — the tail of the Dolphin	18° 22′	18° 42′	Orit. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon. grad. /	(no head)
247	Sequens dextri pedis Ophiuchi — the following star of Ophiuchus's right foot	19° 3′		Occi. M
249	Reliqua ſequentium ex 4 dextri pedis Ophiuchi — the remaining one of the four following on Ophiuchus's right foot	19° 17′		Oc-cid. M
244	In pede dextro præcedens Ophiuchi — the leading star on Ophiuchus's right foot	19° 16′		Occ. M
410	Siniſtrum femur ♐ — the left thigh of Sagittarius	19° 50′		Oc-cid. M
109	Latus dextrum Antinoi — the right side of Antinous	19° 24′	19° 11′	Orit. V
245	Dextra tibia Ophiuchi — the right shin of Ophiuchus	19° 52′	19° 12′	Occ. M
142	Genu dextrum Boreale Pegaſi — the northern right knee of Pegasus	19° 54′	19° 33′	Orit: V
8	Media in cingulo Andromedæ — the middle star in the girdle of Andromeda	21° 31′	14° 36′	Orit. V
173	Auſtralis in in cornu auſtrali ♉ — the southern star in the southern horn of Taurus	21° 50′	17° 47′	Orit: M
306	Media trium in corpore Ceti — the middle of the three in the body of the Whale	21° 53′	22° 36′	Orit. M
62	Borea in dextro pede poſteriore Helicis — the northern star on the right hind foot of Helice	22° 4′	25° 28′	Occ. M
181	In ſummo ped: ſiniſtro ſequentis ♊ — at the top of the left foot of the following Twin	22° 14′	23° 20′	Occ. V
95	Sequens Ophiuchi in ſiniſtra manu — the following star of Ophiuchus in the left hand	22° 59′	29° 11′	Occi: M
115	Caput Antinoi — the head of Antinous	23° 22′	26° 28′	Orit. V
359	Informium circa caput Hydræ — of the unformed stars about the head of the Water-serpent	23° 32′	24° 51′	Occ: V
175	Extremitas Auſtralis cornu ♉ — the southern tip of the horn of Taurus	23° 35′	23° 45′	Orit: M

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
31	Siniſtrum crus Perſei — the left leg of Perseus	23° 37′ ♊	23° 40′ ♊	Occi. V
251	Borea in extremitate arcus ♐ — the northern star at the end of the bow of Sagittarius	23° 57′	24° 10′	Orit. V
355	Canis minor — the Lesser Dog	24° 13′	24° 50′	Occi. V
176	Antecedens ſummitatem pedis ♊ præcedentis — the star going before the top of the foot of the leading Twin	24° 41′	24° 55′	Occi. V
378	Hydræ antepenultima — the third from last star of the Water-serpent	24° 55′		Occ. V
108	Genu Antinoi — the knee of Antinous	25° 1′	25° 29′	Orit. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
174	In extremo cornu Borealis ♉ — at the tip of the northern horn of Taurus	25° 9′	25° 48′	Occ. V
258	Axilla ♐ — the armpit of Sagittarius	25° 15′		Occi. M
178	Prior pes præcedentis ♊ — the forward foot of the leading Twin	25° 40′	26° 18′	Occ. V
314	Ex 4 fluvii præcedens — the leading of the four of the River	25° 40′	27° 48′	Orit. M
180	In extremo pede dextro ſequentis ♊ — at the tip of the right foot of the following Twin	26° 9′	26° 29′	Occ. V
96	In ſiniſtro genu Ophiuchi — on the left knee of Ophiuchus	26° 14′	25° 54′	Occi. M
47	Tertia ex 4 obſcuris circa Helicem — the third of the four faint stars about Helice	26° 16′	7° 24′ ♋	Orit. M
243	In genu dextro Ophiuchi — on the right knee of Ophiuchus	26° 35′	26° 27′ ♊	Occi. M
311	Borealis in pectore Ceti — the northern star on the breast of the Whale	26° 36′	27° 49′	Orit. M
39	Caput præcedentis ♊ — the head of the leading Twin	26° 48′	26° 3′	Orit. M
78	Siniſtræ tibiæ Borea Bootis — the northern star of the left shin of Boötes	26° 47′	27° 22′	Occi. M
184	In ſiniſtro brachio præcedentis ♊ — on the left arm of the leading Twin	26° 50′	25° 45′	Orit: M
176	Antecedens ſummitatis pedis ♊ præcedentis — the star going before the top of the foot of the leading Twin	26° 55′	25° 55′	Orit. M
125	In ore Equulei præcedens — the leading star in the mouth of Equuleus	27° 12′	27° 32′	Orit: V
179	Sequens pes præcedentis ♊ — the following foot of the leading Twin	27° 40′	28° 32′	Occ. V
254	Iaculum ♐ — the javelin of Sagittarius	27° 47′	28° 8′	Occi, M
246	Ophiuchi in calce dextri pedis — at the heel of Ophiuchus's right foot		27° 39′	Occ. M
253	Auſtralis Septentrionalis partis arcus ♐ — the southern star of the northern part of the bow of Sagittarius	27° 57′	27° 29′	Occ. M
143	Dexter humerus Pegaſi — the right shoulder of Pegasus	28° 21′	28° 1′	Orit V
127	In ore Equulei ſequens — the following star in the mouth of Equuleus	28° 29′	28° 34′	Orit: V
94	Præcedens in ſiniſtra manu Ophiuchi — the leading star in the left hand of Ophiuchus	28° 50′	29° 34′	Occ. M
33	Siniſter talus Aurigæ — the left ankle of the Charioteer	28° 58′	29° 30′	Occ. V
397	In primo ſpondylo ♏ — on the first vertebra of Scorpio	29° 17′		Orit. V
312	Auſtralis ſequens in pectore Ceti — the southern following star on the breast of the Whale	0° 29′ ♋	1° 45′ ♋	Orit. M
178	Prior pes præcedentis ♊ — the forward foot of the leading Twin	0° 35′	29° 55′ ♊	Orit. M
82	Calcaneus dexter Bootis — the right heel of Boötes	0° 42′	4° 36′ ♋	Occ M

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
71	Berenicis Coma — Berenice's Hair	0° 51′		Occ. M
185	In poplite dextro ſequentis ♊ — on the right hollow of the knee of the following Twin	1° 11′	3° 29′	Occi. V
316	Ex 4 Eridani ſequens — the following of the four of Eridanus	1° 25′	2° 4′	Orit: M
256	Humerus ſiniſter ♐ — the left shoulder of Sagittarius	1° 38′	1° 13′	Occ. M
360	Media in armo ♐ — the middle star on the shoulder of Sagittarius	1° 39′		Occi. M
179	Sequens pes præcedentis ♊ — the following foot of the leading Twin	1° 46′	1° 30′	Orit: M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon. grad. /	(no head)
307	Auſtralis 3 in corpore Ceti — the southern of the three in the body of the Whale	1° 51′ ♋	2° 49′ ♋	Orit: M
182	In ſiniſtro genu præcedentis ♊ — on the left knee of the leading Twin	2° 20′	0° 53′	Orit: M
367	Informis hydræ ſequens collum — the unformed star of the Water-serpent, following the neck	2° 24′	10° 40′	Occi. V
264	♐ in ſcapulis trium ſequens — of the three on the shoulder blades of Sagittarius, the following one	2° 40′	3° 13′	Orit. V
251	Borea in extremitate arcus ♐ — the northern star at the tip of the bow of Sagittarius	2° 56′	2° 1′	Occ. M
253	Auſtralis Septentrionalis partis arcus ♐ — the southern star of the northern part of the bow of Sagittarius	3° 17′	4° 47′	Orit: V
257	Trium capitis ♐ antecedens — of the three of Sagittarius's head, the leading one	3° 20′	4° 59′	Orit: V
325	Sexta clypei Orionis — the sixth star of Orion's shield	3° 21′	3° 14′	Orit. M
90	Auſtralis in converſione colli Serpentis — the southern star at the bend of the Serpent's neck	3° 33′	4° 15′	Occ. M
124	Equulei præcedens in capite — the leading star in the head of Equuleus	4° 27′	4° 43′	Orit. V
80	Arcturus — Arcturus	4° 28′	3° 43′	Occ. M
89	Media in converſione colli Serpentis Ophiuchi — the middle star at the bend of the neck of Ophiuchus's Serpent	4° 28′	5° 11′	Occ. M
187	In ſcapulis præcedentis ♊ — on the shoulder blades of the leading Twin	4° 55′	4° 36′	Orit. M
128	Equulei ſequens in capite — the following star in the head of Equuleus	5° 3′	4° 32′	Orit. V
183	Sub ſiniſtro genu ſequentis ♊ — below the left knee of the following Twin	5° 13′	5° 44′	Occ. V
326	Septima clypei Orionis — the seventh star of Orion's shield	5° 19′	5° 5′	Orit. M
255	Oculi ♐ nebuloſa — the nebulous star of Sagittarius's eye	5° 22′		Orit. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon. grad. /	(no head)
263	Media ♐ in ſcapulis — the middle star of Sagittarius on the shoulder blades	5° 25′	6° 0′	Orit. V
131	In rictu Pegaſi — in the open mouth of Pegasus	6° 18′	6° 5′	Orit: V
259	Media trium capitis ♐ — the middle of the three of Sagittarius's head	6° 24′	7° 49′	Orit. V
365	Lucida hydræ — the bright star of the Water-serpent	6° 24′	3° 30′	Occ. V
261	Sequens trium capitis ♐ — the following of the three of Sagittarius's head	6° 55′	8° 0′	Orit: V
180	In extremo pede dextro ſequentis ♊ — at the tip of the right foot of the following Twin	7° 3′	6° 18′	Orit: M
318	Ex 4 ſequentibus poſt intervallum fluvii præcedens — of the four that follow after the gap of the River, the leading one	7° 5′	6° 30′	Orit. M
262	Auſtralis trium in ſcapulis ♐ — the southern of the three on the shoulder blades of Sagittarius	7° 23′	7° 2′	Orit. V
369	Hydræ in recta linea 3 præcedens — of the Water-serpent, the leading one of the three in a straight line	7° 27′	6° 4′	Occ. V
182	In ſiniſtro genu præcedentis ♊ — on the left knee of the leading Twin	7° 41′	9° 1′	Occi. V
255	Oculi Sagittarii nebuloſa — the nebulous star of Sagittarius's eye	7° 54′		Occ. M
384	Humerus ſiniſter præcedens Centauri — the left shoulder of the Centaur, the leading one	8° 7′		Occi. V
188	Dexter humerus præcedentis ♊ — the right shoulder of the leading Twin	8° 24′	8° 21′	Orit. M
85	Prima converſionis colli ſerpentis Ophiuchi — the first star at the bend of the neck of Ophiuchus's serpent	8° 34′	8° 8′	Occ. M
189	Caput ſequentis ♊ — the head of the following Twin	8° 54′	8° 3′	Orit: M
319	Ex 4 fluvii tertio præcedens — of the four of the River, the one going before the third	9° 3′	8° 52′	Orit. M
330	Humerus ſiniſter Orionis — the left shoulder of Orion	9° 11′	10° 58′	Orit: M
250	Cuſpis Sagittæ ♐ — the point of the Arrow	9° 17′		Orit: V
327	Octava clypei Orionis — the eighth star of Orion's shield	9° 23′	9° 15′	Orit: M
339	Occidentalis — in capite Orionis — the western one, in the head of Orion		9° 24′	Orit: M
341	Orientalis — in capite Orionis — the eastern one, in the head of Orion		9° 55′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
177	Lucens ante genu præcedentis ♊ — the star shining before the knee of the leading Twin	9° 54′ ♋	10° 39′ ♋	Occi. V
257	Trium capitis ♐ antecedens — of the three of Sagittarius's head, the leading one	10° 21′	10° 40′	Occi. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
10	Auſtralis cinguli vel umbilici Andromedæ — the southern star of Andromeda's girdle, that is her navel	10° 38′	8° 0′	Orit. V
4	Caput Andromedæ — the head of Andromeda	10° 52′	11° 26′	Orit. V
328	ultima Auſtralis clypei Orionis — the last southern star of Orion's shield	11° 20′	10° 53′	Orit. M
259	Media trium capitis Sagittarii — the middle of the three of Sagittarius's head	11° 20′	11° 8′	Occi. M
395	In poplite pedis poſterioris beſtiæ — at the hollow of the knee of the Beast's hind foot	11° 48′		Occi. V
322	Præcedens poſt intervallum fluvii — the leading star after the gap of the River	12° 10′	12° 8′	Orit: M
186	In ſiniſtro bubone ſequentis ♊ — on the left groin of the following Twin	12° 13′	12° 46′	Occi. V
371	Hydræ in recta linea 3 ſequens — of the Water-serpent, the following one of the three in a straight line	12° 34′	14° 28′	Occi. V
193	Extremum pedis ♋ Auſtrini — the tip of the southern foot of the Crab	12° 40′	10° 38′	Occi. V
254	Iaculum Sagittarii — the javelin of Sagittarius	12° 43′	13° 11′	Orit. V
265	Borealis præcedeus in ♑ præcedente cornu — the northern leading star in the leading horn of Capricorn	12° 51′	13° 17′	Orit. V
373	In baſe crateris — at the base of the Cup	13° 14′	13° 58′	Occi. V
183	Sub ſiniſtro genu ſequentis ♊ — below the left knee of the following Twin	13° 16′	12° 36′	Orit: M
252	Manubrium ſiniſtræ manus ♐ — the hilt in the left hand of Sagittarius	13° 18′		Orit. V
20	Siniſter pes Andromedæ — the left foot of Andromeda	13° 19′		Orit. V
261	Sequens trium capitis Sagittarii — the following of the three of Sagittarius's head	13° 28′	13° 4′	Occi. M
181	In ſummo pede ſiniſtro ſequentis ♊ — at the top of the left foot of the following Twin	13° 43′	13° 6′	Orit. M
256	Humerus ſiniſter ♐ — the left shoulder of Sagittarius	13° 45′	14° 53′	Orit. V
186	In ſiniſtro bubone ſequentis ♊ — on the left groin of the following Twin	13° 57′	13° 26′	Orit. M
267	Media in præcedente cornu ♑ — the middle star in the leading horn of Capricorn	14° 30′	14° 1′	Orit. V
190	In ſiniſtro humero ſequentis ♊ — on the left shoulder of the following Twin	14° 41′	14° 1′	Orit. M
5	Scapulæ Andromedæ — the shoulder blades of Andromeda	15° 7′	15° 27′	Orit: V
86	Eductio colli Serpentis Ophiuchi — where the neck of Ophiuchus's Serpent is drawn out	15° 32′	16° 15′	Occi. M
32[?]	Maxime ſequens poſt intervallum fluvii — the furthest following star after the gap of the River	15° 35′	18° 27′	Orit. M
191	Lucida extra formam ♊ — the bright star outside the figure of the Twins	16° 20′	12° 6′	Occi. V
346	Humerus dexter Orionis — the right shoulder of Orion	16° 32′	15° 29′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
262	Auſtralis trium in ſcapulis ♐ — the southern of the three on Sagittarius's shoulder blades	16° 34′	16° 57′	Occi. M
116	Antecedens ſub ſiniſtra manu ♒ — the leading star below Aquarius's left hand	16° 38′	17° 24′	Orit: V
389	Humerus dexter Centauri — the right shoulder of the Centaur	17° 21′		Orit. V
88	In tempore Serpentis Ophiuchi — at the temple of Ophiuchus's Serpent	17° 28′	18° 30′	Occi. M
135	In capite Pegaſi Borealis — the northern star in the head of Pegasus	17° 33′	18° 30′	Orit. V
266	In ♑ præcedente cornu Auſtralis — in the leading horn of Capricorn, the southern one	17° 33′	17° 26′	Orit. V
117	Sub ſiniſtra manu ♒ Media — below Aquarius's left hand, the middle one	18° 42′	18° 6′	Orit. V
263	Media in ſcapulis ♐ — the middle star on Sagittarius's shoulder blades	19° 25′	19° 25′	Occi. M
333	Præcedens cinguli Orionis — the leading star of Orion's belt	19° 43′	19° 15′	Orit. M
260	Media in armo ♐ — the middle star on Sagittarius's shoulder	20° 11′		Orit. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
141	In ſcapulis Pegaſi — on the shoulder blades of Pegasus	20° 17′ ♋	20° 40′ ♋	Orit: V
331	In manubrio enſis Orionis — on the hilt of Orion's sword	20° 28′	19° 51′	Orit. M
140	In cervice Pegaſi præcedens — the leading star on the neck of Pegasus	20° 34′	20° 56′	Orit. V
81	Dextrum femur Bootis — the right thigh of Boötes	20° 51′	21° 35′	Occ. M
185	In poplite dextro ſequentis ♊ — at the hollow of the right knee of the following Twin	20° 53′	20° 35′	Orit. M
22	Antecedens a capite Meduſæ — the star going before, from the head of Medusa	21° 7′	18° 14′	Orit. V
342	Media cinguli Orionis — the middle star of Orion's belt	21° 42′	20° 50′	Orit. M
264	Trium in ſcapulis ♐ Borea & ſequens — of the three on Sagittarius's shoulder blades, the northern and following one	22° 0′	21° 40′	Occ. M
377	Roſtrum Corvi — the beak of the Crow	22° 17′	21° 39′	Occ. V
192	Extremum pedis Borei ♋ — the tip of the Crab's northern foot	23° 8′	22° 46′	Orit. M
344	Sequens cinguli Orionis — the following star of Orion's belt	23° 41′	22° 20′	Orit. M
329	Siniſter pes Orionis — the left foot of Orion	24° 0′	24° 4′	Orit. M
199	Brachium Auſtrinum ♋ — the southern arm of the Crab	24° 8′	25° 6′	Occ. V

#	NOMINA STELLARUM — name of the star	Iux Co. grad. /	Tychon. grad. /	(no head)
272	Sub ſiniſtra manu ♒ ſequens — below Aquarius's left hand, the following one	24° 15′	28° 8′	Orit. V
190	In ſiniſtro humero ſequentis ♊ — on the left shoulder of the following Twin	25° 0′	26° 0′	Occ. V
126	Humerus ſiniſter ♒ — the left shoulder of Aquarius	25° 3′	25° 11′	Orit. V
191	Lucida extra formam ♊ — the bright star outside the figure of the Twins	25° 12′	23° 3′	Orit. M
337	Borealis in enſe Orionis — the northern star in Orion's sword	25° 13′	24° 18′	Orit: M
271	Dextrum genu ♑ — the right knee of Capricorn	25° 17′	24° 15′	Occ. M
258	Axilla ♐ — the armpit of Sagittarius	25° 30′		Orit: V
268	Præcedens in rictu ♑ — the leading star in Capricorn's open mouth	25° 45′	26° 23′	Orit. V
336	Media in enſe Orionis — the middle star in Orion's sword	25° 59′	24° 50′	Orit: M
340	Orionis in capite nebuloſa — the nebulous star in Orion's head	26° 17′	28° 17′	Orit. M
338	Auſtralis trium in enſe Orionis — the southern of the three in Orion's sword	26° 31′	25° ♌ 26′	Orit. M
195	Auſtralis duarum præcedentium quadrilateri ♋ — the southern of the two leading stars of the Crab's quadrilateral	26° 35′	2° 41′	Occi. V
269	Media in rictu ♑ — the middle star in Capricorn's open mouth	26° 34′	28° ♋ 42′	Orit. V
192	Extremum pedis Borei ♋ — the tip of the Crab's northern foot	26° 55′	27° 32′	Occi. V
92	Brachium dextrum Herculis — the right arm of Hercules	27° 2′	27° 4′	Occi. M
376	Collum ſeu cervix Corvi — the neck, that is the nape, of the Crow	27° 6′	27° 10′	Occi. V
16	Pręcedens in baſi trianguli — the leading star at the base of the Triangle	27° 6′	29° 29′	Orit. V
132	Clara in humero dextro ♒ — the bright star on Aquarius's right shoulder	27° 16′	28° 3′	Orit. V
400	Cauda ♏ — the tail of Scorpio	27° 36′		Orit. V
194	Borealis duarum præcedentium quadrilateri ♋ — the northern of the two leading stars of the Crab's quadrilateral	27° 58′	1° ♌ 36′	Orit. M
202	Informis ſequens ſupra chelem ♋ — the unformed star following, above the Crab's claw	28° 2′	0° ♋ 27′	Occi. V
187	In ſcapulis præcedentis ♊ — on the shoulder blades of the leading Twin	28° 20′	29° ♌ 19′	Occi. V
17	Media in baſi trianguli — the middle star at the base of the Triangle	28° 28′	2° 48′	Orit. V
188	Dexter humerus præcedentis ♊ — the right shoulder of the leading Twin	28° 35′	0° 22′	Occi. V
270	Sequens in rictu ♑ — the following star in Capricorn's open mouth	28° 36′		Orit. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon, grad.,	(no head)
197	B[?]reus aſellus — the [?] Ass	29° 13′	29° ♋ 21′	Orit. M
100	Caput Herculis — the head of Hercules	29° ♌ 58′	0° ♌ 34′	Occ: M
84	Lucida coronæ Gnoſiæ — the bright star of the Cretan Crown	0° 3′	29° ♋ 42′	Occ. M
137	Borea in dextra manu ♒ — the northern star in Aquarius's right hand	0° 6′	1° ♌ 12′	Orit. V
273	Siniſter humerus ♑ — the left shoulder of Capricorn	0° 33′	27° ♋ 30′	Occi. M
195	Auſtralis duarum præcedentium quadrilateri ♋ — the southern of the two leading stars of the Crab's quadrilateral	0° 46′	29° 39′	Orit. M
184	In ſiniſtro brachio præcedentis ♊ — on the left arm of the leading Twin	0° 56′	2° ♌ 28′	Occi. V
196	Pectus ſeu præſepe in ♋ — the breast, that is the Manger, in the Crab	1° 15′	0° 48′	Orit. M
270	Sequens ex tribus in rictu ♑ — the following of the three in Capricorn's open mouth	1° 22′		Occi. M
4[?]5	In auſtrali parte arcus ♐ — in the southern part of the bow	1° 31′		Orit. V
104	Prima Antinoi — the first star of Antinous	1° 33′	0° 36′	Occ. M
93	Dexter humerus Herculis — the right shoulder of Hercules	1° 36′	1° 26′	Occ. M
101	Ophiuchi caput — the head of Ophiuchus	1° 51′	2° 4′	Occ. M
269	Media in rictu ♑ — the middle star in Capricorn's open mouth	1° 54′	0° 26′	Occi. M
345	Dextrum genu Orionis — the right knee of Orion	2° 0′	1° 15′	Orit. M
268	Præcedens ex tribus in rictu ♑ — the leading of the three in Capricorn's open mouth	1° 59′	1° 9′	Occ. M
198	Auſtrinus aſellus ♋ — the southern Ass in the Crab	2° 27′	3° 38′	Occi. V
194	Borea duarum præcedens quadrilateri ♋ — the northern of the two leading stars of the Crab's quadrilateral	2° 48′	26° ♋ 11′	Occi. V
198	Auſtrinus aſellus ♋ — the southern Ass in the Crab	3° 5′	3° ♌ 20′	Orit. M
381	Extremus pes Corvi — the tip of the Crow's foot	3° 40′	4° 5′	Occi. V
199	Informis ſupra chelem ♋ præcedens — the unformed star above the Crab's claw, the leading one	3° 40′	26° ♋ 11′	Occi. V
196	Præſepe in ♋ — the Manger in the Crab	3° 46′	5° ♌ 41′	Occ. V
62	Borealis in pede dextro poſteriore Helicis — the northern star on the right hind foot of Helice	3° 47′	2° 59′	Orit. M
266	Auſtrina in præcedente cornu ♑ — the southern star in Capricorn's leading horn	3° 45′	3° 37′	Occ. M
56	Borea in capite ♌ — the northern star in the Lion's head	4° 29′	4° 16′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon, grad.,	(no head)
136	Cubitus dexter ♋ — the right elbow	4° 44′	6° 11′	Orit. V
275	Contiguarum ſub ventre ♑ prior — of the touching pair below Capricorn's belly, the earlier	5° 27′	5° 6′	Occ. M
267	Media in ♑ præcedente cornu — the middle star in Capricorn's leading horn	5° 28′	5° 31′	Occi. M
108	Genu Antinoi — the knee of Antinous	5° 34′	3° 45′	Occi. M
19	In baſi trianguli ſequens — the following star at the base of the Triangle	5° 36′	5° 37′	Orit. V
414	Ultima fuſionis aquæ ♒ — the last star of the pouring out of the water	5° 39′	8° 54′	Occi. M
193	Extremum pedis Auſtrini ♋ — the tip of the Crab's southern foot	5° 46′	2° 16′	Orit. M
404	Nebuloſa ſequens aculeum ♏ — the nebulous star following the sting	5° 47′		Orit. V
201	In [?]r[?] ♌ — in the [?] of the Lion	5° 53′	5° 12′	Orit. M
265	Borealis præcedens in cornu ♑ — the northern leading star in Capricorn's horn	5° 55′	5° 10′	Occi. M
138	Præcedens Auſtralis in dextra manu ♒ — the leading southern star in Aquarius's right hand	6° 1′	6° 27′	Orit: V
355	Canis minor — the Lesser Dog	6° 7′	5° 46′	Orit. M
189	Caput ſequentis ♊ — the head of the following Twin	6° 48′	8° 28′	Occ: V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
55	Auſtralis in capite ♌ — the southern star in the Lion's head	7° ♌ 7′	6° ♌ 28′	Orit. M
63	Auſtralis in pede poſteriori dextro Helicis — the southern star on the right hind foot of Helice	7° 8′	7° 24′	Orit. M
109	Latus dextrum Antinoi — the right side of Antinous	8° 14′	9° 13′	Occ: M
334	Leporis in medio corpore — in the middle of the Hare's body	8° 18′	8° 21′	Orit. M
274	In dorſo ♑ antecedens — the star going before, on Capricorn's back	8° 17′	10° 12′	Orit. V
274	In dorſo ♑ antecedens — the star going before, on Capricorn's back	8° 17′	8° 13′	Occ. M
204	In ſiniſtro genu ♌ anterior — the forward star on the Lion's left knee	8° 18′	7° 35′	Occi. V
139	Sequens Auſtralium in dextra manu ♒ — the following of the southern stars in Aquarius's right hand	8° 20′	7° 19′	Orit. V
197	Boreus aſellus in ♋ — the northern Ass in the Crab	10° 2′	12° 55′	Occi. V
277	Antecedens in Auſtrali ſpina ♑ — the star going before, on Capricorn's southern spine	10° 54′	10° 37′	Occ. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
208	In drace ſiniſtra priori ♌ — in the left *drace*[69] of the Lion, the earlier one	10° 56′	11° 44′	Occi. V
281	Præcedens in Borea parte caudæ ♑ — the leading star in the northern part of Capricorn's tail	11° 11′	11° 11′	Orit. V
107	In dextro brachio Antinoi — on the right arm of Antinous	11° 28′	11° 18′	Occ. M
332	Venter leporis — the Hare's belly	11° 37′	10° 3′	Orit. M
276	In dorſo ♑ ſequens — the following star on Capricorn's back	11° 56′	11° 20′	Occ. M
58	Borea in collo ♌ — the northern star on the Lion's neck	12° 34′	11° 4′	Orit. M
199	Brachium Auſtrinum ♋ — the Crab's southern arm	12° 40′	12° 36′	Orit. M
272	Sub ſiniſtra manu ♒ ſequens — below Aquarius's left hand, the following one	12° 49′	15° 0′	Occi. M
278	Sequens in Auſtrali ſpina ♑ — the following star on Capricorn's southern spine	12° 54′	12° 27′	Occ. M
380	Ala dextra Corvi — the Crow's right wing	13° 2′	15° 7′	Occi. V
116	Antecedens ſub ſiniſtra manu ♒ — the star going before, below Aquarius's left hand	13° 16′	13° 13′	Occ. M
99	Siniſter humerus Herculis — the left shoulder of Hercules	13° 22′	13° 21′	Occ. M
200	Informis ſupra chelem ♋ præcedens — the unformed star above the Crab's claw, the leading one	13° 28′	15° 21′	Orit. M
6	Siniſter cubitus Andromedæ — Andromeda's left elbow	13° 40′	12° 56′	Orit. V
117	Media ſub ſiniſtra manu ♒ — the middle star below Aquarius's left hand	14° 15′	14° 29′	Occ. M
276	In dorſo ♑ ſequens — the following star on Capricorn's back	15° 12′	16° 33′	Orit: V
279	Præcedens caudæ ♑ — the leading star of Capricorn's tail	15° 13′	14° 34′	Occi. M
348	In extremo pede priore Canis — at the tip of the Dog's forefoot	16° 6′	15° 50′	Orit. M
280	Sequens caudæ ♑ — the following star of Capricorn's tail	16° 23′	16° 21′	Occi. M
39	Caput præcedens ♊ — the head of the leading Twin	16° 45′	22° 17′	Occi. V
59	Media trium in collo ♌ — the middle of the three on the Lion's neck	17° 11′	17° 28′	Orit. M
15	Apex trianguli — the apex of the Triangle	17° 13′	15° 5′	Orit: V
2	Extrema ala Pegaſi — the tip of Pegasus's wing	17° 21′	16° 58′	Orit. V
106	Cauda Aquilæ — the Eagle's tail	17° 26′	18° 20′	Occi. M
202	Informis ſupra chelem ♋ — the unformed star above the Crab's claw	17° 39′	20° 31′	Orit. M

[69]so printed; the word does not construe

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
283	Prior duarum in dextra Cotyla ♒ — the earlier of the two in the right Cup	17° 51′	18° 47′	Orit. V
350	Canis maior — the Greater Dog	18° 3′	17° 52′	Orit, M
115	Caput Antinoi præcedens informes Aquilæ — the head of Antinous, going before the unformed stars of the Eagle	18° 4′	15° 15′	Occi. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
105	Caudam Aquilæ præcedens — the star going before the Eagle's tail	♌	18° ♌ 39′	Occ: M
206	Auſtralis trium colli ♌ — the southern of the three on the Lion's neck	18° 51′	17° 20′	Orit. M
203	Dextrum genu ♌ — the Lion's right knee	18° 57′	17° 57′	Orit. M
203	Dextrum genu ♌ — the Lion's right knee	18° 58′	19° 4′	Occi. V
209	Pectus ♌ — the Lion's breast	19° 2′	20° 18′	Occi. V
114	Antecedens in collo Aquilæ — the star going before, on the Eagle's neck	19° 7′	19° 23′	Occ. M
111	Aquila — the Eagle	19° 58′	20° 48′	Occ. M
295	Auſtralis in occipite præcedentis ♓ — the southern star on the back of the head of the leading Fish	19° 39′	23° 10′	Orit. V
281	Præcedens in Borea parte caudæ ♑ — the leading star in the northern part of Capricorn's tail	20° 8′	20° 16′	Occ. M
379	Antecedens alæ ſiniſtræ Corvi — the star going before, of the Crow's left wing	20° 13′	15° 8′	Occi. V
284	Sequens duarum in dextra Cotyla ♒ — the following of the two in the right Cup	21° 13′	20° 19′	Orit. V
113	Proxima lucidæ in ſcapulis Aquilæ — the star nearest the bright one, on the Eagle's shoulder blades	21° 14′	22° 51′	Occ. M
110	Antecedens duarum ſiniſtri humeri Aquilæ — the leading of the two on the Eagle's left shoulder	21° 20′	21° 48′	Occ. M
71	Berenicis Coma — Berenice's Hair	21° 34′		Orit. M
205	Antecedens regulum proxime — the star going before Regulus, closest to it		22° 0′	Orit. M
359	Informis circa caput hydræ — the unformed star about the Water-serpent's head	22° 3′	22° 18′	Orit. M
282	In ſiniſtro clune ♒ Auſtrina — the southern star on Aquarius's left haunch	22° 6′	22° 4′	Occ. M
69	Duarum Auſtralium Comæ Berenicis ſequens — the following of the two southern stars of Berenice's Hair	22° 36′		Orit. M
204	In ſiniſtro genu ♌ anterior — the forward star on the Lion's left knee	23° 46′	21° 42′	Orit. M
207	Cor ♌ ſeu Regulus — the Lion's Heart, that is Regulus	23° 59′	24° 1[?]′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
279	Præcedens caudæ ♑ — the leading star of Capricorn's tail	24° 31′	25° 11′	Orit. V
126	Humerus ſiniſter ♒ — Aquarius's left shoulder	24° 33′	24° 17′	Occ. M
286	Prima in profuſione aquæ ♒ — the first star in Aquarius's outpouring of water	24° 39′	13° 41′	Orit. V
207	Cor ♌ — the Lion's Heart	24° 44′	26° 9′	Occi. V
298	Sequens in dorſo antecedentis ♓ — the following star on the back of the leading Fish	24° 57′	27° 53′	Orit. V
280	Sequens caudæ ♑ — the following star of Capricorn's tail	24° 59′	27° 9′	Orit. V
271	Dextrum genu ♌ — the Lion's right knee	25° 55′	27° 55′	Orit. V
66	Tergum ♌ — the Lion's back	26° 11′	25° 51′	Orit. M
209	Pectus ♌ — the Lion's breast	26° 19′	26° 6′	Orit. M
208	In drace ſiniſtra priori ♌ — in the left *drace*[70] of the Lion, the earlier one	27° 0′	26° 42′	Orit. M
288	Auſtralis dextræ tibiæ ♒ — the southern star of Aquarius's right shin	28° 16′	29° ♍ 8′	Occi. M
282	In ſiniſtro clune ♒ Auſtralis — the southern star on Aquarius's left haunch	29° 13′	0° 47′	Orit. V
287	Borea dextræ tibiæ ♒ — the northern star of Aquarius's right shin	29° 39′	29° ♌ 40′	Occi. M
285	In dextro clune ♒ — on Aquarius's right haunch	29° 44′	29° 24′	Occi. M
283	Prior duarum in dextra Cotyla ♒ — the earlier of the two in the right Cup	29° ♍ 45′	28° ♍ 52′	Occid. M
284	Sequens duarum in dextra Cotyla ♒ — the following of the two in the right Cup	0° 2′	0° 26′	Occi. M
210	Siniſtra axilla ♌ — the Lion's left armpit	0° 12′	1° 34′	Occi. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
118	Cauda Delphini — the Dolphin's tail	0° ♍ 37′	29° ♌ 49′	Occ. M
210	Siniſtra axilla ♌ — the Lion's left armpit	0° 54′	1° ♍ 0′	Orit. M
296	Præcedens in ventre antecedentis ♓ — the leading star in the belly of the earlier Fish	1° 1′	1° 9′	Orit. V
67	In clune ♌ Auſtrina — the southern star on the Lion's haunch	1° 39′	1° 49′	Orit. M

[70]so printed; the word does not construe

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon, grad. /	(no head)
124	In capite Equulei præcedens — the leading star in Equuleus's head	1° 52′	1° 31′	Oc-cid. M
73	Duarum Auſtralium Comæ Berenicis — of the two southern stars of Berenice's Hair	2° 22′		Orit. M
277	Antecedens in Auſtrali ſpina ♑ — the earlier star on Capricorn's southern spine	2° 41′	2° 40′	Orit. V
286	Prima in profuſione aquæ ♒ — the first star in the pouring out of the water	2° 52′	4° 19′	Occ. M
356	Extremitas caudæ Canis — the tip of the Dog's tail	3° 3′	12° 2′	Orit, M
285	In dextro clune ♒ — on Aquarius's right haunch	3° 23′	4° 30′	Orit. V
119	Rhomboides Delphini Auſtralis lateris præcedentis — the southern star of the leading side of the Dolphin's rhomboid	3° 26′	4° 14′	Oc-cid M
128	In capite Equulei ſequens — the following star in Equuleus's head	3° 27′	4° 14′	Oc-cid. M
278	Sequens in Auſtrali ſpina ♑ — the following star on Capricorn's southern spine	3° 27′	4° 16′	Orit. V
303	Cauda antecedentis ♓ — the tail of the earlier Fish	3° 35′	3° 11′	Orit. V
353	Eductio femoris ſiniſtri Canis — where the Dog's left thigh comes out	4° 6′	3° 39′	Orit. M
132	Humerus dexter ♒ — Aquarius's right shoulder	4° 53′	4° 52′	Occi. M
289	In profuſione aquæ ♒ ſequens Auſtralis — in the pouring out of the water, the following southern star	5° 4′	6° 10′	Occi. M
365	Lucida hydræ — the bright star of the Water-serpent	5° 10′	6° 40′	Orit, M
125	In ore Equulei præcedens — the leading star in Equuleus's mouth	5° 14′	5° 14′	Occi. M
122	Auſtralis ſequentis lateris Rhomboides Delphini — the southern star of the following side of the Dolphin's rhomboid	5° 44′	5° 40′	Occi. M
335	Informium lucidarum circa Canem Antecedens — of the bright unformed stars around the Dog, the earlier	5° 44′		Orit. M
127	Sequens in ore Equulei — the following star in Equuleus's mouth	6° 1′	5° 50′	Occi. M
347	In extremo dextri pedis Canis — at the tip of the Dog's right foot	6° 3′	28° ♌ 14′	Orit. M
352	Sub ventre inter femora Canis — below the Dog's belly, between the thighs	6° 10′	6° ♍ 8′	Orit. M
121	Rhomboides Delphini lateris præcedentis Borea — the northern star of the leading side of the Dolphin's rhomboid	6° 13′	5° 50′	Occ. M
136	Cubitus dexter ♒ — Aquarius's right elbow	6° 32′	6° 35′	Occ. M
211	Informis ſub ventre ♌ — the unformed star below the Lion's belly	7° 23′	8° 26′	Orit. M
137	Borea in dextra manu ♒ — the northern star in Aquarius's right hand	7° 52′	10° 9′	Occ. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Ty-chon, grad. /	(no head)
275	Contiguarum ſub ventre ♑ prior — of the touching pair below Capricorn's belly, the earlier	8° 10′	8° 48′	Orit. V
31	Siniſtrum crus Perſei — Perseus's left leg	8° 10′	5° 53′	Orit. V
127	Borea ſequentium lateris Rhomboides Delphini — the northern of the stars of the following side of the Dolphin's rhomboid	8° 24′	7° 16′	Occ. M
212	In poſteriori femore ♌ — on the Lion's hind thigh	8° 25′	8° 32′	Orit. M
290	In primo flexu aquæ ♒ — at the first bend of the water	8° 34′	8° 27′	Occ. M
292	Auſtralis ſequent. duarum in flexu aquæ — the southern of the two following stars at the bend of the water	8° 35′	8° 57′	Occ. M
358	In medio ſcuti Argi fulgens — the star shining in the middle of Argo's shield	8° 44′		Orit. M
291	Borea ſequent. duar. in flexu aquæ — the northern of the two following stars at the bend of the water	8° 46′	8° 43′	Occ. M
273	Siniſter humerus ♑ — Capricorn's left shoulder	8° 49′	7° 58′	Orit. V

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
70	Cauda ♌ — the Lion's tail	8° ♍ 51′	9° ♍ 13′	Orit. M
138	Præcedens Auſtralis in dextra manu ♒ — the leading southern star in Aquarius's right hand	9° 3′	9° 3′	Occ. M
406	In priori dextra ſuffragine ♐ — in the right fore hock of Sagittarius	9° 5′		Orit. V
206	Auſtralis trium colli ♌ — the southern of the three stars of the Lion's neck	9° 38′	6° 12′	Occ. V
214	Sub cubitis ♌ — below the Lion's elbows	10° 3′	14° 5′	Occ. V
139	Sequens Auſtralis in dextra manu ♒ — the following southern star in Aquarius's right hand	10° 3′	9° 11′	Occ. M
112	Os Cygni — the Swan's beak	10° 6′	9° 32′	Occ. M
360	Sequens duarum in extremo Navis — the following of the two stars at the end of the Ship	10° 11′		Orit. M
131	In rictu Pegaſi — in Pegasus's open mouth	10° 29′	10° 36′	Occ. M
294	In flexu altero Auſtrali aquæ ♒ — at the other southern bend of the water	11° 7′	10° 10′	Occ. M
290	Sequens in primo flexu aquæ — the following star at the first bend of the water	11° 20′	11° 20′	Occ. M
135	In capite Pegaſi Borealis — the northern star in Pegasus's head	11° 37′	11° 32′	Occ. M
297	Sequens in ventre ♓ antecedentis — the following star in the belly of the earlier Fish	11° 39′	8° 18′	Orit. V
213	Poples poſterior ♌ — the Lion's hind knee	12° 31′	12° 25′	Orit. M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
211	Informis ſub ventre ♌ — the unformed star below the Lion's belly	12° 35′	14° 25′	Occ. V
201	In ore ♌ — in the Lion's mouth	12° 58′	14° 57′	Occ. V
293	Sequens in primo flexu aquæ ♒ — the following star at the first bend of the water	13° 26′	15° 46′	Orit. V
290	In 1 flexu aquæ ♒ — at the first bend of the water	13° 42′	14° 43′	Orit. V
214	Sub cubitis ♌ — below the Lion's elbows	13° 45′	15° 33′	Orit. M
343	Informium lucidarum circa Canem ſequens — of the bright unformed stars around the Dog, the following	13° 52′		Orit. M
7	In Boreo lino ♓ maxime Borealis — in the northern cord of the Fishes, the northernmost	14° 30′	15° 25′	Orit. V
289	In profuſione aquæ ♒ ſequens Auſtralis — in the pouring out of the water, the following southern star	14° 50′	7° 34′	Orit. V
416	In extremitate Auſtrali caudæ Ceti — at the southern tip of the Whale's tail	14° 56′	14° 34′	Occ. V
213	Poples poſterior ♌ — the Lion's hind knee	18° 5′	19° 57′	Occ. V
98	In ſiniſtro femore præcedens Herculis — the leading star on Hercules's left thigh	18° 23′	13° 11′	Occ. M
13	Informis ſuper caput ♈ lucida Tychoni — the unformed star above the Ram's head, Tycho's bright one	18° 24′	18° 57′	Orit. V
294	In flexu altero Auſtrali aquæ — at the other southern bend of the water	18° 30′	23° 1′	Orit. V
367	Informis hydræ ſequens eas in collo — the unformed star of the Water-serpent following those on the neck	18° 37′	17° 3′	Orit. M
299	Prima informium circa ♓ — the first of the unformed stars around the Fishes	18° 58′		Occi. M
295	Auſtralis in occipite præcedentis ♓ — the southern star on the back of the head of the leading Fish	20° 0′	21° 9′	Occi. M
296	Præcedens in ventre ♓ antecedentis — the leading star in the belly of the earlier Fish	20° 9′	20° 9′	Occi. M
415	Septentrionalis in extremitate caudæ Ceti — the northern star at the tip of the Whale's tail	20° 34′	19° 52′	Occi. M
98	In femore ſiniſtro Herculis præcedens — the leading star on Hercules's left thigh	20° 49′	26° 32′	Orit. M
301	Tertia informium circa ♓ — the third of the unformed stars around the Fishes	20° 58′		Occ. M
140	In Pegaſi cervice præcedens — the leading star on Pegasus's neck	21° 4′	21° 13′	Occid M
300	Secunda informium circa ♓ — the second of the unformed stars around the Fishes	21° 14′		Occid M
215	In extremo alæ ſiniſtræ Auſtrinæ ♍ — at the tip of the Virgin's southern left wing	21° 36′	24° 38′	Occi. V
302	Quarta informium circa ♓ — the fourth of the unformed stars around the Fishes	22° 39′		Occid.M

#	NOMINA STELLARUM — name of the star	Iux.Co. grad. /	Tychon, grad. /	(no head)
297	Sequens in ventre antecedentis ♓ — the following star in the belly of the earlier Fish	22° 39′	23° 16′	Occ. M
287	Borea dextræ tibiæ ♒ — the northern star of Aquarius's right shin	23° 2′	26° 18′	Orit. V
362	In ſectione inſtrati Navis — at the cut of the Ship's decking	23° 4′		Orit. M
81	Dextrum femur Bootis — Boötes's right thigh	23° 33′	24° 18′	Orit. M
291	Borealis ſequentium duarum in flexu aquæ ♒ — the northern of the two following stars at the bend of the water	23° 58′	27° 23′	Orit. V
11	Sequens in cornu ♈ — the following star in the Ram's horn	24° 0′	22° 34′	Orit. V
369	Hydræ in recta linea trium præcedens — of the Water-serpent's three stars in a straight line, the leading one	24° 16′	24° 36′	Orit. M
75	Vindemiator — the Vintager	25° 18′	25° 24′	Orit. M
307	Auſtralis trium in corpore Ceti — the southern of the three stars in the Whale's body	25° 36′	24° 39′	Occ. M
78	Siniſtræ tibiæ Bootis Borea — the northern star of Boötes's left shin	25° 51′	26° 50′	Orit. M
298	Sequens in dorſo antecedentis ♓ — the following star on the back of the earlier Fish	26° 28′	26° 13′	Occ. M
371	Hydræ in recta linea trium ſequens — of the Water-serpent's three stars in a straight line, the following one	26° 55′	27° 51′	Orit. M
55	Auſtralis in capite ♌ — the southern star in the Lion's head	27° 3′	27° 55′	Occ. V
304	Præcedens duarum ad Ceti caudam — the leading of the two stars at the Whale's tail	27° 16′	26° 49′	Occ. M
361	Sub tertia Navis quæ ſequitur ſcutum — below the Ship's third star, which follows the shield	27° 29′		Orit. M
292	Auſtralis ſequentium duarum in flexu aquæ — the southern of the two following stars at the bend of the water	27° 46′	28° 17′	Orit. V
153	Cornu ♈ præcedens — the leading star of the Ram's horn	27° 46′	28° 7′	Orit. V
306	Media trium in corpore Ceti — the middle of the three stars in the Whale's body	28° 29′	28° 51′	Occ. M
80	Arcturus — Arcturus	28° 50′	29° 36′	Orit. M
27	Siniſter calcaneus Perſei — Perseus's left heel	29° 0′	27° 23′	Orit. V
216	Prima ex 4 alæ ſiniſtræ ♍ — the first of the 4 stars of the Virgin's left wing	29° 8′	28° 34′	Orit. M
141	In ſcapulis Pegaſi — on Pegasus's shoulder-blades	29° 38′	29° 24′	Occ. M
357	In carina puppis Auſtralis Argi — on the keel of Argo's southern stern	29° 49′		Orit. M
144	Præcedens trium lucidarum in lino ♓ — the leading of the three bright stars in the Fishes' cord	29° 56′	0° ♈ 10′	Orit. V

Caput IX. — De Syzygiis ſeu aſpectibus & conſtitutione diverſa in apogeiis & perigeiis Planetarum, deq; reliquis in dextra Ephemeridum facie contentis. (On the syzygies, that is the aspects, and on the differing disposition of the planets at apogee and perigee, and on the rest of what the right-hand page of the Ephemerides contains.)

[Margin: The syzygies of the planets are contained on the right-hand page of the Ephemerides.]

In the preceding chapters we set out the left-hand page of the Ephemerides, which comprises the motions of the planets together with everything in those motions that has to be considered in respect of their position relative to the celestial circles — declinations, rising amplitudes, ascensions both right and oblique, and the rest. In this chapter, correspondingly, we shall examine the syzygies [Syzygiæ], which the right-hand page contains, and anything else that occurs there. Note that the syzygies of the planets — conjunctions, oppositions, and sextile, quadrate and trine rays — are entered in the Ephemerides in the following way. The first seven columns, under the title *Syzygiæ Lunares*, take in the aspects which the Moon forms to the Sun, first according to Tycho, then according to Erasmus Reinhold and the Prutenic Tables, and finally to the remaining planets.

The eighth column, under the title *Syzygiæ Planetarum mutuæ*, [takes in] the aspects which the Sun and the other planets form among themselves, the first figure always showing the hour after noon and the second the minute of the hour at which those aspects fall.

[Margin: The times of the syzygies suit only the meridian for which the Ephemerides were computed. They must therefore be reduced to whatever other meridian we have proposed for ourselves, and mean time converted into apparent.]

Now, just as the motions were computed for one determinate meridian, so too the figures attached to the aspect characters themselves yield hours and minutes of hours after noon for that place alone to which the Ephemerides belong — and that in mean time [tempus æquale]. To make them agree with other places or meridians as well, therefore, the difference of the meridians, counted in hours and minutes of hours, must be either added to or subtracted from the time of the syzygy set down in the Ephemerides, in the way we advised on that subject in the last chapter of the preceding Part; and the time proper to the proposed place will result. This time, further, must also be converted into apparent time if it is to be fit for use, following the rules of that same last chapter.

[Margin: How the characters of the syzygies are to be corrected.]

Further, since it often happens that not only the aspect characters but the figures of the times as well are transposed in Ephemerides through the printers'

carelessness, the error may first be detected and corrected in the following way. Take the two planets whose aspect is entered in the Ephemerides and find their distance, by resolving the signs into numbers and subtracting the motion of the one from the motion of the other. Then compare that distance with the aspect: if it answers, the aspect is correctly placed; if not, it will have to be emended from the distance. For in conjunction the planets must stand in the same sign, degree and minute; in sextile they must be exactly two signs apart; in quadrate, three; in trine, 4; in opposition, 6 — as was shown above in chapter 1 of this second Part.

Suppose, for instance, we are to find out whether on the 27th day of January in the year 1595 the trine of Saturn and Mars is correctly placed in the 8th column. I therefore subtract Saturn's place, 4^s 22° 36′, from Mars's place, 8^s 22° 11′, and 3^s 29° 35′ remain. And since Mars, by his swifter motion, will shortly complete 4^s of distance from Saturn, I judge the character of the trine aspect to be correctly set.

[Margin: The calculation by which the times of the syzygies are discovered.]

Next, you will judge the times of the syzygies to be rightly determined if the true places of the planets that have the syzygy — sought out for the time of the proposed syzygy by chapter 3 of this Part — agree in degrees and minutes. If on the contrary they disagree, you will conclude that an error has been committed, and it is to be corrected in this way. First, find the daily motions of the two planets whose syzygy is thought to be coming on some given day. Next, collect the daily excess [ſuperatio diurna], which is found, when both planets are direct or both retrograde, by subtracting the slower motion from the faster; when one is retrograde and the other direct, by adding the daily motions together; and when one is direct or retrograde and the other stationary, from the motion of the one that is advancing. Third, find the interval that lies between the places of the two planets on the day proposed, by subtracting the smaller distance from the greater. Last, set up this proportion: the daily excess gives 24 hours — what will the interval give? And when the working is done there emerges the true time at which the syzygy falls.

For instance, it is asked whether the time of the quadrature which fell on 18 January of the reformed year 1595 is correctly set down in the Ephemerides — by Erasmus Reinhold's calculation, 5^h 42^m. First, then, I look for the daily motions: the Sun's is 1° 1′, the Moon's 12° 28′. Next I take the slower, the Sun's, from the faster, the Moon's, and a daily excess of 11° 27′ is left. Third, I subtract the Moon's place, —24° 47′, from the Sun's place, 27° 30′, and an interval of 2° 43′ is left. Last, I multiply 24 hours into the interval, divide the product by the daily excess, and the time of the syzygy is collected: 5^h 42^m, or near it.

[Margin: On the Moon's nodes.]

Next, besides the aspects, the right-hand page of the Ephemerides also carries the Moon's positions at the nodes, according to Tycho and according to Copernicus — that is, the reckoning of the Prutenic Tables — where T denotes Tycho and R Erasmus Reinhold, the author of the Prutenic calculation. For it is worth knowing when the Moon crosses one or the other node, the Dragon's

Head or the Dragon's Tail, and that after crossing the Head ☊ she takes on northern latitude, and after crossing the Tail ☋ southern; for changes in the Moon's latitude not only shift the winds for the most part, but her positions at the nodes also announce eclipses of the luminaries, as the following chapter will show. *Third, there are noted as well the positions of the Moon and the Sun, and of all the remaining planets, at apogee and perigee, and when and where these fall.* The Sun's, whose hypothesis commonly rests on an eccentric, are noted in the eccentric only, so that the apogee shows the Sun's greatest distance or remoteness from the earth in the eccentric, and the perigee the least. The Moon's likewise, by the common hypotheses, in the epicycle only; but by Copernicus and Tycho, in the first epicycle. For by the common hypotheses the Moon moves in an eccentric-with-epicycle [Eccentrepicyclus], and is held to occupy the apogee of the eccentric when she is either in conjunction with the Sun or in opposition to him, and the perigee when she is in the quadratures, that is, three signs distant from the Sun. By Copernicus she revolves in a concentric-carrying-epicycle-upon-epicycle [Concentrepicyclepicyclus] and by Tycho in an eccentric-carrying-epicycle-upon-epicycle [Eccentrepicyclepicyclus], occupying the perigee of the second epicycle — that is, the point nearest the centre of the first — when she stands either in conjunction with the Sun or in opposition to him, and holding the apogee of the second epicycle, the point farthest from the centre of the first, when she is in the quadratures. It was therefore unnecessary to note the apogees and perigees of the eccentric or of the second epicycle, since these are sufficiently settled by the conjunctions, oppositions and quadratures with the Sun. But in the epicycle alone, by the common hypotheses, and in the first epicycle, by the tenets of Copernicus and Tycho, it was necessary to mark the apogees and perigees, since the Moon passes them at different times and moves fastest around perigee and slowest around apogee.

[Margin: On the Sun's apogee and perigee.]

[Margin: On the Moon's apogee and perigee.]

[Margin: On the apogees and perigees of the superior planets, Saturn, Jupiter and Mars.]

In the remaining planets, however, a double apogee and perigee are given in the Ephemerides, one of the eccentric, the other of the epicycle. For by the received hypotheses the five planets are said to stand at the apogee and perigee of the eccentric when the centre of the epicycle reaches the highest or the lowest point of its own eccentric — no matter in what part of the heavens the planet's body may be turning, because of the motion of its epicycle. Hence we also notice that the places of the planets at which they hold the apogee or perigee of the eccentric are sometimes very different from the places of the apogees set down at the beginning of each Ephemeris. The apogee and perigee of the epicycle, by contrast, they are held to occupy when they stand on the line drawn from the earth through the centre of the epicycle and the planet's place.

And if anyone wishes to fit all this to Copernicus's hypotheses, let him know that where mention is made of the apogee or perigee of the eccentric in the three superior planets, what is to be understood is that the planet's body has come to the highest or the lowest point of its eccentric, even though that same planet appears in some quite different degree because of the parallax of the great orb [orbis magni parallaxis]. But where mention is made —of the epicycle of the three superior planets, the reference will be to the great orb of the earth. For the planet will then be said to be at its perigee when the earth, by its annual motion, falls upon the line of the planet's true motion drawn from the centre of the world, or of the Sun, out to the planet; and at its apogee when the earth stands opposite that same line.

[Margin: On the same, in Venus and Mercury.]

In Venus and Mercury, on the other hand, he will take the commutation [commutatio] in place of the epicycle, by which these two, in going round the centre of the world — that is, the Sun — in their own orbs, differ from the earth's motion: Mercury completes his circle in the space of 80 days, Venus in the space of nine months, whereas the earth revolves in the great orb in the space of a year. For if it happens that either Venus or Mercury stands between the centre of the world, that is the Sun, and the earth, they are said to be at perigee. But if the centre of the world, the Sun, is set between the earth and the planet, then the planet is called apogee. In place of the apsides of the eccentric, however, he will grasp in imagination the earth's own disposition with respect to the centre of the orbs of Venus and Mercury. For a planet will be said to be at apogee in the eccentric when the earth has been farthest from the centre of the planet's orb, and at perigee when the earth has been nearest the centre of the orb.

[Margin: When the planets are called eastern.]

Fourth, that accident of the planets which is customarily considered in the five planets with respect to the Sun — the ground on which they are called eastern and western — is indicated on this right-hand page of the Ephemerides by the words Orient. *and* Occident.*, set at the heads of five columns:* since planets produce different effects when eastern than when western, and appear at different times. The three superior planets, Saturn, Jupiter and Mars, are called eastern for as long as the Sun, drawing away from them after conjunction, moves on toward their opposition, and for as long as they themselves, advancing from the apogees of their epicycles toward perigee, rise by night before the Sun. Venus and Mercury are called eastern for as long as, after their conjunction with the Sun — which took place at the perigees of their epicycles — they go before the Sun in the morning, and return in turn to the Sun at their apogees.

[Margin: When western.]

The three superior planets are called western for as long as the Sun returns after opposition toward conjunction with them, and for as long as they themselves, pressing from the perigees of their epicycles toward the apogees, follow the Sun in the evening. The inferior planets, for as long as, after the conjunction

which took place at the apogees of their epicycles, they follow the Sun in the evening, until, set at the perigees of their epicycles, they come back again to the Sun. And if on some day of the month they cease to be eastern and begin to become western, or the other way about, that is noted in the column itself, among the syzygies, on the day it falls.

[Margin: On the calendars set on the right-hand page of the Ephemerides.]

Fifth, a number of calendars are set out, by which times are commonly reckoned: of these the first and chief is the Julian, which, as the guide to all the rest, is carried through every year of the Ephemerides together with the movable and immovable feasts. For it is not only in use among us, as it is in certain other dominions of Germany, England, Denmark, Sweden and Muscovy, but it is also held, for its elegance and convenience, as a kind of standard for the rest. Next to it is joined that of the Syrians, which differs from the Julian in the naming of the months but not in the numbering of the days. This is followed by that of the Abyssinians and Copts, which, though it disagrees in the names of the months, is the same calendar, and is also that of the Ethiopians in Africa. Third, that of the Hebrews and Jews, who live not only in Palestine and other territories of the Turkish emperor, but under Christian kings and princes as well. Fourth, that of the Egyptians, whose use is greatest in astronomy and in working out the motions. Fifth, that of the Arabs and Turks. Sixth, that of the Persians, as it is used throughout their very wide empire. How all of these agree with one another, and with the Julian and the reformed calendar, in the number of their months and days, is set out expressly and distinctly under each month of the several years.

Finally, so that the space opposite the planets' latitude under the syzygies should not stand empty, we filled it with various and useful notices. For the year 1595 we set out briefly the grounds of the names of our Roman months; for 96, the pictures by which the months are commonly figured; for 97, which parts of the human body are not to be treated with medicines in each month, on account of the Sun's motion through the signs of the Zodiac; and so, one after another, we proposed different subjects in different years. In this we have used our own judgement, and we ask those who use these Ephemerides not to carp rashly at anything, but rather to take in good part my zeal to deserve well of letters.

[Margin: On the matters set out under the syzygies.]

Caput X. — De Eclipſibus.

[On eclipses.]

Although the heathen at first — and certain of the old poets, Stesichorus and Pindar — held that eclipses were brought about by songs, or by some malign incantations, as Pliny reports (book 2, chapter 12), while others believed them to be signs of the sickness, or of the death and extinction, of the stars: from this the Romans of old, as we read in Plutarch's *Life of Paulus Aemilius*, and other

peoples besides, raised drums, cymbals and little bells toward the face of the sky and beat them with varied noise and jangling, striving to bring help and relief to the struggling stars and to drive the enchantments off with singing and prayers. Ceremonies of much this kind are commonly observed at the time of eclipses among the East Indians, as Levinus Hulsius attests in chapter 30 of that voyage which the Dutch made to India in the year of Christ 1599. There he shows that the eclipse of the Moon which we described for 6 August of the reformed year 1599 — and which, because it fell below the earth, did not appear to us — was seen by the inhabitants of the Molucca islands, Tidore and Ternate, and by the Dutchmen then travelling there, at about the eighth hour of the evening. Yet it is certain that these failings of the luminaries, that is, eclipses, arise not from any disease or defect of the Sun and Moon, nor from evil incantations of songs, but from other natural causes — from motion, from light, and from shadow.

[Margin: The heathen wrongly supposed that eclipses were produced by incantations, or that they were signs of the stars' sickness.]

And those who first freed men's wretched minds from that great and gloomy anxiety and care, and led them out of blindness into the clearest light by setting out the reasons for which those stars are darkened and fail at a fixed and determinate time — to them divine honours were paid, and not undeservedly: so Plato and Herodotus (book 1) report of Thales of Miletus among the Greeks, and Livy of Sulpicius Gallus, a man of consular rank, among the Romans (book 4 of the fifth decade). And since in our own times too the sad and disfigured face of the luminaries in eclipse rouses men's minds to consider the heavenly bodies and to admire and love the study of astronomy, nothing so becomes an astronomer as to describe carefully the eclipses that occur, seeing that chronologers and historians draw from them the foundations of their reckoning of times. Rightly, then, among the other accidents of the celestial motions, we have inserted into the Ephemerides an exact description of eclipses as well. At what times the luminaries undergo some failing we show at the beginning of each Ephemeris, with the determination of the time, the place, the magnitude and the duration, and with a drawing to match; and now, so that each point may be weighed more exactly, we rightly add here the general doctrine.

[Margin: Those who first found out the natural causes of eclipses were held in divine honour.]

First, it must be understood that eclipses of the Moon happen at full moon and eclipses of the Sun at new moon.

An eclipse of the Moon is a failure, that is a privation, of the Sun's light in the Moon's body, which happens when the Moon, standing under the ecliptic or near it and opposite the Sun, enters the earth's shadow, the earth being placed between her and the Sun. It follows that an eclipse of the Moon occurs when, at full moon, she shines with her whole orb opposite the Sun and draws so close to the earth's shadow — a shadow which keeps to the line of the ecliptic,

just as the Sun always does — that either the whole of her, or some part, is plunged into it. And since in our times, at the Sun's least eccentricity and at the place of the Moon's passage, with the Sun standing at apogee and the Moon at perigee, the semidiameter of the earth's shadow is at greatest 49′ 46″ according to Copernicus and the Prutenic Tables, and according to Tycho Brahe 47′ 0″; while the Moon's semidiameter at perigee is 17′ 49″ by the Prutenic reckoning and 18′ 0″ according to Tycho: it will come about that an eclipse of the Moon occurs at full moon only when the Moon has a latitude smaller than the sum of the semidiameters of the shadow and of the Moon — which, with the Sun at apogee and the Moon at perigee, is 67′ 35″ according to Copernicus, and according to Tycho 65′ 0″.

[Margin: What an eclipse of the Moon is.]

In the same way, an eclipse of the Sun is a turning-away, that is a shutting-out, of the Sun's rays, which happens when the dense and opaque body of the Moon comes into conjunction with the Sun near the ecliptic so far as sight goes, and fends off his bright radiance from a certain part of the earth. It is plain that an eclipse of the Sun occurs when the Sun, joined with the Moon at new moon, is so intercepted by the Moon's body — nearer to us than he is — that either some part of him, or even the whole Sun, cannot be seen. And since the Sun's greatest semidiameter at perigee is, by the Prutenic Tables, 17′ 2″, and the Moon's at perigee 17′ 49″; while according to Tycho the Sun at perigee is 16′ 0″, the Moon at conjunction 14′ 24″, and at opposition 18′ 0″: it appears again that an eclipse of the Sun happens at new moon only when the Moon's apparent latitude is less than the sum of the semidiameters of the Sun and Moon — namely, by the Prutenic reckoning, 34′ 51″, and according to Tycho 30′ 24″; and, if the Moon's semidiameter at opposition had to be used, 34′ 0″.

[Margin: What an eclipse of the Sun is.]

Hence, although in every synodic month the Moon is once joined to the Sun and once opposed to him, yet because those conjunctions and oppositions very often occur with latitude, the Moon not only escapes the earth's shadow at opposition, but at conjunction passes the Sun himself without interposing.

[Margin: Why many new moons are without an eclipse of the Sun, and many full moons without an eclipse of the Moon.]

Ptolemy, in *Almagest* VI.5, sets the ecliptic limits of lunar eclipses — on the oblique circle which the Moon describes by her own motion — at 15° 12′ from the nodes; and the limits of solar eclipses, for our northern places, at 11° 22′ toward the south, and at 20° 40′ toward the north: since, on account of the parallaxes, which make the Moon appear further south to us than she really is, the northern limit is necessarily greater than the southern. But since we consider all eclipses over the whole surface of the earth, for the description of solar eclipses we make the southern limit equal to the northern as well; for the same cause which enlarges the northern limit in northern places enlarges the southern limit in southern ones.

[Margin: On the ecliptic limits. Why the northern limit is greater for us than the southern.]

For the rest, eclipses are described in the Ephemerides in this way. First, the time of the mean conjunction or opposition is noted, so that one may know when

[Margin: In the Ephemerides the time of the mean conjunction and opposition is set down first.]

—the lines of the mean motions meet in conjunction, stand opposite one another in opposition. This time is the foundation of the calculation of eclipses, since the time of the true syzygy is gathered from it in no other way than the true or apparent motion is gathered from the mean or equal motion.

Next, the interval between the mean and the true syzygy is expressed. For just as the true motions differ from the mean, so the true conjunctions and oppositions also — those in which the lines of the true motions of the Sun and Moon meet, or stand opposite — differ from the mean ones. The true conjunction or opposition comes *before* the mean one when, at the time of the mean syzygy, the Moon has already passed the Sun or his opposite point and has been carried further on, in the order of the signs [f.f.], than the place of the Sun or its opposite; and then the interval is subtracted. It comes *after* when the Moon has not yet overtaken the Sun or his opposite; and then the interval is added.

[Margin: 2. The interval between the mean and the true conjunction and opposition.]

[Margin: When the interval is subtracted, when added.]

Third, the time of the true conjunction or opposition itself is set out, which is gathered from the time of the mean one with the interval either added or taken away. And since that time is an equal time, the prosthaphaeresis of time [Proſthaphæreſis temporis], by which it is converted into apparent time, is indicated; and when this has been added or subtracted, the apparent time at last stands.

[Margin: 3. The time of the true conjunction or opposition, both mean and true.]

Fourth, for the apparent time of the true conjunction or opposition there are shown: the true precession of the equinox; the true and equated anomalies of the Sun and Moon; the Moon's true motion in latitude, together with the latitude itself, whether northern or southern; and likewise the true places in which the luminaries stand at that time, by sign, degree and minute. To these it is expressly added near which node the eclipse takes place — whether the ascending node, which is also called the Head of the Dragon, or the descending, which is otherwise named the Tail of the Dragon. And all this to the end that anyone who tries the calculation may the better correct such errors as have crept in, and that the eclipses themselves may be had as correct as possible. And thus far everything agrees in the setting down of both solar and lunar eclipses.

[Margin: 4. The chief motions are noted.]

But solar eclipses occur not at true conjunctions but at visual ones, in which the two luminaries must, for an eclipse to take place, be conjoined as regards sight — one line being drawn from the centre of the earth, another from the earth's surface to the Moon or the Sun, and these lines separate the true conjunctions from the visual ones (it is the parallaxes that separate them, and they arise from the solidity and thickness of the earth and from the Moon's nearness to the earth). Since this is so, in solar eclipses these very parallaxes are usually noted in particular.

[Margin: Solar eclipses occur at visual conjunctions.]

[Margin: And therefore the parallaxes are investigated.]

To work the parallaxes out, then, it is first shown by how much, in time, the places of the luminaries at the true conjunction stand distant from the meridian, which they have either not yet reached or have already passed. For by that time the distance of the luminaries, and — by the Prutenic reckoning — the side of longitude, are gathered.

[Margin: The distance from the meridian.]

Then, by the help of the distance from the zenith, of the Sun's parallax, and of the Moon's anomaly as assumed, the Moon's parallax μηκοπλ[?]τὲς [recte: μηκοπλατὴς], and, the Sun's being subtracted from the Moon's, the parallax of the Moon alone from the Sun is defined, which, multiplied by the side of longitude, reveals the Moon's parallax in longitude. Third, once the Moon's parallax in longitude at the time of the true conjunction is known, it is shown further into which

[Margin: The distance from the zenith reveals the parallax.]

—quadrant of the ecliptic — whether the eastern or the western, reckoned from the 90th degree, which for the most part differs from the meridian — the true conjunction falls. For if it falls in the eastern quadrant, what is needed for determining the visual conjunction, and so the eclipse itself, is the Moon's apparent motion in half an hour, or at most in one or two hours, *before* the true conjunction; if in the western, the same apparent motion of the Moon likewise in one or two hours *after* the true conjunction. For that assumed time, then, before or after the true conjunction, there are set out once more: the distance from the zenith; the side of longitude; the parallax of the Sun and Moon μηκοπλατὲς [recte: μηκοπλατὴς] [Greek: mēkoplatès, "long-and-broad" — the parallax taken in length and breadth together, that is, in longitude and latitude]; likewise that of the Moon alone from the Sun; and at last that of the Moon in longitude only, by whose help the Moon's visual or apparent motion is known from her true hourly motion.

[Margin: Whether the conjunction falls in the eastern or the western quadrant of the ecliptic.]

Fourth, from the Moon's parallax in longitude and her apparent motion it is determined how great the interval is between the true and the visual conjunction, and from that the time of the apparent conjunction is produced.

[Margin: From the parallax in longitude the interval between the true and the visual conjunction is known, and the time of the visual conjunction.]

Fifth, for the time of the apparent conjunction there are expressly set out in turn, for the parallax of longitude as well as of latitude: the distance of the luminaries from the zenith; the side of longitude and the side of latitude; the Sun's parallax μηκοπλατὲς [recte: μηκοπλατὴς], the Moon's likewise; that of the Moon alone from the Sun; that of the Moon in longitude only; and likewise in latitude only. For the Moon's parallax in longitude, if it agrees with the true distance of the luminaries, confirms the visual conjunction that has been sought. Her parallax in latitude, by contrast, compared with the Moon's true latitude at the time of the visual conjunction — that latitude being found through the equated motion in latitude — yields the apparent latitude, from which the size of the eclipse is judged.

All these things, set out thus far from the determined true conjunction or opposition, have to be carefully noted in eclipses, since weighing them leads us to a genuine account of the eclipse's time and size. Yet where the true and the visual conjunctions coincide at the 90th degree of the ecliptic, there is no need to attend to all of them — and that is the course we have freely taken ourselves, for ease of calculation, in most of our accounts of eclipses that fall below our horizon. In lunar eclipses, however, the investigation of parallax, being unnecessary, is rightly passed over.

[Margin: In lunar eclipses parallax is not investigated.]

Further, once the time of the true opposition has been found in oppositions of the luminaries, and the time of the visual conjunction in conjunctions, three further things have to be set out: 1 the size of the eclipse, 2 its duration, and 3 the picture of the obscuration, which sketches the eclipse itself as it takes place in the heaven. As to the first, it should be known that the size of lunar eclipses is gathered from the semidiameter of the earth's shadow, from the semidiameter of the Moon, and from the Moon's true latitude. The semidiameter of the shadow comes from the Sun's equated annual anomaly, since that shows the Sun's position on the eccentric, near apogee, at the mean distances, or near perigee. The semidiameter of the Moon comes from the Moon's equated anomaly, since that shows the Moon's position at the apogee or the perigee of the first epicycle, or at the mean distances. And finally her true latitude comes from the equated motion in latitude.

[Margin: In a lunar eclipse the semidiameter of the shadow is sought.]

[Margin: The Moon's semidiameter.]

[Margin: And the Moon's true latitude.]

The size of solar eclipses, by contrast, is found from the semidiameter of the Sun, which is known through the Sun's annual anomaly; then from the semidiameter of the Moon, and from the Moon's apparent latitude. To these the size itself is subjoined, which is judged from the digits or points of eclipse. For since the apparent diameters of the Moon and the Sun stand for a σπιθαμήν [Greek: spithamēn, "a span" — the span of the hand],

[Margin: In a solar eclipse there are sought the semidiameter of the Sun, that of the Moon, and the Moon's latitude.]

—which is of three palms, that is of 12 digits; and since the number twelve is on other grounds a sacred one among astronomers, the mathematicians did well to have the diameter of each luminary divided into 12 digits, every digit into 60 minutes, and every minute into 60 seconds, exactly as a degree is divided. Hence, when either the Sun or the Moon is eclipsed in one twelfth part, the eclipse is said to be of one digit or point; when in more, the eclipse is likewise said to be of several digits.

[Margin: The eclipse digits.]

[Margin: In the Sun.]

It should be noted, however, that in the Sun, by the Prutenic calculation, at most 12 digits with a dextans — that is, 50 minutes — can be eclipsed, if the Sun stands at apogee and the Moon at perigee, and the Moon's apparent latitude is nil. For since the Moon's semidiameter, 17′ 49″, is then greater than the Sun's, which at apogee and at the Sun's greatest eccentricity is only 15′ 40″, it is established not only that the whole Sun is eclipsed for some part of the earth — a part which in longitude and in latitude takes in about 64 German miles — but also that the Moon's body reaches out beyond the Sun, so that even if it were greater still by the dextans of one digit, the whole Sun would nonetheless be shut off from sight by the Moon's interposition. According to Tycho Brahe, if the Moon's semidiameter at full moon were used, at most 13 digits, 36 minutes would be obscured; for the semidiameter of the Sun at apogee is set at 15′ 0″, and the semidiameter of the Moon at perigee at 18′ 0″. But since, by what he himself hands down, it is the Moon's semidiameter at conjunctions that must be consulted, which at its greatest is put at 14′ 24″, it appears that the greatest solar eclipses come to only 11 digits, 45 minutes, 36 seconds, so that on that reckoning the whole Sun could never be obscured. And because it has been found, from the histories of the ancients and from the observation of the solar eclipse at the end of the year 1601, that the matter stands otherwise — as the appendix to book 1 of Tycho's *Progymn.* warns, and as Johannes Kepler [Joannes Kepplerus], the distinguished Mathematician to His Imperial Majesty, learnedly demonstrates in chapter 8 of the *Opt. Aſtr.*, where he treats at length of the semidiameters of the Sun and the Moon — we, so as to change nothing rashly here, have used both of the Moon's semidiameters laid down by Tycho Brahe, the one for conjunction as well as the one for opposition, in determining the size, in our account of most solar eclipses; and from these anyone may set up a suitable limitation for himself.

[Margin: In the Moon.]

In the Moon, by contrast, the eclipse can extend itself to nearly 23 digits. For although the Moon's diameter is divided into 12 digits only, it often happens, because of the vast thickness of the earth's shadow at the place where the Moon crosses it, that the shadow greatly exceeds the Moon. Since, then, that part of the shadow which goes beyond the Moon is cut into lunar eclipse-digits by

that same twelvefold division of the Moon's diameter, and is counted in with the rest, it comes about that in certain eclipses so many digits are reckoned. And from this too it follows that the Moon, wholly eclipsed, sometimes lingers long in the shadow and recovers her light very slowly.

[Margin: Why more than 12 digits are said to be obscured in the Moon.]

Eclipses, of the Sun as well as of the Moon, are of two kinds. Some are total, in which the whole Sun or the whole Moon is eclipsed; others partial, in which some part of the Sun or of the Moon fails. And partial eclipses are in turn of two kinds. For either less than half the diameter of the body, lunar or solar, is obscured, as when the eclipse is of 1, 2, 3 or 5 digits; or exactly half, as when the eclipse is of 6 digits; or more than half, as when the eclipse is set at 7, 8, 9, 10 or 11 digits. Total eclipses, finally, though in the Sun they are simple and without delay, are in the Moon reckoned of two kinds: without delay and with delay. Without delay, indeed, when the whole luminary is

[Margin: Eclipses of the Sun as well as of the Moon are either total or partial.]

—eclipsed, but at once shows itself again out of the eclipse. With delay, on the other hand, when the Moon — to which alone this member of the division belongs — is not only wholly obscured, but also remains for some while in the shadow.

[Margin: Total eclipses in the Moon: some without delay, some with delay.]

As to the second point, the duration of the eclipse: in partial eclipses, and in total ones without delay, it is marked and expressed simply, by the time of immersion [tempus incidentiæ]; but in total eclipses with delay it is marked in two ways, namely 1 by the time of immersion and 2 by the time of half the delay. For in partial eclipses, and in total ones without delay, the time of immersion is nothing other than the time spent from the beginning of the eclipse to the greatest obscuration, that is, to the middle of the eclipse; and it is gathered from the scruples of fall, or of immersion [ſcrupula caſus ſeu incidentiæ], which are nothing other than the arc of the Moon's path that the Moon runs through, by her motion in longitude away from the Sun, from the beginning of the eclipse to the greatest obscuration. But in total eclipses with delay, the time of immersion means that very time which runs from the beginning of the eclipse to total obscuration; and it is gathered from the scruples of fall, which are the arc of the Moon's path that the Moon walks through, by her motion in longitude away from the Sun, from the beginning of the eclipse to total obscuration.

[Margin: The duration of the eclipse is gathered from the time of immersion and of the delay.]

[Margin: What the time of immersion is. How it is gathered. What the scruples of fall are.]

The time of half the delay, finally, is the time required from total obscuration to the middle of the eclipse; and it is gathered from the scruples of half the delay, which are the arc of the Moon's path that the Moon walks through, by her motion in longitude away from the Sun, from the beginning of total obscuration up to the middle of the eclipse. This time, added to the time of

immersion, gives the time of half the duration of a total eclipse with delay; since in partial eclipses the half duration is the same as the time of immersion, while in total ones with delay it is the same as the time of immersion together with the time of half the delay. Hence, by doubling the half duration, the time of the whole duration of the eclipse is known.

[Margin: What the time of half the delay is.]

Further, lunar eclipses begin at the east and end towards the west. For since the Moon by her own motion moves from west to east more swiftly than the Sun, or than the earth's shadow that lies opposite the Sun, it comes about that at the beginning of the eclipse the Moon first grazes the shadow with the eastern edge of her body; then she enters it little by little, more and more, until at last, drawing herself out of the shadow again on the eastern side, she leaves the shadow towards the west. When partial eclipses occur, however, then if the Moon's latitude is northern she is eclipsed on her southern side; if southern, on her northern side. Solar eclipses keep the opposite course, for they begin at the west and end towards the east. For since the Moon by her own motion moves more swiftly than the Sun, as was said above, it comes about that at the beginning of the eclipse the Moon with her eastern part first grazes the eastern edge of the Sun's body; then she is carried more and more beneath the Sun, until at last, her course under the Sun completed, she leaves him again at his eastern edge. So in partial eclipses, if the Moon's apparent latitude is northern, the Sun too is eclipsed from the north; if southern, from the south.

[Margin: Lunar eclipses begin at the east and end at the west of the Moon's body.]

[Margin: Solar eclipses begin at the west and end at the east of the Sun's body.]

In the picture that is added to the account of each eclipse in the Ephemerides, the beginnings, middles and ends — indeed the very sizes of the eclipses — are sketched out; but in such a way that the beginning is shown at the right, the end at the left, and the size of the obscuration in the middle, the upper part standing for the north and the lower for the south, as the appended figures teach, of which the left one shows a lunar eclipse and the other, the right one, a solar.

[Margin: Explanation of the pictures of the eclipses.]

Diagram. A single woodcut block standing between the head band and the first text line, carrying two circular figures set side by side, with four words set around the block — one above, one below, one at each side.

Left-hand figure. One outer circle, drawn as a plain ruled line. Inside it, a broad scalloped cloud-band ring fills the space between that outer circle and a large solid black disc set within it. Across the black disc run two straight lines, one vertical and one horizontal, crossing at its centre and reaching the disc's edge on all four sides. Three smaller circles, each carrying a human face cut in outline, overlap the lower part of the block: one at the lower left, standing mostly outside the black disc; one at the lower centre, its face standing within

the black disc and a circle of its own drawn around it; one at the lower right, standing mostly outside the black disc. A straight line runs as a chord across the lower-left circle, and another across the lower-right circle. Two six-pointed stars are cut into the black at the foot of the disc, and a further star at its lower left; a small ornament is cut below the lower-centre face.

Right-hand figure. One outer circle, drawn as a plain ruled line, with the scalloped cloud-band ring filling its lower half. At the centre stands a disc bearing a face with flame-points and rays cut around it. Two straight lines, one vertical and one horizontal, cross at the centre of that face. Three dark circular bodies stand across the upper part of the figure — one at the upper left, one at the upper centre, one at the upper right, the last overrunning the outer circle at the top. Two narrow lens-shaped white figures stand in the upper half, one on each side of the vertical line.

Words set around the block:

- `Septentrio` — above the block, set horizontally, outside both ruled circles, standing roughly over the gap between the two figures and slightly left of the block's centre.
- `Ortus` — at the left of the left-hand figure, outside the ruled circle, set vertically (turned a quarter turn, reading upward).
- Occaſus — at the right of the right-hand figure, outside the ruled circle, set vertically (turned a quarter turn).
- `Meridies` — below the block, set horizontally, outside both ruled circles, standing between the two figures and slightly to the right of `Septentrio`.

For in each of the two figures the middle transverse line — the one that cuts at right angles the other line, drawn from the top downward — represents the ecliptic; and at the middle of its intersection are fixed the centres of the Sun in a solar eclipse and of the earth's shadow in a lunar one, since in eclipses the Sun and the shadow are treated as though fixed, while the Moon runs through both the Sun and the shadow with a swifter motion. On that same line, from the middle to either end, the sum of the semidiameters of the shadow and the Moon, or of the Sun and the Moon, has to be examined, since it is reckoned to be of the length that the sum is. Then the middle blackened circle, drawn from the centre of intersection to the size of the semidiameter of the shadow in a lunar eclipse, stands for the earth's shadow at the place where the Moon passes; and in a solar eclipse the circle drawn to the size of the Sun's semidiameter stands for the Sun. Round this on the outside runs another and larger circle, drawn to the size of the Moon's semidiameter, and on it are set out the beginnings and ends of the eclipses, and the bodies of the Moon themselves as they enter and leave the shadow and the Sun — set out, however, at the extremities of that line which the Moon describes by her true or apparent motion. One end of that line, toward the left [recte: toward the right], shows the beginning at the west; the other, toward the left, shows the end at the east; and the line stands as far from the ecliptic as the Moon's own proper latitude is. Finally the middle body of the Moon shows the Moon's position at mid-eclipse, and the amount

of the greatest obscuration — as is plainly evident to anyone who considers the several diagrams of the eclipses.

[Margin: How eclipses once described are to be fitted to other places.]

One thing more must be noted. The times, the sizes and the durations of the eclipses in our Ephemerides agree only with the meridian for which the Ephemerides were computed. To make them fit other meridians as well, there will be need, in lunar eclipses, of nothing but the reduction of time to the meridian of whatever place is proposed — a matter we dealt with above in chapter 6 of the first section; but in solar eclipses, of an entirely new calculation.

[Margin: Eclipses of the Moon, being universal, require only the reduction of time.]

For eclipses of the Moon are universal: they happen with the same size and the same duration for everyone above whose horizon the Moon stands, and they present themselves only later to those further east — as counting more hours — and earlier to those further west, as [those] who count fewer hours from their own meridian to the eclipse. It is enough if lunar eclipses are fitted to other places by means of the reduction of the meridians. Solar eclipses, by contrast, are particular: they fit one place only, determined by a definite longitude and latitude. By reason of the Moon's ☽ nearness to the earth, of her smallness in relation to the Sun, and of the abrupt change of the parallaxes in latitude as well as in longitude, they cannot keep the same time, nor the same size or duration, in other and different places — especially in places lying further apart. So if solar eclipses of this kind have to be determined and described for other places, differing from the place of the Ephemerides by a perceptible horizon, no more suitable or more certain method can be handed down than this: that the later part of the calculation, the part that follows the place and time of the true conjunction ☌ once described, be repeated for the proposed places from the precepts and canons of the secondary movables [secunda mobilia].

[Margin: Solar eclipses, being particular, call for the later part of the calculation to be repeated for places lying further apart.]

I mention Magini here, and rightly, by way of a finishing touch. My diligence in describing eclipses that fall below the earth offends and galls him, and he writes that it is useless and to be neglected. But with what face, I ask? With that brazen and shameless one, of course, with which he slanders the rest of my work. For he says that those eclipses are no concern of ours, and that I ought to have followed in his own footsteps and other men's, so that I should not seem to have done anything more than he himself. But that envious mouth, which foolishly arrogates the writing of ephemerides to itself alone, fails to notice that he and other writers of ephemerides have investigated other, similar events of the heaven which likewise take place below the horizon. For many syzygies occur below the horizon, and are nonetheless rightly recorded. And if in earlier ages the description of eclipses below the horizon was neglected, the regions of the antipodes were unknown as well. But now that these are becoming known through the effort and the utmost vigilance of Spaniards,

Frenchmen and Netherlanders, it is surely for mathematicians to favour those praiseworthy voyages by which they explore foreign lands at the greatest risk of life, and to help and adorn them so far as lies in our power — indeed, to see to it that the earth, the dwelling place of mankind, is at last accurately determined in longitude. In places lying far apart that cannot be done by any more convenient method than by observations of eclipses, and of lunar eclipses above all. It was for this reason, then, that I spared myself no labour but gladly swallowed it all — so that I might describe every eclipse by both calculations, the Prutenic and the more accurate Tychonic, with even the smallest products compared, and might serve the public good. This above all because the foreknowledge of an eclipse once delivered Columbus and his companions, in the interior of America, among barbarous men sunk in heathen superstition, from the extremity of famine and from mortal danger; and because I see that an eclipse of the Moon which I described for the year 1599 was observed near the equator, as Levinus Hulsius [Levino Hulfio] notes, by the inhabitants of Tidore and Ternate. I admit, indeed, that in determining eclipses I have fitted most things to the geographical tables of Petrus Plancius [Petri Plancii], that excellent describer of the world. Still, I give this warning too: those who find that any eclipses do not agree exactly with the places assigned to them should not on that account charge the eclipse calculation — founded above all on Tycho Brahe — with any imperfection, nor join Magini in carping at my labours. Let them rather turn those same labours of mine to the public benefit: let them correct the longitudes of the earth, and remedy the defect of geography. And this is not merely the chief but the only reason that has driven me to compute eclipses below the earth. Astrologers everywhere may abuse them to frighten people — like gluttons who gorge themselves far too much on wine, a drink that is good and wholesome when taken in moderation. In the preface to my Ephemerides, where I showed that eclipses are no more frequent now than they were in former times, I nevertheless declared that this is nothing new in the heaven, however new it may be in my method and unpractised by other writers of ephemerides; and that very point was rightly urged by the most learned Imperial Mathematician Johannes Kepler [Joannes Kepplerus] in the *Astrological Foundation*.

Caput XI. — De erectione thematum cœli. (On the erecting of charts of the heaven.)

Those who have taught others how to sketch out, for any proposed moment of time, the face and disposition of all the celestial bodies so that they may be viewed in a single table, and so to erect a chart, that is a figure of the heaven — the source from which the ingenious conjectures about future events are drawn — have, it is true, laid it down by almost unanimous consent that the heaven is to be divided into twelve parts or houses, on the pattern of the 12 signs of the zodiac, the reckoning beginning from the point of rising, as the figure set

beside this shows, into which we have inserted the general significations. A few are excepted, who, so that they might judge the critical days more exactly, divided the heaven into 16 parts for the physicians' sake.

Diagram. A square block standing below the last text line of the leaf and occupying the lower half of the page. Construction as seen: one heavy ruled outer square; one lighter ruled inner square, upright and set concentrically within it, about a third of the outer square's side; four straight lines running from the four corners of the outer square to the four corners of the inner square; and eight further straight lines running from the midpoint of each side of the outer square to the two nearest corners of the inner square. No circle is drawn anywhere on the block, and no arc. The lines divide the band between the two squares into twelve compartments — four triangles whose apexes stand at the midpoints of the four sides and point outward, and eight four-sided compartments, two at each corner. Every compartment carries its own text, set in a small italic, and the inner square carries a text of its own in a larger italic.

Each compartment's text is given below as its own unit, keyed to the compartment's position on the block. The list runs clockwise from the top-left corner region; that order is positional and is not an inferred reading order.

- **Top side, left compartment** — XI Amicorum, & emolumē-torum quæ ab amicis expectantur. — XI. Of friends, and of the advantages that are looked for from friends.
- **Top side, centre triangle (apex pointing up)** — X Dignita-tū, unde & vitæ gen[us] nati, manifeſtatur — X. Of dignities, from which the native's manner of life too is made manifest.
- **Top side, right compartment** — IX Religionis, dignitatum Eccleſiaſti-carū, ſomniorū & longorū itinerum. — IX. Of religion, of ecclesiastical dignities, of dreams, and of long journeys.
- **Right side, upper compartment** — I IX Mortis, laborum & occultorum theſaurorū — IIX. Of death, of labours, and of hidden treasures.
- **Right side, centre triangle (apex pointing right)** — VII Con-iugii, Emtionis ac ven-ditiōis, Item cōditionis inimico-rum. — VII. Of marriage, of buying and selling; likewise of the condition of enemies.
- **Right side, lower compartment** — VI Vale-tudinis, morborū miniſtrorūq; animaliū do-meſticorū mino-rum. — VI. Of health, of diseases, of servants, and of the smaller domestic animals.
- **Bottom side, right compartment** — V Libe-rorū & ſtat[us] ac fort. eorundē, quæq; animū exhilarant. — V. Of children, and of their condition and fortune, and of whatever gladdens the mind.
- **Bottom side, centre triangle (apex pointing down)** — IV Parentum conditionis eorundē patrimo-nij & bonorū immobi-liū — IV. Of the condition of parents, and of their patrimony and immovable goods.
- **Bottom side, left compartment** — III Fra-trū & ſororū, concordiæ inter eos, ac itinerū breviorum. — III. Of brothers and sisters, of concord among them, and of shorter journeys.

- **Left side, lower compartment** — II Divi-tiarum & faculta-tū, quæ labore & induſtria acquirun-tur. — II. Of riches and of the resources that are acquired by labour and industry.
- **Left side, centre triangle (apex pointing left)** — I Vi-tæ, cō-plexionis & omnium corporis ac-cidentium. — I. Of life, of the complexion, and of all the accidents of the body.
- **Left side, upper compartment** — XII Inimi-corū, car-cerum, fide-litatis & ſubſt. ſervor. ani-mal. ma-iorū. — XII. Of enemies, of prisons, of the fidelity and the property of servants, of the larger animals.
- **Inner square (centre of the block)** — Diſtinctio & ordo domiciliorum cœleſtiū una cum præcipuis ſignificationibus, quæ ex ſingulis depro-muntur. — The distinction and order of the celestial houses, together with the chief significations that are drawn from each of them.

Yet on this point they do not agree: which circles are to be used in marking off the houses. The reason is simply that the principle by which Ptolemy, the standard-bearer of astronomical science, fixed the beginnings of the houses has remained unknown until now, and cannot yet be known with sufficient certainty.

[Margin: Five modes of erecting figures of the heaven. The first, the Equal.]

For (1) the ancient astrologers — Julius Firmicus Siculus first of all, and virtually everyone who wrote and treated of astrology before the time of Regiomontanus, that most accomplished practitioner of astronomy — divided the zodiac into 12 equal parts by six great circles of latitude drawn through the poles of the ecliptic and through the twelve parts of the zodiac, beginning from the circle of latitude that crosses the ecliptic at the horizon. This is the principal circle in the division, the one from which all the rest take their determination, as the accompanying figure shows:

Diagram. One heavy ruled circle, uncaptioned. Three straight lines are drawn across it, all three passing through a single point at its centre: one horizontal, meeting the circle at the left and at the right; one oblique, running from the upper left down to the lower right; and a second oblique, running from the upper right down to the lower left. Four arcs are drawn besides. Each springs from the point where the circle meets the upper-right oblique and ends at the point where the circle meets it at the lower left; two of them bow upward and to the left of the centre, two bow downward and to the right. Eleven single capital letters are set at points of the construction:

- A (upper right, on the ruled circle): the point at which the four arcs and the upper end of the second oblique all meet the circle.
- B (left, on the ruled circle): the left-hand end of the horizontal line.
- C (lower left, on the ruled circle): the point at which the four arcs and the lower end of the second oblique all meet the circle.
- D (right, on the ruled circle): the right-hand end of the horizontal line.
- E (at the centre, set just below and left of the point where the three straight lines cross).

- F (upper left, on the ruled circle): the upper end of the first oblique.
- G (lower right, on the ruled circle): the lower end of the first oblique.
- H (inside the circle, upper left): where the outer of the two upward-bowing arcs crosses the F–G line.
- K (inside the circle, above the centre): where the inner of the two upward-bowing arcs crosses the F–G line.
- L (inside the circle, below the centre): where the inner of the two downward-bowing arcs crosses the F–G line.
- M (inside the circle, lower right): where the outer of the two downward-bowing arcs crosses the F–G line.

In it the poles of the zodiac are A and C; the eastern horizon is D E B; and the eastern half of the zodiac is F G, ending on either side at the 90th degree from the horizon, that is, at the circle of latitude F A G C, which marks off one half of the ecliptic above the horizon and the other half below it — the upper at the point F, the lower at the point G. Now let that half of the zodiac first be divided by the circle of latitude F E C [recte: A E C], which cuts the ecliptic at the horizon, into the two equal parts F E and E G; and then let each of those be cut in turn into three parts by the two remaining circles. There will be three eastern houses above the horizon and three below it; and since there are as many western ones, they will be 12 in number altogether.

[Margin: Why it is called equal.]

This mode is called equal, from the equal division of the zodiac, and several distinguished astrologers of the last century endorsed it — Cardano, Johannes Schöner [Schönerus] and others; for it has been found that the condition of a person's life mostly agrees with this equal arrangement.

[Margin: The second, the Rational, of Ibn Ezra.]

Next, Abraham Ibn Ezra [Aveneſra] — as Ioannes de Saxonia, the commentator on al-Qabīṣī, notes — and Regiomontanus, who lived and wrote some 150 years after that Ioannes, divide the equator, as their predecessors divided the zodiac, into twelve equal parts by six great circles drawn through the mutual intersections of the horizon and the meridian and through the thirtieth parts of the equator. Of these circles two are the chief: the horizon and the meridian, since they are the ones that first divide the equator, and the heaven itself with it, into four equal quadrants; the remaining circles then divide each single quadrant of the equator into three equal parts, but the zodiac into unequal parts, in the right sphere as well as in the oblique, and in the oblique sphere the heaven itself along with it. This inequality arises because in the oblique sphere the equator is depressed from the vertex toward the horizon, and, though it is itself divided equally by the circles drawn through the intersections of the horizon and the meridian, it cannot in the same way [divide] either the zodiac, which is oblique to the equator, or the heaven itself — which receives the larger sections toward the meridian and the smaller around the horizon — divide equally. And the greater the obliquity of the sphere at any given place, the greater too is the

dissimilarity of the parts that arises — as the dissimilar ascensions of the zodiac, and examples examined here and there with some care, confirm.

[Margin: Why it is called Rational.]

Astronomers commonly call this mode the Rational, because it agrees better with reason and with observation than the earlier one. For in this mode the parts of the zodiac, and the stars culminating on the meridian and having the greatest force, and all the rest as they stand above and below the horizon, are pointed out, as it were, with the fingers — whereas in the equal mode they are not found to be so disposed. Indeed, in that mode we see it happen that a star is judged to hold the cusp of the 10th house when it has not yet reached the meridian, and that another is supposed to stand before the cusp of the 10th house when it has already moved past the meridian. Hence the earlier mode is called, in comparison with this one, the Irrational by Regiomontanus.

Diagram. One heavy ruled circle, uncaptioned. Two straight lines cross at a point at its centre: one horizontal, meeting the circle at the left and at the right; one oblique, running from the upper left of the circle down to the lower right. Four arcs are drawn from the left-hand end of the horizontal to its right-hand end — two of them bowing upward above the horizontal, two bowing downward below it. Two short straight lines stand near the circle, one at the upper right running down from L toward the right-hand end of the horizontal, the other at the lower left running down from the lowest arc toward the circle; each closes a narrow sliver against the arc beside it. A short tick crosses the circle at its head, with O set just inside it, and an answering tick crosses the circle at its foot, with no letter beside it that resolves. Fifteen single capital letters are set at points of the construction:

- A (upper left, on the ruled circle): the upper end of the oblique straight line.
- B (left, on the ruled circle): the left-hand end of the horizontal, from which all four arcs spring.
- C (lower right, inside the circle and close to it, below K): the lower end of the oblique straight line.
- D (right, on the ruled circle): the right-hand end of the horizontal, at which all four arcs end.
- E (at the centre, where the horizontal and the oblique cross).
- F (left of centre, inside): on the lower of the two upward-bowing arcs.
- G (upper left, inside, just below and right of A): on the upper of the two upward-bowing arcs.
- H (below the centre, inside): on the upper of the two downward-bowing arcs.
- K (lower right, inside): on the lower of the two downward-bowing arcs, between H and C.
- L (upper right, inside, close to the circle): at the head of the short straight line running down toward D.

- M (right, inside, below L): where the upper of the two upward-bowing arcs runs down toward D.
- N (right, inside, just above the horizontal near its right-hand end): where the lower of the two upward-bowing arcs runs down toward D.
- O (at the head of the circle, just inside it, beside the tick that crosses the circle there).
- P (upper middle, inside): on the upper of the two upward-bowing arcs, above the oblique.
- Q (middle, inside, below P): on the lower of the two upward-bowing arcs.

In the figure set beside this, the line A C represents the eastern half of the equator, which is divided by the meridian A B C D and the horizon B E D into two quadrants: A E the upper, E G [recte: E C] the lower. Each of these is in turn cut into three parts by two circles having different elevations of the pole, so that three parts are above and three below. Hence, since the cusp of the horizon — that is, of the first house — B D has the pole-elevation of the given place, L D, the twelfth house, to which the second corresponds, will have the pole-elevation L N; and [?], to which the third belongs, L M. But the mid-heaven everywhere imitates the right horizon.

[Margin: The third, of Campanus, who divides the vertical circle equally.]

Thirdly, Campanus and Gazulus take the vertical circle, drawn through the equinoctial rising, the Zenith and the equinoctial setting, with the common section of the horizon and the meridian as its pole; and they first divide it by the meridian and the horizon into four equal quadrants. Then they subdivide each of those quadrants into three equal arcs, drawing four other greater circles — which we call circles of position [circuli positionum] — through the points of section of the vertical circle, 30° apart from one another, and through the common joints of the meridian and the horizon. For by these four, together with the horizon and the meridian, the whole heaven is divided into 12 perpetually equal spaces; but the zodiac, in the right sphere as well as in the oblique, and the equator in the oblique sphere, are always distributed into unequal parts. In the right sphere, however, where the equator coincides with the vertical circle, the equator too is divided equally, and the rational mode agrees with this very mode in the right sphere. For instance, in the adjoining figure the eastern half of the vertical circle is the line C D, which is divided by the meridian C A D B and the horizon A B first into the two quadrants C E and E D; then each of the two quadrants is divided into three parts by the four remaining circles drawn through the common

Diagram. One heavy ruled circle, uncaptioned. Two straight lines cross at right angles at a point at its centre: a vertical one, meeting the circle at the head and at the foot, and a horizontal one, meeting it at the left and at the right. Four arcs are drawn from the left-hand end of the horizontal to its right-hand end — two of them bowing upward, two bowing downward, each pair crossing the vertical line at two points. At the upper right, between the ruled circle and

the right-hand end of the horizontal, two short lines run down close together from the topmost of the marked points toward that end. Twelve single capital letters are set at points of the construction:

- A (left, on the ruled circle): the left-hand end of the horizontal, from which all four arcs spring.
- B (right, on the ruled circle): the right-hand end of the horizontal, at which all four arcs end.
- C (at the head of the circle): the upper end of the vertical.
- D (at the foot of the circle): the lower end of the vertical.
- E (at the centre, where the two straight lines cross).
- F (on the vertical, between C and E, the upper of the two): where the outer upward-bowing arc crosses it.
- G (on the vertical, between F and E): where the inner upward-bowing arc crosses it.
- H (on the vertical, between E and D, the upper of the two): where the inner downward-bowing arc crosses it.
- K (on the vertical, between H and D): where the outer downward-bowing arc crosses it.
- L (upper right, inside the circle and close to it): at the head of the two short lines running down toward B.
- M (right, inside, below L): on the outer of those two short lines.
- N (right, inside, just above B): at the foot of the inner of them.

intersections of the horizon and the meridian, A and B — so that there may be six eastern houses; and since as many western ones are established on the opposite side, they will be 12 in number altogether.

[Margin: The fourth mode, that of al-Qabīṣī.]

Fourthly, al-Qabīṣī and his commentator Ioannes de Saxonia, who commented on him at Paris in the year of Christ 1331 (*diſtin. 20 diff. primæ*), first look for the semidiurnal and seminocturnal arcs of the ascending degree of the ecliptic — that is, the arcs of the equator bounded with them — and cut these into three equal parts. Then, through those sections and through the rising point of the ecliptic, they describe five great circles of declination from the poles of the world, which together with the meridian mark the heaven off into 12 houses, as the figure set beside shows.

Diagram. One heavy ruled circle, uncaptioned. Three straight lines are drawn across it, all three passing through a single point at its centre: one horizontal, meeting the circle at the right and at the left; one oblique, running from the upper left of the circle down to the lower right; and a second oblique, running from the upper right down to the lower left. Four arcs are drawn besides, each springing from the point where the circle meets the upper-right oblique and ending at the point where the circle meets it at the lower left — two bowing upward and to the left of the centre, two bowing downward and to the right. The construction is the same in every particular as that of the

block on the earlier leaf (`fig-p385-1`), and it is lettered in the same way. Eleven single capital letters stand in it:

- A (upper right, on the ruled circle): the point at which the four arcs and the upper end of the second oblique meet the circle.
- C (lower left, on the ruled circle): the point at which the four arcs and the lower end of the second oblique meet the circle.
- D (right, on the ruled circle): the right-hand end of the horizontal.
- E (at the centre, where the three straight lines cross).
- F (upper left, on the ruled circle): the upper end of the first oblique.
- G (lower right, on the ruled circle): the lower end of the first oblique.
- H (inside, upper left): where the outer upward-bowing arc crosses the F–G line.
- K (inside, above the centre): where the inner upward-bowing arc crosses the F–G line.
- L (inside, below the centre): where the inner downward-bowing arc crosses the F–G line.
- M (inside, lower right): where the outer downward-bowing arc crosses the F–G line.
- B (left, on the ruled circle): the left-hand end of the horizontal.

In it E is the rising degree of the ecliptic; the semidiurnal arc F E, reckoned on the arc of the equator, is divided into three equal parts, and likewise the seminocturnal arc E G into three equal parts; and from the poles of the world A and C circles of declination are drawn through the segments of the parts. These make the three houses of the semidiurnal arc — F H the tenth, H K 11, K E 12 — and likewise the three houses of the seminocturnal arc, E L the first, L M 2, M G the third.

[Margin: The fifth mode, that of Porphyry.]

Fifthly, there are those who make Porphyry the author of that division of the zodiac into twelve parts in which the two eastern arcs of the zodiac, below and above the earth, intercepted between the meridian and the horizon, are each divided into three equal parts by circles of latitude carried across through the segments — a division which can indeed be shown by the same figure as the preceding one.

[Margin: In erecting figures, the first care is bestowed on the correction of the time.]

To set out these several modes and their foundations briefly, we shall begin from the general precepts. Now the general precepts are those by which the time is first prepared for calculation and the places of the planets are afterwards sought out. For every figure has to represent both the face of the outermost motionless heaven — a face which, by reason of the earth's daily rotation, is continually one and then another — and the motions and places of the planets and of the fixed stars; and since the method of working out the places and positions of the planets under the fixed zodiac of the heaven is one thing, and the method for the face of that same outermost heaven another, in the first

place —indeed the true motions of the planets answering to the moment of the birth; and afterwards we shall look into the face of the outermost heaven. Given a time, then, one must first weigh how that time itself is to be fitted to astronomical calculation by a threefold correction: first, by conversion, that is, by the changing of the usual time into astronomical time; second, by the equation; and third, by the reduction.

[Margin: If the time is civil, it is first converted into astronomical time.]

As to the conversion, it is applied first for this reason: that all the tables of motions are constructed to astronomical time. For both the ephemerides — which we rightly call particular tables, since they present motions already computed for fixed and determinate times — and those other, general astronomical tables, from which we derive for the ephemerides the motions and the accidents of the motions, such as eclipses, syzygies and the like (the Alphonsine, the Waradian, the Resolved, Bianchini's, the Bergen and Tycho's) have regard to the moment of noon. The Prutenic Tables alone are excepted, which attend to the moment of midnight, at which our Saviour Christ is believed to have been born, and to whose Epoch, as fixed by Dionysius Exiguus, they were composed. From that moment of noon, then, as from the beginning of the civil day, the motions are afterwards to be fitted to the remaining hours of the day and to the minutes of those hours. But since different nations use different beginnings for the civil day, and count from them the hours that are given in worked examples, it will be altogether necessary that, before the motions corresponding to the given times are sought, the time be first converted into astronomical time and into hours counted from noon. Now the beginnings of civil days are four in all: the civil hours are usually counted either from the moment of sunrise, or from the moment of noon, or from the moment of sunset, or lastly from the moment of midnight, as I taught in Part One, chapter 5, page 95. Since, then, I have shown clearly enough in that same place by what method the reduction is to be carried out, I shall here at least add an example.

A certain man, ever most dear to me, was born at Ferraria in Thuringia — whose longitude is 32° 20′ and latitude 51° 0′ — by the Nuremberg clock, which begins its hours from sunrise, in the year of Christ 1554, on April 24 of the year not yet reformed, at hour 1 with a sixth part, that is 10^{m}, as his father noted. The question is, what is the astronomical hour, counted from the noon of the preceding day? First I seek the length of the natural day in question from the place of the Sun, following the precepts of that same chapter 5 of Part One; and it is clear that, with the Sun set in 12° 57′ of ♉, the semidiurnal time is 7^{h} 21^{m} 35^{s}. Next, sunrise, which falls at 4^{h} 38^{m} 25^{s}. Third, I join the given time, 1^{h} 10^{m} counted from sunrise, to the time of sunrise, and to the same I add the 12 hours which elapsed from the noon of the preceding day to midnight; and out comes the astronomical time at which my friend is judged to have come forth into this light: the year 1554, April 23, 17^{h} 48^{m} 25^{s}.

[Margin: Afterwards it is equated.]

The equation, for its part, is applied because the astronomical tables presuppose equal time, not apparent time, as I showed in chapter 6 of Part One.

Since, then, with the place of the Sun at nearly 13° of ♉ — taken from Stadius's Ephemerides, from which I shall seek the motion — there is gathered from the Canon of the equation of days an equation of $10^m\ 5^s$, to be subtracted, with —the apparent time changed into equal time. And when the subtraction has been made from $17^h\ 48^m\ 25^s$, there remains the equal time $17^h\ 38^m\ 20^s$.

Finally, since all the tables are computed for some one determinate meridian, and suit only those places that lie under that same meridian, the reduction by the difference of meridians is made in this way.

[Margin: Third, it is reduced.]

Stadius's Ephemerides are constructed for the meridian of Antwerp. The longitude of Antwerp, in Brabant in the Low Countries, is found to be 25° 40′; that of Ferraria, as has been said, is 32° 20′. So if I convert the difference of 6° 40′ into time, and take the time so found — $26^m\ 40^s$ of an hour — from the time equated before, $17^h\ 38^m\ 20^s$, there is left a time properly reduced and fit for astronomical calculation: namely the year 1554, April 23, $17^h\ 11^m\ 40^s$.

Now that the time has been rightly prepared for calculation by the threefold correction, we turn to computing the true motions of the planets from the ephemerides. Following the precepts of chapter 3 of this second Part, we look up in Stadius's Ephemerides, for the time set before us, the places of the luminaries, of the planets and of ☊. At the outset the diurnal motions are gathered in this form:

Ann. 1554 · Die April.	☉ in ♉	☽ ♍	♄ ♓	♃ ♏	♂ ♈	♀ ♉	☿ ♉	☊ ♋
23	12° 0′	26° 18′	25° 26′	26° 0′	26° 40′	5° 18′	29° 8′	14° 41′
21 [recte: 24]	12° 58′	[♒] 10° 21′	25° 31′	25° 56′	27° 25′	6° 31′	[♊] 0° 39′	14° 38′
Diur. par.	58′	14° 3′	5′	℞ 4′	45′	3° 13′ [recte: 1° 13′]	1° 31′	℞ 3′

[Margin: The second care is given to the calculation of the planets; and first, what place they hold in the zodiac according to longitude.]

From these, either by such a proportion — 24 hours give in the Sun a diurnal motion of 58′, and so in the rest; what will $17^h\ 11^m\ 40^s$ give? — or by the help of the table of the proportional part of the planets' diurnal motion set out above on page 140, one works out the proportional part answering to the time elapsed from noon, which is to be added in the direct cases and subtracted in the retrograde ones to the motion of the preceding day. In the Sun it is nearly 42′, which brings the Sun's motion, for the time set before us, to 12° 42′ ♉. In the Moon, 10° 4′, so that ☽ stands in 6° 22′ ♒. In Saturn, 4′, so that ♄ stands in 25° 30′ ♓. In Jupiter, 4′ [recte: 3′], so that ♃ stands in 25° 57′ ♏. In Mars, 32′, so that ♂ stands in 27° 12′ ♈. In Venus, 52′, so that ♀ stands in 6° 10′ ♉. In Mercury, 1° 5′, so that ☿ stands in 0° 13′ ♊. In the head of the Dragon, 2′, so that ☊ stands in 14° 39′ ♋.

But since, for the directions of the significators to the promittors in genethliacal judgement, it is not enough that the places of the planets be known according to latitude [recte: longitude], a knowledge of their latitude being required as well, those too must be sought out, following the precepts of chapter 4 of this Part; and for our time they stand thus in Stadius's Ephemerides:

[Margin: Second, what sort of latitudes they have.]

Anno 1554	♄ M D	♃ S D	♂ M D	♀ M A	☿ S A
Ad Apr. Die. 21	1° 32′	1° 40′	0° 5′	1° 0′	1° 29′
Maii 1	1° 36′	1° 36′	0° 5′	0° 51′	1° 42′
Differ. dier. 29 [recte: 10]	4′	4′	0′	9′	13′

Then, since the time April 21 differs from ours by 2 days 17 hours, I set up this proportion: 10 days give 4′ in ♄, and so in the others; what will 2 days 17 hours give?

There comes out 1′, to be joined to the latitude for April 21 in Saturn; and there is produced a latitude for ♄ of 1° 33′, Merid. Defc. In Jupiter, 1° 39′, Sept. Defc. In ♂ it is 0° 5′, Sept. Afc. In Venus, 0° 58′, Merid. Afc. In Mercury, 1° 33′, S A.

To find the Moon's latitude, I subtract the motion of ☊, at 14° 39′ ♋ — that is, 3^{s} 14° 39′ — from the place of ☽, at 6° 22′ ♒, that is, 10^{s} 6° 22′; and with the remainder, 6^{s} 21° 43′, which is the argument of the Moon's latitude, I consult the Canon of the latitude of ☽. I find that to the 6 signs at the head, and to the 21 degrees in the left-hand side, there answers in the common angle a latitude of 1° 47′ 24″. This, set beside the next degree, and the difference of 4′ 52″ multiplied into the minutes of the anomaly, yields a proportional part to be added of 3′ 29″, so that the Moon's latitude is 1° 50′ 53″, Merid. Defc.

[Margin: Third, when the time has been corrected and the places of the planets sought out, the figure is erected.]

[Margin: Or according to the equal mode, whose precepts are set out here.]

Now that the motions of all the planets have been gathered in the form set out above, and kept aside for use, we come at last to the erecting of figures. First, in the equal mode of the ancients and of Firmicus, let the ascending degree of the ecliptic be sought in this way. 1 Let the right ascension of the place of ☉ be investigated. Next, let the time elapsed from noon — astronomical time, apparent, not yet equated nor reduced — be converted into degrees and minutes of the equator and joined to the right ascension of ☉; and the degree of the equator that occupies the meridian is obtained, the degree of the ecliptic answering to it, which culminates, being called the Heart of Heaven [Cor cœli]. 3 Let the 90 degrees of the equator that are intercepted between the meridian and the horizon be added; and let the degree of the ecliptic agreeing with this be sought from the oblique ascensions fitted to the latitude of the place proposed, in which the birth occurred; and the rising degree of the ecliptic is obtained. Afterwards let this degree, with its own sign, be set in the first house,

and let the remaining houses be determined with the same degrees and minutes kept, following the order of the succeeding signs and houses.

For instance, in our example we found the Sun in 12° 42′ ♉. To this, from the table of right ascensions, there answers a right ascension of nearly 40° 15′; and if we should wish to know it from the doctrine of triangles, we must proceed according to the precepts of chapter 6. Next we join to the Sun's right ascension the time elapsed from noon, resolved into degrees and minutes of the equator. Now our astronomical time before the equation and the reduction was, above, $17^{h}\ 48^{m}\ 25^{s}$; and this, resolved into degrees of the equator by multiplying by fifteen, gives 267° 6′ 15″. Adding to this the right ascension of ☉, there is gathered the right ascension of the mid-heaven, 307° 21′, to which there answers 4° 59′ ♒ as the culminating point. Third, to this right ascension we add the 90 degrees of the equator that lie between the meridian and the horizon, and, a whole circle being subtracted, there remains the oblique ascension of the first house, that is, the rising degree of the equator, 37° 21′. Fourth, from the tables of oblique ascensions fitted to the latitude of 51°, which is that of Ferraria in Thuringia, we seek the arc of the ecliptic rising with it, which we find to be 8° 45′ ♊.

[Margin: How the figure is to be erected by the help of the tables of houses, according to the equal mode.]

All this is dispatched more compendiously by the help of the tables of houses, if (1) that table is consulted which belongs to the elevation of the pole of the place in which the birth occurred, or in which some accident falls to be considered; and afterwards, under the column of the 10th house, at the place of the Sun for the time of the birth or of any accident proposed, the sign and the degree —are to be sought out, and the corresponding time taken off to the left. That time will need no correction if no minutes attach to the degrees of the Sun's place; but it will require correction when minutes do attach to the degrees of the Sun's place, and in this way. First ask how much the time increases between the proposed degree of the Sun's place and the degree that follows. Then set the proportion out: in the first place, one degree; in the second, the difference of time; and in the third, the minutes attaching to the Sun's place. When the operation has been properly carried out, the proportional part results; added to the time, it yields the corrected time, exactly agreeing with the Sun's place. Or else consult the adjoining proportional table, which serves for the equation of the tenth house: look for the increase of time at the head, and for the minutes attaching to the Sun's place at the side of the table. The common angle will give the part corresponding to the time of the proposed degree of ☉, and it is always to be added, so that a time exactly congruent with the Sun's place may come out. 2 To this time add the unequated astronomical time elapsed since noon — for figures of the heavens, whether they are to be drawn for the moments of eclipses or of other syzygies, or for nativities and the beginnings of other undertakings, are set up for apparent time, not yet equated — with this caution observed: if the sum of the time exceeds 24 hours, 24 hours are to be cast

off for one whole revolution of the equator, as is the practice in astronomical calculation. The sum, or what remains, will give that very time which will make plain both the Heart of Heaven under the 10th house and the ascending degree under the first house, that is, under the horoscope [Horoſcopus]. 3 Look for that time, the sum or the remainder, in the same table of houses. If it is found exactly, the degree standing beside it under the 10th house will be the Heart of Heaven; and the number of degrees and minutes of the first house, or horoscope, will be its beginning, by which all the remaining beginnings of the remaining houses are to be laid out, account being taken of the order both of the houses and of the signs. If it is not found, this correction will be necessary. Take first the next lesser time and compare it with the next greater; place the difference by itself on the left of your reckoning board [abacus calculatorius]. Then subtract the next lesser time from your own time, and put the difference on the right. Finally, for setting up the operation — what belongs to the Heart of Heaven and to the ascendant — put in the middle place the difference that lies between the degrees of the 10th house and those of the first. When the operation has been performed, proportional parts will come out, to be added to the earlier numbers; by them the Heart of Heaven is settled for the time marked within the figure, and the beginning of the horoscope is to be set in the first house. But if anyone wishes to have the proportional part of the 10th house and of the horoscope from the adjoined tables without the operation, let him proceed in the inquiry for the 10th house as follows. Let him look in the proportional table of the tenth house for the title of the left-hand difference at the head, and, descending in the field, for the number of the right-hand difference; and opposite, on the left-hand side of the common angle, he will find the minutes to be joined to the degree of the 10th house belonging to the lesser time. In determining the horoscope, however, let him first collect the difference, in degrees and minutes, between the next lesser and the next greater number, and look for it at the head of the table that follows — the table added for this very purpose, so that for the equation of the horoscope, in the equal and in the rational mode, **Proportional table serving** [*Tabula proportionalis inſerviens*]

Difference of time from noon. [*Differentia temporis a meridie.*]

Scrup. ☉	3m 40s 3m 42s 3m 44s 3m 46s 3m 48s 3m 50s 3m 52s 3m 54s	2m 56s [recte: 3m 56s]	3m 58s	4m 0s 4m 2s 4m 4s 4m 6s	4m 8s 4m 10s
1	0m 4s 0m 4s 0m 4s 0m 4s 0m 4s 0m 4s 0m 4s 0m 4s	0m 4s	0m 4s	0m 4s 0m 4s 0m 4s 0m 4s	0m 4s 0m 4s
2	0m 7s 0m 7s 0m 7s 0m 8s 0m 8s 0m 8s 0m 8s 0m 8s	0m 8s	0m 8s	0m 8s 0m 8s 0m 8s 0m 8s	0m 8s 0m 8s
3	0m 11s 0m 11s 0m 11s 0m 11s 0m 11s 0m 11s 0m 12b 0m 12s	0m 12s	0m 12s	0m 12b 0m 12b 0m 12b 0m 12s	0m 12b 0m 12s
4	0m 15s 0m 15s 0m 15s 0m 15s 0m 15s 0m 15s 0m 15s 0m 16s	0m 16s	0m 16s	0m 16b 0m 16b 0m 16b 0m 16s	0m 17b 0m 17s
5	0m 18b 0m 18b 0m 19b 0m 19b 0m 19b 0m 19b 0m 19b 0m 19s	0m 20s	1m 20s [recte: 0m 20s]	0m 20b 0m 20b 0m 20b 0m 20s [recte: 0m 20s]	0m 21b 0m 21s
6	0m 22b 0m 22b 0m 22b 0m 23b 0m 23b 0m 23b 0m 23b 0m 23s	0m 23s	0m 24s	0m 24b 0m 24b 0m 24b 0m 25s	0m 25b 0m 25s
7	0m 26b 0m 26b 0m 26b 0m 26b 0m 27b 0m 27b 0m 27b 0m 27s	0m 27s	0m 28s	0m 28b 0m 28b 0m 28b 0m 29s	0m 29b 0m 29s
8	0m 29b 0m 30b 0m 30b 0m 30b 0m 30b 0m 31b 0m 31b 0m 31s	0m 31s	0m 32s	0m 32b 0m 32b 0m 33b 0m 33s	0m 33b 0m 33s

Scrup. ☉	3m 40s 3m	42s 3m	44s 3m	46s 3m	48s 3m	50s 3m	52s 3m	54s	2m 56s [recte: 3m 56s]	3m 58s	4m 0s 4m	2s 4m	4s 4m	6s	4m 8s 4m	10s
9	0m 33d 0m	33d 0m	34d 0m	34d 0m	34d 0m	34d 0m	35d 0m	35s	0m 35s	0m 36s	0m 36d 0m	36d 0m	37d 0m	37s	0m 37d 0m	37s
10	0m 37d 0m	37d 0m	37d 0m	38d 0m	38d 0m	38d 0m	39d 0m	39s	0m 39s	0m 40s	0m 40d 0m	40d 0m	41d 0m	41s	0m 41d 0m	42s
11	0m 40d 0m	41d 0m	41d 0m	41d 0m	42d 0m	42d 0m	43d 0m	43s	0m 43s	0m 44s	0m 44d 0m	44d 0m	45d 0m	45s	0m 45d 0m	46s
12	0m 44d 0m	44d 0m	45d 0m	45d 0m	46d 0m	46d 0m	46d 0m	47s	0m 47s	0m 48s	0m 48d 0m	48d 0m	49d 0m	49s	0m 50d 0m	50s
13	0m 48d 0m	48d 0m	49d 0m	49d 0m	49d 0m	50d 0m	50d 0m	51s	0m 51s	0m 52s	0m 52d 0m	52d 0m	53d 0m	53s	0m 54d 0m	54s
14	0m 51d 0m	52d 0m	52d 0m	53d 0m	53d 0m	54d 0m	54d 0m	55s	0m 55s	0m 56s	0m 56d 0m	56d 0m	57d 0m	57s	0m 58d 0m	58s
15	0m 55d 0m	55d 0m	56d 0m	56d 0m	57d 0m	57d 0m	58d 0m	58s	0m 59s	0m 59s	1m 0s 1m	0s 1m	1s 1m	1s	1m 2s 1m	2s
16	0m 59d 0m	59d 1m	0s 1m	0s 1m	1s 1m	1s 1m	2s 1m	2s	1m 3s	1m 3s	1m 4s 1m	5s 1m	5s 1m	6s	1m 6s 1m	7s
17	1m 2s 1m	3s 1m	3s 1m	4s 1m	5s 1m	5s 1m	6s 1m	6s	1m 7s	1m 7s	1m 8s 1m	9s 1m	9s 1m	10s	1m 10s 1m	11s
18	1m 6s 1m	7s 1m	7s 1m	8s 1m	8s 1m	9s 1m	10s 2m	10s [recte: 1m 10s]	1m 11s	1m 11s	1m 12s 1m	13s 1m	13s 1m	14s	1m 14s 1m	15s
19	1m 10s 1m	10s 1m	11s 1m	12s 1m	12s 1m	13s 1m	13s 1m	14s	1m 15s	1m 15s	1m 16s 1m	17s 1m	17s 1m	18s	1m 19s 1m	19s
20	1m 13s 1m	14s 1m	15s 1m	15s 1m	16s 1m	17s 1m	17s 1m	18s	1m 19s	1m 19s	1m 20d 1m	21s 1m	21s 1m	22s	1m 23s 1m	23s
21	1m 17s 1m	18s 1m	18s 1m	19s 1m	20d 1m	20d 1m	21s 1m	22s	1m 23s	1m 23s	1m 24d 1m	25s 1m	25s 1m	26s	1m 27d 1m	27s
22	1m 21s 1m	21s 1m	22d 1m	23s 1m	24d 1m	24d 1m	25s 1m	26s	1m 27s	3m 27s [recte: 1m 27s]	28s 1m	29d 1m	29d 1m	30s	1m 31s 1m	32s
23	1m 24d 1m	25s 1m	26d 1m	27d 1m	27d 1m	28s 1m	29d 1m	30s	1m 30s	1m 31s	1m 32s 1m	33s 1m	34s 1m	34s	1m 35s 1m	36s
24	1m 28s 1m	29d 1m	30d 1m	30s 1m	31s 1m	32s 1m	33s 1m	34s	1m 34s	1m 35s	1m 36s 1m	37s 1m	38s 1m	38s	1m 39s 1m	40s
25	1m 32s 1m	32s 1m	33s 1m	34s 1m	35s 1m	36s 1m	37s 1m	37s	1m 38s	1m 39s	1m 40d 1m	41s 1m	42d 1m	42s	1m 43s 1m	44s
26	1m 35s 1m	36s 1m	37s 1m	38s 1m	39s 1m	40d 1m	41s 1m	41s	1m 42s	1m 43s	1m 44d 1m	45s 1m	46d 1m	47s	1m 47d 1m	48s
27	1m 39s 1m	40d 1m	41s 1m	42d 1m	43s 1m	43s 1m	44d 1m	45s	1m 46s	2m 47s [recte: 1m 47s]	48s 1m	49d 1m	50s 1m	51s	1m 52s 1m	52s
28	1m 43s 1m	44d 1m	45s 1m	45s 1m	46d 1m	47d 1m	48s 1m	49s	1m 50s	1m 51s	1m 52s 1m	53s 1m	54s 1m	55s	1m 56s 1m	57s
29	1m 46d 1m	47d 1m	48s 1m	49d 1m	50s 1m	51s 1m	52s 1m	53s	1m 54s	1m 55s	1m 56s 1m	57s 1m	58s 1m	59s	2m 0s 2m	1s
[?]0	1m 50d 1m	51s 1m	52s 1m	53s 1m	54s 1m	55s 1m	56s 1m	57s	1m 58s	1m 59s	2m 0s 2m	1s 2m	2s 2m	3s	2m 4s 2m	5s

and for the remaining houses, to whose degrees minutes attach, it may serve. Afterwards, let it be seen where the minutes of the 10th house, sought out earlier, are to be found on the left-hand side; for the common angle will supply the proportional part that is to be added, so that the number of the horoscope may be completed. Lastly, once the number of the ascendant is known, let the remaining houses be determined according to the order of the signs that follow, the same number of degrees and minutes being kept throughout.

for the equation of the 10th house [*æquationi 10 domus*]

Difference of time from noon. [*Differentia temporis a meridie.*]

Scrup. ☉	3m 40s 3m	42s 3m	44s 3m	46s	3m 48s	3m 50s	3m 52s 3m	54s	2m 56s [recte: 3m 56s]	3m 58s 4m	0s 4m	2s 4m	4s 4m	6s 4m	8s 4m	10s
31	1m 54s 1m	55s 1m	56s 1m	57s	1m 58s	1m 59s	2m 0s 2m	1s	2m 2s	2m 3s 2m	4s 2m	5s 2m	6s 2m	7s 2m	8s 2m	9s
32	1m 57s 1m	58s 1m	59s 2m	1s	2m 2s	2m 3s	2m 4s 2m	5s	2m 6s	2m 7s 2m	8s 2m	9s 2m	10d 2m	11s 2m	12d 2m	13s
33	2m 1s 2m	2s 2m	3s 2m	4s	2m 5s	2m 6s	2m 8s 2m	9s	2m 10s	2m 11s 2m	12d 2m	13s 2m	14d 2m	15s 2m	16d 2m	17s
34	2m 5s 2m	6s 2m	7s 2m	8s	2m 9s	2m 10s	2m 11s 2m	13s	2m 14s	2m 15s 2m	16d 2m	17s 2m	18s 2m	19s 2m	21d 2m	22s
35	2m 8s 2m	9s 2m	11s 2m	12s	2m 13s	2m 14s	2m 15s 2m	16s	2m 18s	2m 19s 2m	20d 2m	21d 2m	22d 2m	23d 2m	25d 2m	26s
36	2m 12d 2m	13s 2m	14d 2m	16s	2m 17s	2m 18s	2m 19s 2m	20s	2m 22s	2m 23d 2m	24d 2m	25d 2m	26d 2m	28d 2m	29d 2m	30s
37	2m 16d 2m	17s 2m	18s 2m	19s	2m 21s	2m 22s	2m 23d 2m	24s	2m 26s	2m 27d 2m	28d 2m	29d 2m	30d 2m	32d 2m	33d 2m	34s

Scrup. ⊙	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 52^s$	$3^m 54^s$	$2^m 56^s$ [recte: $3^m 56^s$]	$3^m 58^s$	$4^m 0^s$	$4^m 2^s$	$4^m 4^s$	$4^m 6^s$	$4^m 8^s$	$4^m 10^s$
38	$2^m 19^s$	$2^m 21^s$	$2^m 22^s$	$2^m 23^s$	$2^m 24^s$	$3^m 26^s$ [recte: $2^m 26^s$]	$2^m 27^s$	$2^m 28^s$	$2^m 29^s$	$2^m 31^s$	$2^m 32^s$	$2^m 33^s$	$2^m 35^s$	$2^m 36^s$	$2^m 37^s$	$2^m 38^s$
39	$2^m 23^s$	$2^m 24^s$	$2^m 26^s$	$2^m 27^s$	$2^m 28^s$	$2^m 29^s$	$2^m 31^s$	$2^m 32^s$	$2^m 33^s$	$2^m 35^s$	$2^m 36^s$	$2^m 37^s$	$2^m 39^s$	$2^m 40^s$	$2^m 41^s$	$2^m 42^s$
40	$2^m 27^s$	$2^m 28^s$	$2^m 29^s$	$2^m 31^s$	$2^m 32^s$	$2^m 33^s$	$2^m 35^s$	$2^m 36^s$	$2^m 37^s$	$2^m 39^s$	$2^m 40^s$	$2^m 41^s$	$2^m 43^s$	$2^m 44^s$	$2^m 45^s$	$2^m 47^s$
41	$2^m 30^s$	$2^m 32^s$	$2^m 33^s$	$2^m 34^s$	$2^m 36^s$	$2^m 37^s$	$2^m 39^s$	$2^m 40^s$	$2^m 41^s$	$2^m 43^s$	$2^m 44^s$	$2^m 45^s$	$2^m 47^s$	$2^m 48^s$	$2^m 49^s$	$2^m 51^s$
42	$2^m 34^s$	$2^m 35^s$	$2^m 37^s$	$2^m 38^s$	$2^m 40^s$	$2^m 41^s$	$2^m 42^s$	$2^m 44^s$	$2^m 45^s$	$2^m 47^s$	$2^m 48^s$	$2^m 49^s$	$2^m 51^s$	$2^m 52^s$	$2^m 54^s$	$2^m 55^s$
43	$2^m 38^s$	$2^m 39^s$	$2^m 41^s$	$2^m 42^s$	$2^m 43^s$	$2^m 45^s$	$2^m 46^s$	$2^m 48^s$	$2^m 49^s$	$2^m 51^s$	$2^m 52^s$	$2^m 53^s$	$2^m 55^s$	$2^m 56^s$	$2^m 58^s$	$2^m 59^s$
44	$2^m 41^s$	$2^m 43^s$	$2^m 44^s$	$2^m 46^s$	$2^m 47^s$	$2^m 49^s$	$2^m 50^s$	$2^m 52^s$	$2^m 53^s$	$2^m 55^s$	$2^m 56^s$	$2^m 57^s$	$2^m 59^s$	$3^m 0^s$	$3^m 2^s$	$3^m 3^s$
45	$2^m 45^s$	$2^m 46^s$	$2^m 48^s$	$2^m 49^s$	$2^m 51^s$	$2^m 52^s$	$2^m 54^s$	$2^m 55^s$	$2^m 57^s$	$2^m 58^s$	$3^m 0^s$	$3^m 1^s$	$3^m 3^s$	$3^m 4^s$	$3^m 6^s$	$3^m 7^s$
46	$2^m 49^s$	$2^m 50^s$	$2^m 52^s$	$2^m 53^s$	$2^m 55^s$	$2^m 56^s$	$2^m 58^s$	$2^m 59^s$	$3^m 1^s$	$3^m 2^s$	$3^m 4^s$	$3^m 6^s$	$3^m 7^s$	$3^m 9^s$	$3^m 10^s$	$3^m 12^s$
47	$2^m 52^s$	$2^m 54^s$	$2^m 56^s$	$2^m 57^s$	$2^m 59^s$	$3^m 0^s$	$3^m 2^s$	$3^m 3^s$	$3^m 5^s$	$3^m 6^s$	$3^m 8^s$	$3^m 10^s$	$3^m 11^s$	$3^m 13^s$	$3^m 14^s$	$3^m 16^s$
48	$2^m 56^s$	$2^m 58^s$	$2^m 59^s$	$3^m 1^s$	$3^m 2^s$	$3^m 4^s$	$3^m 6^s$	$2^m 7^s$ [recte: $3^m 7^s$]	$3^m 9^s$	$3^m 10^s$	$3^m 12^s$	$3^m 14^s$	$3^m 15^s$	$3^m 17^s$	$3^m 18^s$	$3^m 20^s$
49	$3^m 0^s$	$3^m 1^s$	$3^m 3^s$	$3^m 5^s$	$3^m 6^s$	$3^m 8^s$	$3^m 9^s$	$3^m 11^s$	$3^m 13^s$	$3^m 14^s$	$3^m 16^s$	$3^m 18^s$	$3^m 19^s$	$3^m 21^s$	$3^m 23^s$	$3^m 24^s$
50	$3^m 3^s$	$3^m 5^s$	$3^m 7^s$	$3^m 8^s$	$3^m 10^s$	$3^m 12^s$	$3^m 13^s$	$3^m 15^s$	$3^m 17^s$	$3^m 18^s$	$3^m 20^s$	$3^m 22^s$	$3^m 23^s$	$3^m 25^s$	$3^m 27^s$	$3^m 28^s$
51	$3^m 7^s$	$3^m 9^s$	$3^m 10^s$	$3^m 12^s$	$3^m 14^s$	$3^m 15^s$	$3^m 17^s$	$3^m 19^s$	$3^m 21^s$	$3^m 22^s$	$3^m 24^s$	$3^m 26^s$	$3^m 27^s$	$3^m 29^s$	$3^m 31^s$	$3^m 32^s$
52	$3^m 11^s$	$3^m 12^s$	$3^m 14^s$	$3^m 16^s$	$3^m 18^s$	$3^m 19^s$	$3^m 21^s$	$3^m 23^s$	$3^m 25^s$	$3^m 26^s$	$3^m 28^s$	$3^m 30^s$	$3^m 31^s$	$3^m 33^s$	$3^m 35^s$	$3^m 37^s$
53	$3^m 14^s$	$3^m 16^s$	$3^m 18^s$	$2^m 20^s$ [recte: $3^m 20^s$]	$3^m 21^s$	$3^m 23^s$	$3^m 25^s$	$3^m 27^s$	$3^m 28^s$	$3^m 30^s$	$3^m 32^s$	$3^m 34^s$	$3^m 36^s$	$3^m 37^s$	$3^m 39^s$	$3^m 41^s$
54	$3^m 18^s$	$3^m 20^s$	$3^m 22^s$	$3^m 23^s$	$3^m 25^s$	$3^m 27^s$	$3^m 29^s$	$3^m 31^s$	$3^m 32^s$	$3^m 34^s$	$3^m 36^s$	$3^m 38^s$	$3^m 40^s$	$3^m 41^s$	$3^m 43^s$	$3^m 45^s$
55	$3^m 22^s$	$3^m 23^s$	$3^m 25^s$	$3^m 27^s$	$3^m 29^s$	$3^m 31^s$	$3^m 33^s$	$3^m 34^s$	$3^m 36^s$	$3^m 38^s$	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 45^s$	$3^m 47^s$	$3^m 49^s$
56	$3^m 25^s$	$3^m 27^s$	$3^m 29^s$	$3^m 31^s$	$3^m 33^s$	$3^m 35^s$	$3^m 37^s$	$2^m 38^s$ [recte: $3^m 38^s$]	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 51^s$	$3^m 53^s$
57	$3^m 29^s$	$3^m 31^s$	$3^m 33^s$	$3^m 35^s$	$3^m 27^s$ [recte: $3^m 37^s$]	$3^m 38^s$	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 52^s$	$3^m 54^s$	$3^m 56^s$	$3^m 57^s$
58	$3^m 35^s$	$3^m 35^s$	$3^m 37^s$	$3^m 38^s$	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 52^s$	$3^m 54^s$	$3^m 56^s$	$3^m 58^s$	$4^m 0^s$	$4^m 2^s$
59	$3^m 36^s$	$3^m 38^s$	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 52^s$	$3^m 54^s$	$3^m 56^s$	$3^m 58^s$	$4^m 0^s$	$4^m 2^s$	$4^m 4^s$	$4^m 6^s$
60	$3^m 40^s$	$3^m 42^s$	$3^m 44^s$	$3^m 46^s$	$3^m 48^s$	$3^m 50^s$	$3^m 52^s$	$3^m 54^s$	$3^m 56^s$	$3^m 58^s$	$4^m 0^s$	$4^m 2^s$	$4^m 4^s$	$4^m 6^s$	$4^m 8^s$	$4^m 10^s$

For example: in our own case, which has a latitude of 51°, I consult the table of houses computed for latitude 51°. And since ⊙ is in 12° 42′ ♉, I look first under the sign ♉ at 12°, to which there answers a time elapsed from noon of $2^h 38^m 10^s$. This time I compare with the next, $2^h 42^m 7^s$, and the difference set beside them, $3^m 57^s$, I dispose in a proportion in this way:

1 degree gives $3^m 57^s$; what will 42 *sec.* give?

And by the operation so set up there is gathered a proportional part to be added of $2^m 46^s$ — the same value that is also drawn out of the proportional table, under the difference of time from noon $3^m 57^s$ and 42 scruples of the Sun. Hence the time exactly agreeing with the Sun's place is $2^h 40^m 56^s$. Next, to this time I add

Tabula proportionalis inserviens — Proportional table serving[71]

Difference of time from noon.

[71] the title is not completed on this page

Scrup. ☉	$4^m\ 12^s$	$4^m\ 14^s$	$4^m\ 16^s$	$4^m\ 18^s$	$4^m\ 20^s$	$4^m\ 22^s$
1	$0^m\ 4^s$	$0^m\ 4^s$	$0^m\ 4^s$	$0^m\ 4^s$	$0^m\ 4^s$	$0^m\ 4^s$
2	$0^m\ 8^s$	$0^m\ 8^s$	$0^m\ 9^s$	$0^m\ 9^s$	$0^m\ 9^s$	$0^m\ 9^s$
3	$0^m\ 13^s$	$0^m\ 13^s$	$0^m\ 13^s$	$0^m\ 13^s$	$0^m\ 13^s$	$0^m\ 13^s$
4	$0^m\ 17^s$	$0^m\ 17^s$	$0^m\ 17^s$	$0^m\ 17^s$	$0^m\ 17^s$	$0^m\ 17^s$
5	$0^m\ 21^s$	$0^m\ 21^s$	$0^m\ 21^s$	$0^m\ 21^s$	$0^m\ 22^s$	$0^m\ 22^s$
6	$0^m\ 25^s$	$0^m\ 25^s$	$0^m\ 26^s$	$0^m\ 26^s$	$0^m\ 26^s$	$0^m\ 26^s$
7	$0^m\ 29^s$	$0^m\ 30^s$	$0^m\ 30^s$	$0^m\ 30^s$	$0^m\ 30^s$	$0^m\ 31^s$
8	$0^m\ 34^s$	$0^m\ 34^s$	$0^m\ 34^s$	$0^m\ 34^s$	$0^m\ 35^s$	$0^m\ 35^s$
9	$0^m\ 38^s$	$0^m\ 38^s$	$0^m\ 38^s$	$0^m\ 39^s$	$0^m\ 39^s$	$0^m\ 39^s$
10	$0^m\ 42^s$	$0^m\ 42^s$	$0^m\ 43^s$	$0^m\ 43^s$	$0^m\ 43^s$	$0^m\ 44^s$
11	$0^m\ 46^s$	$0^m\ 47^s$	$0^m\ 47^s$	$0^m\ 47^s$	$0^m\ 48^s$	$0^m\ 48^s$
12	$0^m\ 50^s$	$0^m\ 51^s$	$0^m\ 51^s$	$0^m\ 52^s$	$0^m\ 52^s$	$0^m\ 52^s$
13	$0^m\ 55^s$	$0^m\ 55^s$	$0^m\ 55^s$	$0^m\ 56^s$	$0^m\ 56^s$	$0^m\ 57^s$
14	$0^m\ 59^s$	$0^m\ 59^s$	$1^m\ 0^s$	$1^m\ 0^s$	$1^m\ 1^s$	$1^m\ 1^s$
15	$1^m\ 3^s$	$1^m\ 4^s$	$1^m\ 4^s$	$1^m\ 5^s$	$1^m\ 5^s$	$1^m\ 6^s$
16	$1^m\ 7^s$	$1^m\ 8^s$	$1^m\ 8^s$	$1^m\ 9^s$	$1^m\ 9^s$	$1^m\ 10^s$
17	$1^m\ 11^s$	$1^m\ 12^s$	$1^m\ 13^s$	$1^m\ 13^s$	$1^m\ 14^s$	$1^m\ 14^s$
18	$1^m\ 16^s$	$1^m\ 16^s$	$1^m\ 17^s$	$1^m\ 17^s$	$1^m\ 18^s$	$1^m\ 19^s$
19	$1^m\ 20^s$	$1^m\ 20^s$	$1^m\ 21^s$	$1^m\ 22^s$	$1^m\ 22^s$	$1^m\ 23^s$
20	$1^m\ 24^s$	$1^m\ 25^s$	$1^m\ 25^s$	$1^m\ 26^s$	$1^m\ 27^s$	$1^m\ 27^s$
21	$1^m\ 28^s$	$1^m\ 29^s$	$1^m\ 30^s$	$1^m\ 30^s$	$1^m\ 31^s$	$1^m\ 32^s$
22	$1^m\ 32^s$	$1^m\ 33^s$	$1^m\ 34^s$	$1^m\ 35^s$	$1^m\ 35^s$	$1^m\ 36^s$
23	$1^m\ 37^s$	$1^m\ 37^s$	$1^m\ 38^s$	$1^m\ 39^s$	$1^m\ 40^s$	$1^m\ 40^s$
24	$1^m\ 41^s$	$1^m\ 42^s$	$1^m\ 42^s$	$1^m\ 43^s$	$1^m\ 44^s$	$1^m\ 45^s$
25	$1^m\ 45^s$	$1^m\ 46^s$	$1^m\ 47^s$	$1^m\ 47^s$	$1^m\ 48^s$	$1^m\ 49^s$
26	$1^m\ 49^s$	$1^m\ 50^s$	$1^m\ 51^s$	$1^m\ 52^s$	$1^m\ 53^s$	$1^m\ 54^s$
27	$1^m\ 53^s$	$1^m\ 54^s$	$1^m\ 55^s$	$1^m\ 56^s$	$1^m\ 57^s$	$1^m\ 58^s$
28	$1^m\ 58^s$	$1^m\ 59^s$	$1^m\ 59^s$	$2^m\ 0^s$	$2^m\ 1^s$	$2^m\ 2^s$
29	$2^m\ 2^s$	$2^m\ 3^s$	$2^m\ 4^s$	$2^m\ 5^s$	$2^m\ 6^s$	$2^m\ 7^s$
30	$2^m\ 6^s$	$2^m\ 7^s$	$2^m\ 8^s$	$2^m\ 9^s$	$2^m\ 10^s$	$2^m\ 11^s$

Scrup. ☉	$4^m\ 12^s$	$4^m\ 14^s$	$4^m\ 16^s$	$4^m\ 18^s$	$4^m\ 20^s$	$4^m\ 22^s$
31	$2^m\ 10^s$	$2^m\ 11^s$	$2^m\ 12^s$	$2^m\ 13^s$	$2^m\ 14^s$	$2^m\ 15^s$
32	$2^m\ 14^s$	$2^m\ 15^s$	$2^m\ 17^s$	$2^m\ 18^s$	$2^m\ 19^s$	$2^m\ 20^s$
33	$2^m\ 19^s$	$2^m\ 20^s$	$2^m\ 21^s$	$2^m\ 22^s$	$2^m\ 23^s$	$2^m\ 24^s$
34	$2^m\ 23^s$	$2^m\ 24^s$	$2^m\ 25^s$	$2^m\ 26^s$	$2^m\ 27^s$	$2^m\ 28^s$
35	$2^m\ 27^s$	$2^m\ 28^s$	$2^m\ 29^s$	$2^m\ 30^s$	$2^m\ 32^s$	$2^m\ 33^s$
36	$2^m\ 31^s$	$2^m\ 32^s$	$2^m\ 34^s$	$2^m\ 35^s$	$2^m\ 36^s$	$2^m\ 37^s$
37	$2^m\ 35^s$	$2^m\ 37^s$	$2^m\ 38^s$	$2^m\ 39^s$	$2^m\ 40^s$	$2^m\ 42^s$
38	$2^m\ 40^s$	$2^m\ 41^s$	$2^m\ 42^s$	$2^m\ 43^s$	$2^m\ 45^s$	$2^m\ 46^s$
39	$2^m\ 44^s$	$2^m\ 45^s$	$2^m\ 46^s$	$2^m\ 48^s$	$2^m\ 49^s$	$2^m\ 50^s$
40	$2^m\ 48^s$	$2^m\ 49^s$	$2^m\ 51^s$	$2^m\ 52^s$	$2^m\ 53^s$	$2^m\ 55^s$
41	$2^m\ 52^s$	$2^m\ 54^s$	$2^m\ 55^s$	$2^m\ 56^s$	$2^m\ 58^s$	$2^m\ 59^s$
42	$2^m\ 56^s$	$2^m\ 58^s$	$2^m\ 59^s$	$3^m\ 1^s$	$3^m\ 2^s$	$3^m\ 3^s$
43	$3^m\ 1^s$	$3^m\ 2^s$	$3^m\ 3^s$	$3^m\ 5^s$	$3^m\ 6^s$	$3^m\ 8^s$
44	$3^m\ 5^s$	$3^m\ 6^s$	$3^m\ 8^s$	$3^m\ 9^s$	$3^m\ 11^s$	$3^m\ 12^s$
45	$3^m\ 9^s$	$3^m\ 11^s$	$3^m\ 12^s$	$3^m\ 13^s$	$3^m\ 15^s$	$3^m\ 17^s$

Scrup. ☉	$4^m\ 12^s$	$4^m\ 14^s$	$4^m\ 16^s$	$4^m\ 18^s$	$4^m\ 20^s$	$4^m\ 22^s$
46	$3^m\ 13^s$	$3^m\ 15^s$	$3^m\ 16^s$	$3^m\ 18^s$	$3^m\ 19^s$	$3^m\ 21^s$
47	$3^m\ 17^s$	$3^m\ 19^s$	$3^m\ 21^s$	$2^m\ 22^s$ [recte: $3^m\ 22^s$]	$3^m\ 24^s$	$3^m\ 25^s$
48	$3^m\ 22^s$	$3^m\ 23^s$	$3^m\ 25^s$	$3^m\ 26^s$	$3^m\ 28^s$	$3^m\ 30^s$
49	$3^m\ 26^s$	$3^m\ 27^s$	$3^m\ 29^s$	$3^m\ 31^s$	$3^m\ 32^s$	$3^m\ 34^s$
50	$3^m\ 30^s$	$3^m\ 32^s$	$3^m\ 33^s$	$3^m\ 35^s$	$3^m\ 37^s$	$3^m\ 38^s$
51	$3^m\ 34^s$	$3^m\ 36^s$	$3^m\ 38^s$	$3^m\ 39^s$	$3^m\ 41^s$	$3^m\ 43^s$
52	$3^m\ 38^s$	$3^m\ 40^s$	$3^m\ 42^s$	$3^m\ 44^s$	$3^m\ 45^s$	$3^m\ 47^s$
53	$3^m\ 43^s$	$3^m\ 44^s$	$3^m\ 46^s$	$3^m\ 48^s$	$3^m\ 50^s$	$3^m\ 51^s$
54	$3^m\ 47^s$	$3^m\ 49^s$	$3^m\ 50^s$	$3^m\ 52^s$	$3^m\ 54^s$	$3^m\ 56^s$
55	$3^m\ 51^s$	$3^m\ 53^s$	$3^m\ 55^s$	$3^m\ 56^s$	$3^m\ 58^s$	$4^m\ 0^s$
56	$3^m\ 55^s$	$3^m\ 57^s$	$3^m\ 59^s$	$4^m\ 1^s$	$4^m\ 3^s$	$4^m\ 5^s$
57	$3^m\ 59^s$	$4^m\ 1^s$	$4^m\ 3^s$	$4^m\ 5^s$	$4^m\ 7^s$	$4^m\ 9^s$
58	$4^m\ 4^s$	$4^m\ 6^s$	$4^m\ 7^s$	$4^m\ 9^s$	$4^m\ 11^s$	$4^m\ 13^s$
59	$4^m\ 8^s$	$4^m\ 10^s$	$4^m\ 12^s$	$4^m\ 14^s$	$4^m\ 16^s$	$4^m\ 18^s$
60	$4^m\ 12^s$	$4^m\ 14^s$	$4^m\ 16^s$	$4^m\ 18^s$	$4^m\ 20^s$	$4^m\ 22^s$

—the astronomical time elapsed since noon, not yet equated or reduced, which was $17^h\ 48^m\ 25^s$. And there emerges the time that will show both the Heart of Heaven and the ascending degree: $20^h\ 29^m\ 24^s$. Third, I carry this time again into the same table of houses, and there is gathered from the table the Heart of Heaven agreeing with $20^h\ 25^m\ 22^s$: 4° ♒. But since $4^m\ 2^s$ are still lacking, to these, under the difference $4^m\ 6^s$, there correspond 59′, to be joined to the 4° ♒, so that the corrected Heart of Heaven is 4° 59′ ♒. The horoscope, however, is 7° 29′ ♊, with a difference to the following number of 1° 17′; from this, for the 59′ that attach to the 4 degrees of the Heart of Heaven, there answers from the following table 1° 16′, so that the corrected horoscope is 8° 45′ ♊. Hence, just as this sign, with the degrees and minutes found, is rightly laid out in the first…

—house, so into the second house goes the sign ♋; into the third, the sign ♌; into the fourth, ♍; and so, in consequence, the following signs are placed in the following houses, the same degrees and minutes being set beside them. And the figure has been erected as far as the position of the outermost heaven [extremum cœlum] is concerned; we display its face here for everyone to consider, and we have also inserted the planets into it — concerning that insertion, however, we shall give notice afterwards, once the five modes proposed in order have first been explained.

Diagram. A square horoscope figure: an outer square, an inner square at its centre, lines from each outer corner to the facing inner corner, and lines from the midpoint of each outer side to the two nearest inner corners, dividing the field into twelve compartments round the central square. The central square carries the title. Each compartment carries its labels set obliquely along its lines. Labels as printed, by compartment (positions described on the page as seen):

- Centre: *Thema primi modi / Nati Anno 1554 / Die April. 23 / Hor. 17, 48′, 25″, T A / 17, 38′, 20″, T Æ / Ferrariæ in Turingia / Cor cœli 4 grad. 59′ /* ♒

— "Figure of the first mode. Born in the year 1554, on April 23, at $17^h\ 48^m\ 25^s$ apparent time [T A], $17^h\ 38^m\ 20^s$ equated time [T Æ], at Ferrariæ in Turingia. Heart of Heaven 4° 59′ ♒."

- Left triangle (on the left side of the central square): ♊ 8 45; *Hum. dext. Orio.* 22 58 — the right shoulder of Orion, 22 58.
- Left-hand compartment above it (upper-left corner, lower part): ☉ ♉ 8 45 12 42; ☿ 0 13.
- Upper compartment of the upper-left corner: ♀ 6 10; ♂ 27 12; ♈ 8 45.
- Top triangle (above the central square): ♄ ♓ 8 25 45 30.
- Upper compartment of the upper-right corner: ⊗ 2 25; ♒ 8 45.
- Right-hand compartment of the upper-right corner: 6 22; ☽; ♃; ♅; 14 39; 8 45.
- Right triangle (on the right side of the central square): ♐ 8 45.
- Right-hand compartment of the lower-right corner: ♏ 8 45.
- Lower compartment of the lower-right corner: ♎ 8 45; *Spica* ♍ 17 38.
- Bottom triangle (below the central square): ♃ 25 57 ♍; ♍ 8 45.
- Lower compartment of the lower-left corner: ♌ 8 45; *Cor* ♌ 2[numeral: ?] 20 — the Heart of the Lion.
- Left-hand compartment of the lower-left corner: ♋ ☊ 8 45 14 39.

The proportional tables that follow we have added for this purpose: so that from them anyone may seek the proportional part without any trouble of calculation. Since there is empty space, we shall also say a little more fully about them. [Margin: Use and foundation of the proportional tables.] The tables have been composed for a great many differences — those that arise in the tables of houses from comparing the two nearest numbers in which are found the degrees and minutes which, in the remaining houses and chiefly in the horoscope, correspond both to the time from noon and to the degrees of the ecliptic of the tenth house, or mid-heaven — namely from a difference of 32 min. to a difference of 2° 50 min., as appears from the head of the tables. Should anyone wish to extend them to still smaller or even larger differences, he will be able to do so very easily. For the method observed in all the differences, and which ought to be observed, is this: whether the numbers be smaller or larger, those numbers are compared part by part with the 60 minutes by which one degree in the tenth house is completed. For example, in the table of houses constructed for the right sphere, to the time from noon of $0^h\ 11^m\ 0^s$, or under the 10th house 3 degrees of ♈, there correspond in the horoscope 2° 32′.

Tabula proportionalis inſerviens æquationi horoſcopi — Proportional table serving for the equation of the horoscope.

Difference corresponding to one degree of the M. C. in the remaining houses.

Scrup.																			65′ [recte:							
gr.	32′	34′	36′	38′	40′	42′	44′	46′	48′	50′	52′	54′	56′	58′	60′	62′	64′	66′]	68′	70′	72′	74′	76′	78′	80′
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Scrup. gr.	32′	34′	36′	38′	40′	42′	44′	46′	48′	50′	52′	54′	56′	58′	60′	62′	64′	65′ [recte: 66′]	68′	70′	72′	74′	76′	78′	80′
2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4
4	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5
5	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7
6	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7	8	8	8
7	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	7	8	8	8	8	9	9	9	9
8	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	9	9	9	9	10	10	10	10	11
9	5	5	5	6	6	6	7	7	7	7	8	8	8	9	9	9	10	10	10	10	11	11	11	12	12
10	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10	10	11	11	11	12	12	12	13	13	13
11	6	6	7	7	7	8	8	8	9	9	10	10	10	11	11	11	12	12	12	13	13	14	14	14	15
12	6	7	7	8	8	8	9	9	10	10	10	11	11	12	12	12	13	13	14	14	14	15	15	16	16
13	7	7	8	8	9	9	10	10	10	11	11	12	12	13	13	13	14	14	15	15	16	16	16	17	17
14	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	14	15	15	16	16	17	17	18	18	19
15	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	19	20
16	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	18	19	19	20	20	21	21
17	9	10	10	11	11	12	12	13	14	14	15	15	16	16	17	18	18	19	19	20	20	21	22	22	23
18	10	10	11	11	12	13	13	14	14	15	16	16	17	17	18	19	19	20	20	21	22	22	23	23	24
19	10	11	11	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	22	22	23	23	24	25	25
20	11	11	12	13	13	14	15	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27
21	11	12	13	13	14	15	15	16	17	17	18	19	20	20	21	22	22	23	24	24	25	26	27	27	28
22	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	23	24	25	26	26	27	28	29	29
23	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23	24	25	25	26	27	28	28	29	30	31
24	13	14	14	15	16	17	18	18	19	20	21	22	22	23	24	25	26	27	27	28	29	30	30	31	32
25	13	14	15	16	17	17	18	19	20	21	22	23	23	24	25	26	27	28	28	29	30	31	32	32	33
26	14	15	16	16	17	18	19	20	21	22	23	23	24	25	26	27	28	29	29	30	31	32	33	24 [recte: 34]	35
27	14	15	16	17	18	19	20	21	22	22	23	24	25	26	27	28	29	30	31	31	32	33	34	35	36
28	15	16	17	18	19	20	21	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	35	36	37
29	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
30	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

But to the time of $0^h\ 14^m\ 40^s$ from noon, or under the 10th house 4 degrees of ♈, there correspond in the horoscope 2° 22′[72]. The difference between these numbers of the horoscope is 50 min. To this difference corresponds the series of numbers found under the title 50. For 6 sixtieths are set against the tenth part, or 5′; 12 sixtieths against the fifth part, or 10′; 30 sixtieths against the half, or 25′; and so on. Hence, given the beginning of the tenth house, if some minutes are attached to its degrees, one first seeks what corresponds to the degrees in the horoscope.

Afterwards, on account of the minutes attached to the degrees of the tenth house, the number found in degrees and minutes is compared

& illarum domorum, quarum grad. etiam min. adhærent. — …and of those houses to whose degrees minutes are also attached.

[72]another copy of this printing (BSB 10501686) reads 3° 22′

Difference corresponding to one degree of the M. C. in the remaining houses.

Scrup. gr.	32′	34′	36′	38′	40′	42′	44′	46′	48′	50′	52′	54′	56′	58′	60′	62′	64′	65′ [recte: 66′]	68′	70′	72′	74′	76′	78′	80′
31	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
32	17	18	19	20	21	22	23	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	41	42	43
33	18	19	20	21	22	23	24	25	26	27	29	30	31	32	33	34	35	36	37	38	40	41	42	43	44
34	18	19	20	22	23	24	25	26	27	28	29	31	32	33	34	35	36	37	39	40	41	42	43	44	45
35	19	20	21	22	23	24	26	27	28	29	30	31	33	34	35	36	37	38	40	41	42	43	44	45	47
36	19	20	22	23	24	25	26	28	29	30	31	32	34	35	36	37	38	40	41	42	43	44	46	47	48
37	20	21	22	23	25	26	27	28	30	31	32	33	35	36	37	38	39	41	42	43	44	46	47	48	49
38	20	22	23	24	25	27	28	29	30	32	33	34	35	37	38	39	41	42	43	44	46	47	48	49	51
39	21	22	23	25	26	27	29	30	31	32	34	35	3[numeral: ?]	38	39	40	42	43	44	45	47	48	49	51	52
40	21	23	24	25	27	28	29	31	32	33	35	36	37	39	40	41	43	44	45	47	48	49	51	52	53
41	22	23	25	26	27	29	30	31	33	34	36	37	38	40	41	42	44	45	46	48	49	51	52	53	55
42	22	24	25	27	28	29	31	32	34	35	36	38	39	41	42	43	45	46	48	49	50	52	53	55	56
43	23	24	26	27	29	30	32	33	34	36	37	39	40	42	43	44	46	47	49	50	52	53	54	56	57
44	23	25	26	28	29	31	32	34	35	37	38	40	41	43	44	45	47	48	50	51	53	54	56	57	59
45	24	25	27	28	30	31	33	34	36	37	39	40	42	43	45	46	48	50	51	52	54	55	57	58	60
46	25	26	28	29	31	32	34	35	37	38	40	41	43	44	46	48	49	51	52	54	55	57	58	60	61
47	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	49	50	52	53	55	56	58	60	61	63
48	26	27	29	30	32	34	35	37	38	40	42	43	45	46	48	50	51	53	54	56	58	59	61	62	64
49	26	28	29	31	33	34	36	38	39	41	42	44	46	47	49	51	52	54	56	57	59	60	62	64	65
50	27	28	30	32	33	35	37	38	40	42	43	45	47	48	50	52	53	55	57	58	60	62	63	65	67
51	27	29	31	32	34	36	37	39	41	42	44	46	48	49	51	53	54	56	58	59	61	63	65	66	68
52	28	29	31	33	35	36	38	40	42	43	45	47	49	50	52	54	55	57	59	61	62	64	66	68	69
53	28	30	32	34	35	37	39	41	42	44	46	48	49	51	53	55	57	58	60	62	64	65	67	69	71
54	29	31	32	34	36	38	40	41	43	45	47	49	[numeral: ?]o	52	54	56	58	60	61	63	65	67	68	70	72
55	29	31	33	35	37	38	40	42	44	46	48	50	51	53	55	57	59	61	62	64	66	68	70	71	73
56	30	32	34	35	37	39	41	43	45	47	49	50	52	54	56	58	60	62	63	65	67	69	71	73	75
57	30	32	34	36	38	40	42	44	45	47	49	51	53	55	57	59	61	63	65	66	68	70	72	74	76
58	31	33	35	37	39	41	43	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	73	75	77
59	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79
60	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80

—with the following number; and with the difference that results, this proportional table is consulted: one looks for that difference at the head of the table, and for the minutes attached to the tenth house by descending along the left side of the table. The common angle [angulus communis] then shows the proportional part, which is always to be joined to the degrees and minutes found a little before, so that the most exact possible beginning of the ascendant [horoscopus], or of any other house that has minutes, may result. For in most tables, except a single one…

Tabula proportionalis inſerviens æquationi horoſcopi, & illarum — Proportional table serving for the equation of the horoscope, and of those…

Difference corresponding to one degree of the M. C. in the remaining houses.

Scrup. Gr.	82′	84′	86′	88′	90′	92′	94′	96′	98′	100′	102′	104′	106′	108′	110′	112′	114′	116′	118′	120′	122′	124′	126′	128′	130′
1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	[numeral: ?]
2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
3	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
4	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9
5	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	10	11	11
6	8	8	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	13	13	13
7	10	10	10	10	10	11	11	11	12	12	12	12	12	13	13	13	13	14	14	14	14	14	15	15	15
8	11	11	11	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	17	17	17	17
9	12	13	13	13	13	14	14	14	15	15	15	16	16	16	16	17	17	17	18	18	18	19	19	19	19
10	14	14	14	15	15	15	16	16	16	17	17	17	18	18	18	19	19	19	20	20	20	21	21	21	22
11	15	15	16	16	16	17	17	18	18	18	19	19	20	20	20	21	21	21	22	22	22	23	23	23	24
12	16	17	17	18	18	18	19	19	20	20	20	21	21	22	22	22	23	23	24	24	24	25	25	26	26
13	18	18	19	19	19	20	20	21	21	22	22	23	23	23	24	24	25	25	26	26	26	27	27	28	28
14	19	20	20	21	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	28	29	29	30	30
15	20	21	21	22	22	23	23	24	25	25	25	26	26	27	27	28	28	29	29	30	30	31	31	32	32
16	22	22	23	23	24	25	25	26	26	27	27	28	28	29	29	30	30	31	31	32	33	33	34	34	35
17	23	24	24	25	25	26	27	27	28	28	29	29	30	30	31	32	32	33	33	34	35	35	36	36	37
18	25	2[numeral: ?]	26	26	27	28	28	29	30	30	31	31	32	32	33	34	34	35	35	36	37	37	38	38	39
19	26	27	27	28	28	29	30	30	31	32	32	33	34	34	35	35	36	37	37	38	39	39	40	41	41
20	27	28	29	29	30	31	31	32	33	33	34	35	35	36	37	37	38	39	39	40	41	41	42	43	4[numeral: ?]
21	29	29	30	31	31	32	33	34	34	35	36	36	37	38	38	39	40	41	41	42	43	43	44	45	45
22	30	31	32	32	33	34	34	35	36	37	37	38	39	40	40	41	42	43	43	44	45	45	46	47	48
23	31	32	33	34	34	35	36	37	38	38	39	40	41	41	42	43	44	44	45	46	47	48	48	49	50
24	33	34	34	35	36	37	38	38	39	40	41	42	42	43	44	45	46	46	47	48	49	50	50	51	52
25	34	35	36	37	37	38	39	40	41	42	42	43	44	45	46	47	48	48	49	50	51	52	52	53	54
26	36	36	37	38	39	40	41	42	43	43	44	45	46	47	48	49	49	50	51	52	53	54	55	55	56
27	37	38	39	40	40	41	42	43	44	45	46	47	48	48	49	50	51	52	53	54	55	56	57	58	58
28	38	39	40	41	42	43	44	45	46	47	48	49	50	50	51	52	53	54	55	56	57	5[numeral: ?]	59	60	61
29	40	41	42	43	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
30	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65

—the one for our Frankfurt horizon, the beginnings of the 11th, 12th, 2nd and 3rd houses are computed approximately [platice], and do not correspond to the lateral time [tempori laterali] so exactly as [those of] the 10th, or even of the 1st house. For this reason their beginnings can be taken out just as they

are noted, without other correction, and entered in the figure — since it is chiefly over these houses, too, that there is controversy among the authors of the various modes.

domorum, quarum grad. etiam min. adhærent. — …houses to whose degrees minutes are also attached.

Difference corresponding to one degree of the M. C. in the remaining houses.

Scrup. gr.	82′	84′	86′	88′	90′	92′	94′	96′	98′	100′	102′	104′	106′	108′	110′	112′	114′	116′	118′	120′	122′	124′	126′	128′	130′
31	42	43	44	45	46	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
32	44	45	46	47	48	49	50	51	52	53	54	55	57	58	59	60	61	62	63	64	65	66	67	68	69
33	45	46	47	48	49	51	52	53	54	55	56	57	58	59	60	62	63	64	65	66	67	68	69	70	71
34	46	48	49	50	51	52	53	54	56	57	58	59	60	61	62	63	65	66	67	68	69	70	71	73	74
35	48	49	50	51	52	54	55	56	57	58	59	61	62	63	64	65	66	68	69	70	71	72	73	75	76
36	49	50	52	53	54	55	56	58	59	60	61	62	64	65	66	67	68	70	71	72	73	74	76	77	78
37	51	52	53	54	55	57	58	59	61	62	63	64	65	67	68	69	70	72	73	74	75	76	78	79	80
38	52	53	54	56	57	58	60	61	62	63	65	66	67	68	70	71	72	73	75	76	77	79	80	81	82
39	53	55	56	57	58	60	61	62	64	65	66	68	69	70	71	73	74	75	77	78	79	81	82	83	84
40	55	56	57	59	60	61	63	64	65	67	68	69	71	72	73	75	76	77	79	80	81	83	84	85	87
41	56	57	59	60	61	63	64	66	67	68	70	71	73	74	75	77	78	79	81	82	83	85	86	87	89
42	57	59	60	62	63	64	66	67	69	70	71	73	74	76	77	78	80	81	83	84	85	87	88	90	91
43	59	60	62	63	64	66	67	69	70	72	73	75	76	77	79	80	82	83	85	86	87	89	90	92	93
44	60	62	63	65	66	67	69	70	72	73	75	76	78	79	81	82	84	85	87	88	90	91	92	94	95
45	61	63	64	66	67	69	70	72	74	75	76	78	79	81	82	84	85	87	89	90	91	93	94	96	97
46	63	64	66	67	69	71	72	74	75	77	78	80	81	83	84	86	87	89	90	92	94	95	97	98	100
47	64	66	67	69	70	72	74	75	77	78	80	81	83	84	86	88	89	91	92	94	96	97	99	100	102
48	66	67	69	70	72	74	75	77	79	80	82	83	85	86	88	90	91	93	94	96	98	99	101	102	104
49	67	69	70	72	73	75	77	78	80	82	83	85	87	88	90	91	93	95	96	98	100	101	103	105	106
50	68	70	72	73	75	77	78	80	82	83	85	87	88	90	92	93	95	97	98	100	102	103	105	107	108
51	70	71	73	75	76	78	80	82	83	85	87	88	90	92	93	95	97	99	100	102	104	105	107	109	110
52	71	73	75	76	78	80	81	83	85	87	88	90	92	94	95	97	99	101	102	104	106	107	109	111	113
53	72	74	76	78	79	81	83	85	87	88	90	92	94	9[nu-meral: ?]	97	99	101	102	104	106	108	110	111	113	115
54	74	76	77	79	81	83	85	86	88	90	92	94	95	97	99	101	103	104	106	108	110	112	113	115	117
55	75	77	79	81	82	84	86	88	90	92	93	95	97	99	101	103	105	106	108	110	112	114	115	117	119
56	77	78	80	82	84	86	88	90	92	93	95	97	99	101	103	105	106	108	110	112	114	116	118	119	121
57	78	80	82	84	85	87	89	91	93	95	97	99	101	102	104	106	108	110	112	114	116	118	120	122	123
58	79	81	83	85	87	89	91	93	95	97	98	101	103	104	106	108	110	112	114	116	118	120	122	124	126
59	81	83	85	87	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128
60	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128	130

For example, suppose that in the table of houses for the right sphere 19 minutes were attached to 3 degrees of ♈ for the beginning of the tenth house. Then, on account of the difference of 50 minutes found earlier, 60 [recte: 16] minutes would correspond to those minutes, under 50 minutes, in the common angle; and these, joined to the 2° 32′ that correspond to 3° ♈ of the tenth house,

give the most exact horoscope, 2° 48′ ♋. So where, in the right sphere, the Heart of Heaven occupies 3° 16′ ♈, there 2° 48′ ♋ holds the horoscope.

Tabula proport. inſerviens æquationi horoſc. & illarum — Proportional table serving the equation of the horoscope and of those…

Difference corresponding to one degree of the M. C. in the remaining houses

Scrup. Gr.	2° 12′	2° 14½°	16½°	18½°	20½°	22½°	24½°	26½°	28½°	30½°	32½°	34½°	36½°	38½°	40½°	42½°	44′	2° 46½°	48½°	50′
1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3		3	3	3
2	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5		6	6	6
3	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8		8	8	8
4	9	9	9	9	9	10	10	10	10	10	10	10	11	11	11	11		11	11	11
5	11	11	11	12	12	12	12	12	12	13	13	13	13	13	13	14		14	14	14
6	13	13	14	14	14	14	15	15	15	15	15	16	16	16	16	16		17	17	17
7	15	16	16	16	16	17	17	17	17	17	18	18	18	18	19	19	19	19	20	20
8	18	18	18	18	19	19	19	19	20	20	20	21	21	21	21	22	22	22	22	23
9	20	20	20	21	21	21	22	22	22	22	23	23	23	24	24	24	25	25	25	25
10	22	22	23	23	23	24	24	24	25	25	25	26	26	26	27	27	27	28	28	28
11	24	25	25	25	26	26	26	27	27	27	28	28	29	29	29	30	30	31	31	31
12	26	27	27	28	28	28	29	29	30	30	30	31	31	32	32	32	33	33	34	34
13	29	29	29	30	30	31	31	32	32	32	33	33	34	34	35	35	36	36	36	37
14	31	31	32	32	33	33	34	34	35	35	35	36	36	37	37	38	38	39	39	40
15	33	33	34	34	35	35	36	36	37	37	38	38	39	39	40	40	41	41	42	42
16	35	36	36	37	37	38	38	39	39	40	41	41	42	42	43	43	44	44	45	45
17	37	38	39	39	40	40	41	41	42	42	43	44	44	45	45	46	46	47	47	48
18	40	40	41	41	42	43	43	44	44	45	46	46	47	48	48	49	49	50	50	51
19	42	42	43	44	44	45	46	46	47	47	48	49	49	50	51	51	52	53	53	54
20	44	45	45	46	47	47	48	49	49	50	51	51	52	53	53	54	55	55	56	57
21	46	47	48	48	49	50	50	51	52	52	53	54	55	55	56	57	57	58	59	5[numeral: ?]
22	48	49	50	51	51	52	53	54	54	55	56	56	57	58	59	59	1° 0′	1° 1′	1° 2′	1° 2′
23	51	51	52	53	54	54	55	56	57	57	58	59	1° 0′	1° 1′	1° 1′	1° 2′	1° 3′	1° 4′	1° 4′	1° 5′
24	53	54	54	55	56	57	58	58	59	1° 0′	1° 1′	1° 2′	1° 2′	1° 3′	1° 4′	1° 5′	1° 6′ [recte 1° 6′]	1° 6′	1° 7′	1° [numeral: ?]′
25	55	56	57	57	58	59	1° 0′	1° 1′	1° 2′	1° 2′	1° 3′	1° 4′	1° 5′	1° 6′	1° 7′	1° 7′	1° [numeral: ?]′	1° 9′	1° 10′	1° 11′
26	57	58	59	1° 0′	1° 1′	1° 2′	1° 2′	1° 3′	1° 4′	1° 5′	1° 6′	1° 7′	1° 8′	1° 9′	1° 9′	1° 10′	1° 11′	1° 12′	1° 13′	1° 14′
27	59	1° 0′	1° 1′	1° 2′	1° 3′	1° 4′	1° 5′	1° 6′	1° 7′	1° 7′	1° 8′	1° 9′	1° 10′	1° 11′	1° 12′	1° 13′	1° 14′	1° 15′	1° 15′	1° 16′
28	1° 2′	1° 3′	1° 3′	1° 4′	1° 5′	1° 6′	1° 7′	1° 8′	1° 9′	1° 10′	1° 11′	1° 12′	1° 13′	1° 14′	1° 15′	1° 16′	1° 17′	1° 18′	1° 18′	1° 19′
29	1° 4′	1° 5′	1° 6′	1° 7′	1° 8′	1° 9′	1° 10′	1° 11′	1° 12′	1° 12′	1° 13′	1° 14′	1° 15′	1° 16′	1° 17′	1° 18′	1° 19′	1° 20′	1° 21′	1° 22′
30	1° [numeral: ?]′	1° 7′	1° 8′	1° 9′	1° 10′	1° 11′	1° 12′	1° 13′	1° 14′	1° 15′	1° 16′	1° 17′	1° 18′	1° 19′	1° 20′	1° 21′	1° 22′	1° 23′	1° 24′	1° 25′

Similarly, if in our obliquity of 52° 20′ the mid-heaven, that is the tenth house, were given as 8° 36′ ♉, and the horoscope were to be investigated as

exactly as possible, I would first see what corresponds in the horoscope to 8 degrees. There correspond 22° 17′ ♌, with a difference of 40 minutes. Then I would look up this difference at the head of the table and the 36 minutes on the left side; and since I find that the common angle offers 24′, I would join them to the former number, and the corrected horoscope would come out as 22° 41′ ♌. In our obliquity, therefore, when 8° 36′ ♉ culminates, there rises — that is, holds the horoscope — 22 degrees 41 minutes ♌.

domorum, quarum gradibus etiam minuta adhærent. — …houses to whose degrees minutes are also attached.

Difference corresponding to one degree of the M. C. in the remaining houses.

Scrup. gr.	2° 12′ 2° 14′ 2° 16′ 2° 18′ 2° 20′	2° 22′ 2° 24′ 2° 26′ 2° 28′	2° 30′ 2° 32′ 2° 34′ 2° 36′ 2° 38′ 2° 40′ 2° 42′ 2° 44′ 2° 46′ 2° 48′ 2° 50′
31	1° 8′ 1° 9′ 1° 10′ 1° 11′ 1° 12′	1° 13′ 1° 14′ 1° 15′ 1° 16′	1° 17′ 1° 19′ 1° 20′ 1° 21′ 1° 22′ 1° 23′ 1° 24′ 1° 25′ 1° 26′ 1° 27′ 1° 28′
32	1° 10′ 1° 11′ 1° 13′ 1° 14′ 1° 15′	1° 16′ 1° 17′ 1° 18′ 1° 19′	1° 20′ 1° 21′ 1° 22′ 1° 23′ 1° 24′ 1° 25′ 1° 26′ 1° 27′ 1° 29′ 1° 30′ 1° 31′
33	1° 13′ 1° 14′ 1° 15′ 1° 16′ 1° 17′	1° 18′ 1° 19′ 1° 20′ 1° 21′	1° 22′ 1° 24′ 1° 25′ 1° 26′ 1° 27′ 1° 28′ 1° 29′ 1° 30′ 1° 31′ 1° 32′ 1° 33′
34	1° 15′ 1° 16′ 1° 17′ 1° 18′ 1° 19′	1° 20′ 1° 22′ 1° 23′ 1° 24′	1° 25′ 1° 26′ 1° 27′ 1° 28′ 1° 30′ 1° 31′ 1° 32′ 1° 33′ 1° 34′ 1° 35′ 1° 36′
35	1° 17′ 1° 18′ 1° 19′ 1° 20′ 1° 22′	1° 23′ 1° 24′ 1° 25′ 1° 26′	1° 27′ 1° 29′ 1° 30′ 1° 31′ 1° 32′ 1° 33′ 1° 34′ 1° 36′ 1° 37′ 1° 38′ 1° 39′
36	1° 19′ 1° 20′ 1° 22′ 1° 23′ 1° 24′	1° 25′ 1° 26′ 1° 28′ 1° 29′	1° 30′ 1° 31′ 1° 32′ 1° 34′ 1° 35′ 1° 36′ 1° 37′ 1° 38′ 1° 40′ 1° 41′ 1° 42′
37	1° 21′ 1° 23′ 1° 24′ 1° 25′ 1° 26′	1° 28′ 1° 29′ 1° 30′ 1° 31′	1° 32′ 1° 34′ 1° 35′ 1° 36′ 1° 38′ 1° 39′ 1° 40′ 1° 41′ 1° 42′ 1° 44′ 1° 45′
38	1° 24′ 1° 25′ 1° 26′ 1° 27′ 1° 29′	1° 30′ 1° 31′ 1° 32′ 1° 34′	1° 35′ 1° 36′ 1° 38′ 1° 39′ 1° 40′ 1° 41′ 1° 43′ 1° 44′ 1° 45′ 1° 46′ 1° 48′
39	1° 26′ 1° 27′ 1° 28′ 1° 30′ 1° 31′	1° 32′ 1° 34′ 1° 35′ 1° 36′	1° 37′ 1° 39′ 1° 40′ 1° 41′ 1° 43′ 1° 44′ 1° 45′ 1° 47′ 1° 48′ 1° 49′ 1° 50′
40	1° 28′ 1° 29′ 1° 31′ 1° 32′ 1° 33′	1° 35′ 1° 36′ 1° 37′ 1° 39′	1° 40′ 1° 41′ 1° 43′ 1° 44′ 1° 45′ 1° 47′ 1° 48′ 1° 49′ 1° 51′ 1° 52′ 1° 53′
41	1° 30′ 1° 32′ 1° 33′ 1° 34′ 1° 36′	1° 37′ 1° 38′ 1° 40′ 1° 41′	1° 42′ 1° 44′ 1° 45′ 1° 47′ 1° 48′ 1° 49′ 1° 51′ 1° 52′ 1° 54′ 1° 55′ 1° 56′
42	1° 32′ 1° 34′ 1° 35′ 1° 37′ 1° 38′	1° 39′ 1° 41′ 1° 42′ 1° 44′	1° 45′ 1° 46′ 1° 48′ 1° 49′ 1° 51′ 1° 52′ 1° 53′ 1° 55′ 1° 56′ 1° 58′ 1° 59′
43	1° 35′ 1° 36′ 1° 37′ 1° 39′ 1° 40′	1° 42′ 1° 43′ 1° 45′ 1° 46′	1° 47′ 1° 49′ 1° 50′ 1° 52′ 1° 53′ 1° 55′ 1° 56′ 1° 58′ 1° 59′ 2° 0′ 2° 2′
44	1° 37′ 1° 38′ 1° 40′ 1° 41′ 1° 43′	1° 44′ 1° 46′ 1° 47′ 1° 49′	1° 50′ 1° 51′ 1° 53′ 1° 54′ 1° 56′ 1° 57′ 1° 59′ 2° 0′ 2° 2′ 2° 3′ 2° 5′
45	1° 39′ 1° 40′ 1° 42′ 1° 43′ 2° 45′ [recte: 1° 45′]	1° 46′ 1° 48′ 1° 49′ 1° 51′	1° 52′ 1° 54′ 1° 55′ 1° 57′ 1° 59′ 2° 0′ 2° 1′ 2° 3′ 2° 4′ 2° 6′ 2° 7′
46	1° 41′ 1° 43′ 1° 44′ 1° 46′ 1° 47′	1° 49′ 1° 50′ 1° 52′ 1° 53′	1° 55′ 1° 57′ 1° 58′ 2° 0′ 2° 1′ 2° 3′ 2° 4′ 2° 6′ 2° 7′ 2° 9′ 2° 10′
47	1° 43′ 1° 45′ 1° 47′ 1° 48′ 1° 50′	1° 51′ 1° 53′ 1° 54′ 1° 56′	1° 57′ 1° 59′ 2° 1′ 2° 2′ 2° 4′ 2° 5′ 2° 7′ 2° 8′ 2° 10′ 2° 11′ 2° 13′
48	1° 46′ 1° 47′ 1° 49′ 1° 50′ 1° 52′	1° 54′ 1° 55′ 1° 57′ 1° 58′	2° 0′ 2° 2′ 2° 3′ 2° 5′ 2° 7′ 2° 8′ 2° 10′ 2° 11′ 2° 13′ 2° 14′ 2° 16′
49	1° 48′ 1° 49′ 1° 51′ 1° 53′ 1° 54′	1° 56′ 1° 58′ 1° 59′ 2° 1′	2° 2′ 2° 4′ 2° 6′ 2° 7′ 2° 9′ 2° 11′ 2° 12′ 2° 14′ 2° 16′ 2° 17′ 2° 19′
50	1° 50′ 1° 52′ 1° 53′ 1° 55′ 1° 57′	1° 58′ 2° 0′ 2° 2′ 2° 3′	2° 5′ 2° 7′ 2° 8′ 2° 10′ 2° 12′ 2° 13′ 2° 15′ 2° 17′ 2° 18′ 2° 20′ 2° 22′
51	1° 52′ 1° 54′ 1° 56′ 1° 57′ 1° 59′	2° 1′ 2° 2′ 2° 4′ 2° 6′	2° 7′ 2° 9′ 2° 11′ 2° 13′ 2° 14′ 2° 16′ 2° 18′ 2° 19′ 2° 21′ 2° 23′ 2° 24′
52	1° 54′ 1° 56′ 1° 58′ 2° 0′ 2° 1′	2° 3′ 2° 5′ 2° 7′ 2° 8′	2° 10′ 2° 12′ 2° 13′ 2° 15′ 2° 17′ 2° 19′ 2° 20′ 2° 22′ 2° 24′ 2° 26′ 2° 27′
53	1° 57′ 1° 58′ 2° 0′ 2° 2′ 2° 4′	2° 5′ 2° 7′ 2° 9′ 2° 11′	2° 12′ 2° 14′ 2° 16′ 2° 18′ 2° 20′ 2° 21′ 2° 23′ 2° 25′ 2° 27′ 2° 28′ 2° 30′
54	1° 59′ 2° 1′ 2° 2′ 2° 4′ 2° 6′	2° 8′ 2° 10′ 2° 11′ 2° 13′	2° 15′ 2° 17′ 2° 19′ 2° 20′ 2° 22′ 2° 24′ 2° 26′ 2° 28′ 2° 29′ 2° 31′ 2° 33′
55	2° 1′ 2° 3′ 2° 5′ 2° 6′ 2° 8′	2° 10′ 2° 12′ 2° 14′ 2° 16′	2° 17′ 2° 19′ 2° 21′ 2° 23′ 2° 25′ 2° 27′ 2° 28′ 2° 30′ 2° 32′ 2° 34′ 2° 36′
56	2° 3′ 2° 5′ 2° 7′ 2° 9′ 2° 11′	2° 13′ 2° 14′ 2° 16′ 2° 18′	2° 20′ 2° 22′ 2° 24′ 2° 26′ 2° 28′ 2° 29′ 2° 31′ 2° 33′ 2° 35′ 2° 37′ 2° 39′
57	2° 5′ 2° 7′ 2° 9′ 2° 11′ 2° 13′	2° 15′ 2° 17′ 2° 19′ 2° 21′	2° 22′ 2° 24′ 2° 26′ 2° 28′ 2° 30′ 2° 32′ 2° 34′ 2° 36′ 2° 38′ 2° 39′ 2° 41′
58	2° 8′ 2° 10′ 2° 11′ 2° 13′ 2° 15′	2° 17′ 2° 19′ 2° 21′ 2° [numeral: ?]′	2° 25′ 2° 27′ 2° 29′ 2° 31′ 2° 33′ 2° 35′ 2° 37′ 2° 39′ 2° 41′ 2° 42′ 2° 44′
59	2° 10′ 2° 12′ 2° 14′ 2° 16′ 2° 18′	2° 10[73] 2° 22′ 2° 24′ 2° 26′	2° 27′ 2° 29′ 2° 31′ 2° 33′ 2° 35′ 2° 37′ 2° 39′ 2° 41′ 2° 43′ 2° 45′ 2° 47′
60	2° 12′ 2° 14′ 2° 16′ 2° 18′ 2° 20′	2° 22′ 2° 24′ 2° 25′ 2° 28′	2° 30′ 2° 32′ 2° 34′ 2° 36′ 2° 38′ 2° 40′ 2° 42′ 2° 44′ 2° 46′ 2° 48′ 2° 50′

[73] out of sequence in its column, which reads 2° 17′ and 2° 22′ in the rows above and below

[Margin: Rules of the second, rational, method of erecting the figure of heaven.]

Table of the rational houses [Tabula domorum rationalis].

Latitud. gr.	Polar number: XI & III houses (Grad. ′)	Polar number: XII & II houses (Grad. ′)	Latitud. gr.	Polar number: XI & III houses (Grad. ′)	Polar number: XI & II houses (Grad. ′)
1	0° 29′	0° 51′	37	20° 39′	33° 8′
2	0° 59′	1° 43′	38	21° 20′	34° 5′
3	1° 29′	2° 35′	39	22° 2′	35° 2′
4	1° 59′	3° 27′	40	22° 45′	36° 0′
5	2° 29′	4° 19′	41	23° 29′	36° 58′
6	3° 0′	5° 11′	42	24° 14′	37° 57′
7	3° 31′	6° 4′	43	25° 0′	38° 56′
8	4° 2′	6° 57′	44	25° 47′	39° 55′
9	4° 32′	7° 49′	45	26° 34′	40° 54′
10	5° 3′	8° 41′	46	27° 22′	41° 53′
11	5° 34′	9° 33′	47	28° 11′	42° 53′
12	6° 5′	10° 26′	48	29° 2′	43° 53′
13	6° 36′	11° 18′	49	29° 54′	44° 54′
14	7° 7′	12° 11′	50	30° 47′	45° 55′
15	7° 38′	13° 4′	51	31° 41′	46° 56′
16	8° 9′	13° 57′	52	32° 37′	47° 57′
17	8° 41′	14° 50′	53	33° 34′	48° 59′
18	9° 13′	15° 43′	54	34° 32′	50° 1′
19	9° 45′	16° 36′	55	35° 32′	51° 3′
20	10° 18′	17° 30′	56	36° 33′	52° 5′
21	10° 51′	18° 23′	57	37° 35′	53° 8′
22	11° 25′	19° 17′	58	38° 39′	54° 11′
23	11° 58′	20° 11′	59	39° 45′	55° 14′
24	12° 32′	21° 5′	60	40° 53′	56° 18′
25	13° 7′	21° 59′	61	42° 3′	57° 22′
26	13° 42′	22° 53′	62	43° 14′	58° 27′
27	14° 18′	23° 48′	63	44° 27′	59° 32′
28	14° 54′	24° 43′	64	45° 42′	60° 37′
29	15° 30′	25° 38′	65	46° 59′	61° 42′
30	16° 7′	26° 33′	66	48° 18′	62° 47′
31	16° 44′	27° 29′	67	49° 39′	63° 53′
32	17° 21′	28° 25′	68	51° 3′	64° 59′
33	17° 59′	29° 21′	69	52° 29′	66° 5′
34	18° 38′	30° 17′	70	53° 57′	67° 12′
35	19° 18′	31° 14′	71	55° 27′	68° 19′
36	19° 58′	32° 11′	72	56° 58′	69° 26′

As for the second method, by which the figure of heaven is erected according to the rational form of Regiomontanus and Abraham ibn Ezra [Avenefra] from the tables of directions, we proceed as follows. First, as was done in the preceding method, we look up the right ascension of the Sun's place. Next we join to it the apparent astronomical time, converted into degrees and minutes of

the equator; and this gives the right ascension of the mid-heaven. Third, to the right ascension of the M. C. we add 30 degrees for house 11, 60 for the 12th, 90 for the first, 120 for the second, and 150 for the third; and so we have the oblique ascensions of the remaining five eastern houses. Fourth, with the latitude of the place we consult this table of the houses' reckoning[74], and take out the polar numbers of the 11th and 3rd, and likewise of the 12th and 2nd houses, using the proportional part where needed. Fifth, from the appropriate tables of ascensions — first the right ascensions, for the 10th house, and then the oblique ascensions corresponding to the latitude, that is, to the polar number — we look up, from the ascensions found for the remaining houses, the corresponding arcs of the ecliptic, and write them into the figure in their places. Finally, once the eastern houses are established, we form the western ones from the opposite signs.

For instance, in our example the right ascension of the mid-heaven was found above to be 307 degrees 21 minutes. If 30° is added to this successively for the remaining five eastern houses, the oblique ascensions of the remaining houses are produced, as you see:

	[Degrees]	[Minutes]
(Right ascension of the M. C.)	307	21
	+ 30	
XI	337	21
	+ 30	
XII	7	21
	+ 30	
I	37	21
	+ 30	
II	67	21
	+ 30	
III	97	21

If now the table of the rational houses is consulted with a latitude of the place of 51°, the elevation of the pole of the 11th and 3rd houses is found to be 31° 41′, and of the 12th and 2nd houses 46° 56′. For the first house has the elevation of the pole of the given place, and the tenth has no elevation.

For the meridian, everywhere, imitates the right horizon.

[Margin: The basis of the table of the rational houses.]

The table of the rational houses, however, is computed from the doctrine of triangles in the following way, as the adjoining diagram shows. In it the horizon is BD, the meridian BOD, and the elevation of the pole DL 51°. The quadrant of the equator AE, divided from the meridian to the horizon into three equal parts AG, GF, FE, shows that each part contains 30°. Arcs drawn through the points of section G and F to the common intersections of the meridian and the horizon mark off the houses [domicilia] BGD, the 11th, and BFD, the 12th.

[74] printed rationem, where the table's title, Tabula domorum rationalis, points to rationalem, "of the rational houses".

LM is the elevation of the pole of the 11th house and LN that of the 12th, while BA is the elevation of the equator, 39°; and the angle BAG is right. Now since in the right-angled triangle BAG two sides are given, BA 39° and AG 30°, the remaining parts become known by means of these proportions.

(1) As the whole sine of the quadrant EA, 100000, is to the sine of the complement of BA, that is OA, 51°, namely 77714, so the sine of the complement of AG, that is GE, 60°, namely 86602, is to the sine of the complement of BG, that is GP. When the operation is carried out, this comes to 67302, to which an arc of 42° 18′ 3″ corresponds. The arc BG will therefore be 47° 41′ 57″.

(2) As the sine of the arc BG just found, 73962, is to the whole sine of the right angle BAG, 100000, so is the sine of the arc AG, 30°, namely 50000, to the sine of the angle ABG; when the operation is carried out this comes to 67602, to which correspond 42° 32′ 3″, and that is the size of the angle ABG, or LDM.

(3) As the whole sine of the right angle LMD in that same triangle, 100000, is to the sine of BA, of the elevation of the pole, 51°, namely 77714, so is the sine of the angle LDM just found, 67602, to the sine of LM, the elevation of the pole above the circle DMB. The operation yields the sine 52536; hence LM, the elevation of the pole of the 11th and of the third house, is 31° 41′ 34″, very nearly.

By similar reasoning the elevation of the pole of the XII and II houses, LN, is sought. (1) For as the whole sine is to the sine of the complement of the elevation of the equator, 77714, so is the sine of the complement of AF, that is FE, 30°, namely 50000, to the sine of the complement of BF, that is FQ, 38857, whose arc is 22° 51′ 58″. Hence the arc BF will be 67° 8′ 2″.

Next, as the sine of the arc BF, 92141, is to the whole sine of the right angle BAF, 100000, so is AF, 60°, sine 86602, to the sine of the right angle ABF, 93989, whose arc is 70° 2′. (3) As the whole sine is to the sine of the elevation of the pole, 77714, so is the sine of the angle ABF, 93989, to the sine of LN, the elevation of the pole above the circle BND, 73032, whose arc is 46° 55′ 48″.

Having found the polar elevations, together with the ascensions of the individual houses, we now proceed further to seek the corresponding arcs of the ecliptic. First, from the tables of right ascensions, to the right ascension of the M. C., 307° 21′, there corresponds, for the 10th house, ♒ 4° 59′. (2) To the oblique ascension of XI, 337° 21′, there corresponds at latitude 31° ♒ 27° 34′, and at latitude 32° ♒ 27° 11′, so that the difference is 23′. Of this, 16′ correspond to the 41′ attaching to the latitude of 31°,

Diagram. A circle standing in the right half of the text block beside lines 4–19. A horizontal diameter runs across it from B at the left to D at the right (the horizon, per the text). Several arcs cross the circle between B and D, curving above and below the diameter; a straight line runs from A at the upper left, through G, F, E and H, to K and C at the lower right; a vertical straight line descends from L near the top right; short straight segments run inside the lower-left part of the circle. Labels as they stand on the block:

- O (top of the circle, with a tick on the circumference)

- L (upper right, at the head of the vertical line)
- A (upper left, on the circumference)
- G (on the line from A, where it crosses the first arc)
- P (below O, with a tick)
- M (right, on an arc beside the vertical line)
- F (on the line from A, lower)
- Q (below P, with a hook-like mark beside it)
- B (left end of the diameter, at the left edge of the circle)
- E (on the diameter, centre)
- N (right, on an arc near D)
- D (right end of the diameter)
- H (below E, on the line from A)
- K (lower right, on the line from A)
- C (lower right, on the circumference, at the end of the line from A) —*to be subtracted, since the later number decreases; and there remains ♒ 27° 18′ for the XI house. (3) To the oblique ascension of the XII house, 7° 21′, there corresponds at latitude 46° Aries 14° 29′, and at latitude 47° ♈ 14° 54′, so that the difference is 25′. Of this, for the 56′ attaching to this house's latitude of 46°, 23′ are collected, to be added, since the later number increases; so that the beginning of the XII house is ♈ 14° 52′. (4) To the oblique ascension of the first, 37° 21′, under latitude 51°, there corresponds, as above,* ♊ *8° 45′. (5) To the oblique ascension of the II house, 67° 21′, there corresponds at latitude 46° Cancer 3° 44′, and at latitude 47° ♋ 4° 39′, so that the difference is 55′. Of this, for the 56′ standing with the second house's latitude of 46°, 51′ correspond, to be added, so that the beginning of the II house is 4° 35′ ♋. (6) To the oblique ascension of the third house, 97° 21′, there corresponds at latitude 31° Cancer 19° 48′, and at latitude 32° ♋ 20° 18′, so that the difference is 30′. Of this, for the 41′ attaching to the third house's latitude of 31°, 20′ correspond, to be added, so that the beginning of the third house is ♋ 20° 8′. If I now assign the beginnings of the eastern houses so found, each to its own house, and set up the western ones from the opposite signs, the figure of heaven is complete, as far as the position of the outermost heaven is concerned.*

Diagram. A square horoscope figure (chart) of the standard twelve-compartment form: an inner square, and the outer band divided by the two corner diagonals and by lines joining the midpoints of the sides into four middle triangles (top, right, bottom, left) and eight corner triangles. The inner square carries the title and data of the nativity; the compartments carry sign-and-degree entries set along their dividing lines, planet and star entries, and two entries for the Part of Fortune. No house numbers are printed on the figure.

Centre square (as set, roman and italic lines):

- Thema II modi — Chart of the second method
- Nati Anno 1554 — of one born in the year 1554
- Die April. 23 — on the day 23 April

- Hor. 17, 48/, 25//, T A — hour 17^{h} 48^{m} 25^{s}, T A
- 17, 38/, 20//, T Æ — 17^{h} 38^{m} 20^{s}, T Æ
- Ferrariæ in Turingia — at Ferraria in Thuringia
- In latit. 51 gr. — at latitude 51°

Compartments, by position on the page (each entry as it stands; a sign-and-degree entry set along a dividing line is listed in the compartment on whose side it stands):

- Top edge, left-hand corner triangle: ⊕ a ☉ ad ☽ **2 25** ♓ (along the top edge) — the Part of Fortune, from the Sun to the Moon, 2° 25′ ♓; ♄ **25 30** (horizontal, below it); ♒ **27 18** (set up the dividing line toward the top middle).
- Top middle triangle: ♒ **4 59** and ☽ **6 22**, two parallel lines set down its right-hand side.
- Top edge, right-hand corner triangle: ♑ **20 8** (set up the corner diagonal).
- Right side, upper corner triangle: ♑ **14 39** (set up the corner diagonal); ♑ **4 35** (set down the dividing line toward the right middle).
- Right middle triangle: ♐ **8 45** (set up its lower dividing line).
- Right side, lower corner triangle: Cor ♏ **3 34** — the Heart of the Scorpion; Spica ♍ **17 37** — Spica of the Virgin; ♎ **14 52** (set down the corner diagonal).
- Bottom edge, right-hand corner triangle: ♌ **27 18** (set up the dividing line toward the bottom middle); ♃ **25 57**; ⊕ a ☽ ad ☉ **15 5** ♍ (along the bottom edge) — the Part of Fortune, from the Moon to the Sun, 15° 5′ ♍.
- Bottom middle triangle: Cor ♌ **23 38** — the Heart of the Lion; ♌ **4 59** (set down its left-hand side).
- Bottom edge, left-hand corner triangle: ♋ **20 8** (set up the corner diagonal).
- Left side, lower corner triangle: ♋ **4 35**; Caſtor **14 2** — Castor; ☊ **14 39**; Poll. 17 4 — Pollux.
- Left middle triangle: ♊ **8 45** (set up its upper dividing line); Hum. dexter / Orio. **22 33** ♊ — the right shoulder of Orion, 22° 33′ ♊.
- Left side, upper corner triangle: ♈ **14 52** (set down the corner diagonal); ♂ **27 12** ♈; ♀ **6 10** ♉; ☉ **11 42**; ☿ **0 13**; and a ♊ standing alone on the line below.

Nearly the same arrangement results if the search is made from the tables of houses, which are constructed by this method. First, the right ascensions of the individual degrees are converted into time. Then, for the 10th house, the corresponding degrees of the ecliptic are added. And finally, for the remaining houses XI, XII, I, II, III, the degrees of the ecliptic which agree with, and are fitted to, the oblique ascensions and the latitude corresponding to each house are likewise written in. For if the time which, from the time of the Sun's place

[Margin: The way of erecting a chart according to the rational method from the tables of houses, and their basis.]

—corresponding, and the time elapsed from noon, joined together, was gathered above as $20^h\ 29^m\ 14^s$ — if I take this into the table of houses computed for latitude 51°, these beginnings of the 6 eastern houses arise: of the X house 4° 59′ ♒, of XI 27° ♒, of XII 15° ♈; of the first 8° 45′ ♊, of II 5° ♋, of III 20° ♋. And the opposite houses are formed from the opposite signs.

[Margin: Rules of the third method, which is ascribed to Campanus.]

[Margin: The table of the houses of Campanus.]

In the third method, that of Campanus, we first, as was done in the earlier ones, seek the right ascension of the Sun's place. Then we add to it the astronomical time elapsed from noon, converted into degrees and minutes of the equator, so that the right ascension of the M. C. is obtained. Third, we consult the following table of the houses of Campanus, and from it we seek the intervals [interstitia] corresponding to the latitude of the place — that is, the arcs of the equator that lie between neighbouring houses: first of the tenth and XI; second of XI and XII; third of XII and the first of the houses — which emerge from the addition of the others and the subtraction of the sum from the quadrant. For the intervals of the remaining houses also agree with these. From the same table we also take the elevations of the poles of the XI and XII houses, and record them separately, as was done before in the rational method, so that no elevation is assigned to the tenth house, and to the first the elevation of the given place. Fourth, we add the intervals to the right ascension of the M. C., and the ascensions of the remaining houses are produced. Fifth, for each ascension, from the tables of ascensions suited to it, we take out the corresponding arcs of the ecliptic, which we write into the figure in their places; and finally we form the opposite houses from the opposite signs. And the figure of heaven is erected according to Campanus.

For instance, in our example the right ascension of the M. C. was found to be 307° 21′. If to this I first add the interval of the X and XII[75] *house, 19° 58′, which the degree of latitude 51 shows in the table of the houses of Campanus, the oblique ascension of the XI house is produced, 327° 19′. Then I join to this the interval of the XI and XII house, 27° 30′, and the oblique ascension of the XII house comes out at 354° 49′. The two intervals added together make 47° 28′, which, subtracted from the quadrant, that is from 90°, leave 42° 32′. From this, by adding these to the ascension of the XII house, the oblique ascension of the first comes out, the whole circle having first been cast off, as 37° 21′. To this in turn I add the same interval, 42° 32′, and the oblique ascension of the second house is produced, 79° 53′. And to this I join the interval of XI and XII, which is the same as that of II and III, 27° 30′: the oblique ascension of the third house is produced, 107° 23′. The polar numbers of the XI and III house are found to be 22° 52′, and of the XII and II house 42° 18′.*

[Margin: The basis of the table of houses.]

[75] as set

These same results become known by the doctrine of triangles, with the help of the adjoining diagram, in this way. Let AB be the quadrant of the vertical circle, divided into three quadrants[76] AE, EF and FB. Next let CAD be the half of the meridian, and CBD the horizon; and let G be the pole of the world, raised above the horizon by the amount of the arc GD. Through the points of section E and F let two half-circles, CED and CFD, be described to the mutual intersections of the horizon and the meridian. It is evident from this construction that the pole of the world G is raised above these half-circles, and that the equator HB is cut into three unequal parts, HK, KL and LB.

Table of the Houses according to Campanus and Gazulus

Latitude	X & XI, III & IV — Interval	XI & III — Polar number	XI & XII, II & III — Interval	XII & II — Polar number
0	30° 0′	0° 0′	30° 0′	0° 0′
1	30° 0′	0° 30′	30° 0′	0° 52′
2	29° 59′	1° 0′	30° 0′	1° 44′
3	29° 58′	1° 30′	30° 0′	2° 36′
4	29° 56′	2° 0′	30° 0′	3° 28′
5	29° 54′	2° 30′	30° 0′	4° 20′
6	29° 51′	3° 0′	30° 0′	5° 12′
7	29° 48′	3° 30′	30° 0′	6° 4′
8	29° 45′	3° 59′	30° 0′	6° 55′
9	29° 41′	4° 29′	30° 0′	7° 47′
10	29° 37′	4° 59′	30° 0′	8° 39′
11	29° 32′	5° 28′	30° 0′	9° 31′
12	29° 27′	5° 58′	30° 0′	10° 22′
13	29° 21′	6° 28′	30° 0′	11° 14′
14	29° 15′	6° 57′	30° 0′	12° 6′
15	29° 9′	7° 26′	29° 59′	12° 58′
16	29° 2′	7° 55′	29° 59′	13° 49′
17	28° 55′	8° 24′	29° 59′	14° 41′
18	28° 47′	8° 53′	29° 58′	15° 32′
19	28° 38′	9° 22′	29° 58′	16° 23′
20	28° 29′	9° 51′	29° 57′	17° 14′
21	28° 19′	10° 19′	29° 57′	18° 5′
22	28° 9′	10° 48′	29° 56′	18° 56′
23	27° 59′	11° 16′	29° 56′	19° 47′
24	27° 48′	11° 44′	29° 55′	20° 37′
25	27° 37′	12° 12′	29° 54′	21° 28′
26	27° 25′	12° 40′	29° 53′	22° 18′
27	27° 13′	13° 7′	29° 51′	23° 9′
28	27° 0′	13° 35′	29° 49′	23° 59′
29	26° 47′	14° 2′	29° 47′	24° 49′
30	26° 33′	14° 2[numeral: ?]′	29° 45′	25° 39′
31	26° 19′	14° 55′	29° 43′	26° 29′
32	26° 5′	15° 22′	29° 40′	27° 19′
33	25° 50′	15° 48′	29° 37′	28° 9′

[76] as set

Latitude	X & XI, III & IV — Interval	XI & III — Polar number	XI & XII, II & III — Interval	XII & II — Polar number
34	25° 35′	16° 14′	29° 33′	28° 58′
35	25° 19′	16° 40′	29° 30′	29° 47′
36	25° 3′	17° 5′	29° 26′	30° 36′
37	24° 46′	17° 31′	29° 22′	31° 25′

Latitude	X & XI, III & IV — Interval	XI & III — Polar number	XI & XII, II & III — Interval	XII & II — Polar number
37	24° 46′	17° 31′	29° 22′	31° 25′
38	24° 29′	17° 56′	29° 17′	32° 14′
39	24° 11′	18° 20′	29° 12′	33° 2′
40	23° 53′	18° 45′	29° 6′	33° 50′
41	23° 34′	19° 9′	29° 0′	34° 38′
42	23° 14′	19° 33′	28° 54′	35° 25′
43	22° 54′	19° 56′	28° 47′	36° 12′
44	22° 34′	20° 19′	28° 29′	36° 59′
45	22° 13′	20° 42′	28° 32′	37° 46′
46	21° 51′	21° 5′	28° 24′	38° 32′
47	21° 29′	21° 27′	28° 15′	39° 18′
48	21° 7′	21° 49′	28° 5′	40° 4′
49	20° 44′	22° 10′	27° 54′	40° 49′
50	20° 21′	22° 31′	27° 43′	41° 34′
51	19° 58′	22° 52′	27° 30′	42° 18′
52	19° 34′	23° 12′	27° 16′	43° 2′
53	19° 10′	23° 32′	27° 1′	43° 45′
54	18° 45′	23° 52′	26° 46′	44° 28′
55	19° 20′	24° 11′	26° 29′	45° 11′
56	17° 54′	24° 29′	26° 11′	45° 53′
57	17° 28′	24° 47′	25° 52′	46° 35′
58	17° 1′	25° 5′	25° 32′	47° 16′
59	16° 33′	25° 23′	25° 11′	47° 56′
60	16° 5′	25° 40′	24° 48′	48° 36′
61	15° 38′	25° 56′	24° 23′	49° 15′
62	15° 10′	26° 12′	23° 57′	49° 53′
63	14° 41′	26° 27′	23° 30′	50° 30′
64	14° 12′	26° 42′	23° 1′	51° 7′
65	13° 43′	26° 57′	22° 30′	51° 43′
66	13° 13′	27° 11′	21° 57′	52° 18′
67	12° 43′	27° 24′	21° 22′	52° 52′
68	12° 12′	27° 37′	20° 46′	53° 25′
69	11° 41′	27° 50′	20° 8′	53° 57′
70	11° 10′	28° 2′	19° 28′	54° 28′
71	10° 39′	28° 13′	18° 46′	54° 58′
72	10° 7′	28° 24′	18° 2′	55° 27′
73	9° 35′	28° 34′	17° 16′	55° 55′
74	9° 3′	28° 44′	16° 27′	56° 22′

Diagram. A quadrant construction in the upper left of the page. A straight horizontal base line runs from C at the lower left to D at the lower right, with B at its midpoint. From B a straight vertical rises through F, E and A to P and O and on to an unlabelled apex tick at the top. A heavy arc (the meridian half-circle) rises from C through H and over A down towards D. Two further arcs spring from C and run to D: the upper one through E and M, the lower one through F and N. A straight line runs from H through K and L to B. From the apex a curved line descends to the right through G to D, and a second curve from P also passes through G; further curves from G run down to M and to N near D. Labels as set on the block:

- O (upper vertical, just below the apex): O
- P (upper vertical, below O): P
- A (vertical, where the heavy arc crosses it): A
- G (right of the vertical, where the descending curves cross the heavy arc): G
- E (vertical, on the upper inner arc): E
- M (right, on the upper inner arc): M
- H (left end of the straight line, on the heavy arc): H
- K (on the straight line, at the upper inner arc): K
- F (vertical, on the lower inner arc): F
- L (on the straight line, at the lower inner arc): L
- N (right, on the lower inner arc near D): N
- B (foot of the vertical, on the base line): B
- C (lower left end of the base): C
- D (lower right end of the base): D

To bring together by rule, then, at last, how far the pole is raised above the circle CED, which is the beginning of the XI house, and above the circle CFD, which is the beginning of the XII; and also what the intervals [interstitia] of the individual arcs of the equator in this upper quadrant are, the following analogy is observed first, in the inquiry into GM, the elevation of the pole of the XI house. As the quadrant DA, or the whole sine [Sinus T.], 100000, is to 50000, the sine of AE, an arc of 30°, so is 77714, the sine of DG, the elevation of the pole of the given place, 51°, to the sine of GM, the polar number of the XI house. When the operation is carried out, this is 38857, to which correspond 22° 51′ 58″, or 22° 52′.

[Margin: Inquiry into the elevation of the pole.]

[Margin: Inquiry into the interval.]

In the investigation of the interval of the X and XI house, however, let these two analogies be noted. 1. As the sine of the complement of GM, the polar number of the XI house — the complement being GO, 67° 8′, with sine 92141 — is to 62932, the sine of the complement of DG, the elevation of the pole of the given place, that complement being AG, 39° 0′; so is the whole sine of the quadrant OM to the sine EM, to which CK is similar. When the operation is carried out, the sine 68300 emerges, whose arc is 43° 4′ 44″. 2. As the whole

sine of the quadrant CE is to the sine EA, 50000, so is the sine CK just found, 68300, to the sine HK; this, when the operation is carried out, comes out as 34150, whose arc is 19° 58′ 6″, the interval of the 10th and 11th house.

By an entirely similar method the elevation of the pole of the 12th house, GN, becomes known, and the interval of the 11th and 12th, KL. For as the quadrant DA, or the whole sine, is to 86602, the sine of AF, an arc of 60°, so is 77714, the sine of the latitude of the given place, DG, to the sine of GN, the elevation of the pole of this 12th house. When the operation is carried out, this comes to 67302, whose arc is 42° 18′ 3″, the elevation of the pole of the 12th house. And again: 1. As the complement of GN — which is GP, 47° 41′ 57″, sine 73962 — is to the complement of DG, the elevation of the pole of the given place — which is AG, 39° 0′, sine 62932 — so is the whole sine to the sine FN, to which CL is equal. When the operation is carried out, the sine 85087 results. 2. As the quadrant, or the whole sine, CF is to the sine of FA, 60°, namely 86602, so is CL, the sine just found, 85087, to the sine HL. This emerges from the operation as 73687; and if from its arc, 47° 27′ 57″, the arc HK, 19° 58′ 6″, is taken away, there remains KL, the interval of the 11th and 12th house, 27° 29′ 51″.

And from these foundations the table of the houses of Campanus has been constructed, which we wished to append.

Now if, for the individual ascensions, the corresponding arcs of the ecliptic are sought from the appropriate tables of ascensions, the beginnings of the 6 eastern houses are produced.

For instance, the X: 307° 21′; from the tables of right ascensions, 4° 59′ ♒.

The eleventh: 327° 19′; from the tables of oblique ascensions for latitude 22° 52′, by a double entry. First, entering the table at 22°: to this corresponds 18° 30′ ♒. Second, entering the table at 23°, with which 18° 7′ ♒ agrees. As for the difference, 23 min, the 52 minutes attached to the 22 degrees are due 20 minutes; subtracted from 18° 30′ ♒, these show the beginning of the eleventh house as 18° 10′ ♒.

XII: 354° 49′. Under the elevation of the pole 42° 18′, there agrees, at latitude 42°, ♓ 20° 44′; at latitude 43°, ♓ 20° 30′. And of the difference between these numbers, 14 min, 4 min correspond to the 18′ attached to the 42nd degree of latitude; these are to be subtracted, so that the beginning of the 12th house is ♓ 20° 40′. To the first, 37° 21′, there corresponds, at the elevation of the pole of 51° as above, ♊ 8° 45′. To the second, 79° 53′, there corresponds at the elevation of 42° ♋ 11° 24′, and at latitude 43° ♋ 12° 5′. And of the difference of 41 min between the numbers found, 12 min correspond to the 18 min attached to the 42nd degree of latitude; these are to be added to 11° 24′, so that the beginning of the second house is ♋ 11° 36′. To the third, 107° 23′, there corresponds at the elevation of 22° ♋ 24° 31′, and at latitude 23° ♋ 24° 56′. And of the difference of 25 min, 22 min correspond to the 52 min that attend the 22 degrees of latitude; these are to be added, so that the beginning of the third house is ♋ 24° 53′.

Now if these are assigned to their houses, and the opposite houses are formed from the opposite signs, the figure of heaven will have been constructed according to Campanus, as the adjoining diagram shows.

Diagram. A square horoscope figure. An outer square frame encloses a central square panel carrying the caption; four triangles stand on the sides of the central panel with their apexes at the midpoints of the outer sides (top, left, bottom, right), and each of the four corner spaces is divided by a diagonal from the outer corner to the corner of the central panel, giving twelve compartments in all. Many of the labels in the compartments are set rotated along the diagonals. The central panel reads: "Figure of the III method, according to Campanus. Born in the year 1554, on April 23, at $17^{h}\ 48^{m}\ 25^{s}$, T A, $17^{h}\ 38^{m}\ 20^{s}$, T Æ, at Ferraria in Thuringia, at latitude 51°." Labels as set on the block, by compartment (glyph identities doubted where marked):

- Top edge, inside the upper-left corner, horizontal: ⊕ a ☉ ad ☽ 2 25 ♓
- Top triangle: ♒ · 4 · 59; ☽ · 6 · 22
- Upper-left corner, part next to the top triangle: ♒ · 18 · 10
- Upper-left corner, part next to the left side: ♓ · 20 · 40; ♄ · 25 · 30 · ♓; ♂ · 27 · 12 · ♈; ♀ · 6 · 10 · ♉; ☉ · 12 · 42; ☿ · 0 · 13; ♊ (standing alone on the line below ☿)
- Left triangle: ♊ · 8 · 45; ♊ · Hum. dext. · Orio. · 22 33 · ♊
- Lower-left corner, part next to the left side: ♋ · 11 · 36; Caſtor · 14 · 2; ☊ · 11 · 39; Poll. · 17 · 4
- Lower-left corner, part next to the bottom: ♋ · 24 · 53
- Bottom triangle: ♌ · 4 · 59
- Lower-right corner, part next to the bottom: ♌ · 18 · 10
- Bottom edge, inside the lower-right corner, horizontal: ⊕ a ☽ ad ☉ 15 5 ♍
- Lower-right corner, part next to the right side: Cor · ♏ · 3 · 34; ♃ · 25 · 57 · ♍; ♍ · 20 · 40
- Right triangle: ♐ · 8 · 45
- Upper-right corner, part next to the right side: ♑ · 14 · 39; ♑ · 11 · 36
- Upper-right corner, part next to the top triangle: ♑ · 24 · 53

[Margin: Rules of the fourth method, of which al-Qabīṣī is the author.]

In the fourth method, that of al-Qabīṣī, first a quadrant of the circle is added to the right ascension of the mid-heaven — which is derived from the right ascension of the Sun and from the degrees of the equator of the time elapsed from noon — so that the oblique ascension of the ascendant emerges. Next, the degree of the ecliptic corresponding to this ascension on the proposed horizon is sought. Third, the semidiurnal arc agreeing with this degree, and likewise the seminocturnal arc, is found, and each is divided into three equal parts.

Fourth, a third of the semidiurnal arc is added three times over to the right ascension of the M.C., and so the right ascensions of the beginnings of the 11th, 12th and 1st houses are produced. Likewise, a third of the seminocturnal arc is added twice to the right ascension of the first house, and the right ascensions of the beginnings of the second and third houses are formed. Finally, *for all the eastern houses the corresponding arcs of the ecliptic are sought from the tables of right ascensions and are written into their houses; and the six western houses are constructed from the opposite points.*

For instance, in our example the right ascension of the M.C. was found to be 307° 21′. If a quadrant of the circle, 90°, is first joined to it, the oblique ascension of the ascendant comes out as 37° 21′. Next, the arc of the ecliptic corresponding to this is sought — either computed from the table of oblique ascensions for latitude 51°, or from the foundation of the doctrine of triangles set out above in chapter 8 — and it is found to be the degree ♊ *8° 45′. Third, the semidiurnal arc of this degree of the ecliptic is sought: from the tables of ascensions, in this way. In the table of oblique ascensions appropriate to the latitude of the place for which the figure is to be erected, the ascension of* ♊ *8° 45′ and of* ♐ *8° 45′ is looked up; the former, 37° 21′, is taken away from the latter, 276° 39′. The remainder, 239° 18′, is halved, and the half, 119° 39′, will be the semidiurnal arc. The seminocturnal arc becomes known from the semidiurnal if the semidiurnal is subtracted from the half of the circle, and 60° 21′ remain.*

[Margin: Finding the semidiurnal arc from the foundations and the doctrine of triangles.]

By the doctrine of triangles, however, it is done in this way. First, the declination of ♊ 8° 45′ is sought — this is degree 68° 45′ of the ecliptic — and, following Tycho and the rules of chapter 6 of this part, it comes out as 21° 50′ 22″. Second, the rising amplitude, which is gathered from chapter 7 of this part: 36° 13′ 18″. Third, the ascensional difference, by the same chapter, which is found to be 29° 38′ 36″. Fourth, the ascensional difference is added to the quadrant if the sign given ☉ is northern, and taken away from the quadrant if it is southern; and the semidiurnal arc results. In our example it is added, and the semidiurnal arc becomes 119° 38′ 36″.

The semidiurnal arc can also be gathered more easily from the table of the length of days set out above in chapter 5 of the first part. *Now, in the fourth place, the semidiurnal arc is divided into three equal parts, each of which comes to 39° 53′, and the seminocturnal arc of 60° 21′ likewise into three parts, each of which is 20° 7′. One third of the semidiurnal is added to the right ascension of the M.C., 307° 21′, so that the right ascension of the 11th house comes out as 347° 14′. To this ascension the second third is added, so that the R.A. of the 12th house is produced, 27° 5′; and finally the third third is added to this, so that the R.A. of the horoscope stands at 66° 58′. Then the first third of the seminocturnal is further joined to the same, so that the R.A. of the second house is collected, 87° 5′; and with the second third added, the R.A. of the third house is 107° 12′. The right ascensions of the six eastern houses [domicilia] will then be known. If finally the corresponding arcs of the ecliptic are sought for them from the table of right ascensions, there will agree: to the 10th, 4° 59′* ♒*; to the 11th, 16° 7′* ♓*; to the 12th, 29° 10′* ♈*; to the first, 8° 45′* ♊*; to the second, 27° 20′* ♊*; to the third, 15° 51′* ♋*. And once the opposite houses have been set up from the opposite signs, the figure of heaven is completed with respect to the position that arises from the rotation of the earth, as you see here.*

[Margin: Rules of the fifth method, that of Porphyry.]

In the fifth method, finally, that of Porphyry, one first seeks, following the rules of the preceding methods, the right ascension of the mid-heaven and — with a quadrant added — the oblique ascension of the horoscope, together with their degrees of the

ecliptic, the culminating and the rising. Afterwards one considers how great the arcs of the ecliptic are that, between the meridian and the horizon, and likewise between the

Diagram. A square horoscope figure of the same construction as the preceding figures: an outer square frame enclosing a central square panel that carries the caption; four triangles stand on the sides of the central panel with their apexes at the midpoints of the outer sides, and each of the four corner spaces is divided by a diagonal from the outer corner to the corner of the central panel, giving twelve compartments. Most compartment labels are set rotated along the diagonals. The central panel reads: "Figure of the IV method, according to al-Qabīṣī. Born in the year 1554, on April 23, at $17^{h}\ 48^{m}\ 25^{s}$, T A, $17^{h}\ 38^{m}\ 20^{s}$, T Æ, at Ferraria in Thuringia, at latitude 51°." Labels as set on the block, by compartment (glyph identities doubted where marked):

- Top triangle: ⊕ a ⊙ ad ☽ · 2 · 25 · ♓ · a small sort like 1 [?]; ☽ · 6 · 22; ♒ (three stacked wavy strokes) · 4 · 59
- Upper-left corner, part next to the top triangle: a ♂-like sort (circle with an arrow) · 27 · 12 · ♈; ♄ · 25 · 30 · ♓; ♓ · 16; a 7 set at the right, level between the second and third of these lines
- Upper-left corner, part next to the left side: ♈ · 29 · 10; ♀ · 6 · 10 · ♉; ⊙ · 12 · 42; ☿ · 0 · 13; ♊ (set below the ☿ line)
- Left triangle: ♊ · 8 · 45; ♊ · Hum. dext. · Orio. · 22 33
- Lower-left corner, part next to the left side: ♊ (bold double upright) · 27 · 20; Caſtor · 14 · 2; ☊ · 14 · 39
- Lower-left corner, part next to the bottom: ♋ · 15 · 51; Pollux · 17 · 4
- Bottom triangle: Cor ♌ · 23 38; ♌ · 4 · 59; ⊗ (circle with a saltire cross); 15; 5
- Lower-right corner, part next to the bottom: Spica · ♍ · 17 · 37; ♃ · 25 · 57; ♍ · 16 · 7
- Lower-right corner, part next to the right side: Cor · ♏ · 3 · 34; ♎ · 29 · 10
- Right triangle: ♐ · 8 · 45
- Upper-right corner, part next to the right side: ♑ · 14 · 39; ♐ · 27 · 20
- Upper-right corner, part next to the top triangle: ♈ · 15 · 51

—horizon and the lowest heaven, are intercepted. For both are divided into three equal parts, and the segments, collected in order, are joined above to the degree of the mid-heaven and below to the degree of the ascendant; and the beginnings of the six eastern houses result. If, finally, the houses lying opposite these are set up from the opposite points of the ecliptic, the figure of heaven is completed.

For instance, in our example the right ascension of the M.C. was found to be 307° 21′. If a quadrant of the circle is added to it and the whole 360° is cast off, the oblique ascension of the ascendant comes out as 37° 21′. To the R.A. of the M.C. there corresponds ♒ 4° 59′; and to the oblique ascension of the horoscope at the latitude of the place, 51°, ♊ 8° 45′. If I subtract the mid-heaven from the horoscope, with 12 signs added, in this form, there remain 4 signs 3° [?] 46′, a third of which is approximately 1 sign 11° 15′. Hence the beginning of the 11th house is ♓ 16° 14′; of the 12th, ♈ 27° 29′;

of the first, ♊ *8° 45′. This beginning is distant from the lowest heaven, which is* ♌ *4° 59′, by 1 sign 26° 14′, a third of which is approximately 18° 45′. Hence the beginning of the second house is* ♊ *27° 30′; of the third,* ♋ *16° 15′. The opposite houses, formed from the opposite signs and degrees, complete the figure that is set opposite.*

	Signs	gr.	′
	12		
Sign.	2	8	45
	10	4	59
	4	3	46

[Margin: How the planets are inserted into the figure.]

Now, so that the places of the planets may be conveniently inserted, and certain more notable stars, as well as the Part of Fortune, may be placed in it, and so the figure of heaven may at last be fully completed, one must proceed in this way. First, the true places of the planets in longitude, as they were computed above for the equated time, are to be inserted in this form into the appropriate places, so that, with the number, succession and order of the signs and degrees observed,

Diagram. A square horoscope figure of the same construction as the two preceding: an outer square frame enclosing a central square panel that carries the caption; four triangles stand on the sides of the central panel with their apexes at the midpoints of the outer sides, and each corner space is divided by a diagonal from the outer corner to the corner of the central panel, giving twelve compartments. Most compartment labels are set rotated along the diagonals. The central panel reads: "Figure of the V method, according to Porphyry. Born in the year 1554, on April 23, at $17^{h}\ 48^{m}\ 25^{s}$, T A, $17^{h}\ 38^{m}\ 20^{s}$, T Æ, at Ferraria in Thuringia, at latitude 51°." Labels as set on the block, by compartment (glyph identities doubted where marked):

- Top triangle: ⊕ · a ☉ ad ☽ · 2 · 25 · ♓ (with a small superior mark [?]); ☽ · 6 · 22; ♒ (three stacked wavy strokes) · 4 · 59
- Upper-left corner, part next to the top triangle: a ♂-like sort (circle with an arrow) · 27 · 12 · ♈; ♓ · 16 · 14
- Upper-left corner, part next to the left side: ♈ · 27 · 29; ♀ · 6 · 10 · ♉; ☉ · 12 · 42; ☿ · 0 · 13; ♊ (set below the ☿ line)
- Left triangle: ♊ · 8 · 45; ♊ · Hum. dext. [?] · Orio. · 22 3[?]
- Lower-left corner, part next to the left side: ♊ (bold double upright) · 27 · 30; Caſtor · 14 · 2; ☊ · 14 · 39
- Lower-left corner, part next to the bottom: ♋ · 16 · 15; Pollux · 17 · 4
- Bottom triangle: Cor ♌ · 23 38 · ♌; ♌ · 4 · 59; ⊕ · a ☽ ad ☉ · 15 · 5
- Lower-right corner, part next to the bottom: Spica · ♍ · 17 · 37; ♃ · 25 · 57 · ♍; ♍ · 16 · 14
- Lower-right corner, part next to the right side: Cor · ♏ · 3 · 34; ♎ · 27 · 29
- Right triangle: ♐ · 8 · 45

- Upper-right corner, part next to the right side: ♉ · 14 · 39; ♐ · 27 · 30
- Upper-right corner, part next to the top triangle: ♍ · 16 · 15

—each one is referred to that house which contains the degree in which the planet is situated.

For instance, in our example the Sun was found at 12° 42′ ♉. Since, then, the sign ♉, in the second method, the rational one — which alone I shall deal with here, by way of example — belongs wholly to the 12th house, in this way, the Sun must be referred to the 12th house together with Venus, which is also in ♉; yet so that Venus, which is set at 6° 10′ ♉, inclines more nearly to the 11th house, and the Sun more nearly to the first. For ♀ has fewer degrees than the Sun, and is brought sooner than the Sun to the beginning of the twelfth house. Mars too, which is found at 27° 12′ ♈, is to be written into the same house, yet at the very beginning of the twelfth house. So ☿, which is at 0° 13′ ♊, is referred to the twelfth house, immediately before the beginning of the first house; ♄, placed at 25° 30′ ♓, is written into the 11th house; Jupiter into the 5th; the Moon into the 10th; ☊ into the 2nd; and ♉, which always holds the opposite place, into the 8th. And one must proceed in the same way in all other examples.

[Margin: Finding the Part of Fortune.]

Secondly, the Part of Fortune ⊕ is found in this way. 1. The places of the ☉ and the ☽ are noted by the order of the signs and their number, and the place of the Sun is subtracted from the place of the Moon. *For instance, in our example the ☽ is at 6° 22′ ♒; it is therefore past 10 signs, at 6° 22′. The place of the ☉, however, is at 12° 42′ ♉; that is, it is past the first sign, at 12° 42′. Now, since the place of the ☉ is less than the place of the ☽, the subtraction can indeed be made conveniently, and 8 signs 23° 40′ remain. But if the place of the ☉ were greater than the place of the ☽, and the subtraction could not be made, then 12 signs would first have to be added to the place of the ☽, and only after that would the subtraction be performed.* 2. To the remainder are added the degrees of the ascendant, which are the beginning of the first house — the whole circle being cast off where necessary — and the true place of ⊕ results. *For instance, in our example, if I add to the earlier number left from the subtraction, 8 signs 23° 40′, the ascendant, 2 signs 8° 45′, —the true place of ⊕ results: 11 signs 2° 25′.* 3. The signs found are counted from the first sign, Aries, and ⊕, with its degrees and minutes, is placed in the house that contains that sign and degree. *For instance, in our example, counting from ♈, ⊕ falls at 2° 25′ ♓. It is therefore to be placed in the 11th house of the rational figure, near ♄, which is also in ♓.*

There are some who find ⊕ not only from the Sun to the Moon, as we have just done, but also from the Moon to the Sun. For they likewise subtract the place of the ☽ from the place of the ☉, and to the remainder they add the ascendant; and so ⊕ results from the Moon to the Sun. *In our example the Moon cannot be subtracted from the Sun unless a whole circle of 12 signs is added to the Sun. Then 3 signs 6° 20′ remain. If the ascendant, 2 signs 8° 45′, is added to these, ⊕ from the Moon to the Sun results, after 5 signs, at 15° 5′ — that is, at 15° 5′ in ♏ — and it is placed in the 5th house.*

[Margin: How the fixed stars are entered in the chart.]

Lastly, the fixed stars too, which have very great force in a chart — especially if they hold the cardines or are joined with the planets — are written into the chart. How the true places of their longitude are to be found, both according to Tycho Brahe and according to the calculation of the Prutenic Tables, we taught above, in chap. 5.

In our example, for the year of Christ 1554, the true precession of the equinoxes by the Prutenic calculation of precept X is 27° 38′. If this is joined to the longitude of some star — for instance, the right shoulder of Orion, 55° 20′ — the true longitude from the vernal equinox results, 82° 58′; that is, the right shoulder of Orion is set at ♊ 22° 58′. In the same way, if it is joined to the leading Head of ♊, whose longitude in the Prutenic Tables is 76° 40′, the true longitude results, 104° 18′: that is, Castor is at 14° 18′ ♋, etc. According to Tycho Brahe, the roughly 46 years yield 39′, to be subtracted from Tycho's notation. Since, then, the right shoulder of Orion is for him [Tycho] at 23° 12′ ♊, it will be, for the time we have set, at 22° 33′ ♊. And Castor, which Tycho places at 14° 43′ ♋, will be at 14° 2′ ♋. Entering the fixed stars in the chart differs in no way from entering the planets, as set out earlier.

[Margin: A necessary warning on erecting figures for which tables of houses are not expressly provided.]

By way of a coronis, this too must be noted in erecting figures of the heavens from the appended tables of houses. When no table of houses is found that fits the elevation of the pole of the given place exactly, then — since the tenth house behaves uniformly in all the tables, and the remaining houses, in their numbers and signs, can be taken from the table nearer to the pole of the place in question — care need be applied only to working out the cusp of the ascendant precisely. For this purpose, first take the table computed for the next smaller latitude, and find the cusp of the first house. Then likewise find the same cusp of the first house from the table built for the next greater latitude. Finally, see what part of the difference between these cusps corresponds to the portion by which the pole stands higher than the next smaller latitude. If that proportional part is either added to or subtracted from the beginning of the first house found for the smaller latitude — according as the beginning at the greater latitude is greater or less — the beginning of the first house results, corresponding exactly to the latitude in question. And let this suffice as advice on erecting figures.

Table of houses for the greatest obliquity of the ecliptic, 23° 31′ 30″, constructed with the ☉ in ♈

For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♈	R.S. 11 ♉	R.S. 12 ♊	R.S. Horosc. ♋	R.S. ♋	R.S. 3 ♌	8°: 11 ♉	8°: 12 ♊	8°: Horosc. ♋	8°: ♌	8°: 3 ♌	16°: 11 ♉	16°: 12 ♊	16°: Horosc. ♋	16°: ♌	16°: 3 ♍
0h 0m 0s		0	2	2	0° 0′	28	28	3	5	3° 1[?]′0		29	4	7	6° 33′	3	0
0h 3m 48m 40s		1	3	3	0° 51′	29	29	4	6	4° 4′	1	♍	5	8	7° 23′	4	0
0h 7m 25m 40s		2	4	4	1° 42′	♌	♍	5	6	4° 54′	2	1	6	9	8° 12′	4	1
0h 11m 9m 40s		3	5	5	2° 32′	1	1	6	7	5° 44′	3	2	7	10	9° 2′	5	2
0h 14m 46ms 40s		4	6	6	3° 22′	1	2	7	8	6° 35′	4	2	8	11	9° 51′	6	3
0h 18m 31m 41s		5	7	6	4° 12′	2	3	8	9	7° 25′	5	3	9	12	10° 41′	7	4
0h 22m 3m 40s		6	8	7	5° 3′	3	4	9	10	8° 15′	6	4	10	13	11° 31′	8	5

Time from noon	Diff. of time	R.S. 10 ♈	R.S. 11 ♉	R.S. 12 ♊	R.S. Horosc. ♋	R.S. ♋	R.S. 3 ♌	8°: 11 ♉	8°: 12 ♊	8°: Horosc. ♋	8°: ♌	8°: 3 ♌	16°: 11 ♉	16°: 12 ♊	16°: Horosc. ♋	16°: ♌	16°: 3 ♍
0h 25m 42s	41s	7	9	8	5° 54′	4	5	10	11	9° 5′	6	5	11	14	12° 20′	9	6
0h 29m 22s	40s	8	10	9	6° 44′	5	6	11	12	9° 55′	7	6	12	15	13° 10′	10	7
0h 33m 3s	41s	9	11	10	7° 35′	6	6	12	13	10° 45′	8	7	13	16	13° 59′	10	8
0h 36m 44s	41s	10	12	11	8° 26′	7	7	13	14	11° 36′	9	8	14	16	14° 49′	11	9
0h 40m 25s	41s	11	13	12	9° 17′	8	8	14	14	12° 26′	10	9	15	17	15° 38′	12	10
0h 44m 7s	42s	12	14	13	10° 8′	9	9	15	15	13° 16′	11	10	16	18	16° 28′	13	11
0h 47m 48s	41s	13	14	13	10° 59′	9	10	16	16	14° 7′	12	11	17	19	17° 17′	14	11
0h 51m 30s	42s	14	15	14	11° 50′	10	11	17	17	14° 58′	13	12	18	20	18° 7′	15	12
0h 55m 13s	43s	15	16	15	12° 42′	11	12	17	18	15° 49′	13	13	19	21	18° 57′	15	13
0h 58m 55s	42s	16	17	16	13° 33′	12	13	18	19	16° 40′	14	14	20	22	19° 46′	16	14
1h 2m 38s	43s	17	18	17	14° 25′	13	14	19	20	17° 30′	15	15	21	22	20° 36′	17	15
1h 6m 21s	43s	18	19	18	15° 16′	14	15	20	20	18° 21′	16	16	22	23	21° 26′	18	16
1h 10m 5s	44s	19	20	19	16° 8′	15	16	21	21	19° 12′	17	17	23	24	22° 16′	19	17
1h 13m 49s	44s	20	21	19	17° 1′	16	17	22	22	20° 4′	18	18	24	25	23° 6′	20	18
1h 17m 34s	45s	21	22	20	17° 53′	17	18	23	23	20° 55′	19	19	25	26	23° 56′	21	19
1h 21m 18s	44s	22	23	21	18° 46′	18	20	24	24	21° 46′	20	20	25	27	24° 47′	22	20
1h 25m 4s	46s	23	24	22	19° 38′	19	21	25	25	22° 37′	21	21	26	28	25° 37′	22	21
1h 28m 50s	46s	24	25	23	20° 31′	20	22	26	26	23° 29′	22	22	27	29	26° 28′	23	22
1h 32m 36s	46s	25	26	24	21° 24′	21	23	27	27	24° 22	23	23	28	29	27° 19′	24	23
1h 36m 23s	47s	26	26	25	22° 17′	22	24	28	27	25° 14′	23	24	29	♋	28° 10′	25	24
1h 40m 10s	47s	27	27	25	23° 11′	23	25	29	28	26° 7′	24	25	♊	1	29° 1′	26	25
1h 43m 58s	48s	28	28	26	24° 5′	24	26	♊	29	26° 59′	25	26	1	2	29° 52′	27	26
1h 47m 46s	48s	29	29	27	24° 59′	2[?]	27	1	♋	27° 52′	26	27	2	3	♌ 0° 43′	28	27
1h 51m 35s	49s	30	30	28	25° 54′	26	28	2	1	28° 46′	27	28	3	4	1° 35′	29	28

Table of houses for the obliquity of the ecliptic, with the ☉ in ♉
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♉	R.S. 11 ♊	R.S. 12 ♊	R.S. Horosc. ♋	R.S. ♌	R.S. 3 ♍	8°: 11 ♊	8°: 22 [recte: 12] ♋	8°: Horosc. ♋	8°: ♌	8°: 3 ♍	16°: 11 ♊	16°: 12 ♋	16°: Horosc. ♌	16°: ♌	16°: 3 ♍
1h 51m 35s		0	0	28	25° 54′	26	28	2	1	28° 46′	27	28	3	4	1° 35′	29	28
1h 55m 34s	49s	1	1	29	26° 48′	27	29	2	2	29° 39′	28	29	4	5	2° 27′	♍	29
1h 59m 34s	50s	2	2	♋	27° 43′	28	♎	3	3	♌ 0° 33′	29	♎	5	5	3° 19′	1	♎
2h 3m 33s	51s	3	3	1	28° 38′	29	1	4	4	1° 26′	♍	1	6	6	4° 11′	2	1
2h 6m 33s	51s	4	4	2	29° 34′	♍	2	5	4	2° 20′	1	2	7	7	5° 3′	2	2
2h 10m 32s	52s	5	5	2	♌ 0° 29′	1	3	6	5	3° 14′	2	3	8	8	5° 55′	2	3
2h 14m 31s	53s	6	6	3	1° 25′	2	4	7	6	4° 8′	3	4	9	9	6° 48′	4	4
2h 18m 34s	53s	7	7	4	2° 21′	3	5	8	7	5° 3′	4	5	10	10	7° 41′	5	5
2h 22m 32s	54s	8	7	5	3° 18′	4	6	9	8	5° 58′	5	6	10	11	8° 35′	6	6
2h 26m 32s	54s	9	8	6	4° 15′	5	7	10	9	6° 53′	6	7	11	12	9° 28′	7	7
2h 30m 37s	55s	10	9	7	5° 12′	6	8	11	10	7° 49′	7	8	12	13	10° 22′	8	8
2h 34m 33s	56s	11	10	8	6° 10′	7	9	12	11	8° 45′	8	9	13	13	11° 15′	9	9

Time from noon	Diff. of time	R.S. 10 ♉	R.S. 11 ♊	R.S. 12 ♊	R.S. Horosc. ♋	♌	R.S. 2 ♍	R.S. 3 ♍	8°: 11 ♊	8°: 12 ♋	8°: 22 [recte: 12] ♋	8°: Horosc. ♋	8° ♌	8°: 2 ♍	8°: 3 ♍	16°: 11 ♊	16°: 12 ♋	16°: Horosc. ♌	♌	16°: 2 ♍	16°: 3 ♍
2h	38m 30ms	57s	12	11	9	7° 8′	8	10	13	12		9° 41′	9	10	14	14	12° 9′	10	10		
2h	42m 37ms	57s	13	12	10	8° 6′	9	11	14	12		10° 38′	10	11	15	15	13° 3′	11	11		
2h	46m 35ms	58s	14	13	11	9° 4′	10	13	15	13		11° 35′	11	12	16	16	13° 58′	12	12		
2h	50m 34ms	59s	15	14	11	10° 3′	11	14	15	14		12° 32′	12	13	17	17	14° 53′	13	13		
2h	54m 41ms	0s	16	15	12	11° 2′	12	15	16	15		13° 30′	13	14	18	18	15° 48′	14	14		
2h	58m 41ms	0s	17	16	13	12° 2′	13	16	17	16		14° 27′	14	15	19	19	16° 43′	15	15		
3h	2m 54m	1s	18	17	14	13° 2′	14	17	18	17		15° 24′	15	16	20	20	17° 38′	16	16		
3h	6m 74m	2s	19	18	15	14° 2′	15	18	19	18		16° 22′	16	17	21	21	18° 33′	17	17		
3h	10m 91ms	2s	20	19	16	15° 3′	16	19	20	19		17° 20′	17	18	22	22	19° 29′	18	18		
3h	14m 42ms	3s	21	19	17	16° 4′	18	20	21	20		18° 19′	18	20	23	22	20° 25′	19	19		
3h	18m 46ms	4s	22	20	18	17° 5′	19	21	22	21		19° 18′	19	21	24	23	21° 22′	20	20		
3h	22m 40ms	4s	23	21	19	18° 7′	20	22	23	22		20° 17′	20	22	25	24	22° 20′	21	21		
3h	26m 40ms	6s	24	22	20	19° 10′	21	23	24	23		21° 17′	21	23	25	25	23° 17′	22	22		
3h	30m 42ms	6s	25	23	21	20° 13′	22	24	25	24		22° 17′	22	24	26	26	24° 15′	23	23		
3h	34m 38ms	6s	26	24	22	21° 16′	23	26	26	25		23° 17′	23	25	27	27	25° 13′	24	24		
3h	38m 40ms	8s	27	25	23	22° 19′	24	27	27	25		24° 17′	24	26	28	28	26° 11′	25	25		
3h	42m 44ms	8s	28	26	24	23° 23′	25	28	28	26		25° 18′	25	27	29	29	27° 9′	26	26		
3h	47m 41ms	9s	29	27	25	24° 27′	26	29	29	27		26° 19′	26	28	♋	♌	28° 8′	27	27		
3h	51m 42ms	9s	30	28	26	25° 31′	28	30	30	28		27° 21′	27	29	1	1	29° 6′	28	28		

—constructed for the maximum, 23° 31′ 30″
With the ☉ in ♊
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♊	R.S. 11 ♊	R.S. 12 ♋	R.S. Horosc. ♌	R.S. 2 ♎	R.S. 3 ♏	8°: 11 ♋	8°: 12 ♋	8°: Horosc. ♌	8° ♎	8°: 3 ♐	16°: 11 ♋	16°: 12 ♌	16°: Horosc. ♌	16°: 2 ♎	16°: 3 ♐
3h	51m 12s	0	28	26	25° 31′	28	0	0	28	27° 21′	28	29	1	1	29° 6′	28	28
3h	55m 43ms	11s	1	29	27	26° 35′	29	1	1	29	28° 23′	29	♏	2	2	♎ 0° 5′	29	29
3h	59m 34ms	11s	2	♋	28	26° 40′ [recte: 27° 40′]	♎	2	2	♌	29° 25′	♎	1	3	3	1° 4′	♎	♏
4h	3m 48ms	11s	3	1	29	28° 46′	1	3	2	1	♎ 0° 28′	1	2	4	4	2° 3′	1	1
4h	7m 37ms	12s	4	2	♌	29° 52′	2	4	3	2	1° 31′	2	3	5	5	3° 3′	2	2
4h	12m 40ms	13s	5	3	1	♎ 0° 59′	3	5	4	3	2° 35′	3	4	6	6	4° 3′	3	4
4h	16m 42ms	14s	6	4	2	2° 6′	4	6	5	4	3° 38′	4	5	7	7	5° 3′	4	5
4h	20m 43ms	14s	7	5	3	3° 13′	6	8	6	5	4° 42′	5	7	8	8	6° 4′	5	6
4h	24m 45ms	15s	8	6	4	4° 20′	7	9	7	6	5° 46′	7	8	9	8	7° 4′	6	7
4h	29m 48ms	15s	9	7	5	5° 28′	8	10	8	7	6° 50′	8	9	10	9	8° 5′	7	8
4h	33m 42ms	16s	10	8	6	6° 35′	9	11	9	8	7° 54′	9	10	11	10	9° 6′	8	9
4h	37m 44ms	16s	11	9	7	7° 43′	10	12	10	9	8° 58′	10	11	12	11	10° 7′	9	10
4h	41m 45ms	17s	12	10	8	8° 52′	11	13	11	10	10° 3′	11	12	13	12	11° 9′	10	11
4h	46m 44ms	17s	13	11	9	10° 1′	13	14	12	11	11° 8′	12	13	14	13	12° 10′	11	12
4h	50m 43ms	18s	14	12	10	11° 11′	14	15	13	12	12° 13′	13	14	15	14	13° 12′	12	13

Time from noon	Diff. of time	R.S. 10 ♊	R.S. 11 ♊	R.S. 12 ♋	R.S. Horosc. ♌	R.S. 2 ♍	R.S. 3 ♎	8°: 11 ♋	8°: 12 ♋	8°: Horosc. ♌	8°: 2 ♍	8°: 3 ♎	16°: 11 ♋	16°: 12 ♌	16°: Horosc. ♌	16°: 2 ♍	16°: 3 ♎
4h	54m 48s	15	13	11	12° 20′	15	16	14	13	13° 18′	14	15	16	15	14° 14′	13	14
4h	59m 48s	16	14	12	13° 29′	16	17	15	14	14° 24′	15	16	17	16	15° 16′	15	15
5h	3m 48s	17	15	13	14° 39′	17	18	16	15	15° 30′	16	17	18	17	16° 19′	16	16
5h	7m 48s	18	16	14	15° 49′	18	19	17	16	16° 36′	17	18	19	18	17° 21′	17	17
5h	12m 48s	19	17	16	16° 59′	20	21	18	18	17° 42′	19	19	20	19	18° 24′	18	18
5h	16m 48s	20	18	17	18° 9′	21	22	19	19	18° 49′	20	20	21	20	19° 27′	19	19
5h	20m 48s	21	19	18	19° 20′	22	23	20	20	19° 56′	21	21	22	21	28° 30′ [recte: 20° 30′]	20	
5h	25m 48s	22	20	19	20° 31′	23	24	21	21	21° 3′	22	22	23	22	21° 33′	21	21
5h	29m 48s	23	21	20	21° 42′	24	25	22	22	22° 10′	23	23	24	24	22° 36′	22	22
5h	33m 48s	24	22	21	22° 52′	25	26	23	23	23° 17′	24	24	25	25	23° 39′	23	23
5h	38m 48s	25	23	22	24° 3′	26	27	24	24	24° 24′	25	25	26	26	24° 43′	24	24
5h	42m 48s	26	24	23	25° 14′	28	28	25	25	25° 31′	26	27	27	27	25° 46′	25	25
5h	46m 48s	27	25	24	26° 26′	29	29	26	26	26° 36′	27	28	28	28	26° 49′	26	26
5h	51m 48s	28	26	26	27° 37′	♏	♐	27	27	27° 46′	28	29	29	29	27° 52′	27	27
5h	55m 48s	29	27	27	28° 49′	1	1	28	28	28° 53′	♏	♐	♑	♒	28° 56′	28	28
6h	0m 48s	30	28	28	30° 0′	2	2	29	29	30° 0′	1	1	1	1	30° 0′	29	29

Table of houses for the obliquity of the ecliptic
With the ☉ in ♋
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♋	R.S. 11 ♋	R.S. 12 ♑	R.S. Horosc. ♎	R.S. 2 ♏	R.S. 3 ♐	8°: 11 ♋	8°: 12 ♑	8°: Horosc. ♎	8°: 2 ♏	8°: 3 ♐	16°: 11 ♋	16°: 12 ♑	16°: Horosc. ♎	16°: 2 ♎	16°: 3 ♏
6h	0m 0s	0	28	28	0° 0′	2	2	29	29	0° 0′	1	1	1	1	0° 0′	29	29
6h	4m 24s	1	29	29	1° 11′	3	3	♑	♒	1° 8′	2	2	2	2	1° 4′	♏	♐
6h	8m 48s	2	♑	♒	2° 23′	4	4	1	2	2° 15′	3	3	3	3	2° 8′	1	1
6h	13m 12s	3	1	1	3° 34′	6	5	2	3	3° 22′	4	4	4	4	3° 11′	2	2
6h	17m 36s	4	2	2	4° 46′	7	6	3	4	4° 29′	5	5	5	5	4° 15′	3	3
6h	21m 48s	5	3	4	5° 57′	8	7	5	5	5° 36′	6	6	6	6	5° 18′	4	4
6h	26m 40s	6	4	5	7° 8′	9	8	6	6	6° 43′	7	7	7	7	6° 21′	5	5
6h	30m 48s	7	5	6	8° 18′	10	9	7	7	7° 50′	8	8	8	8	7° 24′	6	6
6h	34m 48s	8	6	7	9° 29′	11	10	8	8	8° 57′	9	9	9	9	8° 27′	8	7
6h	39m 48s	9	7	8	10° 40′	12	11	9	9	10° 3′	10	10	10	10	9° 30′	9	8
6h	43m 48s	10	8	9	11° 51′	13	12	10	10	11° 10′	11	11	11	11	10° 33′	10	9
6h	47m 48s	11	10	10	13° 1′	14	13	11	11	12° 17′	12	12	12	12	11° 36′	11	10
6h	52m 48s	12	11	12	14° 11′	16	14	12	13	13° 23′	13	13	13	13	12° 39′	12	11
6h	56m 48s	13	12	13	15° 21′	17	15	13	14	14° 29′	15	14	14	14	13° 41′	13	12
7h	0m 54m	14	13	14	16° 31′	18	16	14	15	15° 35′	16	15	15	15	14° 44′	14	13
7h	5m 10m	15	14	15	17° 40′	19	17	15	16	16° 41′	17	16	16	17	15° 46′	15	14
7h	9m 24m	16	15	16	18° 49′	20	18	16	17	17° 47′	18	17	17	18	16° 48′	16	15
7h	13m 40m	17	16	17	19° 59′	21	19	17	18	18° 52′	19	18	18	19	17° 50′	17	16
7h	18m 32m	18	17	19	21° 8′	22	20	18	19	19° 57′	20	19	19	20	18° 51′	18	17
7h	22m 40m	19	18	20	22° 17′	23	21	19	20	21° 2′	21	20	20	21	19° 52′	19	18
7h	26m 48m	20	19	21	23° 25′	24	22	20	21	22° 7′	22	21	21	22	20° 53′	20	19

Time from noon	Diff. of time	R.S. 10 ♋	R.S. 11 ♋	R.S. 12 ♌	R.S. Horosc. ♎	R.S. ♏	R.S. 3 ♐	8°: 11 ♋	8°: 12 ♌	8°: Horosc. ♎	8°: ♏	8°: 3 ♐	16°: 11 ♌	16°: 12 ♍	16°: Horosc. ♎	16°: 2 ♎	16°: 3 ♏
7h 30m	42m 16s	21	20	22	24° 33′	25	23	21	22	23° 11′	23	22	22	23	21° 54′	21	20
7h 35m	42m 15s	22	21	23	25° 40′	26	24	22	24	24° 15′	24	23	23	24	22° 55′	21	21
7h 39m	42m 15s	23	22	24	26° 47′	27	25	23	25	25° 19′	25	24	24	25	23° 56′	22	22
7h 43m	42m 14s	24	24	26	27° 54′	28	26	25	26	26° 23′	26	25	25	26	24° 56′	23	23
7h 47m	42m 14s	25	25	27	29° 1′	29	27	26	27	27° 26′	27	26	27	27	25° 57′	24	24
7h 52m	42m 13s	26	26	28	♏ 0° 7′	♐	28	27	28	28° 29′	28	27	28	28	26° 57′	25	25
7h 56m	42m 12s	27	27	29	1° 13′	1	29	28	29	29° 32′	29	28	29	29	27° 56′	26	26
8h 0m	42m 11s	28	28	♎	2° 19′	2	♑	29	♎	♏ 0° 34′	♐	28	♍	♎	28° 56′	27	27
8h 4m	37m 11s	29	29	1	3° 24′	3	1	♍	1	1° 36′	1	29	1	1	29° 55′	28	28
8h 8m	48m 11s	30	30	3	4° 29′	4	2	1	2	2° 39′	2	30	2	2	♏ 0° 54′ [recte: 29]	20	20 [recte: 29]

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♌
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♌	R.S. 11 ♍	R.S. 12 ♎	R.S. Horosc. ♏	♐	R.S. 3 ♑	8°: 11 ♍	8°: 12 ♎	8°: Horosc. ♏	♐	8°: 3 ♑	16°: 11 ♍	16°: 12 ♎	16°: Horosc. ♏	16°: ♏	16°: 3 ♐
8h 8m	48s	0	0	3	4° 29′	4	2	1	2	2° 39′	2	0	2	2	0° 54′	29	29
8h 12m	47m 9s	1	1	4	5° 33′	5	3	2	3	3° 41′	3	1	3	3	1° 52′	♐	♑
8h 17m	47m 9s	2	2	5	6° 37′	6	4	3	4	4° 42′	4	2	4	4	2° 50′	1	1
8h 21m	47m 8s	3	3	6	7° 41′	7	5	4	5	5° 43′	5	3	5	5	3° 48′	2	2
8h 25m	42m 8s	4	4	7	8° 44′	8	6	5	7	6° 43′	5	4	6	6	4° 46′	3	3
8h 29m	48m 6s	5	6	8	9° 47′	9	7	6	8	7° 43′	6	5	7	7	5° 44′	4	4
8h 33m	44m 6s	6	7	9	10° 50′	10	8	7	9	8° 43′	7	6	8	8	6° 42′	5	4
8h 37m	40m 6s	7	8	10	11° 53′	11	9	8	10	9° 43′	8	7	9	9	7° 39′	6	5
8h 41m	44m 4s	8	9	11	12° 55′	12	10	9	11	10° 42′	9	8	10	10	8° 36′	7	6
8h 45m	48m 4s	9	10	12	13° 56′	13	11	10	12	11° 41′	10	9	11	11	9° 33′	8	7
8h 49m	41m 3s	10	11	14	14° 57′	14	11	12	13	12° 40′	11	10	12	12	10° 29′	8	8
8h 53m	38m 2s	11	12	15	15° 58′	15	12	13	14	13° 38′	12	11	13	13	11° 26′	9	9
8h 57m	35m 2s	12	13	16	16° 58′	16	13	14	15	14° 36′	13	12	14	14	12° 22′	10	10
9h 1m	56m 1s	13	14	17	17° 58′	17	14	15	16	15° 33′	14	13	15	15	13° 18′	11	11
9h 5m	54m 0s	14	15	18	18° 58′	18	15	16	17	16° 30′	15	14	16	16	14° 13′	12	12
9h 9m	54m 0s	15	16	19	19° 57′	18	16	17	18	17° 28′	16	15	17	17	15° 8′	13	13
9h 13m	33m 59s	16	17	20	20° 56′	19	17	18	19	18° 25′	17	15	18	18	16° 2′	14	14
9h 17m	33m 58s	17	19	21	21° 54′	20	18	19	20	19° 22′	18	16	19	19	16° 56′	15	15
9h 21m	30m 57s	18	20	22	22° 52′	21	19	20	21	20° 19′	18	17	20	20	17° 50′	16	16
9h 25m	47m 57s	19	21	23	23° 50′	22	20	21	22	21° 15′	19	18	21	21	18° 44′	17	17
9h 29m	43m 56s	20	22	24	24° 48′	23	21	22	23	22° 11′	20	19	22	22	19° 37′	17	18
9h 33m	38m 55s	21	23	25	25° 45′	24	22	23	24	23° 6′	21	20	23	23	20° 31′	18	19
9h 37m	32m 54s	22	24	26	26° 42′	25	23	24	25	24° 2′	22	21	24	24	21° 24′	19	20
9h 41m	30m 54s	23	25	27	27° 39′	26	23	25	26	24° 57′	23	22	25	25	22° 17′	20	20

Time from noon	Diff. of time	R.S. 10 ♌	R.S. 11 ♍	R.S. 12 ♎	R.S. Horosc. ♏	R.S. Horosc. ♐	R.S. 3 ♑	8°: 11 ♍	8°: 12 ♎	8°: Horosc. ♏	8°: Horosc. ♐	8°: 3 ♑	16°: 11 ♍	16°: 12 ♎	16°: Horosc. ♏	16°: Horosc. ♏	16°: 3 ♐
9h 45m	39m 53s	24	26	28	28° 35′	27	24	26	27	25° 52′	24	23	26	26	23° 11′	21	21
9h 49m	43m 53s	25	27	29	29° 31′	28	25	27	28	26° 46′	25	24	27	27	24° 4′	22	22
9h 53m	47m 52s	26	28	♏	♐ 0° 26′	28	26	28	29	27° 40′	26	25	28	28	24° 57′	23	23
9h 56m	51m 51s	27	29	1	1° 22′	29	27	29	♏	28° 34′	26	26	29	29	25° 49′	24	24
10h 0m	55m 51s	28	♎	2	2° 17′	♑	28	♎	1	29° 28′	27	27	♎	29	26° 41′	24	25
10h 4m	59m 50s	29	1	3	3° 12′	1	29	1	2	♐ 0° 21′	28	28	1	♏	27° 33′	25	26
10h 8m	3m 49s	30	2	4	4° 6′	2	30	2	3	1° 14′	29	28	2	1	28° 25′	26	27

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♍	R.S. 11 ♎	R.S. 12 ♏	R.S. Horosc. ♐	R.S. Horosc. ♑	R.S. 3 ♒	8°: 11 ♎	8°: 12 ♏	8°: Horosc. ♐	8°: Horosc. ♐	8°: 3 ♑	16°: 11 ♎	16°: 12 ♏	16°: Horosc. ♏	16°: Horosc. ♐	16°: 3 ♑
10h 8m 25s		0	2	4	4° 6′	2	0	2	3	1° 14′	29	28	2	1	28° 25′	26	27
10h 12m	14s 3m 4[?]s		3	5	5° 1′	3	1	3	4	2° 8′	♑	29	3	2	29° 17′	27	28
10h 16m	2s 3m 48s	2	4	6	5° 55′	4	2	4	5	3° 1′	1	♒	4	3	♐ 0° 8′	28	29
10h 19m	50s 3m 48s	3	5	7	6° 49′	5	3	5	6	3° 53′	2	1	5	4	0° 59′	29	♒
10h 23m	37s 3m 47s	4	6	8	7° 42′	5	4	6	7	4° 46′	3	2	6	5	1° 50′	♑	1
10h 27m	24s 3m 47s	5	7	9	8° 36′	6	4	7	7	5° 38′	3	3	7	6	2° 41′	1	2
10h 31m	10s 3m 46s	6	8	10	9° 29′	7	5	8	8	6° 30′	4	4	8	7	3° 31′	1	3
10h 34m	56s 3m 46s	7	10	11	10° 22′	8	6	9	9	7° 22′	5	5	9	8	4° 22′	2	4
10h 38m	42s 3m 46s	8	11	12	11° 14′	9	7	10	10	8° 14′	6	6	10	8	5° 12′	3	5
10h 42m	26s 3m 44s	9	12	13	12° 7′	10	8	11	11	9° 5′	7	7	11	9	6° 3′	4	5
10h 46m	11s 3m 45s	10	13	14	12° 59′	11	9	12	12	9° 57′	8	8	12	10	6° 53′	5	6
10h 49m	55s 3m 44s	11	14	15	13° 52′	11	10	13	13	10° 48′	9	9	13	11	7° 43′	6	7
10h 53m	39s 3m 44s	12	15	16	14° 44′	12	11	14	[?]4	11° 39′	10	10	14	12	8° 33′	7	8
10h 57m	22s 3m 43s	13	16	17	15° 35′	13	12	15	15	12° 30′	10	11	15	13	9° 24′	7	9
11h 1m	5s 3m 43s	14	17	18	16° 27′	14	13	16	16	13° 20′	11	12	16	14	10° 14′	8	10
11h 4m	47s 3m 42s	15	18	19	17° 18′	15	14	17	17	14° 11′	12	12	17	15	11° 4′	9	11
11h 8m	30s 3m 4[?]s	16	19	20	18° 10′	16	15	18	17	15° 2′	13	13	18	15	11° 54′	10	12
11h 12m	12s 3m 42s	17	20	21	19° 1′	17	16	19	18	15° 53′	14	14	18	16	12° 43′	11	13
11h 15m	53s 3m 41s	18	21	21	19° 52′	18	17	20	19	16° 4[?]′		15	19	17	13° 33′	12	14
11h 19m	35s 3m 42s	19	22	22	20° 45′	18	17	21	20	17° 34′	16	16	20	18	14° 22′	13	15
11h 23m	16s 3m 41s	20	23	23	21° 34′	19	18	22	21	18° 24′	16	17	21	19	15° 12′	14	16
11h 26m	57s 3m 41s	21	24	24	22° 25′	20	19	23	22	19° 14′	17	18	22	20	1[?]° 1′	15	17
11h 30m	38s 3m 41s	22	24	25	23° 16′	21	20	24	23	20° 5′	18	19	23	20	16° 51′	15	18
11h 34m	18s 3m 40s	23	25	26	24° 7′	22	21	25	24	20° 5[?]′		20	24	21	17° 40′	16	19
11h 37m	59s 3m 41s	24	26	27	24° 57′	23	22	26	24	21° 45′	20	21	25	22	18° 29′	17	20
11h 41m	39s 3m 40s	25	27	28	25° 48′	24	23	27	25	22° 35′	21	22	26	23	19° 19′	18	21
11h 45m	20s 3m 41s	26	28	29	26° 38′	24	24	28	26	23° 25′	22	23	27	24	20° 9′	19	22

Time from noon	Diff. of time	R.S. 10 ♍	R.S. 11 ♎	R.S. 12 ♏	R.S. Horosc. ♐	R.S. ♑	R.S. 3 ♒	8°: 11 ♎	8°: 12 ♏	8°: Horosc. ♐	8°: ♐	8°: 3 ♑	16°: 11 ♎	16°: 12 ♏	16°: Horosc. ♏	16°: ♐	16°: 3 ♑
11h 48m 0s [recte: 11h 49m 0s]	3m 40s	27	29	29	27° 28′	25	25	28	27	24° 15′	23	24	28	25	20° 58′	20	23
11h 52m 40s	3m 40s	28	♏	♐	28° 18′	26	26	29	28	25° 6′	23	25	29	25	21° 47′	21	24
11h 56m 20s	3m 40s	29	1	1	29° 9′	27	27	♏	29	25° 56′	24	26	♏	26	22° 37′	22	25
12h 0m 0s	3m 40s	30	2	2	30° 0′	28	28	1	30	26° 46′	25	27	0	27	23° 27′	23	26

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♎
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♎	R.S. 11 ♏	R.S. 12 ♐	R.S. Horosc. ♑	R.S. ♑	R.S. 3 ♒	8°: 11 ♏	8°: 12 ♐	8°: Horosc. ♐	8°: ♑	8°: 3 ♒	16°: 11 ♏	16°: 12 ♐	16°: Horosc. ♑	16°: ♑	16°: 3 ♒
12h 0m 0s	0	2	2	0° 0′	28	28	1	0	26° 46′	25	27	0	27	23° 27′	23	26	
12h 3m 40s	3m 40s	1	3	3	0° 51′	29	29	2	0	27° 37′	26	28	1	28	24° 17′	23	27
12h 7m 20s	3m 40s	2	4	4	1° 42′	♒	♓	3	1	28° 27′	27	29	2	29	25° 7′	24	28
12h 11m 0s	3m 40s	3	5	5	2° 32′	1	1	4	2	29° 18′	28	♓	3	♐	25° 57′	25	29
12h 14m 40s	3m 40s	4	6	6	3° 22′	1	2	5	3	♑ 0° 8′	29	1	4	1	26° 47′	26	♓
12h 18m 21s	3m 41s	5	7	6	4° 13′	2	3	6	4	0° 59′	♒	2	5	1	27° 38′	27	1
12h 22m 1m 40s		6	8	7	5° 3′	3	4	7	5	1° 50′	1	3	6	2	28° 28′	28	2
12h 25m 42s	3m 41s	7	9	8	5° 54′	4	5	8	6	2° 40′	2	4	7	3	29° 18′	29	3
12h 29m 22m 40s		8	10	9	6° 44′	5	6	9	6	3° 31′	3	5	8	4	♋ [recte: ♑] 0° 9′	♒	4
12h 33m 3m 41s		9	11	10	7° 35′	6	6	10	7	4° 22′	3	6	9	5	1° 0′	1	5
12h 36m 3m 41s		10	12	11	8° 26′	7	7	11	8	5° 13′	4	7	9	6	1° 51′	2	6
12h 40m 3m 41s		11	13	12	9° 17′	8	8	11	9	6° 4′	5	8	10	6	2° 42′	3	7
12h 44m 37m 42s		12	14	13	10° 8′	9	9	12	10	6° 55′	6	9	11	7	3° 34′	4	8
12h 47m 34m 41s		13	14	13	10° 59′	9	10	13	11	7° 46′	7	10	12	8	4° 25′	5	9
12h 51m 38m 42s		14	15	14	11° 50′	10	11	14	12	8° 38′	8	11	13	9	5° 16′	6	10
12h 55m 31m 43s		15	16	15	12° 42′	11	12	15	12	9° 30′	9	12	14	10	6° 7′	7	11
12h 58m 35m 42s		16	17	16	13° 33′	12	13	16	13	10° 22′	10	13	15	11	6° 59′	8	12
13h 2m 38m 43s		17	18	17	14° 25′	13	14	17	14	11° 15′	11	14	16	11	7° 51′	9	13
13h 6m 31m 43s		18	19	18	15° 16′	14	15	18	15	12° 7′	12	15	17	12	8° 43′	10	14
13h 10m 35m 44s		19	20	19	16° 8′	15	16	19	16	12° 59′	13	16	18	13	9° 36′	11	16
13h 13m 34m 44s		20	21	19	17° 1′	16	17	20	17	13° 52′	14	17	18	14	10° 29′	12	17
13h 17m 34m 45s		21	22	20	17° 53′	17	18	20	17	14° 45′	15	18	19	15	11° 22′	13	18
13h 21m 38m 44s		22	23	21	18° 46′	18	20	21	18	15° 38′	16	19	20	16	12° 15′	14	19
13h 25m 34m 46s		23	24	22	19° 38′	19	21	22	19	16° 31′	17	20	21	16	13° 9′	15	20
13h 28m 35m 46s		24	25	23	20° 31′	20	22	23	20	17° 25′	18	21	22	17	14° 3′	16	21
13h 32m 36m 46s		25	26	24	21° 24′	21	23	24	21	18° 19′	19	22	23	18	14° 58′	17	22
13h 36m 32m 47s		26	26	25	22° 17′	22	24	25	22	19° 13′	20	23	24	19	15° 53′	18	23
13h 40m 31m 47s		27	27	25	23° 11′	23	25	26	23	20° 7′	21	24	25	20	16° 48′	19	24
13h 43m 35m 48s		28	28	26	24° 5′	24	26	27	23	21° 2′	22	25	26	21	17° 43′	20	25

Time from noon	Diff. of time	R.S. 10 ♎	R.S. 11 ♏	R.S. 12 ♐	R.S. Horosc. ♍	R.S. ♍	R.S. 3 ♒	8°: 11 ♏	8°: 12 ♐	8°: Horosc. ♐	8°: ♍	8°: 3 ♒	16°: 11 ♏	16°: 12 ♏	16°: Horosc. ♐	16°: ♍	16°: 3 ♒
13h 47m 34s	18s	29	29	27	24° 59′	25	27	28	24	21° 57′	23	27	26	21	18° 38′	21	26
13h 51m 35s	49s	30	30	28	25° 54′	26	28	29	25	22° 53′	24	28	27	22	19° 34′	22	28

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♏
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♏	R.S. 11 ♐	R.S. 12 ♐	R.S. Horosc. ♍	R.S. ♒	R.S. 3 ♓	8°: 11 ♏	8°: 12 ♐	8°: Horosc. ♍	8°: ♒	8°: 3 ♓	16°: 11 ♏	16°: 12 ♐	16°: Horosc. ♍	16°: ♒	16°: 3 ♓
13h 51m 35s		0	0	28	25° 54′	26	28	29	25	22° 53′	24	28	27	22	19° 34′	22	28
13h 55m 34s	49s	1	1	29	26° 48′	27	29	♐	26	23° 48′	25	29	28	23	20° 30′	23	29
13h 59m 34s	50s	2	2	♍	27° 43′	28	♈	1	27	24° 44′	26	♈	29	24	21° 27′	24	♈
14h 3m 33m	51s	3	3	1	28° 38′	29	1	1	28	25° 40′	27	1	♐	25	22° 24′	25	1
14h 6m 33s	51s	4	4	2	29° 34′	♓	2	2	29	26° 37′	28	2	1	26	23° 22′	26	2
14h 10m 34m	52s	5	5	2	♒ 0° 29′	1	3	3	♍	27° 34′	29	3	2	27	24° 20′	27	3
14h 14m 34s	53s	6	6	3	1° 25′	2	4	4	1	28° 31′	♓	4	3	28	25° 18′	28	4
14h 18m 34s	53s	7	7	4	2° 21′	3	5	5	1	29° 29′	1	5	4	29	26° 17′	♓	5
14h 22m 35s	54s	8	7	5	3° 18′	4	6	6	2	♒ 0° 26′	2	6	4	♍	27° 16′	1	7
14h 26m 35s	54s	9	8	6	4° 15′	5	7	7	3	1° 24′	3	7	5	0	28° 16′	2	8
14h 30m 36s	55s	10	9	7	5° 12′	6	8	8	4	2° 23′	4	8	6	1	29° 17′	3	9
14h 34m 36s	56s	11	10	8	6° 10′	7	9	9	5	3° 22′	6	10	7	2	♒ 0° 18′	4	10
14h 38m 37s	57s	12	11	9	7° 8′	8	10	10	6	4° 22′	7	11	8	3	1° 19′	5	11
14h 42m 37s	57s	13	12	10	8° 6′	9	11	10	7	5° 22′	8	12	9	4	2° 21′	6	12
14h 46m 38s	58s	14	13	11	9° 4′	10	13	11	8	6° 22′	9	13	10	5	3° 23′	8	13
14h 50m 39s	59s	15	14	11	10° 3′	11	14	12	9	7° 23′	10	14	11	6	4° 25′	9	14
14h 54m 40s	0s	16	15	12	11° 2′	12	15	13	10	8° 24′	11	15	12	7	5° 28′	10	16
14h 58m 40s	0s	17	16	13	12° 2′	13	16	14	11	9° 26′	12	16	13	8	6° 31′	11	17
15h 2m 41m	1s	18	17	14	13° 2′	14	17	15	12	10° 28′	13	17	14	9	7° 35′	12	18
15h 6m 41m	2s	19	18	15	14° 2′	15	18	16	12	11° 31′	14	18	14	10	8° 40′	14	19
15h 10m 42s	2s	20	19	16	15° 3′	16	19	17	13	12° 34′	16	20	15	11	9° 45′	15	20
15h 14m 42s	3s	21	19	17	16° 4′	18	20	18	14	13° 38′	17	21	16	11	10° 51′	16	21
15h 18m 43s	4s	22	20	18	17° 5′	19	21	19	15	14° 43′	18	22	17	12	11° 57′	17	22
15h 22m 43s	5s	23	21	19	18° 7′	20	22	20	16	15° 48′	19	23	18	13	13° 4′	18	24
15h 26m 44s	6s	24	22	20	19° 10′	21	23	21	17	16° 52′	20	24	19	14	14° 12′	20	25
15h 30m 45s	6s	25	23	21	20° 13′	22	24	22	18	17° 57′	21	25	20	15	15° 20′	21	26
15h 34m 46s	6s	26	24	22	21° 16′	23	26	23	19	19° 2′	23	26	21	16	16° 28′	22	27
15h 38m 46s	8s	27	25	23	22° 19′	24	27	24	20	20° 8′	24	27	22	17	17° 37′	24	28
15h 42m 45m	48s	28	26	24	23° 23′	25	28	24	21	21° 15′	25	29	23	18	18° 46′	25	29
15h 47m 43s	9s	29	27	25	24° 27′	26	29	25	22	22° 22′	26	♉	24	19	19° 56′	26	♉
15h 51m 42s	9s	30	28	26	25° 31′	28	30	26	23	23° 29′	27	1	25	20	21° 7′	27	[?]

[77] —*constructed for the maximum, 23° 31′ 30″.*
With the ☉ in ♐
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♐	R.S. 11 ♐	R.S. 12 ♑	R.S. Horosc. ♒	R.S. 2 ♓	R.S. 3 ♉	8°: 11 ♐	8°: 12 ♑	8°: Horosc. ♒	8°: 2 ♓	8°: 3 ♉	16°: 11 ♐	16°: 12 ♑	16°: Horosc. ♒	16°: 2 ♓	16°: 3 ♉
15h 51m 12s	0	28	26	25° 31′	28	0	26	23	23° 29′	27	1	25	20	21° 7′	27	2	
15h 55m 42s	11s 1	29	27	26° 35′	29	1	27	24	24° 36′	29	2	26	21	22° 18′	29	3	
15h 59m 43s	11s 2	♑	28	27° 40′	♈	2	28	25	25° 44′	♈	3	27	22	23° 30′	♈	4	
16h 3m 45s	11s 3	1	29	28° 46′	1	3	29	26	26° 53′	1	4	28	23	24° 43′	1	5	
16h 7m 47s	12s 4	2	♓	29° 52′	2	4	♑	27	28° 2′	2	5	29	24	25° 56′	2	6	
16h 12m 48s	13s 5	3	1	♈ 0° 59′	3	5	1	28	29° 12′	3	6	♑	26	27° 10′	4	7	
16h 16m 42s	14s 6	4	2	2° 6′	4	6	2	29	♓ 0° 22′	5	7	1	27	28° 24′	5	9	
16h 20m 43s	14s 7	5	3	3° 13′	6	8	3	♒	1° 33′	6	9	2	28	29° 39′	6	10	
16h 24m 45s	15s 8	6	4	4° 20′	7	9	4	1	2° 44′	7	10	2	29	♓ 0° 54′	8	11	
16h 29m 48s	15s 9	7	5	5° 28′	8	10	5	2	3° 56′	8	11	3	♒	2° 10′	9	12	
16h 33m 42s	16s 10	8	6	6° 35′	9	11	6	3	6° 7′	10	12	4	1	3° 26′	10	13	
16h 37m 44s	16s 11	9	7	7° 43′	10	12	7	5	6° 19′	11	13	5	2	4° 42′	11	14	
16h 41m 45s	17s 12	10	8	8° 52′	11	13	8	6	7° 31′	12	14	6	3	5° 58′	13	15	
16h 46m 41s	17s 13	11	9	10° 1′	13	14	9	7	8° 44′	13	15	7	4	7° 15′	14	16	
16h 50m 43s	18s 14	12	10	11° 11′	14	15	10	8	9° 57′	14	16	8	5	8° 33′	15	18	
16h 54m 45s	18s 15	13	11	12° 20′	15	16	11	9	11° 10′	16	17	9	6	9° 52′	17	19	
16h 59m 49s	19s 16	14	12	13° 29′	16	17	12	10	12° 24′	17	18	10	8	11° 11′	18	20	
17h 3m 48s	19s 17	15	13	14° 39′	17	18	13	11	13° 39′	18	20	11	9	12° 30′	19	21	
17h 7m 47s	19s 18	16	14	15° 49′	18	19	14	12	14° 54′	19	21	12	10	13° 50′	21	22	
17h 12m 47s	20s 19	17	16	16° 59′	20	21	15	13	16° 8′	21	22	13	11	15° 10′	22	23	
17h 16m 42s	20s 20	18	17	18° 9′	21	22	16	15	17° 23′	22	23	14	12	16° 30′	23	24	
17h 20m 44s	21s 21	19	18	19° 20′	22	23	17	16	18° 38′	23	24	15	13	17° 51′	24	25	
17h 25m 48s	20s 22	20	19	20° 31′	23	24	18	17	19° 53′	24	25	17	15	19° 11′	26	26	
17h 29m 42s	21s 23	21	20	21° 42′	24	25	19	18	21° 8′	26	26	18	16	20° 32′	27	28	
17h 33m 45s	21s 24	22	21	22° 52′	25	26	20	19	22° 24′	27	27	19	17	21° 53′	28	29	
17h 38m 42s	22s 25	23	22	24° 3′	26	27	21	20	23° 40′	28	28	20	18	23° 13′	29	♊	
17h 42m 43s	21s 26	24	23	25° 14′	28	28	22	21	24° 56′	29	29	21	19	24° 34′	♉	1	
17h 46m 45s	22s 27	25	24	26° 26′	29	29	23	23	26° 12′	♉	♊	22	21	25° 55′	2	2	
17h 51m 46s	21s 28	26	26	27° 37′	♉	♊	24	24	27° 28′	1	1	23	22	27° 16′	3	3	
17h 55m 48s	22s 29	27	27	28° 49′	1	1	25	25	28° 44′	3	3	24	23	28° 38′	5	4	
18h 0m 0s	22s 30	28	28	30° 0′	2	2	26	26	30° 0′	4	4	25	24	30° 0′	6	5	

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♑
For the right sphere · For latitude 8° · For latitude 16°

[77] the third-house column for latitude 16° is cut off in this copy and is supplied from a second copy of the same printing.

Time from noon	Diff. of time	R.S. 10 ♒	R.S. 11 ♒	R.S. 12 ♒	R.S. Horosc ♈	R.S. ♉	R.S. 3 ♊	8°: 11 ♒	8°: 12 ♓	8°: Horosc ♈	8°: ♉	8°: 3 ♊	16°: 11 ♒	16°: 12 ♒	16°: Horosc ♈	16°: ♉	16°: 3 ♊
18h 0m 0s		0	28	28	0° 0′	2	2	26	26	0° 0′	4	4	25	24	0° 0′	6	5
18h 4m 22s		1	29	29	1° 11′	3	3	27	27	1° 16′	5	5	26	26	1° 21′	7	6
18h 8m 44s		2	♒	♓	2° 23′	4	4	29	29	2° 32′	6	6	27	27	2° 43′	8	7
18h 13m 5s		3	1	1	3° 34′	6	5	♒	♓	3° 48′	7	7	28	28	4° 5′	9	8
18h 17m 27s		4	2	2	4° 46′	7	6	1	1	5° 4′	9	8	29	29	5° 26′	11	9
18h 21m 48s		5	3	4	5° 57′	8	7	2	2	6° 20′	10	9	♒	♓	6° 47′	12	10
18h 26m 10s		6	4	5	7° 8′	9	8	3	3	7° 36′	11	10	1	2	8° 8′	13	11
18h 30m 31s		7	5	6	8° 18′	10	9	4	4	8° 52′	12	11	2	3	9° 28′	14	12
18h 34m 52s		8	6	7	9° 29′	11	10	5	6	10° 7′	13	12	4	4	10° 49′	15	13
18h 39m 14s		9	7	8	10° 40′	12	11	6	7	11° 22′	14	13	5	6	12° 10′	17	14
18h 43m 35s		10	8	9	11° 51′	13	12	7	8	12° 37′	15	14	6	7	13° 31′	18	16
18h 47m 56s		11	10	10	13° 1′	14	13	8	9	13° 52′	17	15	7	8	14° 51′	19	17
18h 52m 18s		12	11	12	14° 11′	16	14	9	11	15° 6′	18	16	8	9	16° 10′	20	18
18h 56m 39s		13	12	13	15° 21′	17	15	10	12	16° 20′	19	17	9	11	17° 30′	21	19
19h 0m 1s		14	13	14	16° 31′	18	16	11	13	17° 35′	20	18	10	12	18° 49′	22	20
19h 5m 19s		15	14	15	17° 40′	19	17	13	14	18° 49′	21	19	11	13	20° 8′	24	21
19h 9m 38s		16	15	16	18° 49′	20	18	14	15	20° 3′	22	20	12	15	21° 27′	25	22
19h 13m 57s		17	16	17	19° 59′	21	19	15	17	21° 17′	23	21	13	16	22° 45′	26	23
19h 18m 17s		18	17	19	21° 8′	22	20	16	18	22° 30′	24	22	15	17	24° 2′	27	24
19h 22m 36s		19	18	20	22° 17′	23	21	17	19	23° 42′	25	23	16	18	25° 19′	28	25
19h 26m 56s		20	19	21	23° 25′	24	22	18	20	24° 53′	26	24	17	20	26° 36′	29	26
19h 30m 15s		21	20	22	24° 33′	25	23	19	22	26° 5′	28	25	18	21	27° 52′	♊	27
19h 35m 15s		22	21	23	25° 40′	26	24	20	23	27° 16′	29	26	19	22	29° 7′	1	28
19h 39m 42s		23	22	24	26° 47′	27	25	21	24	28° 27′	♊	27	20	24	♉ 0° 22′	2	28
19h 43m 36s		24	24	26	27° 54′	28	26	23	25	29° 37′	1	28	21	25	1° 36′	3	29
19h 47m 50s		25	25	27	29° 1′	29	27	24	26	♉ 0° 47′	2	29	23	26	2° 50′	4	♋
19h 52m 43s		26	26	28	♉ 0° 7′	♊	28	25	28	1° 57′	3	♋	24	28	4° 4′	6	1
19h 56m 45s		27	27	29	1° 13′	1	29	26	29	3° 7′	4	1	25	29	5° 17′	7	2
20h 0m 26s		28	28	♈	2° 19′	2	♋	27	♈	4° 16′	5	2	26	♈	6° 30′	8	3
20h 4m 7s		29	29	1	3° 24′	3	1	28	1	5° 24′	6	3	27	1	7° 42′	9	4
20h 8m 48s		30	30	3	4° 29′	4	2	29	3	6° 32′	7	4	28	3	8° 53′	10	5

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♒
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♒	R.S. 11 ♓	R.S. 12 ♈	R.S. Horosc ♉	R.S. ♊	R.S. 3 ♋	8°: 11 ♒	8°: 12 ♈	8°: Horosc ♉	8°: ♊	8°: 3 ♋	16°: 11 ♒	16°: 12 ♈	16°: Horosc ♉	16°: ♊	16°: 3 ♋
20h 8m 48s		0	0	3	4° 29′	4	2	29	3	6° 32′	7	4	28	3	8° 53′	10	5
20h 12m 57s		1	1	4	5° 33′	5	3	♓	4	7° 39′	8	5	29	4	10° 3′	11	6
20h 17m 6s		2	2	5	6° 37′	6	4	1	5	8° 46′	9	6	♓	5	11° 13′	12	7
20h 21m 14s		3	3	6	7° 41′	7	5	3	6	9° 52′	10	6	2	7	12° 22′	13	8

Time from noon	Diff. of time	R.S. 10 ♒	R.S. 11 ♓	R.S. 12 ♈	R.S. Horosc. ♉	R.S. Horosc. ♊	R.S. 3 ♋	8°: 11 ♒	8°: 12 ♈	8°: Horosc. ♉	8°: Horosc. ♊	8°: 3 ♋	16°: 11 ♒	16°: 12 ♈	16°: Horosc. ♉	16°: Horosc. ♊	16°: 3 ♋
20h 25m 42s	28	4	4	7	8° 44′	8	6	4	7	10° 58′	11	7	3	8	13° 31′	14	9
20h 29m 46s	28	5	6	8	9° 47′	9	7	5	9	12° 3′	12	8	4	9	14° 40′	15	10
20h 33m 43s	46	6	7	9	10° 50′	10	8	6	10	13° 9′	13	9	5	10	15° 48′	16	11
20h 37m 44s	06	7	8	10	11° 53′	11	9	7	11	14° 14′	14	10	6	12	16° 55′	17	12
20h 41m 44s	44	8	9	11	12° 55′	12	10	8	12	15° 18′	15	11	7	13	18° 2′	18	13
20h 45m 44s	84	9	10	12	13° 56′	13	11	9	13	16° 22′	16	12	9	14	19° 8′	19	14
20h 49m 45s	13	10	11	14	14° 57′	14	11	10	14	17° 25′	17	13	10	15	20° 14′	20	15
20h 53m 45s	32	11	12	15	15° 58′	15	12	12	15	18° 28′	18	14	11	16	21° 19′	20	16
20h 57m 45s	52	12	13	16	16° 58′	16	13	13	17	19° 31′	18	15	12	18	22° 24′	21	16
21h 1m 46s	1	13	14	17	17° 58′	17	14	14	18	20° 33′	19	16	13	19	23° 28′	22	17
21h 5m 46s	0	14	15	18	18° 58′	18	15	15	19	21° 35′	20	17	14	20	24° 31′	23	18
21h 9m 46s	0	15	16	19	19° 57′	18	16	16	20	22° 36′	21	18	15	21	25° 34′	24	19
21h 13m 35ms	59	16	17	20	20° 56′	19	17	17	21	23° 37′	22	19	16	22	26° 37′	25	20
21h 17m 33ms	58	17	19	21	21° 54′	20	18	18	22	24° 37′	23	20	18	24	27° 39′	26	21
21h 21m 35ms	57	18	20	22	22° 52′	21	19	19	23	25° 37′	24	20	19	25	28° 41′	27	22
21h 25m 34ms	57	19	21	23	23° 50′	22	20	20	24	26° 37′	25	21	20	26	29° 42′	28	23
21h 29m 34ms	56	20	22	24	24° 48′	23	21	22	26	27° 36′	26	22	21	27	♊ 0° 42′	29	24
21h 33m 33ms	55	21	23	25	25° 45′	24	22	23	27	28° 35′	27	23	22	28	1° 43′	♋	25
21h 37m 33ms	54	22	2[?]	26	26° 42′	25	23	24	28	29° 34′	28	24	23	29	2° 43′	1	25
21h 41m 32ms	54	23	25	27	27° 39′	26	23	25	29	♊ 0° 33′	29	25	25	♉	3° 42′	1	26
21h 45m 31ms	53	24	26	28	28° 35′	27	24	26	♉	1° 31′	29	26	26	2	4° 41′	2	27
21h 49m 31ms	53	25	27	29	29° 31′	28	25	27	1	2° 28′	♋	27	27	3	5° 40′	3	28
21h 53m 31ms	52	26	28	♉	♊ 0° 26′	28	26	28	2	3° 25′	1	28	28	4	6° 38′	4	29
21h 56m 30ms	51	27	29	1	1° 22′	29	27	29	3	4° 21′	2	29	29	5	7° 36′	5	♌
22h 0m 30ms	51	28	♈	2	2° 17′	♋	28	♈	4	5° 16′	3	♌	♓	6	8° 33′	6	1
22h 4m 30ms	50	29	1	3	3° 12′	1	29	1	5	6° 12′	4	0	1	7	9° 30′	7	2
22h 8m 29ms	49	30	2	4	4° 6′	2	30	2	6	7° 7′	5	1	2	8	10° 26′	8	3

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♓
For the right sphere · For latitude 8° · For latitude 16°

Time from noon	Diff. of time	R.S. 10 ♓	R.S. 11 ♈	R.S. 12 ♉	R.S. Horosc. ♊	R.S. Horosc. ♋	R.S. 3 ♌	8°: 11 ♓	8°: 12 ♉	8°: Horosc. ♊	8°: Horosc. ♋	8°: 3 ♌	16°: 11 ♓	16°: 12 ♉	16°: Horosc. ♊	16°: Horosc. ♋	16°: 3 ♌
22h 8m 25s		0	2	4	4° 6′	2	0	2	6	7° 7′	5	1	2	8	10° 25′	8	3
22h 12m 14s	3m 49s	1	3	5	5° 1′	3	1	3	7	8° 3′	6	2	4	9	11° 22′	8	4
22h 16m 2s	3m 48s	2	4	6	5° 55′	4	2	5	8	8° 58′	6	3	5	10	12° 17′	9	4
22h 19m 50s	3m 48s	3	5	7	6° 49′	5	3	6	9	9° 53′	7	4	6	11	13° 12′	10	5
22h 23m 37s	3m 47s	4	6	8	7° 43′	5	4	7	10	10° 47′	8	5	7	12	14° 7′	11	6
22h 27m 24s	3m 47s	5	7	9	8° 36′	6	4	8	11	11° 41′	9	6	8	13	15° 2′	12	7
22h 31m 10s	3m 46s	6	8	10	9° 29′	7	5	9	12	12° 35′	10	7	9	14	15° 56′	13	8
22h 34m 56s	3m 46s	7	10	11	10° 22′	8	6	10	13	13° 29′	11	8	10	15	16° 51′	14	9

Time from noon	Diff. of time	R.S. 10 ♓	R.S. 11 ♈	R.S. 12 ♉	R.S. Horosc. ♊ ♋	R.S. 3 ♌	8°: 11 ♈	8°: 12 ♉	8°: Horosc. ♊ ♋	8°: 3 ♌	16°: 11 ♈	16°: 12 ♉	16°: Horosc. ♊ ♋	16°: 3 ♌
22h 38m 42s	3m 46s	8	11	12	11° 14′ 9	7	11	14	14° 22′ 2	9	11	16	17° 45′ 14	10
22h 42m 26s	3m 44s	9	12	13	12° 7′ 10	8	12	15	15° 15′ 12	9	12	17	18° 39′ 15	11
22h 46m 11s	3m 45s	10	13	14	12° 59′ 11	9	13	16	16° 8′ 13	10	13	18	19° 32′ 16	12
22h 49m 55s	3m 44s	11	14	15	13° 52′ 11	10	14	17	17° 1′ 14	11	14	19	20° 25′ 17	12
22h 53m 39s	3m 44s	12	15	16	14° 44′ 12	11	15	18	17° 53′ 15	12	16	20	21° 17′ 18	13
22h 57m 22s	3m 43s	13	16	17	15° 35′ 13	12	16	19	18° 45′ 16	13	17	21	22° 9′ 19	14
23h 1m 5s	3m 43s	14	17	18	16° 27′ 14	13	17	20	19° 38′ 17	14	18	22	23° 1′ 19	15
23h 4m 47s	3m 42s	15	18	19	17° 19′ 15	14	18	21	20° 30′ 18	15	19	23	23° 53′ 20	16
23h 8m 30s	3m 43s	16	19	20	18° 10′ 16	15	19	22	21° 22′ 18	16	20	24	24° 44′ 21	17
23h 12m 12s	3m 42s	17	20	21	19° 1′ 17	16	20	23	22° 14′ 19	17	21	25	25° 36′ 22	18
23h 15m 53s	3m 41s	18	21	21	19° 52′ 18	17	21	24	23° 5′ 20	18	22	26	26° 27′ 23	19
23h 19m 35s	3m 42s	19	22	22	20° 43′ 18	17	22	25	23° 56′ 21	19	23	27	27° 18′ 24	20
23h 23m 16s	3m 41s	20	23	23	21° 34′ 19	18	23	26	24° 47′ 22	19	24	28	28° 9′ 24	20
23h 26m 57s	3m 41s	21	24	24	22° 25′ 20	19	24	27	25° 38′ 23	20	25	29	29° 0′ 25	21
23h 30m 38s	3m 41s	22	24	25	23° 16′ 21	20	25	28	26° 29′ 24	21	26	♊	29° 51′ 26	22
23h 34m 18s	3m 40s	23	25	26	24° 6′ 22	21	26	28	27° 20′ 24	22	27	1	♋ 27 0° 42′	23
23h 37m 59s	3m 41s	24	26	27	24° 57′ 23	22	27	29	28° 11′ 25	23	28	2	1° 32′ 28	24
23h 41m 39s	3m 40s	25	27	28	25° 47′ 24	23	28	♊	29° 1′ 26	24	29	3	2° 22′ 29	25
23h 45m 20s	3m 41s	26	28	29	26° 37′ 24	24	29	1	29° 52′ 27	25	♉	4	3° 13′ 29	26
23h 48m 0s [recte: 23h 49m 0s]	3m 40s	27	29	29	27° 28′ 25	25	♉	2	♋ 28 0° 42′	26	1	5	4° 3′ ♌	27
23h 52m 40s	3m 40s	28	♉	♊	28° 18′ 26	26	1	3	1° 33′ 29	27	2	6	4° 53′ 1	28
23h 56m 20s	3m 40s	29	1	1	29° 9′ 27	27	2	4	2° 23′ 29	28	3	7	5° 43′ 2	29
24h 0m 0s	3m 40s	30	2	2	30° 0′ 28	28	3	5	3° 14′ ♌	29	4	7	6° 33′ 3	30

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♈
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♈	24°: 11 ♉	24°: 12 ♊	24°: Horosc. ♋ ♌	24°: 3 ♍	30°: 11 ♉	30°: 12 ♊	30°: Horosc. ♋ ♌	30°: 3 ♍	34°: 11 ♉	34°: 12 ♊	34°: Horosc. ♋ ♌	34°: 3 ♍
0h 0m 0s	0	0	5	11	10° 5′ 5	0	6	13	12° 59′ 7	1	7	15	15° 4′ 9	2
0h 3m 45s	3m 40s	1	6	11	10° 54′ 6	1	7	14	13° 47′ 8	2	8	16	15° 51′ 9	2
0h 7m 29s	3m 40s	2	7	12	11° 42′ 7	2	8	15	14° 35′ 9	3	9	17	16° 38′ 10	3
0h 11m 13s	3m 40s	3	8	13	12° 31′ 8	3	9	16	15° 23′ 10	4	10	18	17° 24′ 11	4
0h 14m 53s	3m 40s	4	9	14	13° 20′ 8	4	11	17	16° 10′ 10	5	11	19	18° 10′ 12	5
0h 18m 34s	3m 41s	5	10	15	14° 8′ 9	5	12	18	16° 58′ 11	6	12	20	18° 57′ 12	6
0h 22m 14s	3m 40s	6	11	16	14° 57′ 10	6	13	19	17° 45′ 12	6	13	21	19° 44′ 13	7
0h 25m 56s	3m 41s	7	12	17	15° 45′ 11	7	14	20	18° 32′ 13	7	14	22	20° 30′ 14	8
0h 29m 36s	3m 40s	8	13	18	16° 34′ 12	8	15	20	19° 19′ 14	8	15	22	21° 16′ 15	8
0h 33m 17s	3m 41s	9	14	19	17° 22′ 13	8	16	21	20° 6′ 14	9	16	23	22° 2′ 15	9
0h 36m 58s	3m 41s	10	15	20	18° 11′ 13	9	17	22	20° 54′ 15	10	17	24	22° 49′ 16	10
0h 40m 39s	3m 41s	11	16	20	18° 59′ 14	10	18	23	21° 41′ 16	11	18	25	23° 35′ 17	11
0h 44m 19s	3m 40s	12	17	21	19° 48′ 15	11	19	24	22° 28′ 17	12	19	26	24° 22′ 18	12

Time from noon	Diff. of time	24°: 10 ♈	24°: 11 ♉	24°: 12 ♊	24°: 24°: Horosc2 ♋ ♌	24°: 3 ♍	30°: 11 ♉	30°: 12 ♊	30°: 30°: Horosc2 ♋ ♌	30°: 3 ♍	34°: 11 ♉	34°: 12 ♊	34°: 34°: Horosc2 ♋ ♌	34°: 3 ♍
0h 47m 36s	41s	13	18	22	20° 36′16	12	20	25	23° 16′17	13	20	27	25° 8′ 19	13
0h 51m 30s	42s	14	19	23	21° 25′17	13	21	26	24° 3′ 18	13	21	28	25° 54′19	14
0h 55m 24s	43s	15	20	24	22° 13′18	14	22	26	24° 50′19	14	22	28	26° 40′20	15
0h 58m 35s	42s	16	21	25	23° 2′ 18	15	23	27	25° 37′20	15	23	29	27° 26′21	15
1h 2m 38s	43s	17	22	26	23° 50′19	16	24	28	26° 25′21	16	24	♋	28° 12′22	16
1h 6m 25s	43s	18	23	27	24° 39′20	17	25	29	27° 12′22	17	25	1	28° 59′23	17
1h 10m 8s	44s	19	24	27	25° 28′21	18	26	♋	27° 59′22	18	26	2	29° 45′23	18
1h 13m 49s	44s	20	25	28	26° 16′22	19	27	1	28° 46′23	19	27	3	♌ 0° 32′	24 19
1h 17m 34s	45s	21	26	29	27° 5′ 23	19	28	2	29° 34′24	20	28	4	1° 18′	25 20
1h 21m 15s	44s	22	27	♋	27° 54′23	20	29	3	♌ 0° 21′	25 21	29	5	2° 4′	26 21
1h 25m 4s	46s	23	28	1	28° 43′24	21	♊	3	1° 8′	26 22	♊	5	2° 51′	26 22
1h 28m 30s	46s	24	29	2	29° 32′25	22	0	4	1° 56′	26 22	1	6	3° 37′	27 23
1h 32m 30s	46s	25	♊	3	♌ 0° 21′	26 23	1	5	2° 44′	27 23	2	7	4° 24′	28 23
1h 36m 33s	47s	26	1	3	1° 10′	27 24	2	6	3° 32′	28 24	3	8	5° 11′	29 24
1h 40m 30s	47s	27	2	4	2° 0′	28 25	3	7	4° 20′	29 25	4	9	5° 58′	♍ 25
1h 43m 38s	48s	28	3	5	2° 49′	29 26	4	8	5° 8′	♍ 26	5	9	6° 45′	0 26
1h 47m 46s	48s	29	4	6	3° 39′	29 27	5	9	5° 56′	1 27	6	10	7° 31′	1 27
1h 51m 33s	49s	30	5	7	4° 28′	30 28	6	9	6° 44′	1 28	7	11	8° 18′	2 28

Tables of houses for the latitude of the ecliptic
With the ☉ in ♉
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♉	24°: 11 ♊	24°: 12 ♋	24°: 24°: Horosc2 ♋ ♍	24°: 3 ♍	30°: 11 ♊	30°: 22 ♋	30°: 30°: Horosc2 ♌ ♍	30°: 3 ♍	34°: 11 ♊	34°: 12 ♋	34°: 34°: Horosc2 ♌ ♍	34°: 3 ♍
1h 51m 35s		0	5	7	4° 28′ 0	28	6	9	6° 44′ 1	28	7	11	8° 18′ 2	28
1h 55m 24s	49s	1	6	8	5° 18′ 1	29	7	10	7° 32′ 2	29	8	12	9° 5′ 3	29
1h 59m 14s	50s	2	7	9	6° 9′ 2	♎	8	11	8° 20′ 3	♎	9	13	9° 53′ 4	♎
2h 3m 53m	51s	3	8	9	6° 59′ 3	1	9	12	9° 9′ 4	1	10	14	10° 40′5	1
2h 6m 56s	51s	4	9	10	7° 50′ 4	2	10	13	9° 58′ 5	2	11	15	11° 28′ 5	2
2h 10m 48s	52s	5	10	11	8° 40′ 5	3	11	14	10° 47′6	3	12	15	12° 15′ 6	3
2h 14m 41s	53s	6	11	12	9° 31′ 6	4	12	14	11° 36′ 6	4	13	16	13° 3′ 7	4
2h 18m 34s	53s	7	12	13	10° 21′6	5	13	15	12° 26′7	4	14	17	13° 51′ 8	4
2h 22m 28s	54s	8	12	14	11° 12′ 7	6	14	16	13° 15′ 8	5	15	18	14° 39′9	5
2h 26m 22s	54s	9	13	15	12° 3′ 8	7	15	17	14° 5′ 9	6	16	19	15° 27′10	6
2h 30m 17s	55s	10	14	15	12° 54′9	8	16	18	14° 55′10	7	17	19	16° 15′10	7
2h 34m 13s	56s	11	15	16	13° 45′10	9	17	18	15° 45′11	8	18	20	17° 3′ 11	8
2h 38m 10s	57s	12	16	17	14° 37′11	10	18	19	16° 35′12	9	18	21	17° 52′12	9
2h 42m 7m	57s	13	17	18	15° 29′12	11	19	20	17° 25′13	10	19	22	18° 41′13	10
2h 46m 3m	58s	14	18	19	16° 22′13	12	20	21	18° 15′13	11	20	23	19° 30′14	11
2h 50m 4m	59s	15	19	20	17° 15′14	12	20	22	19° 6′ 14	12	21	24	20° 19′15	12
2h 54m 4m	0s	16	20	21	18° 8′ 15	13	21	23	19° 56′15	13	22	25	21° 9′ 16	13

Time from noon	Diff. of time	24°: 10 ♉	24°: 11 ♊	24°: 12 ♋	24°: 24°: Horosc. ♋ ♍	24°: 3 ♍	30°: 11 ♊	30°: 22 ♋	30°: 30°: Horosc. ♌ ♍	30°: 3 ♍	34°: 11 ♊	34°: 12 ♋	34°: 34°: Horosc. ♌ ♍	34°: 3 ♍
2h 58m 4m 0s	17	21	22	19° 1′ 16	14	22	24	20° 47′16	14	23	25	21° 58′ 17	14
3h 2m 54m 1s	18	22	22	19° 54′16	15	23	25	21° 38′ 17	15	24	26	22° 48′17	15
3h 6m 7m 2s	19	23	23	20° 47′17	16	24	26	22° 29′18	16	25	27	23° 38′18	16
3h 10m 9m 2s	20	23	24	21° 41′ 18	17	25	27	23° 21′19	17	26	28	24° 28′19	17
3h 14m 12m 3s	21	24	25	22° 34′19	18	26	27	24° 12′20	18	27	29	25° 18′ 20	18
3h 18m 15m 4s	22	25	26	23° 28′20	19	27	28	25° 4′ 21	19	28	♌	26° 9′ 21	19
3h 22m 20m 4s	23	26	27	24° 22′21	20	28	29	25° 56′22	20	29	0	26° 59′22	20
3h 26m 26m 6s	24	27	28	25° 16′ 22	21	29	♌	26° 48′22	21	♋	1	27° 50′23	21
3h 30m 32m 6s	25	28	29	26° 10′23	22	♋	1	27° 41′23	22	1	2	28° 41′24	21
3h 34m 38m 6s	26	29	♌	27° 5′ 24	23	1	2	28° 34′24	23	2	3	29° 32′24	22
3h 38m 46m 8s	27	♋	1	28° 0′ 25	24	2	3	29° 26′25	24	3	4	♍ 0° 23′ 25	23
3h 42m 54m 8s	28	1	1	28° 56′26	25	3	3	♍ 0° 19′ 26	25	3	5	1° 14′ 26	24
3h 47m 3m 9s	29	2	2	29° 52′27	26	4	4	1° 12′ 27	26	4	6	2° 6′ 27	25
3h 51m 14m 9s	30	3	3	♍ 0° 48′ 28	27	5	5	2° 6′ 28	27	5	7	2° 58′ 28	26

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♊
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♊	24°: 11 ♋	24°: 12 ♌	24°: 24°: Horosc. ♍ ♍	24°: 3 ♎	30°: 11 ♋	30°: 12 ♌	30°: 30°: Horosc. ♍ ♍	30°: 3 ♎	34°: 11 ♋	34°: 12 ♌	34°: 34°: Horosc. ♍ ♍	34°: 3 ♎
3h 51m 12s	0	3	3	0° 48′ 28	27	5	5	2° 6′ 28	27	5	7	2° 58′ 28	26
3h 55m 23m 11s	1	3	4	1° 44′ 29	28	5	6	2° 59′ 29	28	6	8	3° 50′ 29	27
3h 59m 34m 11s	2	4	5	2° 40′ ♎	29	6	7	3° 53′ ♎	29	7	8	4° 42′ ♎	28
4h 3m 44m 11s	3	5	6	3° 36′ 1	♏	7	8	4° 47′ 1	♏	8	9	5° 35′ 1	29
4h 7m 57m 12s	4	6	7	4° 33′ 2	1	8	9	5° 41′ 2	1	9	10	6° 27′ 2	♏
4h 12m 10m 13s	5	7	8	5° 30′ 3	2	9	10	6° 35′ 3	2	10	11	7° 20′ 3	1
4h 16m 24m 14s	6	8	9	6° 27′ 4	3	10	11	7° 30′ 4	3	11	12	8° 13′ 4	2
4h 20m 38m 14s	7	9	10	6° 24′ 5	4	11	12	8° 25′ 5	4	12	13	9° 6′ 4	3
4h 24m 53m 15s	8	10	11	7° 21′ 6	6	12	12	9° 20′ 6	5	13	14	10° 0′ 5	4
4h 29m 8m 15s	9	11	12	8° 19′ 7	7	13	13	10° 15′ 7	6	14	15	10° 53′ 6	5
4h 33m 24m 16s	10	12	13	9° 17′ 8	8	14	14	11° 10′ 7	7	15	16	11° 47′ 7	6
4h 37m 40m 16s	11	13	14	10° 15′ 9	9	15	15	12° 6′ 8	8	16	16	12° 40′8	7
4h 41m 57m 17s	12	14	15	12° 13′ 10	10	16	16	13° 1′ 9	9	17	17	13° 34′ 9	8
4h 46m 14m 17s	13	15	15	13° 11′ 11	11	17	17	13° 57′ 10	10	18	18	14° 28′10	9
4h 50m 32m 18s	14	16	16	14° 9′ 12	12	18	18	14° 53′ 11	11	19	19	15° 22′11	10
4h 54m 50m 18s	15	17	17	15° 8′ 13	13	19	19	15° 49′12	12	20	20	16° 16′12	11
4h 59m 9m 19s	16	18	18	16° 7′ 14	14	20	20	16° 46′13	13	21	21	17° 11′ 13	12
5h 3m 28m 19s	17	19	19	17° 6′ 15	15	21	21	17° 42′14	14	22	22	18° 5′ 14	13
5h 7m 47m 19s	18	20	20	18° 5′ 16	16	22	22	18° 38′ 15	15	23	23	19° 0′ 15	14
5h 12m 7m 20s	19	21	21	19° 4′ 17	17	23	23	19° 35′ 16	16	24	24	19° 55′ 16	15
5h 16m 27m 20s	20	22	22	20° 3′ 18	18	24	24	20° 31′17	17	25	25	20° 50′17	16

Time from noon	Diff. of time	24°: 10 ♊	24°: 11 ♋	24°: 12 ♌	24°: Horosc2 ♍	24°: ♍	24°: 3 ♎	30°: 11 ♋	30°: 12 ♌	30°: Horosc2 ♍	30°: ♍	30°: 3 ♎	34°: 11 ♋	34°: 12 ♌	34°: Horosc2 ♍	34°: ♍	34°: 3 ♎
5h 20m 4ms 21s	21	23	23	21° 3′	19	19	25	25	21° 27′	18	18	26	26	21° 44′	18	17
5h 25m 8ms 20s	22	24	24	22° 2′	20	20	26	26	22° 24′	19	19	26	27	22° 39′	19	18
5h 29m 12ms 21s	23	25	25	23° 1′	21	21	27	26	23° 20′	20	20	27	27	23° 34′	19	19
5h 33m 16ms 21s	24	26	26	24° 1′	22	22	28	27	24° 17′	21	21	28	28	24° 29′	20	20
5h 38m 20ms 22s	25	27	27	25° 1′	23	23	29	28	25° 14′	22	22	29	29	25° 24′	21	21
5h 42m 24ms 21s	26	28	28	26° 0′	24	24	♌	29	26° 11′	23	23	♌	♍	26° 19′	22	22
5h 46m 28ms 22s	27	29	29	27° 0′	25	25	1	♍	27° 8′	24	24	1	1	27° 14′	23	23
5h 51m 32ms 21s	28	♌	♍	28° 0′	26	26	1	1	28° 5′	25	25	2	2	28° 9′	24	24
5h 55m 36ms 22s	29	1	1	29° 0′	27	27	2	2	29° 3′	26	26	3	3	29° 5′	25	25
6h 0m 0ms 22s	30	2	2	30° 0′	28	28	3	3	30° 0′	27	27	4	4	30° 0′	26	26

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♋
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♋	24°: 11 ♌	24°: 12 ♍	24°: Horosc2 ♎	24°: ♎	24°: 3 ♏	30°: 11 ♌	30°: 12 ♍	30°: Horosc2 ♎	30°: ♎	30°: 3 ♏	34°: 11 ♌	34°: 12 ♍	34°: Horosc2 ♎	34°: ♎	34°: 3 ♏
6h 0m 0s	0	2	2	0° 0′	28	28	3	3	0° 0′	27	27	4	4	0° 0′	26	26
6h 4m 24ms 22s	1	3	3	1° 0′	29	29	4	4	0° 57′	28	28	5	5	0° 55′	27	27
6h 8m 44ms 22s	2	4	4	2° 0′	♏	♐	5	5	1° 55′	29	28	6	6	1° 50′	28	28
6h 13m 3ms 21s	3	5	5	3° 0′	1	1	6	6	2° 52′	♏	29	7	7	2° 46′	29	29
6h 17m 47ms 22s	4	6	6	4° 0′	2	2	7	7	3° 49′	1	♐	8	8	3° 41′	♏	♐
6h 21m 48ms 21s	5	7	7	4° 59′	3	3	8	8	4° 46′	2	1	9	9	4° 36′	1	1
6h 26m 48ms 22s	6	8	8	5° 59′	4	4	9	9	5° 43′	3	2	10	10	5° 31′	2	2
6h 30m 52ms 21s	7	9	9	6° 59′	5	5	10	10	6° 40′	4	3	11	11	6° 26′	3	3
6h 34m 52ms 21s	8	10	10	7° 58′	6	6	11	11	7° 36′	4	4	12	11	7° 21′	3	4
6h 39m 52ms 20s	9	11	11	8° 57′	7	7	12	12	8° 33′	5	5	13	12	8° 16′	4	5
6h 43m 53ms 21s	10	12	12	9° 57′	8	8	13	13	9° 29′	6	6	14	13	9° 11′	5	6
6h 47m 53ms 20s	11	13	13	10° 56′	9	9	14	14	10° 26′	7	7	15	14	10° 6′	6	6
6h 52m 53ms 20s	12	14	14	11° 55′	10	10	15	15	11° 22′	8	8	16	15	11° 0′	7	7
6h 56m 52ms 19s	13	15	15	12° 54′	11	11	16	16	12° 18′	9	9	17	16	11° 55′	8	8
7h 0m 54ms 19s	14	16	16	13° 53′	12	12	17	17	13° 15′	10	10	18	17	12° 49′	9	9
7h 5m 10ms 19s	15	17	17	14° 52′	13	13	18	18	14° 11′	11	11	19	18	13° 43′	10	10
7h 9m 28ms 18s	16	18	18	15° 50′	14	14	19	19	15° 7′	12	12	20	19	14° 37′	11	11
7h 13m 40ms 18s	17	19	19	16° 49′	14	15	20	20	16° 3′	13	13	21	20	15° 31′	12	12
7h 18m 3ms 17s	18	20	20	17° 47′	15	15	21	21	16° 59′	14	14	22	21	16° 25′	13	13
7h 22m 4ms 17s	19	21	21	18° 45′	16	16	22	22	17° 54′	15	15	23	22	17° 19′	14	14
7h 26m 36ms 16s	20	22	22	19° 43′	17	17	23	22	18° 50′	16	16	24	23	18° 13′	14	15
7h 30m 52ms 16s	21	23	23	20° 41′	18	18	24	23	19° 45′	17	17	25	24	19° 7′	15	16
7h 35m 7ms 15s	22	24	24	21° 39′	19	19	25	24	20° 40′	18	18	26	25	20° 1′	16	17
7h 39m 42ms 15s	23	25	25	22° 37′	20	20	26	25	21° 35′	18	19	27	25	20° 54′	17	18
7h 43m 36ms 14s	24	26	26	23° 34′	21	21	27	26	22° 30′	19	20	28	26	21° 47′	18	19
7h 47m 40ms 14s	25	28	27	24° 31′	22	22	28	27	23° 24′	20	21	29	27	22° 40′	19	20
7h 52m 3ms 13s	26	29	28	25° 28′	23	23	29	28	24° 18′	21	22	♍	28	23° 32′	20	21
7h 56m 15ms 12s	27	♍	29	26° 24′	24	24	♍	29	25° 12′	22	23	1	29	24° 25′	21	22

Time from noon	Diff. of time	24°: 10 ♋	24°: 11 ♌	24°: 12 ♍	24°: Horosc2 ♎	24°: ♎	24°: 3 ♏	30°: 11 ♌	30°: 12 ♍	30°: Horosc2 ♎	30°: ♎	30°: 3 ♏	34°: 11 ♌	34°: 12 ♍	34°: Horosc2 ♎	34°: ♎	34°: 3 ♏
8h 0m	24m 11s	28	1	♎	27° 20′	25	25	1	♎	26° 6′	23	24	2	♎	25° 17′	22	23
8h 4m	37m 11s	29	2	1	28° 16′	26	26	2	1	27° 0′	24	25	3	1	26° 9′	22	24
8h 8m	48m 11s	30	3	2	29° 12′	27	27	3	2	27° 54′	25	25	4	2	27° 1′	23	25

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♌
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♌	24°: 11 ♍	24°: 12 ♎	24°: Horosc2 ♏	24°: ♏	24°: 3 ♐	30°: 11 ♍	30°: 12 ♎	30°: Horosc2 ♏	30°: ♏	30°: 3 ♐	34°: 11 ♍	34°: 12 ♎	34°: Horosc2 ♏	34°: ♏	34°: 3 ♐
8h 8m	48s	0	3	2	29° 12′	27	27	3	2	27° 54′	25	25	4	2	27° 1′	23	25
8h 12m	37m 9s	1	4	3	♏ 28 0° 8′		28	4	3	28° 47′	26	26	5	3	27° 53′	24	26
8h 17m	4m 9s	2	5	4	1° 4′	29	29	5	4	29° 41′	27	27	6	4	28° 45′	25	27
8h 21m	14m 8s	3	6	5	1° 59′	29	♈	6	5	♏ 27 0° 34′		28	7	5	29° 37′	26	27
8h 25m	22m 8s	4	7	6	2° 54′	♐	1	7	6	1° 27′	28	29	8	6	♏ 27 0° 28′		28
8h 29m	28m 6s	5	8	7	3° 49′	1	2	8	7	2° 20′	29	♈	9	6	1° 19′	28	29
8h 33m	34m 6s	6	9	8	4° 44′	2	3	9	8	3° 12′	♐	1	10	7	2° 10′	29	♈
8h 37m	40m 6s	7	10	9	5° 38′	3	4	10	8	4° 5′	1	2	10	8	3° 1′	29	1
8h 41m	44m 4s	8	11	10	6° 32′	4	5	11	9	4° 57′	2	3	11	9	3° 52′	♐	2
8h 45m	48m 4s	9	12	11	7° 26′	5	5	12	10	5° 49′	3	4	12	10	4° 42′	1	3
8h 49m	51m 3s	10	13	12	8° 19′	6	6	13	11	6° 40′	4	5	13	11	5° 32′	2	4
8h 53m	53m 2s	11	14	13	9° 13′	7	7	14	12	7° 32′	4	6	14	12	6° 22′	3	5
8h 57m	55m 2s	12	15	14	10° 6′	8	8	15	13	8° 23′	5	7	15	13	7° 12′	4	6
9h 1m	56m 1s	13	16	14	10° 59′	8	9	16	14	9° 14′	6	8	16	13	8° 2′	5	7
9h 5m	56m 0s	14	17	15	11° 52′	9	10	17	15	10° 5′	7	9	17	14	8° 51′	5	8
9h 9m	56m 0s	15	18	16	12° 45′	10	11	18	16	10° 56′	8	10	18	15	9° 41′	6	9
9h 13m	55m 59s	16	19	17	13° 38′	11	12	19	17	11° 47′	9	10	19	16	10° 30′	7	10
9h 17m	53m 58s	17	20	18	14° 30′	12	13	20	18	12° 37′	10	11	20	17	11° 19′	8	10
9h 21m	50m 57s	18	21	19	15° 22′	13	14	21	18	13° 27′	11	12	21	18	12° 8′	9	11
9h 25m	47m 57s	19	21	20	16° 14′	14	15	22	19	14° 17′	11	13	22	19	12° 57′	10	12
9h 29m	43m 56s	20	22	21	17° 6′	15	16	23	20	15° 6′	12	14	23	19	13° 45′	11	13
9h 33m	38m 55s	21	23	22	17° 57′	15	17	24	21	15° 56′	13	15	24	20	14° 34′	11	14
9h 37m	32m 54s	22	24	23	18° 48′	16	18	25	22	16° 45′	14	16	25	21	15° 22′	12	15
9h 41m	26m 54s	23	25	24	19° 39′	17	19	25	23	17° 35′	15	17	26	22	16° 10′	13	16
9h 45m	19m 53s	24	26	24	20° 30′	18	20	26	23	18° 24′	16	18	26	23	16° 57′	14	17
9h 49m	12m 53s	25	27	25	21° 21′	19	20	27	24	19° 13′	17	19	27	24	17° 45′	15	18
9h 53m	4m 52s	26	28	26	22° 11′	20	21	28	25	20° 2′	17	20	28	25	18° 32′	16	19
9h 56m	55m 51s	27	29	27	23° 2′	21	22	29	26	20° 51′	18	21	29	25	19° 20′	16	20
10h 0m	46m 51s	28	♎	28	23° 52′	21	23	♎	27	21° 39′	19	22	♎	26	20° 7′	17	21
10h 4m	36m 50s	29	1	29	24° 42′	22	24	1	28	22° 27′	20	23	1	27	20° 55′	18	22
10h 8m	25m 49s	30	2	30	25° 32′	23	25	2	29	23° 15′	21	24	2	28	21° 42′	19	23

Tables of houses for the obliquity of the ecliptic

With the ☉ in ♍
For latitude of place 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♍	24°: 11 ♎	24°: 12 ♏	24°: Horosc. ♏ ♐	24°: 3 ♒	30°: 11 ♎	30°: 12 ♎	30°: Horosc. ♏ ♐	30°: 3 ♒	34°: 11 ♎	34°: 12 ♎	34°: Horosc. ♏ ♐	34°: 3 ♒
10h 8m 25s	0	2	0	25° 32′ 23	25	2	29	23° 15′ 21	24	2	28	21° 42′ 19	23
10h 12m 31s 49s	1	3	1	26° 22′ 24	26	3	♏	24° 4′ 22	25	3	29	22° 29′ 20	24
10h 16m 32s 48s	2	4	1	27° 11′ 25	27	4	0	24° 52′ 22	26	4	29	23° 16′ 20	25
10h 19m 35s 48s	3	5	2	28° 1′ 26	28	5	1	25° 40′ 23	27	5	♏	24° 2′ 21	26
10h 23m 33s 47s	4	6	3	28° 50′ 27	29	6	2	26° 28′ 24	28	6	1	24° 49′ 22	27
10h 27m 32s 47s	5	7	4	29° 39′ 27	♒	7	3	27° 16′ 25	29	6	2	25° 36′ 23	27
10h 31m 30s 46s	6	8	5	♐ 28 0° 28′	1	7	4	28° 4′ 26	29	7	3	26° 23′ 24	28
10h 34m 35s 46s	7	9	6	1° 17′ 29	2	8	4	28° 52′ 27	♒	8	3	27° 10′ 25	29
10h 38m 34s 46s	8	10	7	2° 6′ ♓	3	9	5	29° 39′ 28	1	9	4	27° 56′ 25	♒
10h 42m 32s 44s	9	11	7	2° 55′ 1	4	10	6	♐ 28 0° 27′	2	10	5	28° 43′ 26	1
10h 46m 31s 45s	10	11	8	3° 44′ 2	5	11	7	1° 15′ 29	3	11	6	29° 29′ 27	2
10h 49m 35s 44s	11	12	9	4° 33′ 3	6	12	8	2° 2′ ♓	4	12	7	♐ 28 0° 15′	3
10h 53m 33s 44s	12	13	10	5° 21′ 3	7	13	9	2° 50′ 1	5	13	7	1° 2′ 29	4
10h 57m 32s 43s	13	14	11	6° 10′ 4	8	14	9	3° 37′ 2	6	14	8	1° 48′ ♓	5
11h 1m 53m 43s	14	15	12	6° 59′ 5	9	15	10	4° 24′ 3	7	15	9	2° 34′ 1	6
11h 4m 47m 42s	15	16	12	7° 48′ 6	10	16	11	5° 11′ 4	8	15	10	3° 20′ 1	7
11h 8m 35m 43s	16	17	13	8° 36′ 7	11	17	12	5° 58′ 4	9	16	11	4° 6′ 2	8
11h 12m 32m 42s	17	18	14	9° 24′ 8	12	17	13	6° 45′ 5	10	17	11	4° 52′ 3	9
11h 15m 33m 41s	18	19	15	10° 12′ 9	13	18	13	7° 32′ 6	11	18	12	5° 38′ 4	10
11h 19m 35m 42s	19	20	16	11° 0′ 10	14	19	14	8° 19′ 7	12	19	13	6° 24′ 5	11
11h 23m 31m 41s	20	21	17	11° 48′ 10	15	20	15	9° 6′ 8	13	20	14	7° 11′ 6	12
11h 26m 35m 41s	21	21	17	12° 36′ 11	16	21	16	9° 53′ 9	14	21	15	7° 57′ 7	13
11h 30m 33m 41s	22	22	18	13° 24′ 12	17	22	17	10° 40′ 10	15	22	15	8° 43′ 8	14
11h 34m 31m 40s	23	23	19	14° 13′ 13	18	23	17	11° 28′ 11	16	22	16	9° 30′ 8	16
11h 37m 39m 41s	24	24	20	15° 2′ 14	19	24	18	12° 15′ 11	17	23	17	10° 16′ 9	17
11h 41m 39m 40s	25	25	21	15° 50′ 15	20	24	19	13° 2′ 12	18	24	18	11° 3′ 10	18
11h 45m 32m 41s	26	26	22	16° 39′ 16	21	25	20	13° 50′ 13	19	25	18	11° 50′ 11	19
11h 48m 30m 40s	27	27	22	17° 28′ 17	22	26	20	14° 38′ 14	20	26	19	12° 36′ 12	20
11h 52m 34m 40s	28	28	23	18° 17′ 18	23	27	21	15° 25′ 15	22	27	20	13° 23′ 13	21
11h 56m 32m 40s	29	29	24	19° 6′ 18	24	28	22	16° 13′ 16	23	28	21	14° 9′ 14	22
12h 0m 9m 40s	30	30	25	19° 55′ 19	25	29	23	17° 1′ 17	24	28	21	14° 56′ 15	23

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♎
For latitude of place 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♎	24°: 11 ♏	24°: 12 ♏	24°: Horosc. ♐ ♓	24°: 3 ♒	30°: 11 ♎	30°: 12 ♏	30°: Horosc. ♐ ♓	30°: 3 ♒	34°: 11 ♎	34°: 12 ♏	34°: Horosc. ♐ ♓	34°: 3 ♒
12h 0m 0s	0	0	25	19° 55′ 19	25	29	23	17° 1′ 17	24	28	21	14° 56′ 15	23

Time from noon	Diff. of time	24°: 10 ♎	24°: 11 ♏	24°: 12 ♏	24°: Horosc. ♐	24°: ♍	24°: 3 ♒	30°: 11 ♎	30°: 12 ♏	30°: Horosc. ♐	30°: ♍	30°: 3 ♒	34°: 11 ♎	34°: 12 ♏	34°: Horosc. ♐	34°: ♍	34°: 3 ♒
12h 3m 40s	1m 40s	1	0	26	20° 44′	20	26	♏	24	17° 49′	18	25	29	22	15° 43′	16	24
12h 7m 40s	2m 40s	2	1	26	21° 33′	21	27	1	24	18° 37′	19	26	♏	23	16° 30′	17	25
12h 11m 40s	3m 40s	3	2	27	22° 22′	22	28	1	25	19° 25′	20	27	1	24	17° 17′	18	26
12h 14m 40s	3m 40s	4	3	28	23° 15′	23	29	2	26	20° 13′	21	28	2	24	18° 4′	18	28
12h 18m 41s	4m 41s	5	4	29	24° 1′	24	♓	3	27	21° 2′	22	29	3	25	18° 52′	19	29
12h 22m 40s	3m 40s	6	5	♐	24° 50′	25	1	4	28	21° 50′	22	♓	4	26	19° 40′	20	♓
12h 25m 41s	3m 41s	7	6	0	25° 40′	26	2	5	28	22° 39′	23	1	4	27	20° 28′	21	1
12h 29m 40s	4m 40s	8	7	1	26° 30′	27	3	6	29	23° 28′	24	2	5	28	21° 16′	22	2
12h 33m 41s	4m 41s	9	8	2	27° 20′	28	4	7	♐	24° 17′	25	3	6	28	22° 5′	23	3
12h 36m 41s	3m 41s	10	8	3	28° 10′	29	5	7	1	25° 7′	26	4	7	29	22° 54′	24	4
12h 40m 41s	4m 41s	11	9	4	29° 0′	♒	6	8	2	25° 56′	27	6	8	♐	23° 43′	25	5
12h 44m 42s	4m 42s	12	10	5	29° 51′	1	7	9	2	26° 46′	28	7	8	1	24° 32′	26	6
12h 47m 41s	3m 41s	13	11	5	♍ 0° 42′	2	8	10	3	27° 36′	29	8	9	2	25° 21′	27	7
12h 51m 42s	4m 42s	14	12	6	1° 33′	3	9	11	4	28° 27′	♒	9	10	2	26° 11′	28	9
12h 55m 43s	4m 43s	15	13	7	2° 24′	4	11	12	5	29° 18′	1	10	11	3	27° 1′	29	10
12h 58m 42s	3m 42s	16	14	8	3° 15′	5	12	13	6	♍ 0° 9′	2	11	12	4	27° 51′	♒	11
13h 2m 43s	3m 43s	17	14	9	4° 7′	6	13	13	6	1° 0′	3	12	13	5	28° 42′	1	12
13h 6m 43s	3m 43s	18	15	9	4° 59′	7	14	14	7	1° 52′	4	13	14	6	29° 33′	2	13
13h 10m 44s	3m 44s	19	16	10	5° 52′	8	15	15	8	2° 44′	5	15	14	6	♍ 0° 24′	3	14
13h 13m 44s	3m 44s	20	17	11	6° 45′	9	16	16	9	3° 36′	6	16	15	7	1° 16′	4	16
13h 17m 45s	4m 45s	21	18	12	7° 38′	10	17	17	10	4° 29′	7	17	16	8	2° 8′	6	17
13h 21m 44s	4m 44s	22	19	13	8° 31′	11	18	18	10	5° 22′	8	18	17	9	3° 0′	7	18
13h 25m 46s	4m 46s	23	20	14	9° 25′	12	20	19	11	6° 15′	10	19	18	10	3° 53′	8	19
13h 28m 46s	3m 46s	24	20	14	10° 19′	13	21	19	12	7° 9′	11	20	19	10	4° 46′	9	20
13h 32m 46s	4m 46s	25	21	15	11° 13′	14	22	20	13	8° 3′	12	22	20	11	5° 39′	10	21
13h 36m 47s	4m 47s	26	22	16	12° 8′	15	23	21	14	8° 58′	13	23	20	12	6° 33′	11	23
13h 40m 47s	4m 47s	27	23	17	13° 3′	16	24	22	14	9° 53′	14	24	21	13	7° 27′	12	24
13h 43m 48s	3m 48s	28	24	18	13° 59′	17	25	23	15	10° 48′	15	25	22	14	8° 22′	13	25
13h 47m 48s	4m 48s	29	25	19	14° 55′	18	26	24	16	11° 44′	16	26	23	14	9° 18′	15	26
13h 51m 49s	4m 49s	30	26	19	15° 51′	19	27	25	17	12° 40′	17	27	24	15	10° 14′	16	27

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♏
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♏	24°: 11 ♏	24°: 12 ♐	24°: Horosc. ♍	24°: 3 ♓	30°: 11 ♏	30°: 12 ♐	30°: Horosc. ♍	30°: 3 ♓	34°: 11 ♏	34°: 12 ♐	34°: Horosc. ♍	34°: 3 ♓
13h 51m 35s	0	26	19	15° 51′	19	27	25	17	12° 40′	17	27	24	15	10° 14′	16	27
13h 55m 49s	4m 49s	1	27	20	16° 48′	21	28	25	18	13° 37′	19	29	25	16	11° 11′	17	29
13h 59m 50s	4m 50s	2	27	21	17° 45′	22	♈	26	19	14° 34′	20	♈	25	17	12° 8′	18	♈
14h 3m 51s	4m 51s	3	28	22	18° 43′	23	1	27	20	15° 32′	21	1	26	18	13° 5′	19	1
14h 6m 51s	3m 51s	4	29	23	19° 41′	24	2	28	20	16° 30′	22	2	27	19	14° 3′	21	2

Time from noon	Diff. of time	24°: 10 ♏	24°: 11 ♏	24°: 12 ♐	24°: Horosc ♍	24°: ♒	24°: 3 ♓	30°: 11 ♏	30°: 12 ♐	30°: Horosc ♍	30°: ♒	30°: 3 ♓	34°: 11 ♏	34°: 12 ♐	34°: Horosc ♍	34°: ♒	34°: 3 ♓
14h 10m 34s 52s	5	♐	24	20° 40′ 25		3	29	21	17° 29′ 23		3	28	19	15° 1′ 22		3
14h 14m 34s 53s	6	1	25	21° 39′ 26		4	♐	22	18° 28′ 25		5	29	20	16° 0′ 23		5
14h 18m 34s 53s	7	2	25	22° 39′ 28		6	1	23	19° 28′ 26		6	♐	21	17° 0′ 24		6
14h 22m 34s 54s	8	3	26	23° 39′ 29		7	2	24	20° 28′ 27		7	1	22	18° 1′ 26		7
14h 26m 34s 54s	9	4	27	24° 40♓		8	2	25	21° 29′ 28		8	2	23	19° 3′ 27		8
14h 30m 34s 55s	10	5	28	25° 42′ 1		9	3	26	22° 31′ ♓		9	2	24	20° 5′ 28		10
14h 34m 34s 56s	11	5	29	26° 44′ 3		10	4	27	23° 33′ 1		11	3	25	21° 8′ ♓		11
14h 38m 34s 57s	12	6	♍	27° 46′ 4		11	5	27	24° 36′ 2		12	4	25	22° 11′ 1		12
14h 42m 34s 57s	13	7	1	28° 49′ 5		13	6	28	25° 40′ 4		13	5	26	23° 15′ 2		13
14h 46m 34s 58s	14	8	2	29° 52′ 6		14	7	29	26° 44′ 5		14	6	27	24° 20′ 4		15
14h 50m 34s 59s	15	9	3	♒ 0° 56′	7	15	8	♍	27° 49′ 6		15	7	28	25° 26′ 5		16
14h 54m 44s 0s	16	10	4	2° 0′	9	16	9	1	28° 55′ 7		17	8	29	26° 32′ 6		17
14h 58m 44s 0s	17	11	5	3° 5′	10	17	10	2	♒ 0° 2′	9	18	9	♍	27° 39′ 8		18
15h 2m 34sm 1s	18	12	5	4° 11′	11	19	10	3	1° 9′	10	19	9	1	28° 47′ 9		20
15h 6m 34sm 2s	19	13	6	5° 18′	12	20	11	4	2° 17′	11	20	10	2	29° 56′ 11		21
15h 10m 44s 2s	20	14	7	6° 25′	14	21	12	5	3° 26′	13	22	11	3	♒ 1° 5′	12	22
15h 14m 42s 3s	21	15	8	7° 33′	15	22	13	6	4° 36′	14	23	12	4	2° 16′	13	23
15h 18m 42s 4s	22	15	9	8° 42′	16	23	14	7	5° 47′	16	24	13	5	3° 28′	15	25
15h 22m 42s 5s	23	16	10	9° 52′	18	24	15	8	6° 58′	17	25	14	6	4° 40′	16	26
15h 26m 42s 6s	24	17	11	11° 3′	19	26	16	9	8° 10′	19	27	15	7	5° 54′	18	27
15h 30m 43s 6s	25	18	12	12° 14′	20	27	17	10	9° 23′	20	28	16	8	7° 9′	19	28
15h 34m 43s 6s	26	19	13	13° 26′	22	28	18	11	10° 37′	21	29	17	9	8° 24′	21	♉
15h 38m 44s 3s	27	20	14	14° 38′	23	29	19	12	11° 51′	23	♉	18	10	9° 40′	22	1
15h 42m 45s 8s	28	21	15	15° 51′	24	♉	20	13	13° 6′	24	1	19	11	10° 56′	24	2
15h 47m 43s 9s	29	22	16	17° 4′	26	2	21	14	14° 23′	26	3	20	12	12° 13′	25	3
15h 51m 42s 9s	30	23	17	18° 18′	27	3	21	15	15° 40′	27	4	21	13	13° 31′	27	4

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♐
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♐	24°: 11 ♐	24°: 12 ♍	24°: Horosc ♒	24°: 2 ♓	24°: 3 ♉	30°: 11 ♐	30°: 12 ♍	30°: Horosc ♒	30°: 2 ♓	30°: 3 ♉	34°: 11 ♐	34°: 12 ♍	34°: Horosc ♒	34°: 2 ♓	34°: 3 ♉
15h 51m 12s	0	23	17	18° 18′ 27			3	21	15	15° 40′ 27		4	21	13	13° 31′ 27		4
15h 55m 43s 11s	1	24	18	19° 33′ 29			4	22	16	16° 58′ 28		5	21	14	14° 51′ 28		6
15h 59m 43s 11s	2	25	19	20° 49♈			5	23	17	18° 17′ ♈		6	22	15	16° 13′ ♈		7
16h 3m 45s 11s	3	26	20	22° 5′	1		6	24	18	19° 37′ 1		7	23	16	17° 36′ 1		8
16h 7m 47s 12s	4	27	21	23° 22′	3		7	25	19	20° 58′ 3		9	24	17	19° 0′ 3		9
16h 12m 46s 13s	5	28	22	24° 40′	4		9	26	20	22° 20′ 4		10	25	18	20° 24′ 4		11
16h 16m 42s 14s	6	29	24	25° 58′	5		10	27	21	23° 42′ 6		11	26	19	21° 49′ 6		12
16h 20m 43s 14s	7	♍	25	27° 17′	7		11	28	22	25° 5′ 7		12	27	20	23° 15′ 7		13
16h 24m 45s 15s	8	1	26	28° 37′	8		12	29	23	26° 28′ 9		13	28	21	24° 42′ 9		14

Time from noon	Diff. of time	24°: 10 ♐	24°: 11 ♐	24°: 12 ♑	24°: Horosc ♒	24°: 2 ♓	24°: 3 ♉	30°: 11 ♐	30°: 12 ♑	30°: Horosc ♒	30°: 2 ♓	30°: 3 ♉	34°: 11 ♐	34°: 12 ♑	34°: Horosc ♒	34°: 2 ♓	34°: 3 ♉
16h 29m 48m 15s	9	2	27	29° 57′	10	13	♑	24	27° 53′	10	15	29	22	26° 10′	10	15	
16h 33m 42m 16s	10	3	28	♓ 1° 18′	11	14	1	25	29° 19′	12	16	♑	23	27° 39′	12	17	
16h 37m 44m 16s	11	4	29	2° 40′	12	15	2	27	♓ 0° 45′	13	17	1	25	29° 9′	14	18	
16h 41m 45m 17s	12	5	♒	4° 3′	14	17	3	28	2° 12′	14	18	2	26	♓ 0° 40′	15	19	
16h 46m 41m 17s	13	6	1	5° 26′	15	18	4	29	3° 40′	16	19	3	27	2° 12′	17	20	
16h 50m 43m 18s	14	7	2	6° 50′	16	19	5	♒	5° 9′	17	20	4	28	3° 45′	18	21	
16h 54m 45m 18s	15	8	4	8° 14′	18	20	6	1	6° 39′	19	22	5	29	5° 19′	20	22	
16h 59m 49m 19s	16	9	5	9° 38′	19	21	7	3	8° 10′	20	23	6	♒	6° 54′	21	24	
17h 3m 48m 19s	17	10	6	11° 3′	21	22	8	4	9° 41′	22	24	7	2	8° 30′	23	25	
17h 7m 47m 19s	18	11	7	12° 29′	22	2[?]	9	5	11° 12′	2[?]	25	8	3	10° 6′	24	26	
17h 12m 47m 20s	19	12	8	13° 55′	23	25	10	6	12° 44′	25	26	9	4	11° 43′	26	27	
17h 16m 42m 20s	20	13	9	15° 22′	25	26	11	7	14° 16′	26	27	10	5	13° 21′	27	28	
17h 20m 44m 21s	21	14	11	16° 49′	26	27	12	9	15° 49′	27	29	11	7	15° 0′	29	29	
17h 25m 48m 20s	22	15	12	18° 16′	27	28	13	10	17° 22′	29	♊	12	8	16° 39′	♉	♊	
17h 29m 42m 21s	23	16	13	19° 43′	29	29	14	11	18° 56′	♉	1	13	9	18° 18′	2	2	
17h 33m 46m 21s	24	17	14	21° 10′	♉	♊	15	12	20° 30′	2	2	14	10	19° 57′	3	3	
17h 38m 42m 22s	25	18	16	22° 38′	1	1	16	14	22° 5′	3	3	15	12	21° 37′	5	4	
17h 42m 43m 21s	26	19	17	24° 6′	3	2	17	15	23° 40′	4	4	17	13	23° 17′	6	5	
17h 46m 45m 22s	27	20	18	25° 35′	4	3	18	16	25° 15′	6	5	18	14	24° 57′	7	6	
17h 51m 46m 21s	28	21	19	27° 3′	5	5	19	17	26° 50′	7	6	19	16	26° 38′	9	7	
17h 55m 48m 22s	29	22	21	28° 32′	7	6	21	19	28° 25′	8	7	20	17	28° 19′	10	8	
18h 0m 0m 22s	30	23	22	30° 0′	8	7	22	20	30° 0′	10	8	21	19	30° 0′	12	9	

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♑
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♑	24°: 11 ♑	24°: 12 ♒	24°: Horosc ♈	24°: 2 ♉	24°: 3 ♊	30°: 11 ♑	30°: 12 ♒	30°: Horosc ♈	30°: 2 ♉	30°: 3 ♊	34°: 11 ♑	34°: 12 ♒	34°: Horosc ♈	34°: 2 ♉	34°: 3 ♊
18h 0m 0s	0	23	22	0° 0′	8	7	22	20	0° 0′	10	8	21	19	0° 0′	12	9	
18h 4m 42m 22s	1	24	23	1° 29′	9	8	23	21	1° 36′	11	9	22	20	1° 42′	13	10	
18h 8m 44m 22s	2	25	25	2° 58′	11	9	24	23	3° 12′	13	11	23	21	3° 23′	14	11	
18h 13m 45m 21s	3	26	26	4° 27′	12	10	25	24	4° 47′	14	12	24	23	5° 4′	16	12	
18h 17m 47m 22s	4	27	27	5° 55′	13	11	26	26	6° 22′	15	13	25	24	6° 45′	17	14	
18h 21m 48m 21s	5	28	29	7° 23′	14	12	27	27	7° 56′	17	14	26	26	8° 25′	18	15	
18h 26m 41m 22s	6	♒	♓	8° 50′	16	13	28	28	9° 30′	18	15	27	27	10° 5′	20	16	
18h 30m 43m 21s	7	1	1	10° 18′	17	14	29	♓	11° 4′	19	16	28	29	11° 44′	21	17	
18h 34m 45m 21s	8	2	3	11° 45′	18	15	♒	1	12° 37′	20	17	♒	♓	13° 23′	22	18	
18h 39m 41m 20s	9	3	4	13° 12′	19	16	1	2	14° 11′	21	18	1	1	15° 2′	23	19	
18h 43m 43m 21s	10	4	5	14° 33′	20	17	3	4	15° 44′	23	19	2	3	16° 40′	25	20	
18h 47m 45m 20s	11	5	7	16° 6′	22	18	4	5	17° 16′	24	20	3	4	18° 17′	26	21	
18h 52m 41m 20s	12	6	8	17° 32′	23	19	5	7	18° 48′	25	21	4	6	19° 54′	27	22	

Time from noon	Diff. of time	24°: 10 ♑	24°: 11 ♑	24°: 12 ♒	24°: Horosc. ♈	24°: ♉	24°: 3 ♊	30°: 11 ♑	30°: 12 ♒	30°: Horosc. ♈	30°: ♉	30°: 3 ♊	34°: 11 ♑	34°: 12 ♒	34°: Horosc. ♈	34°: ♉	34°: 3 ♊
18h 56m 43s	19s	13	8	9	18° 58′	24	20	6	8	20° 19′	26	22	5	7	21° 30′	28	23
19h 0m 41s	19s	14	9	11	20° 23′	25	21	7	10	21° 50′	27	23	6	9	23° 6′	♊	24
19h 5m 40s	19s	15	10	12	21° 47′	26	22	8	11	23° 20′	29	24	7	10	24° 41′	1	25
19h 9m 38s	18s	16	11	14	23° 11′	27	23	10	13	24° 50′	♊	25	9	12	26° 15′	2	26
19h 13m 36s	18s	17	12	15	24° 34′	29	24	11	14	26° 19′	1	26	10	13	27° 48′	3	27
19h 18m 34s	17s	18	13	16	25° 57′	♊	25	12	16	27° 47′	2	27	11	15	29° 20′	4	28
19h 22m 32s	17s	19	14	18	27° 19′	1	26	13	17	29° 15′	3	28	12	16	♉ 0° 50′	6	29
19h 26m 30s	16s	20	16	19	28° 41′	2	27	14	18	♉ 0° 42′	4	29	13	18	2° 20′	7	♋
19h 30m 28s	16s	21	17	20	♉ 0° 2′	3	28	15	20	2° 8′	6	♋	15	19	3° 49′	8	1
19h 35m 27s	15s	22	18	22	1° 23′	4	29	17	21	3° 33′	7	1	16	21	5° 17′	9	2
19h 39m 25s	15s	23	19	23	2° 43′	5	♋	18	23	4° 57′	8	2	17	22	6° 44′	10	3
19h 43m 23s	14s	24	20	25	4° 2′	6	1	19	24	6° 20′	9	3	18	24	8° 10′	11	4
19h 47m 21s	14s	25	21	26	5° 20′	8	2	20	26	7° 42′	10	4	19	25	9° 35′	12	5
19h 52m 19s	13s	26	23	27	6° 38′	9	3	21	27	9° 3′	11	5	21	27	11° 0′	13	6
19h 56m 17s	12s	27	24	29	7° 55′	10	4	23	29	10° 23′	12	6	22	29	12° 24′	14	7
20h 0m 15s	11s	28	25	♈	9° 12′	11	5	24	♈	11° 42′	13	7	23	♈	13° 47′	15	7
20h 4m 13s	11s	29	26	1	10° 28′	12	6	25	2	13° 1′	14	8	24	2	15° 9′	16	8
20h 8m 11s	11s	30	27	3	11° 43′	13	7	26	3	14° 20′	15	9	26	3	16° 29′	17	9

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♒
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♒	24°: 11 ♒	24°: 12 ♈	24°: Horosc. ♉	24°: ♊	24°: 3 ♋	30°: 11 ♒	30°: 12 ♈	30°: Horosc. ♉	30°: ♊	30°: 3 ♋	34°: 11 ♒	34°: 12 ♈	34°: Horosc. ♉	34°: ♊	34°: 3 ♋
20h 8m 48s	0	0	27	3	11° 43′	13	7	26	3	14° 20′	15	9	26	3	16° 29′	17	9
20h 12m 45s	59s	1	28	4	12° 57′	14	8	27	4	15° 38′	16	9	27	5	17° 48′	18	10
20h 17m 46s	59s	2	♓	6	14° 10′	15	9	29	6	16° 54′	17	10	28	6	19° 6′	19	11
20h 21m 44s	58s	3	1	7	15° 23′	16	10	♓	7	18° 9′	18	11	29	8	20° 22′	20	12
20h 25m 42s	58s	4	2	8	16° 35′	17	11	1	9	19° 23′	19	12	♓	9	21° 37′	21	13
20h 29m 40s	57s	5	3	10	17° 46′	18	12	2	10	20° 37′	20	13	1	11	22° 52′	22	14
20h 33m 38s	56s	6	4	11	18° 56′	19	13	3	12	21° 50′	21	14	2	12	24° 6′	23	15
20h 37m 36s	56s	7	5	12	20° 6′	20	13	5	13	23° 2′	22	15	3	14	25° 20′	24	16
20h 41m 34s	55s	8	7	14	21° 15′	21	14	6	14	24° 14′	23	16	4	15	26° 32′	25	17
20h 45m 32s	55s	9	8	15	22° 24′	22	15	7	16	25° 25′	24	17	6	17	27° 44′	26	18
20h 49m 31s	54s	10	9	16	23° 32′	23	16	8	17	26° 35′	25	18	8	18	28° 55′	27	19
20h 53m 29s	53s	11	10	17	24° 40′	24	17	10	18	27° 44′	26	19	9	19	♊ 0° 5′	28	19
20h 57m 27s	52s	12	11	19	25° 47′	25	18	11	20	28° 51′	27	20	10	21	1° 14′	29	20
21h 1m 25s	52s	13	13	20	26° 54′	25	19	12	21	29° 58′	28	20	12	22	2° 22′	♋	21
21h 5m 23s	51s	14	14	21	28° 0′	26	20	13	22	♊ 1° 4′	29	21	13	24	3° 29′	1	22
21h 9m 21s	50s	15	15	23	29° 5′	27	21	15	24	2° 10′	♋	22	14	25	4° 35′	2	23

Time from noon	Diff. of time	24°: 10 ♒	24°: 11 ♒	24°: 12 ♈	24°: Horosc ♉	24°: 2 ♊	24°: 3 ♋	30°: 11 ♒	30°: 12 ♈	30°: Horosc ♉	30°: 2 ♊	30°: 3 ♋	34°: 11 ♒	34°: 12 ♈	34°: Horosc ♉	34°: 2 ♊	34°: 3 ♋
21h 13m 35m 59s		16	16	24	♊ 0° 9′	28	22	16	25	3° 15′	1	23	15	26	5° 41′	3	24
21h 17m 35m 58s		17	17	25	1° 12′	29	23	17	26	4° 19′	2	24	16	28	6° 46′	4	25
21h 21m 35m 57s		18	18	26	2° 15′	♋	24	18	28	5° 23′	3	25	18	29	7° 50′	5	26
21h 25m 34m 57s		19	20	28	3° 17′	1	24	19	29	6° 26′	4	26	19	♉	8° 53′	5	27
21h 29m 34m 56s		20	21	29	4° 19′	2	25	21	♉	7° 29′	4	27	20	2	9° 55′	6	27
21h 33m 33m 55s		21	22	♉	5° 20′	3	26	22	2	8° 31′	5	28	22	3	10° 57′	7	28
21h 37m 33m 54s		22	23	2	6° 20′	4	27	23	3	9° 32′	6	28	23	4	11° 58′	8	29
21h 41m 32m 54s		23	24	3	7° 20′	5	28	24	4	10° 33′	7	29	24	6	12° 59′	9	♌
21h 45m 31m 53s		24	26	4	8° 19′	5	29	25	5	11° 33′	8	♌	25	7	13° 59′	10	1
21h 49m 31m 53s		25	27	5	9° 19′	6	♌	27	7	12° 32′	9	1	26	8	14° 58′	11	2
21h 53m 30m 52s		26	28	6	10° 18′	7	1	28	8	13° 31′	10	2	28	9	15° 57′	12	3
21h 56m 30m 51s		27	29	7	11° 17′	8	1	29	9	14° 29′	10	3	29	11	16° 55′	12	3
22h 0m 30m 51s		28	♈	8	12° 15′	9	2	♈	10	15° 27′	11	4	♈	12	17° 52′	13	4
22h 4m 30m 50s		29	1	9	13° 12′	10	3	1	11	16° 24′	12	4	1	13	18° 49′	14	5
22h 8m 29m 49s		30	3	11	14° 9′	11	4	3	13	17° 20′	13	5	3	14	19° 46′	15	6

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♓
For latitude 24° · For latitude 30° · For latitude 34°

Time from noon	Diff. of time	24°: 10 ♓	24°: 11 ♈	24°: 12 ♉	24°: Horosc ♊	24°: ♋	24°: 3 ♌	30°: 11 ♈	30°: 12 ♉	30°: Horosc ♊	30°: ♋	30°: 3 ♌	34°: 11 ♈	34°: 12 ♉	34°: Horosc ♊	34°: ♋	34°: 3 ♌
22h 8m 25s		0	3	11	14° 9′	11	4	3	13	17° 20′	13	5	3	14	19° 46′	15	6
22h 12m 34m 49s		1	4	12	15° 5′	11	5	4	14	18° 16′	14	6	4	15	20° 42′	16	7
22h 16m 32m 48s		2	5	13	16° 1′	12	6	5	15	19° 12′	15	7	5	17	21° 37′	16	8
22h 19m 35m 48s		3	6	14	16° 57′	13	7	6	16	20° 7′	15	8	6	18	22° 32′	17	9
22h 23m 33m 47s		4	7	15	17° 52′	14	8	7	17	21° 2′	16	9	8	19	23° 27′	18	9
22h 27m 32m 47s		5	8	16	18° 47′	15	8	9	18	21° 57′	17	10	9	20	24° 21′	19	10
22h 31m 31m 46s		6	9	17	19° 41′	16	9	10	19	22° 51′	18	11	10	21	25° 15′	20	11
22h 34m 30m 46s		7	11	18	20° 35′	16	10	11	20	23° 45′	19	11	11	22	26° 8′	20	12
22h 38m 34m 46s		8	12	19	21° 29′	17	11	12	21	24° 38′	20	12	12	23	27° 0′	21	13
22h 42m 32m 44s		9	13	20	22° 23′	18	12	13	22	25° 31′	20	13	14	24	27° 52′	22	14
22h 46m 31m 45s		10	14	21	23° 16′	19	13	14	24	26° 24′	21	14	15	26	28° 44′	23	15
22h 49m 33m 44s		11	15	22	24° 9′	20	14	16	25	27° 16′	22	15	16	27	29° 36′	24	15
22h 53m 33m 44s		12	16	23	25° 1′	21	15	17	26	28° 8′	23	16	17	28	♋ 0° 27′	25	16
22h 57m 32m 43s		13	17	24	25° 53′	21	15	18	27	29° 0′	24	17	18	29	1° 18′	25	17
23h 1m 31m 43s		14	18	25	26° 45′	22	16	19	28	29° 51′	24	17	19	♊	2° 8′	26	18
23h 4m 31m 42s		15	19	26	27° 36′	23	17	20	29	♋ 0° 42′	25	18	20	1	2° 59′	27	19
23h 8m 30m 43s		16	21	27	28° 27′	24	18	21	♊	1° 32′	26	19	21	2	3° 49′	28	20
23h 12m 31m 42s		17	22	28	29° 18′	25	19	22	1	2° 22′	27	20	23	3	4° 39′	28	20
23h 15m 33m 41s		18	23	29	♋ 0° 9′	25	20	23	2	3° 12′	28	21	24	4	5° 28′	29	21

Time from noon	Diff. of time	24°: 10 ♓	24°: 11 ♈	24°: 12 ♉	24°: Horosc. ♊	♋	24°: 3 ♌	30°: 11 ♈	30°: 12 ♉	30°: Horosc. ♊	♋	30°: 3 ♌	34°: 11 ♈	34°: 12 ♉	34°: Horosc. ♊	♋	34°: 3 ♌
23h 19m 33s	42s	19	24	♊	1° 0′	26	21	25	3	4° 2′	28	22	25	5	6° 18′	♌	22
23h 23m 31s	41s	20	25	1	1° 50′	27	22	26	4	4° 52′	29	23	26	6	7° 7′	1	23
23h 26m 35s	41s	21	26	2	2° 40′	28	22	27	5	5° 41′	♌	23	27	7	7° 55′	1	24
23h 30m 33s	41s	22	27	3	3° 30′	29	23	28	6	6° 31′	1	24	28	8	8° 43′	2	25
23h 34m 31s	40s	23	28	4	4° 20′	♌	24	29	7	7° 20′	2	25	29	9	9° 31′	3	26
23h 37m 35s	41s	24	29	5	5° 9′	0	25	♉	8	8° 10′	2	26	♉	10	10° 19′	4	26
23h 41m 33s	40s	25	♉	6	5° 59′	1	26	1	9	8° 58′	3	27	2	11	11° 7′	5	27
23h 45m 32s	41s	26	1	7	6° 49′	2	27	2	10	9° 47′	4	28	3	12	11° 55′	5	28
23h 48m 30s	40s	27	2	8	7° 38′	3	28	3	11	10° 35′	5	29	4	13	12° 43′	6	29
23h 52m 34s	40s	28	3	9	8° 27′	4	28	4	12	11° 23′	6	29	5	13	13° 31′	7	♍
23h 56m 32s	40s	29	4	10	9° 16′	4	29	5	12	12° 11′	6	♍	6	14	14° 18′	8	1
24h 0m 30s	40s	30	5	11	10° 5′	5	30	6	13	12° 59′	7	1	7	15	15° 4′	9	2

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♈
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♈	37°: 11 ♉	37°: 12 ♊	37°: Horosc. ♋	♌	37°: 3 ♍	40°: 11 ♈	40°: 12 ♉	40°: Horosc. ♊	♋	40°: 3 ♍	43°: 11 ♉	43°: 12 ♊	43°: Horosc. ♋	♌	43°: 3 ♍
0h 0m 0s		0	8	17	16° 45′	10	2	9	19	18° 31′	11	3	9	21	20° 24′	12	3
0h 3m 45s	40s	1	9	18	17° 31′	10	3	10	20	19° 16′	12	3	11	22	21° 8′	13	4
0h 7m 29s	40s	2	10	19	18° 17′	11	4	11	21	20° 1′	12	4	12	23	21° 52′	13	5
0h 11m 9s	40s	3	11	20	19° 3′	12	5	12	22	20° 46′	13	5	13	24	22° 36′	14	5
0h 14m 53s	40s	4	12	21	19° 49′	13	6	13	23	21° 31′	14	6	14	25	23° 20′	15	6
0h 18m 37s	41s	5	13	22	20° 34′	13	6	14	24	22° 16′	15	7	15	25	24° 4′	16	7
0h 22m 21s	40s	6	14	23	21° 20′	14	7	15	25	23° 1′	15	7	16	26	24° 48′	16	8
0h 25m 57s	41s	7	15	23	22° 6′	15	8	16	26	23° 45′	16	8	17	27	25° 31′	17	9
0h 29m 32s	40s	8	16	24	22° 51′	16	9	17	27	24° 30′	17	9	18	28	26° 15′	18	10
0h 33m 13s	41s	9	17	25	23° 37′	17	10	18	28	25° 15′	18	10	19	29	26° 59′	19	10
0h 36m 44s	41s	10	18	26	24° 23′	17	11	19	28	25° 59′	18	11	20	♋	27° 42′	19	11
0h 40m 25s	41s	11	19	27	25° 8′	18	11	20	29	26° 44′	19	12	21	1	28° 26′	20	12
0h 44m 7s	42s	12	20	28	25° 53′	19	12	21	♋	27° 28′	20	13	22	2	29° 9′	21	13
0h 47m 48s	41s	13	22	29	26° 39′	20	13	22	1	28° 12′	21	13	23	2	29° 52′	21	14
0h 51m 30s	42s	14	23	29	27° 24′	20	14	23	2	28° 57′	21	14	24	3	♌ 0° 35′	22	14
0h 55m 13s	43s	15	24	♋	28° 9′	21	15	24	3	29° 41′	22	15	25	4	1° 19′	23	15
0h 58m 55s	42s	16	25	1	28° 55′	22	16	25	4	♌ 0° 25′	23	16	27	5	2° 2′	24	16
1h 2m 38s	43s	17	26	2	29° 40′	23	17	26	4	1° 10′	24	17	28	6	2° 45′	24	17
1h 6m 21s	43s	18	27	3	♌ 0° 25′	23	17	27	5	1° 54′	24	18	29	6	3° 29′	25	18
1h 10m 3s	44s	19	28	4	1° 10′	24	18	28	6	2° 38′	25	18	♊	7	4° 12′	26	19
1h 13m 49s	44s	20	29	4	1° 55′	25	19	29	7	3° 23′	26	19	1	8	4° 55′	27	20
1h 17m 34s	45s	21	♊	5	2° 41′	26	20	♊	8	4° 7′	27	20	2	9	5° 39′	27	20
1h 21m 18s	44s	22	1	6	3° 26′	27	21	1	9	4° 51′	27	21	3	10	6° 23′	28	21

Time from noon	Diff. of time	37°: 10 ♈	37°: 11 ♉	37°: 12 ♊	37°: Horosc. ♋	37°: ♌	37°: 3 ♍	40°: 11 ♉	40°: 12 ♊	40°: Horosc. ♋	40°: ♌	40°: 3 ♍	43°: 11 ♉	43°: 12 ♊	43°: Horosc. ♋	43°: ♌	43°: 3 ♍
1h 25m 46s	4m	23	2	7	4° 12′	27	22	2	9	5° 36′	28	22	4	10	7° 6′	29	22
1h 28m 46s	3m	24	2	8	4° 58′	28	23	3	10	6° 21′	29	23	5	11	7° 49′	♍	23
1h 32m 46s	4m	25	3	9	5° 43′	29	24	4	11	7° 6′	♍	24	6	12	8° 33′	0	24
1h 36m 47s	4m	26	4	9	6° 29′	♍	24	5	12	7° 51′	0	25	7	13	9° 17′	1	25
1h 40m 47s	4m	27	5	10	7° 15′	0	25	6	13	8° 36′	1	25	7	14	10° 1′	2	25
1h 43m 48s	3m	28	6	11	8° 1′	1	26	7	13	9° 21′	2	26	8	14	10° 45′	3	26
1h 47m 48s	4m	29	7	12	8° 47′	2	27	8	14	10° 6′	3	27	9	15	11° 28′	3	27
1h 51m 49s	4m	30	8	13	9° 33′	3	28	9	15	10° 51′	3	28	10	16	12° 12′	4	28

Tables of houses for the latitude of the ecliptic
With the ☉ in ♉
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♉	37°: 11 ♊	37°: 12 ♋	37°: Horosc. ♌	37°: ♍	37°: 3 ♍	40°: 11 ♊	40°: 12 ♋	40°: Horosc. ♌	40°: ♍	40°: 3 ♍	43°: 11 ♊	43°: 12 ♋	43°: Horosc. ♌	43°: ♍	43°: 3 ♍
1h 51m 35s		0	8	13	9° 33′	3	28	9	15	10° 51′	3	28	10	16	12° 12′	4	28
1h 55m 49s	4m	1	9	14	10° 19′	4	29	10	16	11° 36′	4	29	11	17	12° 56′	5	29
1h 59m 50s	4m	2	10	14	11° 6′	4	♎	11	16	12° 21′	5	♎	12	18	13° 40′	6	♎
2h 3m 53m	51s	3	11	15	11° 52′	5	1	12	17	13° 6′	6	1	13	18	14° 24′	6	1
2h 6m 59m	51s	4	12	16	12° 38′	6	2	13	18	13° 51′	7	2	14	19	15° 8′	7	2
2h 10m 48m	52s	5	13	17	13° 25′	7	3	14	19	14° 37′	7	2	15	20	15° 52′	8	2
2h 14m 41m	53s	6	14	18	14° 11′	8	3	15	19	15° 22′	8	3	16	21	16° 37′	9	3
2h 18m 34m	53s	7	15	19	14° 58′	9	4	16	20	16° 8′	9	4	17	22	17° 21′	10	4
2h 22m 28m	54s	8	16	19	15° 45′	9	5	17	21	16° 54′	10	5	18	22	18° 6′	10	5
2h 26m 22m	54s	9	17	20	16° 32′	10	6	18	22	17° 40′	11	6	19	23	18° 51′	11	6
2h 30m 17m	55s	10	18	21	17° 20′	11	7	19	22	18° 26′	11	7	20	24	19° 36′	12	7
2h 34m 13m	56s	11	19	22	18° 7′	12	8	20	23	19° 13′	12	8	21	25	20° 21′	13	8
2h 38m 10m	57s	12	20	23	18° 55′	13	9	21	24	19° 59′	13	9	22	26	21° 6′	14	9
2h 42m 7m	57s	13	21	24	19° 43′	13	10	22	25	20° 46′	14	10	23	26	21° 52′	14	10
2h 46m 3m	58s	14	22	24	20° 31′	14	11	22	26	21° 32′	15	11	24	27	22° 37′	15	10
2h 50m 4m	59s	15	23	25	21° 18′	15	12	23	26	22° 19′	16	12	25	28	23° 23′	16	11
2h 54m 4m	0s	16	23	26	22° 6′	16	13	24	27	23° 6′	16	12	26	29	24° 9′	17	12
2h 58m 4m	0s	17	24	27	22° 55′	17	14	25	28	23° 53′	17	13	27	♌	24° 55′	18	13
3h 2m 54m	1s	18	25	28	23° 44′	18	15	26	29	24° 41′	18	14	27	0	25° 41′	18	14
3h 6m 74m	2s	19	26	29	24° 32′	19	15	27	♌	25° 29′	19	15	28	1	26° 27′	19	15
3h 10m 4m	2s	20	27	29	25° 21′	19	16	28	1	26° 17′	20	16	29	2	27° 14′	20	16
3h 14m 4m	3s	21	28	♌	26° 10′	20	17	29	1	27° 5′	21	17	♋	3	28° 0′	21	17
3h 18m 4m	4s	22	29	1	27° 0′	21	18	♋	2	27° 53′	21	18	1	4	28° 47′	22	18
3h 22m 4m	4s	23	♋	2	27° 49′	22	19	1	3	28° 41′	22	19	2	5	29° 34′	22	19
3h 26m 4m	6s	24	1	3	28° 39′	23	20	2	4	29° 29′	23	20	3	5	♍ 0° 21′	23	20
3h 30m 4m	6s	25	2	4	29° 28′	24	21	3	5	♍ 0° 18′	24	21	4	6	1° 8′	24	20
3h 34m 4m	6s	26	3	5	♍ 0° 18′	25	22	4	6	1° 6′	25	22	5	7	1° 55′	25	21

Time from noon	Diff. of time	37°: 10 ♉	37°: 11 ♊	37°: 12 ♋	37°: Horosc. ♌	37°: ♍	37°: 3 ♍	40°: 11 ♊	40°: 12 ♋	40°: Horosc. ♌	40°: ♍	40°: 3 ♍	43°: 11 ♊	43°: 12 ♋	43°: Horosc. ♌	43°: ♍	43°: 3 ♍
3h 38m 40s	8s	27	4	5	1° 9′	25	23	5	6	1° 55′	26	23	6	8	2° 43′	26	22
3h 42m 44s	8s	28	5	6	1° 59′	26	24	6	7	2° 44′	26	24	7	9	3° 30′	27	23
3h 47m 48s	9s	29	6	7	2° 49′	27	25	7	8	3° 33′	27	25	8	9	4° 18′	27	24
3h 51m 52s	9s	30	7	8	3° 40′	28	26	8	9	4° 22′	28	25	9	10	5° 6′	28	25

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♊
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♊	37°: 11 ♋	37°: 12 ♌	37°: Horosc. ♍	37°: ♍	37°: 3 ♎	40°: 11 ♋	40°: 12 ♌	40°: Horosc. ♍	40°: ♍	40°: 3 ♎	43°: 11 ♋	43°: 12 ♌	43°: Horosc. ♍	43°: ♍	43°: 3 ♎
3h 51m 12s		0	7	8	3° 40′	28	26	8	9	4° 22′	28	25	9	10	5° 6′	28	25
3h 55m 16s	11s	1	8	9	4° 31′	29	27	8	10	5° 11′	29	26	10	11	5° 54′	29	26
3h 59m 20s	11s	2	8	10	5° 22′	♎	28	9	11	6° 1′	♎	27	10	12	6° 42′	♎	27
4h 3m 24s	11s	3	9	10	6° 13′	1	29	10	12	6° 51′	1	28	11	13	7° 31′	1	28
4h 7m 28s	12s	4	10	11	7° 4′	2	♏	11	12	7° 41′	2	29	12	14	8° 19′	2	29
4h 12m 32s	13s	5	11	12	7° 55′	3	1	12	13	8° 31′	3	♏	13	14	9° 8′	2	♏
4h 16m 36s	14s	6	12	13	8° 46′	4	2	13	14	9° 21′	3	1	14	15	9° 57′	3	1
4h 20m 40s	14s	7	13	14	9° 38′	4	3	14	15	10° 12′	4	2	15	16	10° 46′	4	2
4h 24m 44s	15s	8	14	15	10° 30′	5	4	15	16	11° 3′	5	3	16	17	11° 35′	5	3
4h 29m 48s	15s	9	15	16	11° 22′	6	5	16	17	11° 53′	6	4	17	18	12° 24′	6	3
4h 33m 52s	16s	10	16	17	12° 14′	7	5	17	18	12° 44′	7	5	18	19	13° 13′	7	4
4h 37m 56s	16s	11	17	17	13° 6′	8	6	18	18	13° 35′	8	6	19	19	14° 3′	8	5
4h 41m 57s	17s	12	18	18	13° 59′	9	7	19	19	14° 26′	9	7	20	20	14° 53′	8	6
4h 46m 44s	17s	13	19	19	14° 52′	10	8	20	20	15° 17′	10	8	21	21	15° 43′	9	7
4h 50m 32s	18s	14	20	20	15° 44′	11	9	21	21	16° 8′	10	9	22	22	16° 33′	10	8
4h 54m 40s	18s	15	21	21	16° 37′	12	10	22	22	16° 59′	11	10	23	23	17° 23′	11	9
4h 59m 00s	19s	16	22	22	17° 31′	13	11	23	23	17° 50′	12	11	23	24	18° 13′	12	10
5h 3m 28s	19s	17	23	23	18° 24′	13	12	23	24	18° 42′	13	12	24	25	19° 3′	13	11
5h 7m 47s	19s	18	24	24	19° 17′	14	13	24	25	19° 34′	14	13	25	25	19° 54′	14	12
5h 12m 7s	20s	19	24	25	20° 10′	15	14	25	25	20° 26′	15	14	26	26	20° 44′	15	13
5h 16m 27s	20s	20	25	26	21° 3′	16	15	26	26	21° 17′	16	15	27	27	21° 34′	15	14
5h 20m 46s	21s	21	26	27	21° 56′	17	16	27	27	22° 9′	17	16	28	28	22° 24′	16	15
5h 25m 8s	20s	22	27	27	22° 50′	18	17	28	28	23° 1′	18	16	29	29	23° 14′	17	16
5h 29m 29s	21s	23	28	28	23° 43′	19	18	29	29	23° 53′	18	17	♍	♍	24° 4′	18	17
5h 33m 50s	21s	24	29	29	24° 37′	20	19	♍	♍	24° 46′	19	18	1	1	24° 55′	19	18
5h 38m 12s	22s	25	♍	♍	25° 31′	21	20	1	1	25° 38′	20	19	2	2	25° 46′	20	19
5h 42m 33s	21s	26	1	1	26° 25′	22	21	2	2	26° 30′	21	20	3	2	26° 37′	21	20
5h 46m 55s	22s	27	2	2	27° 19′	23	22	3	3	27° 23′	22	21	4	3	27° 28′	22	21
5h 51m 16s	21s	28	3	3	28° 12′	24	23	4	3	28° 15′	23	22	5	4	28° 19′	22	21
5h 55m 38s	22s	29	4	4	29° 6′	24	24	5	4	29° 7′	24	23	6	5	29° 9′	23	22
6h 0m 04s	22s	30	5	5	♎ 0° 0′	25	25	6	5	♎ 0° 0′	25	24	7	6	♎ 0° 0′	24	23

Tables of houses for the obliquity of the ecliptic

With the ☉ in ♋
For the latitude of the place 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♋	37°: 11 ♌	37°: 12 ♍	37°: Horosc ♎	37°: ♎	37°: 3 ♏	40°: 11 ♌	40°: 12 ♍	40°: Horosc ♎	40°: ♎	40°: 3 ♏	43°: 11 ♌	43°: 12 ♍	43°: Horosc ♎	43°: ♎	43°: 3 ♏
6h 0m 0s	0	5	5	0° 0′	25	25	6	5	0° 0′	25	24	7	6	0° 0′	24	23
6h 4m 24s	22s 1	6	6	0° 54′	26	26	7	6	0° 53′	26	25	8	7	0° 51′	25	24
6h 8m 44m	22s 2	7	6	1° 48′	27	27	8	7	1° 45′	27	26	9	8	1° 41′	26	25
6h 13m 3m	21s 3	8	7	2° 41′	28	28	9	8	2° 37′	27	27	9	8	2° 32′	27	26
6h 17m 47m	22s 4	9	8	3° 35′	29	29	10	9	3° 30′	28	28	10	9	3° 23′	28	27
6h 21m 48m	21s 5	10	9	4° 29′	♏	♐	11	10	4° 22′	29	29	11	10	4° 14′	28	28
6h 26m 40m	22s 6	11	10	5° 23′	1	1	12	11	5° 14′	♏	♐	12	11	5° 5′	29	29
6h 30m 31m	21s 7	12	11	6° 17′	2	2	13	11	6° 7′	1	1	13	12	5° 56′	♏	♐
6h 34m 22m	21s 8	13	12	7° 10′	3	3	14	12	6° 59′	2	2	14	13	6° 46′	1	1
6h 39m 12m	20s 9	14	13	8° 4′	3	4	14	13	7° 51′	3	3	15	14	7° 36′	2	2
6h 43m 3m	21s 10	15	14	8° 57′	4	5	15	14	8° 43′	4	4	16	15	8° 26′	3	3
6h 47m 53m	20s 11	16	15	9° 50′	5	5	16	15	9° 34′	5	5	17	15	9° 16′	4	4
6h 52m 43m	20s 12	17	16	10° 43′	6	6	17	16	10° 26′	5	6	18	16	10° 6′	5	5
6h 56m 32m	19s 13	18	17	11° 36′	7	7	18	17	11° 18′	6	6	19	17	10° 57′	5	6
7h 0m 54m	19s 14	19	17	12° 29′	8	8	19	28 [recte: 18]	12° 10′	7	7	20	18	11° 47′	6	6
7h 5m 19m	19s 15	20	18	13° 23′	9	9	20	29 [recte: 19]	13° 1′	8	8	21	19	12° 37′	7	7
7h 9m 28m	18s 16	21	19	14° 16′	10	10	21	20	13° 52′	9	9	22	20	13° 27′	8	8
7h 13m 46m	18s 17	22	20	15° 8′	11	11	22	20	14° 43′	10	10	23	21	14° 17′	9	9
7h 18m 3m	17s 18	23	21	16° 1′	12	12	23	21	15° 34′	11	11	24	22	15° 7′	10	10
7h 22m 20m	17s 19	24	22	16° 54′	13	13	24	22	16° 25′	12	12	25	22	15° 57′	10	11
7h 26m 36m	16s 20	25	23	17° 46′	13	14	25	23	17° 16′	12	13	26	23	16° 47′	11	12
7h 30m 52m	16s 21	25	24	18° 38′	14	15	26	24	18° 7′	13	14	27	24	17° 36′	12	13
7h 35m 7m	15s 22	26	25	19° 30′	15	16	27	25	18° 57′	14	15	27	25	18° 25′	13	14
7h 39m 22m	15s 23	27	26	20° 22′	16	17	28	26	19° 48′	15	16	28	26	19° 14′	14	15
7h 43m 36m	14s 24	28	26	21° 14′	17	18	29	27	20° 39′	16	17	29	27	20° 3′	15	16
7h 47m 50m	14s 25	29	27	22° 5′	18	19	♐	27	21° 29′	17	18	♐	28	20° 52′	16	17
7h 52m 3m	13s 26	♐	28	22° 56′	19	20	1	28	22° 19′	18	19	1	28	21° 41′	16	18
7h 56m 15m	12s 27	1	29	23° 47′	20	21	2	29	23° 9′	18	20	2	29	22° 29′	17	19
8h 0m 26m	11s 28	2	♎	24° 38′	20	21	3	♎	23° 59′	19	21	3	♎	23° 18′	18	20
8h 4m 37m	11s 29	3	1	25° 29′	21	22	4	1	24° 49′	20	22	4	1	24° 6′	19	20
8h 8m 48m	11s 30	4	2	26° 20′	22	23	5	2	25° 38′	21	22	5	2	24° 54′	20	21

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♌
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♌	37°: 11 ♍	37°: 12 ♎	37°: Horosc. ♎	37°: ♏	37°: 3 ♐	40°: 11 ♍	40°: 12 ♎	40°: Horosc. ♎	40°: ♏	40°: 3 ♐	43°: 11 ♍	43°: 12 ♎	43°: Horosc. ♎	43°: ♏	43°: 3 ♐
8h 8m 48s	0	4	2	26° 20′	22		23	5	2	25° 38′	21	22	5	2	24° 54′	20	21
8h 12m 47m 9s	1	5	3	27° 11′	23		24	5	3	26° 27′	22	23	6	3	25° 42′	21	22
8h 17m 46m 9s	2	6	4	28° 1′	24		25	6	4	27° 16′	23	24	7	3	26° 30′	21	23
8h 21m 44m 8s	3	7	5	28° 51′	25		26	7	4	28° 5′	23	25	8	4	27° 17′	22	24
8h 25m 42m 8s	4	8	5	29° 42′	26		27	8	5	28° 54′	24	26	9	5	28° 5′	23	25
8h 29m 40m 6s	5	9	6	♏ 26 0° 32′			28	9	6	29° 42′	25	27	10	6	28° 52′	24	26
8h 33m 38m 6s	6	10	7	1° 21′	27		29	10	7	♏ 26 0° 31′		28	10	7	29° 39′	25	27
8h 37m 36m 6s	7	11	8	2° 11′	28		♍	11	8	1° 19′	27	29	11	8	♏ 25 0° 26′		28
8h 41m 34m 4s	8	12	9	3° 0′	29		1	12	9	2° 7′	28	♍	12	8	1° 13′	26	29
8h 45m 32m 4s	9	13	10	3° 50′	♐		2	13	9	2° 55′	28	1	13	9	2° 0′	27	♍
8h 49m 31m 3s	10	14	11	4° 39′	1		3	14	10	3° 43′	29	2	14	10	2° 46′	28	1
8h 53m 33m 2s	11	15	11	5° 28′	2		4	15	11	4° 31′	♐	3	15	11	3° 33′	29	2
8h 57m 35m 2s	12	15	12	6° 16′	2		5	16	12	5° 19′	1	4	16	12	4° 19′	♐	3
9h 1m 54m 1s	13	16	13	7° 5′	3		6	17	13	6° 7′	2	5	17	12	5° 5′	0	3
9h 5m 56m 0s	14	17	14	7° 54′	4		7	18	14	6° 54′	3	6	18	13	5° 51′	1	4
9h 9m 58m 0s	15	18	15	8° 42′	5		7	18	14	7° 41′	3	6	19	14	6° 37′	2	5
9h 13m 35m 59s	16	19	16	9° 29′	6		8	19	15	8° 28′	4	7	20	15	7° 23′	3	6
9h 17m 33m 58s	17	20	16	10° 17′	6		9	20	16	9° 14′	5	8	20	16	8° 8′	4	7
9h 21m 30m 57s	18	21	17	11° 5′	7		10	21	17	10° 1′	6	9	21	16	8° 54′	4	8
9h 25m 27m 57s	19	22	18	11° 52′	8		11	22	18	10° 47′	7	10	22	17	9° 39′	5	9
9h 29m 43m 56s	20	23	19	12° 40′	9		12	23	19	11° 34′	7	11	23	18	10° 24′	6	10
9h 33m 38m 55s	21	24	20	13° 28′	10		13	24	19	12° 20′	8	12	24	19	11° 9′	7	11
9h 37m 32m 54s	22	25	21	14° 15′	11		14	25	20	13° 6′	9	13	25	20	11° 54′	8	12
9h 41m 26m 54s	23	26	22	15° 2′	12		15	26	21	13° 52′	10	14	26	20	12° 39′	8	13
9h 45m 39m 53s	24	27	22	15° 49′	12		16	27	22	14° 38′	11	15	27	21	13° 23′	9	14
9h 49m 32m 53s	25	27	23	16° 35′	13		17	27	23	15° 23′	12	16	28	22	14° 8′	10	15
9h 53m 24m 52s	26	28	24	17° 22′	14		18	28	23	16° 9′	12	17	28	23	14° 52′	11	16
9h 56m 35m 51s	27	29	25	18° 8′	15		19	29	24	16° 54′	13	18	29	23	15° 36′	12	17
10h 0m 46m 51s	28	♎	26	18° 54′	16		20	♎	25	17° 39′	14	19	♎	24	16° 20′	13	18
10h 4m 36m 50s	29	1	26	19° 41′	16		21	1	26	18° 24′	15	20	1	25	17° 4′	13	19
10h 8m 25m 49s	30	2	37 [recte: 27]	20° 27′	17		22	2	26	19° 9′	16	21	2	26	17° 48′	14	20

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♍	37°: 11 ♎	37°: 12 ♎	37°: Horosc. ♏	37°: ♐	37°: 3 ♑	40°: 11 ♎	40°: 12 ♎	40°: Horosc. ♏	40°: ♐	40°: 3 ♑	43°: 11 ♎	43°: 12 ♎	43°: Horosc. ♏	43°: ♐	43°: 3 ♑
10h 8m 25s	0	2	27	20° 27′	17		22	2	26	19° 9′	16	21	2	26	17° 48′	14	20
10h 12m 31m 49s	1	3	28	21° 13′	18		23	3	27	19° 54′	16	22	3	27	18° 32′	15	21
10h 16m 32m 48s	2	4	29	21° 59′	19		24	4	28	20° 39′	17	23	4	27	19° 15′	16	22

Time from noon	Diff. of time	37°: 10 ♍	37°: 11 ♎	37°: 12 ♎	37°: 37°: Horosc. ♏ ♐	37°: 3 ♑	40°: 11 ♎	40°: 12 ♎	40°: 40°: Horosc. ♏ ♐	40°: 3 ♑	43°: 11 ♎	43°: 12 ♎	43°: 43°: Horosc. ♏ ♐	43°: 3 ♑
10h 19m 35s	18s	3	5	♏	22° 45′ 20	25	5	29	21° 24′ 18	24	4	28	19° 59′ 16	22
10h 23m 33s	17s	4	5	0	23° 31′ 21	26	5	♏	22° 9′ 19	25	5	29	20° 43′ 17	23
10h 27m 32s	17s	5	6	1	24° 17′ 21	27	6	0	22° 54′ 20	26	6	♏	21° 27′ 18	24
10h 31m 30s	16s	6	7	2	25° 2′ 22	28	7	1	23° 39′ 21	27	7	0	22° 11′ 19	25
10h 35m 29s	16s	7	8	3	25° 48′ 23	28	8	2	24° 24′ 21	28	8	1	22° 54′ 20	26
10h 39m 28s	16s	8	9	4	26° 34′ 24	29	9	3	25° 9′ 22	29	9	2	23° 37′ 20	27
10h 43m 26s	15s	9	10	4	27° 19′ 25	♒	10	3	25° 53′ 23	♒	10	3	24° 21′ 21	28
10h 47m 25s	15s	10	11	5	28° 5′ 26	1	11	4	26° 37′ 24	1	10	3	25° 5′ 22	29
10h 51m 24s	14s	11	12	6	28° 50′ 26	2	11	5	27° 22′ 25	2	11	4	25° 48′ 23	♒
10h 55m 23s	14s	12	12	7	29° 35′ 27	3	12	6	28° 6′ 25	3	12	5	26° 31′ 24	1
10h 59m 22s	13s	13	13	7	♐ 28 0° 20′	4	13	6	28° 50′ 26	4	13	6	27° 15′ 24	2
11h 1m 53m	43s	14	14	8	1° 5′ 29	5	14	7	29° 35′ 27	5	14	6	27° 58′ 25	3
11h 4m 47m	42s	15	15	9	1° 51′ ♑	6	15	8	♐ 28 0° 19′	6	15	7	28° 41′ 26	4
11h 8m 38m	43s	16	16	10	2° 36′ 1	7	16	9	1° 3′ 29	7	16	8	29° 25′ 27	[numeral: ?]
11h 12m 32m	42s	17	17	10	3° 21′ 1	8	17	9	1° 48′ ♑	8	16	9	♐ 28 0° 8′	7
11h 15m 33m	41s	18	18	11	4° 7′ 2	9	17	10	2° 32′ 0	9	17	9	0° 51′ 29	8
11h 19m 35m	42s	19	19	12	4° 52′ 3	10	18	11	3° 16′ 1	10	18	10	1° 34′ 29	9
11h 23m 36m	41s	20	19	13	5° 37′ 4	11	19	12	4° 1′ 2	11	19	11	2° 18′ ♑	10
11h 26m 35m	41s	21	20	14	6° 23′ 5	12	20	12	4° 45′ 3	12	20	11	3° 1′ 1	11
11h 30m 33m	41s	22	21	14	7° 9′ 6	14	21	13	5° 30′ 4	13	20	12	3° 45′ 2	12
11h 34m 38m	40s	23	22	15	7° 54′ 7	15	22	14	6° 15′ 5	14	21	13	4° 29′ 3	13
11h 37m 39m	41s	24	23	16	8° 40′ 8	16	22	15	6° 59′ 6	15	22	14	5° 12′ 4	14
11h 41m 39m	40s	25	24	17	9° 26′ 8	17	23	15	7° 44′ 7	16	23	14	5° 56′ 5	15
11h 45m 32m	41s	26	25	17	10° 11′ 9	18	24	16	8° 29′ 7	17	24	15	6° 40′ 5	16
11h 49m 30m	40s	27	25	18	10° 57′ 10	19	25	17	9° 14′ 8	18	25	16	7° 24′ 6	17
11h 52m 34m	40s	28	26	19	11° 43′ 11	20	26	18	9° 59′ 9	19	25	17	8° 8′ 7	18
11h 56m 32m	40s	29	27	20	12° 29′ 12	21	27	18	10° 44′ 10	20	26	17	8° 52′ 8	19
12h 0m 30m	40s	30	28	20	13° 15′ 13	22	27	19	11° 29′ 11	21	27	18	9° 36′ 9	21

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♎
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♎	37°: 11 ♎	37°: 12 ♏	37°: 37°: Horosc. ♐ ♑	37°: 3 ♒	40°: 11 ♎	40°: 12 ♏	40°: 40°: Horosc. ♐ ♑	40°: 3 ♒	43°: 11 ♎	43°: 12 ♏	43°: 43°: Horosc. ♐ ♑	43°: 3 ♒
12h 0m 0s	0	28	20	13° 15′ 13	22	27	19	11° 29′ 11	21	27	18	9° 36′ 9	21
12h 3m 40m	40s	1	29	21	14° 2′ 14	23	28	20	12° 15′ 12	23	28	19	10° 21′ 10	22
12h 7m 30m	40s	2	♏	22	14° 48′ 15	24	29	21	13° 0′ 13	24	29	19	11° 6′ 11	23
12h 11m 30m	40s	3	0	23	15° 34′ 16	25	♏	21	13° 46′ 14	25	29	20	11° 51′ 12	24
12h 14m 34m	40s	4	1	23	16° 21′ 17	26	1	22	14° 31′ 15	26	♏	21	12° 35′ 13	25
12h 18m 32m	41s	5	2	24	17° 8′ 18	28	2	23	15° 17′ 16	27	1	22	13° 20′ 14	26

Time from noon	Diff. of time	37°: 10 ♎	37°: 11 ♎	37°: 12 ♏	37°: 37°: Horosc ♐	♍	37°: 3 ♒	40°: 11 ♎	40°: 12 ♏	40°: 40°: Horosc ♐	♍	40°: 3 ♒	43°: 11 ♎	43°: 12 ♏	43°: 43°: Horosc ♐	♍	43°: 3 ♒
12h	22m 31m 40s	6	3	25	17°	55′ 19	29	2	24	16°	3′ 17	28	2	22	14°	5′ 15	27
12h	25m 34m 41s	7	4	26	18°	43′ 19	♓	3	24	16°	50′ 18	29	3	23	14°	50′ 16	29
12h	29m 38m 40s	8	4	26	19°	31′ 20	1	4	25	17°	37′ 18	♓	4	24	15°	36′ 17	♓
12h	33m 41m 41s	9	5	27	20°	19′ 21	2	5	26	18°	24′ 19	2	4	25	16°	22′ 18	1
12h	36m 44m 41s	10	6	28	21°	7′ 22	3	6	27	19°	11′ 20	3	5	25	17°	8′ 19	2
12h	40m 48m 41s	11	7	29	21°	55′ 23	4	7	27	19°	58′ 21	4	6	26	17°	54′ 20	3
12h	44m 51m 42s	12	8	29	22°	44′ 24	6	7	28	20°	46′ 22	5	7	27	18°	41′ 21	4
12h	47m 54m 41s	13	9	♐	23°	33′ 25	7	8	29	21°	34′ 23	6	8	27	19°	28′ 22	6
12h	51m 58m 42s	14	9	1	24°	22′ 26	8	9	♐	22°	22′ 24	7	8	28	20°	14′ 23	7
12h	55m 1m 43s	15	10	2	25°	11′ 27	9	10	0	23°	10′ 25	9	9	29	21°	1′ 24	8
12h	58m 5m 42s	16	11	3	26°	1′ 28	10	11	1	23°	59′ 27	10	10	♐	21°	49′ 25	9
13h	2m 8m 43s	17	12	3	26°	50′ 29	11	11	2	24°	48′ 28	11	11	0	22°	37′ 26	11
13h	6m 11m 43s	18	13	4	27°	40′ ♒	13	12	3	25°	38′ 29	12	12	1	23°	25′ 27	12
13h	10m 15m 44s	19	14	5	28°	30′ 2	14	13	3	26°	28′ ♒	13	12	2	24°	14′ 28	13
13h	13m 18m 44s	20	14	6	29°	21′ 3	15	14	4	27°	18′ 1	15	13	3	25°	3′ 29	14
13h	17m 22m 45s	21	15	6	♍ 0°	4 12′	16	15	5	28°	8′ 2	16	14	3	25°	53′ ♒	16
13h	21m 25m 44s	22	16	7	1°	4′ 5	17	16	6	28°	59′ 3	17	15	4	26°	43′ 1	17
13h	25m 29m 46s	23	17	8	1°	56′ 6	19	16	7	29°	50′ 4	18	16	5	27°	33′ 2	18
13h	28m 32m 46s	24	18	9	2°	49′ 7	20	17	7	♍ 0°	5 42′	20	17	6	28°	24′ 3	19
13h	32m 36m 46s	25	19	10	3°	42′ 8	21	18	8	1°	35′ 7	21	17	7	29°	15′ 4	21
13h	36m 39m 47s	26	19	10	4°	36′ 10	22	19	9	2°	28′ 8	22	18	7	♍ 0°	6 7′	22
13h	40m 43m 47s	27	20	11	5°	30′ 11	24	20	10	3°	21′ 9	23	19	8	0°	59′ 7	23
13h	43m 46m 48s	28	21	12	6°	25′ 12	25	21	10	4°	15′ 10	25	20	9	1°	52′ 8	25
13h	47m 50m 48s	29	22	13	7°	20′ 13	26	21	11	5°	9′ 11	26	21	10	2°	45′ 9	26
13h	51m 53m 49s	30	23	14	8°	15′ 14	27	22	12	6°	4′ 12	27	22	10	3°	39′ 11	27

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♏
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♏	37°: 11 ♏	37°: 12 ♐	37°: 37°: Horosc ♍	♒	37°: 3 ♓	40°: 11 ♏	40°: 12 ♐	40°: 40°: Horosc ♍	♒	40°: 3 ♓	43°: 11 ♏	43°: 12 ♐	43°: 43°: Horosc ♍	♒	43°: 3 ♓
13h	51m 35s	0	23	14	8°	15′ 14	27	22	12	6°	4′ 12	27	22	10	3°	39′ 11	27
13h	55m 34m 49s	1	24	14	9°	11′ 15	28	23	13	6°	59′ 14	28	22	11	4°	34′ 12	28
13h	59m 38m 50s	2	25	15	10°	8′ 17	♈	24	14	7°	55′ 15	♈	23	12	5°	29′ 13	♈
14h	3m 42m 51s	3	25	16	11°	5′ 18	1	25	14	8°	52′ 16	1	24	13	6°	25′ 14	1
14h	6m 46m 51s	4	26	17	12°	3′ 19	2	26	15	9°	49′ 18	2	25	14	7°	22′ 16	2
14h	10m 49m 52s	5	27	18	13°	1′ 20	4	27	16	10°	47′ 19	4	26	14	8°	19′ 17	4
14h	14m 53m 53s	6	28	19	14°	0′ 22	5	27	17	11°	46′ 20	5	27	15	9°	17′ 18	5
14h	18m 57m 53s	7	29	20	15°	0′ 23	6	28	18	12°	45′ 22	6	27	16	10°	15′ 20	6
14h	22m 1m 54s	8	♐	20	16°	0′ 24	7	29	19	13°	45′ 23	8	28	17	11°	14′ 21	8
14h	26m 5m 54s	9	1	21	17°	1′ 26	9	♐	19	14°	46′ 24	9	29	18	12°	14′ 23	9

Time from noon	Diff. of time	37°: 10 ♏	37°: 11 ♏	37°: 12 ♐	37°: Horosc ♍	37°: ♒	37°: 3 ♓	40°: 11 ♏	40°: 12 ♐	40°: Horosc ♍	40°: ♒	40°: 3 ♓	43°: 11 ♏	43°: 12 ♐	43°: Horosc ♍	43°: ♒	43°: 3 ♓
14h 30m 31m 55s		10	1	22	18° 3′	27	10	1	20	15° 48′	26	10	♐	19	13° 15′	24	10
14h 34m 31m 56s		11	2	23	19° 5′	28	11	2	21	16° 50′	27	11	1	19	14° 17′	26	12
14h 38m 31m 57s		12	3	24	20° 8′	♓	12	3	22	17° 53′	28	13	2	20	15° 20′	27	13
14h 42m 31m 57s		13	4	25	21° 12′	1	14	3	23	18° 57′	♓	14	2	21	16° 24′	28	14
14h 46m 31m 58s		14	5	26	22° 17′	3	15	4	24	20° 2′	1	15	3	22	17° 29′	♓	16
14h 50m 31m 59s		15	6	26	23° 23′	4	16	5	25	21° 7′	3	17	4	23	18° 34′	1	17
14h 54m 32m 0s		16	7	27	24° 30′	6	18	6	26	22° 13′	4	18	5	24	19° 40′	3	18
14h 58m 32m 0s		17	8	28	25° 38′	7	19	7	26	23° 20′	6	19	6	25	20° [?]3′[78]		20
15h 2m 32m 1s		18	9	29	26° 46′	9	20	8	27	24° 28′	7	20	7	25	21° 55′	6	21
15h 6m 32m 2s		19	[?]o	♍	27° 55′	10	21	9	28	25° 38′	9	22	8	26	23° 5′	8	22
15h 10m 32m 2s		20	10	1	29° 5′	12	23	9	29	26° 49′	10	23	9	27	24° 16′	9	24
15h 14m 32m 3s		21	11	2	♒ 0° 16′	13	24	10	♍	28° 1′	12	24	9	28	25° 28′	11	25
15h 18m 32m 4s		22	12	3	1° 28′	15	25	11	1	29° 14′	14	26	10	29	26° 41′	13	26
15h 22m 32m 4s		23	13	4	2° 41′	16	26	12	2	♒ 0° 28′	15	27	11	♍	27° 55′	14	28
15h 26m 32m 5s		24	14	5	3° 55′	18	28	13	3	1° 43′	17	28	12	1	29° 9′	16	29
15h 30m 32m 6s		25	15	6	5° 10′	19	29	14	4	2° 59′	18	♉	13	2	♒ 0° 25′	18	♉
15h 34m 32m 6s		26	16	7	6° 26′	21	♉	15	5	4° 16′	20	1	14	3	1° 42′	19	2
15h 38m 32m [illegible]s		27	17	8	7° 44′	22	2	16	6	5° 34′	22	2	15	4	3° 1′	21	3
15h 42m 32m 8s		28	18	9	9° 3′	24	3	17	7	6° 53′	23	3	16	5	4° 22′	23	4
15h 47m 32m 9s		29	18	10	10° 23′	25	4	18	8	8° 14′	25	5	17	6	5° 44′	25	5
15h 51m 32m 9s		30	19	11	11° 43′	27	5	19	9	9° 36′	26	6	18	7	7° 8′	26	7

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♐
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♐	37°: 11 ♐	37°: 12 ♍	37°: Horosc ♒	37°: 2 ♓	37°: 3 ♉	40°: 11 ♐	40°: 12 ♍	40°: Horosc ♒	40°: 2 ♓	40°: 3 ♉	43°: 11 ♐	43°: 12 ♍	43°: Horosc ♒	43°: 2 ♓	43°: 3 ♉
15h 51m 12s		0	19	11	11° 43′	27	5	19	9	9° 36′	26	6	18	7	7° 8′	26	7
15h 55m 43m 11s		1	20	12	13° 4′	28	7	19	10	10° 59′	28	7	19	8	8° 34′	28	8
15h 59m 43m 11s		2	21	13	14° 26′	♈	8	20	11	12° 24′	♈	8	19	9	10° 1′	♈	9
16h 3m 43m 11s		3	22	14	15° 50′	1	9	21	12	13° 50′	2	18	20	10	11° 29′	2	11
16h 7m 43m 12s		4	23	15	17° 15′	3	10	22	13	15° 17′	3	11	21	11	12° 58′	3	12
16h 12m 43m 13s		5	24	16	18° 42′	5	12	23	14	16° 46′	5	12	22	12	14° 29′	5	13
16h 16m 43m 14s		6	25	17	20° 10′	6	13	24	15	18° 16′	7	13	23	13	16° 1′	7	14
16h 20m 43m 14s		7	26	18	21° 39′	8	14	25	16	19° 48′	8	15	24	14	17° 35′	9	16
16h 24m 43m 15s		8	27	19	23° 9′	9	15	26	17	21° 21′	10	16	25	15	19° 11′	10	17
16h 29m 43m 15s		9	29	20	24° 40′	11	16	27	18	22° 55′	12	17	26	16	20° 48′	12	18
16h 33m 43m 16s		10	29	22	26° 12′	13	18	28	20	24° 30′	13	18	27	17	22° 26′	14	19
16h 37m 44m 16s		11	♍	23	27° 46′	14	19	29	21	26° 7′	15	20	28	19	24° 6′	16	21

[78] another copy of this printing (BSB 10501686) reads 47′

Time from noon	Diff. of time	37°: 10 ♐	37°: 11 ♐	37°: 12 ♑	37°: Horosc. ♒	37°: 2 ♓	37°: 3 ♉	40°: 11 ♐	40°: 12 ♑	40°: Horosc. ♒	40°: 2 ♓	40°: 3 ♉	43°: 11 ♐	43°: 12 ♑	43°: Horosc. ♒	43°: 2 ♓	43°: 3 ♉
16h 41m 45s	17s	12	1	24	29° 21′	16	20	♑	22	27° 45′	17	21	29	20	25° 48′	17	22
16h 46m 41s	17s	13	2	25	♓ 0° 56′	17	21	1	23	29° 24′	18	22	♑	21	27° 32′	19	23
16h 50m 43s	18s	14	3	26	2° 32′	19	22	2	24	♓ 1° 5′	20	23	1	22	29° 18′	21	24
16h 54m 45s	18s	15	4	27	4° 10′	21	24	3	25	2° 47′	22	24	2	23	♓ 1° 5′	23	25
16h 59m 49s	19s	16	5	29	5° 49′	22	25	4	27	4° 30′	23	26	3	25	2° 54′	24	27
17h 3m 48s	19s	17	6	♒	7° 28′	24	26	5	28	6° 14′	25	27	4	26	4° 44′	26	28
17h 7m 47s	19s	18	7	1	9° 8′	25	27	6	29	7° 59′	26	28	5	27	6° 35′	28	29
17h 12m 47s	20s	19	8	2	10° 49′	27	28	7	♒	9° 45′	28	29	6	28	8° 26′	29	♊
17h 16m 47s	20s	20	9	4	12° 31′	28	29	8	2	11° 32′	♉	♊	7	♒	10° 18′	♉	1
17h 20m 48s	21s	21	10	5	14° 13′	♉	♊	9	3	13° 20′	1	1	8	1	12° 11′	3	2
17h 25m 48s	20s	22	11	6	15° 56′	1	2	10	4	15° 9′	3	2	9	2	14° 6′	4	4
17h 29m 49s	21s	23	12	7	17° 40′	3	3	11	6	16° 59′	4	4	10	4	16° 3′	6	5
17h 33m 50s	21s	24	13	9	19° 25′	4	4	12	7	18° 50′	6	5	11	5	18° 1′	7	6
17h 38m 52s	22s	25	14	10	21° 10′	6	5	13	8	20° 41′	7	6	12	6	20° 0′	9	7
17h 42m 53s	21s	26	15	11	22° 56′	7	6	14	10	22° 33′	9	7	13	8	22° 0′	11	8
17h 46m 55s	22s	27	16	13	24° 42′	9	7	15	11	24° 24′	10	8	14	9	24° 0′	12	9
17h 51m 56s	21s	28	17	14	26° 28′	10	9	16	12	26° 16′	12	9	15	10	26° 0′	14	10
17h 55m 58s	22s	29	18	16	28° 14′	12	10	17	14	28° 8′	13	10	16	12	28° 0′	15	11
18h 0m 4s	22s	30	19	17	♈ 0° 0′	13	11	19	15	♈ 0° 0′	15	11	17	13	♈ 0° 0′	17	13

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♑
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♑	37°: 11 ♑	37°: 12 ♒	37°: Horosc. ♈	37°: ♉	37°: 3 ♊	40°: 11 ♑	40°: 12 ♒	40°: Horosc. ♈	40°: ♉	40°: 3 ♊	43°: 11 ♑	43°: 12 ♒	43°: Horosc. ♈	43°: ♉	43°: 3 ♊
18h 0m 0s	0	19	17	0° 0′	13	11	19	15	0° 0′	15	11	17	13	0° 0′	17	13
18h 4m 42s	22s	1	21	18	1° 46′	14	12	20	17	1° 52′	16	12	19	15	2° 0′	18	14
18h 8m 44s	22s	2	22	20	3° 32′	16	13	21	18	3° 44′	18	14	20	16	4° 0′	19	15
18h 13m 45s	21s	3	23	21	5° 18′	17	14	22	20	5° 36′	19	15	21	18	6° 0′	21	16
18h 17m 47s	22s	4	24	23	7° 4′	19	15	23	21	7° 27′	20	16	22	19	8° 0′	22	17
18h 21m 48s	21s	5	25	24	8° 50′	20	16	24	23	9° 19′	22	17	23	21	10° 0′	24	18
18h 26m 50s	22s	6	26	26	10° 35′	21	17	25	24	11° 10′	23	18	24	23	11° 59′	25	19
18h 30m 51s	21s	7	27	27	12° 20′	23	18	26	26	13° 1′	24	19	25	24	13° 57′	26	20
18h 34m 52s	21s	8	29	29	14° 4′	24	19	28	27	14° 51′	26	20	26	26	15° 54′	28	21
18h 39m 52s	20s	9	♒	♓	15° 47′	25	20	29	29	16° 40′	27	21	28	27	17° 49′	29	22
18h 43m 53s	21s	10	1	2	17° 29′	26	21	♒	♓	18° 28′	28	22	29	29	19° 42′	♊	23
18h 47m 53s	20s	11	2	3	19° 11′	28	22	1	2	20° 15′	♊	23	♒	♓	21° 34′	2	24
18h 52m 55s	20s	12	3	5	20° 52′	29	23	2	4	22° 1′	1	24	1	2	23° 25′	3	25
18h 56m 56s	19s	13	4	6	22° 32′	♊	24	3	5	23° 46′	2	25	2	4	25° 16′	4	26
19h 0m 58s	19s	14	5	8	24° 11′	1	25	4	7	25° 30′	3	26	3	6	27° 6′	5	27

Time from noon	Diff. of time	37°: 10 ♑	37°: 11 ♑	37°: 12 ♒	37°: Horosc. ♈	37°: Horosc. ♉	37°: 3 ♊	40°: 11 ♑	40°: 12 ♒	40°: Horosc. ♈	40°: Horosc. ♉	40°: 3 ♊	43°: 11 ♑	43°: 12 ♒	43°: Horosc. ♈	43°: Horosc. ♉	43°: 3 ♊
19h 5m 40s	19s	15	7	9	25° 50′	3	26	6	8	27° 13′	5	27	5	7	28° 55′	7	28
19h 9m 48s	18s	16	8	11	27° 28′	4	27	7	10	28° 55′	6	28	6	9	♉ 0° 42′	8	29
19h 13m 46s	18s	17	9	13	29° 4′	5	28	8	12	♉ 0° 36′	7	29	7	11	2° 28′	9	♋
19h 18m 43s	17s	18	10	14	♉ 0° 39′	6	29	9	13	2° 15′	8	♋	8	13	4° 12′	10	1
19h 22m 42s	17s	19	11	16	2° 14′	7	♋	10	15	3° 53′	9	1	9	14	5° 54′	11	2
19h 26m 43s	16s	20	12	17	3° 48′	8	1	12	17	5° 30′	10	2	11	16	7° 34′	13	3
19h 30m 45s	16s	21	14	19	5° 20′	10	2	13	18	7° 5′	12	3	12	18	9° 12′	14	4
19h 35m 47s	15s	22	15	21	6° 51′	11	3	14	20	8° 39′	13	4	13	20	10° 49′	15	5
19h 39m 42s	15s	23	16	22	8° 21′	12	4	15	22	10° 12′	14	5	14	21	12° 25′	16	6
19h 43m 45s	14s	24	17	24	9° 50′	13	5	17	23	11° 44′	15	6	16	23	13° 59′	17	7
19h 47m 45s	14s	25	19	25	11° 18′	14	6	18	25	13° 14′	16	7	17	25	15° 31′	18	8
19h 52m 43s	13s	26	20	27	12° 45′	15	7	19	27	14° 43′	17	8	18	27	17° 2′	19	9
19h 56m 45s	12s	27	21	29	14° 10′	16	8	20	28	16° 10′	18	9	19	28	18° 32′	20	10
20h 0m 42s	11s	28	22	♈	15° 34′	17	9	22	♈	17° 36′	19	10	21	♈	19° 59′	21	11
20h 4m 47s	11s	29	24	2	16° 56′	18	10	23	2	19° 1′	20	11	22	2	21° 26′	22	12
20h 8m 48s	11s	30	25	3	18° 17′	19	11	24	4	20° 24′	21	11	23	4	22° 52′	23	12

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♒
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♒	37°: 11 ♒	37°: 12 ♈	37°: Horosc. ♉	37°: Horosc. ♊	37°: 3 ♋	40°: 11 ♒	40°: 12 ♈	40°: Horosc. ♉	40°: Horosc. ♊	40°: 3 ♋	43°: 11 ♒	43°: 12 ♈	43°: Horosc. ♉	43°: Horosc. ♊	43°: 3 ♋
20h 8m 48s	0	25	3	18° 17′	19	11	24	4	20° 24′	21	11	23	4	22° 52′	23	12
20h 12m 45s	1	26	5	19° 37′	20	12	25	5	21° 46′	22	12	25	5	24° 16′	24	13
20h 17m 46s	9s	2	27	6	20° 57′	21	12	27	7	23° 7′	23	13	26	7	25° 38′	25	14
20h 21m 41s	8s	3	28	8	22° 16′	22	13	28	8	24° 26′	24	14	27	9	26° 59′	26	15
20h 25m 42s	8s	4	♓	9	23° 34′	23	14	29	10	25° 44′	25	15	28	11	28° 18′	27	16
20h 29m 38s	6s	5	1	11	24° 50′	24	15	♓	12	27° 1′	26	16	♓	12	29° 35′	28	17
20h 33m 43s	6s	6	2	12	26° 5′	25	16	2	13	28° 17′	27	17	1	14	♊ 0° 51′	29	18
20h 37m 40s	6s	7	3	14	27° 19′	26	17	3	15	29° 32′	28	18	2	16	2° 5′	♋	19
20h 41m 44s	4s	8	5	15	28° 32′	27	18	4	16	♊ 0° 46′	29	19	4	17	3° 19′	1	20
20h 45m 48s	4s	9	6	17	29° 44′	28	19	6	18	1° 59′	♋	20	5	19	4° 32′	2	21
20h 49m 53s	3s	10	7	18	♊ 0° 55′	29	20	7	20	3° 11′	1	20	6	21	5° 44′	3	21
20h 53m 52s	2s	11	9	20	2° 5′	♋	21	8	21	4° 22′	2	21	8	22	6° 55′	4	22
20h 57m 55s	2s	12	10	21	3° 14′	1	21	9	23	5° 32′	3	22	9	24	8° 5′	5	23
21h 1m 56s	1s	13	11	23	4° 22′	2	22	11	24	6° 40′	4	23	10	25	9° 13′	5	24
21h 5m 56s	0s	14	12	24	5° 30′	3	23	12	26	7° 47′	4	24	12	27	10° 20′	6	25
21h 9m 56s	0s	15	14	26	6° 37′	4	24	13	27	8° 53′	5	25	13	29	11° 25′	7	26
21h 13m 55s	59s	16	15	27	7° 43′	4	25	15	29	9° 58′	6	26	14	♉	12° 31′	8	27

Time from noon	Diff. of time	37°: 10 ♒	37°: 11 ♒	37°: 12 ♈	37°: Horosc. ♉	37°: ♊	37°: 3 ♋	40°: 11 ♒	40°: 12 ♈	40°: Horosc. ♉	40°: ♊	40°: 3 ♋	43°: 11 ♒	43°: 12 ♈	43°: Horosc. ♉	43°: ♊	43°: 3 ♋
21h 17m 33s	58s	17	16	29	8° 48′	5	26	16	♉	11° 3′	7	27	16	2	13° 36′	9	28
21h 21m 35s	57s	18	18	♉	9° 52′	6	27	17	2	12° 7′	8	27	17	3	14° 40′	10	28
21h 25m 34s	57s	19	19	2	10° 55′	7	28	19	3	13° 10′	9	28	18	5	15° 43′	11	29
21h 29m 34s	56s	20	20	3	11° 57′	8	28	20	4	14° 12′	10	29	20	6	16° 45′	11	♌
21h 33m 33s	55s	21	21	4	12° 59′	9	29	21	6	15° 14′	10	♌	21	7	17° 46′	12	1
21h 37m 32s	54s	22	23	6	14° 0′	10	♌	22	7	16° 15′	11	1	22	9	18° 46′	13	2
21h 41m 32s	54s	23	24	7	15° 0′	10	1	24	8	17° 15′	12	2	24	10	19° 45′	14	3
21h 45m 31s	53s	24	25	8	16° 0′	11	2	25	10	18° 14′	13	3	25	12	20° 43′	15	3
21h 49m 31s	53s	25	26	10	16° 59′	12	3	26	11	19° 13′	14	3	26	13	21° 41′	16	4
21h 53m 34m	52s	26	28	11	17° 57′	13	4	28	12	20° 11′	15	4	28	14	22° 38′	16	5
21h 56m 35m	51s	27	29	12	18° 55′	14	5	29	14	21° 8′	15	5	29	16	23° 35′	17	6
22h 0m 34m	51s	28	♈	13	19° 52′	15	5	♈	15	22° 5′	16	6	♈	17	24° 31′	18	7
22h 4m 36m	50s	29	2	15	20° 48′	16	6	1	16	23° 1′	17	7	2	18	25° 26′	19	8
22h 8m 35m	49s	30	3	16	21° 45′	16	7	3	17	23° 56′	18	8	3	19	26° 21′	20	8

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♓
For latitude 37° · For latitude 40° · For latitude 43°

Time from noon	Diff. of time	37°: 10 ♓	37°: 11 ♈	37°: 12 ♉	37°: Horosc. ♊	37°: ♋	37°: 3 ♌	40°: 11 ♈	40°: 12 ♉	40°: Horosc. ♊	40°: ♋	40°: 3 ♌	43°: 11 ♈	43°: 12 ♉	43°: Horosc. ♊	43°: ♋	43°: 3 ♌
22h 8m 25s		0	3	16	21° 45′	16	7	3	17	23° 56′	18	8	3	19	26° 21′	20	8
22h 12m 14s	3m 49s	1	4	17	22° 40′	7	8	4	19	24° 51′	19	9	4	21	27° 15′	20	9
22h 16m 2s	3m 48s	2	5	18	23° 35′	18	9	5	20	25° 45′	20	9	5	22	28° 8′	21	10
22h 19m 50s	3m 48s	3	6	19	24° 30′	19	10	7	21	26° 39′	20	10	7	23	29° 1′	22	11
22h 23m 37s	3m 47s	4	8	20	25° 24′	20	10	8	22	27° 32′	21	11	8	24	29° 53′	23	12
22h 27m 24s	3m 47s	5	9	22	26° 18′	20	11	9	23	28° 25′	22	12	9	26	♋ 0° 45′	24	13
22h 31m 10s	3m 46s	6	10	23	27° 11′	21	12	10	25	29° 18′	23	13	11	27	1° 36′	24	14
22h 34m 56s	3m 46s	7	11	24	28° 4′	22	13	12	26	♋ 0° 10′	23	14	12	28	2° 27′	25	14
22h 38m 42s	3m 46s	8	13	25	28° 56′	23	14	13	27	1° 1′	24	14	13	29	3° 17′	26	15
22h 42m 26s	3m 44s	9	14	26	29° 48′	24	15	14	28	1° 52′	25	15	14	♊	4° 7′	27	16
22h 46m 11s	3m 45s	10	15	27	♋ 0° 39′	24	15	15	29	2° 42′	26	16	16	1	4° 57′	27	17
21h 49m 55s [recte: 22h 49m 55s]	[3m 44s]	11	16	28	1° 30′	25	16	17	♊	3° 32′	27	17	17	2	5° 46′	28	18
22h 53m 39s	3m 44s	12	17	29	2° 20′	26	17	18	1	4° 22′	27	18	18	3	6° 35′	29	18
22h 57m 22s	3m 43s	13	19	♊	3° 10′	27	18	19	2	5° 12′	28	18	19	4	7° 23′	♌	19
23h 1m 5s	3m 43s	14	20	2	3° 59′	27	19	20	3	6° 1′	29	19	21	6	8° 11′	0	20
23h 4m 47s	3m 42s	15	21	3	4° 49′	28	20	21	4	6° 50′	♌	20	22	7	8° 59′	1	21
23h 8m 30s	3m 43s	16	22	4	5° 38′	29	20	23	5	7° 38′	0	21	23	8	9° 46′	2	22
23h 12m 12s	3m 42s	17	23	5	6° 27′	♌	21	24	6	8° 26′	1	22	24	9	10° 32′	3	22
23h 15m 53s	3m 41s	18	24	6	7° 16′	1	22	25	7	9° 14′	2	23	26	10	11° 19′	3	23
23h 19m 35s	3m 42s	19	26	7	8° 5′	1	23	26	8	10° 2′	3	23	27	11	12° 6′	4	24

Time from noon	Diff. of time	37°: 10 ♓	37°: 11 ♈	37°: 12 ♉	37°: Horos. ♊	37°: ♋	37°: 3 ♌	40°: 11 ♈	40°: 12 ♉	40°: Horos. ♊	40°: ♋	40°: 3 ♌	43°: 11 ♈	43°: 12 ♉	43°: Horos. ♊	43°: ♋	43°: 3 ♌
23h 23m 16s	3m 41s	20	27	8	8° 53′	2	24	27	9	10° 49′	3	24	28	12	12° 52′	5	25
23h 26m 57s	3m 41s	21	28	9	9° 41′	3	25	28	10	11° 36′	4	25	29	13	13° 38′	5	26
23h 30m 38s	3m 41s	22	29	10	10° 29′	4	25	♉	11	12° 23′	5	26	♉	14	14° 24′	6	26
23h 34m 18s	3m 40s	23	♉	11	11° 17′	4	26	1	12	13° 10′	6	27	1	15	15° 10′	7	27
23h 37m 59s	3m 41s	24	1	12	12° 5′	5	27	2	13	13° 57′	6	28	3	16	15° 55′	8	28
23h 41m 39s	3m 40s	25	2	12	12° 52′	6	28	3	14	14° 43′	7	28	4	16	16° 40′	8	29
23h 45m 20s	3m 41s	26	4	13	13° 39′	7	29	4	15	15° 29′	8	29	5	17	17° 25′	9	♍
23h 48m 0s	3m 40s	27	5	14	14° 26′	7	♍	5	16	16° 14′	9	♍	6	18	18° 9′	10	1
23h 52m 40s	3m 40s	28	6	15	15° 12′	8	0	6	17	17° 0′	9	1	7	19	18° 54′	11	1
23h 56m 20s	3m 40s	29	7	16	15° 58′	9	1	7	18	17° 45′	10	2	8	20	19° 39′	11	2
24h 0m 0s	3m 40s	30	8	17	16° 45′	10	2	9	19	18° 31′	11	3	9	21	20° 24′	2	3

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♈
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♈	45°: 11 ♉	45°: 12 ♊	45°: Horosc. ♋	45°: ♌	45°: 3 ♍	48°: 11 ♉	48°: 12 ♊	48°: Horosc. ♋	48°: ♌	48°: 3 ♍	51°: 11 ♉	51°: 12 ♊	51°: Horosc. ♋	51°: ♌	51°: 3 ♍
0h 0m 0s	0	10	23	21° 45′	13	3	11	25	23° 55′	14	4	12	28	26° 14′	16	4	
0h 3m 45s	40s	1	11	24	22° 28′	14	4	12	26	24° 37′	15	5	14	29	[?]6° 53′	16	5
0h 7m 29s	40s	2	12	24	23° 12′	14	5	13	27	25° 19′	16	5	15	♋	27° 35′	17	6
0h 11m 9s	40s	3	13	25	23° 55′	15	6	14	28	26° 0′	16	6	16	1	28° 15′	18	7
0h 14m 53s	40s	4	14	26	24° 39′	16	7	16	29	26° 42′	17	7	17	1	28° 56′	18	7
0h 18m 31s	41s	5	16	27	25° 22′	16	7	17	29	27° 24′	18	8	18	2	29° 36′	19	8
0h 22m 13s	40s	6	17	28	26° 5′	17	8	18	♋	28° 5′	18	9	19	3	♌ 0° 16′	20	9
0h 25m 54s	41s	7	18	29	26° 47′	18	9	19	1	28° 46′	19	9	20	4	0° 56′	20	10
0h 29m 32s	40s	8	19	♋	27° 30′	19	10	20	2	29° 27′	20	10	21	5	1° 36′	21	11
0h 33m 13s	41s	9	20	0	28° 12′	19	11	21	3	♌ 0° 9′	21	11	23	5	2° 16′	22	11
0h 36m 54s	41s	10	21	1	28° 55′	20	11	22	4	0° 50′	21	12	24	6	2° 56′	22	12
0h 40m 35s	41s	11	22	2	29° 37′	21	12	23	4	1° 32′	22	13	25	7	3° 35′	23	13
0h 44m 17s	42s	12	23	3	♌ 0° 19′	21	13	24	5	2° 13′	23	13	26	8	4° 15′	24	14
0h 47m 58s	41s	13	24	4	1° 2′	22	14	25	6	2° 54′	23	14	27	9	4° 55′	24	15
0h 51m 40s	42s	14	25	4	1° 44′	23	15	26	7	3° 35′	24	15	28	9	5° 35′	25	15
0h 55m 23s	43s	15	26	5	2° 27′	24	15	28	8	4° 16′	25	16	29	10	6° 14′	26	16
0h 58m 55s	42s	16	27	6	3° 9′	24	16	29	8	4° 57′	25	17	♊	11	6° 54′	26	17
1h 2m 38s	43s	17	28	7	3° 52′	25	17	♊	9	5° 38′	26	17	1	12	7° 34′	27	18
1h 6m 21s	43s	18	29	8	4° 34′	26	18	1	10	6° 19′	27	18	2	12	8° 13′	28	18
1h 10m 3s	44s	19	♊	9	5° 17′	27	19	2	11	7° 1′	28	19	3	13	8° 53′	29	19
1h 13m 49s	44s	20	1	9	5° 59′	27	20	3	12	7° 42′	28	20	4	14	9° 33′	29	20
1h 17m 34s	45s	21	2	10	6° 42′	28	20	4	12	8° 23′	29	21	5	15	10° 13′	♍	21
1h 21m 18s	44s	22	3	11	7° 25′	29	21	5	13	9° 5′	♍	21	6	16	10° 53′	1	22
1h 25m 4s	46s	23	4	12	8° 7′	29	22	6	14	9° 46′	0	22	7	16	11° 33′	1	23

Time from noon	Diff. of time	45°: 10 ♈	45°: 11 ♉	45°: 12 ♊	45°: Horosc. ♋	45°: ♌	45°: 3 ♍	48°: 11 ♉	48°: 12 ♊	48°: Horosc. ♋	48°: ♌	48°: 3 ♍	51°: 11 ♉	51°: 12 ♊	51°: Horosc. ♋	51°: ♌	51°: 3 ♍
1h 28m 30s	46s	24	5	13	8° 50′	♍	23	7	15	10° 28′1		23	8	17	12° 12′ 2		23
1h 32m 30s	46s	25	6	13	9° 33′ 1		24	8	16	11° 9′ 2		24	9	18	12° 52′ 3		24
1h 36m 31s	47s	26	7	14	10° 17′ 2		25	9	16	11° 51′ 2		25	10	19	13° 32′ 3		25
1h 40m 31s	47s	27	8	15	11° 0′ 2		26	10	17	12° 32′ 3		26	11	19	14° 12′ 4		26
1h 43m 32s	48s	28	9	16	11° 43′ 3		26	11	18	13° 14′ 4		26	12	20	14° 52′ 5		27
1h 47m 32s	48s	29	10	17	12° 26′4		27	12	19	13° 56′ 5		27	13	21	15° 32′ 5		27
1h 51m 33s	49s	30	11	17	13° 9′ 5		28	13	19	14° 38′ 5		28	14	22	16° 12′ 6		28

Tables of houses for the latitude of the ecliptic
With the ☉ in ♉
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♉	45°: 11 ♊	45°: 12 ♋	45°: Horosc. ♌	45°: ♍	45°: 3 ♍	48°: 11 ♊	48°: 12 ♋	48°: Horosc. ♌	48°: ♍	48°: 3 ♍	51°: 11 ♊	51°: 12 ♋	51°: Horosc. ♌	51°: ♍	51°: 3 ♍
1h 51m 35s		0	11	17	13° 9′ 5		28	13	19	14° 38′ 5		28	14	22	16° 12′ 6		28
1h 55m 34s	49s	1	12	18	13° 52′ 5		29	14	20	15° 20′6		29	15	22	16° 53′ 7		29
1h 59m 34s	50s	2	13	19	14° 35′ 6		♎	14	21	16° 2′ 7		♎	16	23	17° 33′ 8		♎
2h 3m 35s	51s	3	14	20	15° 18′ 7		1	15	22	16° 44′8		1	17	24	18° 14′ 8		1
2h 6m 36s	51s	4	15	21	16° 2′ 8		2	16	22	17° 26′8		2	18	25	18° 54′ 9		1
2h 10m 36s	52s	5	16	21	16° 45′ 8		2	17	23	18° 9′ 9		2	19	25	19° 35′ 10		2
2h 14m 37s	53s	6	17	22	17° 29′9		3	18	24	18° 51′ 10		3	20	26	20° 16′10		3
2h 18m 38s	53s	7	18	23	18° 13′ 10		4	19	25	19° 33′ 11		4	21	27	20° 57′11		4
2h 22m 38s	54s	8	19	24	18° 57′ 11		5	20	26	20° 16′11		5	22	27	21° 38′ 12		5
2h 26m 39s	54s	9	20	24	19° 41′ 11		6	21	26	20° 58′12		6	23	28	22° 19′13		6
2h 30m 39s	55s	10	21	25	20° 25′12		7	22	27	21° 40′13		7	24	29	23° 0′ 13		7
2h 34m 40s	56s	11	22	26	21° 9′ 13		8	23	28	22° 23′14		8	25	♌	23° 41′14		7
2h 38m 40s	57s	12	23	27	21° 53′ 14		9	24	29	23° 5′ 14		8	25	0	24° 22′15		8
2h 42m 41s	57s	13	24	28	22° 37′15		9	25	29	23° 48′15		9	26	1	25° 4′ 15		9
2h 46m 42s	58s	14	25	28	23° 22′15		10	26	♌	24° 31′16		10	27	2	25° 46′16		10
2h 50m 42s	59s	15	25	29	24° 6′ 16		11	27	1	25° 14′17		11	28	3	26° 28′17		11
2h 54m 43s	0s	16	26	♌	24° 51′17		12	28	2	25° 58′17		12	29	3	27° 10′18		12
2h 58m 43s	0s	17	27	1	25° 37′18		13	29	2	26° 42′18		13	♋	4	27° 52′18		12
3h 2m 54m	1s	18	28	2	26° 22′19		14	♋	3	27° 26′19		14	1	5	28° 34′19		13
3h 6m 74m	2s	19	29	2	27° 7′ 19		15	0	4	28° 10′20		15	2	6	29° 17′20		14
3h 10m 94m	2s	20	♋	3	27° 52′20		16	1	5	28° 54′20		15	3	6	♍ 0° 0′	21	15
3h 14m 12m	3s	21	1	4	28° 38′21		17	2	6	29° 39′21		16	4	7	0° 42′ 21		16
3h 18m 14m	4s	22	2	5	29° 24′22		17	3	6	♍ 0° 23′	22	17	5	8	1° 25′ 22		17
3h 22m 16m	4s	23	3	5	♍ 0° 10′	23	18	4	7	1° 7′ 23		18	6	9	2° 8′ 23		18
3h 26m 18m	6s	24	4	6	0° 56′ 23		19	5	8	1° 52′ 24		19	6	9	2° 51′ 24		19
3h 30m 21m	6s	25	5	7	1° 42′ 24		20	6	9	2° 37′ 24		20	7	10	3° 34′ 25		19
3h 34m 23m	6s	26	6	8	2° 29′ 25		21	7	9	3° 22′ 25		21	8	11	4° 18′ 25		20
3h 38m 26m	8s	27	7	9	3° 16′ 26		22	8	10	4° 7′ 26		22	9	12	5° 2′ 26		21

Time from noon	Diff. of time	45°: 10 ♉	45°: 11 ♊	45°: 12 ♋	45°: 45°: Horosc. ♌ ♍	45°: 3 ♍	48°: 11 ♊	48°: 12 ♋	48°: 48°: Horosc. ♌ ♍	48°: 3 ♍	51°: 11 ♊	51°: 12 ♋	51°: 51°: Horosc. ♌ ♍	51°: 3 ♍
3h 42m 44ms 8s		28	7	10	4° 2′ 27	23	9	11	4° 53′ 27	23	10	13	5° 45′ 27	22
3h 47m 34ms 9s		29	8	10	4° 49′ 27	24	10	12	5° 38′ 28	23	11	13	6° 29′ 28	23
3h 51m 14ms 9s		30	9	11	5° 36′ 28	25	11	13	6° 23′ 28	24	12	14	7° 13′ 28	24

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♊
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♊	45°: 11 ♋	45°: 12 ♌	45°: 45°: Horosc. ♍ ♍	45°: 3 ♎	48°: 11 ♋	48°: 12 ♌	48°: 48°: Horosc. ♍ ♍	48°: 3 ♎	51°: 11 ♋	51°: 12 ♌	51°: 51°: Horosc. ♍ ♍	51°: 3 ♎
3h 51m 12s		0	9	11	5° 36′ 28	25	11	13	6° 23′ 28	24	12	14	7° 13′ 28	24
3h 55m 23ms 11s		1	10	12	6° 23′ 29	26	11	13	7° 8′ 29	25	13	15	7° 57′ 29	25
3h 59m 34ms 11s		2	11	13	7° 10′ ♎	27	12	14	7° 54′ ♎	26	14	16	8° 42′ ♎	26
4h 3m 44ms 11s		3	12	14	7° 58′ 1	28	13	15	8° 40′ 1	27	15	16	9° 26′ 1	26
4h 7m 54ms 12s		4	13	14	8° 46′ 2	28	14	16	9° 26′ 2	28	16	17	10° 11′ 1	27
4h 12m 4ms 13s		5	14	15	9° 33′ 2	29	15	17	10° 13′ 2	29	17	18	10° 55′ 2	28
4h 16m 44ms 14s		6	15	16	10° 21′ 3	♏	16	17	10° 59′ 3	♏	17	19	11° 40′ 3	29
4h 20m 48ms 14s		7	16	17	11° 9′ 4	1	17	18	11° 46′ 4	1	18	19	12° 25′ 4	♏
4h 24m 53ms 15s		8	17	18	11° 57′ 5	2	18	19	12° 32′ 5	2	19	20	13° 9′ 5	1
4h 29m 3ms 15s		9	18	19	12° 45′ 6	3	19	20	13° 19′ 6	3	20	21	13° 54′ 5	2
4h 33m 44ms 16s		10	19	19	13° 33′ 7	4	20	21	14° 5′ 6	3	21	22	14° 39′ 6	3
4h 37m 40ms 16s		11	[?]9	20	14° 22′ 7	5	21	21	14° 52′ 7	4	22	23	15° 25′ 7	4
4h 41m 37ms 17s		12	20	21	15° 11′ 8	6	22	22	15° 39′ 8	5	23	23	16° 10′ 8	5
4h 46m 44ms 17s		13	21	22	16° 0′ 9	7	22	23	16° 26′ 9	6	24	24	16° 55′ 9	5
4h 50m 42ms 18s		14	22	23	16° 49′ 10	8	23	24	17° 13′ 10	7	25	25	17° 41′ 9	6
4h 54m 40ms 18s		15	23	24	17° 38′ 11	9	24	25	18° 1′ 11	8	26	26	18° 27′ 10	7
4h 59m 9ms 19s		16	24	24	18° 27′ 12	10	25	25	18° 48′ 11	9	26	27	19° 12′ 11	8
5h 3m 28ms 19s		17	25	25	19° 16′ 13	11	26	26	19° 36′ 12	10	27	27	19° 58′ 12	9
5h 7m 47ms 19s		18	26	26	20° 5′ 13	12	27	27	20° 24′ 13	11	28	28	20° 44′ 13	10
5h 12m 7ms 20s		19	27	27	20° 55′ 14	12	28	28	21° 12′ 14	12	29	29	21° 30′ 13	11
5h 16m 27ms 20s		20	28	28	21° 44′ 15	13	29	29	22° 0′ 15	13	♍	♍	22° 16′ 14	12
5h 20m 48ms 21s		21	29	29	22° 33′ 16	14	♍	♍	22° 47′ 16	14	1	1	23° 3′ 15	13
5h 25m 8ms 20s		22	♍	29	23° 23′ 17	15	1	0	23° 35′ 16	14	2	1	23° 49′ 16	14
5h 29m 29ms 21s		23	1	♍	24° 12′ 18	16	2	1	24° 23′ 17	15	3	2	24° 35′ 17	15
5h 33m 50ms 21s		24	2	1	25° 2′ 19	17	3	2	25° 11′ 18	16	4	3	25° 22′ 17	15
5h 38m 12ms 22s		25	2	2	25° 51′ 19	18	3	3	25° 59′ 19	17	5	4	26° 8′ 18	16
5h 42m 33ms 21s		26	3	3	26° 41′ 20	19	4	4	26° 47′ 20	18	5	5	26° 54′ 19	17
5h 46m 55ms 22s		27	4	4	27° 31′ 21	20	5	5	27° 35′ 20	19	6	5	27° 41′ 20	18
5h 51m 16ms 21s		28	5	5	28° 20′ 22	21	6	5	28° 23′ 21	20	7	6	28° 27′ 21	19
5h 55m 38ms 22s		29	5	6	29° 10′ 23	22	7	6	29° 11′ 22	21	8	7	29° 13′ 21	20
6h 0m 0ms 22s		30	6	7	♎ 24 0° 0′	23	8	7	♎ 23 0° 0′	22	9	8	♎ 22 0° 0′	21

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♋

For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♋	45°: 11 ♌	45°: 12 ♍	45°: Horosc. ♎	45°: ♎	45°: 3 ♏	48°: 11 ♌	48°: 12 ♍	48°: Horosc. ♎	48°: ♎	48°: 3 ♏	51°: 11 ♌	51°: 12 ♍	51°: Horosc. ♎	51°: ♎	51°: 3 ♏
6h 0m 0s	0	7	6	0° 0′	24	23	8	7	0° 0′	23	22	9	8	0° 0′	22	21	
6h 4m 22s	1	8	7	0° 50′	25	24	9	8	0° 49′	24	23	10	9	0° 47′	23	22	
6h 8m 44s	2	9	8	1° 40′	25	25	10	9	1° 37′	25	24	11	9	1° 33′	24	23	
6h 13m 5s	3	10	9	2° 29′	26	26	11	10	2° 25′	25	25	12	10	2° 19′	25	24	
6h 17m 27s	4	11	10	3° 19′	27	27	12	10	3° 13′	26	26	13	11	3° 6′	25	25	
6h 21m 48s	5	12	11	4° 9′	28	27	13	11	4° 1′	27	27	14	12	3° 52′	26	25	
6h 26m 10s	6	13	11	4° 58′	29	28	14	12	4° 49′	28	27	15	13	4° 38′	27	26	
6h 30m 31s	7	14	12	5° 48′	♎	29	15	13	5° 37′	29	28	15	13	5° 25′	28	27	
6h 34m 52s	8	15	13	6° 37′	1	♐	16	14	6° 25′	♎	29	16	14	6° 11′	29	28	
6h 39m 12s	9	16	14	7° 27′	1	1	16	14	7° 13′	0	♐	17	15	6° 57′	29	29	
6h 43m 33s	10	17	15	8° 16′	2	2	17	15	8° 0′	1	1	18	16	7° 44′	♎	♐	
6h 47m 53s	11	18	16	9° 5′	3	3	18	16	8° 48′	2	2	19	17	8° 30′	1	1	
6h 52m 13s	12	18	17	9° 55′	4	4	19	17	9° 36′	3	3	20	17	9° 16′	2	2	
6h 56m 32s	13	19	17	10° 44′	5	5	20	18	10° 24′	4	4	21	18	10° 2′	3	[numeral: ?]	
7h 0m 51s	14	20	18	11° 33′	6	6	21	19	11° 12′	5	5	22	19	10° 48′	3	4	
7h 5m 10s	15	21	19	12° 22′	6	7	22	19	11° 59′	5	6	23	20	11° 33′	4	4	
7h 9m 28s	16	22	20	13° 11′	7	8	23	20	12° 47′	6	7	24	21	12° 19′	5	5	
7h 13m 46s	17	23	21	14° 0′	8	9	24	21	13° 34′	7	8	25	21	13° 4′	6	6	
7h 18m 3s	17	24	22	14° 49′	9	10	25	22	14° 21′	8	8	25	22	13° 50′	7	7	
7h 22m 20s	17	25	23	15° 38′	10	11	26	23	15° 8′	9	9	26	23	14° 35′	7	8	
7h 26m 36s	16	26	23	16° 27′	11	11	27	24	15° 55′	9	10	27	24	15° 21′	8	9	
7h 30m 52s	16	27	24	17° 15′	11	12	27	24	16° 41′	10	11	28	25	16° 6′	9	10	
7h 35m 7s	15	28	25	18° 3′	12	13	28	25	17° 29′	11	12	29	25	16° 51′	10	11	
7h 39m 22s	15	29	26	18° 51′	13	14	29	26	18° 14′	12	13	♍	26	17° 36′	11	12	
7h 43m 36s	14	♍	27	19° 39′	14	15	♍	27	19° 1′	13	14	1	27	18° 20′	11	1[?]	
7h 47m 50s	14	1	28	20° 27′	15	16	1	28	19° 47′	13	15	2	28	19° 5′	12	13	
7h 52m 3s	13	2	28	21° 14′	16	17	2	28	20° 34′	14	16	3	29	19° 50′	13	14	
7h 56m 15s	12	2	29	22° 2′	16	18	3	29	21° 20′	15	17	4	29	20° 34′	14	15	
8h 0m 26s	11	3	♎	22° 50′	17	19	4	♎	22° 6′	16	18	4	♎	21° 18′	14	16	
8h 4m 37s	11	4	1	23° 37′	18	20	5	1	22° 52′	17	19	5	1	22° 3′	15	17	
8h 8m 48s	11	5	2	24° 24′	19	21	6	2	23° 37′	17	19	6	2	22° 47′	16	18	

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♌
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♌	45°: 11 ♍	45°: 12 ♎	45°: Horosc. ♎	45°: ♏	45°: 3 ♐	48°: 11 ♍	48°: 12 ♎	48°: Horosc. ♎	48°: ♏	48°: 3 ♐	51°: 11 ♍	51°: 12 ♎	51°: Horosc. ♎	51°: ♏	51°: 3 ♐
8h 8m 48s	0	5	2	24° 24′	19	21	6	2	23° 37′	17	19	6	2	22° 47′	16	18	
8h 12m 9s	1	6	3	25° 11′	20	22	7	2	24° 22′	18	20	7	2	23° 31′	17	19	
8h 17m 9s	2	7	3	25° 58′	20	23	7	3	25° 7′	19	21	8	3	24° 15′	17	20	

Time from noon	Diff. of time	45°: 10 ♌	45°: 11 ♍	45°: 12 ♎	45°: 45°: Horosc ♎ ♏	45°: 3 ♐	48°: 11 ♍	48°: 12 ♎	48°: 48°: Horosc ♎ ♏	48°: 3 ♐	51°: 11 ♍	51°: 12 ♎	51°: 51°: Horosc ♎ ♏	51°: 3 ♐
8h 21m 44s	8s	3	8	4	26° 44′21	23	8	4	25° 53′20	22	9	4	24° 58′18	21
8h 25m 42s	8s	4	9	5	27° 31′22	24	9	5	26° 38′21	23	10	5	25° 42′19	22
8h 29m 40s	6s	5	10	6	28° 18′23	25	10	6	27° 23′21	24	11	5	26° 26′20	23
8h 33m 38s	6s	6	11	7	29° 4′ 24	26	11	6	28° 8′ 22	25	11	6	27° 9′ 21	24
8h 37m 36s	6s	7	12	7	29° 50′24	27	12	7	28° 53′23	26	12	7	27° 52′21	24
8h 41m 44s	4s	8	12	8	♏ 25 0° 36′	28	13	8	29° 37′24	27	13	8	28° 35′22	25
8h 45m 48s	4s	9	13	9	1° 22′ 26	29	14	9	♏ 24 0° 21′	28	14	9	29° 18′23	26
8h 49m 41s	3s	10	14	10	2° 8′ 27	♑	15	10	1° 6′ 25	29	15	9	♏ 24 0° 0′	27
8h 53m 33s	2s	11	15	11	2° 53′ 28	1	15	10	1° 50′ 26	♑	16	10	0° 43′ 24	28
8h 57m 35s	2s	12	16	11	3° 38′ 28	2	16	11	2° 34′ 27	0	17	11	1° 26′ 25	29
9h 1m 56s	1s	13	17	12	4° 23′ 29	3	17	12	3° 18′ 28	1	18	12	2° 8′ 26	♑
9h 5m 56s	0s	14	18	13	5° 9′ ♐	4	18	13	4° 2′ 28	2	18	12	2° 50′ 27	1
9h 9m 54s	0s	15	19	14	5° 54′ 1	5	19	13	4° 46′ 29	3	19	13	3° 32′ 27	2
9h 13m 52s	59s	16	20	15	6° 38′ 2	5	20	14	5° 29′ ♐	4	20	14	4° 14′ 28	3
9h 17m 53s	58s	17	21	15	7° 23′ 2	6	21	15	6° 12′ 1	5	21	15	4° 56′ 29	4
9h 21m 50s	57s	18	21	16	8° 7′ 3	7	22	16	6° 55′ 1	6	22	15	5° 38′ ♐	5
9h 25m 47s	57s	19	22	17	8° 51′ 4	8	22	16	7° 37′ 2	7	23	16	6° 19′ 0	5
9h 29m 43s	56s	20	23	18	9° 35′ 5	9	23	17	8° 20′ 3	8	23	17	7° 0′ 1	6
9h 33m 38s	55s	21	24	18	10° 19′6	10	24	18	9° 2′ 4	9	24	17	7° 41′ 2	7
9h 37m 32s	54s	22	25	19	11° 3′ 6	11	25	19	9° 44′ 4	10	25	18	8° 22′ 3	8
9h 41m 26s	54s	23	26	20	11° 47′ 7	12	26	19	10° 27′5	11	26	19	9° 3′ 3	9
9h 45m 19s	53s	24	27	21	12° 31′ 8	13	27	20	11° 9′ 6	12	27	20	9° 44′ 4	10
9h 49m 12s	53s	25	28	22	13° 15′ 9	14	28	21	11° 51′ 7	13	28	20	10° 25′5	11
9h 53m 4s	52s	26	28	22	13° 58′ 9	15	28	22	12° 34′8	14	29	21	11° 6′ 5	12
9h 56m 55s	51s	27	29	23	14° 42′10	16	29	22	13° 16′ 8	15	29	22	11° 46′6	13
10h 0m 46s	51s	28	♎	24	15° 25′ 11	17	♎	23	13° 58′ 9	16	♎	22	12° 27′7	14
10h 4m 36s	50s	29	1	25	16° 8′ 12	18	1	24	14° 40′10	16	1	23	13° 7′ 8	15
10h 8m 25s	49s	30	2	25	16° 51′ 13	19	2	25	15° 22′11	17	2	24	13° 48′8	16

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍
For the latitude of the place 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♍	45°: 11 ♎	45°: 12 ♎	45°: 45°: Horosc ♏ ♐	45°: 3 ♑	48°: 11 ♎	48°: 12 ♎	48°: 48°: Horosc ♏ ♐	48°: 3 ♑	51°: 11 ♎	51°: 12 ♎	51°: 51°: Horosc ♏ ♐	51°: 3 ♑
10h 8m 25s	0	2	25	16° 51′ 13	19	2	25	15° 22′11	17	2	24	13° 48′8	16
10h 12m 14s	49s	1	3	26	17° 34′13	20	3	25	16° 4′ 11	18	3	25	14° 28′9	17
10h 16m 32s	48s	2	4	27	18° 17′ 14	21	4	26	16° 46′12	19	3	25	15° 8′ 10	18
10h 19m 35s	48s	3	4	28	19° 0′ 15	22	4	27	17° 28′13	20	4	26	15° 48′11	19
10h 23m 37s	47s	4	5	28	19° 43′16	23	5	27	18° 9′ 14	21	5	27	16° 28′11	20
10h 27m 32s	47s	5	6	29	20° 27′17	24	6	28	18° 51′ 14	22	6	27	17° 8′ 12	21
10h 31m 30s	46s	6	7	♏	21° 10′17	25	7	29	19° 32′15	23	7	28	17° 48′13	22

Time from noon	Diff. of time	45°: 10 ♍	45°: 11 ♎	45°: 12 ♎	45°: 45°: Horosc. ♏ ♐	45°: 3 ♑	48°: 11 ♎	48°: 12 ♎	48°: 48°: Horosc. ♏ ♐	48°: 3 ♑	51°: 11 ♎	51°: 12 ♎	51°: 51°: Horosc. ♏ ♐	51°: 3 ♑
10h 34m 35s	16s	7	8	1	21° 53′ 18	26	8	♏	20° 14′ 16	24	7	29	18° 27′ 14	23
10h 38m 34s	24s	8	9	1	22° 35′ 19	27	9	0	20° 55′ 17	25	8	29	19° 7′ 14	24
10h 42m 33s	32s	9	10	2	23° 18′ 20	28	9	1	21° 37′ 18	26	9	♏	19° 47′ 15	25
10h 46m 31s	45s	10	10	3	24° 1′ 21	29	10	2	22° 18′ 18	27	10	1	20° 27′ 16	26
10h 49m 35s	44s	11	11	3	24° 43′ 21	♒	11	2	22° 59′ 19	28	11	1	21° 7′ 17	27
10h 53m 33s	44s	12	12	4	25° 26′ 22	1	12	3	23° 41′ 20	29	12	2	21° 47′ 18	28
10h 57m 32s	43s	13	13	5	26° 8′ 23	2	13	4	24° 22′ 21	♒	12	3	22° 26′ 18	29
11h 1m 53m	43s	14	14	6	26° 51′ 24	3	13	5	25° 3′ 22	1	13	4	23° 6′ 19	♒
11h 4m 47m	42s	15	14	6	27° 33′ 25	4	14	5	25° 44′ 22	2	14	4	23° 46′ 20	1
11h 8m 38m	43s	16	15	7	28° 16′ 25	5	15	6	26° 25′ 23	3	15	5	24° 25′ 21	[numeral: ?]
11h 12m 32m	42s	17	16	8	28° 58′ 26	6	16	7	27° 6′ 24	4	15	6	25° 5′ 21	3
11h 15m 33m	41s	18	17	9	29° 41′ 27	7	17	7	27° 47′ 25	5	16	6	25° 45′ 22	4
11h 19m 33m	42s	19	18	9	♐ 28 0° 23′	8	17	8	28° 28′ 26	6	17	7	26° 25′ 23	5
11h 23m 31m	41s	20	19	10	1° 5′ 29	9	18	9	29° 10′ 26	7	18	8	27° 4′ 24	6
11h 26m 35m	41s	21	19	11	1° 48′ ♑	10	19	9	29° 51′ 27	8	19	8	27° 44′ [?]5	7
11h 30m 33m	41s	22	20	11	2° 30′ 0	11	20	10	♐ 28 0° 33′	9	19	9	28° 24′ 25	9
11h 34m 31m	40s	23	21	12	3° 13′ 1	12	21	11	1° 14′ 29	10	20	10	29° 4′ 26	10
11h 37m 39m	41s	24	22	13	3° 55′ 2	13	21	12	1° 55′ ♑	11	21	10	29° 44′ 27	11
11h 41m 39m	40s	25	23	14	4° 48′ 3	15	22	12	2° 36′ 1	12	22	11	♐ 28 0° 24′	12
11h 45m 32m	41s	26	23	14	5° 21′ 4	16	23	13	3° 18′ 1	14	23	12	1° 4′ 29	13
11h 49m 30m	40s	27	24	15	6° 5′ 5	17	24	14	4° 0′ 2	15	23	12	1° 45′ 29	14
11h 52m 34m	40s	28	25	16	6° 48′ 6	18	25	14	4° 41′ 3	16	24	13	2° 25′ ♑	15
11h 56m 32m	40s	29	26	16	7° 32′ 6	19	25	15	5° 23′ 4	17	25	14	3° 5′ 1	16
12h 0m 9m	40s	30	27	17	8° 15′ 7	20	26	16	6° 5′ 5	19	26	14	3° 46′ 2	18

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♎
For the latitude of the place 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♎	45°: 11 ♎	45°: 12 ♏	45°: 45°: Horosc. ♐ ♑	45°: 3 ♒	48°: 11 ♎	48°: 12 ♏	48°: 48°: Horosc. ♐ ♑	48°: 3 ♒	51°: 11 ♎	51°: 12 ♏	51°: 51°: Horosc. ♐ ♑	51°: 3 ♒
12h 0m 0s	0	27	17	8° 15′ 7	20	26	16	6° 5′ 5	19	26	14	3° 46′ 2	18
12h 3m 40m	40s	1	28	18	8° 58′ 8	21	27	16	6° 47′ 6	20	26	15	4° 26′ 3	19
12h 7m 30m	40s	2	28	19	9° 42′ 9	22	28	17	7° 30′ 7	21	27	16	5° 7′ 4	20
12h 11m 30m	40s	3	29	19	10° 26′ 10	23	29	18	8° 13′ 8	22	28	16	5° 48′ 5	21
12h 14m 34m	40s	4	♏	20	11° 10′ 11	25	♏	19	8° 55′ 9	24	29	17	6° 30′ 6	22
12h 18m 31m	41s	5	1	21	11° 55′ 12	26	0	19	9° 38′ 9	25	♏	18	7° 11′ 6	24
12h 22m 31m	40s	6	2	21	12° 39′ 13	27	1	20	10° 21′ 10	26	0	18	7° 52′ 7	25
12h 25m 34m	41s	7	2	22	13° 23′ 14	28	2	21	11° 4′ 11	27	1	19	8° 34′ 8	26
12h 29m 32m	40s	8	3	23	14° 8′ 15	29	3	21	11° 47′ 12	28	2	20	9° 16′ 9	27

Time from noon	Diff. of time	45°: 10 ♎	45°: 11 ♎	45°: 12 ♏	45°: 45°: Horosc ♐ ♍	45°: 3 ♒	48°: 11 ♎	48°: 12 ♏	48°: 48°: Horosc ♐ ♍	48°: 3 ♒	51°: 11 ♎	51°: 12 ♏	51°: 51°: Horosc ♐ ♍	51°: 3 ♒
12h 33m 33s	41s	9	4	24	14° 53′ 16	♓	4	22	12° 31′ 13	♓	3	20	9° 58′ 10	29
12h 36m 34s	41s	10	5	24	15° 38′ 17	2	4	23	13° 15′ 14	1	3	21	10° 41′ 11	♓
12h 40m 35s	41s	11	6	25	16° 24′ 18	3	5	23	14° 0′ 15	2	4	22	11° 23′ 12	1
12h 44m 37s	42s	12	6	26	17° 10′ 19	4	6	24	14° 44′ 16	3	5	23	12° 6′ 13	2
12h 47m 38s	41s	13	7	26	17° 56′ 20	5	7	25	15° 28′ 17	5	6	23	12° 49′ 14	4
12h 51m 39s	42s	14	8	27	18° 42′ 21	6	7	26	16° 13′ 18	6	7	24	13° 32′ 15	5
12h 55m 41s	43s	15	9	28	19° 28′ 22	8	8	26	16° 58′ 19	7	7	25	14° 15′ 16	6
12h 58m 42s	42s	16	10	29	20° 15′ 23	9	9	27	17° 44′ 20	8	8	25	14° 58′ 17	8
13h 2m 43s	43s	17	10	29	21° 2′ 24	10	10	28	18° 29′ 21	10	9	26	15° 42′ 18	9
13h 6m 44s	43s	18	11	♐	21° 49′ 25	12	10	28	19° 15′ 22	11	10	27	16° 26′ 19	10
13h 10m 45s	44s	19	12	1	22° 37′ 26	13	11	29	20° 2′ 23	12	10	27	17° 11′ 20	12
13h 13m 49s	44s	20	13	2	23° 26′ 27	14	12	♐	20° 49′ 24	14	11	28	17° 57′ 21	13
13h 17m 54s	45s	21	14	2	24° 15′ 28	15	13	1	21° 36′ 26	15	12	29	18° 42′ 22	14
13h 21m 58s	44s	22	15	3	25° 5′ 29	17	14	1	22° 24′ 27	16	13	29	19° 28′ 24	16
13h 25m 34m	46s	23	15	4	25° 55′ ♒	18	14	2	23° 12′ 28	18	14	♐	20° 15′ 25	17
13h 28m 35m	46s	24	16	5	26° 45′ 2	19	15	3	24° 1′ 29	19	14	1	21° 1′ 26	18
13h 32m 36m	46s	25	17	5	27° 36′ 3	20	16	4	24° 50′ ♒	20	15	2	21° 48′ 27	20
13h 36m 37m	47s	26	18	6	28° 27′ 4	22	17	4	25° 40′ 1	22	16	2	22° 36′ 28	21
13h 40m 38m	47s	27	19	7	29° 29′ 5	23	18	5	26° 30′ 2	23	17	3	23° 24′ ♒	23
13h 43m 39m	48s	28	19	8	♍ 6 0° 11′	24	18	6	27° 21′ 3	24	18	4	24° 12′ 1	24
13h 47m 40m	48s	29	20	8	1° 3′ 8	26	19	7	28° 12′ 5	26	18	4	25° 1′ 2	25
13h 51m 41m	49s	30	21	9	1° 56′ 9	27	20	7	29° 4′ 6	27	19	5	25° 51′ 3	27

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♏
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♏	45°: 11 ♏	45°: 12 ♐	45°: 45°: Horosc ♍ ♒	45°: 3 ♓	48°: 11 ♏	48°: 12 ♐	48°: 48°: Horosc ♐ ♒	48°: 3 ♓	51°: 11 ♏	51°: 12 ♐	51°: 51°: Horosc ♐ ♒	51°: 3 ♓
13h 51m 35s		0	21	9	1° 56′ 9	27	20	7	29° 4′ 6	27	19	5	25° 51′ 3	27
13h 55m 34m	49s	1	22	10	2° 50′ 10	28	21	8	29° 56′ 8	28	20	6	26° 41′ 5	28
13h 59m 34m	50s	2	23	11	3° 44′ 12	♈	22	9	♍ 9 0° 49′	♈	21	7	27° 32′ 6	♈
14h 3m 33m	51s	3	23	11	4° 39′ 13	1	23	10	1° 43′ 10	1	22	7	28° 24′ 7	1
14h 6m 30m	51s	4	24	12	5° 35′ 14	2	23	10	2° 37′ 12	3	22	8	29° 16′ 9	3
14h 10m 34m	52s	5	25	13	6° 31′ 16	4	24	11	3° 32′ 13	4	23	9	♍ 10 0° 9′	4
14h 14m 34m	53s	6	26	14	7° 28′ 17	5	25	12	4° 28′ 15	5	24	10	1° 3′ 12	5
14h 18m 34m	53s	7	27	15	8° 26′ 18	7	26	13	5° 24′ 16	7	25	10	1° 58′ 13	7
14h 22m 32m	54s	8	28	16	9° 24′ 20	8	27	13	6° 21′ 18	8	26	11	2° 53′ 15	8
14h 26m 32m	54s	9	28	16	10° 23′ 21	9	27	14	7° 18′ 19	9	26	12	3° 49′ 16	10
14h 30m 31m	55s	10	29	17	11° 24′ 23	11	28	15	8° 16′ 21	10	27	13	4° 46′ 18	11
14h 34m 31m	56s	11	♐	18	12° 26′ 24	12	29	16	9° 16′ 22	12	28	14	5° 43′ 19	13
14h 38m 30m	57s	12	1	19	13° 28′ 26	13	♐	17	10° 17′ 24	14	29	14	6° 42′ 21	14

Time from noon	Diff. of time	45°: 10 ♏	45°: 11 ♏	45°: 12 ♐	45°: 45°: Horosc. ♒	45°: 3 ♓	48°: 11 ♏	48°: 12 ♐	48°: 48°: Horosc. ♒	48°: 3 ♓	51°: 11 ♏	51°: 12 ♐	51°: 51°: Horosc. ♒	51°: 3 ♓
14h 42m	37m 57s	13	2	20	14° 31′ 27	15	1	18	11° 20′ 25	15	♐	15	7° 42′ 23	16
14h 46m	35m 58s	14	3	21	15° 35′ 29	16	2	18	12° 23′ 27	16	1	16	8° 43′ 24	17
14h 50m	34m 59s	15	4	21	16° 40′♓	17	3	19	13° 27′ 28	18	1	17	9° 45′ 26	18
14h 54m	44m 0s	16	4	22	17° 46′2	19	3	20	14° 31′ ♓	19	2	18	10° 48′28	20
14h 58m	44m 0s	17	5	23	18° 53′ 4	20	4	21	15° 36′ 2	21	3	18	11° 52′ ♓	21
15h 2m	34m 1s	18	6	24	20° 0′ 5	21	5	22	16° 43′4	22	4	19	12° 58′ 2	23
15h 6m	44m 2s	19	7	25	21° 8′ 7	23	6	23	17° 51′ 5	23	5	20	14° 4′ 3	24
15h 10m	43m 2s	20	8	26	22° 18′9	24	7	23	19° 1′ 7	25	6	21	15° 12′ 5	26
15h 14m	42m 3s	21	9	27	23° 30′10	26	8	24	20° 13′9	26	6	22	16° 21′7	27
15h 18m	46m 4s	22	10	28	24° 43′12	27	9	25	21° 26′11	28	7	23	17° 32′9	28
15h 22m	42m 4s	23	11	29	25° 58′14	28	9	26	22° 40′13	29	8	24	18° 44′11	♉
15h 26m	42m 6s	24	11	♍	27° 14′15	29	10	27	23° 55′14	♉	9	24	19° 58′13	1
15h 30m	43m 6s	25	12	0	28° 31′17	♉	11	28	25° 11′16	2	10	25	21° 14′15	3
15h 34m	48m 6s	26	13	1	29° 50′19	2	12	29	26° 28′18	3	11	26	22° 31′17	4
15h 38m	41m 7s	27	14	2	♒ 21 1° 10′	4	13	♍	27° 47′20	4	12	27	23° 50′19	5
15h 42m	45m 8s	28	15	3	2° 31′ 23	5	14	1	29° 8′ 22	6	13	28	25° 11′ 21	7
15h 47m	43m 9s	29	16	4	3° 53′ 24	6	15	2	♒ 24 0° 31′	7	13	29	26° 33′23	8
15h 51m	42m 9s	30	17	5	5° 17′ 26	8	16	3	1° 56′ 26	8	14	♍	27° 57′25	10

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♐
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♐ (°)	45°: 11 ♐ (°)	45°: 12 ♍ (°)	45°: 45°: Horosc.♓ ♒ (°)	45°: 3 ♉ (°)	48°: 11 ♐ (°)	48°: 12 ♍ (°)	48°: 48°: Horosc.♓ ♒ (°)	48°: 3 ♉ (°)	51°: 11 ♐ (°)	51°: 12 ♍ (°)	51°: 51°: Horosc.♓ ♍ (°)	51°: 3 ♉ (°)
15h 51m	12s	0	17	5	5° 17′ 26	8	16	3	1° 56′ 26	8	14	0	27° 57′25	10
15h 55m	42m 11s	1	18	6	6° 43′ 28	9	17	4	3° 23′ 28	10	15	1	29° 23′28	11
15h 59m	43m 11s	2	19	7	8° 10′ ♈	10	17	5	4° 52′ ♈	11	16	2	♒ ♈ 0° 52′	12
16h 3m	45m 11s	3	20	8	9° 39′ 2	11	18	6	6° 23′ 2	12	17	3	2° 24′ 2	14
16h 7m	46m 12s	4	20	9	11° 10′3	12	19	7	7° 56′ 4	14	18	4	3° 58′ 4	15
16h 12m	40m 13s	5	21	10	12° 43′5	14	20	8	9° 31′ 6	15	19	5	5° 35′ 6	16
16h 16m	42m 14s	6	22	11	14° 17′7	15	21	9	11° 8′ 8	16	20	6	7° 15′ 8	18
16h 20m	38m 15s	7	23	13	15° 53′9	16	22	10	12° 47′10	17	21	7	8° 57′ 10	19
16h 24m	33m 15s	8	24	14	17° 31′11	18	23	11	14° 28′12	19	22	8	10° 41′13	20
16h 29m	15m 16s	9	25	15	19° 10′13	19	24	12	16° 11′14	20	23	9	12° 27′15	21
16h 33m	24m 16s	10	26	16	20° 51′15	20	25	13	17° 56′15	21	24	10	14° 15′17	23
16h 37m	40m 18s	11	27	17	22° 34′16	21	26	14	19° 43′17	23	24	11	16° 7′ 19	24
16h 41m	45m 18s	12	28	18	24° 19′18	23	27	15	21° 33′19	24	25	12	18° 2′ 21	25
16h 46m	47m 18s	13	29	19	26° 6′20	24	28	17	23° 26′21	25	26	14	20° 0′23	26
16h 50m	32m 18s	14	♍	20	27° 55′22	25	29	18	25° 21′23	26	27	15	22° 0′25	28
16h 54m	50m 18s	15	1	22	29° 46′24	26	♍	19	27° 18′25	27	28	16	24° 3′ 27	29

Time Diff. from noon	45°: 10 ♐ (°)	45°: 11 ♐ (°)	45°: 12 ♑ (°)	45°: Horos. ♓ (°)	45°: ☿ (°)	48°: 11 ♐ (°)	48°: 12 ♑ (°)	48°: Horos. ♓ (°)	48°: ☿ (°)	51°: 11 ♐ (°)	51°: 12 ♑ (°)	51°: Horos. ♑ (°)	51°: ☿ (°)
16h 59m 19s	16	2	23	♓ 25 1° 39′	27	1	20	29° 16′ 27	29	29	17	26° 10′ 29	♊
17h 3m 28m 19s	17	3	24	3° 33′ 27	29	2	21	♓ 29 1° 16′	♊	♑	18	28° 20′ ♉	1
17h 7m 47m 19s	18	4	25	5° 28′ 29	♊	3	23	3° 19′ ♉	1	1	20	♓ 3 0° 34′	3
17h 12m 7m 20s	19	5	27	7° 24′ ♉	1	4	24	5° 24′ 2	2	2	21	2° 50′ 5	4
17h 16m 27m 20s	20	6	28	9° 22′ 2	2	5	25	7° 31′ 4	3	3	22	5° 8′ 7	5
17h 20m 48m 21s	21	7	29	11° 21′ 4	3	6	27	9° 39′ 6	5	4	23	7° 28′ 8	6
17h 25m 8m 20s	22	8	♒	13° 21′ 6	4	7	28	11° 49′ 8	6	5	25	9° 51′ 10	7
17h 29m 29m 21s	23	9	2	15° 23′ 7	6	8	29	14° 1′ 9	7	6	26	12° 16′ 12	8
17h 33m 50m 21s	24	10	3	17° 26′ 9	7	9	♒	16° 15′ 11	8	7	27	14° 43′ 14	10
17h 38m 11m 22s	25	11	5	19° 30′ 10	8	10	2	18° 31′ 13	9	8	29	17° 12′ 16	11
17h 42m 32m 21s	26	12	6	21° 35′ 12	9	11	3	20° 48′ 14	10	10	♒	19° 43′ 17	12
17h 46m 52m 22s	27	13	7	23° 40′ 14	10	12	5	23° 6′ 16	11	11	1	22° 15′ 19	13
17h 51m 16m 21s	28	14	9	25° 46′ 15	11	13	6	25° 24′ 18	12	12	3	24° 49′ 21	14
17h 55m 38m 22s	29	16	10	27° 53′ 17	12	14	8	27° 41′ 19	14	13	5	27° 24′ 22	15
18h 0m 0m 22s	30	17	12	♈ 18 0° 0′	13	15	9	♈ 21 0° 0′	15	14	6	♈ 24 0° 0′	16

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍
For latitude 45° · For latitude 48° · For latitude 51°

Time Diff. from noon	45°: 10 ♍ (°)	45°: 11 ♍ (°)	45°: 12 ♒ (°)	45°: Horos. ♉ (°)	45°: ☿ (°)	48°: 11 ♍ (°)	48°: 12 ♒ (°)	48°: Horos. ♉ (°)	48°: ☿ (°)	51°: 11 ♍ (°)	51°: 12 ♒ (°)	51°: Horos. ♉ (°)	51°: ☿ (°)
18h 0m 0s	0	17	12	0° 0′ 18	13	15	9	0° 0′ 21	15	14	6	0° 0′ 24	16
18h 4m 22s	1	18	13	2° 7′ 20	14	16	11	2° 19′ 22	16	15	8	2° 36′ 25	17
18h 8m 44m 22s	2	19	15	4° 14′ 21	15	18	12	4° 36′ 24	17	16	9	5° 11′ 27	18
18h 13m 5m 21s	3	20	16	6° 20′ 23	17	19	14	6° 54′ 25	18	17	11	7° 45′ 28	19
18h 17m 27m 22s	4	21	18	8° 25′ 24	18	20	16	9° 12′ 27	19	18	13	10° 17′ ♊	20
18h 21m 48m 21s	5	22	20	10° 30′ 25	19	21	17	11° 29′ 28	20	19	14	12° 48′	22
18h 26m 10m 22s	6	23	21	12° 34′ 27	20	22	19	13° 45′ 29	21	20	16	15° 16′ 2	23
18h 30m 31m 21s	7	24	23	14° 37′ 28	21	23	21	15° 59′ ♊	22	22	18	17° 43′ 4	24
18h 34m 52m 21s	8	26	24	16° 39′ 29	22	24	22	18° 11′ 2	23	23	20	20° 9′ 5	25
18h 39m 12m 20s	9	27	26	18° 39′ ♊	23	25	24	20° 21′	24	24	21	22° 32′	26
18h 43m 33m 21s	10	28	28	20° 38′	24	27	26	22° 29′	25	25	23	24° 52′	27
18h 47m 53m 20s	11	29	29	22° 36′	25	28	28	24° 36′	26	26	25	27° 9′ 9	28
18h 52m 13m 20s	12	♒	♓	24° 32′	26	29	♓	26° 41′	27	28	27	29° 26′ 0	29
18h 56m 34m 19s	13	1	3	26° 27′	27	♒	1	28° 44′	28	29	29	♉ 12 1° 40′	♋
19h 0m 45m 19s	14	3	5	28° 21′	28	1	3	♉ 10 0° 44′	29	♒	♓	3° 50′ 13	1

Time Diff. from noon	45°: 10 ♍ (°)	45°: 11 ♍ (°)	45°: 12 ♒ (°)	45°: Horos	45°: ☌ ♉ (°)	45°: 3 ♊ (°)	48°: 11 ♍ (°)	48°: 12 ♒ (°)	48°: Horos	48°: ☌ ♉ (°)	48°: 3 ♊ (°)	51°: 11 ♍ (°)	51°: 12 ♒ (°)	51°: Horos	51°: ☌ ♉ (°)	51°: 3 ♊ (°)
19h 5m 40s 19s	15	4	6	♉ 8° 0′ 14″	29	3	5	2° 42′ 11″	♋	1	3	5° 57′ 14″	2			
19h 9m 42s 18s	16	5	8	2° 5′ 10″	♋	4	7	4° 39′ 12″	1	2	5	8° 0′ 15″	3			
19h 13m 44s 18s	17	6	10	3° 54′ 11″	1	5	9	6° 34′ 14″	2	4	7	10° 0′ 16″	4			
19h 18m 43s 17s	18	7	12	5° 41′ 12″	2	6	11	8° 27′ 15″	3	5	9	11° 58′ 17″	5			
19h 22m 41s 17s	19	9	14	7° 26′ 13″	3	7	12	10° 17′ 16″	4	6	11	13° 53′ 19″	6			
19h 26m 39s 16s	20	10	15	9° 9′ 14″	4	9	14	12° 4′ 17″	5	7	13	15° 45′ 20″	6			
19h 30m 36s 16s	21	11	17	10° 50′ 15″	5	10	16	13° 49′ 18″	6	9	15	17° 33′ 21″	7			
19h 35m 34s 15s	22	12	19	12° 29′ 16″	6	11	18	15° 32′ 19″	7	10	17	19° 19′ 22″	8			
19h 39m 32s 15s	23	14	21	14° 7′ 17″	7	13	20	17° 13′ 20″	8	11	19	21° 3′ 23″	9			
19h 43m 30s 14s	24	15	23	15° 43′ 19″	8	14	22	18° 52′ 21″	9	12	22	22° 45′ 24″	10			
19h 47m 30s 13s	25	16	25	17° 17′ 20″	9	15	24	20° 29′ 22″	10	14	24	24° 25′ 25″	11			
19h 52m 31s 13s	26	18	26	18° 50′ 21″	10	16	26	22° 4′ 23″	11	15	26	26° 2′ 26″	12			
19h 56m 31s 12s	27	19	28	20° 21′ 22″	10	18	28	23° 37′ 24″	12	16	28	27° 36′ 27″	13			
20h 0m 42s 11s	28	20	♈	21° 50′ 23″	11	19	♈	25° 8′ 25″	13	18	♈	29° 8′ 28″	14			
20h 4m 43s 11s	29	21	2	23° 17′ 24″	12	20	2	26° 37′ 26″	13	19	2	♊ 29° 0′ 37″	15			
20h 8m 44s 11s	30	22	4	24° 43′ 25″	13	22	4	28° 4′ 27″	14	20	4	2° 3′ ♋	16			

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♒
For latitude 45° · For latitude 48° · For latitude 51°

Time Diff. from noon	45°: 10 ♒ (°)	45°: 11 ♒ (°)	45°: 12 ♈ (°)	45°: Horos	45°: ☌ ♊ (°)	45°: 3 ♋ (°)	48°: 11 ♒ (°)	48°: 12 ♈ (°)	48°: Horos	48°: ☌ ♊ (°)	48°: 3 ♋ (°)	51°: 11 ♒ (°)	51°: 12 ♈ (°)	51°: Horos	51°: ☌ ♊ (°)	51°: 3 ♋ (°)
20h 8m 48s	0	22	4	24° 43′ 25″	13	22	4	28° 4′ 27″	14	20	4	2° 3′ 0″	16			
20h 12m 57s	1	24	6	26° 7′ 26″	14	23	6	29° 29′ 28″	15	22	7	3° 27′ 1″	17			
20h 17m 09s	2	25	7	27° 29′ 27″	15	24	8	♊ 29° 0′ 52″	16	23	9	4° 49′ 2″	17			
20h 21m 18s	3	26	9	28° 50′ 28″	16	26	10	2° 13′ ♋	17	25	11	6° 10′ 3″	18			
20h 25m 28s	4	28	11	♊ 29° 0′ 10″	17	27	12	3° 32′ 1″	18	26	13	7° 29′ 4″	19			
20h 29m 36s	5	29	13	1° 29′ ♋	18	28	14	4° 49′ 2″	19	27	15	8° 46′ 5″	20			
20h 33m 34s	6	♓	15	2° 46′ 1″	19	♓	16	6° 5′ 3″	20	29	17	10° 2′ 6″	21			
20h 37m 40s	7	2	16	4° 2′ 1″	19	1	17	7° 20′ 4″	21	♓	19	11° 16′ 6″	22			
20h 41m 44s	8	3	18	5° 17′ 2″	20	2	19	8° 34′ 5″	21	2	21	12° 28′ 7″	23			
20h 45m 48s	9	4	20	6° 30′ 3″	21	4	21	9° 47′ 6″	22	3	23	13° 39′ 8″	24			
20h 49m 53s	10	6	21	7° 42′ 4″	22	5	23	10° 59′ 7″	23	4	25	14° 48′ 9″	24			
20h 53m 58s	11	7	23	8° 52′ 5″	23	7	25	12° 9′ 7″	24	6	27	15° 56′ 10″	25			
20h 57m 58s	12	9	25	10° 0′ 6″	24	8	26	13° 17′ 8″	25	7	28	17° 2′ 11″	26			
21h 1m 49s	13	10	26	11° 7′ 7″	25	9	28	14° 24′ 9″	26	9	♉	18° 8′ 12″	27			
21h 5m 40s	14	11	28	12° 14′ 8″	26	11	♉	15° 29′ 10″	27	10	2	19° 12′ 12″	28			
21h 9m 40s	15	13	♉	13° 20′ 9″	26	12	2	16° 33′ 11″	27	12	4	20° 15′ 13″	29			
21h 13m 35s	16	14	1	14° 25′ 9″	27	14	3	17° 37′ 12″	28	13	6	21° 17′ 14″	29			

Time from noon	Diff. of time	45°: 10 ♒ (°)	45°: 11 ♒ (°)	45°: 12 ♈ (°)	45°: Horos. ♉ (°)	45°: ☌ ♊ (°)	45°: 3 ♋ (°)	48°: 11 ♒ (°)	48°: 12 ♈ (°)	48°: Horos. ♉ (°)	48°: ☌ ♊ (°)	48°: 3 ♋ (°)	51°: 11 ♒ (°)	51°: 12 ♈ (°)	51°: Horos. ♊ (°)	51°: 2 ♋ (°)	51°: 3 ♋ (°)
21h 17m 33s	58s 17	15	3	15° 29′ 10		28	15	5	18° 40′ 12			29	14	7	22° 18′ 15		♌
21h 21m 39s	57s 18	17	4	16° 32′ 11		29	16	6	19° 43′ 13			♌	16	9	23° 18′ 16		1
21h 25m 45s	57s 19	18	6	17° 34′ 12		♌	18	8	20° 44′ 14			1	17	11	24° 17′ 16		2
21h 29m 43s	56s 20	19	7	18° 36′ 13		1	19	9	21° 44′ 15			2	19	12	25° 14′ 17		3
21h 33m 38s	55s 21	21	9	19° 37′ 14		2	21	11	22° 42′ 16			3	20	14	26° 13′ 18		4
21h 37m 33s	54s 22	22	10	20° 36′ 14		2	22	12	23° 39′ 17			3	22	15	27° 7′ 19		4
21h 41m 26s	54s 23	23	12	21° 34′ 15		3	23	14	24° 36′ 17			4	23	17	28° 2′ 20		5
21h 45m 19s	53s 24	25	13	22° 32′ 16		4	25	15	25° 32′ 18			5	24	18	28° 57′ 20		6
21h 49m 13s	53s 25	26	14	23° 29′ 17		5	26	17	26° 28′ 19			6	26	20	29° 51′ 21		7
21h 53m 4s	52s 26	28	16	24° 25′ 18		6	27	18	27° 23′ 20			7	27	21	♍ 0° 44′ 22		8
21h 56m 55s	51s 27	29	17	25° 21′ 19		7	29	20	28° 17′ 20			7	29	23	1° 36′ 23		8
22h 0m 46s	51s 28	♈	18	26° 16′ 19		7	♈	21	29° 11′ 21			8	♈	24	2° 28′ 23		9
22h 4m 36s	50s 29	2	20	27° 10′ 20		8	1	22	♍ 0° 4′	22		9	2	25	3° 19′ 24		10
22h 8m 25s	49s 30	3	21	28° 4′ 21		9	3	24	0° 56′ 23			10	3	27	4° 9′ 25		11

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♓
For latitude 45° · For latitude 48° · For latitude 51°

Time from noon	Diff. of time	45°: 10 ♓	45°: 11 ♈	45°: 12 ♉	45°: Horos. ♊	45°: ☌ ♋	45°: 3 ♌	48°: 11 ♈	48°: 12 ♉	48°: Horos. ♋	48°: ☌ ♌	48°: 3 ♌	51°: 11 ♈	51°: 12 ♉	51°: Horos. ♌	51°: ☌ ♍	51°: 3 ♌
22h 8m 25s		0	3	21	28° 4′ 21		[numeral: ?]	3	24	0° 56′ 23		10	3	27	4° 9′ 25		11
22h 12m 14s	3m 49s 1	4	22		28° 57′ 22		10	4	25	1° 48′ 23		11	4	28	4° 59′ 26		12
22h 16m 2s	3m 48s 2	6	24		29° 49′ 22		11	6	26	2° 39′ 24		12	6	29	5° 48′ 26		12
22h 19m 50s	3m 48s 3	7	25		♍ 0° 41′	23	11	7	27	3° 30′ 25		12	7	♊	6° 36′ 27		13
22h 23m 37s	3m 47s 4	8	26		1° 33′ 24		12	8	29	4° 20′ 26		13	9	2	7° 24′ 28		14
22h 27m 24s	3m 47s 5	10	27		2° 24′ 25		13	10	♊	5° 10′ 26		14	10	3	8° 12′ 28		15
22h 31m 10s	3m 46s 6	11	28		3° 15′ 25		14	11	1	5° 59′ 27		15	11	4	8° 59′ 29		16
22h 34m 56s	3m 46s 7	12	29		4° 5′ 26		15	12	2	6° 48′ 28		16	13	5	9° 45′ ♌		16
22h 38m 42s	3m 46s 8	13	♊		4° 55′ 27		15	14	3	7° 36′ 29		16	14	6	10° 32′	1	17
22h 42m 26s	3m 44s 9	15	2		5° 45′ 28		16	15	4	8° 24′ 29		17	16	8	11° 18′ 1		18
22h 46m 11s	3m 45s 10	16	3		6° 34′ 28		17	16	6	9° 11′ ♌		18	17	9	12° 3′ 2		19
22h 49m 55s	3m 44s 11	17	4		7° 23′ 29		18	18	7	9° 58′ 1		19	19	10	12° 49′	3	20
22h 53m 39s	3m 44s 12	18	5		8° 11′ ♌		19	19	8	10° 45′	2	20	20	11	13° 34′	3	20
22h 57m 22s	3m 43s 13	20	6		8° 58′ 1		20	20	9	11° 31′ 2		20	21	12	14° 18′	4	21
23h 1m 5s	3m 43s 14	21	7		9° 45′ 1		20	22	10	12° 16′	3	21	22	13	15° 2′ 5		22
23h 4m 47s	3m 42s 15	22	8		10° 32′	2	21	23	11	13° 2′ 4		22	24	14	15° 45′	5	23
23h 8m 30s	3m 43s 16	24	9		11° 18′ 3		22	24	12	13° 47′	4	23	25	15	16° 28′	6	23
23h 12m 12s	3m 42s 17	25	10		12° 4′ 4		23	25	13	14° 32′	5	23	26	16	17° 11′	7	24
23h 15m 53s	3m 41s 18	26	11		12° 50′	4	24	27	14	15° 16′	6	24	28	17	17° 54′	7	25

Time from noon	Diff. of time	45°: 10 ♓	45°: 11 ♈	45°: 12 ♉	45°: Horosc. ♊	45°: ♋	45°: 3 ♌	48°: 11 ♈	48°: 12 ♉	48°: Horosc. ♋	48°: ♋	48°: 3 ♌	51°: 11 ♈	51°: 12 ♉	51°: Horosc. ♋	51°: ♋	51°: 3 ♌
23h 19m 35s	3m 42s	19	27	12	13° 36′	5	24	28	15	16° 0′	7	25	29	18	18° 37′	8	26
23h 23m 16s	3m 41s	20	28	13	14° 22	6	25	29	16	16° 45′	7	26	♉	19	19° 19′	9	27
23h 26m 57s	3m 41s	21	♉	14	15° 7′	6	26	♉	17	17° 29	8	27	1	20	20° 2′	10	27
23h 30m 38s	3m 41s	22	1	15	15° 52′	7	27	2	18	18° 13′	9	27	3	21	20° 44′	0	28
23h 34m 18s	3m 40s	23	2	16	16° 37′	8	28	3	19	18° 56′	9	28	4	22	21° 26	11	29
23h 37m 59s	3m 41s	24	3	17	17° 21′	9	28	4	20	19° 39′	10	29	5	23	22° 8′	12	♍
23h 41m 39s	3m 40s	25	4	18	18° 5′	9	29	5	21	20° 22′	1	♍	6	24	22° 49′	2	0
23h 45m 20s	3m 41s	26	5	19	18° 50′	10	♍	6	22	21° 5′	11	1	8	24	23° 30′	3	1
23h 48m 0s [3m 40s 23h 49m 0s]		27	7	20	19° 34′	11	1	8	22	21° 47′	12	1	9	25	24° 12′	4	2
23h 52m 40s	3m 40s	28	8	21	20° 18′	11	2	9	23	22° 30′	3	2	10	26	24° 53′	4	3
23h 56m 20s	3m 40s	29	9	22	21° 2′	12	2	10	24	23° 13′	14	3	11	27	25° 34′	5	4
24h 0m 0s	3m 40s	30	10	23	21° 45′	13	3	11	25	23° 55′	14	4	12	28	26° 14′	6	4

—of the ecliptic, maximum, 23° 31′ 30″, as Tycho has it.
With the ☉ in ♈

Time from noon	Diff. of time	10 ♈	11 ♉	Diff.	12 ♊	Diff.	Horosc. ♋	Diff.	2 ♌	Diff.	3 ♍	Diff.
0h 0m 0s		0	13° 2′		29° 18′		27° 20′		16° 18′		4° 36′	
0h 3m 40s	3m 40s	1	14° 13′	71′	♋ 0° 8′	50′	28° 0′	40′	16° 57′	39′	5° 23′	47′
0h 7m 20s	3m 40s	2	15° 23′	70′	0° 58′	50′	28° 40′	40′	17° 37′	40′	6° 9′	46′
0h 11m 0s	3m 40s	3	16° 32′	69′	1° 47′	49′	29° 19′	39′	18° 16′	39′	6° 56′	47′
0h 14m 40s	3m 40s	4	17° 41′	69′	2° 37′	50′	29° 59′	40′	18° 56′	40′	7° 42′	46′
0h 18m 21s	3m 41s	5	18° 50′	69′	3° 26′	49′	♌ 0° 38′	39′	19° 36′	40′	8° 28′	46′
0h 22m 1s	3m 40s	6	19° 58′	68′	4° 15′	49′	1° 17′	39′	20° 16′	40′	9° 15′	47′
0h 25m 42s	3m 41s	7	21° 6′	68′	5° 3′	48′	1° 57′	40′	20° 56′	40′	10° 1′	46′
0h 29m 22s	3m 40s	8	22° 13′	67′	5° 51′	48′	2° 36′	39′	21° 36′	40′	10° 47′	46′
0h 33m 3s	3m 41s	9	23° 19′	66′	6° 39′	48′	3° 15′	39′	22° 16′	40′	11° 34′	47′
0h 36m 44s	3m 41s	10	24° 25′	66′	7° 26′	47′	3° 54′	39′	22° 57′	41′	12° 20′	46′
0h 40m 25s	3m 41s	11	25° 30′	65′	8° 1[numeral: ?]′	47′	4° 33′	39′	23° 37′	40′	13° 6′	4[numeral: ?]′
0h 44m 7s	3m 42s	12	26° 35′	65′	9° 0′	47′	5° 12′	39′	24° 17′	40′	13° 53′	47′
0h 47m 48s	3m 41s	13	27° 39′	64′	9° 46′	46′	5° 51′	39′	24° 58′	41′	14° 40′	47′
0h 51m 30s	3m 42s	14	28° 43′	64′	10° 32′	46′	6° 30′	39′	25° 38′	40′	15° 27′	47′
0h 55m 13s	3m 43s	15	29° 47′	64′	11° 18′	46′	7° 9′	39′	26° 18′	40′	16° 14′	47′
0h 58m 55s	3m 42s	16	♊ 0° 50′	63′	12° 4′	45′	7° 48′	39′	26° 58′	40′	17° 1′	47′
1h 2m 38s	3m 43s	17	1° 52′	62′	12° 50′	46′	8° 27′	39′	27° 39′	41′	17° 48′	47′
1h 6m 21s	3m 43s	18	2° 54′	62′	13° 35′	45′	9° 6′	39′	28° 19′	40′	18° 36′	48′
1h 10m 5s	3m 44s	19	3° 56′	62′	14° 21′	46′	9° 45′	39′	29° 0′	41′	19° 23′	47′
1h 13m 49s	3m 44s	20	4° 57′	[numeral: ?]1′	15° 6′	45′	10° 24′	39′	29° 40′	40′	20° 11′	48′

Time from noon	Diff. of time	10 ♈	11 ♉	Diff.	12 ♊	Diff.	Horosc. ♋	Diff.	2 ♌	Diff.	3 ♍	Diff.
1h 17m 34s	3m 45s	21	5° 58′	61′	15° 51′	45′	11° 3′	39′	♍ 0° 21′	41′	20° 48′[79]	
1h 21m 18s	3m 44s	22	6° 59′	61′	16° 36′	45′	11° 42′	39′	1° 2′	41′	21° 36′	48′
1h 25m 4s	3m 46s	23	8° 0′	61′	17° 20′	44′	12° 21′	39′	1° 43′	41′	22° 24	48′
1h 28m 50s	3m 46s	24	9° 0′	60′	18° 5′	45′	13° 1′	40′	2° 24′	41′	23° 22	48′
1h 32m 36s	3m 46s	25	10° 0′	60′	18° 49′	44′	13° 40′	39′	3° 5′	41′	24° 10	48′
1h 36m 23s	3m 47s	26	10° 59′	59′	19° 34′	45′	14° 19′	39′	3° 46′	41′	24° 58	48′
1h 40m 10s	3m 47s	27	11° 58′	59′	20° 18′	44′	14° 58′	39′	4° 27′	41′	25° 47	49′
1h 43m 58s	3m 48s	28	12° 57′	59′	21° 2′	44′	15° 38′	40′	5° 9′	42′	26° 35	48′
1h 47m 46s	3m 48s	29	13° 55′	58′	21° 46′	44′	16° 17′	39′	5° 50′	41′	27° 24	49′
1h 51m 35s	3m 49s	30	14° 53′	58′	22° 30′	44′	16° 57′	40′	6° 32′	42′	28° 13	49′

Table of houses for latitude 52° 20′ and for the obliquity…
With the ☉ in ♉

Time from noon	Diff. of time	10 ♉	11 ♊	Diff.	12 ♌	Diff.	Horosc	Diff.	2 ♍	Diff.	3 ♍	Diff.
1h 51m 35s		0	14° 53′		22° 30′		16° 57′		6° 32′		28° 13′	
1h 55m 24s	3m 49s	1	15° 51′	58′	23° 14′	44′	17° 36′	39′	7° 14′	42′	29° 2′	49′
1h 59m 14s	3m 50s	2	16° 49′	58′	23° 58′	44′	18° 16′	40′	7° 56′	42′	29° 51′	49′
2h 3m 5s	3m 51s	3	17° 46′	57′	24° 42′	44′	18° 56′	40′	8° 38′	42′	♎ 0° 40′	49′
2h 6m 56s	3m 51s	4	18° 43′	57′	25° 26′	44′	19° 36′	40′	9° 20′	42′	1° 29′	49′
2h 10m 48s	3m 52s	5	19° 40′	57′	26° 10′	44′	20° 16′	40′	10° 2′	42′	2° 18′	49′
2h 14m 41s	3m 53s	6	20° 37′	57′	26° 54′	44′	20° 56′	40′	10° 45′	43′	3° 7′	49′
2h 18m 34s	3m 53s	7	21° 33′	56′	27° 38′	44′	21° 36′	40′	11° 27′	42′	3° 57′	50′
2h 22m 28s	3m 54s	8	22° 30′	57′	28° 22′	44′	22° 17′	41′	12° 10′	43′	4° 47′	50′
2h 26m 22s	3m 54s	9	23° 26′	56′	29° 6′	44′	22° 57′	40′	12° 53′	43′	5° 37′	50′
2h 30m 17s	3m 55s	10	24° 22′	56′	29° 50′	44′	23° 38′	41′	13° 36′	43′	7° 27′ [recte: 6° 27′]	50′
2h 34m 13s	3m 56s	11	25° 18′	56′	♌ 0° 34′	44′	24° 18′	40′	14° 19′	43′	7° 17′	50′
2h 38m 10s	3m 57s	12	26° 13′	55′	1° 18′	44′	24° 59′	41′	15° 2′	43′	8° 7′	50′
2h 42m 7s	3m 57s	13	27° 9′	56′	2° 2′	44′	25° 40′	41′	15° 45′	43′	8° 57′	50′
2h 46m 5s	3m 58s	14	28° 4′	55′	2° 46′	44′	26° 21′	41′	16° 29′	44′	9° 47′	50′
2h 50m 4s	3m 59s	15	28° 59′	55′	3° 30′	44′	27° 2′	41′	17° 12′	43′	10° 38′	51′
2h 54m 4s	4m 0s	16	29° 54′	55′	4° 15′	45′	27° 43′	41′	17° 56′	44′	11° 29′	51′
2h 58m 4s	4m 0s	17	♋ 0° 49′	55′	4° 59′	44′	28° 25′	42′	18° 40′	44′	12° 20′	51′
3h 2m 5s	4m 1s	18	1° 44′	55′	5° 43′	44′	29° 6′	41′	19° 24′	44′	13° 11′	51′
3h 6m 7s	4m 2s	19	2° 39′	55′	6° 28′	45′	29° 48′	42′	20° 8′	44′	14° 2′	51′
3h 10m 9s	4m 2s	20	3° 34′	55′	7° 12′	44′	♍ 0° 30′	42′	20° 52′	44′	14° 54′	52′
3h 14m 12s	4m 3s	21	4° 28′	54′	7° 57′	45′	1° 12′	42′	21° 37′	45′	15° 45′	51′

[79] here and in the next two rows the printed values stand 10′ below the chain of the printed differences, which gives 20° 58′, 21° 46′, 22° 34′

Time from noon	Diff. of time	10 ♉	11 ♊	Diff.	12 ♌	Diff.	Horosc	Diff.	2 ♍	Diff.	3 ♍	Diff.
3h 18m 16s	4m 4s	22	5° 23′	55′	8° 41′	44′	1° 54′	42′	22° 21′	44′	16° 37′	52′
3h 22m 20s	4m 4s	23	6° 17′	54′	9° 26′	45′	2° 36′	42′	23° 6′	45′	17° 28′	51′
3h 26m 26s	4m 6s	24	7° 11′	54′	10° 11′	45′	3° 19′	43′	23° 51′	45′	18° 20′	52′
3h 30m 32s	4m 6s	25	8° 5′	54′	10° 56′	45′	4° 2′	43′	24° 36′	45′	19° 12′	52′
3h 34m 38s	4m 6s	26	9° 0′	55′	11° 41′	45′	4° 44′	42′	25° 21′	45′	20° 4′	52′
3h 38m 46s	4m 8s	27	9° 54′	54′	12° 26′	45′	5° 27′	43′	26° 6′	45′	20° 56′	52′
3h 42m 54s	4m 8s	28	10° 48′	54′	13° 12′	46′	6° 10′	43′	26° 52′	46′	21° 48′	52′
3h 47m 3s	4m 9s	29	11° 42′	54′	13° 57′	45′	6° 53′	43′	27° 37′	45′	22° 41′	53′
3h 51m 12s	4m 9s	30	12° 37′	55′	14° 43′	46′	7° 36′	43′	28° 23′	46′	23° 33′	52′

—of the ecliptic, maximum, 23° 31′ 30″, as Tycho has it.
With the ☉ in ♊

Time from noon	Diff. of time	10 ♊	11 ♋	Diff.	12 ♌	Diff.	Horosc. ♍	Diff.	2 ♍	Diff.	3 ♎	Diff.
3h 51m 12s		0	12° 37′		14° 43′		7° 36′		28° 23′		23° 33′	
3h 55m 23s	4m 11s	1	13° 31′	54′	15° 28′	45′	8° 19′	43′	29° 9′	46′	24° 26′	53′
3h 59m 34s	4m 11s	2	14° 25′	54′	16° 13′	45′	9° 3′	44′	29° 55′	46′	25° 19′	53′
4h 3m 45s	4m 11s	3	15° 19′	54′	16° 59′	46′	9° 46′	43′	♎ 0° 41′	46′	26° 12′	53′
4h 7m 57s	4m 12s	4	16° 13′	54′	17° 44′	45′	10° 30′	44′	1° 27′	46′	27° 5′	53′
4h 12m 10s	4m 13s	5	17° 7′	54′	18° 30′	46′	11° 14′	44′	2° 13′	46′	27° 58′	53′
4h 16m 24s	4m 14s	6	18° 0′	53′	19° 16′	46′	11° 58′	44′	3° 0′	47′	28° 51′	53′
4h 20m 38s	4m 14s	7	18° 54′	54′	20° 2′	46′	12° 42′	44′	3° 46′	46′	29° 44′	53′
4h 24m 53s	4m 15s	8	19° 48′	54′	20° 48′	46′	13° 26′	44′	4° 32′	46′	♏ 0° 37′	53′
4h 29m 8s	4m 15s	9	20° 42′	54′	21° 34′	46′	14° 10′	44′	5° 19′	47′	1° 30′	53′
4h 33m 24s	4m 16s	10	21° 36′	54′	22° 21′	47′	14° 55′	45′	6° 6′	47′	2° 24′	54′
4h 37m 40s	4m 16s	11	22° 30′	54′	23° 8′	47′	15° 39′	44′	6° 53′	47′	3° 17′	53′
4h 41m 57s	4m 17s	12	23° 24′	54′	23° 54′	46′	16° 24′	45′	7° 40′	47′	4° 11′	54′
4h 46m 14s	4m 17s	13	24° 18′	54′	24° 41′	47′	17° 9′	45′	8° 27′	47′	5° 4′	53′
4h 50m 32s	4m 18s	14	25° 12′	54′	25° 27′	46′	17° 54′	45′	9° 15′	48′	5° 58′	54′
4h 54m 50s	4m 18s	15	26° 6′	54′	26° 14′	47′	18° 39′	45′	10° 2′	47′	6° 52′	54′
4h 59m 9s	4m 19s	16	27° 0′	54′	27° 1′	47′	19° 24′	45′	10° 49′	47′	7° 45′	53′
5h 3m 28s	4m 19s	17	27° 54′	54′	27° 48′	47′	20° 9′	45′	11° 37′	48′	8° 39′	54′
5h 7m 47s	4m 19s	18	28° 48′	54′	28° 35′	47′	20° 54′	45′	12° 24′	47′	9° 33′	54′
5h 12m 7s	4m 20s	19	29° 42′	54′	29° 22′	47′	21° 39′	45′	13° 12′	48′	10° 27′	54′
5h 16m 27s	4m 20s	20	♌ 0° 36′	54′	♏ 0° 9′	47′	22° 24′	45′	14° 0′	48′	11° 21′	54′
5h 20m 48s	4m 21s	21	1° 30′	54′	0° 57′	48′	23° 9′	45′	14° 47′	47′	12° 15′	54′
5h 25m 8s	4m 20s	22	2° 24′	54′	1° 44′	47′	23° 55′	46′	15° 35′	48′	13° 9′	54′
5h 29m 29s	4m 21s	23	3° 18′	54′	2° 31′	47′	24° 40′	45′	16° 23′	48′	14° 3′	54′
5h 33m 50s	4m 21s	24	4° 12′	54′	3° 19′	48′	25° 26′	46′	17° 10′	47′	14° 57′	54′
5h 38m 12s	4m 22s	25	5° 6′	54′	4° 6′	47′	26° 12′	46′	17° 58′	48′	15° 52′	55′
5h 42m 33s	4m 21s	26	6° 1′	55′	4° 54′	48′	26° 57′	45′	18° 46′	48′	16° 46′	54′
5h 46m 55s	4m 22s	27	6° 55′	54′	5° 42′	48′	27° 43′	46′	19° 33′	47′	17° 40′	54′
5h 51m 16s	4m 21s	28	7° 49′	54′	6° 29′	47′	28° 29′	46′	20° 21′	48′	18° 34′	54′

Time from noon	Diff. of time	10 ♊	11 ♋	Diff.	12 ♌	Diff.	Horosc. ♍	Diff.	2 ♍	Diff.	3 ♎	Diff.
5h 55m 38s	4m 22s	29	8° 43′	54′	7° 17′	48′	29° 14′	45′	21° 9′	48′	19° 29′	55′
6h 0m 0s	4m 22s	30	9° 37′	54′	8° 4′	47′	♎ 0° 0′	46′	21° 56′	47′	20° 23′	54′

Table of houses for latitude 52° 20′ and With the ☉ in ♋

Time from noon	Diff. of time	10 ♋	11 ♌	Diff.	12 ♍	Diff.	Horosc. ♎	Diff.	2 ♎	Diff.	3 ♏	Diff.
6h 0m 0s		0	9° 37′		8° 4′		0° 0′		21° 56′		20° 33′ [recte: 20° 23′]	
6h 4m 22s	4m 22s	1	10° 31′	54′	8° 52′	48′	0° 46′	46′	22° 44′	48′	21° 17′	54′
6h 8m 44s	4m 22s	2	11° 25′	54′	9° 39′	47′	1° 31′	45′	23° 31′	47′	22° 11′	54′
6h 13m 5s	4m 21s	3	12° 19′	54′	10° 27′	48′	2° 17′	46′	24° 19′	48′	23° 6′	55′
6h 17m 27s	4m 22s	4	13° 14′	55′	11° 15′	48′	3° 3′	45′	25° 6′	47′	24° 0′	54′
6h 21m 48s	4m 21s	5	14° 8′	54′	12° 2′	47′	3° 48′	45′	25° 53′	47′	24° 54′	54′
6h 26m 10s	4m 22s	6	15° 2′	54′	12° 50′	48′	4° 34′	46′	26° 41′	48′	25° 48′	54′
6h 30m 31s	4m 21s	7	15° 56′	54′	13° 37′	47′	5° 19′	45′	27° 28′	47′	26° 42′	54′
6h 34m 52s	4m 21s	8	16° 50′	54′	14° 25′	48′	6° 4′	45′	28° 16′	48′	27° 36′	54′
6h 39m 12s	4m 20s	9	17° 44′	54′	15° 12′	47′	6° 50′	46′	29° 3′	47′	28° 30′	54′
6h 43m 33s	4m 21s	10	18° 38′	54′	16° 0′	48′	7° 35′	45′	29° 51′	48′	29° 24′	54′
6h 47m 53s	4m 20s	11	19° 32′	54′	16° 47′	47′	8° 20′	45′	♍ [recte: ♏] 0° 38′	47′	♐ 0° 18′	54′
6h 52m 13s	4m 20s	12	20° 26′	54′	17° 35′	48′	9° 6′	[numeral: ?]6′	1° 25′	47′	1° 12′	54′
6h 56m 32s	4m 19s	13	21° 19′	53′	18° 22′	47′	9° 51′	45′	2° 12′	47′	2° 6′	54′
7h 0m 51s	4m 19s	14	22° 13′	54′	19° 10′	48′	10° 36′	45′	2° 59′	47′	3° 0′	54′
7h 5m 10s	4m 19s	15	23° 7′	54′	19° 57′	47′	11° 21′	45′	3° 46′	47′	3° 54′	54′
7h 9m 28s	4m 18s	16	24° 1′	54′	20° 44′	47′	12° 6′	45′	4° 33′	47′	4° 48′	54′
7h 13m 46s	4m 18s	17	24° 54′	53′	21° 31′	47′	12° 51′	45′	5° 19′	46′	5° 42′	54′
7h 18m 3s	4m 17s	18	25° 58′ [recte: 25° 48′]	54′	22° 18′	47′	13° 36′	45′	6° 6′	47′	6° 36′	54′
7h 22m 20s	4m 17s	19	26° 42′	54′	23° 5′	47′	14° 21′	45′	6° 53′	47′	7° 30′	54′
7h 26m 36s	4m 16s	20	27° 35′	53′	23° 52′	47′	15° 5′	44′	7° 39′	46′	8° 24′	54′
7h 30m 52s	4m 16s	21	28° 29′	54′	24° 39′	47′	15° 50′	45′	8° 26′	47′	9° 18′	54′
7h 35m 7s	4m 15s	22	29° 22′	53′	25° 26′	47′	16° 34′	44′	9° 12′	46′	10° 12′	54′
7h 39m 24s	4m 15s	23	♍ 0° 16′	54′	26° 13′	47′	17° 18′	44′	9° 58′	46′	11° 6′	54′
7h 43m 36s	4m 14s	24	1° 9′	53′	27° 0′	47′	18° 2′	44′	10° 44′	46′	12° 0′	54′
7h 47m 50s	4m 14s	25	2° 2′	53′	27° 46′	46′	18° 46′	44′	11° 30′	46′	12° 54′	54′
7h 52m 3s	4m 13s	26	2° 55′	53′	28° 33′	47′	19° 30′	44′	12° 16′	46′	13° 48′	54′
7h 56m 15s	4m 12s	27	3° 48′	53′	29° 19′	46′	20° 14′	44′	13° 2′	46′	14° 42′	54′
8h 0m 26s	4m 11s	28	4° 41′	53′	♎ 0° 5′	46′	20° 57′	43′	13° 47′	45′	15° 36′	54′
8h 4m 37s	4m 11s	29	5° 33′	52′	1° 51′ [recte: 0° 51′]	45′	21° 41′	44′	14° 33′	46′	16° 30′	54′

Time from noon	Diff. of time	10 ♋	11 ♌	Diff.	12 ♍	Diff.	Horosc. ♎	Diff.	2 ♎	Diff.	3 ♏	Diff.
8h 8m 48s	4m 11s	30	6° 26′	53′	1° 37′	46′	22° 2443′		15° 18′	45′	17° 24′	54′

the Tychonic λόξωσιν [Greek: loxōsin, "obliquity"] *of the ecliptic, 23° 31′ 30″. With the ☉ in ♌*

Time from noon	Diff. of time	10 ♌	11 ♍	Diff.	12 ♎	Diff.	Horosc. ♎	Diff.	2 ♏	Diff.	3 ♐	Diff.
8h 8m 48s		0	6° 26′		1° 37′		22° 24′		15° 18′		17° 24′	
8h 12m 57s	4m 9s	1	7° 19′	53′	2° 22′ 45′		23° 7′ 43′		16° 3′ 45′		18° 18′ 54′	
8h 17m 6s	4m 9s	2	8° 11′	52′	3° 7′ 45′		23° 50′ 43′		16° 49′ 46′		19° 12′ 54′	
8h 21m 14s	4m 8s	3	9° 4′	53′	3° 53′ 46′		24° 33′ 43′		17° 34′ 45′		20° 6′ 54′	
8h 25m 22s	4m 8s	4	10° 56′ [recte: 9° 56′]	52′	4° 38′ 45′		25° 16′ 43′		18° 19′ 45′		21° 0′ 54′	
8h 29m 28s	4m 6s	5	10° 48′	52′	5° 23′ 45′		25° 58′ 42′		19° 4′ 45′		21° 55′ 55′	
8h 33m 34s	4m 6s	6	11° 40′	52′	6° 8′ 45′		26° 41′ 43′		19° 49′ 45′		22° 49′ 54′	
8h 37m 40s	4m 6s	7	12° 32′	52′	6° 53′ 45′		27° 23′ 42′		20° 34′ 45′		23° 43′ 54′	
8h 41m 44s	4m 4s	8	13° 24′	52′	7° 38′ 45′		28° 6′ 43′		21° 19′ 45′		24° 38′ 55′	
8h 45m 48s	4m 4s	9	14° 15′	51′	8° 22′ 44′		28° 48′ 42′		22° 3′ 44′		25° 32′ 54′	
8h 49m 51s	4m 3s	10	15° 7′	52′	9° 7′ 45′		29° 30′ 42′		22° 48′ 45′		26° 27′ 55′	
8h 53m 53s	4m 2s	11	15° 58′	51′	9° 51′ 44′		♏ 0° 12′	42′	23° 33′ 45′		27° 21′ 54′	
8h 57m 55s	4m 2s	12	16° 49′	51′	10° 36′ 45′		0° 54′	42′	24° 17′ 44′		28° 16′ 55′	
9h 1m 56s	4m 1s	13	17° 40′	51′	11° 20′ 44′		1° 36′	42′	25° 1′ 44′		29° 11′ 55′	
9h 5m 56s	4m 0s	14	18° 31′	51′	12° 4′ 44′		2° 17′	41′	25° 46′ 45′		♐ 0° 6′	55′
9h 9m 56s	4m 0s	15	19° 22′	51′	12° 48′ 44′		2° 58′	41′	26° 30′ 44′		1° 1′	55′
9h 13m 55s	3m 59s	16	20° 12′	50′	13° 32′ 44′		3° 39′	41′	27° 14′ 44′		1° 56′	55′
9h 17m 53s	3m 58s	17	21° 3′	51′	14° 15′ 43′		4° 20′	41′	27° 58′ 44′		2° 51′	55′
9h 21m 50s	2m 57s [recte: 3m 57s]	18	21° 53′	50′	14° 58′ 43′		5° 1′	41′	28° 42′ 44′		3° 47′	56′
9h 25m 47s	3m 57s	19	22° 43′	50′	15° 41′ 43′		5° 42′	41′	29° 26′ 44′		4° 42′	55′
9h 29m 43s	3m 56s	20	23° 33′	50′	16° 24′ 43′		6° 22′	40′	♐ 0° 10′	44′	5° 38′	56′
9h 33m 38s	3m 55s	21	24° 23′	50′	17° 7′ 43′		7° 3′	41′	0° 54′	44′	6° 34′	56′
9h 37m 32s	3m 54s	22	25° 13′	50′	17° 50′ 43′		7° 44′	41′	1° 38′	44′	7° 30′	56′
9h 41m 26s	3m 54s	23	26° 3′	50′	18° 33′ 43′		8° 24′	40′	2° 22′	44′	8° 27′	57′
9h 45m 19s	3m 53s	24	26° 52′	49′	19° 15′ 42′		9° 4′	40′	3° 6′	44′	9° 23′	56′
9h 49m 12s	3m 53s	25	27° 42′	50′	19° 58′ 43′		9° 44′	40′	3° 50′	44′	10° 20′	57′
9h 53m 4s	3m 52s	26	28° 31′	49′	20° 40′ 42′		10° 24′	40′	4° 34′	44′	11° 17′	57′
9h 56m 55s	3m 51s	27	29° 21′	50′	21° 22′ 42′		11° 4′	40′	5° 18′	44′	12° 14′	57′
10h 0m 46s	3m 51s	28	♎ 0° 10′	49′	22° 4′ 42′		11° 44′	40′	6° 2′	44′	13° 12′	58′
10h 4m 36s	3m 50s	29	0° 59′	49′	22° 46′ 42′		12° 24′	40′	6° 46′	44′	14° 9′	57′
10h 8m 25s	3m 49s	20 [recte: 30]	1° 48′	49′	23° 27′ 41′		13° 3′	39′	7° 30′	44′	15° 7′	58′

Table of houses for latitude 52° 20′ and With the ☉ in ♍

Time from noon	Diff. of time	10 ♍	11 ♎	Diff.	12 ♎	Diff.	Horosc. ♏	Diff.	2 ♐	Diff.	3 ♑	Diff.
10h 8m 25s		0	1° 48′		23° 27′		13° 3′		7° 30′		15° 7′	
10h 12m 14s	3m 49s	1	2° 36′	48′	24° 9′	42′	13° 43′	40′	8° 14′	44′	16° 5′	58′
10h 16m 2s	3m 48s	2	3° 25′	49′	24° 51′	42′	14° 22′	39′	8° 58′	44′	17° 3′	58′
10h 19m 50s	3m 48s	3	4° 13′	48′	25° 32′	41′	15° 1′	39′	9° 42′	44′	18° 2′	59′
10h 23m 37s	3m 47s	4	5° 1′	48′	26° 14′	42′	15° 41′	40′	10° 26′	44′	19° 1′	59′
10h 27m 24s	3m 47s	5	5° 49′	48′	26° 55′	41′	16° 20′	39′	11° 11′	45′	20° 0′	59′
10h 31m 10s	3m 46s	6	6° 37′	48′	27° 36′	41′	16° 59′	39′	11° 55′	44′	21° 0′	60′
10h 34m 56s	3m 46s	7	7° 25′	48′	28° 17′	41′	17° 39′	40′	12° 40′	45′	22° 0′	60′
10h 38m 42s	3m 46s	8	8° 13′	48′	28° 58′	41′	18° 18′	39′	13° 25′	45′	23° 0′	60′
10h 42m 26s	3m 44s	9	9° 1′	48′	29° 39′	41′	18° 57′	39′	14° 10′	45′	24° 1′	61′
10h 46m 11s	3m 45s	10	9° 49′	48′	♏ 0° 20′	41′	19° 36′	39′	14° 55′	45′	25° 2′	61′
10h 49m 55s	3m 44s	11	10° 37′	48′	1° 0′	40′	20° 15′	39′	15° 40′	45′	26° 3′	61′
10h 53m 39s	3m 44s	12	11° 24′	47′	1° 41′	41′	20° 54′	39′	16° 25′	45′	27° 5′	62′
10h 57m 22s	3m 43s	13	12° 12′	48′	2° 21′	40′	21° 33′	39′	17° 11′	46′	28° 7′	62′
11h 1m 5s	3m 43s	14	12° 59′	47′	3° 2′	41′	22° 12′	39′	17° 56′	45′	29° 10′	63′
11h 4m 47s	3m 42s	15	13° 46′	47′	3° 42′	40′	22° 51′	39′	18° 42′	46′	♒ 0° 13′	63′
11h 8m 30s	3m 43s	16	14° 33′	47′	4° 22′	40′	23° 30′	39′	19° 28′	46′	1° 16′	63′
11h 12m 12s	3m 42s	17	15° 20′	47′	5° 2′	40′	24° 9′	39′	20° 14′	46′	2° 20′	64′
11h 15m 53s	3m 41s	18	16° 7′	47′	5° 43′	41′	24° 48′	39′	21° 1′	47′	3° 24′	64′
11h 19m 35s	3m 42s	19	16° 54′	47′	6° 23′	40′	25° 27′	39′	21° 48′	47′	4° 29′	65′
11h 23m 16s	3m 41s	20	17° 40′	46′	7° 3′	40′	26° 6′	39′	22° 35′	47′	5° 35′	66′
11h 26m 57s	3m 41s	21	18° 27′	47′	7° 43′	40′	26° 45′	39′	23° 22′	47′	6° 41′	66′
11h 30m 38s	3m 41s	22	19° 13′	46′	8° 23′	40′	27° 24′	39′	24° 9′	47′	7° 48′	57′
11h 34m 18s	3m 40s	23	20° 0′	47′	9° 3′	40′	28° 3′	39′	24° 57′	48′	8° 55′	67′
11h 37m 59s	3m 41s	24	20° 46′	46′	9° 43′	40′	28° 42′	39′	25° 45′	48′	10° 3′	68′
11h 41m 39s	3m 40s	25	21° 33′	47′	10° 23′	40′	29° 22′	40′	26° 33′	48′	11° 11′	68′
11h 45m 20s	3m 41s	26	22° 19′	46′	11° 3′	40′	♐ 0° 1′	39′	27° 22′	49′	12° 20′	69′
11h 49m 0s	3m 40s	27	23° 5′	46′	11° 42′	39′	0° 41′	40′	28° 12′	50′	13° 29′	69′
11h 52m 40s	3m 40s	28	23° 52′	47′	12° 22′	40′	1° 20′	39′	29° 2′	50′	14° 38′	69′
11h 56m 20s	3m 40s	29	24° 38′	46′	13° 2′	40′	2° 0′	40′	29° 53′	51′	15° 48′	70′
12h 0m 0s	3m 40s	30	25° 24′	46′	13° 42′	40′	2° 40′	40′	♑ 0° 44′	51′	16° 58′	70′

the Tychonic λόξωσιν [Greek: loxōsin, "obliquity"] *of the ecliptic, 23° 31′ 30″. With the ☉ in ♎*

Time from noon	Diff. of time	10 ♎	11 ♎	Diff.	12 ♏	Diff.	Horosc. ♐	Diff.	2 ♑	Diff.	3 ♒	Diff.
12h 0m 0s		0	25° 24′		13° 42′		2° 40′		0° 44′		16° 58′	
12h 3m 40s	3m 40s	1	29° 11′ [recte: 26° 11′]	47′	14° 22′	40′	3° 20′	40′	1° 35′	51′	18° 9′	71′

Time from noon	Diff. of time	10 ♎	11 ♎	Diff.	12 ♏	Diff.	Horosc. ♐	Diff.	2 ♑	Diff.	3 ♒	Diff.
12h 7m 20s	3m 40s	2	26° 57′	46′	15° 2′ 40′		4° 0′	40′	2° 26′	51′	19° 21′	72′
12h 11m 0s	3m 40s	3	27° 43′	46′	15° 42′40′		4° 40′	40′	3° 18′	52′	20° 33′	72′
12h 14m 40s	3m 40s	4	28° 29′	46′	16° 22′40′		5° 20′	40′	4° 10′	52′	21° 46′	73′
12h 18m 21s	3m 41s	5	29° 15′	46′	17° 2′ 40′		6° 0′	40′	5° 3′	53′	23° 0′	74′
12h 22m 1s	3m 40s	6	♏ 0° 1′	46′	17° 42′40′		6° 41′	41′	5° 57′	54′	24° 14′	74′
12h 25m 42s	3m 41s	7	0° 48′	47′	18° 23′41′		7° 22′	41′	6° 52′	55′	25° 29′	75′
12h 29m 22s	3m 40s	8	1° 34′	46′	19° 3′ 40′		8° 3′	41′	7° 47′	55′	26° 45′	76′
12h 33m 3s	3m 41s	9	2° 20′	46′	19° 43′40′		8° 44′	41′	8° 43′	56′	28° 1′	76′
12h 36m 44s	3m 41s	10	3° 6′	46′	20° 23′40′		9° 25′	41′	9° 40′	57′	29° 18′	77′
12h 40m 25s	3m 41s	11	3° 52′	46′	21° 4′ 41′		10° 7′	42′	10° 38′	58′	♓ 0° 35′	77′
12h 44m 7s	3m 42s	12	4° 39′	47′	21° 44′40′		10° 49′	42′	11° 36′	58′	1° 53′	78′
12h 47m 48s	3m 41s	13	5° 25′	46′	22° 25′41′		11° 31′	42′	12° 35′	59′	3° 11′	78′
12h 51m 30s	3m 42s	14	6° 11′	46′	23° 6′ 41′		12° 13′	42′	13° 34′	59′	4° 30′	79′
12h 55m 13s	3m 43s	15	6° 57′	46′	23° 47′41′		12° 56′	43′	14° 34′	60′	5° 50′	80′
12h 58m 55s	3m 42s	16	7° 44′	47′	24° 28′41′		13° 39′	43′	15° 35′	61′	7° 11′	81′
13h 2m 38s	3m 43s	17	8° 30′	46′	25° 9′ 41′		14° 22′	43′	16° 37′	62′	8° 32′	81′
13h 6m 21s	3m 43s	18	9° 16′	46′	25° 50′41′		15° 5′	43′	17° 40′	63′	9° 54′	82′
13h 10m 5s	3m 44s	19	10° 3′	47′	26° 31′41′		15° 49′	44′	18° 43′	63′	11° 16′	82′
13h 13m 49s	3m 44s	20	10° 49′	46′	27° 13′42′		16° 33′	44′	19° 47′	64′	12° 38′	82′
13h 17m 34s	3m 45s	21	11° 36′	47′	27° 54′41′		17° 18′	45′	20° 53′	66′	14° 1′	83′
13h 21m 18s	3m 44s	22	12° 22′	46′	28° 36′42′		18° 3′	45′	22° 0′	67′	15° 24′	83′
13h 25m 4s	3m 46s	23	13° 9′	47′	29° 18′42′		18° 49′	46′	23° 8′	68′	16° 48′	84′
13h 28m 50s	3m 46s	24	13° 56′	47′	♐ 0° 0′	42′	19° 34′	45′	24° 18′	70′	18° 13′	85′
13h 32m 36s	3m 46s	25	14° 42′	46′	0° 42′	42′	20° 20′	46′	25° 29′	71′	19° 38′	85′
13h 36m 23s	3m 47s	26	15° 29′	47′	1° 25′	43′	21° 7′	47′	26° 42′	73′	21° 3′	85′
13h 40m 10s	3m 47s	27	16° 16′	47′	2° 8′	43′	21° 54′	47′	27° 56′	74′	22° 29′	86′
13h 43m 58s	3m 48s	28	17° 3′	47′	2° 51′	43′	22° 42′	48′	29° 11′	75′	23° 55′	86′
13h 47m 46s	3m 48s	29	17° 50′	47′	3° 34′	43′	23° 30′	48′	♒ 0° 27′	76′	25° 21′	86′
13h 51m 35s	3m 49s	30	18° 38′	48′	4° 17′	43′	24° 19′	49′	1° 45′	78′	26° 48′	87′

Table of houses for latitude 52° 20′ and
With the ☉ in ♏

Time from noon	Diff. of time	10 ♏	11 ♏	Diff.	12 ♐	Diff.	Horosc. ♐	Diff.	2 ♒	Diff.	3 ♓	Diff.
13h 51m 35s		0	18° 38′		4° 17′		24° 19′		1° 45′		28° 48′ [recte: 26° 48′]	
13h 55m 24s	3m 49s	1	19° 25′	47′	5° 0′	43′	25° 8′	49′	3° 5′	80′	28° 15′	87′
13h 59m 14s	3m 50s	2	20° 13′	48′	5° 44′	44′	25° 58′	50′	4° 27′	82′	29° 43′	88′
14h 3m 5s	3m 51s	3	21° 1′	48′	6° 28′	44′	26° 48′	50′	5° 51′	84′	♈ 1° 11′	88′
14h 6m 56s	3m 51s	4	21° 49′	48′	7° 12′	44′	27° 39′	51′	7° 17′	86′	2° 38′	87′
14h 10m 48s	3m 52s	5	22° 37′	48′	7° 57′	45′	28° 31′	52′	8° 44′	87′	4° 6′	88′
14h 14m 41s	3m 53s	6	23° 25′	48′	8° 42′	45′	29° 24′	53′	10° 13′	89′	5° 34′	88′

Time from noon	Diff. of time	10 ♏	11 ♏	Diff.	12 ♐	Diff.	Horosc. ♐	Diff.	2 ♒	Diff.	3 ♓	Diff.
14h 18m 34s	3m 53s	7	24° 14′ 49″		9° 27′ 45″		♍ 0° 17′	53′	11° 43′	90′	7° 2′	88′
14h 22m 28s	3m 54s	8	25° 2′ 48″		10° 13′ 46″		1° 11′	54′	13° 15′	92′	8° 30′	88′
14h 26m 22s	3m 54s	9	25° 50′ 48″		10° 59′ 46″		2° 6′	55′	14° 48′	93′	9° 58′	88′
14h 30m 17s	3m 55s	10	26° 39′ 49″		11° 45′ 46″		3° 2′	56′	16° 22′	94′	11° 27′	89′
14h 34m 13s	3m 56s	11	27° 28′ 49″		12° 31′ 46″		3° 59′	57′	17° 59′	97′	12° 55′	88′
14h 38m 10s	3m 57s	12	28° 17′ 49″		13° 18′ 47″		4° 57′	58′	19° 39′	100′	14° 23′	88′
14h 42m 7s	3m 57s	13	29° 7′ 50″		14° 5′ 47″		5° 56′	59′	21° 22′	103′	15° 52′	89′
14h 46m 5s	3m 58s	14	29° 56′ 49″		14° 53′ 48″		6° 55′	59′	23° 7′	105′	17° 20′	88′
14h 50m 4s	3m 59s	15	♐ 0° 46′	50′	15° 41′ 48″		7° 55′	60′	24° 54′	107′	18° 48′	88′
14h 54m 4s	4m 0s	16	1° 36′	50′	16° 30′ 49″		8° 57′	62′	26° 43′	109′	20° 16′	88′
14h 58m 4s	4m 0s	17	2° 26′	50′	17° 19′ 49″		10° 0′	63′	28° 34′	111′	21° 43′	87′
15h 2m 5s	4m 1s	18	3° 16′	50′	18° 8′ 49″		11° 4′	64′	♓ 0° 27′	113′	23° 10′	87′
15h 6m 7s	4m 2s	19	4° 7′	51′	18° 58′ 50″		12° 10′	66′	2° 22′	115′	24° 37′	87′
15h 10m 9s	4m 2s	20	4° 57′	50′	19° 48′ 50″		13° 17′	67′	4° 18′	116′	26° 4′	87′
15h 14m 12s	4m 3s	21	5° 48′	51′	20° 39′ 51″		14° 25′	68′	6° 16′	118′	27° 30′	86′
15h 18m 16s	4m 4s	22	6° 39′	51′	21° 31′ 52″		15° 35′	70′	8° 16′	120′	28° 56′	86′
15h 22m 20s	4m 4s	23	7° 30′	51′	22° 23′ 52″		16° 46′	71′	10° 18′	122′	♉ 0° 22′	86′
15h 26m 26s	4m 6s	24	8° 22′	52′	23° 16′ 53″		17° 59′	73′	12° 22′	124′	1° 47′	85′
15h 30m 32s	4m 6s	25	9° 14′	52′	24° 9′ 53″		19° 13′	74′	14° 28′	126′	3° 12′	85′
15h 34m 38s	4m 6s	26	10° 6′	52′	25° 2′ 53″		20° 29′	76′	16° 36′	128′	4° 36′	84′
15h 38m 46s	4m 8s	27	10° 59′	53′	25° 56′ 54″		21° 47′	78′	18° 45′	129′	6° 0′	84′
15h 42m 54s	4m 8s	28	11° 52′	53′	26° 50′ 54″		23° 7′	80′	20° 55′	130′	7° 24′	84′
15h 47m 3s	4m 9s	29	12° 45′	53′	27° 45′ 55″		24° 30′	83′	23° 7′	132′	8° 47′	83′
15h 51m 12s	4m 9s	30	13° 39′	54′	28° 41′ 56″		25° 54′	84′	25° 19′	132′	10° 10′	83′

the Tychonic λόξωσιν [Greek: loxōsin, "obliquity"] *of the ecliptic, 23° 31′ 30″. With the ☉ in ♐*

Time from noon	Diff. of time	10 ♐	11 ♐	Diff.	12 ♐	Diff.	Horosc. ♍	Diff.	2 ♓	Diff.	3 ♉	Diff.
15h 51m 12s		0	13° 39′		28° 41′		25° 54′		25° 19′		10° 10′	
15h 55m 23s	4m 11s	1	14° 32′	53′	29° 38′	57′	27° 20′	86′	27° 32′	133′	11° 32′	82′
15h 59m 34s	4m 11s	2	15° 26′	54′	♍ 0° 36′	58′	28° 49′	89′	29° 46′	134′	12° 54′	82′
16h 3m 45s	4m 11s	3	16° 20′	54′	1° 35′	59′	♒ 0° 20′	91′	♈ 2° 0′	134′	14° 15′	81′
16h 7m 57s	4m 12s	4	17° 14′	54′	2° 35′	60′	1° 54′	94′	4° 14′	134′	15° 35′	80′
16h 12m 10s	4m 13s	5	18° 8′	54′	3° 35′	60′	3° 31′	97′	6° 28′	134′	16° 55′	80′
16h 16m 24s	4m 14s	6	19° 3′	55′	4° 36′	61′	5° 10′	99′	8° 42′	134′	18° 14′	79′
16h 20m 38s	4m 14s	7	19° 58′	55′	5° 38′	62′	6° 52′	102′	10° 56′	134′	19° 33′	79′
16h 24m 53s	4m 15s	8	20° 54′	56′	6° 41′	63′	8° 37′	105′	13° 9′	133′	20° 51′	78′
16h 29m 8s	4m 15s	9	21° 50′	56′	7° 45′	64′	10° 25′	108′	15° 22′	133′	22° 8′	77′
16h 33m 24s	4m 16s	10	22° 46′	56′	8° 50′	65′	12° 15′	110′	17° 34′	132′	23° 25′	77′
16h 37m 40s	4m 16s	11	23° 43′	57′	9° 55′	65′	14° 9′	114′	19° 44′	130′	24° 41′	76′

Time from noon	Diff. of time	10 ♐	11 ♐	Diff.	12 ♐	Diff.	Horosc. ♍	Diff.	2 ♓	Diff.	3 ♉	Diff.
16h 41m 57s	4m 17s	12	24° 40′	57′	11° 1′	66′	16° 6′	117′	21° 52′	128′	25° 57′	76′
16h 46m 14s	4m 17s	13	25° 38′	58′	12° 8′	67′	18° 7′	121′	23° 59′	127′	27° 12′	75′
16h 50m 32s	4m 18s	14	26° 36′	58′	13° 16′	68′	20° 11′	124′	26° 4′	125′	28° 26′	74′
16h 54m 50s	4m 18s	15	27° 34′	58′	14° 26′	70′	22° 18′	127′	28° 7′	123′	29° 40′	74′
16h 59m 9s	4m 19s	16	28° 33′	59′	15° 37′	71′	24° 29′	131′	♉ 0° 9′	122′	♊ 0° 53′	73′
17h 3m 28s	4m 19s	17	29° 32′	59′	16° 49′	72′	26° 43′	134′	2° 9′	120′	2° 6′	73′
17h 7m 47s	4m 19s	18	♍ 0° 31′	59′	18° 2′	73′	29° 1′	138′	4° 8′	119′	3° 18′	72′
17h 12m 7s	4m 20s	19	1° 51′	60′	19° 17′	75′	♓ 1° 22′	141′	6° 6′	118′	4° 30′	72′
17h 16m 27s	4m 20s	20	2° 31′	60′	20° 34′	77′	3° 46′	144′	8° 2′	116′	5° 41′	71′
17h 20m 48s	4m 21s	21	3° 32′	61′	21° 52′	78′	6° 13′	147′	9° 55′	113′	6° 51′	70′
17h 25m 8s	4m 20s	22	4° 33′	61′	23° 11′	79′	8° 43′	150′	11° 46′	111′	8° 1′	70′
17h 29m 29s	4m 21s	23	5° 35′	62′	24° 32′	81′	11° 16′	153′	13° 35′	109′	9° 10′	69′
17h 33m 50s	4m 21s	24	6° 37′	62′	25° 54′	82′	13° 52′	156′	15° 22′	107′	10° 19′	69′
17h 38m 12s	4m 22s	25	7° 40′	63′	27° 18′	84′	16° 30′	158′	17° 6′	104′	11° 27′	68′
17h 42m 33s	4m 21s	26	8° 43′	63′	28° 43′	85′	19° 10′	160′	18° 48′	102′	12° 35′	68′
17h 46m 55s	4m 22s	27	9° 47′	64′	♒ 0° 10′	87′	21° 51′	161′	20° 28′	100′	13° 42′	67′
17h 51m 16s	4m 21s	28	10° 51′	64′	1° 39′	89′	24° 33′	162′	22° 6′	98′	14° 48′	66′
17h 55m 38s	4m 22s	29	11° 55′	64′	3° 10′	91′	27° 16′	163′	23° 42′	96′	15° 54′	66′
18h 0m 0s	4m 22s	30	13° 0′	65′	4° 43′	93′	0° 0′	164′	25° 17′	95′	17° 0′	66′

Table of houses for latitude 52° 20′ and
With the ☉ in ♍

Time from noon	Diff. of time	10 ♍	11 ♍	Diff.	12 ♒	Diff.	Horosc. ♈	Diff.	2 ♉	Diff.	3 ♊	Diff.
18h 0m 0s		0	13° 0′		4° 43′		0° 0′		25° 17′		17° 0′	
18h 4m 22s	4m 22s	1	14° 5′	65′	6° 17′	94′	2° 44′	164′	26° 51′	94′	18° 5′	65′
18h 8m 44s	4m 22s	2	15° 11′	66′	7° 53′	96′	5° 27′	163′	28° 23′	92′	19° 10′	65′
18h 13m 5s	4m 21s	3	16° 18′	67′	9° 32′	99′	8° 9′	162′	29° 53′	90′	20° 14′	64′
18h 17m 27s	4m 22s	4	17° 25′	67′	11° 13′	101′	10° 50′	161′	♊ 1° 20′	87′	21° 18′	64′
18h 21m 48s	4m 21s	5	18° 33′	68′	12° 55′	102′	13° 30′	160′	2° 45′	85′	22° 21′	63′
18h 26m 10s	4m 22s	6	19° 41′	68′	14° 39′	104′	16° 8′	158′	4° 8′	83′	23° 24′	63′
18h 30m 31s	4m 21s	7	20° 50′	69′	16° 26′	107′	18° 44′	156′	5° 30′	82′	24° 26′	62′
18h 34m 52s	4m 21s	8	21° 59′	69′	18° 15′	109′	21° 17′	153′	6° 50′	80′	25° 27′	61′
18h 39m 12s	4m 20s	9	23° 9′	70′	20° 7′	112′	23° 47′	150′	8° 9′	79′	26° 28′	61′
18h 43m 33s	4m 21s	10	24° 19′	70′	22° 0′	113′	26° 14′	147′	9° 26′	77′	27° 28′	60′
18h 47m 53s	4m 20s	11	25° 30′	71′	23° 55′	115′	28° 38′	144′	10° 42′	76′	28° 28′	60′
18h 52m 13s	4m 20s	12	26° 42′	72′	25° 52′	117′	♉ 0° 59′	141′	11° 58′	76′	29° 28′	60′
18h 56m 34s	4m 19s	13	27° 54′	72′	27° 51′	119′	3° 17′	138′	13° 12′	74′	♋ 0° 27′	59′
19h 0m 51s	4m 19s	14	29° 7′	73′	29° 51′	120′	5° 31′	134′	14° 24′	72′	1° 26′	59′

Time from noon	Diff. of time	10 ♒	11 ♒	Diff.	12 ♓	Diff.	Horosc. ♈	Diff.	2 ♉	Diff.	3 ♊	Diff.
19h 5m 10s	4m 19s	15	♒ 0° 20′	73′	♓ 1° 53′	122′	7° 42′	131′	15° 35′	71′	2° 25′	59′
19h 9m 28s	4m 18s	16	1° 34′	74′	3° 57′	124′	9° 49′	127′	16° 45′	70′	3° 23′	58′
19h 13m 46s	4m 18s	17	2° 48′	74′	6° 2′	125′	11° 53′	124′	17° 54′	69′	4° 21′	58′
19h 18m 3s	4m 17s	18	4° 3′	75′	8° 8′	126′	13° 54′	121′	19° 1′	67′	5° 19′	58′
19h 22m 20s	4m 17s	19	5° 19′	76′	10° 16′	128′	15° 51′	117′	20° 7′	65′ [recte: 66′]	6° 16′	57′
19h 26m 36s	4m 16s	20	6° 35′	76′	12° 26′	1[numeral: ?]0′	17° 45′	114′	21° 12′	65′	7° 13′	57′
19h 30m 52s	4m 16s	21	7° 52′	77′	14° 37′	131′	19° 3[numeral: ?]′	110′	22° 16′	64′	8° 9′	56′
19h 35m 7s	4m 15s	22	9° 9′	77′	16° 50′	133′	21° 23′	108′	23° 19′	63′	9° 5′	56′
19h 39m 22s	4m 15s	23	10° 27′	78′	19° 4′	134′	23° 8′	105′	24° 21′	62′	10° 1′	56′
19h 43m 36s	4m 14s	24	11° 46′	79′	21° 18′	134′	24° 50′	102′	25° 22′	61′	10° 57′	56′
19h 47m 50s	4m 14s	25	13° 5′	79′	23° 32′	134′	26° 29′	99′	26° 22′	60′	11° 52′	55′
19h 52m 3s	4m 13s	26	14° 25′	80′	25° 46′	134′	28° 6′	97′	27° 21′	59′	12° 47′	55′
19h 56m 15s	4m 12s	27	15° 45′	80′	28° 0′	134′	29° 40′	94′	28° 19′	58′	13° 42′	55′
20h 0m 26s	4m 11s	28	17° 6′	81′	♈ 0° 14′	134′	♊ 1° 11′	91′	29° 16′	57′	14° 36′	54′
20h 4m 37s	4m 11s	29	18° 20′ [recte: 18° 28′]	82′	2° 28′	134′	2° 40′	89′	♋ 0° 13′	57′	15° 30′	54′
20h 8m 48s	4m 11s	30	19° 50′	82′	4° 41′	133′	4° 6′	86′	1° 19′	56′ [recte: 66′]	16° 23′	53′

the Tychonic λόξωσιν [Greek: loxōsin, "obliquity"] *of the ecliptic, 23° 31′ 30″. With the ☉ in ♒*

Time from noon	Diff. of time	10 ♒	11 ♒	Diff.	12 ♈	Diff.	Horosc. ♊	Diff.	2 ♋	Diff.	3 ♋	Diff.
20h 8m 48s		0	19° 50′		4° 41′		4° 6′		1° 19′		16° 23′	
20h 12m 57s	4m 9s	1	21° 13′	83′	6° 53′	132′	5° 30′	84′	2° 15′	56′	17° 16′	53′
20h 17m 6s	4m 9s	2	22° 36′	83′	9° 4′	131′	6° 53′	83′	3° 10′	55′	18° 9′	53′
20h 21m 14s	4m 8s	3	23° 59′	83′	11° 14′	130′	8° 13′	80′	4° 5′	55′	19° 2′	53′
20h 25m 22s	4m 8s	4	25° 23′	84′	13° 23′	129′	9° 31′	78′	4° 59′	54′	19° 54′	52′
20h 29m 28s	4m 6s	5	26° 47′	84′	15° 30′	127′	10° 47′	76′	5° 53′	54′	20° 46′	52′
20h 33m 34s	4m 6s	6	28° 12′	85′	17° 36′	126′	12° 1′	74′	6° 46′	53′	21° 38′	52′
20h 37m 40s	4m 6s	7	29° 37′	85′	19° 40′	124′	13° 14′	73′	7° 38′	52′	22° 30′	52′
20h 41m 44s	4m 4s	8	♓ 1° 3′	86′	21° 43′	123′	14° 25′	71′	8° 30′	52′	23° 21′	51′
20h 45m 48s	4m 4s	9	2° 29′	86′	23° 44′	121′	15° 35′	70′	9° 21′	51′	24° 12′	51′
20h 49m 51s	4m 3s	10	3° 55′	86′	25° 43′	119′	16° 43′	68′	10° 12′	51′	25° 3′	51′
20h 53m 53s	4m 2s	11	5° 21′	86′	27° 41′	118′	17° 50′	67′	11° 2′	50′	25° 54′	51′
20h 57m 55s	4m 2s	12	6° 48′	87′	29° 37′	116′	18° 56′	66′	11° 52′	50′	26° 44′	50′
21h 1m 56s	4m 1s	13	8° 15′	87′	♉ 1° 30′	113′	20° 0′	64′	12° 41′	49′	27° 35′	51′
21h 5m 56s	4m 0s	14	9° 42′	87′	3° 21′	111′	21° 3′	63′	13° 30′	49′	28° 25′	50′

Time from noon	Diff. of time	10 ♒	11 ♒	Diff.	12 ♈	Diff.	Horosc. ♊	Diff.	2 ♋	Diff.	3 ♋	Diff.
11h 9m 56s [recte: 21h 9m 56s]	4m 0s	15	11° 10′	88′	5° 9′	108′	22° 5′	62′	14° 18′	48′	29° 15′	50′
21h 13m 55s	3m 59s	16	12° 38′	88′	6° 55′	106′	23° 5′	60′	15° 6′	48′	♌ 0° 5′	50′
21h 17m 53s	3m 58s	17	14° 6′	88′	8° 39′	104′	24° 4′	59′	15° 54′	48′	0° 54′	49′
21h 21m 50s	3m 57s	18	15° 35′	89′	10° 21′	102′	25° 3′	59′	16° 41′	47′	1° 43′	49′
21h 25m 47s	3m 57s	19	17° 4′	89′	12° 1′	100′	26° 1′	58′	17° 28′	47′	2° 32′	49′
21h 29m 43s	3m 56s	20	18° 33′	89′	13° 39′	98′	26° 58′	57′	18° 15′	47′	3° 21′	49′
21h 33m 38s	3m 55s	21	20° 1′	88′	15° 15′	96′	27° 54′	56′	19° 1′	46′	4° 9′	48′
21h 37m 32s	3m 54s	22	21° 30′	89′	16° 49′	94′	28° 49′	55′	19° 47′	46′	4° 58′	49′
21h 41m 26s	3m 54s	23	22° 58′	88′	18° 21′	92′	29° 43′	54′	20° 33′	46′	5° 46′	48′
21h 45m 19s	3m 53s	24	24° 26′	88′	19° 51′	90′	♋ 0° 36′	53′	21° 18′	45′	6° 35′	49′
21h 49m 12s	3m 53s	25	25° 54′	88′	21° 19′	88′	1° 29′	53′	22° 3′	45′	7° 23′	48′
21h 53m 4s	3m 52s	26	27° 22′	88′	22° 45′	86′	2° 21′	52′	22° 48′	45′	8° 11′	48′
21h 56m 55s	3m 51s	27	28° 50′	88′	24° 10′	85′	3° 12′	51′	23° 32′	44′	8° 59′	48′
22h 0m 46s	3m 51s	28	♈ 0° 18′	88′	25° 33′	83′	4° 2′	50′	24° 16′	44′	9° 47′	48′
22h 4m 36s	3m 50s	29	1° 45′	87′	26° 55′	82′	5° 52′ [recte: 4° 52′]	50′	25° 0′	44′	10° 35′	48′
22h 8m 25s	3m 49s	30	3° 12′	87′	28° 15′	80′	5° 41′	49′	25° 44′	44′	11° 22′	47′

Table of houses for latitude 52° 20′ and[80]
With the ☉ in ♓

Time from noon	Diff. of time	10 ♓	11 ♈	Diff.	12 ♉	Diff.	Horosc. ♋	Diff.	2 ♋	Diff.	3 ♌	Diff.
22h 8m 25s		0	3° 12′		28° 15′		5° 41′		25° 44′		11° 22′	
22h 12m 14s	3m 49s	1	4° 39′	87′	29° 34′	79′	6° 30′	49′	26° 27′	43′	12° 10′	48′
22h 16m 2s	3m 48s	2	6° 5′	86′	♊ 0° 50′	76′	7° 18′	48′	27° 10′	43′	12° 57′	47′
22h 19m 50s	3m 48s	3	7° 31′	86′	2° 5′	75′	8° 6′	48′	27° 53′	43′	13° 44′	47′
22h 23m 37s	3m 47s	4	8° 57′	86′	3° 18′	73′	8° 53′	47′	28° 35′	42′	14° 31′	47′
22h 27m 24s	3m 47s	5	10° 22′	85′	4° 30′	72′	9° 40′	47′	29° 18′	43′	15° 18′	47′
22h 31m 10s	3m 46s	6	11° 47′	85′	5° 41′	71′	10° 26′	46′	♌ 0° 0′	42′	16° 4′	46′
22h 34m 56s	3m 46s	7	13° 11′	84′	6° 51′	70′	11° 11′	45′	0° 42′	42′	16° 51′	47′
22h 38m 42s	3m 46s	8	14° 35′	84′	8° 0′	69′	11° 57′	46′	1° 24′	42′	17° 38′	47′
22h 42m 26s	3m 44s	9	15° 59′	84′	9° 8′	68′	12° 42′	45′	2° 6′	42′	18° 24′	46′
22h 46m 11s	3m 45s	10	17° 22′	83′	10° 14′	66′	13° 27′	45′	2° 48′	42′	19° 11′	47′
22h 49m 55s	3m 44s	11	18° 45′	83′	11° 19′	65′	14° 11′	44′	3° 29′	41′	19° 57′	46′
22h 53m 39s	3m 44s	12	20° 7′	82′	12° 23′	64′	14° 55′	44′	4° 10′	41′	20° 44′	47′
22h 57m 22s	3m 43s	13	21° 28′	81′	13° 26′	63′	15° 38′	43′	4° 51′	41′	21° 30′	46′
23h 1m 5s	3m 43s	14	22° 49′	81′	14° 28′	62′	16° 21′	43′	5° 32′	41′	22° 17′	47′
23h 4m 47s	3m 42s	15	24° 9′	80′	15° 29′	61′	17° 4′	43′	6° 13′	41′	23° 3′	46′
23h 8m 30s	3m 43s	16	25° 29′	80′	16° 29′	60′	17° 47′	43′	6° 54′	41′	23° 49′	46′
23h 12m 12s	3m 42s	17	26° 48′	79′	17° 28′	59′	18° 29′	42′	7° 35′	41′	24° 36′	47′

[80] the title breaks off here; the facing page does not complete it as on the preceding openings

Time from noon	Diff. of time	10 ♓	11 ♈	Diff.	12 ♉	Diff.	Horosc. ♋	Diff.	2 ♋	Diff.	3 ♌	Diff.
23h 15m 53s	3m 41s	18	28° 7′	79′	18° 26′ 58″		19° 11′	42′	8° 15′	40′	25° 22′	46′
23h 19m 35s	3m 42s	19	29° 25′	78′	19° 24′ 58″		19° 53′	42′	8° 56′	41′	26° 8′	46′
23h 23m 16s	3m 41s	20	♉ 0° 42′	77′	20° 21′ 57″		20° 35′	42′	9° 36′	40′	26° 54′	46′
23h 26m 57s	3m 41s	21	1° 59′	77′	21° 17′ 56″		21° 16′	41′	10° 17′	41′	27° 41′	47′
23h 30m 38s	3m 41s	22	3° 15′	76′	22° 13′ 56″		21° 57′	41′	10° 57′	40′	28° 27′	46′
23h 34m 18s	3m 40s	23	4° 31′	76′	23° 8′ 55″		22° 38′	41′	11° 37′	40′	29° 13′	46′
23h 37m 59s	3m 41s	24	5° 46′	75′	24° 3′ 55″		23° 19′	41′	12° 18′	41′	29° 59′	46′
23h 41m 39s	3m 40s	25	7° 0′	74′	24° 57′ 54″		24° 0′	41′	12° 58′	40′	♍ 0° 45′	46′
23h 45m 20s	3m 41s	26	8° 14′	74′	25° 50′ 53″		24° 40′	40′	13° 38′	40′	1° 31′	46′
23h 48m 0s [recte: 23h 49m 0s]	3m 40s	27	9° 27′	73′	26° 43′ 53″		25° 20′	40′	14° 18′	40′	2° 18′	47′
23h 52m 40s	3m 40s	28	10° 39′	72′	27° 35′ 52″		26° 0′	40′	14° 58′	40′	3° 4′	46′
23h 56m 20s	3m 40s	29	11° 51′	72′	28° 27′ 52″		26° 40′	40′	15° 38′	40′	3° 50′	46′
24h 0m 0s	3m 40s	30	13° 2′	71′	29° 18′ 51″		27° 20′	40′	16° 18′	40′	4° 36′	46′

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♈

Time from noon	Diff. of	54°: 10 ♈ (°)	54°: 11 ♉ (°)	54°: 12 ♋ (°)	54°: 54°: Horosc. ♋	54°: 54°: ☌ ♌ (°)	54°: 3 ♍ (°)	57°: 11 ♉ (°)	57°: 12 ♋ (°)	57°: 57°: Horosc. ♌	57°: 57°: ☌ ♌ (°)	57°: 3 ♍ (°)	60°: 11 ♉ (°)	60°: 12 ♊ [recte: ♋] (°)	60°: 60°: Horosc. ♌	60°: 60°: ☌ ♌ (°)	60°: 3 ♍ (°)
0h 0m 0s	0	14	1	28° 47′	7	5	16	5	1° 34′	19	6	18	9	4° 39′	21	6	
0h 3m 40s	1	15	2	29° 25′	8	6	17	6	2° 10′	19	6	19	10	5° 13′	21	7	
0h 7m 20s	2	16	3	♌ 0° 4′	18	6	18	6	2° 47′	20	7	20	10	5° 47′	22	8	
0h 11m 0s	3	17	4	0° 42′	19	7	19	7	3° 23′	21	8	21	11	6° 21′	22	8	
0h 14m 40s	4	19	4	1° 21′	20	8	21	8	4° 0′	21	9	22	12	6° 55′	23	9	
0h 18m 21s	5	20	5	1° 59′	20	9	22	9	4° 36′	22	9	24	12	7° 29′	23	10	
0h 22m 1s	6	21	6	2° 38′	21	9	23	9	5° 13′	23	10	25	13	8° 3′	24	11	
0h 25m 41s	7	22	7	3° 16′	22	10	24	10	5° 49′	23	11	26	14	8° 37′	25	11	
0h 29m 22s	8	23	7	3° 54′	22	11	25	11	6° 25′	24	12	27	14	9° 11′	25	12	
0h 33m 2s	9	24	8	4° 32′	23	12	26	12	7° 2′	24	12	28	15	9° 44′	26	13	
0h 36m 41s	10	25	9	5° 10′	24	13	27	12	7° 38′	25	13	♊	16	10° 18′	27	14	
0h 40m 21s	11	26	10	5° 48′	24	13	28	13	8° 14′	26	14	1	17	10° 52′	27	14	
0h 44m 2s	12	28	11	6° 25′	25	14	♊	14	8° 50′	26	15	2	17	11° 26′	28	15	
0h 47m 41s	13	29	11	7° 4′	26	15	1	15	9° 26′	27	15	3	18	12° 0′	28	16	
0h 51m 22s	14	♊	12	7° 42′	26	16	2	15	10° 2′	28	16	4	19	12° 34′	29	17	
0h 55m 2s	15	1	13	8° 21′	27	16	3	16	10° 38′	28	17	5	19	13° 8′	29	17	
0h 58m 42s	16	2	14	8° 59′	28	17	4	17	11° 14′	29	18	7	20	13° 42′	♍	18	
1h 2m 23s	17	3	14	9° 37′	28	18	5	17	11° 51′	♍	18	8	21	14° 16′	1	19	
1h 6m 3s	18	4	15	10° 15′	29	19	6	18	12° 27′	0	19	9	21	14° 50′	1	19	
1h 10m 43s	19	5	16	10° 53′	♍	20	7	19	13° 3′	1	20	10	22	15° 24′	2	20	
1h 13m 49s	20	6	17	11° 31′	0	20	8	20	13° 39′	1	21	11	23	15° 58′	2	21	
1h 17m 34s	21	7	17	12° 9′	1	21	9	20	14° 15′	2	21	12	23	16° 32′	3	22	

Time Diff. from of noon time	54°: 10 ♈ (°)	54°: 11 ♉ (°)	54°: 12 ♋ (°)	54°: 54°: Horos ♋ (°)	54°: 3 ♍ (°)	57°: 11 ♉ (°)	57°: 12 ♋ (°)	57°: 57°: Horos ♌ (°)	57°: 3 ♍ (°)	60°: 11 ♉ (°)	60°: 12 ♊ [recte: ♋] (°)	60°: 60°: Horos ♌ (°)	60°: 3 ♍ (°)
1h 21m 38s 44s	22	8	18	12° 47′2	22	10	21	14° 52′3	22	13	24	17° 7′ 4	22
1h 25m 34m 46s	23	9	19	13° 25′2	23	11	22	15° 28′3	23	14	25	17° 41′4	23
1h 28m 30m 46s	24	10	20	14° 3′ 3	23	12	22	16° 4′ 4	24	15	25	18° 16′5	24
1h 32m 30m 46s	25	11	20	14° 41′4	24	13	23	16° 41′5	24	16	26	18° 50′6	25
1h 36m 26m 47s	26	12	21	15° 20′4	25	14	24	17° 18′5	25	17	26	19° 25′6	25
1h 40m 22m 47s	27	13	22	15° 58′5	26	15	24	17° 54′6	26	18	27	19° 59′7	26
1h 43m 18m 48s	28	14	22	16° 37′6	27	16	25	18° 31′7	27	19	28	20° 34′8	27
1h 47m 14m 48s	29	15	23	17° 15′6	27	17	26	19° 8′ 7	27	20	28	21° 8′ 8	28
1h 51m 10m 49s	30	16	24	17° 54′7	28	18	26	19° 45′8	28	21	29	21° 43′9	28

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♉

Time Diff. from of noon time	54°: 10 ♉ (°)	54°: 11 ♊ (°)	54°: 12 ♋ (°)	54°: 2 Horos ♍ (°)	54°: 3 ♍ (°)	57°: 11 ♊ (°)	57°: 12 ♋ (°)	57°: 2 Horos ♍ (°)	57°: 3 ♍ (°)	60°: 11 ♊ (°)	60°: 12 ♋ (°)	60°: 2 Horos ♍ (°)	60°: 3 ♍ (°)
1h 51m 35s	0	16	24	17° 54′7	28	18	26	19° 45′8	28	21	29	21° 43′9	28
1h 55m 31m 49s	1	17	25	18° 33′8	29	19	27	20° 21′9	29	22	♌	22° 18′9	29
1h 59m 31m 50s	2	18	25	19° 12′8	♎	20	28	20° 58′9	♎	23	1	22° 53′10	♎
2h 3m 31m 51s	3	19	26	19° 51′9	1	21	29	21° 35′10	1	24	1	23° 28′11	1
2h 6m 30m 51s	4	20	27	20° 30′0	2	22	29	22° 12′11	2	25	2	24° 4′11	1
2h 10m 34m 52s	5	21	27	21° 9′ 10	2	23	♌	22° 49′1	2	25	2	24° 39′2	2
2h 14m 34m 53s	6	22	28	21° 48′11	3	24	1	23° 27′2	3	26	3	25° 15′13	3
2h 18m 34m 53s	7	23	29	22° 27′2	4	25	1	24° 4′13	4	27	4	25° 50′3	4
2h 22m 32m 54s	8	23	♌	23° 7′ 13	5	26	2	24° 42′3	5	28	4	26° 26′4	4
2h 26m 32m 54s	9	24	0	23° 46′3	6	26	3	25° 20′4	5	29	5	27° 2′14	5
2h 30m 31m 55s	10	25	1	24° 25′4	6	27	3	25° 58′5	6	♍	6	27° 38′5	6
2h 34m 31m 56s	11	26	2	25° 5′ 15	7	28	4	26° 36′5	7	1	6	28° 14′16	7
2h 38m 31m 57s	12	27	2	25° 46′5	8	29	5	27° 14′6	8	2	7	28° 50′6	8
2h 42m 37m 57s	13	28	3	26° 26′6	9	♍	5	27° 52′7	9	3	8	29° 26′7	8
2h 46m 35m 58s	14	29	4	27° 6′17	10	1	6	28° 30′7	9	3	8	♎ 18 0° 3′	9
2h 50m 34m 59s	15	♍	5	27° 46′7	11	2	7	29° 8′18	10	4	9	0° 39′18	10
2h 54m 44m 0s	16	1	5	28° 26′8	11	3	7	29° 47′9	11	5	10	1° 16′ 19	11
2h 58m 44m 0s	17	2	6	29° 7′19	12	4	8	♎ 19 0° 26′	12	6	10	1° 52′ 20	11
3h 2m 34m 1s	18	3	7	29° 48′20	13	5	9	1° 5′ 20	13	7	11	2° 29′20	12
3h 6m 34m 2s	19	4	8	♎ 20 0° 29′	14	6	10	1° 44′ 21	13	8	12	3° 6′ 21	13
3h 10m 40m 2s	20	4	8	1° 10′ 21	15	6	10	2° 23′ 22	14	9	12	3° 43′ 22	14
3h 14m 42m 3s	21	5	9	1° 51′ 22	16	7	11	3° 3′ 22	15	9	13	4° 21′ 22	15
3h 18m 46m 4s	22	6	10	2° 32′ 23	16	8	12	3° 42′ 23	16	10	14	4° 59′ 23	15
3h 22m 42m 4s	23	7	10	3° 13′ 23	17	9	12	4° 22′ 24	17	11	14	5° 36′ 24	16
3h 26m 42m 5s	24	8	11	3° 54′ 24	18	10	13	5° 1′ 24	18	12	15	6° 14′ 24	17

Time Diff. from noon time	54°: 10 ♉ (°)	54°: 11 ♊ (°)	54°: 12 ♋ (°)	54°: 2 Horosc ♍ (°)	54°: 3 ♍ (°)	57°: 11 ♊ (°)	57°: 12 ♋ (°)	57°: 2 Horosc ♍ (°)	57°: 3 ♍ (°)	60°: 11 ♊ (°)	60°: 12 ♋ (°)	60°: 2 Horosc ♍ (°)	60°: 3 ♍ (°)
3h 30m 43s 26s	25	9	12	4° 36′ 25	19	11	14	5° 41′ 25	18	13	15	6° 52′ 25	18
3h 34m 43s 6s	26	10	13	5° 18′ 25	20	12	14	6° 21′ 26	19	14	16	7° 29′ 26	19
3h 38m 44s 48s	27	11	13	6° 0′ 26	21	13	15	7° 1′ 26	20	15	17	8° 7′ 26	19
3h 42m 45s 48s	28	12	14	6° 42′ 27	22	13	16	7° 41′ 27	21	15	17	8° 45′ 27	20
3h 47m 43s 9s	29	13	15	7° 24′ 28	22	14	17	8° 21′ 28	22	16	18	9° 24′ 28	21
3h 51m 42s 9s	30	13	16	8° 6′ 28	23	15	17	9° 1′ 28	23	17	19	10° 2′ 28	22

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♊

Time Diff. from noon time	54°: 10 ♊ (°)	54°: 11 ♋ (°)	54°: 12 ♌ (°)	54°: 2 Horosc ♎ (°)	54°: 3 ♎ (°)	57°: 11 ♋ (°)	57°: 12 ♌ (°)	57°: 2 Horosc ♎ (°)	57°: 3 ♎ (°)	60°: 11 ♋ (°)	60°: 12 ♌ (°)	60°: 2 Horosc ♎ (°)	60°: 3 ♎ (°)
3h 51m 12s	0	13	16	8° 6′ 28	23	15	17	9° 1′ 28	23	17	19	10° 2′ 28	22
3h 55m 43s 11s	1	14	16	8° 49′ 29	24	16	18	9° 42′ 29	23	18	20	10° 40′ 29	23
3h 59m 43s 11s	2	15	17	9° 31′ ♎	25	17	19	10° 23′ ♎	24	19	20	11° 19′ ♎	24
4h 3m 45s 11s	3	16	18	10° 14′ 1	26	18	19	11° 4′ 1	25	20	21	11° 58′ 1	24
4h 7m 47s 12s	4	17	19	10° 56′ 1	27	19	20	11° 45′ 1	26	21	22	12° 37′ 1	25
4h 12m 40s 13s	5	18	19	11° 39′ 2	28	20	21	12° 26′ 2	27	21	22	13° 16′ 2	26
4h 16m 42s 14s	6	19	20	12° 22′ 3	28	20	22	13° 7′ 3	28	22	23	13° 55′ 3	27
4h 20m 43s 14s	7	20	21	13° 5′ 4	29	21	22	13° 48′ 4	28	23	24	14° 35′ 3	28
4h 24m 45s 15s	8	21	22	13° 49′ 4	♏	22	23	14° 30′ 4	29	24	25	15° 14′ 4	29
4h 29m 48s 15s	9	21	22	14° 32′ 5	1	23	24	15° 11′ 5	♏	25	25	15° 54′ 5	29
4h 33m 42s 16s	10	22	23	15° 16′ 6	2	24	25	15° 53′ 6	1	26	26	16° 33′ 5	♏
4h 37m 44s 16s	11	23	24	15° 59′ 7	3	25	25	16° 34′ 6	2	27	27	17° 13′ 6	1
4h 41m 45s 17s	12	24	25	16° 43′ 7	4	26	26	17° 16′ 7	3	27	27	17° 52′ 7	2
4h 46m 44s 17s	13	25	25	17° 26′ 8	5	27	27	17° 58′ 8	4	28	28	18° 32′ 8	3
4h 50m 43s 18s	14	26	26	18° 10′ 9	6	27	27	18° 40′ 9	5	29	29	19° 12′ 8	4
4h 54m 45s 18s	15	27	27	18° 54′ 10	6	28	28	19° 22′ 9	5	♎	29	19° 52′ 9	4
4h 59m 49s 19s	16	28	28	19° 38′ 11	7	29	29	20° 4′ 10	6	1	♏	20° 32′ 0	5
5h 3m 48s 19s	17	29	28	20° 22′ 1	8	♎	♏	20° 46′ 1	7	2	1	21° 12′ 11	6
5h 7m 47s 19s	18	♎	29	21° 6′ 12	9	1	0	21° 29′ 12	8	3	2	21° 53′ 11	7
5h 12m 47s 20s	19	0	♏	21° 50′ 13	10	2	1	22° 11′ 12	9	3	2	22° 33′ 12	8
5h 16m 47s 20s	20	1	1	22° 35′ 14	11	3	2	22° 53′ 13	10	4	3	23° 14′ 13	9
5h 20m 44s 21s	21	2	2	23° 19′ 14	12	4	3	23° 36′ 14	11	5	4	23° 54′ 13	10
5h 25m 48s 20s	22	3	2	24° 3′ 15	13	4	3	24° 18′ 15	12	6	4	24° 35′ 14	10
5h 29m 42s 21s	23	4	3	24° 48′ 16	14	5	4	25° 1′ 15	13	7	5	25° 15′ 15	11
5h 33m 40s 21s	24	5	4	25° 33′ 17	14	6	5	25° 43′ 16	13	8	6	25° 56′ 16	12
5h 38m 42s 22s	25	6	5	26° 17′ 18	15	7	6	26° 26′ 17	14	9	7	26° 37′ 16	13
5h 42m 43s 21s	26	7	5	27° 2′ 18	16	8	6	27° 8′ 18	15	9	7	27° 17′ 17	14
5h 46m 45s 22s	27	8	6	27° 46′ 19	17	9	7	27° 51′ 18	16	10	8	27° 57′ 18	14
5h 51m 40s 21s	28	8	7	28° 31′ 20	18	10	8	28° 34′ 19	17	11	9	28° 38′ 18	15
5h 55m 43s 22s	29	9	8	29° 15′ 21	19	11	9	29° 17′ 20	18	12	9	29° 19′ 19	16
6h 0m 0m 22s	30	10	9	♎ 21 0° 0′	20	11	9	♎ 21 0° 0′	19	13	10	♎ 20 0° 0′	17

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♋

Time Diff. from of noon time	54°: 10 ♋ (°)	54°: 11 ♌ (°)	54°: 12 ♍ (°)	54°: 2 Horos ♎ (°)	54°: 3 ♏ (°)	57°: 11 ♌ (°)	57°: 12 ♍ (°)	57°: 2 Horos ♎ (°)	57°: 3 ♏ (°)	60°: 11 ♌ (°)	60°: 12 ♍ (°)	60°: 2 Horos ♎ (°)	60°: 3 ♏ (°)
6h 0m 0s	0	10	9	0° 0′ 21	20	11	9	0° 0′ 21	19	13	10	0° 0′ 20	17
6h 4m 42s	1	11	9	0° 45′ 22	21	12	10	0° 43′ 21	19	14	11	0° 41′ 21	18
6h 8m 44s	2	12	10	1° 29′ 23	22	13	11	1° 26′ 22	20	15	12	1° 22′ 21	19
6h 13m 48s	3	13	11	2° 14′ 24	22	14	12	2° 9′ 23	21	15	12	2° 3′ 22	20
6h 17m 42m 22s	4	14	12	2° 58′ 25	23	15	12	2° 52′ 24	22	16	13	2° 43′ 23	20
6h 21m 44m 21s	5	15	12	3° 43′ 25	24	16	13	3° 34′ 24	23	17	14	3° 23′ 23	21
6h 26m 40m 22s	6	16	13	4° 27′ 26	25	17	14	4° 17′ 25	24	18	14	4° 4′ 24	22
6h 30m 43m 21s	7	16	14	5° 12′ 27	26	18	15	4° 59′ 26	25	19	15	4° 45′ 25	23
6h 34m 45m 21s	8	17	15	5° 57′ 28	27	18	15	5° 42′ 27	26	20	16	5° 25′ 25	24
6h 39m 41m 20s	9	18	16	6° 41′ 28	28	19	16	6° 24′ 27	26	21	17	6° 6′ 26	25
6h 43m 43m 21s	10	19	16	7° 25′ 29	29	20	17	7° 7′ 28	27	21	17	6° 46′ 27	26
6h 47m 45m 20s	11	20	17	8° 10′ ♏	♐	21	18	7° 49′ 29	28	22	18	7° 27′ 28	26
6h 52m 41m 20s	12	21	18	8° 54′ 1	0	22	18	8° 31′ ♏	29	23	19	8° 7′ 28	27
6h 56m 43m 19s	13	22	19	9° 38′ 2	1	23	19	9° 14′ 1	♐	24	19	8° 48′ 29	28
7h 0m 41m 19s	14	23	19	10° 22′ 2	2	24	20	9° 56′ 2	1	25	20	9° 28′ ♏	29
7h 5m 40m 19s	15	24	20	11° 6′ 3	3	25	21	10° 38′ 2	2	26	21	10° 8′ 1	♐
7h 9m 48m 18s	16	24	21	11° 50′ 4	4	25	21	11° 20′ 3	3	26	22	10° 48′ 1	1
7h 13m 46m 18s	17	25	22	12° 34′ 5	5	26	22	12° 2′ 4	3	27	22	11° 28′ 2	2
7h 18m 43m 17s	18	26	23	13° 17′ 5	6	27	23	12° 44′ 5	4	28	23	12° 8′ 3	3
7h 22m 42m 17s	19	27	23	14° 1′ 6	7	28	23	13° 26′ 5	5	29	24	12° 47′ 3	3
7h 26m 43m 16s	20	28	24	14° 44′ 7	8	29	24	14° 7′ 6	6	♍	24	13° 27′ 4	4
7h 30m 45m 16s	21	29	25	15° 28′ 8	9	♍	25	14° 49′ 7	7	1	25	14° 6′ 5	5
7h 35m 47m 15s	22	♍	26	16° 11′ 8	9	1	26	15° 30′ 8	8	1	26	14° 46′ 5	6
7h 39m 42m 15s	23	1	26	16° 45′ 9	10	1	26	16° 12′ 8	9	2	27	15° 25′ 6	7
7h 43m 43m 14s	24	2	27	17° 38′ 10	11	2	27	16° 53′ 9	10	3	27	16° 5′ 7	8
7h 47m 45m 14s	25	2	28	18° 21′ 11	12	3	28	17° 34′ 10	10	4	28	16° 44′ 7	8
7h 52m 43m 13s	26	3	29	19° 4′ 11	13	4	29	18° 15′ 11	11	5	29	17° 33′ 8	9
7h 56m 45m 12s	27	4	29	19° 46′ 12	14	5	29	18° 56′ 11	12	6	29	18° 2′ 9	10
8h 0m 46m 11s	28	5	♎	20° 29′ 13	15	6	♎	19° 37′ 12	13	6	♎	18° 41′ 10	11
8h 4m 47m 11s	29	6	1	21° 11′ 14	16	7	1	20° 18′ 13	14	7	1	19° 20′ 10	12
8h 8m 48m 11s	30	7	2	21° 54′ 14	17	7	2	20° 59′ 13	15	8	1	19° 58′ 11	13

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♌

Time Diff. from of noon time	54°: 10 ♌ (°)	54°: 11 ♍ (°)	54°: 12 ♎ (°)	54°: 2 Horos ♏ (°)	54°: 3 ♐ (°)	57°: 11 ♍ (°)	57°: 12 ♎ (°)	57°: 2 Horos ♏ (°)	57°: 3 ♐ (°)	60°: 11 ♍ (°)	60°: 12 ♎ (°)	60°: 2 Horos ♏ (°)	60°: 3 ♐ (°)
8h 8m 48s	0	7	2	21° 54′ 14	17	7	2	20° 59′ 13	15	8	1	19° 58′ 11	13
8h 12m 45m 9s	1	8	2	22° 36′ 15	17	8	2	21° 39′ 13	16	9	2	20° 36′ 12	14
8h 17m 43m 9s	2	8	3	23° 18′ 16	18	9	3	22° 19′ 14	17	10	3	21° 15′ 12	14

Time Diff. from noon time	54°: 10 ♌ (°)	54°: 11 ♍ (°)	54°: 12 ♎ (°)	54°: 2 Horos ♏ ♎ (°)	54°: 3 ♐ (°)	57°: 11 ♍ (°)	57°: 12 ♎ (°)	57°: 2 Horos ♏ ♎ (°)	57°: 3 ♐ (°)	60°: 11 ♍ (°)	60°: 12 ♎ (°)	60°: 2 Horos ♏ ♎ (°)	60°: 3 ♐ (°)
8h 21m 44ms 8s	3	9	4	24° 0′17	19	10	4	22° 59′5	17	10	3	21° 53′13	15
8h 25m 42m 8s	4	10	5	24° 42′7	20	11	4	23° 39′6	18	11	4	22° 31′14	16
8h 29m 42m 6s	5	11	5	25° 24′8	21	12	5	24° 19′6	19	12	5	23° 8′ 14	17
8h 33m 41m 6s	6	12	6	26° 6′19	22	12	6	24° 59′7	20	13	6	23° 46′5	18
8h 37m 41m 5s	7	13	7	26° 47′20	23	13	6	25° 38′18	21	14	6	24° 24′6	19
8h 41m 41m 4s	8	14	7	27° 28′20	24	14	7	26° 18′18	22	15	7	25° 1′ 16	20
8h 45m 41m 4s	9	14	8	28° 9′ 21	25	15	8	26° 57′19	23	15	8	25° 39′7	20
8h 49m 41m 3s	10	15	9	28° 50′22	26	16	9	27° 37′20	24	16	8	26° 17′18	21
8h 53m 41m 2s	11	16	10	29° 31′22	26	17	9	28° 16′20	25	17	9	26° 54′8	22
8h 57m 41m 2s	12	17	10	♏ 23 0° 12′	27	17	10	28° 55′21	25	18	10	27° 31′19	23
9h 1m 41m 1s	13	18	11	0° 53′ 24	28	18	11	29° 34′22	26	18	10	28° 8′ 20	24
9h 5m 41m 0s	14	19	12	1° 34′ 25	29	19	11	♏ 22 0° 13′	27	19	11	28° 44′20	25
9h 9m 41m 0s	15	19	13	2° 14′ 25	♑	20	12	0° 52′ 23	28	20	12	29° 21′21	26
9h 13m 40m 59s	16	20	13	2° 54′ 26	1	21	13	1° 30′ 24	29	21	12	29° 57′22	27
9h 17m 40m 58s	17	21	14	3° 34′ 27	2	22	13	2° 8′ 25	♑	22	13	♏ 22 0° 34′	27
9h 21m 40m 57s	18	22	15	4° 14′ 28	3	22	14	2° 46′25	1	22	14	1° 10′ 23	28
9h 25m 34m 57s	19	23	15	4° 55′ 28	4	23	15	3° 24′ 26	2	23	14	1° 46′ 24	29
9h 29m 34m 56s	20	24	16	5° 35′ 29	5	24	15	4° 2′ 27	3	24	15	2° 22′24	♑
9h 33m 34m 55s	21	24	17	6° 14′ ♐	6	25	16	4° 40′27	4	25	16	2° 58′ 25	1
9h 37m 33m 54s	22	25	17	6° 53′ 0	7	25	17	5° 18′ 28	4	26	16	3° 34′ 26	2
9h 41m 32m 54s	23	26	18	7° 33′ 1	7	26	17	5° 56′ 29	5	26	17	4° 10′ 26	3
9h 45m 31m 53s	24	27	19	8° 12′ 2	8	27	18	6° 33′ 29	6	27	17	4° 45′ 27	4
9h 49m 31m 53s	25	28	20	8° 51′ 3	9	28	19	7° 11′ ♐	7	28	18	5° 21′ 28	5
9h 53m 31m 52s	26	29	20	9° 30′3	10	29	19	7° 48′1	8	29	19	5° 56′ 28	6
9h 56m 35m 51s	27	29	21	10° 9′ 4	11	29	20	8° 25′1	9	29	19	6° 32′ 29	7
10h 0m 34m 51s	28	♎	22	10° 48′5	12	♎	21	9° 2′ 2	10	♎	20	7° 7′ ♐	8
10h 4m 33m 50s	29	1	22	11° 27′5	13	1	21	9° 39′3	11	1	21	7° 42′0	8
10h 8m 32m 49s	30	2	23	12° 6′ 6	14	2	22	10° 15′3	12	2	21	8° 17′ 1	9

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍

Time Diff. from noon time	54°: 10 ♍ (°)	54°: 11 ♎ (°)	54°: 12 ♎ (°)	54°: 54°: Horos ♐ ♏ (°)	54°: 3 ♑ (°)	57°: 11 ♎ (°)	57°: 12 ♎ (°)	57°: 57°: Horos ♐ ♏ (°)	57°: 3 ♑ (°)	60°: 11 ♎ (°)	60°: 12 ♎ (°)	60°: 60°: Horos ♐ ♏ (°)	60°: 3 ♑ (°)
10h 8m 25s	0	2	23	12° 6′ 6	14	2	22	10° 15′3	12	2	21	8° 17′ 1	9
10h 12m 14m 9s	1	3	24	12° 45′7	15	2	23	10° 52′4	13	3	22	8° 52′ 2	10
10h 16m 13m 8s	2	3	24	13° 23′8	16	3	23	11° 29′5	14	3	22	9° 26′2	11
10h 19m 13m 8s	3	4	25	14° 2′ 8	17	4	24	12° 6′ 6	15	4	23	10° 1′ 3	12
10h 23m 12m 7s	4	5	26	14° 40′9	18	5	25	12° 42′6	16	5	24	10° 35′4	13
10h 27m 12m 7s	5	6	26	15° 19′10	19	6	25	13° 19′7	17	6	24	11° 10′4	14
10h 31m 11m 6s	6	7	27	15° 57′10	20	6	26	13° 56′8	18	7	25	11° 44′5	15

Time Diff. from noon	54°: 10 ♎ (°)	54°: 11 ♎ (°)	54°: 12 ♎ (°)	54°: 54°: Horosc. ♐ ♏ (°)	54°: 3 ♍ (°)	57°: 11 ♎ (°)	57°: 12 ♎ (°)	57°: 57°: Horosc. ♐ ♏ (°)	57°: 3 ♍ (°)	60°: 11 ♎ (°)	60°: 12 ♎ (°)	60°: 60°: Horosc. ♐ ♏ (°)	60°: 3 ♍ (°)
10h 34m 54s 7	7	28	16° 35′11	21	7	27	14° 32′8	19	7	26	12° 19′6	16
10h 38m 44s 8	8	28	17° 13′12	22	8	27	15° 8′ 9	20	8	26	12° 53′6	17
10h 42m 34s 9	9	29	17° 51′13	23	9	28	15° 45′10	21	9	27	13° 28′7	18
10h 46m 25s 10	10	♏	18° 29′13	24	9	29	16° 21′10	22	10	27	14° 2′ 7	19
10h 50m 15s 11	10	0	19° 7′ 14	25	10	29	16° 57′11	23	10	28	14° 36′8	20
10h 54m 5s 12	11	1	19° 45′15	26	11	♏	17° 33′12	24	11	29	15° 10′9	21
10h 57m 56s 13	12	2	20° 23′16	27	12	0	18° 9′ 13	25	12	29	15° 44′9	22
11h 1m 46s 14	13	2	21° 1′ 16	28	12	1	18° 46′13	26	12	♏	16° 18′10	23
11h 5m 36s 15	14	3	21° 39′17	29	13	2	19° 22′14	27	13	1	16° 52′11	25
11h 9m 26s 16	14	4	22° 18′18	♒	14	2	19° 58′15	28	14		17° 26′12	26
11h 13m 17s 17	15	4	22° 56′19	1	15	3	20° 34′5	29	14	2	18° 0′ 12	27
11h 17m 7s 18	16	5	23° 34′19	2	15	4	21° 10′16	♒	15	2	18° 34′13	28
11h 20m 57s 19	17	6	24° 12′20	4	16	4	21° 46′17	1	16	3	19° 8′ 14	29
11h 24m 47s 20	17	6	24° 50′21	5	17	5	22° 22′18	3	16	3	19° 42′14	♒
11h 28m 38s 21	18	7	25° 28′22	6	18	6	22° 58′18	4	17	4	20° 16′15	1
11h 32m 28s 22	19	8	26° 6′23	7	18	6	23° 35′19	5	18	5	20° 49′6	2
11h 36m 18s 23	20	8	26° 44′23	8	19	7	24° 11′20	6	18	5	21° 23′16	3
11h 40m 8s 24	21	9	27° 22′24	9	20	7	24° 47′21	7	19	6	21° 57′17	5
11h 43m 59s 25	21	10	28° 1′ 25	10	21	8	25° 24′21	8	20	7	22° 31′18	6
11h 47m 49s 26	22	10	28° 39′26	11	21	9	26° 0′22	9	21	7	23° 5′ 18	7
11h 51m 39s 27	23	11	29° 18′26	13	22	9	26° 37′23	11	21	8	23° 39′19	8
11h 55m 30s 28	24	12	29° 56′27	14	23	10	27° 13′24	12	22	8	24° 13′20	10
11h 59m 20s 29	24	12	♐ 28 0° 35′	15	24	11	27° 50′24	13	23	9	24° 47′21	11
12h 0m 30m 40s 30	25	13	1° 13′ 29	16	24	11	28° 26′25	14	24	14 [recte: 10]	25° 21′21	12

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♎

Time Diff. from noon	54°: 10 ♎ (°)	54°: 11 ♎ (°)	54°: 12 ♏ (°)	54°: 54°: 2 Horosc. ♐ (°)	54°: 3 ♓ (°)	57°: 11 ♎ (°)	57°: 12 ♏ (°)	57°: 57°: 2 Horosc. ♐ (°)	57°: 3 ♓ (°)	60°: 11 ♎ (°)	60°: 12 ♏ (°)	60°: 60°: 2 Horosc. ♐ (°)	60°: 3 ♓ (°)
12h 0m 0s 0	25	13	1° 13′ 29	16	24	11	28° 26′25	14	24	10	25° 21′21	12
12h 3m 50s 1	26	14	1° 52′ ♑	17	25	12	29° 3′ 26	15	25	10	25° 55′22	13
12h 7m 40s 2	27	14	2° 31′ 1	19	26	12	29° 40′27	17	25	11	26° 30′23	14
12h 11m 30s 3	27	15	3° 10′ 1	20	27	13	♐ 28 0° 16′	18	26	11	27° 4′24	16
12h 14m 40s 4	28	15	3° 49′ 2	21	27	14	0° 53′ 28	19	27	12	27° 38′24	17
12h 18m 21s 5	29	16	4° 28′ 3	22	28	14	1° 30′ 29	21	27	13	28° 13′25	18
12h 22m 14s 6	♏	17	5° 7′ 4	23	29	15	2° 7′ ♑	22	28	13	28° 47′26	20
12h 25m 44s 7	0	17	5° 47′ 5	25	♏	16	2° 44′ 1	23	29	14	29° 21′27	21
12h 29m 24s 8	1	18	6° 27′6	26	0	16	3° 22′ 2	24	29	14	29° 56′28	22
12h 33m 34s 9	2	19	7° 8′ 7	27	1	17	3° 59′ 3	26	♏	15	♐ 28 0° 31′	24

Time from noon	Diff. of time	54°: 10 ♎ (°)	54°: 11 ♎ (°)	54°: 12 ♏ (°)	54°: 2 Horosc. ♐ (°)	54°: 3 ♒ (°)	57°: 11 ♎ (°)	57°: 12 ♏ (°)	57°: 2 Horosc. ♐ (°)	57°: 3 ♒ (°)	60°: 11 ♎ (°)	60°: 12 ♏ (°)	60°: 2 Horosc. ♐ (°)	60°: 3 ♒ (°)
12h 36m 44s	10	3	19	7° 48′ 8	29	2	17	4° 37′ 3	27	1	16	1° 6′ 29	25
12h 40m 24s	11	3	20	8° 29′ 9	♓	3	18	5° 15′ 4	28	2	16	1° 42′ ♍	26
12h 44m 7s	12	4	21	9° 10′ 10	1	3	19	5° 53′ 5	♓	2	17	2° 17′ 1	28
12h 47m 44s	13	5	21	9° 51′ 11	3	4	19	6° [nu-meral: ?]1′	1	3	17	2° 53′ 2	29
12h 51m 30s	14	6	22	10° 32′ 12	4	5	20	7° 10′ 7	3	4	18	3° 28′ 3	♓
12h 55m 13s	15	7	23	11° 13′ 13	5	6	21	7° 49′ 8	4	4	19	4° 4′ 4	2
12h 58m 55s	16	7	23	11° 54′ 14	7	6	21	8° 28′ 9	5	5	19	4° 40′ 4	4
13h 2m 38s	17	8	24	12° 36′ 15	8	7	22	9° 7′ 10	7	6	20	5° 16′ 5	5
13h 6m 21s	18	9	25	13° 18′ 16	9	8	23	9° 47′ 11	8	7	20	5° 52′ 6	7
13h 10m 3s	19	10	25	14° 0′ 17	11	9	23	10° 27′ 12	10	7	21	6° 29′ 7	9
13h 13m 49s	20	10	26	14° 43′ 18	12	9	24	11° 7′ 13	11	8	22	7° 5′ 8	10
13h 17m 34s	21	11	27	15° 26′ 19	14	10	25	11° 48′ 14	13	9	22	7° 42′ 9	12
13h 21m 18s	22	12	27	16° 10′ 20	15	11	25	12° 29′ 15	14	10	23	8° 19′ 10	13
13h 25m 4s	23	13	28	16° 54′ 21	16	12	26	13° 10′ 16	16	10	24	8° 57′ 11	15
13h 28m 46s	24	13	29	17° 39′ 22	18	12	26	13° 51′ 17	17	11	24	9° 35′ 12	16
13h 32m 36s	25	14	♐	18° 24′ 23	19	13	27	14° 33′ 19	19	12	25	10° 13′ 13	18
13h 36m 23s	26	15	0	19° 9′ 24	21	14	28	15° 15′ 20	20	13	25	10° 52′ 15	20
13h 40m 10s	27	16	1	19° 54′ 26	22	15	28	15° 58′ 21	22	13	26	11° 31′ 16	21
13h 43m 58s	28	17	2	20° 40′ 27	24	15	29	16° 41′ 22	23	14	27	12° 10′ 17	23
13h 47m 44s	29	17	2	21° 27′ 28	25	16	♐	17° 24′ 23	25	15	27	12° 49′ 18	25
13h 51m 35s	30	18	3	22° 14′ ♒	27	17	1	18° 8′ 25	27	16	28	13° 29′ 19	26

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♏

Time from noon	Diff. of time	54°: 10 ♏ (°)	54°: 11 ♏ (°)	54°: 12 ♐ (°)	54°: 2 Horosc. ♒ (°)	54°: 3 ♓ (°)	57°: 11 ♏ (°)	57°: 12 ♐ (°)	57°: 2 Horosc. ♍ (°)	57°: 3 ♓ (°)	60°: 11 ♏ (°)	60°: 12 ♏ (°)	60°: 2 Horosc. ♍ (°)	60°: 3 ♓ (°)
13h 51m 35s	0	18	3	22° 14′ 6	27	17	1	18° 8′ 25	27	16	28	13° 29′ 19	26
13h 55m 24s	49s 1	19	4	23° 2′ 1	28	18	1	18° 52′ 26	28	17	29	14° 9′ 21	28
13h 59m 14s	50s 2	20	4	23° 50′ 2	♈	18	2	19° 37′ 27	♈	18	29	14° 50′ 22	♈
14h 3m 5s	3m 51s 3	20	5	24° 39′ 4	1	19	3	20° 23′ 29	1	18	♐	15° 31′ 23	1
14h 6m 59s	51s 4	21	6	25° 29′ 5	3	20	3	21° 9′ ♒	3	19	1	16° 12′ 25	3
14h 10m 48s	52s 5	22	7	26° 19′ 7	4	21	4	21° 56′ 2	4	20	1	16° 54′ 26	5
14h 14m 41s	53s 6	23	7	27° 10′ 8	6	21	5	22° 44′ 3	6	21	2	17° 36′ 27	6
14h 18m 34s	53s 7	24	8	28° 2′ 10	7	22	5	23° 32′ 5	8	21	3	18° 19′ 29	8
14h 22m 28s	54s 8	24	9	28° 55′ 11	9	23	6	24° 21′ 6	9	22	3	19° 3′ ♒	10
14h 26m 22s	54s 9	25	10	29° 49′ 13	10	24	7	25° 11′ 8	11	23	4	19° 47′ 2	12
14h 30m 17s	55s 10	26	10	♍ 14 0° 43′	12	25	8	26° 1′ 10	12	23	5	20° 32′ 4	18
14h 34m 13s	56s 11	27	11	1° 38′ 16	13	25	8	26° 52′ 1	14	24	5	21° 17′ 6	15
14h 38m 10s	57s 12	28	12	2° 34′ 18	15	26	9	27° 44′ 3	16	25	6	22° 3′ 8	17
14h 42m 7s	57s 13	28	13	3° 30′ 19	16	27	10	28° 37′ 5	17	25	7	22° 50′	19

Time from noon	Diff. of time	54°: 10 ♏ (°)	54°: 11 ♏ (°)	54°: 12 ♐ (°)	54°: 2 Horos ♒ ♐ (°)	54°: 3 ♓ (°)	57°: 11 ♏ (°)	57°: 12 ♐ (°)	57°: 2 Horos ♍ ♐ (°)	57°: 3 ♓ (°)	60°: 11 ♏ (°)	60°: 12 ♏ (°)	60°: 2 Horos ♍ ♐ (°)	60°: 3 ♓ (°)
14h 46m 3sm 58s	14	29	13	4° 27′21	18	28	10	29° 31♑17	19	26	7	23° 38♑11	20
14h 50m 3sm 59s	15	♐	14	5° 26′23	19	29	11	♍ 19 0° 26′	20	27	8	24° 27♑13	22
14h 54m 4sm 0s	16	1	15	6° 26′25	21	29	12	1° 21′ 21	22	28	9	25° 17♑15	23
14h 58m 4sm 0s	17	2	16	7° 27′27	22	♐	13	2° 18′ 23	23	29	9	26° 7′18	25
15h 2m 5s 4m 1s	18	3	17	8° 30′29	24	0	13	3° 16′ 25	25	29	10	26° 58♑20	27
15h 6m 7s 4m 2s	19	3	17	9° 34′♓	25	1	14	4° 15′ 27	26	♐	11	27° 50♑22	28
15h 10m 9sm 2s	20	4	18	10° 40♉	27	2	15	5° 15′ ♓	28	1	12	28° 44♑25	♉
15h 14m 12sm 3s	21	5	19	11° 47♉	28	3	16	6° 17′ 2	♉	2	12	29° 39♑27	1
15h 18m 16sm 4s	22	6	20	12° 55♉	♉	3	17	7° 20′4	1	3	13	♍ ♓ 0° 35′	3
15h 22m 20ms 4s	23	7	21	14° 4′ 9	1	4	17	8° 24′6	3	3	14	1° 32′ 3	5
15h 26m 24ms 6s	24	8	22	15° 15′11	2	5	18	9° 30′9	4	4	15	2° 31′ 5	6
15h 30m 28ms 6s	25	9	23	16° 28♊14	4	6	19	10° 38♊11	5	5	15	3° 32′ 8	8
15h 34m 32ms 6s	26	9	23	17° 43♊16	5	7	20	11° 49♊14	7	6	16	4° 34′11	9
15h 38m 41[illegible]s	27	10	24	18° 59♊18	7	8	21	13° 2′ 16	8	7	17	5° 38′ 14	11
meral: ?]s													
15h 42m 34ms 8s	28	11	25	20° 17♋20	8	9	22	14° 16♋19	10	8	18	6° 43′17	12
15h 47m 3sm 9s	29	12	26	21° 38♋23	10	10	22	15° 32♋22	11	8	19	7° 51′ 20	14
15h 51m 14sm 9s	30	13	27	23° 2′25	11	11	23	16° 50♋24	13	9	20	9° 1′ 23	15

—constructed for the maximum, 23° 31′ 30″.
With the ☉ in ♐

Time from noon	Diff. of time	54°: 10 ♐ (°)	54°: 11 ♐ (°)	54°: 12 ♐ (°)	54°: 54°: Horos ♐.♓ ♍ (°)	54°: 3 ♉ (°)	57°: 11 ♐ (°)	57°: 12 ♐ (°)	57°: 57°: Horos ♐.♓ ♍ (°)	57°: 3 ♉ (°)	60°: 11 ♐ (°)	60°: 12 ♐ (°)	60°: 60°: Horos ♐.♓ ♍ (°)	60°: 3 ♉ (°)
15h 51m 12s	0	13	27	23° 2′25	11	11	23	16° 50♋24	13	9	20	9° 1′ 23	15
15h 55m 42sm 11s	1	14	28	24° 28♋27	12	12	24	18° 11′27	14	10	20	10° 14♋26	17
15h 59m 43sm 11s	2	15	29	25° 56♌	14	13	25	19° 35♌	16	11	21	11° 29♋29	18
16h 3m 45ms 11s	3	15	♍	27° 25♌	15	14	26	21° 2′ 2	17	12	22	12° 47♌	20
16h 7m 48ms 12s	4	16	1	28° 57♌	16	15	27	22° 32♌	18	13	23	14° 7′ 6	21
16h 12m 52ms 13s	5	17	2	♒ 7 0° 33′	18	15	28	24° 5′ 8	20	13	24	15° 31′9	22
16h 16m 56ms 14s	6	18	3	2° 12′ 9	19	16	29	25° 42♎11	21	14	25	17° 0′ 13	24
16h 20m 38ms 14s	7	19	4	3° 54′ 12	20	17	♍	27° 22♎13	22	15	26	18° 32♎16	25
16h 24m 33ms 15s	8	20	5	5° 40′14	22	18	1	29° 5′16	24	16	27	20° 7′19	26
16h 29m 8ms 15s	9	21	6	7° 30′16	23	19	2	♒ 19 0° 52′	25	17	27	21° 47♎22	[numeral: ?]8
16h 33m 24ms 16s	10	22	7	9° 24′19	24	20	3	2° 45′21	26	18	28	23° 33♎25	29
16h 37m 40ms 16s	11	23	8	11° 21′21	26	21	4	4° 43′24	28	19	29	25° 23♎28	♊
16h 41m 57ms 17s	12	24	9	13° 20♎23	27	22	5	6° 46′26	♊	20	♍	27° 19♑	2
16h 46m 14ms 17s	13	25	10	15° 23♎25	28	23	6	8° 53′ 29	1	21	1	29° 22♑	3

Time Diff. from noon	54°: 10 ♐ (°)	54°: 11 ♐ (°)	54°: 12 ♐ (°)	54°: 54°: Horos ☌ ♓ ♍ (°)	54°: 3 ♉ (°)	57°: 11 ♐ (°)	57°: 12 ♐ (°)	57°: 57°: Horos ☌ ♓ ♍ (°)	57°: 3 ♉ (°)	60°: 11 ♐ (°)	60°: 12 ♐ (°)	60°: 60°: Horos ☌ ♓ ♍ (°)	60°: 3 ♉ (°)
16h 50m 32s	14	26	11	17° 30′28	29	24	7	11° 7′ ♉ 3	3	21	2	♒ 6 1° 35′	4
16h 54m 30s	15	27	12	19° 41′♉	♊	25	8	13° 25′3	4	22	3	3° 55′ 8	5
16h 59m 19s	16	28	14	21° 58′2	2	26	9	15° 50′6	5	23	4	6° 24′11	7
17h 3m 48s	17	29	15	24° 17′4	3	27	10	18° 21′8	6	24	5	9° 2′ 13	8
17h 7m 47s	18	♍	16	26° 42′6	4	28	11	20° 56′10	8	25	7	11° 47′16	9
17h 12m 47s	19	1	17	29° 10′8	6	29	13	23° 39′12	9	26	8	14° 43′18	10
17h 16m 27s	20	2	18	♓ 10 1° 43′	7	♍	14	26° 30′14	10	27	9	17° 55′20	12
17h 20m 48s	21	3	20	4° 19′ 12	8	1	15	29° 29′16	11	28	10	21° 17′22	13
17h 25m 48s	22	4	21	7° 10′ 14	9	2	16	♓ 18 2° 34′	12	29	11	24° 50′24	14
17h 29m 29s	23	5	22	9° 45′ 16	10	3	18	5° 43′ 20	13	♍	13	28° 34′26	15
17h 33m 50s	24	6	24	12° 32′17	11	4	19	8° 59′ 22	14	1	14	♓ 28 2° 30′	16
17h 38m 22s	25	7	25	15° 22′19	12	5	20	12° 19′24	15	2	15	6° 40′♊	17
17h 42m 33s	26	8	27	18° 14′21	14	6	22	15° 44′26	16	3	16	11° 5′ 1	18
17h 46m 52s	27	9	28	21° 8′ 23	15	7	23	19° 13′27	17	4	18	15° 42′3	20
17h 51m 16s	28	10	29	24° 3′ 24	16	8	25	22° 44′29	18	5	19	20° 23′5	21
17h 55m 43s	29	11	♒	27° 0′26	17	9	26	26° 20′♊	19	6	20	25° 8′ 6	22
18h 0m 40s	30	12	3	♈ 27 0° 0′	18	10	28	♈ 2 0° 0′	20	7	22	♈ 8 0° 0′	23

Tables of houses for the obliquity of the ecliptic
With the ☉ in ♍

Time Diff. from noon	54°: 10 ♍ (°)	54°: 11 ♍ (°)	54°: 12 ♒ (°)	54°: 54°: Horos ☌ ♈ ♎ (°)	54°: 3 ♊ (°)	57°: 11 ♍ (°)	57°: 12 ♍ (°)	57°: 57°: Horos ☌ ♊ ♎ (°)	57°: 3 ♊ (°)	60°: 11 ♍ (°)	60°: 12 ♍ (°)	60°: 60°: Horos ☌ ♊ ♎ (°)	60°: 3 ♊ (°)
18h 0m 0s	0	12	3	0° 0′ 27	18	10	28	0° 0′ 2	20	7	22	0° 0′ 8	23
18h 4m 22s	1	13	4	3° 0′ 29	19	11	29	3° 40′4	21	8	24	4° 52′9	24
18h 8m 44s	2	14	6	5° 57′ ♊	20	12	♒	7° 16′ 5	22	9	25	9° 37′ 11	25
18h 13m 21s	3	15	7	8° 52′ 2	21	13	3	10° 47′7	23	10	27	14° 18′12	26
18h 17m 22s	4	16	9	11° 46′3	22	14	4	14° 16′8	24	11	29	18° 55′14	27
18h 21m 48s	5	18	11	14° 38′5	23	15	6	17° 41′10	25	12	♒	23° 20′5	28
18h 26m 10s	6	19	13	17° 28′6	24	17	8	21° 1′ 11	26	14	2	27° 30′6	29
18h 30m 31s	7	20	14	20° 15′8	25	18	10	24° 17′12	27	15	4	♉ 18 1° 26′	♋
18h 34m 52s	8	21	16	23° 0′9	26	19	12	27° 26′4	28	16	6	5° 10′ 19	1
18h 39m 20s	9	22	18	25° 41′10	27	20	14	♉ 15 0° 31′	29	17	8	8° 43′ 20	2
18h 43m 32s	10	23	20	28° 17′12	28	21	16	3° 30′ 16	♋	18	10	12° 5′ 21	3
18h 47m 32s	11	24	22	♉ 13 0° 50′	29	22	18	6° 21′ 17	1	20	12	15° 17′22	4
18h 52m 32s	12	26	24	3° 18′ 14	♋	24	20	9° 4′ 19	2	21	14	18° 13′24	5
18h 56m 29s	13	27	26	5° 43′ 15	1	25	22	11° 39′20	3	22	17	20° 58′25	6

Time Diff. from noon time	54°: 10 ♒ (°)	54°: 11 ♒ (°)	54°: 12 ♓ (°)	54°: Horos. 54°: ☌ ♈ (°)	54°: 3 ♊ (°)	57°: 11 ♒ (°)	57°: 12 ♓ (°)	57°: Horos. 57°: ☌ ♈ (°)	57°: 3 ♊ (°)	60°: 11 ♒ (°)	60°: 12 ♓ (°)	60°: Horos. 60°: ☌ ♈ (°)	60°: 3 ♊ (°)
19h 0m 45s 19s	14	28	28	8° 2′ 16	2	26	24	14° 10′ 21	4	23	19	23° 36′ 26	7
19h 5m 40s 19s	15	29	♓	10° 19′ 18	3	27	27	16° 35′ 22	5	25	22	26° 5′ 27	8
19h 9m 42s 18s	16	♒	2	12° 30′ 19	4	28	♓	18° 53′ 23	6	26	24	28° 25′ 28	8
19h 13m 44s 18s	17	2	5	14° 37′ 20	5	♒	2	21° 7′ 24	7	27	27	♊ 29° 0° 38′	[numeral: ?]
19h 18m 43s 17s	18	3	7	16° 40′ 21	6	1	4	23° 14′ 25	8	28	♓	2° 41′ ♋	10
19h 22m 20s	19	4	9	18° 39′ 22	7	2	6	25° 17′ 26	9	♒	2	4° 37′ 1	11
19h 26m 36s	20	6	11	20° 36′ 23	8	4	9	27° 15′ 27	10	1	5	6° 27′ 2	12
19h 30m 32s	21	7	14	22° 30′ 24	9	5	11	29° 8′ 28	11	2	8	8° 13′ 3	13
19h 35m 15s	22	8	16	24° 20′ 25	10	6	14	♊ 29° 0° 55′	12	3	11	9° 53′ 4	14
19h 39m 22s	23	10	18	26° 6′ 26	11	8	17	2° 38′ ♋	13	5	14	11° 28′ 5	15
19h 43m 30s	24	11	20	27° 48′ 27	12	9	19	4° 18′ 1	14	6	17	13° 0′ 6	16
19h 47m 30s	25	12	23	29° 27′ 28	13	10	22	5° 45′ 2	14	7	21	14° 29′ 6	17
19h 52m 13s	26	14	25	♊ 29° 1° 3′	14	12	25	7° 28′ 3	15	9	24	15° 52′ 7	17
19h 56m 15s	27	15	28	2° 35′ ♋	15	13	28	8° 58′ 4	16	10	27	17° 13′ 8	18
20h 0m 42s	28	16	♈	4° 4′ 1	15	14	♈	10° 25′ 5	17	12	♈	18° 31′ 9	19
20h 4m 43s	29	18	3	5° 32′ 2	16	16	3	11° 49′ 6	18	13	3	19° 46′ 10	20
20h 8m 44s	30	19	5	6° 58′ 3	17	17	6	13° 10′ 7	19	15	7	20° 59′ 10	21

… maximum 23° 31′ 30″, constructed.[81]
With the ☉ in ♒

Time Diff. from noon time	54°: 10 ♒ (°)	54°: 11 ♒ (°)	54°: 12 ♈ (°)	54°: Horos. 54°: 2 ♊ (°)	54°: 3 ♋ (°)	57°: 11 ♒ (°)	57°: 12 ♈ (°)	57°: Horos. 57°: 2 ♊ (°)	57°: 3 ♋ (°)	60°: 11 ♒ (°)	60°: 12 ♈ (°)	60°: Horos. 60°: 2 ♊ (°)	60°: 3 ♋ (°)
20h 8m 48s	0	19	5	6° 58′ 3	17	17	6	13° 10′ 7	19	15	7	20° 59′ 10	21
20h 12m 39s	1	20	7	8° 22′ 4	18	19	8	14° 28′ 8	20	16	10	22° 9′ 11	22
20h 17m 09s	2	22	10	9° 43′ 5	19	20	11	15° 44′ 8	21	18	13	23° 17′ 12	23
20h 21m 18s	3	23	12	11° 1′ 6	20	22	14	16° 58′ 9	21	19	16	24° 22′ 13	23
20h 25m 28s	4	25	14	12° 17′ 7	21	23	16	18° 11′ 10	22	21	19	25° 26′ 14	24
20h 29m 26s	5	26	16	13° 32′ 8	21	24	19	19° 22′ 11	23	22	22	26° 28′ 14	25
20h 33m 34s	6	27	1[numeral: ?]	14° 45′ 8	22	26	21	20° 30′ 12	24	24	25	27° 29′ 15	26
20h 37m 46s	7	29	21	15° 56′ 9	23	27	24	21° 36′ 13	25	25	27	28° 28′ 16	27
20h 41m 44s	8	♓	23	17° 5′ 10	24	29	26	22° 40′ 13	26	27	♉	29° 25′ 17	28
20h 45m 48s	9	2	25	18° 13′ 11	25	♓	28	23° 43′ 14	26	28	3	♋ 17° 0° 21′	28
20h 49m 53s	10	3	27	19° 20′ 12	26	2	♉	24° 45′ 15	27	♓	5	1° 16′ 18	29
20h 53m 53s	11	5	29	20° 26′ 13	27	4	3	25° 45′ 16	28	2	8	2° 10′ 19	♌
20h 57m 52s	12	6	♉	21° 30′ 13	27	5	5	26° 44′ 17	29	3	10	3° 2′ 20	1

[81] the beginning of this title is printed on the facing page, p. 502

Time Diff. from noon time	54°: 10 ♒ (°)	54°: 11 ♒ (°)	54°: 12 ♈ (°)	54°: 2 Horos ♊ (°)	54°: 3 ♋ (°)	57°: 11 ♒ (°)	57°: 12 ♈ (°)	57°: 2 Horos ♊ (°)	57°: 3 ♋ (°)	60°: 11 ♒ (°)	60°: 12 ♈ (°)	60°: 2 Horos ♊ (°)	60°: 3 ♋ (°)
21h 1m 46s 1s	13	8	3	22° 33′14	28	7	7	27° 42′7	♌	5	12	3° 53′ 20	2
21h 5m 46s 0s	14	9	5	23° 34′15	29	8	9	28° 39′8	1	7	14	4° 43′ 21	2
21h 9m 45s 0s	15	11	7	24° 34′16	♌	10	11	29° 34′9	1	8	17	5° 33′ 22	3
21h 13m 35s 59s	16	12	9	25° 33′17	1	11	13	♋ 20 0° 29′	2	10	19	6° 22′23	4
21h 17m 35s 58s	17	14	11	26° 30′7	2	13	15	1° 23′ 20	3	12	21	7° 10′ 23	5
21h 21m 35s 57s	18	15	12	27° 26′8	2	14	17	2° 16′ 21	4	13	22	7° 57′ 24	5
21h 25m 47s 57s	19	17	14	28° 22′9	3	16	19	3° 8′ 22	5	15	24	8° 43′ 25	6
21h 29m 43s 56s	20	18	16	29° 17′20	4	18	20	3° 59′ 22	5	17	26	9° 28′ 25	7
21h 33m 39s 55s	21	20	18	♋ 20 0° 11′	5	19	22	4° 49′23	6	18	28	10° 13′26	8
21h 37m 35s 54s	22	21	19	1° 5′ 21	6	21	24	5° 39′ 24	7	20	29	10° 57′27	8
21h 41m 29s 54s	23	23	20	1° 58′ 22	6	22	25	6° 28′25	8	22	♊	11° 41′27	9
21h 45m 19s 53s	24	24	22	2° 50′23	7	24	27	7° 16′ 25	9	23	3	12° 24′28	10
21h 49m 13s 53s	25	26	23	3° 41′ 23	8	26	28	8° 4′ 26	10	25	4	13° 6′ 29	11
21h 53m 4s 52s	26	27	25	4° 31′ 24	9	27	♊	8° 51′ 27	11	27	5	13° 48′29	11
21h 56m 55s 51s	27	29	26	5° 21′ 25	10	29	1	9° 37′ 27	11	29	7	14° 29′♌	12
22h 0m 46s 51s	28	♈	28	6° 10′ 26	10	♈	3	10° 23′28	12	♈	8	15° 10′1	13
22h 4m 33s 50s	29	2	29	6° 58′ 26	11	2	4	11° 8′ 29	13	2	9	15° 51′1	14
22h 8m 25s 49s	30	3	♊	7° 46′27	12	3	5	11° 52′29	13	4	11	16° 31′2	15

Tables of houses for the obliquity of the ecliptic …[82]
With the ☉ in ♓

Time Diff. from noon time	54°: 10 ♓ (°)	54°: 11 ♈ (°)	54°: 12 ♊ (°)	54°: 2 Horos ♋ (°)	54°: 3 ♌ (°)	57°: 11 ♈ (°)	57°: 12 ♊ (°)	57°: 2 Horos ♋ (°)	57°: 3 ♌ (°)	60°: 11 ♈ (°)	60°: 12 ♊ (°)	60°: 60°: Horos ♋ (°)	60°: 3 ♌ (°)
22h 8m 25s 0	3	0	7° 46′27	12	3	5	11° 52′29	13	4	11	16° 31′2	15
22h 12m 14s 1	5	2	8° 33′ 28	13	5	6	12° 36′♌	14	5	12	17° 11′3	15
22h 16m 2s 2	6	3	9° 20′28	13	7	8	13° 19′1	15	7	13	17° 50′3	16
22h 19m 50s 3	8	4	10° 6′ 29	14	8	9	14° 2′ 2	15	8	14	18° 29′4	17
22h 23m 37s 4	9	5	10° 51′♌	15	10	10	14° 45′2	16	10	15	19° 8′ 5	18
22h 27m 24s 5	11	7	11° 36′0	16	11	11	15° 27′3	17	12	17	19° 47′5	18
22h 31m 10s 6	12	8	12° 21′1	17	13	13	16° 9′ 4	18	13	18	20° 25′6	19
22h 34m 56s 7	14	9	13° 6′ 2	17	14	14	16° 50′4	18	15	19	21° 3′ 6	20
22h 38m 44s 8	15	10	13° 50′3	18	16	15	17° 31′5	19	17	20	21° 41′7	21
22h 42m 24s 9	16	12	14° 34′3	19	17	16	18° 12′5	20	18	21	22° 18′8	21
22h 46m 14s 10	18	13	15° 17′4	20	19	17	18° 53′6	21	20	22	22° 55′8	22
22h 49m 54s 11	19	14	16° 0′ 5	20	20	18	19° 33′7	21	22	23	23° 31′9	23
22h 53m 34s 12	21	15	16° 42′5	21	22	19	20° 13′7	22	23	24	24° 8′10	24
22h 57m 24s 13	22	16	17° 24′6	22	23	20	20° 53′8	23	25	25	24° 44′0	24
23h 1m 3m 43s 14	23	17	18° 6′ 7	23	25	21	21° 32′9	24	26	26	25° 20′1	25

[82] the title breaks off here as printed; the facing page opens Chapter XII and does not complete it

Time Diff. from noon time	54°: 10 ♓ (°)	54°: 11 ♈ (°)	54°: 12 ♊ (°)	54°: 2 Horos ♋ (°)	54°: 3 ♌ (°)	57°: 11 ♈ (°)	57°: 12 ♊ (°)	57°: 2 Horos ♋ (°)	57°: 3 ♌ (°)	60°: 11 ♈ (°)	60°: 12 ♊ (°)	60°: 60°: 2 Horos ♋ (°)	60°: ♌ (°)	60°: 3 ♌ (°)
23h 4m 34s 12s	15	25	18	18° 47′ 7	23	26	22	22° 11′ 9	24	28	27	25° 56′ 11		26
23h 8m 33s 43s	16	26	19	19° 28′ 8	24	27	23	22° 50′ 0	25	29	27	26° 32′ 12		27
23h 12m 32s 17s	17	27	20	20° 9′ 9	25	29	24	23° 29′ 11	26	♉	28	27° 7′ 13		27
23h 15m 31s 18s	18	29	21	20° 50′ 9	26	♉	25	24° 7′ 11	27	2	29	27° 43′ 13		28
23h 19m 33s 12s	19	♉	22	21° 31′ 10	27	1	26	24° 45′ 12	27	3	♋	28° 18′ 14		29
23h 23m 16s 1s	20	1	23	22° 12′ 11	27	3	26	25° 23′ 13	28	5	1	28° 54′ 15		♍
23h 26m 54m 1s	21	3	24	22° 52′ 11	28	4	27	26° 1′ 13	29	6	2	29° 29′ 15		0
23h 30m 38m 1s	22	4	25	23° 33′ 12	29	6	28	26° 38′ 14	♍	8	2	♌ 16 0° 4′		1
23h 34m 18m 0s	23	5	26	24° 13′ 13	♍	7	29	27° 16′ 14	0	9	3	0° 39′ 16		2
23h 37m 59m 1s	24	7	27	24° 53′ 13	0	8	♊	27° 53′ 15	1	11	4	1° 13′ 17		3
23h 41m 39m 0s	25	8	28	25° 32′ 14	1	9	1	28° 30′ 16	2	12	5	1° 47′ 17		3
23h 45m 20m 1s	26	9	29	26° 11′ 15	2	11	2	29° 7′ 16	3	13	6	2° 22′ 18		4
23h 48m 0m 1s	27	10	29	26° 50′ 15	3	12	2	29° 44′ 17	3	15	7	2° 56′ 19		5
23h 52m 40m 0s	28	11	♋	27° 29′ 16	3	13	3	♌ 18 0° 20′	4	16	7	3° 30′ 19		5
23h 56m 24m 0s	29	13	1	28° 8′ 16	4	15	4	0° 57′ 18	5	17	8	4° 5′ 20		6
24h 0m 30m 40s	30	14	1	28° 47′ 17	5	16	5	1° 34′ 19	6	18	9	4° 39′ 21		6

Caput XII

On the Trutina Hermetis [trutina Hermetis], that is, on correcting the chart by the child's stay in the womb, from the time of conception to the time of birth

Once a figure of the heavens has been set up for the estimated time of birth — or for a time given in whatever way — it may deviate from the truth, whether through the imperfection of clocks, their poor management, or the carelessness of those who determine and observe births. In this chapter, therefore, we shall see how the time is to be corrected by the Trutina of Hermes Trismegistus. [Margin: The times of births are for the most part erroneous.] [Margin: They must therefore be corrected.] The name Trutina Hermetis ("the balance of Hermes") is given to that very examination by which, from the time of conception — which is connected with the time of birth — or from the child's stay in the womb [ex nati in utero mansione], the estimated time of birth is weighed, and it is first considered whether that time was given accurately or not; afterwards the error that has crept in is corrected. [Margin: What the Trutina Hermetis is.] (Giovanni Pontano [Iovianus Pontan.], in his commentary on the 51st sentence of Ptolemy's *Centiloquium*, says that others wrongly call this stay a "delay" [mora], since the infant does not delay but remains in the womb.)

For Hermes, the most ancient writer on celestial things, lays down that the very degree of the heavens which the Moon occupied at the time of conception is the degree rising [horoscopare] at the time of birth; and conversely, that the degree in which the Moon was found at the time of birth was the degree that

rose at the time of conception. This rule may not correspond to the outcome in all nativities. For many things occur which sometimes hasten and sometimes delay the delivery of pregnant women, and the Moon's motion is unequal: compared with the uniform revolution of the earth, by which the signs appear to us to rise and set in the same way every day, it does not always keep the same ratio. [Margin: The time of birth is often hastened, often delayed.] Moreover, a slow departure from the womb is signified by the Moon in aspect with the malefics [infortunae], in an oblique sign, and by a planet retrograde, or stationary, or slow in motion, in the ascendant — as Girolamo Cardano [Card.] has it at 6 Aph. 152. And if the places of the ☽ and of the ascendant were exactly exchanged between nativity and conception, twins could never be generated together, and their fate would be for the most part the same (Cardano [Card.] 4 Aph. 10 & 15).

Nevertheless, in most nativities, which are completed in the natural and middle way without external aids and hindrances, and are therefore called perfect, the rule is confirmed and shown to be true. [Margin: In perfect nativities the time of birth keeps to the middle way.] Cardano teaches the same at 4 Aph. 9 in these words: *In perfect nativities the ☽ returns to the sign ascending at conception, or to its opposite, or to the planet with which it was at conception, or to its aspect, or to its own sign; and the ascendant is the place of the ☽ at conception, or its opposite.* Nor does Ptolemy's 51st proposition of his *Centiloquium* differ from this view; there these words are read: *In whatever sign the Moon is at the time of the nativity, make that the ascendant at conception; and in whatever sign she was found at conception, make that, or its opposite, the ascendant at birth.* For although he does not lay down that exactly the same degree ascends at the nativity as at the time of conception, he openly affirms — taught by his own experience — that the same sign, or its opposite, ascends.

The method of finding the time of conception, and from it the exact time of birth, is as follows. First, a figure of the heavens is set up for the estimated time of birth, and the place of the ☽, correctly computed, is entered in it; this we did in the preceding chapter. [Margin: Precepts of the Trutina Hermetis.] II. The Moon's distance is sought from the angle of the east if the ☽ is below the earth, or from the angle of the west if she is above the earth, by subtracting the signs and degrees of the angles from the signs and degrees of the ☽ — a whole circle being added to the Moon if the subtraction cannot be made.

III. With the distance of the ☽, the table of the child's stay in the mother's womb is consulted and the time is taken from it. [Margin: The basis of the table of the stay in the mother's womb.] The basis of this table is as follows. After nine solar months, or three quarters of a year, which make 39 weeks or 273 days, the foetus regularly leaves the mother's womb; this time is taken as the mean, and it signifies that the Moon stood in the ascendant. Then, as many times as she is 12 degrees from the ascendant below the horizon toward the west, so many times is one day subtracted; and as many times as she is removed 12 degrees from the ascendant below the horizon toward the west, so many

times is one day added. Thus the minimum interval, of 258 days, has the Moon at the west above the horizon, and conversely the maximum, of 288 days, has her placed at the west below the horizon. For in the table, to be no distance from the angle of the west above the earth is the same as to be 6 signs from the ascendant; and to be 4 whole signs from the angle of the west above the earth is the same as to be 2 signs from the ascendant. So, as 6 signs yield 15 days, 2 signs yield 5 days; and these are subtracted from the mean time if the Moon is above the earth, but if they are found above the earth, they are added to the mean time, as the adjoining table shows more fully.

Table of the stay in the mother's womb

Distance of the ☽ (Sign., grad.)	Days: ☽ below the earth, from the ascendant	Days: ☽ above the earth, from the west
0ˢ 0°	273	258
0ˢ 12°	274	259
0ˢ 24°	275	260
1ˢ 6°	276	261
1ˢ 18°	277	262
2ˢ 0°	278	263
2ˢ 12°	279	264
2ˢ 24°	280	265
3ˢ 6°	281	266
3ˢ 18°	282	267
4ˢ 0°	283	268
4ˢ 12°	284	269
4ˢ 24°	285	270
5ˢ 6°	286	271
5ˢ 18°	287	272
6ˢ 0°	288	273

IV. From the time of the stay, the time of conception is found in this way. 1. Consider whether the given year is common or bissextile, so that the table of the months of the year can be consulted appropriately. 2. Consider which day of the year the given day of the nativity is, by entering the table with the completed months and finding the number of elapsed days set opposite; to this, rightly, the number of the day of the nativity is added, so that the number of days from the beginning of the year to the day of the nativity results. 3. The number of the child's stay in the mother's womb is taken away from the days of the year — the days of one whole year being added if the subtraction cannot be made — and there remains the number

Table of the months

Month	Days, in the common year	Days, bissextile
Ianuarius [January]	31	31
Februarius [February]	59	60
Martius [March]	90	91

Month	Days, in the common year	Days, bissextile
Aprilis [April]	120	121
Maius [May]	151	152
Iunius [June]	181	182
Iulius [July]	212	213
Auguſtus [August]	243	244
September	273	274
October	304	305
November	334	335
December	365	366

of days on which conception took place. 4. With the remainder, the table of months is consulted, and the name of the month and the day on which conception occurred are obtained. 5. The Moon is considered for noon of the day of conception so found; if she is not more than 13° from the estimated angle of the nativity, the day found is the day of conception. If she is more, it should be judged that the child's birth was either hindered by malefic aspects or assisted by benefic ones — assisted, if it came forth from the womb into the light sooner than it should; hindered, if later than it should. And therefore in that case either the following day is to be taken, if the Moon has passed the ascendant, or the preceding day, if the ascendant has passed the Moon. For in some cases, as experience teaches, one must count one or two days backward or forward. 6. To find the hour of conception, the right ascension of the ☉, reckoned from ♎ in a continuous arc and corresponding to the true place of the ☉ computed for noon of the day of conception, is subtracted from the oblique ascension of the ☽ that corresponds to the estimated time of the nativity, reckoned from ♈; the remainder is converted into time, and the hour of conception sought is obtained.

V. At the time of conception found in this way, once it has been reduced and equated, the true place of the ☽ is sought; this will be the true degree of the horoscope at the time of birth, and the cusps of the remaining houses are rectified according to its position.

For instance, in our example: when the figure of the heavens has been set up and the place of the ☽ entered, the Moon is found above the earth, in house 10. From the place of the ☽, then, which is 6° 22′ ♒, or 10ˢ 6° 22′, I subtract the angle of the west, 8° 45′ ♐, or 8ˢ 8° 45′; there remains the distance of the ☽ from the west, 1ˢ 27° 41′. If with this I consult the table of the child's stay in the womb, about 263 days are offered.

I therefore gather the time of conception from this as follows. First I see whether the proposed year of the nativity is common or bissextile. This is found by dividing the years since the birth of Christ by 4: in the years after the birth of Christ, no remainder indicates a bissextile year and any remainder a common year, as was shown above in chap. 2 of Part One. The assumed year 1554 is found to be common. Next I consider which day of the year the proposed day of the nativity is; since 23 April is given, it appears to be the 113th day of a common year. For when March is completed, to which 90 days are assigned, the 23 days of April are added, and the number of 113 days

results. Third, I take the number of the stay in the womb, 263 days, away from the 113 days; since this cannot be done, I first add the 365 days of one year to the 113 days, making 478 days, and only then subtract; there remain 215 days. Fourth, with this remainder I consult the table of months again, and find that after July is completed, which has 212 days, 3 days still remain belonging to August. From this I infer that conception took place on 1553 August 3 — especially since the place of the Moon at noon on 1553 August 3 is found in 15° 30′ ♊, which is only 6° 45′ away from the estimated horoscope in 8° 45′ ♊.

So that the hour of conception may also be established, I first seek the right ascension of the ☉ reckoned from ♈. And since the ☉ at noon on the day of conception is found in 20° ♌, its right ascension will be 142° 26′ counting from the beginning of ♈; but with 90° added, so that it is reckoned from the beginning of ♎, 232° 26′. Next I investigate the oblique ascension that corresponds to the Moon at the time of birth, in 6° 22′ ♒, on the proposed horizon of latitude 51°; I find it to be 333° 32′. Finally I subtract the right ascension of the ☉ from the oblique ascension of the ☽, and there remains an arc of 101° 6′, which, converted into time, gives 6^h 44^m 24^s. From this I conclude that conception took place on August 3 at 6^h 44^m 24^s in the evening. If, for this time, not only is the true place of the ☽ sought — which will be the corrected place of the horoscope, according to whose position the remaining houses can be arranged; that place is 18° 50′ ♊ — but a figure of the heavens is also erected, it will display judgements that are by no means to be neglected.

First, of what temperament the foetus is to be; then also what accidents of fortune or misfortune will accompany the foetus, and the mother who carries it in her womb, up to the time of birth.

[Margin: The planets begin to rule from the very first moment after the casting of the seed, both over the pregnant woman and over the foetus.] For the time of conception makes a woman carry a child in her womb and places her in the number and class of women who do so — a class exposed to various chances and affections, and one that feels the celestial impressions more than others. It is consistent, therefore, that these things too can in some part be foreseen from that moment, as from their first principle and source. And since at this time the σπέρμα [Greek: sperma, "seed"] takes on a certain temperament and acquires its own nature, it is therefore not able entirely to put that nature aside in the passage of time in which it is changed into a living body and formed; rather, as it retains the property and nature from which it receives its growth, so by its own force it also tempers that same nature and separates it, as the first impression requires.

[Margin: The first month is assigned to Saturn.] The astrologers — Albubater [Abū Bakr ibn al-Khaṣīb] above all, cap. 3 — assign the first month from conception to Saturn, by whose virtue the seed is retained in the womb and fixed there. If he is strong in the chart of conception, and in one of his dignities — house, exaltation, triplicity, term or face — the genital seed received by the womb is of a good disposition and is borne very lightly by the pregnant woman, and it produces for her neither pains nor ailments nor nausea. In the term of

Jupiter he brings joy and good health, and hope and a singular expectation of the time of delivery. In the term of Mars he produces heats and ailments which trouble the pregnant woman in the parts of the lower belly, through gripings and menstrual fluxes. In the house or term of ♀ he produces gladness and cheerfulness, which are seen both in the face and also in the gestures and actions of the pregnant woman. In the term of ☿ he makes [her] scarcely quiet and of easy motion, who will discuss many things about the pregnancy with others.

[Margin: The second to Jupiter.] The second month they assign to Jupiter, who brings growth to the seed and lays the foundations of sense and of intellect. Strong, then, or fortunate in his own domicile or term, he impresses on the embryo an aptitude for rightly understanding the laws, divine as well as human — laws which it also, once brought forth into the light, illustrates wisely and fittingly in the course of time. In the term of ♂, a desire to quarrel and contend with people, and to wound them or even to kill them outright. In the house or term of ♀ it stirs [the native] up to merry things, song, jests and sweetness of speech, and confers the power of persuading. In the term of ☿ it brings charm and grace of words. In the house or term of ♄ it gives an aptitude for rightly understanding abstruse matters, and for illustrating them with true as well as invented reasons.

[Margin: The third to Mars.] The third month they give to Mars, who increases the heat of the foetus and prepares it for motion. In his own dignity, therefore, he engenders boldness, wrath and a desire of ruling, and of pressing others down with contention, whether rightly or wrongly. In the house or term of ♄ he makes one prone to evil, fierce in wars and tenacious of anger. In the term of Jupiter, one strong with reason, who does not throw himself into war unless moved by a weighty cause. In the house or term of ♀, one jealous [Zelotypum], who on the occasion of his jealousy is inclined to inflict death and other evils. In the house of ☿, one who is feared by others for his malice and for his perverse and cunning counsels.

[Margin: The fourth to the Sun.] The fourth month they assign to the Sun, as the author and governor of the vital spirit. If he is in his house, exaltation, triplicity or face, he brings the completion of all the limbs, their perfection, beauty and singular strength; so that it can be pronounced of a native of this kind that he will easily rule over all. In the house of ♄, above all in ♒, he will be strong, yet timid and a lover of solitude, patient of injuries, for which he will also be held cheap by others as one careless of his reputation. In the house of Jupiter it promises a native who is strong, of good counsel and of the highest authority, under whose rule all things will flourish in safe peace and with splendour. In the house and term of Mars, one bold and great-spirited, who seeks authority from riches although he is not furnished with them, and who does violence to his own property, and with injury takes from others what is theirs. In the house of Venus, above all in ♉, one handsome, compact and strong, who can carry very great weights, more than others, but is of dull

intellect. In the house and term of Mercury, one wise, delighting in ingenuity and art, above all if he is in ♊.

[Margin: The fifth to Venus.] The fifth month they give to Venus, who is the mistress of shapeliness, beauty and gladness; so in her own house she bestows on the native beauty and a glad and ruddy look. In the house or term of ♄, curly hair, a dry and lean body, much sickness and many journeys, and a native who cares little for God and for divine things. In the house or even the term and face of Jupiter, as ♐ ♊ and ♎, a native of a long and fleshy body, having a handsome face and a chaste soul, wise, rendering to each what his merits deserve, evil for evil, etc. In the house or term or face of ♂, a native with fair hair and eyes of varied colour, without fear, and not restraining his anger. In the face of Mercury, a native with a lean face, having long jaws and round eyes, a liar, much given to laughter and to many words.

[Margin: The sixth to Mercury.] The sixth month they assign to Mercury, by whose force the limbs of the foetus, as though connected, are separated and parted. Because this planet is the planet of learning, eloquence and knowledge, when placed in his own dignities he confers eloquence on the native, whose speech will please people; and he will be the secretary of great and powerful men, who will be able at his own will to stir and move the affections of others, now to pity, now to laughter. In the house or term of ♄ it makes the native slow of tongue, one who, however good his intellect may otherwise be, will not express the thoughts of his mind correctly. In the house or term of Jupiter, one wise and speaking wonderfully on all matters. In the house of ♂, one who misuses tongue and speech to slander others, and detracts from their reputation and good name — "Wird ein Schender sein" [Fraktur: he will be a defamer]. In the house of ♀, one wonderful in speech, gentle in words, and inquiring curiously into many things.

[Margin: The seventh to the Moon.] [Margin: Macrobius, bk. 7 of the *Saturnalia*, last chapter.] The seventh month they grant to the Moon, who completes and perfects the native in the womb, stretches the passages of the pregnant woman's body and gives a way to its channels by which the child may come out into the light; so she is also usually called Lucina, goddess of pregnant women. Those who are brought into the light in this month are complete in their limbs, on account of the signification and completion of the planets.

[Margin: The eighth to Saturn.] But when the birth falls in the 8th month, then, because the disposition returns to ♄, those born are either brought forth dead or die soon. For Saturn is opposed by all his qualities to the principles of life.

[Margin: The ninth to Jupiter.] The natural and most frequent birth is put off into the ninth month, over which Jupiter in his turn presides for the foetus, and he produces nearly the same effects as those we noted above for the second month. At that time, therefore, the native for the most part also comes forth

into the light by divine will, and lives among men the life he began in the womb.

The chart of the heavens, set up according to the precepts of the preceding chapter, is as follows; from it most of what has been put forward about this balance [trutina] is verified.

Diagram. A square chart. The central square carries the inscription: "Chart of the conception, set up for the year of Christ 1553, the day August 3, at $6^h\ 44^m\ 24^s$ P.M., in latitude 51°." The twelve compartments around it carry the signs, degrees and minutes of the cusps and the places of the planets, set at an angle along the dividing lines; they are listed below, compartment by compartment.

- Top triangle: ♐ 5 43
- Top-left corner, against the top edge: ♐ 20
- Top-left corner, against the left edge: ♒ 6; ☿ a ☉ ad ☽ 28 35; ♉ 28 36
- Left triangle: ♒ 6 50; ♄ 15 35 ♓
- Bottom-left corner, against the left edge: ♈ 7
- Bottom-left corner, against the bottom edge: ♉ 17; ☿ a ☽ ad ☉ 1 25
- Bottom triangle: ♊ 5 43; ☽ 18 50
- Bottom-right corner, against the bottom edge: ♊ 20
- Bottom-right corner, against the right edge: ♀ 4 39 ℞; ☊ 28 36; ♋ 6
- Right triangle: ♃ 8 48 ♍; ☉ 20 15; ☿ 14 18; ♌ 6 50
- Top-right corner, against the right edge: ♂ 10 34 ♎; ♎ 7
- Top-right corner, against the top edge: ♏ 17

Now, so that the remaining steps needed for the correction may be carried out, seek not only the oblique ascension of the place of the Moon at the time of conception — which place is also that of the horoscope verified for the time of birth — but compare it too with the oblique ascension of the horoscope of the estimated nativity. The difference that emerges is to be converted into time, and either added to the estimated time, if the oblique ascension of the estimated time is less than the oblique ascension just found, or subtracted, if the former is greater than the latter. So the true time of the nativity is obtained, to which the chart of the heavens must be verified, not only with respect to the position of the outermost heaven, but also with respect to the other planets.

For instance, in our example the oblique ascension of the Moon in 18° 50′ ♊, for an elevation of the pole of 51°, is 46° 9′. The oblique ascension of the estimated horoscope, found above, was 37° 21′. When the two are compared, the difference comes out as 8° 48′, which give $35^m\ 12^s$ of an hour, to be added to the estimated time — namely the year 1554, the day April 23, at $17^h\ 48^m\ 25^s$ P.M. The true time of the nativity, corrected according to the balance of Hermes, with the years and days as before, then becomes $18^h\ 23^m\ 37^s$; and to this time the corrected chart of the nativity corresponds, as follows.

Diagram. A square chart. The central square carries the inscription: "Chart of the nativity corrected by the balance of Hermes, set up for the year of Christ 1554, the day April 23, at $18^h\ 23^m\ 37^s$ P.M., in latitude 51°." The twelve compartments around it carry the signs, degrees and minutes of the cusps, the places of the planets and of two named stars, set at an angle along the dividing lines; they are transcribed, as far as they could be read, in the note that follows.

Chapter XIII

On the Animodar, or the correction of the estimated time by the preceding conjunction or opposition of the luminaries.

Ptolemy (Quadripartitum, book 3, chapter 2), having shown that one can go wrong in many ways in fixing the time of a nativity — either because clocks are mostly imperfect and badly managed, or because the midwives and those attending the birth note less precisely the moment of the exit from the womb — sets out a precept of correction of this kind, which the Arabs call Animodar. First, *he says*, one must see which syzygy of the luminaries precedes the time of the birth, new moon or full moon. If it is the new moon, and the nativity is conjunctional, the degree in which it occurs is to be taken. If it is the full moon, and the nativity is preventional, take the degree in which that luminary stands which is above the earth at the time of the opposition — by day the ☉, by night the ☽; or, if the opposition happens on the horizon, choose the degree of the luminary which was then rising. Then, with this degree given, one must seek the Almuten Almusteli, that is, the planet which, excelling there in the greater number of dignities, claims for itself the right of ruling.

[Margin: The correction of the time by the Animodar is set out by Ptolemy.]

[Margin: A nativity is called conjunctional when a conjunction precedes it; preventional when a conjunction follows it, and the nativity itself comes most nearly before the conjunction.]

The right of ruling falls in this order: 1 by reason of trigon, 2 of domicile, 3 of exaltation [altitudo], 4 of terms [fines], and 5 of configuration or position; so that the planet preferred is the one that excels in dignity according to this order, or is strong in the greater number of titles. Third, if a single planet has been found that prevails in this way, one must investigate which degree of its sign it is traversing at the given time of the birth; and this number is to be compared with the number of the degree of the Orient and with the number of the degree placed in the mid-heaven. For whichever of these two it is nearer to, as far as the number of degrees is concerned, in that cardine an equal number is to be set down.

If, however, two or more planets have been found equally powerful in dignities and prerogatives, then the degree of the ascendant is to be set equal to the number of that planet which differs less from it. And if they are equal not only as to dignities but also as to the nearness of the number of degrees, then let it be weighed in which of the two cardines — the ascendant or the mid-heaven — the planet of greater prerogative stands, and let the cardine be corrected according to that planet's number.

For example, our nativity was preceded, on April 17 at 6^h 45^m, by a full moon, with the disposition of the heavens shown below.

Diagram. A square chart. The central square carries the inscription: "Preventional full moon, in the year 1554, on the day April 17, at 6^h 45^m P.M.; elevation of the pole 51°." The twelve compartments around it carry the signs, degrees and minutes of the cusps and the places of the planets, set at an angle along the dividing lines; they are transcribed, as far as they could be read, in the note that follows.

Now since the Sun, above the earth in 6° 30′ ♉, points to Venus as the Lady, or Almuten Almus[?]eli — as she who is both οἰκοδεσπότης *[Greek: oikodespotēs, "master of the house" — the lord of the domicile] and* τριγωνοκράτωρ *[Greek: trigōnokratōr, "ruler of the trigon"], and governs the term — and at the time of the birth she is found in 6° 10′ ♊ — a degree which comes closer to the mid-heaven of the estimated nativity, in 4° 59′ ♒, than to the horoscope, in 8° 45′ ♊. It is established that, according to this correction, 6° 10′ ♒ is rightly placed in the mid-heaven. With it, 308° 34′ of the equator passes the meridian; and from this both the time and the beginnings of the remaining houses can be corrected.*

The time, indeed, [is found] if the difference of the right ascensions is sought — of this one just found, and of the one that belonged to the estimated time, 307° 21′; that difference is 1° 13′. Next let it be converted into time: the difference of 1° 13′ yields 4^{m} 52^{s} of an hour. Finally let this be either added or subtracted, according as the corrected cusp is greater or less than that of the estimated time, so that the verified time results.

In our example, 4^{m} 52^{s} of an hour are to be added to the estimated time — namely the year 1554, the day April 23, at 17^{h} 48^{m} 25^{s} — and the verified time is obtained, with the years and days as before, as 17^{h} 53^{m} 17^{s}.

The beginnings of the remaining houses, however, are to be corrected from the given right ascension of the M.C., from which the other ascensions and the cusps of the houses are to be derived according to the teaching of chapter 11, as the chart of the heavens below shows.

Diagram. A square chart. The central square carries the inscription: "Verified chart of the nativity by the Animodar, set up for the year 1554, the day April 23, at 17^{h} 53^{m} 17^{s} T A, 17^{h} 43^{m} 12^{s} T Æ, in latitude 51°." The twelve compartments around it carry the signs, degrees and minutes of the cusps, the places of the planets and of several named stars, set at an angle along the dividing lines; they are transcribed, as far as they could be read, in the note that follows.

Although this correction by the Animodar is attacked, 1, by Abraham the Jew [Abraham ibn Ezra], who at the beginning of his book On Nativities states that he had very often noted the times of nativities with the astrolabe as exactly as possible, but had never found that any planet had agreement with either of the angles; then by Giovanni Pico della Mirandola [Ioanne Pico Mirandula],

[Margin: The correction by the Animodar is attacked by Abraham the Jew, Pico and others.]

—who, in book 9, chapters 3 and 4, of his *Refutation of Astrology* [refut. Aftrolog.], compares the balance of Hermes [trutina Hermetis] with this correction, and from the discrepancy between the two, and from certain other reasons, infers the falsity of both the one and the other: Francesco Giuntini nevertheless, in his commentary on chapter 2 of the third book of Ptolemy's *Quadripartitum* [quad. Ptolom.], demonstrates its truth by many examples, both his own and those taken from Luca Gaurico. Other astrologers too have made mention of this correction — Schöner [Schoner.] in book 1 of *On the*

Judgements of Nativities [de iudiciis nativ.], right at the beginning; ʿAlī ibn Abī l-Rijāl [Abenragel], part 4, chapter 4; and Guido Bonatti, part 1, chapter 4 of his treatise *On Nativities*. Students should be warned, however, not to attribute too much to these two corrections, especially in those examples whose verified times depart too far from the estimated time; they should rather prefer the reliable report of the midwives [certam obſtetricum relationem] — which is also what Cyprianus Leovitius [Cypr. Leovit.] advises at the beginning of his *Judgements of Nativities* [iudicii Nativitatum].

[Margin: But it is defended by Giuntini.]

Caput XIV

On the correction of the natal chart by the accidents of the native

The most certain examination of all is the one we set out in this chapter — namely, the one by which the estimated ascendant is corrected through the accidents of the native: good ones, such as dignities, gifts and the like, or bad ones, such as illnesses, imprisonments, falls, conflicts, or other things afflicting body and mind. This examination belongs uniquely to astrology, since, according to Cardano [Card.] in aphorism 158 of the sixth section [6 Aph. 158], it is the part of a wise man to judge not only the outcome from the nativity, but also the nativity from the outcome.

[Margin: The examination by the accidents of the native is the most certain.]

This examination is, moreover, threefold. For it is carried out either through the transits of the planets over the ascendant; or through the annual profections of the degree of the horoscope to its promissors in the revolutions; or, finally, through the directions of the horoscope and of the mid-heaven to their promissors in the root of the nativity. *Of all these, the greatest trust is rightly given to the last examination, the one made by directions, since these do not change so suddenly, but they remain in one degree for almost a whole year, as will be said in the following chapter. It often happens, however, that those three examinations agree completely and produce one and the same degree of the horoscope. When that happens, no doubt about the exact moment of the time remains, given the agreement and consensus of these testimonies. But if a discrepancy is detected, more trust and authority is always owed to the directions than to the other methods.*

[Margin: And it is threefold.]

As for the first — *where the examination of the degree of the horoscope is carried out through the transits of the planets over it: first of all, a figure is to be erected for the estimated time. Next, one must ask whether anything good or bad befell the native, in body, dignities or goods of fortune, and in what year, month and day it happened. Third, one must look up in the ephemerides whether any of the fortunes* — ♃, ♀ *or* ☊ — *or of the malefics* — ♄, ♂ *or* ☋ — *passes over, or casts its rays on, the degree of the ascendant of the estimated figure. If this happens, you will then set the degree and*

minute of that planet as the true ascendant of the nativity, without changing the sign, since in verifications the signs are never changed. It is to be noted, however,

[Margin: The first, by transits.]

that just as the transits of the planets through the ascendant are usually considered, so the transits of the lord of the ascendant, and likewise of the lord of the nativity, through the places of the fortunes and malefics, or through their rays of the same kind, cannot be neglected; nor those of the planets through the mid-heaven, nor those of the lord of the M.C. through the unfortunate or fortunate planets and their rays. For from these too the true time of the nativity is sometimes gathered.

Let us illustrate this examination with at least one example. A friend of ours, in his boyhood — in the seventh year of his age, that is, in the year of Christ 1560, on May 24 — happened to be holding a board for practising the painting of letters in his left hand at the window, and was moving about a little, when he suddenly fell with it from a bench, struck his head against the board and received a wound near the left temple. I now want to see whether that fall arose from celestial causes, and whether it verifies the chart. I therefore look up that day in the ephemerides, and I find Saturn, lord of the M.C., at noon of this day in a double sign, and indeed a human one — namely in 10° 12′ ♊ — a place which, according to the correction by the Animodar in the preceding chapter, rises above the horizon. I conclude that the fall arose from the transit through the horoscope, and that the time corrected by the Animodar agrees with this fall; especially since ♂ too, in the year 1575, the native's 21st year of age, around March 22 and 23, passing over the place of the Sun in the root — namely 12° 42′ ♉ — stirred up a malignant fever, which was nevertheless happily cured a little later.

Moreover, this too must be observed: the evils or goods signified by bare transits are not lasting, but belong to a few days only, one or two, according to the slowness of the planet's motion. But those transits which agree with the directions signify goods or evils that are more lasting, and which affect the native more.

[Margin: The goods and evils signified by transits are not lasting.]

The second examination, *which is made by the annual profections, is applied in this way. First, erect the estimated figure, and inquire carefully about the time — that is, the year, month and day — of some fortunate or unfortunate accident. Next, consider whether, around that time, the profection of the degree of the horoscope reaches the promissor that fits that accident. For if the degree of the horoscope or of the mid-heaven has reached the promissor on that very day, the estimated time of the nativity will not differ from the true one. But if it has not, you will correct it in this way. Count the intervening days between the day of the nativity and the day of the year on which that accident occurs; and multiply these days by 6 and divide them, so multiplied, by 73, since 73 sixths of days make roughly one degree. What comes out in the quotient will show the degrees; the remainder, multiplied by 60 and again divided by 73, will show the minutes of the degrees. Or look in the first profectional table, if the days are more than 12, and the remainder in the other, so as to account for them all; the corresponding degrees will then present themselves from the entry in the first table, and the minutes from the second. These degrees are the difference between*

the profection of the horoscope and the promissor. If, finally, they are subtracted from the degrees and minutes of the promissor, what remains will be the true degree and minute of the ascendant of the proposed nativity.

[Margin: The second, by annual profections.]

For example, our native was raised to the highest honours in philosophy in the 21st year of his age, almost completed — that is, in the year of the Lord 1575, around Easter — at which time the Sun by its profection reached the mid-heaven, in the platic △ of ☿ of the root. And if [numeral: ?]° 10′ of the M.C. are subtracted from the 12° 42′ of the Sun, there remain 6° 32′; to which, from the tables of profections — to the 6 degrees 73 days, and to the 32 minutes 6 days — or, taken together, **The first table of profections, showing how many days, hours and minutes correspond to each single degree of the zodiac.**

Degrees	Days, hours, minutes
1	$12^{d}\ 4^{h}\ 12^{m}$
2	$24^{d}\ 8^{h}\ 23^{m}$
3	$36^{d}\ 12^{h}\ 35^{m}$
4	$48^{d}\ 16^{h}\ 46^{m}$
5	$60^{d}\ 20^{h}\ 58^{m}$
6	$73^{d}\ 0^{h}\ 10^{m}$
7	$85^{d}\ 5^{h}\ 21^{m}$
8	$97^{d}\ 9^{h}\ 33^{m}$
9	$109^{d}\ 13^{h}\ 45^{m}$
10	$121^{d}\ 17^{h}\ 56^{m}$
11	$133^{d}\ 22^{h}\ 8^{m}$
12	$146^{d}\ 2^{h}\ 19^{m}$
13	$158^{d}\ 6^{h}\ 31^{m}$
14	$170^{d}\ 10^{h}\ 43^{m}$
15	$182^{d}\ 14^{h}\ 54^{m}$
16	$194^{d}\ 19^{h}\ 6^{m}$
17	$206^{d}\ 23^{h}\ 18^{m}$
18	$219^{d}\ 3^{h}\ 29^{m}$
19	$231^{d}\ 7^{h}\ 41^{m}$
20	$243^{d}\ 11^{h}\ 52^{m}$
21	$255^{d}\ 16^{h}\ 4^{m}$
22	$267^{d}\ 20^{h}\ 16^{m}$
23	$280^{d}\ 0^{h}\ 28^{m}$
24	$292^{d}\ 4^{h}\ 39^{m}$
25	$304^{d}\ 8^{h}\ 51^{m}$
26	$316^{d}\ 13^{h}\ 3^{m}$
27	$328^{d}\ 17^{h}\ 14^{m}$
28	$340^{d}\ 21^{h}\ 26^{m}$
29	$353^{d}\ 1^{h}\ 38^{m}$
30	$365^{d}\ 5^{h}\ 49^{m}$

The second table, showing to how many minutes of the zodiac the single days correspond.

Minutes	Days
5	1
10	2
15	3
20	4
25	5
30	6
35	7
40	8
45	9
50	10
55	11
60	12

The other table of profections, showing how many degrees and minutes correspond to the single days of the year.

Days	Degrees, minutes, seconds
1	0° 4′ 56″
2	0° 9′ 52″
3	0° 14′ 48″
4	0° 19′ 43″
5	0° 24′ 39″
6	0° 29′ 34″
7	0° 34′ 30″
8	0° 39′ 26″
9	0° 44′ 21″
10	0° 49′ 17″
11	0° 54′ 13″
12	0° 59′ 8″
24	1° 58′ 17″
48	3° 56′ 34″
60	4° 55′ 42″
120	9° 51′ 24″
180	14° 47′ 6″
240	19° 42′ 48″
300	24° 38′ 30″
360	29° 34′ 12″
The solar year	30° 0′ 0″

79 days correspond; so it is to be understood that the promotion took place 79 days before the completion of the native's 21st year of age, around February 4. It should be known, however, that accidents of this kind, which befall the native through deliberation, cannot be tied to exact moments of time; it is enough that they show a time close to the true one. So too, the native twice held the august office of Rector in the Academy: first at the end of the 35th year of his age, in the year of Christ 1589 and the following year 1590; and

afterwards, likewise at the end of his 47th year, in the year of Christ 1601 and the following year 1602 — in which years the profection of the M.C. returned to the △ of ☿, lord of the ascendant, and into itself. The office of Dean of Philosophy, moreover, [he held] five times: first in the 22nd year of his age, the year of Christ 1576; second in his 30th, 1584; third in his 38th, 1592; fourth in his 44th, 1598; and fifth in his 50th, 1604 — in which years the profections of the M.C. and of the ☉ reached the △ and ✳ [radics] [?] in the root.

Cyprianus Leovitius gives an outstanding example in his *Ephemerides*, and it deserves the mention I make of it here. A certain man was born in the year 1527, on March 28, at 14 hours after noon, at Augsburg [Augustæ Vindelicorum], the time being estimated, under the following configuration of the heavens.

[Margin: Another example, from the *Ephemerides* of Cyprianus Leovitius.]

Diagram. A square horoscope chart. An outer square is divided into twelve compartments: a diamond joins the midpoints of the four sides, the corner diagonals run from each outer corner to the corner of a central square, and each corner region is thereby split into two triangles. The central square carries the caption. Each compartment carries a sign sort and figures, many of them set at an angle along the compartment.

- Central square: "A certain man is born in the year of the Lord 1527, on March 28, at 14 hours P.M., at Augsburg; at latitude 48° 22′." [Nascitur quidam Anno Domini 1527 Die 28 Martii Hor. 14 P. M. Augustæ Vindelicorum In latit. 48gr. 22/]
- Left compartment (vertex at the midpoint of the left side): ♍ 17 48
- Upper-left, triangle against the left side: ♐ 22 37; ☊ 28 15
- Upper-left, triangle against the top side: ♁ 10 14; ♂ 6 41; ♐ 5 51
- Top compartment (vertex at the midpoint of the top side): ♏ 19 0
- Upper-right, triangle against the top side: ♎ 23 26
- Upper-right, triangle against the right side: ♏ 5 19
- Right compartment (vertex at the midpoint of the right side): ♋ 17 48
- Lower-right, triangle against the right side: ♊ 22 37; ♉ 28 15
- Lower-right, triangle against the bottom side: ♊ 5 51; ♃ 16 48
- Bottom compartment (vertex at the midpoint of the bottom side): ♉ 19 0
- Lower-left, triangle against the bottom side: ♈ 23 26
- Lower-left, triangle against the left side: a star-shaped sort [?]; ☽; ☿; figures 5, 19, 9, 52; ☉ 17 26, with a small figure 29 set across the line; a brace joining the ♀ line to the line below it, with a ♈ sort [?] at its head, and 30; ♀ 21 18; a sort [?] 21 30

In the year of Christ 1553, which was the current 27th year of the native's age, on April 11, in France, he fell into great danger of arrest and imprisonment. At that time the profection of the degree of the horoscope came to the right □ of ♃ — Jupiter, who in the root is lord of the 12th house. By means of this profection I wish to rectify the ascendant. First, then, I count the days intervening between the birthday and the day of this accident; since there are 14, I multiply them by 6, and 84 sixths of days result. Next I divide these sixths

by 73, and 1 degree comes out in the quotient. I multiply the remainder, 11, by 60, and finally divide likewise by 73: 9 minutes result. Almost the same number is obtained from the tables. From the first, 12 give 1 degree; and from the second, 2 days give 10 minutes — from which, however, 1 minute is rightly subtracted because of the hours and minutes attached to the 12 days, so that 9 minutes remain. If, finally, I take this number, 1° 9′, away from the place of Jupiter, who is the promittor — namely from 16° 48′ — there remains 15° 39′ ♍, the true ascendant of the nativity.

The reason for this operation is as follows. In the annual profection the astrologers assign to each astronomical solar year a whole sign, commonly of 30 degrees, and to every 12 years a whole revolution of the zodiac. Hence, if we want to know what corresponds to a single day, we resolve the 30 degrees into minutes, and then by the length of the year, 365

[Margin: In profections astrologers assign one year to one sign, and in this way they turn the zodiac round in 12 years.]

days, we divide the product, 1800 minutes, and 4′ come out in the quotient. The remainder, 340, we in turn multiply by 60, and the product, 20400, we divide by 365: about 56 seconds come out. The second table shows this too; it is constructed by throwing away the seconds and adding the first minutes five at a time. The first table, on the other hand, teaches that about 12 days, 4 hours, 12 minutes correspond to one degree, and to 1 sign, or 30 degrees, the solar year of 365 days, 5 hours, 49 minutes.

[Margin: The third, by directions.]

The third test — by which the degree of the horoscope is directed to its promittors, and the true time of birth is judged from the native's good or bad accidents — is set up as follows.

First, have at hand as many of the native's accidents as possible, with the time of each added: namely the year, the month and, if it can be done, even the day of the event. Then consider whether the ascending degree, by way of direction, also reaches some promittor that signifies such an accident. If it has reached one, you will judge the estimated time to be entirely the true time at which the native was brought into the light. If not, and the horoscope stood before or after such a promittor, the estimated time will be false, and it must be corrected in this way. Let the oblique ascension of the promittor be sought for the latitude of the proposed place in which the nativity occurred, and from it let as many degrees and minutes be subtracted as years and days have been completed since the time of the nativity, assigning a degree to each year and one minute to every 6 days. What remains after the subtraction will show the oblique ascension of the true ascendant. If, finally, for this oblique ascension you have sought the corresponding arc of the zodiac under the latitude of the proposed place, which is the degree of the ecliptic of the horoscope, and have verified the beginnings of the remaining houses in the same way from that ascension, according to the precepts of the first chapter, there will at last arise a

chart of the heavens especially suited to setting up the judgment. See more on this matter in the special judgment of nativities.

[Margin: The way to set up the Astrological Mirror of the aspects of any chart.]

For a quicker gathering and sorting not only of profections but also of directions and aspects of every kind, it is useful to have at hand, for any natal chart, an Astrological Mirror [speculum Astrologicum], which we may also call a table or scheme of the aspects. From it the planets, terms and rays that meet the mid-heaven and the lowest heaven, the horoscope and the setting point — as the principal houses — and the other planets and the Part of Fortune are very easily recognized. It is set up as follows.

First, let 13 lines be drawn across the sheet, that is, along its width, from left to right, enclosing 12 transverse spaces corresponding to the 4 principal houses, the 7 planets, and ☊ and ⊕. Then, down the length of the sheet from the top, let 14 further lines be drawn, cutting the former at right angles, to divide each space enclosed between two transverse parallels into 13 little cells. Of these, the first 12 toward the left should be equal to one another and square, while the thirteenth, toward the right, should be longer and oblong, holding nearly twice the space of the others. Third, in the topmost 12 small square spaces, enclosed by the two topmost transverse lines, let the characters of the 12 signs be written, one in each cell, beginning from ♈ and proceeding in their order. Fourth, let it be considered which of the 7 planets, or of the four principal houses, and also ☊ and ⊕, has the fewest degrees of the sign in which it stands; for its character is to be entered in the topmost cell, under the sign that it holds in the chart. Fifth, let the remaining planets and the numbers of the houses be placed one after another in the lower spaces, in the order that each holds by the number of its degrees, each under the sign it occupies, until the lowest place falls to the one that has completed the most degrees of its sign. Sixth, in the remaining small square spaces standing on either side of the planets, let the characters of the aspects be entered which the planets cast before and behind them: the first cell before and after the planet's place is left empty; in the second, before and behind, the character ✶ is written; in the third, □; in the fourth, △; and in the sixth, the fifth being omitted, the sign ☍. Seventh, in the oblong cells left toward the right, let the degrees and minutes be noted that the planets and houses hold in their signs. The Mirror of the aspects is then complete, as you see, belonging to the chart corrected by the animodar, which we also use in directions.

Astrological Mirror of the aspects.

♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	Degrees and minutes
✶		☿		✶	□	△		☍		△	□	0° 14′
											⊕	3° 45′
				IV						X		6° 10′
	♀		✶	□	△		☍		△	□	✶	6° 11′

♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	Degrees and minutes
✶	□	△		☍		△	□	✶		☽		6° 25′
		I						VII				10° 14′
	☉		✶	□	△		☍		△	□	✶	12° 42′
			☋			[?]			☋			14° 39′
	✶	□	△		☍		△	□	✶		♄	25° 30′
	△	□	✶		☌		✶	□	△		☍	25° 57′
♂		✶	□	△		☍		△	□	✶		27° 12′

This too should be noted. Stars, wandering as well as fixed, that stand under the ecliptic and irradiate one another or the principal places of the ecliptic do so exactly by the measure of the aspects set out more than once above — ✶ at 60, □ at 90, △ at 120, ☍ at 180 degrees — and require no equation. Thus in our example the right □ of the ☉, at 12° 42′ ♒, falls into the 10th house[83] and requires no equation, but is fixed in the ecliptic at 12° 42′ of the sign ♒. Stars having a latitude beyond one degree and 40′, however, do require an equation, as Regiomontanus teaches in the last problem of his *Tables of Directions*, and Leovitius on the same tables. But there is this distinction. The square and opposite aspects always keep the same longitude of the zodiac by which they are made, and do not require it to be changed at all; so neither is the latitude to be changed in the squares, since the end of the aspect is always set in the ecliptic. In the oppositions, by contrast, because the end is carried to the contrary side, the latitude must be turned to the contrary denomination, as the line of the diameter passing through the centre and cutting the plane of the ecliptic requires. Sextile and △ aspects, on the other hand, if they are made by stars having an evident latitude, do change the longitude, but do not admit consideration of the latitude.

[Margin: A necessary warning on the equation of the aspects, before the doctrine of directions.]

For although Cyprianus Leovitius and Giovanni Bianchini, otherwise outstanding mathematicians, hold that an equation of both longitude and latitude must be made, because the sides that refer these aspects to the ecliptic end at places that differ in longitude and latitude, and therefore direct that in both aspects, whether right or left, half the star's latitude be taken up into the equation of latitude, with the same denomination in the ✶, with the contrary in the △ ray, we nevertheless neglect the equation of latitude, which in the aspects, except the opposition, is never regarded, as has been said — as the working by the doctrine of triangles, and the measurement of the sides of these aspects, even on the globe, sufficiently proves. We equate the longitude only, and that with the help of the adjoined table, in this way. Consult the table with the latitude of the proposed star, looking for the given degree of latitude on the left and the corresponding number of the equation on the right, applying the proportional part where needed. In this way the equation is found, which is

[83] the print sets "domum" twice

always to be subtracted from the ✶ of 60 degrees and added to the △ of 120 degrees, so that the equated longitude results.

[Margin: The doctrine of Leovitius and Bianchini on the equation of the aspects is refuted.]

Table of the equation of the aspects ✶ and △.

Latit.	Equation	Latit.	Equation	Latit.	Equation	Latit.	Equation
1	0° 0′	16	1° 20′	31	5° 41′	46	16° 2′
2	0° 1′	17	1° 31′	32	6° 8′	47	17° 9′
3	0° 3′	18	1° 43′	33	6° 36′	48	18° 21′
4	0° 5′	19	1° 56′	34	7° 6′	49	19° 39′
5	0° 8′	20	2° 9′	35	7° 37′	50	21° 4′
6	0° 11′	21	2° 23′	36	8° 10′	51	22° 37′
7	0° 15′	22	2° 38′	37	8° 45′	52	24° 18′
8	0° 20′	23	2° 54′	38	9° 23′	53	26° 11′
9	0° 25′	24	3° 11′	39	10° 3′	54	28° 17′
10	0° 31′	25	3° 29′	40	10° 45′	55	30° 40′
11	0° 38′	26	3° 48′	41	11° 30′	56	33° 24′
12	0° 45′	27	4° 8′	42	12° 17′	57	36° 38′
13	0° 53′	28	4° 29′	43	13° 8′	58	40° 39′
14	1° 1′	29	4° 52′	44	14° 2′	59	46° 7′
15	1° 10′	30	5° 16′	45	15° 0′	60	60° 0′

For example, let the rays of Arcturus be sought for the year 1554, at which time its longitude according to Tycho Brahe was 18° 0′ ♎ and its northern latitude 31° 2′ 30″. And it appears, since the table of the equation gives, for the proposed latitude of 31° 2′ 30″, an equation of 5° 17′, that the left ✶ comes to be at 12° 43′ ♐ and the right at 23° 17′ ♌, with no latitude. The left △ ray, however, at 23° 17′ ♒, and the right at 12° 43′ ♊, likewise with no latitude. But the ☍ falls at 18° 0′ ♈, with southern latitude 31° 2′ 30″.

Caput XV

De directionibus.

Chapter 15. On directions.

Astronomical direction, which is also called *deductio* and *progressio* (”leading down” and ”progression”), is called by the Greeks π[?]-ρίπατ(ος) [Greek: p[?]-ripat(os)], a ”walking about” [obambulatio], and also ἄφεσις [Greek: aphesis, ”a sending off, release”], although this last is properly understood only of the direction of the apheta, from which it also has its name. It is the artful leading of a place of the zodiac, or of a planet of the natal chart, through the parts of the equinoctial circle in a given disposition of the sphere, to the planets or rays that meet it in its course. Or it is the finding of the arc of the equinoctial intercepted between two circles of position drawn through two places of the zodiac, one of which the significator occupies and the other the promissor; this arc either

rises or sets, together with an arc of the ecliptic, in the given disposition of the sphere, with respect to the circle of position under which one of the two lies.

[Margin: The names of direction.]

[Margin: Definition.]

For since in both spheres, the right as well as the oblique, the parts of the ecliptic rise and set unequally, and a uniform measure must be at hand by which that inequality, in measuring the times of events, good or bad, can be brought back to rule and uniformity, the ancient astronomers and astrologers devised with the greatest ingenuity this doctrine of directions. By it the unequal ascensions and descensions of the zodiac, and its transits through any circles of position, are reduced to uniformity, that is, to the parts of the equator, which always move uniformly. Hence, for the Greeks, *dirigere* ("to direct") is the same as εὐθύν(ει)ν [Greek: euthyn(ei)n] or ἰθύνειν τὸ σκολιὸν [Greek: ithynein to skolion], that is, to correct the oblique and make it straight.

[Margin: The causes of direction.]

[Margin: To direct is to make the oblique straight.]

The term from which the computation begins is called the significator, and also π[?]η-γούμ? [Greek: p[?]ē-goum?], "antecedent"; the term to which the direction is made is called the promissor, ἑπό-μ? [Greek: hepo-m?], "consequent." For the significator aims at some good or evil of its own signification — as the Sun aims at dignities and honours — while the promissor determines and promises that very thing, what kind it will be, good or bad. Thus if the Sun is directed to Mars, martial dignities are signified, especially in soldiering, in the founder's art and the like; if to the □ of ♂, losses in honours through martial men.

[Margin: The two terms of direction: significator, promissor.]

It should be noted, however, that Ptolemy and most others, and even Regiomontanus himself in problem 25 of the *Tables of Directions*, use these names differently, and call significator what we call promissor, and vice versa. But the doctrine of directions is understood more correctly if we use the names in the way set out here, as Cyprianus Leovitius and others with him have also used them.

[Margin: Which things in a chart are usually directed above all.]

Moreover, although in a careful examination of a chart all the houses and all the planets are directed —

just as some direct the Sun, as the author of life, for the health of the body, good and bad, for honours and public offices, the favour of the great, and the father; the Moon for the temperament, the character of the mind, marriage, the condition of the wife, journeys, and the mother; Saturn, again, for the father, inheritances, buildings, landed estates, and sadness of mind; Jupiter for glory, riches, praise, dignities, and their increase and decrease; Mars for courage, victory, quarrels, and brothers; Venus for marriage, pleasures, banquets, dances, maidens, love, precious things, and sisters; Mercury for disposition, success in the art the native professes, contracts, journeys, and so on. Likewise the 1st

house for life, intelligence, and character; the 2nd for the increase and decrease of wealth; the 3rd for brothers and sisters; the 4th for parents and inheritances; the 5th for children, and so on —

[Margin: ☉ ☽ ♄ ♃ ♂ ♀ ☿]

[Margin: Domiciles.]

— yet where excessive subtlety is avoided, we concern ourselves only with the principal ones, following Ptolemy's precept in book 3 of the *Quadripartitum*, chapter 11: namely, that we direct (1) the Ἀφέτην [Greek: aphetēn, "releaser"], whom the Arabs call Hilech, as it were "the walker," from the Hebrew [Hebrew: הָלַךְ (halakh, "he walked")] — *ambulavit*, "he walked" — and the Latins the emitter or prorogator of life, for life and its period; (2) the Moon for the affections of the mind; (3) the Sun, whether or not it is the ἀφέτης [Greek: aphetēs, "releaser"], for the state of life and dignities; (4) the horoscope for health and travel abroad; (5) the mid-heaven for friends, marriages, the begetting of children, and honours; and (6) ⊕ for the increase or decrease of one's means.

For all of these, direction is twofold. One is direct, or εἰς τὰ ἑπόμ[?]α [Greek: eis ta hepom[?]a], "into the following signs," which Ptolemy in chapter 14 of book 3 of the *Quadripartitum* calls ἀκτινοβολία [Greek: aktinobolia, "the casting of rays"], a projection of rays, as it were. By it the significator is led, following the succession of the signs, through the parts of the equinoctial circle, until

[Margin: Direction twofold.]

[Margin: Direct.]

they come to hold a similar position in the figure with the promissor. For in direct direction the moving significator is held to overtake the fixed promissor and to fulfil its signification — that is, to exact from the promissor what the promissor determined by the projection of its ray or by the presence of its body. This direction is assigned to the horoscope, to the mid-heaven, to the apheta standing in any place whatever, and to all the planets advancing with direct motion in the chart or nativity.

[Margin: Converse.]

The other is converse, or εἰς τὰ π[?]ηγούμ[?]α [Greek: eis ta p[?]ēgoum[?]a], by which the significator is led in reversed order, against the succession of the signs, through the parts of the equinoctial circle into the place of the promissor. For in converse direction the moving promissor is carried into the place of the fixed significator, and as it were exacts what is signified. This direction is commonly assigned to the Part of Fortune and to retrograde planets, whereas Ptolemy, in book 3 of the *Quadripartitum*, chapter 14, assigns it only to the apheta, or prorogator of life, standing between the meridian and the west, and calls it ὡριμαίαν [Greek: hōrimaian], since it can be set up both according to the following and according to the preceding signs.

Furthermore, the mid-heaven and the lower heaven, and a planet or ray standing in the mid-heaven or the lower heaven, are directed in one way; the horoscope and the cusp of the seventh house, and the planets or rays standing

in them, in another; and finally planets and rays removed from the horizon and the meridian, above or below the earth, in yet another. Direction can be found from the globe, or from the astrolabe and other instruments — less accurately, because of their small size, but quite expeditiously — or else from Regiomontanus's *Tables of Directions*, according to problem 25 of those tables, most exactly, though not without trouble and tedious calculation. Leaving the other methods aside, then, let us set out the whole business in summary.

[Margin: The three cases in directions.]

The heart of heaven, which like the other cusps has no latitude, is directed to its promissor, removed from it in the order of the signs; so is a significator standing exactly on the meridian above or below the horizon, which usually has latitude. If the degrees and minutes of the zodiac in which both the significator and the promissor stand are taken, their right ascensions are to be sought — from the table of right ascensions of the ecliptic if they have no latitude, or from the table of mediations of heaven for the appropriate latitude if they have latitude. Next, the right ascension of the mid-heaven, or of the significator standing there — the beginning, that is, of the arc from the end — is subtracted from the right ascension of the promissor, adding a whole circle where necessary, so that the subtraction can be made. The difference will be the direction sought, or the interval by which the promissor stands from the significator. If this difference is finally resolved into time, so that each degree of direction gives one year of age, five minutes a month and $10^{h}\ 30^{m}$, one minute $6^{d}\ 2^{h}\ 6^{m}$, and 10″ about one day — as the adjoined table, composed for the single minutes of one degree and corresponding to the whole year, shows — the time of the direction will result, to be counted from the hour of birth.

[Margin: The first case: when the M. C. or the I. C., or a planet standing there, is set up.]

In exactly the same way the lower heaven is also directed to the following promissors, if its right ascensions are subtracted from the right ascensions of the promissors; for what remains as the residue is the direction sought.

The horoscope, and a planet occupying the eastern angle, is directed to any one of the promissors that follow it in the order of the signs by a method not very different. For first the oblique ascension of each is sought: either from the table of the oblique ascensions of the ecliptic suited to the latitude of the place in question, if the horoscope itself is given, or a planet having no latitude; or else from the right ascension known beforehand together with the ascensional difference. If a planet having latitude is given, the oblique ascension is derived through its declination and the ascensional difference known from the tables, so that it is obtained by adding the ascensional difference to the right ascension or subtracting it — which we taught how to find more fully above, in chapter 7.

[Margin: The second case, when the horoscope, or the western cardine, or a planet standing in those places, is directed.]

Then the oblique ascension of the significator, or of the horoscope, is subtracted from the oblique ascension of the promissor, and the difference is itself the direction, which is resolved into time as before.

Nor is the method of directing the cusps of the other eastern houses any different, provided the oblique ascensions are sought from the tables that match each house's elevation of the pole. In the same way, if some significator is placed in the western angle or at the cusp of the seventh house, it is carried to the promissors that follow in the order of the signs by the same procedure, taking oblique descensions in place of the oblique ascensions and subtracting the oblique descension of the significator from the oblique descension of the promissor. For the difference found gives the direction, which is converted into time as above. The method is the same for all the western houses, if anyone wishes to direct them.

Table of the time of direction, showing what corresponds in time to each minute of the equator.

Minutes	Days	Hours	Min.
1	6	2	6
2	12	4	12
3	18	6	18
4	24	8	24
5	30	10	30
6	36	12	36
7	42	14	42
8	48	16	48
9	54	18	54
10	60	21	8 [recte: 0]
15	91	7	30
20	121	18	0
25	152	4	30
30	182	15	0
35	213	1	30
40	243	12	0
45	273	22	30
50	304	9	0
55	334	19	30
60	365	6	0

As an example of what has been set out up to here — to illustrate it with two examples — let the mid-heaven of our example, as corrected by the animodar, be directed, namely 6° 10′ of ♒, by direct deduction to the body of ♄ at 25° 30′ of ♓, with southern latitude 1° 33′. First I seek the right ascension of the M. C., which is 308° 34′. Next the right ascension of ♄, which is gathered in the table of the mediations of heaven under the sign ♓ and at the appropriate latitude, applying the proportional part, as 356° 30′. Finally I subtract from this the right ascension of the M. C.; there remains the arc of direction, 47° 56′.

The direction therefore falls in the 48th year of life, then running, and on the 340th day from the birth, at hour 21 — that is, on 1602 March 29.

In the same way, in the same chart, let the ascendant degree, 10° 14′ of ♊, be directed to the □ of ♄, which lies at 25° 30′ of ♊, in the obliquity of the sphere, that is, the latitude of the place, 51°. The oblique ascension of the horoscope is given as 38° 34′, and the oblique ascension of the □ of ♄ as 52° 42′. If the ascension of the horoscope is subtracted from the ascension of the □ ray of ♄, the arc 14° 8′ is left, which is the direction sought: about 14 years, 48 days, 17 hours, falling in the 15th year of life, then running, that is, in the year of Christ 1568, on June 12.

We have added here the directions of the mid-heaven and the horoscope of our example to their promissors, so that the use of the precepts set out may be seen better from them.

Directions of the Mid-heaven

The mid-heaven is at 6° 10′ of ♒. Its right ascension is 308° 34′.

Promissor	Longitude	Right ascension	Direction
☽ with latitude ☿ [?] [recte: Merid., southern] 1° 52′	6° 25′ ♒	309° 18′	0° 44′
□ ☉	12° 42′	315° 11′	6° 37′
Term of ♀	13° 0′ ♒	315° 29′	6° 55′
Term of ♃	21° 0′	323° 24′	14° 50′
Term of ♂	26° 0′	328° 16′	19° 42′
✶ ♂	27° 12′ ♒	329° 25′	20° 51′
Term of ♀	0° 0′ ♓	332° 6′	23° 32′
□ ☿	0° 14′	332° 20′	23° 46′
⊕	3° 57′	335° 52′	27° 18′
✶ ♀	6° 11′	337° 58′	29° 24′
Term of ♃	9° 0′	340° 37′	32° 3′
✶ ☉	12° 42′	344° 3′	35° 29′
Term of ☿	15° 0′	346° 12′	37° 38′
Term of ♂	21° 0′	351° 44′	43° 10′
♄ with southern latitude 1° 33′	25° 30′	356° 30′	47° 56′
☍ ♃ with southern latitude 1° 39′	25° 57′	356° 56′	48° 22′
Term of ♄	27° 0′ ♓	357° 15′	48° 41′
Term of ♃	0° 0′ ♈	0° 0′	51° 26′
✶ ☿	0° 14′	0° 13′	51° 39′
△ [recte: ✶] ☽	6° 25′	5° 53′	57° 19′
Term of ♀	7° 0′	6° 25′	57° 51′
Term of ☿	15° 0′ ♈	13° 48′	64° 45′[84]

Directions of the Horoscope, or Ascendant

The horoscope is at 10° 14′ of ♊. Its oblique ascension, under latitude 51°, is 38° 34′.

[84] the right ascension 13° 48′, less the mid-heaven's 308° 34′, gives 65° 14′; the printed right ascension and direction disagree, and the page does not show which is in error.

Promissor	Longitude	Oblique ascension	Direction
Term of ♀	14° 0′ ♊	41° 45′	3° 11′
Term of ♄	22° 0′	49° 11′	10° 37′
□ ♄	25° 30′	52° 42′	14° 8′
Term of ♂	26° 0′	53° 13′	14° 39′
□ ♃	25° 57′	53° 10′	14° 36′
⚹ ♂	27° 12′ ♊	54° 29′	15° 55′
Term of ♂	0° 0′ ♋	57° 28′	18° 54′
⚹ ♀	6° 11′	64° 28′	25° 54′
Term of ♃	7° 0′	65° 26′	26° 52′
⚹ ☉	12° 42′	72° 20′	33° 46′
Term of ♀	14° 0′	73° 58′	35° 24′
☊	14° 39′	74° 52′	36° 18′
Term of ♀	21° 0′	83° 1′	44° 27′
△ ♄	25° 30′	89° 0′	50° 26′
⚹ ♃	25° 57′	89° 37′	51° 3′
□ ♂	27° 12′ ♋	91° 18′	52° 44′
Term of ♄	28° 0′	92° 24′	53° 56′
⚹ ♀ [recte: ☿]	0° 14′ ♌	95° 28′	56° 54′
□ ♀	6° 11′	103° 43′	65° 9′
☍ ☽	6° 25′	104° 3′	65° 29′
Term of ☿	7° 0′	104° 52′	66° 18′

The directions of the Moon almost agree with the directions of the M. C., since the Moon is placed almost on the meridian. The Moon's directions nevertheless come before these directions of the mid-heaven by nearly three quarters of a year, because the Moon stands 44 minutes of the equator from the meridian toward the succession of the signs, as the calculation shows.

[Margin: The third case, when some place in the heavens outside the 4 cardines is to be directed.]

The direction of planets found outside the places just named — the four angles, or else the cusps of the remaining houses — is more difficult. For in them, first, the distance of each, both of the significator and of the promissor, is sought from the mid-heaven, if the significator stands above the horizon, or from the lower heaven, if it stands below. This distance is nothing other than the arc of the equinoctial circle, counted according to right ascensions, and intercepted between the star and the M. C., or between the star and the lower heaven.

[Margin: 1. The distance of each from the M. or the I. C. is sought.]

The method of the inquiry is as follows. From the tables of right ascensions and of the mediations of heaven, first of the mid-heaven and of the lower heaven, and then likewise of the planet or point of the ecliptic whose distance is sought, let the right ascension be investigated; and let it be considered what place, in the chart of heaven or radix, the planet or point of the ecliptic that takes the part of the significator holds. For (1) either the significator lies between the M. C. and the horoscope, and then the right ascension of the M. C. is

subtracted from the right ascension of the significator — whether it is a planet or any proposed point of the ecliptic whatever — and the remainder shows its distance from the M. C. One must proceed likewise with the promissor too, even if it is placed below the horizon.

(2) Or the place of the significator is intercepted between the first and the 4th house; and then its right ascension, whether it is a planet or any point of the ecliptic whatever, is taken from the right ascension of the lower heaven, and the remainder shows the distance of the proposed point from the lower heaven.

(3) Or the significator is found between the lower heaven and the 7th house, or western cardine; and then the right ascension of the lower heaven is subtracted from the right ascension of the star or proposed place, and its distance from the lower heaven is left. The same is done with the promissor, even if it is found above the horizon.

(4) Or the significator stands between the 7th house and the M. C.; and then its right ascension is subtracted from the right ascension of the mid-heaven, and its distance from the mid-heaven remains. In all these, however, this must always be noted: if at any place the subtraction cannot be made — as when the number to be subtracted is greater than the other — a whole circle is to be added to the number from which the subtraction cannot be made.

[Margin: 2. The horary times are sought.]

Second, once the distance is known, the horary times of each — of the significator and of the promissor — are sought, that is, the parts of the equinoctial circle that emerge above the horizon in one temporal, or unequal, hour, so that it may be clear in what sort of parallels of the equator the significator and the promissor stand. For although the hours [Greek: [?]] of one and the same day or night, taken from the diurnal arc of the equator divided into 12 equal parts, are equal among themselves, the hours of different days, removed from one another by some interval, are unequal when compared with each other in oblique spheres. This is because the northern parallels of the equator, whose larger parts are above the horizon and smaller parts below, correspond to the northern parts of the ecliptic; while the more southern parallels, whose smaller parts are above and larger parts below the horizon, correspond to the more southern parts. And from this, different day and night spaces correspond to the different arcs of the equator above or below the horizon, and hence their twelfth parts, or hours, also turn out unequal. So as the days lengthen the day hours lengthen too, and as the days shorten they shorten.

[Margin: Horary times, some diurnal, some nocturnal.]

Horary times are of two kinds: diurnal, which are the parts of the equinoctial circle that rise above the horizon in one temporal hour of the day; and nocturnal, those that rise in one temporal hour of the night. And just as the whole day spaces are always either greater than their nights, while the Sun travels through the northern half-circle of the zodiac, or smaller, while the Sun completes the opposite, southern half, so, with the equinoctial days alone excepted, the day

hours too come out greater or smaller than their night hours at different seasons of the year. Thus on the longest day the day hours are the longest and the night hours the shortest; on the shortest day, conversely, the day hours are the shortest and the night hours the longest. Yet the day and night hours of any day, taken together, make up two equinoctial hours, or 30 degrees of the equator.

[Margin: The first method of seeking the horary times: from the table of the length of the day.]

There are, however, various methods of finding the horary times, but we shall give only two. The first of them, from the table of the length of the day [tabula quantitatis dierum] set out above in chapter 5 of Part One, is carried out by this procedure. First, have these two data, expressed in degrees and minutes: the point of the ecliptic under which the significator or promissor whose horary times you are seeking is placed, and the elevation of the pole of the place in which the nativity took place.

Then look for the elevation of the pole along the front of the table of the length of the day, and for the sign of the zodiac and its degree down the left side, descending, or up the right side, ascending. If the sides of the table do not show the degree of the sign, take the one that is next smaller than the degree offered in your example. For the common angle in the body of the table corresponding to these data will, after comparison with the following entry and the working-out of the proportional part, give the semidiurnal or seminocturnal arc: the semidiurnal if you have entered the table with a northern sign, the seminocturnal if with a southern one. Finally, multiply this semidiurnal or seminocturnal arc by 2½, and the product of the multiplication shows the horary times, which will likewise be either diurnal or nocturnal: diurnal if you entered the table with a northern sign, nocturnal if with a southern one. The reason for the multiplication by 2 and a half is this. On the equinoctial day exactly 6 hours make up the semidiurnal or seminocturnal arc, while to one hour there then correspond 15 degrees of the equator; and those 15 contain the six itself taken twice and a half. So the semidiurnal or seminocturnal arc too, once multiplied by this number, produces what we are seeking, namely the diurnal or nocturnal horary times.

[Margin: The second method of seeking the horary times: from the oblique ascensions.]

The second method is carried out from the tables of ascensions in this way. If, first, the two earlier data are at hand — namely the latitude of the place and the point of the ecliptic under which the significator or promissor stands — then, secondly, take from the appropriate table of ascensions the oblique ascension of the part of the ecliptic under which the promissor or significator stands. Only take care to correct it properly by proportional parts, for the minutes that go with the point of the ecliptic and with the elevation, if need requires, according to the precepts handed down on the use of the tables of ascensions in the doctrine of the sphere and explained by us several times above. 3. From

the same table of ascensions, look up in the same way the oblique ascension of the point of the ecliptic diametrically opposite the place of the significator or promissor. 4. Subtract the oblique ascension of the proposed part of the ecliptic from the oblique ascension of the opposite point, and the diurnal arc of the equinoctial will remain; or take this ascension of the opposite point away from the other, and the nocturnal arc of the equinoctial will be left. 5. Divide these arcs by 12, and in the quotient you will have the parts of the equinoctial circle that are called the horary times of that part of the ecliptic. But if you also wish to find by another route, in the preceding method, the nocturnal horary times of that part of the ecliptic from the diurnal, or the diurnal from the nocturnal, then, with the planet standing below or above the earth, take the diurnal or nocturnal times found away from 30, and the degrees and minutes left over will be the remaining horary times — that is, the parts of the equator that correspond to one temporal hour of the day or of the night.

[Margin: Third, the distance of the significator is divided by its horary times.]

[Margin: The quotient is multiplied into the horary times of the promissor.]

Third, once those four quantities are known in advance — namely the two distances of the significator and the promissor from the mid-heaven or the lower heaven, and the two horary times of the significator and the promissor — the distance of the significator is next divided by the horary times of the significator, and there come out the temporal hours by which the significator is distant from the mid-heaven or the lower heaven. Then those hours are multiplied into the horary times of the promissor, and the product shows the arc of the equator by which the promissor must be distant from the mid-heaven or the lower heaven in order to stand under the same circle of position as the significator and to hold a situation similar to it with respect to its own horary times. Or, if one prefers to frame this precept another way, a proportion of this kind is set up: as the horary times of the significator are to the horary times of the promissor, so is the distance of the significator to the similar distance of the promissor. Therefore, when the distance of the significator has been multiplied by the horary times of the promissor, and the product divided by the horary times of the significator, the result is the arc of the equator by which the promissor is distant from the circle of position of the significator itself.

[Margin: Finally the product is either subtracted from or added to the distance of the promissor according to the rules, and the direction results.]

Finally, according to the following rules, this arc is either added to or subtracted from the distance of the promissor from the mid-heaven or the lower heaven, and the sum or remainder shows the direction sought, which, like the earlier ones, is converted into time.

First Rule: If (1) the significator and the promissor are between the M. C. and the horoscope; or (2) between the M. C. and the 7th house; or also (3) the significator is between the M. C. and the horoscope and the promissor between the horoscope and the I. C.; or finally (4) the significator is between the I. C.

and the 7th house and the promissor between the seventh house and the M. C. — so that both are found in one and the same half of the chart of heaven, ascending or descending — then the arc found is taken away from the distance of the promissor.

Second: If the significator and the promissor are placed in different quadrants of distinct halves of the chart — the significator, that is, between the 7th house and the M. C. and the promissor between the M. C. and the horoscope; or the significator between the horoscope and the lower heaven and the promissor between the I. C. and the 7th house — the same product is added to the distance of the promissor.

Third: If the significator and the promissor stand together between the horoscope and the I. C., or between the 7th house and the M. C., then the product, that is, the distance of the promissor from the M. or I. C., is subtracted.

Diagram. A semicircle standing on a straight base line, with a small upright tick at the top of the outer arc. Inside it several further arcs rise from the left end of the base and cross the figure, and a set of straight lines run obliquely from the outer arc down to the base; they meet at intersections marked with letters. The prose beside it names the outer arc as the meridian F C B, the base line as the horizon F H B, and D H as the equator, and gives C E P G as the ecliptic.

- C (top of the figure, on the outer arc, left of the tick): C
- L (upper left, on a line inside the arc): L
- E (upper centre, where several lines meet): E
- A (upper right, where an inner arc meets the outer arc): A
- N (left, on the outer arc, above D): N
- D (left, on the outer arc, below N): D
- S (left of centre, at a crossing of an arc and a line): S
- T (right of E, at a crossing of lines): T
- R (left, below S, at a crossing): R
- P (centre, at the meeting point of several lines): P
- Q (below and left of P, on a line): Q
- F (lower left, the left end of the base line): F
- G (on the base line, under P): G
- H (on the base line, right of G): H
- M (on the base line, right of H): M
- O (on the base line, right of M): O
- B (lower right, the right end of the base line): B

Before we explain the precepts set out here by examples, we shall show them in a figure. Let the meridian circle be F C B, the horizon F H B, the equator D H, the ecliptic C E P G. Two places, of which one — E — is directed, and the other, to which the direction is made, is P on the ecliptic. The direction of these two places, according to Ptolemy's view, is set out as R Q on the equator. Through the preceding place, namely E, let the parallel circle L E O be drawn, and through the following place the parallel N P M. L O is the semidiurnal arc

of the point E, and its sixth part, in degrees of the equator, is its horary times. In the same way the semidiurnal arc of the parallel drawn through P is N M, and its sixth part likewise is the horary times of that place. The circle of position of the preceding place is F E B, that of the following place F P B. The distance of the preceding place from the meridian is L E, that of the following place N P. As, therefore, the horary times on the parallel L O are to the horary times of the parallel N M, so L E, the distance of the significator, is to the similar distance on the parallel of the promissor, N S. And when this similar distance has been found and taken away from the distance of the promissor — as when N S is subtracted from N P — there remains S P, the arc of direction, which alone we are seeking.

Diagram. The same figure as on the preceding page: a semicircle standing on a straight base line, with a small upright tick at the top of the outer arc; inner arcs rise from the left end of the base and cross the figure, and straight lines run obliquely from the outer arc to the base, meeting at lettered intersections. The prose above it names, among others, the parallels L E O and N P M, the circles of position F E B and F P B, and the arcs R Q, N S, N P and S P.

- C (top, on the outer arc, left of the tick): C
- L (upper left, on the outer arc): L
- E (upper centre, where several lines meet): E
- A (upper right, where an inner arc meets the outer arc): A
- N (left, on the outer arc, below L): N
- D (left, on the outer arc, below N): D
- S (left of centre, at a crossing): S
- T (right of E, at a crossing): T
- R (left, below S, at a crossing): R
- P (centre, at the meeting point of several lines): P
- Q (below and left of P): Q
- F (lower left, the left end of the base line): F
- G (on the base line, under P): G
- H (on the base line, right of G): H
- M (on the base line, right of H): M
- O (on the base line, right of M): O
- B (lower right, the right end of the base line): B

Suppose, for instance, that in our example ♄ is to be directed to the body of the ☉. First, then, for ♄ as significator, in 25° 30′ ♓ with a southern latitude of 1° 33′, and next for the ☉ as promissor, in 12° 42′ ♉, I seek the distances from the M. C., which is in 6° 10′ ♒. They are obtained as follows. When the A. R. M. C., 308° 34′, is subtracted from the right ascension of ♄, 356° 30′, there remains the distance of ♄ from the M. C., 47° 56′. And when the same A. R. M. C. is subtracted from the right ascension of the ☉, 40° 14′, a whole circle having first been added to it, there remains the distance of the ☉ from the M. C., 91° 40′.

Next I look up the diurnal horary times of both under the elevation of the pole of 51°, either from the table of the length of the day set out above on page 92: and

to the place of the ☉ in 12° 42′ ♉ there corresponds a semidiurnal arc of 7^h 21^m; so, when this is multiplied by 2½, the diurnal horary times of the ☉ come out as 18° 22′. For the place of Saturn, however, the corresponding arc cannot be found from the table of the length of the day except by applying some judgement, because of the evident latitude it has, 1° 33′ south; so I seek the semidiurnal arc, or the diurnal times, in another way. First, namely, I hunt out the declination of ♄, which by the precepts of chapter 6 I find to be 3° 13′ south — the declination the ☉ has in 21° 52′ ♓. Then also [I hunt out] the seminocturnal arc corresponding to this place of the ☉, which comes out as 6^h 16^m; when this is multiplied by 2½, the nocturnal horary times are obtained, 15° 40′. The diurnal times are derived if these, once found, are subtracted from 30 degrees: they come to 14° 20′. Alternatively, I also seek these times from the tables of ascensions, as follows. At the outset, namely, I hunt out in the table of oblique ascensions computed for latitude 51°, of the Sun in 12

° 42′ ♉ — its oblique ascension, which I find to be 19° 55′. Likewise the oblique ascension of the opposite place, 12° 42′ ♏, which is found to be 240° 34′. When the former is subtracted from the latter, I obtain the diurnal arc of the equinoctial, 220° 39′. Finally I divide it by 12, and the diurnal horary times of the ☉ come out in the quotient, as before, 18° 22′. So too from the declination of ♄, which I find to be 3° 13′ south, I first seek the nearest place of the ecliptic corresponding to this declination, which is in 21° 52′ ♓. Next, also the oblique ascension of this place, 356° 34′, and that of the opposite place, 21° 52′ ♍, which I find to be 168° 34′, and I subtract the former from the latter. The difference, 172°, I divide by 12, and in the quotient the horary times are collected, as before: 14° 20′. Third, I divide the distance of the significator ♄ from the M. C., 47° 56′, by its horary times, 14° 20′; and I multiply the quotient, 3^h 20^m 39^s, by the horary times of the ☉, 18° 22′. The product shows 61° 25′ 16″ — the arc by which the promissor ☉ is distant from the M. C. so that it may stand in the same circle of position as the significator ♄. Alternatively, I multiply the distance of the significator ♄, 47° 56′, by the horary times of the ☉, 18° 22′; the product, 14 sixties and 40° 22′ 32″, I divide by the horary times of the significator ♄, 14° 20′. The earlier arc comes out in the quotient: 1 sixty and 1° 25′ 16″. Fourth, since the significator ♄ and the promissor ☉ stand between the M. C. and the horoscope, by the first rule the arc found is taken away from the distance of the promissor ☉, which is 91° 40′. There remains the direction sought, 30° 15′, to which correspond 30 years, 91 days and 7 hours. The direction sought thus falls in the 31st year of the native's age, the year of Christ 1584 July 24.

In the same way let the ☉ be directed, in the same figure, to the left □ of ♄, in 25° 30′ ♊. The distance of the ☉ from the M. C. is 91° 40′. That of the quadrate of ♄ is found if the ascension of the M. C., 308° 34′, is taken away from the ascension of the □ of ♄, 85° 5′: a whole circle having been added to the latter, there remains the distance, 136° 31′. Next, since the diurnal horary times of the ☉ are 18° 22′, and the semidiurnal arc of the □ of ♄ in 25° 30′ ♊ is 8^h 9^m, when this arc is multiplied by 2½ the horary times will be 20° 23′. Third, when the distance of the significator ☉, 91° 40′, has been divided by its horary times, 18° 22′, and the quotient, 4^h 59^m 27^s $20'''$, has been multiplied by the horary times of ♄, 20° 23′, there results an arc of 1 sixty

and 41° 47′ 6″ — the direction sought, which falls in the 35th year of the native's age, on the 287th day from the nativity, that is, in the year of Christ 1590 [recte: 1589], February 5.

Just as previously the directions of the M. C. and of the horoscope of our example, so here I have wished to set out those of the ☉ and the ⊕ expressly. The ⊕, however, has been carried against the succession of the signs [contra s. s.] to its significators, as the astrological precepts require. In this converse direction, however, the procedure is exactly the same as that observed in the direct one, with only this difference: the promissor is taken in the place of the significator, and the significator in the place of the promissor. So there is also no need of new precepts here.

Directions of the ☉ to the promissors set according to the succession of the signs [f. f. f.]

The ☉ is in 12° 42′ ♉. Its A. R. 40° 14′. Distance from the M. C. 91° 40′. The diurnal horary times are 18° 22′.

Longitude of the promissor	Grad.	Asc. R.	Dist. from the M. C.	Horary times	Direc-tion
Term of ♃	16° 0′ ♉	43° 31′	94° 57′	18° 36′	2° 7′
Term of ♄	23° 0′	50° 35′	102° 1′	19° 4′	6° 51′
✶ of ♄, left	25° 30′	53° 9′	104° 35′	19° 13′	8° 40′
△ of ♃, right	25° 57′	53° 37′	105° 3′	19° 16′	8° 54′
Term of ♂	27° 0′	54° 41′	106° 7′	19° 20′	9° 38′
Term of ☿	0° 0′ ♊	57° 48′	109° 14′	19° 30′	11° 55′
☍ of ☿	0° 14′	58° 45′	110° 11′	19° 56′	10° 42′
△ of ☽, left	6° 25′	64° 32′	115° 58′	19° 49′	17° 4′
Term of ♃	8° 0′	66° 13′	117° 39′	19° 55′	18° 15′
Horoscope	10° 14′	68° 36′	120° 2′	20° 0′	20° 13′
Term of ♀	15° 0′	73° 43′	125° 9′	20° 10′	24° 30′
Term of ♄	22° 0′	81° 17′	132° 43′	20° 20′	31° 14′
□ of ♄, left	25° 30′	85° 5′	136° 31′	20° 23′	34° 47′
□ of ♃, right	25° 57′	85° 35′	137° 1′	20° 24′	35° 12′
Term of ♂	26° 20′	86° 0′	137° 26′	20° 25′	35° 32′
✶ of ♂, left	27° 12′	86° 56′	138° 22′	20° 25′	36° 28′
Cusp of the second [Cuſpis ſec.]	5° 36′ ♋	96° 6′	147° 32′	20° 22′	45° 54′
✶ of ♀, left	6° 11′	96° 44′	148° 10′	20° 22′	46° 31′
Term of ♃	7° 0′	97° 38′	149° 4′	20° 21′	47° 30′
Term of ☿	14° 0′	105° 13′	156° 39′	20° 11′	55° 55′
Term of ♀	21° 0′	112° 43′	164° 9′	19° 57′	64° 35′

Directions of the ⊕ to the promissors placed against the succession of the signs [contra f. f.]

The ⊕ in 3° 57′ ♓. A. R. 335° 52′. Distance from the M. C. 26° 18′. Diurnal horary times 12° 50′.

Longitude of the promissor	Grad.	Asc. R.	Dist. from the M. C.	Horary times	Direction
□ of ☿, right	0° 14′ ♓	332° 19′	23° 45′	12° 36′	2° 2′
Term of ♂	30° 0′ ♒	332° 6′	23° 32′	12° 35′	2° 15′
∗ of ♂, right	27° 12′	329° 25′	20° 51′	12° 20′	4° 26′
Term of ♃	25° 0′	327° 18′	18° 44′	12° 9′	6° 10′
Term of ♀	20° 0′	322° 26′	13° 52′	11° 55′	10° 33′
□ of the ☉, right	12° 42′	315° 11′	6° 37′	11° 18′	16° 32′
Term of ☿	12° 0′	314° 29′	5° 55′	11° 15′	17° 8′
☌ of the ☽	6° 25′	308° 49′	0° 15′	10° 54′	22° 5′
□ of ♀, right	6° 11′	308° 35′	0° 1′	10° 53′	22° 17′
Mid-heaven [Med. C.]	6° 10′	308° 34′	0° 0′	10° 53′	22° 18′
Term of ♄	6° 0′	308° 24′	0° 10′	10° 53′	22° 28′
△ of ☿, right	0° 14′ ♒	302° 26′	6° 8′	10° 30′	37° 40′
□ of ♂, right	27° 12′ ♍	299° 16′	9° 18′	10° 20′	30° 29′
△ of ♃, left	27° 57′	297° 57′	10° 37′	10° 16′	31° 39′
∗ of ♄, right	25° 30′	297° 29′	1[numeral: ?]° 5′	10° 15′	32° 5′
Term of ♂	25° 0′	296° 57′	11° 37′	10° 13′	32° 33′
Term of ♃	19° 0′	290° 35′	17° 39′	9° 58′	38° 24′
△ of the ☉, right	12° 42′	283° 48′	24° 46′	9° 46′	44° 47′
Term of ☿	12° 0′	283° 3′	25° 31′	9° 45′	45° 30′
△ of ♀, right	6° 11′	276° 44′	31° 50′	9° 38′	51° 35′
Term of ♂	30° 0′ ♐	270° 0′	38° 34′	9° 35′	58° 15′

End of the Second Part.

PARS TERTIA

On Effects [De Effectibus.]

PROOEMIUM.

On the definition, certainty, usefulness, division and requirements of astrology.

No one who reads the writings of the more recent authors can doubt that, within the branch of learning that contemplates the heavens, the name astrology is now customarily given to that part which considers the natural powers that the celestial configurations and the stars exert on the lower world through their dissimilar heat — by which diverse qualities are generated in the air — and which from this draws out the changes of the things subject to them; the part that was formerly called π…γνωστικὸν [?] διὰ ἀστρονομίας [Greek: p…gnōstikon[?] dia astronomias, "the …gnostic part by means of astronomy"]. [Margin: The definition of astrology.] *Many learned men, however, not without reason doubt its certainty, since we see that the inclinations of the stars are often hindered, or wholly cancelled, by God, the first cause of all things; by good and evil angels; by the wandering motion of the lower matter; by the free will of man; by a good or bad upbringing; and by other causes. [Margin: What changes the effects of the stars, and what calls astrology into doubt.] Yet although daily experience clearly confirms this, certainty is not for that reason to be taken away altogether from the art of astrology — even though its certainty is not as great as that of astronomy. [Margin: Astrology cannot have as much certainty as astronomy has.] For the motions and the configurations arising from the motions, since they proceed from almost unchangeable principles, are for the most part governed by eternal and fixed laws; while meanwhile the lower matter subject to their action is so prone to every kind of change that at the slightest impulse it passes, almost inconstantly, into whatever form. Hence that action too, which proceeds by a fixed law, is rendered, as far as its effects are concerned, very uncertain by this highly changeable subject matter. Nevertheless it can be gathered from this that there is some certainty. [Margin: From where the certainty of astrology is taken.] First, it is evident to the senses that this lower nature casts off its former forms, continually acquires new ones, and is changed at the slightest impulse. Now since no changes occur without causes, which give the first beginning of motion, there will certainly also be some efficient causes of these changes. But there exists in this theatre of the universe no nature more endowed with the power of acting on these lower things than the higher one, which, on account of its action, surrounds the lower on every side and holds an eternal condition — as Ptolemy shows at length in book 1 of the* Quadripartitum*, chapter 2 [Ptol. lib. 1 quadrip. cap. 2]. It is certain, therefore, that the changes of lower things are brought about by the celestial substance, or — what is the same thing — that the celestial bodies act on these lower things; and Aristotle*

demonstrates this openly, as in many other places, so in chapter 2 of the first book of the Meteorology *[cap. 2 primi Meteor. Arist.]. And the first action, which no other action or efficiency precedes, is rightly attributed to the celestial bodies. [Margin: The first action in nature is rightly assigned to the heaven.] For whether we consider those changes in lower things which for the most part follow one another in the same order — as when the Sun heats the earth, and by heating it dissolves the finer parts into vapour; this vapour seeks the higher regions and is condensed there; condensed,* —is dissolved into water: such an order appears in very many other changes; or also those changes of which one is indeed the cause of another, but which for the most part keep no order and are only rarely continued in the same way (for example, someone may suffer from a fever through an inflammation of the spirits; but no cause of the inflammation can be given in itself, only by accident — namely that by chance he was affected by an insult from a neighbour; and a person can be insulted for innumerable reasons, of which it is doubted, not without reason, whether man can have any account), yet in both kinds one cause will be first, which began to exist not from another but from the first efficient, which acts in a perpetual order. Such an efficient, however, is found only in the celestial motion. For the efficient power of the lower bodies seems to follow upon some passion [ad passionem aliquam]; that of the higher bodies, by contrast, is produced first, with no change preceding it. For the celestial bodies merely continue their courses, and by continuing them they build up all actions. The first efficient causes will therefore be from the heaven, and the first cause of changes will be drawn from the heaven.

That these changes can be known by man with probability is evident from this. For if at the outset the first efficient causes are known, and then the order that efficient causes usually keep is known, nothing can in the end delay the judgment about the future event. [Margin: Changes caused in lower things by the celestial bodies can be foreseen.] If anyone objects to us that accidents, which perhaps impede the course of nature, draw it aside and change it, we reply that the operations of accidents act and occur infrequently, and therefore do nothing to obstruct the judgment about an outcome that for the most part comes about. For it is not to be judged from the stars that the events foreseen will come about by some necessity and cannot happen otherwise, but only that the nature of the causes, both acting and acted upon, inclines this way, and for the most part proceeds in this manner. Moreover, innumerable things occur in life that demonstrate the manifest force and efficacy of the celestial bodies. [Margin: Examples of the manifest actions of the celestial bodies on these lower things. Ptolemy, book 1 of the *Quadripartitum*, chapter 2 (Ptol lib 1 quadrip. cap. 2).] For in spring all things burst forth that lay hidden through the winter; in summer they proceed further, to the end of their motion; then, around autumn, they begin to be carried on the contrary course, which they end in winter — so that they manifestly seem to imitate the footsteps of the Sun in its approach and retreat. Rivers and seas, and the humours of living things, decrease and increase according to the changes of the Moon's light. The

powers of the other stars too are detected in particular effects, which are known not only to the learned but to the common people as well: heat accompanies the Dog Star; rains accompany Arcturus [and] the Hyades. And since in the greater stars a certain power of altering and changing is manifestly observed, it will be entirely consistent to attribute a similar power to the lesser ones as well, even though it is not so conspicuous.

It is clear, therefore, that the celestial bodies have a power of acting in the changes of natural things, and that the first efficient power, both in time and in nature, comes from them; and that natural things, in the motions and changes that they undergo in a certain order, on the celestial [Margin: Foreknowledge of changes in lower things can be had from the stars.]

motions depend. It is also established that foreknowledge can be had in those changes in which the same order and manner of succession is for the most part kept.

The way by which this foreknowledge can be had requires two sciences: one of the motions and states of lower things in nature, which is called physics; the other of the progressions and affections of the celestial bodies, which is called astronomy. [Margin: Knowledge of physics and astronomy is necessary for the astrologer.] For if the inclinations of natural things to motion and to rest have been thoroughly examined, it cannot remain hidden in what order effects are produced, once the first change, which gave occasion to the others, becomes known. Now if the places of the celestial bodies at that first moment are known, and frequent experience and observation are added, it cannot be unknown by what celestial force the first motion was excited. And since the succession of changes follows the first motion, unless accidents hinder it, it is evident not only that foreknowledge of future events can be had, but also that the way of foreknowledge has been laid out. If the astrology of the ancients, which Ptolemy above all has set before us in the *Quadripartitum*, was established by this way, we cannot deny it credit unless our experience proves the contrary. For to accuse disciplines of falsehood on the strength of reasons we have imagined about things — not reasons we have drawn from the observation of particular things according to their kinds — is a perverse and deceitful pursuit, unworthy of philosophers. And it is certain that those first practitioners of the art, whom Ptolemy identifies as the Egyptians, and from whom he himself also built up his own astrology, did not lack the necessary means that the shaping of the art required: namely, a knowledge of physics and astronomy; the diligence of their forebears and their own in observing particulars; opportunities suited to complete observations of the heaven and the air; right judgment in proceeding; and, finally, a mind most inclined to deserve well of posterity. So we would have to be thought most unjust if we judged that they had our own habits and circumstances. But enough about certainty.

As for its usefulness, there is no need to report it at length. [Margin: On the usefulness of astrology.] For our whole life abundantly testifies that astrology is supremely useful, since it has the greatest power for guarding against what will

be harmful and for attaining what will be beneficial. [Margin: Ptolemy, book 1 of the *Quadripartitum*, chapter 3.] For it teaches us to foreknow the changes that will occur in these lower things; likewise those that happen in our bodies with respect to health, sickness and habits; and, finally, those that occur in the things we use, such as foods for preserving life and medicines for procuring health. [Margin: Ptolemy, *Centiloquium*, aphorism 5 and aphorism 8.] I add that astrology arouses prayer and the pursuit of piety in the devout, since the evils signified by the stars are not a praetor's edicts, but can for the most part be avoided and turned aside by prayer and effort. It also makes adversity easier to bear with moderation, so that it does not disturb and cast down the mind by a sudden assault, while prosperity does not make us excessively overbearing. For good things foreseen do not make the native intolerable to others and a burden to friends and relatives. Finally, the highest pleasure is what it arouses in human minds. For nothing is more delightful to a mind not corrupted by bestial pleasures than to recognize the wonderful effects of the stars in these lower bodies.

This astrological art is divided into two parts. The first, the general part, sets out the properties of the stars and of the places of the zodiac — both those that belong to them in themselves and those that follow from place, time and position — and so lays the foundations of future judgment. [Margin: Astrology has two parts; one general, which hands down the foundations.]

The other, the special part, is divided into two members. The first of these explains the events that are common to many, by reason of places, air, water and other circumstances, and so teaches how a general προγνωστικὸν [Greek: prognōstikon, "prognostic"] is to be drawn up. The second member contains genethlialogical judgment, showing what the temperaments of individual people are and what accidents follow those temperaments: such as strength, weakness, aptitude for this or that illness, and inclination to certain kinds of studies, actions, habits and affections, and things like these. [Margin: The other special, which sets out either the prognostics of the weather or genethlialogical judgments.] We shall set out everything in four members. In the first we shall explain the foundations of astrology; in the second, the general prognostic of the weather; in the 3rd, the general judgment of nativities; in the 4th, the special judgment taken from transit, profection, direction, revolution and the like.

To understand all this rightly and to put it to use, there is needed — as we said a little earlier, and as Cardano also testifies in segment 1, aphorism 33 — after the study of astronomy, which explains to us the laws of the celestial motions and is the basis of future judgment, a knowledge of natural things, and especially of that part which deals with the mixing of qualities and with the causes of generation and corruption; no part of physics is nobler than this, and none more difficult. [Margin: In what the astrologer must be versed if he wishes to

judge skilfully.] Ptolemy too demonstrates this in the *Centiloquium*[85] in these words: "No one," he says, "can perceive the mixtures of the stars unless he has first come to know the natural differences and mixtures." Nor does Hermes disagree, in aphorism 5 of the *Centiloquium*. And Cardano, in 3, aphorism 155, said: "Astrologers as diviners are the worst of men, deceivers and of bad morals; natural philosophers are lovers of truth and honest." For this reason an astrologer is truthful and honest exactly in so far as he adheres, in his divination, to the principles of natural philosophy.

Rightly, therefore, are those deceivers of youth to be censured who, for the sake of shameful gain — and so that they themselves may at least rehearse the precepts more conveniently and make them familiar to themselves — set out astrological matters at the crossroads to boys or adolescents who lack the aids, and as yet have no judgment at all, for searching out and discerning the causes and reasons of the various actions in nature; a thing to which the ape's head, by no means understanding the foundations themselves, pays little attention. [Margin: Those who set out astrological matters at the crossroads are censured.] Yet it must also be admitted that the successful practice of astrology requires a certain inborn power and, as it were, a natural impulse to divine. [Margin: A natural inclination to divination is required in the astrologer.] For just as art alone does not make good poets, and nature counts for most in them, so precepts alone do not make the complete astrologer: besides the art, practice and a certain natural instinct are required. For we are equipped by knowledge and practice to predict general matters, but particulars are foretold by those stirred by divine inspiration alone.

This is what Ptolemy confirms in aphorism 1 of the *Centiloquium*, in these words: "From yourself, and from knowledge." For it cannot happen that one who knows should pronounce the particular forms of things, just as the sense too does not receive the particular form of a sensible thing but a certain general one; and whoever handles these matters must use conjecture about things. Only those breathed upon by the divine foretell particulars. Manilius testifies to the same in book 2 of the *Astronomica*, where he says: "This too belongs to the fates: to foretell the laws of fate." And Cardano, in 1, aphorism 22: "There is something supercelestial which helps a man to divine." And Ptolemy, aphorism 4 of the *Centiloquium*: "A mind apt for knowledge attains more of the truth than one who has exercised himself in science to the highest degree."

FIRST MEMBER [PRIMVM MEMBRVM]

On the principles or foundations of astrology

Chapter I [Caput I]. On the properties or powers of the planets

The stars, which we have established to be fiery — from their light and flame-like colour, which are a kind of fire, as Plato said in the *Timaeus*; from their heat,

[85] no aphorism number is printed after ſent:

by which they warm these lower things, such as earth, water and air, which are cold by their own nature; and finally from their penetrating action, by which they act almost to the centre of the earth — are of two kinds, wandering and fixed, as we noted in the preceding part, ch. 1. [Margin: Fiery stars.] But since the chief power of acting on and changing these lower things lies in the 7 wandering stars, and the rest exercise their actions after the manner of these, we shall treat these first. The powers of the planets are gathered chiefly in six ways.

First, when the nature of each planet, which each holds of itself, is considered: Ptolemy, book 1 of the *Quadripartitum*, ch. 4, and Albumasar [Abū Maʿshar], ch. 1, book 4 of the *Great Introduction*[86]. [Margin: 1 On the nature of the planets according to the 4 primary qualities.]

The nature of the Sun, which we perceive by the senses, is: 1. to heat powerfully — not so much because of its size, by which it is 166 times greater than the earth (as is demonstrated in Ptolemy, *Almagest* book 5, ch. 17, from the ratio of the diameters, five and a half to one; whereas otherwise, through its great distance, it is found so diminished that it appears scarcely a foot across), as because of the potency or strength of the star. For it is the source of heat and light. And 2. to dry a little; for its heat is life-giving and not violently dry, since it is joined with moisture. [Margin: ☉]

The nature of the Moon is to moisten very greatly, because of its nearness to the earth, from which it draws moist exhalations without hindrance and wets the air; 2 and to heat a little, because of the Sun's illumination. For it shines not by its own light but by the Sun's, and that unequal, according as it is nearer to or farther from the Sun in each month; and the smaller its borrowed light, the less it heats and the less it moistens. [Margin: ☽]

♄ is, first, to cool strongly: both because it stands farthest from the heat and rays of the Sun, according to Ptolemy, ch. 4, book 1 of the *Quadripartitum*, and because it has less heat than suits a man, according to Cardano's commentary on the same passage. So although all the stars are fiery and hot, yet because the heat of ♄ is the least of them all, it follows that in the air, which is cold by its own nature, it rather excites coldness, [Margin: ♄] — while it hinders the powers of the other stars. Joined with the Moon, therefore, it increases the cold, especially in winter and early spring. 2. To dry a little: for it stands very far from the moisture of the earth, and through the scantiness of its heat it keeps down moist vapours.

The nature of Jupiter is: 1. to heat moderately, because it is midway between ♄ and ♂, and because at its fitting distance from the Sun it receives the Sun's rays moderately strong; 2. to moisten somewhat: for since it has a great deal of light, it draws up vapours by moistening, yet moderately, because it is rather far from the earth. Hence, because its power of heating somewhat exceeds its moistening, it is also reckoned fertile. [Margin: ♃] The nature of Mars is: 1.

[86]the page sets `lib. juxta 4`, with `juxta` between `lib.` and the numeral

to dry and parch; 2. to burn in heating. For it is both nearer the Sun and of a denser or thicker substance, which its redness indicates. [Margin: ♂] The nature of Venus is: 1. to heat temperately, and indeed more than Jupiter does, according to Ptolemy, since it is both nearer the Sun and has abundant light, so much that it even casts a shadow; 2. to moisten much. For being near the earth it draws up a great quantity of moist exhalations, both in the evening, when it is called Hesperus, and in the morning, when it is called Lucifer. [Margin: ♀] The nature of Mercury, finally, is to act indifferently. For at one time, near the Sun, it dries; at another, attending the Moon, it moistens. Of itself, however, it is the cause of sudden changes, since it varies both its position and its motion in various ways. [Margin: ☿]

Second, when their powers are weighed with respect to our constitution. [Margin: 2 On the nature of the planets according to goodness and malice.] For since our nature consists in κράσει [Greek: krasei, "mixture"] of the four elements, with the hot nevertheless predominating — and on its predominance follows the power of action, which is life — and since like things are preserved by like and perish by their contraries, it follows that the friendly and beneficent planets are ♃, ♀ and ☽, which act temperately in heating and moistening. [Margin: Good.] Yet this is so in such a way that ♃, because in it heat perfectly dominates the moist, is established as the Greater Fortune, and Venus, because of the abundance of moisture, as the Lesser Fortune. The Moon, through the scantiness of its heat and the excess of its moisture, is reckoned only slightly beneficent, but when full of light, most beneficent. The destructive and maleficent planets, on the other hand, are ♄ and ♂, since by drying and cooling they assail the principles of our life. [Margin: Evil.] ♄, however, is called the Greater Malefic, because of its two qualities, both contrary to life; Mars the Lesser, because of its excess of dryness and heat. The Sun and ☿ are of a doubtful nature, because as the occasion arises they become now malign, now benign. [Margin: Indifferent.] For Mercury strengthens and augments in its actions whatever planet it has joined its powers to; hence it is held good with the good and evil with the evil. The Sun, however, when joined to the other planets, burns them up and hinders them with its light, and frustrates the beneficent decrees of the fortunate ones — since it hides their rays and all but extinguishes their light — and it fosters and intensifies the harmful powers of the maleficent; for this reason it ought rather to be reckoned maleficent. Yet when it is joined to one of the benefics by a fitting aspect, it is judged the most beneficent of all. Haly [ʿAlī ibn Abī al-Rijāl] says the same, *On the Judgments of the Stars*, part 1, ch. 4: "The Sun makes fortunate by its aspect, but by bodily conjunction it brings harm and misfortune."

Third, when with respect to our sex some of the planets are called masculine, others —feminine. For although God, at the very first beginning of creation, divided our nature and that of the other living things by this twofold sex, and still preserves the same distinction — in which the force of males is greater and that of females less, and males are more fit for acting, females for being acted

upon — nevertheless, since the motions of nature are in some way constrained and defined by celestial causes, those who also distinguish the planets in this way do not seem to teach anything at variance with experience and with the common consensus of astrologers, and above all with the prescription of Ptolemy, ch. 5, book 1 of the *Quadripartitum*. [Margin: 3. On the sex of the planets: Ptolemy, book 1 of the *Quadripartitum*, ch. 5.]

First, the two luminaries themselves divide the sexes, so that ☉ inclines to the masculine because of its heat and dryness, and ☽ to the feminine sex because of its moisture. [Margin: The Sun and the Moon principally distinguish sex. Next ♄ ♃ and ♂ are of masculine nature.] Next, ♄, ♃ and ♂ are set down as of masculine nature, since they have received a greater power of drying than of moistening: in Jupiter itself the power of heating [exceeds that] of moistening; in ♄ the power of cooling exceeds the virtue of drying. ♀ is ranked as of feminine nature, for in it the power of moistening exceeds the heat. [Margin: ♀ feminine.] Mercury, finally, shares in both, since it has no nature of its own but always sides with the others. [Margin: ☿ of doubtful nature.]

Fourth, when they are examined with respect to their position relative to the Sun or the horizon. [Margin: 4 On the increase and diminution of the powers of the planets by reason of their position relative to the Sun: Ptolemy, book 1, ch. 5.] For, 1, with respect to the Sun, the planets are said to become masculine, to be increased in light and to grow stronger whenever they rise in the morning before the Sun and are oriental or matutine; or, to put it more explicitly, as long as, counting in the zodiac against the order of the signs, they stand less than six signs from the Sun, so that the Sun precedes them according to the order of the signs and they follow it: as when the Sun is in ♊ or ♋ and the planet in ♈ or ♓. They are said, on the other hand, to become feminine, to be diminished in light and to grow weaker when they appear after the setting of ☉ and are occidental or vespertine; or as long as, counting in the zodiac according to the s. s.[87], they stand less than 6 signs from the Sun, so that they themselves precede the Sun in the same order of the signs and the Sun follows: as when a planet is in ♌ or ♍ and the Sun in ♉ or ♊.

This distinction has been established, and not badly, by the astrologers, above all by Ptolemy, ch. 5, book 1 of the *Quadripartitum*, and by Albumasar, ch. 8, book 4 of the *Great Introduction*. For the matutine planets have emerged from the Sun's rays, and by freeing themselves from those rays they exert their power more strongly; for they both rise by night and give out a greater splendour and efficacy, and they are called "right" — Albumasar, book 7 of the *Great Introduction*. The vespertine planets, by contrast, follow the moisture of ☽ and, running into the rays of ☉, are weakened more and more; for they both rise by day and, darkened by the Sun's presence, affect the air less, as Cardano testifies in his commentary; and by Albumasar they are called "left". That these things are to be understood chiefly of the three superior planets is clear from the

[87]so abbreviated on the page

astrologers everywhere, and indeed from the precepts of astronomy themselves. For ♄, ♃ and ♂ are increased in light when the Sun, by its swifter motion, draws away from them, and they descend from more remote places to places nearer us. They are diminished when they climb upward from places nearer the earth and the Sun comes closer and closer to them. The inferior planets observe the contrary: when vespertine they are increased in light and, as it were, become masculine; when matutine they are diminished in light and become feminine.

2. With respect to the horizon — the circle by which, as by a boundary, the whole efficacy of the individual planets upon us is, so to speak[88], enclosed. According to Ptolemy, ch. 5, book 1 of the *Quadripartitum*, planets are said to become masculine and more efficacious whenever they are carried from the rising or the setting horizon towards the meridian, whether above or below the earth. They are said to become feminine whenever they are carried from the meridian above the earth to the western horizon, or else from the meridian below the earth towards the east. This is either because planets acquire straighter ascensions from the horizon to the meridian in either position, and more oblique ones from there towards the horizon; or because, proceeding from the horizon towards the heart [cor] and the lowest part of heaven [imum cœli], they exert greater efficacy and power, since their placing is ever more direct and less impeded by vaporous refractions, while from there, towards a placing that is more oblique and sinks itself more and more into refractions, they exert less. [Margin: And by reason of their position relative to the horizon.]

Fifth, when they are distinguished with respect to condition or time. For human beings, while they are in the light, are drawn to action because of the opportunity it gives them, [with] heat and an active force thriving in them; in darkness, with moisture prevailing, they turn rather to rest. For the sake of these motions too, some of the planets are called diurnal and others nocturnal. The diurnal are ☉ and ♃, the nocturnal ☽ and ♀; Mercury is set down as common to both [promiſcuus]: Ptolemy, book 1, ch. 6 of the *Quadripartitum*, and Albumasar, the last chapter of book 4 of the *Great Introduction.* [Margin: 5. On diurnal and nocturnal planets: Ptolemy, book 1 of the *Quadripartitum*, ch. 6.] [Margin: ☉ ♃ are diurnal planets.] [Margin: ☽ ♀ nocturnal.] For God himself set the Sun over the day and the Moon over the night, as in Genesis ch. 1, verse 16. Next, Jupiter is said by the astrologers to rejoice in the day, and it has greater power by day because of its tempered κρᾶσιν [Greek: krasin, "mixture"], in which heat dominates the moist. Venus, since it consists of that temperament in which, as in the quality of night, heat is overcome to the highest degree by the moist, also rejoices in the shade of night. Mercury is of both natures. [Margin: ☿ is ambiguous.] It is diurnal at its morning rising, when it precedes the Sun, since that region grows warm and becomes drier through the approach of ☉, and these are the qualities of day. It is nocturnal at

[88]the page abbreviates this word to "q."

its evening setting, when it follows the Sun, since the evening region, as the Sun recedes from it, becomes colder and moister, and these are the qualities of night. All this, however, is to be taken so that "diurnal" is understood either of the day or of being above the horizon, and "nocturnal" either of the night or of being below the horizon.

For the position of a planet, according to Cardano's commentary on text 33 of book 1 of Ptolemy's *Quadripartitum*, can vary in 8 ways according to this difference and the preceding one, taken from the Sun: 1. By day, above the earth, oriental: and thus ♃ is placed best, ♀ worst. 2. By day, above the earth, occidental: and thus neither ♀ nor ♃ is placed well. 3. By day, below the earth, oriental: this position agrees with the first. 4. By day, below the earth, occidental: and thus ♃ is placed badly, ♀ well. 5. By night, above the earth, oriental: and thus ♃ is disposed well, ♀ badly. 6. By night, above the earth, occidental: and thus neither ♃ nor ♀ is placed well. 7. By night, below the earth, oriental: this position corresponds to the preceding one. 8. By night, below the earth, occidental: and thus ♀ fares best, ♃ worst.

Neither of these differences is assigned to the malefics in itself. [Margin: To the malefics, too, neither difference is assigned in itself, but for another reason.] For since by their own natural force they rather resist motion and rest than promote these two, and do not promote them except in so far as their malice is tempered by a contrary force, therefore to Saturn the diurnal condition is assigned, to temper its cold, since in a bad mixture it is always fitting to correct the worse qualities by their contraries, so that they may do less harm. To Mars, on the other hand, the nocturnal condition is ascribed, to temper its heat and dryness.

Sixth, when they are compared with their own orbs, the eccentric and the epicycle, in which they are said to ascend and descend, to be in apogee and perigee, to be slow, swift or moderate in course, direct, stationary and retrograde; and they change their powers according to the nature of their position and motion. [Margin: 6. Planets farther away are less efficacious, nearer ones more.] For all planets are purer, better and more fortunate near the apogee of the eccentric and of the epicycle, because they are farther from the earth and closer to the fixed stars, even though they have less efficacy and move the air less. At the point opposite the apogee [augis], however, they are not only worse but also more robust, and disturb the air more strongly. For every natural agent acts the more strongly, the nearer the thing acted upon [paſſio] [recte: paſſo] is. Cardano too shows this, 7 Aph. 156, where he says: "Every planet, the nearer it is to the earth, the more quickly it receives impressions." But when planets are at their mean distances [longitudines medias], they will signify nothing from this except a middle state, which in most things is best, 7 Aph. 155. Experience, however, proves that this holds least of all in the Moon. For since the Moon has a great kinship with the earth, when it is nearest to it at the point opposite on the epicycle, where its course is also swifter, it is not only more robust but also better and purer. At the apogee [auge] of the epicycle, by

contrast, where its course is slower and it is farther from the earth, it produces effects not merely weaker but also more disturbed.

In particular, according to Ptolemy, ch. 7, book 1 of the *Quadripartitum*, the Moon from ☌ to the first quadrature is more moist than hot, just as a newly born body consists of a moister and purer substance. [Margin: The effects of the Moon in the individual quarters.] From the first quadrature to ☍ it is more hot than dry, because of the consumption of the moist and the increase of heat; from ☍ to the second □, more dry than cold; and from the second □ to ☌, more cold than moist. So too the other planets, when they are with the Sun and oppressed by the rays of ☉, are placed, so to speak[89], outside every state, and obtain no powers. From their morning rising to the first station, ♄, ♃ and ♂ have the most moisture. From the first station to the middle of the retrogradation, where they are ἀκρόνυκτοι [Greek: akronyktoi, "acronychal"] and stand opposite the Sun, they heat, because of the consumption of the moist and the increase of heat. From opposition to ☉ to the second station they dry; from there to their occultation they cool. And each of them exercises these powers in the heaven that surrounds us; but they also vary them in many ways, when, mixed with stars of similar or dissimilar nature, they become more potent or less potent, prevail, or are inferior. For contraries always blunt each other's vehemence of power, just as similar things promote it.

Chapter II [Caput II.]. On the properties of the fixed stars

The fixed stars hold the next place after the planets in acting upon and moving these lower things, although they have less force than the planets, since they are both farther from the earth and hold the outermost seat in the world, and twinkle with a trembling light. Their virtue has been discovered through experience, just as that of the planets was. For just as the operations of the luminaries are, first of all, evident to everyone, and it was then noticed that the powers of the luminaries vary in many ways according to the configuration and position of the other planets with them, so the nature of the fixed stars too was discovered from the variety in the operations of the luminaries, since these produce now one effect and now another as they approach the fixed stars and recede from them, or are configured with them in some other way.

[Margin: The fixed stars act according to the natures of the planets they resemble.] And although Ptolemy, ch. 4, book 1 of the *Quadripartitum*, does not distinguish them by any wholly new differences, they exert their operations chiefly according to the natures of the planets that they resemble in their brightness and colour, and from which they are also named. So the red and dusky ones, whether bright or not, have the nature of Mars, and burn and dry strongly; the leaden ones, of Saturn, cool, and bring frost and hail; the white and bright ones, of Jupiter, heat moderately, are healthful and moisten somewhat, and sometimes also produce thunder; the whitest and brightest, of ♀, moisten much and heat somewhat; the white and pale ones, of dull light, of ☽, likewise

[89]again abbreviated "q." on the page

moisten copiously and heat little; the clear, very bright and moderately reddish ones, of ☉, heat copiously and dry a little; the ashen, bright ones of a colour that, so to speak[90], wavers, of ☿, set in motion uncertain qualities; the dark ones, of ♄ and ☽, cool, and sometimes moisten, sometimes dry, and produce mists and at times even hail; the nebulous and spotted ones, of ♂ and ☽, stir up rains, and so on. For this reason Ptolemy too, in the said chapter, where he deals expressly with the powers of the fixed stars, does this one thing only: he sets out which planet's nature — whether of one or of several — the fixed stars in the constellations resemble. Stadius also does this very thing in the *Tabulae Bergenses*, ch. 14, the last chapter of the commentary, on the fixed stars; so does Cardano, ch. 7 and 8 of the *Suppl. Alm.*; and we have done the same above, in Part 2, ch. 5.

It should be understood, however, that the powers of the fixed stars are also distinguished by these three differences, which Cardano notes in his commentary on the cited chapter of Ptolemy. 1. By magnitude. [Margin: 2. They act by reason of magnitude.] For whichever are larger have a larger force, and those that are smaller a weaker one. 2. By light. [Margin: 3. By reason of light.] Those that have a clear light make all things illustrious, whether they are good or bad; the dark ones bring obscurity of mind and intellect, and of other effects. Thus those that have a dense light are more efficacious, and those that have a sparser one weaker. And those that twinkle most, such as the Dog Star [Canicula], cause great disturbances, agitate the seas, and make the minds of men restless. 3. By place. [Margin: 4. By reason of place and position.] For, first, those are strongest that are set nearly in the ecliptic: such as the Southern Ass [Asellus Australis] in ♋, of the nature of ♂ and ☉, whose force is to intensify the heat; the right knee of ♌ and the Heart of ♌, of the nature of ♂ and ♃, whose force is to kindle the air into lightnings and thunders; at the tip of the left wing of ♍, of the nature of ☿ and a little of ♂, which the air vehemently agitates with winds. The preceding star in the back of ♎, of the nature of ♂ and ☿, which is also violent, etc. For these are joined with all the planets and with the Sun itself. Next in strength are those confined within the third degree of latitude, since they can be joined bodily with all the planets except the Sun. After these come those set within the third and the 5th degree of latitude, as being stars with which the ☽ can be coupled, together with Mars and Venus. Last of all are those that lie within 5 and 8 degrees of latitude, as being stars that Mars and Venus approach, but more rarely.

[Margin: 2] Secondly, stars that have a northern latitude, or a northern declination as well, are more efficacious for us, who have the north pole raised, than those that have a southern latitude or declination. [Margin: 3] Thirdly, stars that stand over the vertex of some region or city — so that their declination corresponds exactly to the latitude of that region or city, and they are therefore called vertical — have very great power in it and are of the greatest efficacy,

[90] again abbreviated "q." on the page

according to Cardano, ch. 10 of the *suppl. Alm.*, and Stadius, ch. 4 of his commentary on the fixed stars. [Margin: 4] Those that are remote from it have less power, and the less the farther they are removed from the vertex. [Margin: 5] [?] Fourthly, if any are joined with some planet in longitude, or also rise, set, or hold mid-heaven with a planet, they have very great power and display the force of the planet with which they are associated. Lastly, those of the fixed stars that lie nearest the zodiac — whether for the majesty of their brilliance, or for the august splendour of their light, and hence the efficacy of events, or for the magnificent and splendid dignity which they confer — are called Royal or Bebeniae; and Stadius, ch. 8 of his commentary on the fixed stars, counts four of them: the Virgiliae, Palilicium, Regulus, and the Heart of ♌. But Cardano, ch. 7 and 8 of the *Sup. Alm.*, counts 15. In ♉, three: one of the Pleiades, which is the northern end of the preceding side, of the 5th magnitude; and two of the Hyades — the former, of the 3rd magnitude, which is between the nostrils and the northern eye, and the latter, the eye of ♉, Palilicium. In ♊, one: the following head of ♊, which is called Hercules. In ♌, one: the Heart of ♌. In ♍, one: Spica, which the Greeks call στάχυς [Greek: stachys, "ear of grain"]. In ♎, one: the brighter star of the southern scale. In ♏, three: 1, the last of the bright stars of the forehead of ♏; 2, the Heart of ♏; 3, the star outside the figure, inclining from the sting towards the north. In ♐, one: the more southerly star of the bow of ♐. In ♑, three: 1, the more southerly star in the following horn of ♑, of the 3rd magnitude; 2, the star that is following in the gape of the mouth, of the 6th magnitude; 3, the preceding one of the two in the tail of ♑. And finally, the right shin of ♒.

Chapter III [Caput III.]. On the properties of the signs of the zodiac

[Margin: To the stars, indeed, the greater efficacy is ascribed.] All the efficacy of heaven, and the difference in that efficacy, is ascribed to the shining globes of the stars, as the bodies from which it chiefly proceeds. [Margin: Yet the dodecatemoria of the zodiac too are not to be wholly neglected.] Even so, we cannot deny that other parts of heaven also have some property and force of their own, since the alternation of the seasons plainly demonstrates it. Now this alternation teaches that the zodiac, beneath which the planets continually move and wander along a broader path, points out, as it were with a finger, most of the changes in lower things — not only in the weather but also in nativities. It therefore seems worthwhile that we should now weigh it in its parts and its various distinctions. In the first chapter of the preceding Part it was shown sufficiently why the zodiac is divided in longitude into 12 equal parts, which are called signs, and why the numbering begins from ♈, that is, from the point of the vernal equinox; Albumasar [Abū Maʿshar] also confirms this at length, *Introd.* book 2, ch. 2, 3 and 5. [Margin: The fixed stars have changed their seats in the signs.] Before the division of the signs, one thing now remains for us to consider: the images of the signs, which we call asterisms, have been carried forward in longitude by many degrees since the times of Ptolemy, so that they

are no longer found in those places of the signs in which they were then. And since the nature of the stars remains the same, judgement must certainly be made about the unstarred signs of the zodiac, which Ptolemy everywhere calls dodecatemoria, in such a way that the virtue of the asterisms is by no means neglected. For when these are compared with those, the disposition of the heavens is recognized more clearly, and a more accurate and more certain judgement about future events is drawn out. And yet this too must be admitted: even if the stars of ♈ were carried forward into ♎, and those of ♎ into ♈, the seasons of the year would still agree with the same unstarred signs of the zodiac, and would not be transferred to one sign after another, as the stars are.

[Margin: The motion of the Sun through the zodiac describes the year and its parts.] As for the unstarred zodiac, then, which is considered with respect to the earth and the equator: the Sun's passage through it defines for us the time we call a year. [Margin: As there are 4 parts of the year, so there are 4 quadrants of the year.] And just as its parts are 4 — spring, summer, autumn and winter — so the four quadrants of the zodiac itself are rightly established.

To treat first of the parts of the year: Ptolemy teaches, ch. 9 of book 1 of the *Quadripartitum*, and Albumasar, ch. 5 of the second book of the *Introd.*, and it is beyond all dispute, that [Margin: Spring] spring is most moist and somewhat warm. For the Sun, returning towards us along the oblique circle from its most remote departure from our vertex, loosens all the moisture that had been bound up by the cold of winter, and begins to stir up a certain warmth. And although the physicians appear to disagree, since they make spring temperate, this must be understood of quality only, whereas we are speaking of the substance or quantity of the moist. That quantity is most abundant in spring; otherwise it is temperate in quality, and not raw like the moisture of winter. It is therefore suited and directed not to putrefaction but to generation, since the life-giving heat of the ☉ works it up and subdues it by its ascent. [Margin: Summer] Next, summer is hottest and dry, because at that time the heat is intensified and consumes all the moisture by dissolving it. [Margin: Autumn] Autumn is driest and cold, because all the moisture consumed in summer leaves nothing for autumn, and the heat itself is gradually abated as the Sun departs from our vertex. [Margin: Winter] Finally, winter is coldest and moist, because at that time nature tends towards a new regeneration of the moist, so that as winter runs out, it can return again in spring, and in this way births and deaths are driven round in a circle. For births proceed from the moist as from their matter; but while heat, by drying, brings the potency of the moist into act, it exchanges the moist for the dry for the sake of form, since there can be no firmness except in a dry body. Cold, on the other hand, contributes to the generation of the moist, since it gathers and compacts the parts into themselves, so that nothing of finer substance exhales, but is condensed within and dissolved into a watery nature.

And it is not only the four seasons of the year that follow this alternation: the ages of living things follow it too. For we see that in the first age the action

of the moist prevails, by which the growth of the parts is gained; in the second age, once the moist has been changed into dry, the force of heat becomes more active; in the third, through the failing of the moist, heat is diminished and dryness dominates; and in the fourth, finally, as dryness prevails, cold succeeds. [Margin: The four quadrants of the zodiac] The four quadrants, then, which are determined by the annual motion of the ☉ in the zodiac and named after the seasons, stand as follows. [Margin: 1 Spring] The first, the vernal quadrant, comprising these three signs, ♈, ♉ and ♊, is in its qualities, like spring, moist and warm; it is, moreover, sanguine, and suited to the age of childhood.

[Margin: 2 Summer] The second, the summer quadrant, containing ♋, ♌ and ♍, is warm and dry, choleric, ruling the age of youth. [Margin: 3 Autumnal] The third, the autumnal quadrant, comprising ♎, ♏ and ♐, is dry and cold, melancholic and waning, presiding over the age of manhood.

[Margin: 4 Wintry] The fourth, the wintry quadrant, containing ♑, ♒ and ♓, is cold and moist, phlegmatic, and befitting old age.

[Margin: 2 Division of the zodiac into signs: Cardinal 4] Secondly, the 12 signs of the zodiac are divided — according to Ptolemy, ch. 10 of book 1 of the *Quadripartitum*, and Albumasar, ch. 6 and 7 of book 2 of the *Introd.* — into 4 cardinal or movable signs. Two of these, ♈ and ♎, are equinoctial: in them day and night are made equal, and the air holds, as it were, a middle state between heat and cold. Two, ♋ and ♑, are solstitial, in which the Sun makes its τρόπους [Greek: tropous, "turnings"] : in the former by descending from the vertex, where the air is hottest; in the latter by ascending towards the vertex, where the air is coldest. [Margin: Fixed 4] There are likewise four fixed or firm signs, ♉, ♌, ♏ and ♒, in which the condition of the air that the Sun began in the cardinal signs now becomes firmer and is felt more by us, because of its longer stay in that condition. [Margin: Common 4] And finally there are four common or bicorporeal signs, ♊, ♍, ♐ and ♓: they are so called because with their earlier part they approach the condition of the preceding signs and with their later part that of the following ones, or because they hold the qualities common to the preceding and the following quadrant of the year, or else because they are usually pictured with two different bodies.

[Margin: Third division, according to the trigons: into Fiery 3, Earthy 3, Airy 3, Watery [numeral: ?]] Thirdly, the signs are divided — according to Ptolemy, ch. 17 of book 1 of the *Quadripartitum*, and Albumasar, ch. 7 of book 2 of the *Introd.* — by the four trigons. The fiery are three, ♈, ♌ and ♐, because of their heat and dryness; they rule choler and the bitter taste. The earthy are three, ♉, ♍ and ♑, because of their dryness and coldness; they preside over melancholy and the sharp taste. The airy are three, ♊, ♎ and ♒, because of their moisture and heat; they govern the blood and the sweet taste. The watery are three, ♋, ♏ and ♓, because of their coldness and moisture; they move phlegm and the salty taste. So the verses that aid the memory teach:

> Fiery are Aries, Leo, Chyron; earthy, Taurus and Virgo joined
> with the Goat; but the Brothers are strong in air, and Libra and the

Pourer of water; the nature of the waters is imitated by glowing
Cancer, and Scorpius, and the two Fishes.

And in this division three signs are always joined in one trigon: one movable, the second fixed, the third common.

[Margin: 4 Division into masculine and feminine signs] Fourthly, the signs are divided — according to Ptolemy, ch. 11 of book 1 of the *Quadripartitum*, and Albumasar, ch. 8 and 9 of book 2 of the *Introd.* — by the difference of sex, which they too, like the planets, appear by nature to promote and preserve in this lower world: into six masculine or diurnal and six feminine or nocturnal signs. The order, however, is such that around the circuit of the zodiac a feminine or nocturnal sign always follows a masculine or diurnal one, since males too delight in the company of females, and night takes over from day. Since ♈, then, is the first sign, it will be diurnal and masculine, because the masculine force is the stronger; ♉ feminine and nocturnal; ♊ masculine and diurnal; as the attached table shows.

Table of the diurnal and nocturnal signs

Masculine, Diurnal	♈	♊	♌	♎	♐	♒
Feminine, Nocturnal	♉	♋	♍	♏	♑	♓

The masculine signs, moreover, are fiery or airy, and fortunate; the feminine signs are earthy or watery, and unfortunate; for in the former the force of heat predominates, which leads to life, while in the latter cold predominates, which leads to death and destruction.

[Margin: 5 Division into northern or commanding] Fifthly, the signs are divided into six northern signs, ♈, ♉, ♊, ♋, ♌ and ♍, which decline from the equator towards the north. Planets placed in them are nearer to us and more effective, and the Sun pours a greater force of heat and abundance of light into this lower world; hence Ptolemy too, ch. 13 of book 1, calls them commanding. [Margin: and southern or obeying] And into six southern signs, ♎, ♏, ♐, ♑, ♒ and ♓, which decline from the equator towards the south: planets and the ☉ standing in them are more remote from our vertex and act less upon this sublunary region, and so they are called obeying. Yet the commanding and the obeying signs do not act upon and suffer from one another indiscriminately, but only with respect to the situation they hold towards one or the other equinoctial point. For signs at an equal distance from either equinoctial point rise above the horizon in an equal space of time: for instance, ♈ and ♓, in our latitude, with 12° 38′ 49″ of the equator, a time of $0^h\ 50^m\ 35^s\ 16'''$; ♉ and ♒ with 16° 44′ 33″ of the equator, in the space of $1^h\ 6^m\ 58^s\ 12'''$; and so on — as is clear from the tables of oblique ascensions suited to our latitude. And moreover, the Sun in them, by its apparent diurnal motion, seems to describe parallels equal in size, on the principle that lines equally distant from the diameter are equal, by prop. 14 of book 3 of Euclid; but in such a way that in the northern signs it makes the days longer, and in the southern signs the nights longer. It follows

that Aries commands the Fishes, ♒ Aquarius, and ♑ Capricorn, as is clear from the attached table.

Signs: Northern and Commanding	♈	♉	♊	♋	♌	♍
Signs: Southern and Obeying	♓	♒	♑	♐	♏	♎

[Margin: 6 Division into straight] Sixthly, according to al-Qabīṣī, *differentia* 1 of his *Isagogic booklet*, the signs are divided into straight and crooked, that is, into signs of long and of short ascensions. The straight are those which, in any position of the sphere, ascend straight, that is, slowly. So, in our obliquity, the signs of the descending half, ♋, ♌, ♍, ♎, ♏ and ♐. [Margin: and crooked] The crooked signs, or signs of short ascensions, are those which in any disposition of the sphere ascend obliquely, that is, quickly: as, in our northern obliquity, the signs of the descending [recte: ascending] half, ♑, ♒, ♓, ♈, ♉ and ♊.

[Margin: 7 Division into human] Seventhly, the signs are divided into human, bestial and reptile, according to Albohazen Hali, ch. 1 of part 1 of the book *De judiciis astrorum*; al-Farghānī, book 6 of the *Introd.*; al-Qabīṣī, *differentia* 1; and Garcaeus, ch. 11 of *De judiciis astrorum*. The human or rational signs are held to be ♊, ♍, ♎, the front part of ♐, and ♒: either because in their sign-form or picture they represent a human figure, or because they impress on human bodies good and moderate dispositions, such as sociability, gentleness, hospitality and civil manners. [Margin: Bestial] The bestial signs are those that bear the names either of beasts, as ♈, ♉, ♑ and the rear part of ♐, or of wild beasts, as ♌; and they give a signification of inhospitality, savagery, insolence and rapacity. Finally, the reptile signs are ♏, ♋ and ♓, which as it were creep along the ground and show no appearance of disposition or industry.

[Margin: 8 Division into those having a beautiful voice] Eighthly, according to al-Farghānī, book 6 of the *Introd.*, ch. 12, and al-Qabīṣī, *diff.* 1, they are divided into signs having a beautiful voice — of this kind are those that represent images of men, as ♊, ♍, ♎, ♒ and the first half of ♐; [Margin: a middle voice] and signs having a middle voice — of this kind are those that represent the forms of bleating, lowing and roaring animals, as ♈, ♉, ♌, ♑ and the second half of ♐, which are also called very lustful, because they entice to desires and lusts; [Margin: and mute] and finally signs lacking a voice, as ♋, ♏ and ♓.

[Margin: 9 Into fruitful] Ninthly, according to the same authors, al-Farghānī and al-Qabīṣī, in the places cited earlier, they are divided into fruitful signs, or signs of many children, which, especially when placed in the west, signify abundant offspring: such are the signs of the watery trigon, ♋, ♏ and ♓. [Margin: moderate] Moderate signs, or signs having few offspring: as ♈, ♉, ♎, ♐, ♑ and ♒. [Margin: barren] And barren signs: as ♊, ♌ and ♍.

[Margin: 10 Into beautiful, moderate, deformed] Tenthly, into signs of outstanding beauty, which lead to dignity and comeliness of form, as ♊, ♎, ♍

and the first part of ♐; signs of moderate beauty, as ♏, ♒ and ♓; and deformed signs, as ♈, ♉, ♋, ♌ and the rear part of ♐.

[Margin: 11 Into signs of happy dispositions] Eleventhly, signs of happy dispositions are established — above all the Mercurial and Saturnine signs, ♊, ♍, ♒, ♎ and ♒ — since, as Marsilio Ficino [Marsil. Ficinus] proves in book 1 of *De studiosorum sanitate tuenda*, ch. 6, these two planets prepare the mind above all for the investigation of hidden things. For whatever outstanding dispositions there have ever been had their positions in these signs. Above all, however, ♒ and ♒ make for the inquiry into and contemplation of nature, since ☿ is best placed in them. But there is this difference: ♒, because of the exaltation of ♂, produces more contentious and lying talents; ♒ more placid and milder ones. ♊, ♍ and ♎ signify eloquence. Besides these signs, ♉ denotes the greatest stupidity. [Margin: And those that give some disposition] The rest are not wholly foreign to the gifts of talent, as is shown more fully in the doctrine of nativities.

[Margin: 12 Into conjoined and disjoined] Twelfthly, the signs are divided into agreeing — that is, conjoined or beholding — and into disjoined or averse. Agreement, or beholding, as Ptolemy teaches in book 1, ch. 15 of the *Quadripartitum*, usually arises from various causes. [Margin: 1.] First, with respect to the rays by which they regard one another in the figure, as Albumasar too advises in ch. 2 of book 6 of the *Introd.* For they behold one another either by the opposite ray, when, namely, rays meeting from diametrically opposite places of the heaven concur at the centre; or by the trigon, when the line of the aspect is the side of a three-cornered figure inscribed in a circle; or by the quadrate, when they behold one another under the side of a square — these, however, are said to behold one another hatefully, and so they are hostile and bad; or by the hexagon, when the straight line of the aspect is the side of a six-angled figure. For every illuminating point, as the opticians teach, spreads its light like a hemisphere. And just as rays sent into the parts of the heaven following the order of the signs are left-hand rays, for astronomers who turn their face to the south, so the others, cast against the order of the signs, are called right-hand rays. All these radiations, moreover, are defined not only from point to point, or from degree to degree, but also [Greek: ἐν πλάτ[?] (en plat-, "in breadth")], from sign to sign. The □ and ☍ rays are unfortunate, the △ and ⚹ fortunate; the ☌ is indifferent. And these signs, which behold one another by some ray, are called beholding or conjoined signs.

[Margin: [numeral: ?] Into commanding, obeying] Secondly, with respect to their situation towards the equinoctial points: here, of the signs equally removed from either equinox — that is, from the beginning of ♈ or of ♎ — the northern are called commanding and the southern obeying, as we noted a little earlier in the fifth division.

[Margin: 3. Into antiscia and unconjoined] Thirdly, with respect to their situation towards the solstitial points: here, according to Ptolemy, ch. 14, book 1 of the *Quadripartitum*, and Albumasar, ch. 5 of book 6 of the *Introd.*, signs

that stand an equal distance from one or the other tropic point, and have an equal force of heat and abundance of light, are held to be of equal power. The Sun, too, running through them, makes days equal to days, nights to nights and hours to hours. They are called equipollent signs, and signs beholding one another, since they also rise and set in the same parts of the horizon, as is clear from the table below:

Signs straight and directly ascending						
Antiscia signs	♋	Hateful ♌	♍	♎	Hateful ♏	♐
or equipollent	♊	♉	♈	♓	♒	♑
Signs crooked and obliquely ascending						

It should also be noted here, however, that signs that strike one another with a quadrate ray are said to behold one another hatefully, as ♌ and ♉, ♏ and ♒, and so they are hostile and bad. See Julius Firmicus, who discusses the antiscia most fully, book 2, ch. 32. But signs that are unequally distant from the tropic points, and are associated with none of the three former respects, are called unconjoined, disjoined or averse (Ptolemy, ch. 15 of book 1 of the *Quadripartitum*), because they have neither any conflict nor any agreement. For in these, heat and light are not, with equal excess and defect, between themselves compared, as in the commanding and obeying signs; nor are they held in equal measure, as in the equipollent signs. In both respects they are dissimilar, and finally there is no combination of rays at all, whether fortunate or unfortunate. Each of the four firm or fixed signs, which are ♉, ♌, ♏ and ♒, has four such unconjoined signs: the two that immediately precede and follow it, and the two that are opposite these. Thus the signs unconjoined to Taurus are ♈ and ♊, and the signs opposite these, ♎ and ♐; unconjoined to Leo are ♋ and ♍, and the signs opposite these, ♑ and ♓, and so on. The cardinal signs, by contrast, have only two unconjoined signs, the succeeding one and the opposite one: thus, to Aries ♉ and ♏, to Cancer ♌ and ♒, and so on, are unconjoined. So too the conjoined [coniuncta] or bicorporeal signs have two, the preceding one and the opposite one: thus, to Pisces ♒ and ♌ are unconjoined, to Gemini ♉ and ♏, and so on. This threefold respect, moreover, applies not only to whole signs but also to the parts of the signs. Thus the second degree of ♈ commands the 28th degree of ♓, and regards or beholds the 28th degree of ♍. So too the sixth degree of ♊ commands the 24th degree of ♑, and beholds the 24th degree of ♋.

Caput IV.

De familiaritate & dignitate Planetarum in 12 signiferi locis.

Chapter 4. On the familiarity and dignity of the planets in the twelve places of the zodiac.

So far we have considered what the properties of the stars are in themselves, and of the places of the zodiac among themselves. Now, by comparing the stars and the signs of the zodiac with one another, we must see what dignities or increments — or dejections, detriments or debilities — the planets acquire when placed in this or that place of the zodiac, both because of their familiarity with the sign, and because the qualities of that sign agree or disagree with the planet. [Margin: The dignities of the planets are twofold, essential and accidental.] And since the dignities, or ἐνέργειαι [Greek: energeiai, "operations"], of the planets are twofold, essential and accidental, in this chapter we shall deal with the essential ones, which the Greeks call ἐνεργίας κ᾽ τὸ κοσμικὸν [Greek: energias kata to kosmikon], that is, efficacies with respect to the world.

They are, moreover, nothing other than increments of the innate powers, which befall the planets by reason of their placement in one sign or another of the zodiac. [Margin: What the essential dignities are.] [Margin: 1. The dignity of the house.] And the first dignity is the house [Domus]: namely, the planets claim particular signs for themselves as houses, in which they exercise management [Oeconomiam] like fathers of families, and are called οικοδεσπόται [Greek: oikodespotai, "house-masters"]. For just as each person manages everything in his own home quite freely, as he pleases, so certain places are found in which the planets, because of the agreement of their qualities, exert their powers without any hindrance. In the assignment of the houses, however, above all, the number both of the signs and of the planets must be considered; on this, Ptolemy, ch. 16, book 1 of the *Quadripartitum*; Albumasar, chs. 3 and 4, book 5 of the *Introd.*; Julius Firmicus, ch. 2, book 2 of the *Astron.* For since the signs are 12 but the planets only 7, some planets had to be given several signs in which to have their domiciles, so that no sign should be left without such a dignity. Wise antiquity therefore assigned to each of the luminaries one sign only, and to each of the other five planets two signs apiece, with this intention: that since the force of the luminaries is greatest in any nativity, a single

[Margin: Why each luminary has one domicile, while each of the other planets has two.] sign only should each luminary rule, so that this force should not be divided among several dominions, dissipated and made weaker. Furthermore, the luminaries also do not change their nature by reason of their position, whether above or below the horizon. For the Sun, whether it is above or below the horizon, is always a diurnal and masculine planet, and is also the source of all heat. To the Sun, therefore, a domicile is attributed only in a fiery, masculine and diurnal sign. The Moon, likewise, is always feminine and nocturnal, whether she is placed above or below the horizon, and she is established as the mother, as it were, of moisture; hence she rightly has her lodging only in a watery, feminine and nocturnal sign. The other five planets, however, repeatedly change their nature according to their position above or below the horizon: when they move below the earth, although they are masculine and diurnal in themselves, they are nevertheless made feminine and nocturnal; and above the earth they become masculine, although otherwise they are feminine

in themselves. For this reason, too, each of them has been allotted two lodgings, one in a masculine and diurnal sign, the other in a feminine and nocturnal one, so that each of them, when its nature changes with its position in the world, is nevertheless not left without a sign suited to its nature.

The order and sequence of the houses is as follows. Since the force of the two luminaries is greatest, such signs must also be allotted to them as those from which we feel the highest heat and the greatest force of the heavenly bodies. These are ♋ and ♌; these two, therefore, must be assigned to the luminaries. [Margin: Leo is the house of the Sun.] To the Sun ♌ is ascribed, since it is a masculine, diurnal sign of a fiery nature, which by the qualities of its stars as it were stimulates [extimulans] the power of the ☉ and calls it forth more fully into act. [Margin: Cancer is the house of the Moon.] To the Moon, however, ♋ is allotted. For it is a feminine and nocturnal sign, having a cold and moist nature that agrees exceedingly well with the nature of the Moon; and this also because, just as the Moon is nearest the earth, so ♋ itself also comes closest to our zenith. [Margin: The half of the zodiac preceding Leo is ascribed to the ☽; the half following Cancer, to the Sun.] Moreover, the half that precedes ♌ and extends from ♒ through ♓, ♈, ♉, ♊ into ♋ is ascribed to the Moon, and is said to be of lunar nature; but the half that follows ♌, and contains ♌, ♍, ♎, ♏, ♐ and ♑, agrees with the solar nature, and is called lunar [Lunaris].

The remaining signs are fitted to the other planets, whose dominion does not extend as widely as that of the luminaries, over a semicircle; and this in the same order that the planets keep in the heavens with respect to the Sun. [Margin: ♊ ♍ domiciles of ☿] For since Mercury is always nearest the Sun, so that it does not depart from the Sun beyond the 27th degree, the signs adjoining the domiciles of the luminaries on either side, ♊ and ♍, fall to it as houses. [Margin: ♉ ♎ house of ♀] Next come the domiciles of Venus, ♉ and ♎. Since she is the lesser fortune and friendly to the luminaries, these signs, which behold the houses of the luminaries with the benign sextile [sexangulari] ray, are deservedly ascribed to her. Moreover, both signs are moderately fertile, and increase the fertility of Venus.

[Margin: ♈ ♏ house of ♂] [?] Mars follows Venus, and so the signs next to the domiciles of Venus, ♈ and ♏, also offer him lodging. For since Mars, by his dryness and excessive heat, is opposed to the generation of things, and is therefore considered a malign planet and marked with the name of the lesser misfortune, it was fitting that his command too, in signs that with a hostile quadrate ray behold the houses of the luminaries, he should exercise. [Margin: ♐ ♓ house of ♃] Jupiter follows Mars: the greater fortune, and most friendly of all to the luminaries. To him the signs ♐ and ♓ have been given, which are more fertile than the others, since they regard the houses of the luminaries with the trigon radiation, the best of all.

[Margin: ♑ ♒ house of ♄] Lastly there remains ♄, the greater misfortune. Since he has a place in the system of the world more remote than all the others, and is the most hostile to the luminaries, the signs ♑ and ♒ suit him for this

reason: they are the furthest removed from the signs of the luminaries and from our zenith, the coldest and wintry, and they afflict the houses of the luminaries with the opposite ray, the most hostile and pernicious of all — as the adjoining table shows, setting out in a kind of compendium what has been put forward so far.

Diagram. Table of the houses [Tabula domorum]. A ruled box of twelve rows, one per sign, in order from top to bottom; each row gives the sign and either the word "Diurnal" or "Nocturnal", except the two middle rows, which give a luminary. The two middle rows are separated by a double rule. To their right, five nested square brackets join the rows in pairs symmetrically about the double rule, innermost to outermost; the planet whose two houses the bracket joins stands on the bracket's spine at the level of the double rule, and an aspect mark stands at each end of the four outer brackets. A rotated caption, set vertically along the left side of the box, reads "Lunar half" beside the upper six rows and "Solar half" beside the lower six, separated by two short vertical strokes.

- Rotated caption, upper: Medietas Lunaris. — "Lunar half"
- Rotated caption, lower: Medietas Solaris. — "Solar half"
- Row 1: ♒ Diurna — Diurnal; mark at the bracket end: ☍
- Row 2: ♓ Nocturna — Nocturnal; mark: △
- Row 3: ♈ Diurna — Diurnal; mark: □
- Row 4: ♉ Nocturna — Nocturnal; mark: ⚹
- Row 5: ♊ Diurna — Diurnal
- Row 6: ♋ ☽
- Row 7: ♌ ☉
- Row 8: ♍ Nocturna — Nocturnal
- Row 9: ♎ Diurna — Diurnal; mark: ⚹
- Row 10: ♏ Nocturna — Nocturnal; mark: □
- Row 11: ♐ Diurna — Diurnal; mark: △
- Row 12: ♑ Nocturna — Nocturnal; mark: ☍
- Bracket spines, innermost to outermost: ☿ (rows 5 and 8), ♀ (rows 4 and 9), ♂ (rows 3 and 10), ♃ (rows 2 and 11), ♄ (rows 1 and 12)

[Margin: The first debility of the planets is called exile.] Further, just as the individual planets have their domiciles, so, by the contrary principle, they also have their exiles and detriments in the signs exactly opposite their houses, in which their powers are broken and weakened. For opposite signs always fight with one another by one or the other quality [altera … qualitate], and behold and harm one another with the opposite ray, the most unfavourable. The planets occupying these signs are therefore judged weak and afflicted. And just as each of the luminaries has been allotted a single sign only as its house, so it also has a single sign — the diametrically opposite one — in which it suffers a decrease of its powers. The remaining planets, just as they claim two domiciles for themselves among the signs, so in two diametrically opposite signs are, as

it were, driven into exile and banished, and suffer a loss of their powers, as appears from the adjoining table.

Tabula exiliorum Planetarum. — Table of the exiles of the planets.

♄	♃	♂	♀	☿	☽	☉
♌	♍	♎	♏	♐	♑	♒
♋	♊	♉	♈	♓		

[Margin: The second dignity of the planets, exaltation.] The second dignity of the planets is called height or exaltation, by the Greeks ὕψωμα [Greek: hypsōma, "height, exaltation"]. On it Ptolemy teaches, ch. 18, book 1 of the *Quadripartitum*; Albumasar, chs. 5, 6 and 7, book 5 of the *Introd.*; Julius Firmicus, ch. 3, book 2 of the *Astron.* For in certain places of the zodiac the planets usually bring about great changes, as though exalted by a new power — not because they gain a greater distance from the earth, or from any other point, on their deferent or epicycle; as indeed that great writer of natural history, Pliny, ch. 16, book 2, seems to have been deceived, in the other sense of height; but because in those signs, owing to the agreement of nature and qualities, they acquire a notable exaltation or increment of their powers; and from this there follows a more evident change in the air and in other lower things. Thus the Sun is exalted in ♈, because when it enters that sign, rising above the equator into the northern part of the world, it strongly intensifies the life-giving heat with which it acts on the earth below and on the bodies of living things, and of daylight a perceptible increase it produces. [Margin: The second debility of the planets: the fall.] But as much power as the kindred quality of a sign adds to the planets, so much of their own strength the contrary constitution of the opposite signs takes away from them, as was said before. A planet placed in the sign opposite its exaltation is therefore said to be dejected, or to be in its fall. [Margin: ♈ ☉ exaltation] Hence, since the Sun is exalted in ♈, it will fall in ♎, the opposite sign. [Margin: ♎ its fall] For it is certain that the Sun, on entering the sign of Libra, is carried off into the southern part of the world below the equator, and together withdraws and diminishes both heat and light for us. The planet most opposed to the Sun is ♄, the author of cold and shadows. So ♄ will be exalted in the place where the power of the Sun is cast down; for it is fitting that a pernicious and killing force should begin where the life-giving power is diminished. [Margin: ♎ exaltation of ♄] [Margin: ♈ fall of ♄] In ♎, therefore, Saturn will have his height, and in ♈ his dejection or fall. To the Moon belongs the sign of Taurus, which follows Aries: she follows the Sun in power, is called the lesser luminary, holds second place after the Sun in generation, and moreover, after her conjunction with the Sun, which takes place in ♈, the sign of the exaltation of the ☉, she first appears and is seen in ♉. [Margin: ♉ exaltation of ☽] [Margin: ♏ fall of ☽] And as the Moon is exalted in ♉, so she is dejected in ♏. The power of Jupiter becomes most conspicuous when he is raised highest toward us, into the north; for then the northern winds

too, which are fruitful, are stirred up. [Margin: ♋ exaltation of ♃] [Margin: ♑ fall of ♃] And since he nowhere comes nearer to the north than in ♋, ♋ will accordingly be the sign of Jupiter's exaltation, and the opposite one, ♑, that of his dejection. [Margin: ♑ exaltation of ♂] [Margin: ♋ fall of ♂] The power of Mars, too, is found to be greatest in the dejection of Jupiter, that is, in ♑. He will therefore be exalted in ♑. For it is fitting that in the place opposite the one where the beneficent power of Jupiter is borne upward, the maleficent power of ♂ should be raised; and that where the former is cast down, the latter should be lifted up. Hence the sign of the dejection of Mars will be ♋.

[Margin: ♓ exaltation of ♀] [Margin: ♍ fall of ♀] Venus, powerful through moisture, is exalted where moistures first begin to move, as a little before the beginning of spring, when the Sun occupies ♓. Therefore, as ♀ has her height in ♓, so she is dejected in the opposite sign, ♍. [Margin: ♍ exaltation of ☿] [Margin: ♓ fall of ☿] Mercury, by contrast, a star opposed to Venus and drier, has his exaltation in ♍, around the beginning of autumn, when everything dries up for lack of moisture — a sign of ambiguous nature, since it falls between the hottest and the coldest season; and so it suits an ambiguous planet best. In ♓, however, he is dejected.

[Margin: ♊ exaltation of ☊] [Margin: ♐ fall of ☊] [Margin: ♐ exaltation of ♄] [Margin: ♊ fall of ♄] Albumasar says, following the opinion of Hermes, that the Head of the Dragon is exalted in ♊, because from the Dragon's Head the ☽ is raised northward from the ecliptic. But since the greatest altitude of the ☉ and of the planets occurs in ♊ and ♋, and ♋ has already been assigned to the exaltation of ♃, ☊ will be exalted in ♊ and dejected in ♐; there, in turn, the Tail, which is opposite the Head, is exalted, while in ♊ it is dejected — as the table set out so far shows, taking it all in ἐν συνώψει [Greek: en synōpsei, "at a glance"].

Tabula exaltationum & dejectionum. — Table of the exaltations and dejections.

Exaltatio	☉	☽	☊	♃		☿	♄		♄	♂		♀
Signa	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
Dejectio	♄		♄	♂		♀	☉	☽	☊	♃		☿

Girolamo Cardano [Cardanus], in his book *On the Seven Wandering Stars*, and Firmicus, ch. 3, book 2, state that ♄ is most exalted in 21 degrees of ♎, ♃ in 15° ♋, ♂ in 28° ♑, the Sun in 19° ♈, ☽ in 3° ♉, ♀ in 27° ♓, ☿ in 15° ♍. But since they add no reasons, and the reasons Albumasar brings from Hermes (ch. 7, book 5 of the *Introd.*) seem to be of no weight, we rightly disregard what the astrologers put forward about the degrees of either this dignity or the preceding one.

[Margin: The third dignity of the planets: triplicity.] The third dignity of the planets is called triangularity or triplicity. Ptolemy treats of it in ch. 17, book 1 of the *Quadripartitum*; al-Qabīṣī [Alcabitius], diff. 1; Albumasar, chs. 8,

9, 10 and 11, book 5; Zahel [Sahl ibn Bishr], ch. 1 of his book *On the Principles of Judgements*. [Margin: What triplicity is.] It is the political constitution of a planet in one of the trigons that agrees with its own nature and qualities. The planets acquire this dignity not insofar as they are lords of only one or two signs, but insofar as they exercise their right over the three places that make up an equilateral and equiangular trigon. For as the trigon subtends the whole circle with its sides, so on this account the planets acquire common powers over several regions and places. Three signs are taken to form a triplicity, which are not only separated by equal intervals but also have the same nature — both because of the benign aspect with which they regard one another, and because of the likeness of their sex; of these, one is cardinal, another fixed, and the third bicorporeal. And in any trigon the more powerful dignity is always held to belong to the planet that is lord of the fixed sign. [Margin: Trigonocrators of the fiery trigon: ☉, ♄.] [?] Hence, since the first trigon, containing the masculine signs ♈, ♌ and ♐, is fiery, its trigonocrators, or rulers of the triplicity, will be the Sun by day and ♄ by night. al-Qabīṣī, in the place cited before, and Zahel Ismaelita, ch. 1 of the *Introd*., and likewise Julius Maternus, ch. 11, book 2 of the *Astron*., make Saturn a participant, for no other reason than that he is a diurnal planet and so agrees especially well with the first trigon, which is diurnal. But since he has his fall in ♈, and indeed is contrary to this trigon in its chief quality, we reject him; and we would more rightly call Mars the participant, whom many of the astrologers also join to it, since he has his house in ♈. Yet although Mars rules Aries, he is nevertheless excluded from the rule because of his adverse and maleficent nature, the beneficent planets prevailing. And Cardano [Card.], in his commentary on ch. 17, book 1 of Ptolemy's *Quadripartitum*, adds this reason: that Mars is an enemy of the Sun, which is most powerful in itself, since it is lord of the planets, and which moreover also has its exaltation in this fiery triangle, above all in Aries, the house of Mars. To this triangle the Arabs assign the eastern winds, just as the triangle itself is called eastern by al-Qabīṣī and Zahel; but we, following the opinion of Ptolemy, assign to this triangle the northern winds, because of the dominion of Jupiter; with these, because of the house of Mars — since the Sun has no winds of its own — the western winds are mixed, such as the Borrholybici.

[Margin: The trigonocrators of the earthy trigon are ♀ and ☽.] The second trigon is the one whose feminine signs ♉, ♍ and ♎ have Venus by day and the Moon by night as trigonocrators, since both of these planets are feminine and the rule is not fittingly left to ☿ and ♄, which are more masculine than feminine. al-Qabīṣī, Zahel and Firmicus join Mars as participant, but on a reasoning that corresponds, in turn, to the one in the previous triangle: that all of them are feminine. We, however, although ♂ is moreover exalted in ♎, nevertheless reject him, since he is opposed to this trigon in its principal quality. The common run of astrologers more rightly add ♄, because of ♎, which he rules, and because he also agrees better with this trigon in his qualities. But because of his maleficent nature, and because he is most contrary to prolific

Venus and has little power in a feminine trigon, he is excluded by Ptolemy and by the more careful astrologers. To this trigon the Arabs assign only southern winds, just as al-Qabīṣī and Zahel call this trigon southern; but Ptolemy better assigns to this trigon southern winds mixed with eastern ones, so that they are the Austrisolani. The south winds, or southern winds, because of Venus, who rules ♉; the eastern winds because of ♄, who, succeeding into the place of the ☽ — since she, because of her general signification, has no special wind of her own, like the Sun — stirs up eastern winds to temper the malignant nature.

[Margin: The trigonocrators of the airy trigon are Saturn and Mercury.] The third trigon is airy. Its masculine signs, ♊, ♎ and ♒, have Saturn by day and ☿ by night as lords of the triplicity. al-Qabīṣī, Zahel and other astrologers join Jupiter as participant for the sake of the condition: although he has no dominion in these signs, he is nevertheless appointed to succeed to the place of ♀, since she is a female and does not fittingly preside over a masculine trigon — especially as Venus also agrees very badly with Jupiter. But we, following in the footsteps of Ptolemy, are content with those two lords of the triplicity. According to the Arabs, western winds suit this trigon — they also call the airy trigon western, as al-Qabīṣī and Zahel do; but more rightly, according to Ptolemy, eastern winds are assigned to it because of Saturn, who is powerful in this trigon, and northern winds because of Jupiter, so that the wind is the Borrhapeliotes — especially since ☿ has no winds of his own, and ♂, because of the detriment in ♎, cannot be joined to Saturn.

[Margin: The only trigonocrator of the watery trigon is ♂.] The fourth trigon is watery. Its feminine signs, ♋, ♏, and ♓, have, according to Ptolemy, a single trigonocrator, Mars; so that, since there are four trigons and 7 planets, each of the earlier trigons has two trigonocrators, but the watery one only one, ♂, since he too is the lord of the fixed sign and the father of rains. al-Qabīṣī, Zahel and Firmicus make ♀ the lord of this trigon by day, because of her exaltation, ♂ by night, and the Moon the participant. But ♂, because he is lord of ♏, the fixed sign, is rightly appointed the principal trigonocrator; nor do we join ♀ and ☽ to him: however much ♀ may be the mother of rains and the ☽ may move the moistures, they have already obtained rule in the earthy trigon. According to the Arabs, northern winds belong to this trigon, since al-Qabīṣī and Zahel too make this trigon northern. But better, following the opinion of Ptolemy, western winds are assigned to it because of Mars, and southern winds because of the exaltation of Venus in ♓ — for she agrees very well with Mars, since she is not otherwise associated with any planet — so that the wind of this trigon is thus the Notolybicus.

[Margin: The fourth dignity of the planets.] [Margin: Term or bound: Ptol. book 1, *Quad.*, chap. 19.] The fourth dignity of the planets is that of the terms [termini], or bounds [fines]. It is assigned to the five planets insofar as they have a power defined within a certain time and space, beyond the limits of which space it, as it were, ceases — just like those who hold a magistracy for a term. Terms are not assigned to the luminaries, since their action is indefinite

and not enclosed within such narrow limits: the ☉ diffuses its action into the semicircle following ♋, the ☽ into the semicircle preceding ♌, as was said at the beginning of this chapter in the doctrine of the houses. The Greeks call them ὅρους [Greek: horous, "boundaries" — the terms], and the lords of the terms ὁρηκράτορας [Greek: horēkratoras, "rulers of the bounds"] or ὁρίων κυρίους [Greek: horiōn kyrious, "lords of the bounds"].

[Margin: What the terms are.] The terms of the planets, then, are nothing other than certain delimited degrees in the signs, in which the planets hold a certain prerogative and are stronger. And concerning the lords of the terms, Haly writes (chap. 2, part 1, *de judic. Astror.*) that the lord of a term, when it is in its own term, has greater power in that sign than the lord of the house or the lord of the exaltation standing in a peregrine place, etc. Likewise al-Qabīṣī, and his commentator Joannes de Saxonia on him: that the lords of the terms have greater efficacy in a direction than the lords of the triplicity. For although the lords of the triplicity have great force in the mutation, since the signification of whether the child will be viable or not is sought from them, nevertheless a direction made to the terms of the benefics or the malefics furnishes a more general signification about the condition of the native, which also lasts as long as the direction is in that term, etc.

[Margin: The Egyptians, the Chaldeans and Ptolemy disagree about the terms.] [Margin: We follow Ptolemy.] There is, however, great controversy among the astrologers about the order of the terms. Most — Albumasar (chaps. 8 and 9, book 5 of the *Introd.*), al-Qabīṣī (chap. 4, *differentia* 1 of the little book *Isagog.*), Julius Firmicus (chap. 6, book 2 of the *Astron.*) and nearly all the moderns — think the Egyptians are to be followed; fewer follow the Chaldeans; and the doctrines of both are set out by Ptolemy (chap. 19, book 1 of the *Quadrip.*). We judge, nevertheless, that we are less likely to go astray if we follow Ptolemy, the leader of all astrologers. He writes that the Chaldeans laid out the terms on a simple, though less absolute, reasoning, and that the Egyptians kept neither a just order nor a correct sequence of numbers in circumscribing the terms. For these assign the first parts of the signs now to the lords of the domiciles, now to those of the triangles, and sometimes also to those of the exaltations [altitudinum]; and they seek a sequence of numbers from the reasoning of the ascensions, which helps little in assigning the numbers — as can be plain to anyone who considers these terms of the Egyptians in the table below. Its left part shows how many degrees each planet claims for itself in each sign; its right part, how far in each sign each of the planets extends the terms of its dominion. It is evident that they have left us a distinction of the terms that is suspect and not free of reproach.

Table of the Egyptian terms.

♈	♃	6	♀	6	☿	8	♂	5	♄	5	♃	6	♀	12	☿	20	♂	25	♄	30
♉	♀	8	☿	6	♃	8	♄	5	♂	3	♀	8	☿	14	♃	22	♄	27	♂	30

♊	☿	6	♃	6	♀	5	♂	7	♄	6	☿	6	♃	12	♀	17	♂	24	♄	30
♋	♂	7	♀	6	☿	6	♃	7	♄	4	♂	7	♀	13	☿	19	♃	26	♄	30
♌	♃	6	♀	5	♄	7	☿	6	♂	6	♃	6	♀	11	♄	18	☿	24	♂	30
♍	☿	7	♀	10	♃	4	♂	7	♄	2	☿	7	♀	17	♃	21	♂	28	♄	30
♎	♄	6	☿	8	♃	7	♀	7	♂	2	♄	6	☿	14	♃	21	♀	28	♂	30
♏	♂	7	♀	4	☿	8	♃	5	♄	6	♂	7	♀	11	☿	19	♃	24	♄	30
♐	♃	12	♀	5	☿	4	♄	5	♂	4	♃	12	♀	17	☿	21	♄	26	♂	30
♑	☿	7	♃	7	♀	7	♄	4	♂	5	☿	7	♃	14	♀	21	♄	25	♂	30
♒	☿	7	♀	6	♃	7	♂	5	♄	5	☿	7	♀	13	♃	20	♂	25	♄	30
♓	♀	12	♃	4	☿	3	♂	9	♄	2	♀	12	♃	16	☿	19	♂	28	♄	30

[Margin: The foundations of the Ptolemaic numbering of the terms.] Ptolemy's reasoning, on the other hand — which he writes he found in a certain ancient book, which he judges more consistent with reason than the Egyptian one, and which Giovanni Pontano [Iovianus Pontanus] uniquely approves and explains from chap. 23 of book 1 of *De rebus coelestibus* as far as chap. 35 — runs as follows. Since the planets are powerful by a threefold title, as we set out in this chapter — 1 of the domicile, 2 of the exaltation [altitudinis], and 3 of the triplicity — then in whatever sign a planet is powerful by two titles, even if it is of a maleficent nature, it will claim the first place in that sign for itself and will rule the terms. But if the malefics are not powerful by a double title, they will be relegated to the last parts of the sign. Excepted, however, are ♋ and ♌, the domiciles of the luminaries, whose beginnings are dedicated to the malefics for this reason: because at the beginning of ♋ — a sign that is coldest and moist and is assigned to the Moon — the heat and dryness of Mars are tempered, and so ♂ seems to rejoice in it, although he is otherwise in his fall there. For ♂ is at his most powerful where he acquires the greatest temperateness. For the same reason the first term in ♌ is given to Saturn, since his cold is mitigated both by the heat of the Sun and by the heat of the sign; and this is a cause of good, as Cardano teaches in his commentary on chap. 19, book 1 of the *Quadr.* The power of doing harm, however, becomes greater in these same places when the cold of ♄ at the beginning of ♌, and the heat of ♂ at the beginning of ♋, bring damage to things below through hail, thunder, heat and fires.

[Margin: How many degrees each of the planets claims for itself, as a rule, in the determination of the terms.] The degrees of a sign are distributed among the individual planets in this way: the benefics are always given 7 parts, ☿ 6, and the malefics 5. But if a planet does not have a double power in that sign, but has it in one of the two following, then, by reason of that *turpis* double power, one part is added above the just number it would otherwise have, and it is taken away from the planet that either has only a single power or is slower in motion, as ♄ and ♃ are. Exaltation, moreover, is preferred to triplicity, and triplicity to domicile, as is evident from the table below, which contains the distinction of the terms that we approve.

Table of the Ptolemaic terms.

♈	♃	6	♀	8	☿	7	♂	5	♄	4	♃	6	♀	14	☿	21	♂	26	♄	30
♉	♀	8	☿	7	♃	7	♄	4	♂	4	♀	8	☿	15	♃	22	♄	26	♂	30
♊	☿	7	♃	7	♀	7	♄	4	♂	5	☿	7	♃	14	♀	21	♄	25	♂	30
♋	♂	6	♃	7	☿	7	♀	7	♄	3	♂	6	♃	13	☿	20	♀	27	♄	30
♌	♄	6	☿	7	♀	6	♃	6	♂	3 [recte: 5]	♄	6	☿	13	♀	19	♃	25	♂	30
♍	☿	7	♀	6	♃	5	♄	6	♂	6	☿	7	♀	13	♃	18	♄	24	♂	30
♎	♄	6	♀	5	♃	8	☿	5	♂	6	♄	6	♀	11	♃	19	☿	24	♂	30
♏	♂	6	♃	8	♀	7	☿	6	♄	3	♂	6	♃	14	♀	21	☿	27	♄	30
♐	♃	8	♀	6	☿	5	♄	6	♂	5	♃	8	♀	14	☿	19	♄	25	♂	30
♑	♀	6	☿	6	♃	7	♂	6	♄	5	♀	6	☿	12	♃	19	♂	25	♄	30
♒	♄	6	☿	6	♀	8	♃	5	♂	5	♄	6	☿	12	♀	20	♃	25	♂	30
♓	♀	8	♃	6	☿	6	♂	6	♄	4	♀	8	♃	14	☿	20	♂	26	♄	30

Further, so that it may be seen by what right such broad or narrow terms have been assigned to the individual planets, we shall explain the matter with two examples; from the rules set out a little earlier, the rest can then be determined more easily in the same way.

[Margin: Example 1 of the terms. ♈] For example, in ♈ Mars has his domicile; but because he lacks a second dignity and is a malefic, he is relegated to the penultimate place, and ♃ is preferred to him, being the trigonocrator of Aries together with the Sun. The Sun would otherwise occupy the first parts, since he has a double dignity in ♈, were he not a luminary. And since ♃ shines in ♈ with no other pre-eminence and is merely substituted in the place of the ☉, while Venus is powerful in the following sign, ♉, by both domicile and trigon, one part is taken from Jupiter, so that he keeps 6, and is assigned to Venus, who thereby obtains 8 parts. Next Mercury, who has his domicile in the third sign, ♊, is given the third place; and although only 6 parts would be due to him, nevertheless, because ♄ is in his fall in ♈, one part is taken from Saturn and given to Mercury, so that Mercury's parts come to 7. Mars is left his own number on account of the dignity that he has in ♈.

[Margin: Example 2 of the terms. ♎] In the same way ♄ has a double dignity in ♎: he is exalted in ♎ and is the trigonocrator of that sign, and so he will claim the first terms for himself. And although, as a malefic, only 5 degrees would be due to him, nevertheless, because he has great dignity in ♎, 1 degree more will have to be added, so that he has 6. To Venus, because she has her domicile in ♎, the second terms are deservedly given; and although, as a benefic, 7 parts would be due to her, one is nevertheless taken away because of the enmity of the powerful ♄, and another because of Mars, who has his domicile in the following sign. Jupiter rules the third terms, since he is powerful in the third sign, ♐, both by trigon and by domicile. He is given 8 parts for these reasons, although otherwise only 7 would suit him; and that eighth part is taken from Mercury, so that only 5 remain to him, although otherwise ☿ requires 6. Finally

♂, as a malefic, holds the last place, and 6 degrees are assigned to him, although otherwise he would have only 5, since in the following sign, ♏, he has both domicile and trigon; and the part that is added to him has been taken from Venus, who has only a single dignity in this sign, so that only 5 are left to Venus.

Moreover, so that it may appear in which degrees the Egyptian reasoning differs from this Ptolemaic one, and about which parts of the zodiac there is doubt in the assignment of the terms, it seemed good to append this table containing the degrees in doubt.

Table of the terms, showing the degrees of doubt in the individual signs.

♈	0	♃ 6 ♀ 12 Dub. 14 ☿ 20 Dub. 21 ♂ 25 Dub. 26 ♄ 30
♉	0	♀ 8 ☿ 14 Dub. 15 ♃ 22 ♄ 26 Dub. 27 ♂ 30
♊	0	☿ 6 Dub. 7 ♃ 12 Dub. 14 ♀ 17 Dub. 24 ♄ 25 Dub. 30
♋	0	♂ 6 Dub. 13 ☿ 19 Dub. 27 ♄ 30
♌	0	Dub. 25 ♂ 30
♍	0	☿ 7 ♀ 13 Dub. 17 ♃ 18 Dub. 24 ♂ 28 Dub. 30
♎	0	♄ 6 Dub. 14 ♃ 19 Dub. 28 ♂ 30
♏	0	♂ 6 Dub. 27 ♄ 30
♐	0	♃ 8 Dub. 12 ♀ 14 Dub 17 ☿ 19 Dub. 21 ♄ 24 Dub. 26 ♂ 30
♑	0	Dub 12 ♃ 14 Dub. 30
♒	0	Dub. 6 ☿ 7 Dub. 12 ♀ 13 Dub. 30
♓	0	♀ 8 Dub. 12 ♃ 14 Dub. 16 ☿ 19 Dub. 20 ♂ 26 Dub. 28 ♄ 30

[Margin: The fifth dignity of the planets: the carpentum.] The fifth dignity of the planets, the noblest of all, is composed of the other, simple dignities that have been set out so far, and it is called the *Carpentum* [chariot], the Throne, or the Royal Seat. On this see Ptolemy, *Quadripartitum*, Book 1, ch. 20. A planet is said to ride in its chariot, or to occupy the royal seat, when it holds a sign related to it by two or more dignities of association. And then indeed, set in all his joy, it has the greatest power and capacity for acting.

For example, ♀ is powerful in ♉ by both domicile and trigon, and uses that sign as a royal chariot. The Arabs also add ♓, in which ♀ is (1) exalted and (2), according to them, carried by trigon. ☿ has domicile and triplicity in ♊, and domicile and exaltation in ♍; he therefore sits on the royal seat in those signs. ♄ in ♎ is both exalted and trigonocrator, just as he is carried in ♒ by both domicile and trigon; hence he has a chariot in these signs, but chiefly in ♒. Mars has all the dignities in ♏; therefore he rides in the royal chariot in that sign. ♃ is strong in ♐ by both domicile and trigon; hence ♐ is the chariot of Jupiter. The remaining 4 signs, ♈, ♋, ♌ and ♑, lack the dignity of the chariot. For although the ☉ is powerful in ♈ by exaltation and trigon, and in ♌ by domicile and trigon, he is nevertheless never said to sit on the royal seat in them, since his action is general. The power of the other planets in their

chariots is greatest when they not only stand bodily in such dignities but also hold their own terms, which we have denied to the luminaries because of their more general action.

[Margin: The sixth dignity of the planets: the persona.] The sixth dignity is called the Persona of the planet. It befalls the planets when they are said to bear or sustain their own personae and to look upon the luminaries face to face. Ptolemy (*Quadripartitum*, Book 1, ch. 20 ειδιοπρόσωπον [Greek: eidioprosōpon, "having its own face" — a planet in its own face]); the Arabs call it Almugea, as is clear from Canon 21 of Part 2 of Schöner's *Isag. Astrol.* This dignity is nothing other than a definite relation of the position of the planets to the position of the luminaries, by which they are configured with the luminaries in the same way as their domiciles are configured with the domiciles of the luminaries; yet so that they are occidental to the Sun and oriental to the Moon. Hence a planet is said to be in the Almugea of the Sun when as many signs are counted from the Sun to the planet, in the succession of the signs, as are contained between ♌, the domicile of the ☉, and the domicile of that planet nearest to it. For example, between ♌ and ♒, the domicile of ♄ nearest to it, there are 5 signs. Saturn, therefore, being distant from the Sun by 5 signs in the succession of the signs, is said to be in the Almugea of the ☉. So ♀ is said to be in the Almugea of the ☉ when, wherever the Sun may be, she is in the third place from that place: for instance, if the ☉ is in ♎, ♀ in ♐; the ☉ in ♈, ♀ [?] in ♊, and so on. And the same judgement is to be made of the other planets, as the table below shows.

When [the planet] is [distant] from the sign of the ☉, counted exclusively, in the succession of the signs, by the number of signs set against it:

Saturnus	5
Jupiter	4
Mars	3
Venus	2
Mercurius	1

then it is said to be in the Almugea of the ☉.

A planet is said to be in the almugea of the ☽ when it is as many signs away from the place of the ☽, against the succession of the signs, as are intercepted between ♋, the domicile of the ☽, and the nearest domicile of the planet. For example, the domicile of Jupiter nearest to ♋, proceeding against the order of the signs, is the sign ♓, which is distant from ♋. Hence when ♃ is 4 signs from the ☽ against the order of the signs, he is said to be in the almugea of the ☽. So ♀ is in the Almugea of the ☽ when, with the ☽ in ♉, she is in ♓; or, with the ☽ in ♊, she is in ♈. And the same judgement is to be made of the other planets, as appears from the table attached.

When [the planet] is [distant] from the sign of the ☽, counted exclusively, against the succession of the signs, by the number of signs set against it:

♄	5
♃	4
♂	3
♀	2
☿	1

then it is said to be placed in the Almugea of the ☽.

[Margin: The seventh dignity of the planets: the decanate.] The seventh dignity of the planets is the Decanate [Decanatus], by which the individual planets — beginning from Mars, lord of ♈, the first sign, descending in order and, when the count is complete, returning to Saturn, the highest — each preside over ten degrees of the signs. Hence they are also called Decurions or Decans, and likewise the faces of the signs. And according to Haly (ch. 3, Part 1 of *De judiciis astrorum*), it is [as follows].

[Margin: ♈] The first decury, or first face, of 10 degrees of ♈, signifying boldness, loftiness and shamelessness: of Mars. The second: of nobility, eminence and lordship: of the Sun. The third: of subtlety in work, gentleness, joy and games: of Venus. [Margin: ♉] The first of ♉, denoting the pursuit of ploughing, sowing, building and measuring land: of Mercury. The second: of power, nobility, dignity, and the plundering of villages and fields: of the Moon. The third: of misery, servitude, savagery and baseness: of Saturn. [Margin: ♊] The first of ♊: of writing, counting, giving and receiving, of wisdom and embassies: of Jupiter. The second: of labours, and of seeking things with labour: of Mars. The third: of forgetfulness, angers and joking: of the ☉. [Margin: ♋] The first of Cancer: of subtlety, sense, joy, and the things that inflame people to love: ♀. The second: of cheerfulness, riches and abundance: ☿. The third: of hunting, of pursuing those who flee, of acquiring things by arms and quarrels, and of opposing people: of the Moon.

[Margin: ♌] The first of ♌: of cruelty, evil deeds, boldness and lust: ♄. The second: of hidden quarrels and of occasions for disputes: of Jupiter. The third: of obstinacy and the desire to quarrel: of Mars. [Margin: ♍] The first of ♍: of sowing, ploughing, amassing riches, and of thrift: of the Sun. The second: of making profit and heaping up riches by any means whatever: of Venus. The third: of sloth and weakness of the limbs, on account of infirmity: ☿. [Margin: ♎] The first of ♎: of justice and of zeal to help the afflicted: of the Moon. The second: of quiet and tranquillity of life: of Saturn. The third: of profusion, luxury and pleasures: of Jupiter. [Margin: ♏] The first of ♏: of contentions, deceptions, ambushes: of Mars. The second: of settling discords and uncovering hidden things: ☉. The third: of drunkenness, wars and fornication: of Venus. [Margin: ♐] The first of ♐: of boldness, liberty and

military service: of Mercury. The second: of fear, griefs and lamentations: ☽. The third: of obstinacy and of not yielding to others, but of indulging one's own desires: of Saturn. [Margin: ♑] The first of ♑: of joy and leisure: of Jupiter. The second: of desiring things that can neither be known nor acquired: ♂. The third: of the desire to govern one's own affairs, and of thinking ill of others: ☉. [Margin: ♒] The first of ♒: of anxiously seeking gain and, however much you have laboured, making little progress, but persisting in poverty and baseness: ♀. The second: of beauty, of keen intellect, gentleness, liberty and composed manners: ♀. The third: of detections and disclosures: ☽. [Margin: ♓] The first of ♓: of many thoughts, of journeys, and of seeking substance and the necessities of life: ♄. The second: of pride, of desiring great things, and of throwing oneself into difficult affairs: of Jupiter. The third: of pleasures, idleness and desiring venereal things: ♂.

Although Ptolemy gives no precept about this dignity in the *Quadripartitum*, we nevertheless see him mention the decans rather often in that work. This dignity is also treated by Julius Firmicus (ch. 4, Book 2 of the *Astr.*), by al-Qabīṣī (ch. 9, difference 1), by Giovanni Pontano [Iovianus Pontanus] (ch. 22, Book 1 of *De rebus coelestibus*), and by Albumasar (ch. 12, Book 5 of the *Introductorium*); there, in the following ch. 13, he also notes that the Indians counted the decans beginning from Mars and proceeding upward through ♃ and ♄, and from there from the ☽ through ☿, ♀, and so on. But he rejects this numbering as not confirmed by use.

[Margin: The last dignity of the planets: Joy.] The last dignity of the planets is called Joy [Gaudium]; on it see al-Qabīṣī, ch. 2, difference 1 of his little *Isagoge*. This dignity belongs only to the five wandering stars, insofar as they stand in the domicile that better suits their nature and sex. For since, as was said above in ch. 1, each of the planets has two domiciles, one masculine and the other feminine, it will have its joy in the one that agrees better with the nature and sex of the planet. [Margin: The joy of Saturn in ♒; ♃ in ♐; ♂ in ♏; ♀ in ♉; ☿ in ♍.] Hence Saturn, a masculine planet having two domiciles, ♑ feminine and ♒ masculine, will nevertheless have his joy in ♒, since ♒ agrees better with Saturn in nature and sex. ♃ will rejoice in ♐, ♂ in ♏, ♀ in ♉, ☿ in ♍. Almansor (proposition 93) says that ♃ rejoices in ♓ and Venus in ♎, which does not seem consistent with nature, since ♃ is not feminine, nor is ♀ masculine. Cardano (*Aph.* 3, 17) agrees with al-Qabīṣī and indeed with us, but makes ♀ ambiguous.

[Margin: By what numbers the dignities of the planets are denoted.] For the rest, by way of a closing note, two things must be observed here. First, these dignities are expressed in numbers in such a way and manner that by them one can estimate and judge the magnitude of the strength and power — or, conversely, of the weakness and impotence — which the planets attain and take on in any sign or place of heaven; and so in a chart the planet that is stronger than all the others can be chosen. For a planet set in its own house has 5 dignities, and is judged fortunate and powerful; just as, conversely, a

planet standing in its exile or detriment is held to have 5 debilities and to be afflicted and weak. Set in its exaltation, it gains 4 testimonies of strength and fortitude, and its dejection or Fall brings as many debilities. Triplicity confers three dignities on a planet; the term or bound, two; the face, one; joy, likewise one.

These latter dignities, however, have no opposing ἀδυναμίας [Greek: adynamias, "powerlessnesses"], or debilities: both because they are not of such great moment and effect, and because not all of them belong to every planet — especially the term, the person [persona] and the joy, which the luminaries lack. But when a planet is placed in none of these essential dignities, it is said to be peregrine and to have five debilities, as the table of essential dignities teaches in brief; into it we have put chiefly those essential dignities which astrologers commonly take into account.

Table of the essential dignities [Tabula dignitatum essentialium]

Signs of the zodiac	V — Houses of the planets in the zodiac	IV — Exaltation	III — Triplicities of the planets: Day	III — Night	II — Terms or bounds of the planets in the zodiac, which Ptolemy approves: deg.					I — Decans of the signs: deg.			V. — When a planet is placed in none of these dignities, it is called peregrine and has debilities.	V — Detriment	IV — Fall
♈	♂ D	☉	☉	♃	♃ 6	♀ 14	☿ 21	♂ 26	♄ 30	♂ 10	☉ 20	♀ 30		♀	♄
♉	♀ N	☽	♀	☽	♀ 8	☿ 15	♃ 22	♄ 26	♂ 30	☿ 10	☽ 20	♄ 30		♂	
♊	☿ D		♄	☿	☿ 7	♃ 14	♀ 21	♄ 25	♂ 30	♃ 10	♂ 20	☉ 30		♃	
♋	☽ N & D.	♃	♂	♂	♂ 6	♃ 13	☿ 20	♀ 27	♄ 30	♀ 10	☿ 20	☽ 30		♄	♂
♌	☉ D. & N.		☉	♃	♄ 6	☿ 13	♀ 19	♃ 25	♂ 30	♄ 10	♃ 20	♂ 30		♄	
♍	☿ N	☿	♀	☽	☿ 7	♀ 13	♃ 18	♄ 24	♂ 30	☉ 10	♀ 20	☿ 30		♃	♀
♎	♀ D	♄	♄	☿	♄ 6	♀ 11	♃ 19	☿ 24	♂ 30	☽ 10	♄ 20	♃ 30		♂	☉
♏	♂ N		♂	♂	♂ 6	♃ 14	♀ 21	☿ 27	♄ 30	♂ 10	☉ 20	♀ 30		♀	☽
♐	♃ D		☉	♃	♃ 8	♀ 14	☿ 19	♄ 25	♂ 30	☿ 10	☽ 20	♄ 30		☿	
♑	♄ N	♂	♀	☽	♀ 6	☿ 12	♃ 19	♂ 25	♄ 30	♃ 10	♂ 20	☉ 30		☽	♃
♒	♄ D		♄	☿	♄ 6	☿ 12	♀ 20	♃ 25	♂ 30	♀ 10	☿ 20	☽ 30		☉	
♓	♃ N	♀	♂	♂	♀ 8	♃ 14	☿ 20	♂ 26	♄ 30	♄ 10	♃ 20	♂ 30		☿	☿

[Margin: Exchange of dignities is called mutual reception.] Secondly, this too must be noted: it quite often happens that the planets exchange their dignities with one another, so that one is in the domicile or exaltation of the other planet, and the other in turn is placed in the same dignity of the first. Such an exchange, which usually takes place only in the two dignities just named, is properly called reception, or mutual reception [receptus mutuus]. It is twofold: reception by domicile, and reception by exaltation.

[Margin: And it happens either by domicile] Reception by domicile is so called when planets exchange in this way the signs in which they have their domiciles: as if the ☉ were placed in ♈, the domicile of ♂, and Mars in turn stood in ♌, the domicile of the ☉; likewise the ☉ in ♋, the domicile of the ☽, and the Moon in ♌, the domicile of the ☉, and so on. [Margin: Or by exaltation (printed "exaltione").] Reception by exaltation, on the other hand, is so called when planets exchange the signs in which they are exalted: as if ♃ were in ♎, the exaltation of ♄, and ♄ in ♋ were lodged in the exaltation of ♃; likewise the ☉ in ♋ and ♃ in ♈, and so on. [Margin: Reception by domicile yields 5 testimonies of fortitude; by exaltation, 4.] Such a reception, moreover, grants a planet as many fortitudes as the dignity from which the reception arises; that is, reception by domicile grants 5 dignities, by exaltation 4. Yet one reception is worthier and more fortunate than another. For a reception that arises from a △ ray — for instance ♄ in ♍ and ☿ in ♑; likewise ☽ in ♍ and ☿ in ♉, and so on — or also from a ✶, for instance ☽ in ♉ and ♀ in ♋, or ☽ in ♋ and ♃ in ♉, and so on, is judged more benign and more powerful. But receptions that arise from signs regarding each other with □ rays, as ☉ in ♋ and ♃ in ♈, and so on, or by opposition, as ☉ in ♒ and ♄ in ♌ — so too ♃ in ♊ and ☿ in ♐, ♂ in ♋ and ♃ in ♑, and so on; or from signs that do not regard each other at all and are separated, as ☽ in ♌ and ☉ in ♋, ☽ in ♎ and ♄ in ♉; or, finally, from those signs in one or both of which one or both of the planets that regard each other have their detriment or dejection, as ♄ in ♋ and ☽ in ♍, likewise ♄ in ♈ and ☉ in ♎ — all these are judged less powerful, and indeed sometimes even harmful.

[Margin: Other, lesser receptions] Zahel [Sahl ibn Bishr] (ch. 25 of his little book *De principiis judiciorum ex astris*) and Schöner (ch. 26 of the second part of the *Isagoge*) put forward two further receptions, lesser than those we have set out, by which the planets also mingle their powers with one another. The first of these is when planets placed in a single major dignity of their own — that is, domicile or exaltation — receive others, by body or by ray, that are placed in no dignity of their own: as if the ☽ in 8° ♉ were to receive ♄ placed in the same place, or in 8° ♋, or in 8° ♍. Or also when a planet standing in two or three of the lesser dignities — namely triplicity and term, or triplicity and face, or term and face, or all three (for when it has only a single lesser dignity, it is not fit for reception) — receives another joined to it in the same degree or by a like irradiation: as ☿ in 9° ♉ and ♄ in the same degree or in 9° ♍, and so on.

The second is when a planet in its own dignity bestows its force and nature on another that has a greater dignity in it: as when a planet that is lord of the house or of the exaltation is joined to a planet that is lord either of the triplicity and term, or of the term and face. For instance, when ☿ in 9° ♉, in his own term and face, is joined to Venus, lady of the house, then ♀ receives Mercury [printed "Mecurium"], and communicates her nature to ☿, so that whatever is proper to Mercury he himself performs with grace and moderation. Similarly, when ♃ by night, in the 5th degree of ♈, where it has both triplicity and term, is joined either to Mars, the lord of the house, or to the Sun, the lord of the exaltation, it then communicates its nature to them — and indeed much more powerfully than in the former way. But these latter receptions have no place except in a particular judgement, and in one that inclines to superstition.

Caput V.

On the significations and nature of the houses

Having set out the properties and powers of the stars and signs, which they have in themselves or by their own nature, and having shown the essential dignities of the planets in the various signs of the zodiac, we shall now — before we explain the accidental virtues which the planets acquire by reason of their differing position in the system of heaven — set out in this chapter the significations and nature of the 12 houses into which heaven is divided, since by their help the powers that accrue to the planets are more fully understood. [Margin: The twelve houses in a chart, on the analogy of the 12 signs.] For the observers of the stars saw fit that, just as heaven — the zodiac in the first place — is divided into 12 parts or signs, which because of the daily revolution of the earth cannot keep the same arrangement but are always changing, so in the same way heaven should be divided, with respect to us, into 12 other parts which always keep the same position — even though it is these, rather than those, that are moved. For this division they employed six great circles, which in the rational form, as was said in the preceding section, intersect one another at the common intersection of the horizon and the meridian. Two of them are principal: the horizon and the meridian, or the circle that, in the equal mode, is drawn through the 90th degree of the ecliptic in place of the meridian. The remaining 4 are less principal: the first two divide the eastern space, from the rising to the midday line, or the 90th degree of the ecliptic, into 3 parts; the second two divide the space from the rising to the lowest part of heaven likewise into three parts; and in the same way the same circles divide the western space into six, so that there are 12 parts in all. [Margin: Why the parts in a chart are called houses or domiciles.] These parts they have called abodes [ædes], domiciles, houses, mansions, places and cusps — although the word "cusp" suits the beginning rather than the whole house — since the stars placed in them for a definite time, and remaining or lingering there for a while, put forth their particular operations and virtues as if in an abode assigned to

them: just as in a city different works are carried on in different houses — in one the goldsmith's, in others the shoemaker's, the tailor's, the cooper's, the clothmaker's, and so on.

[Margin: The first house: of life.] The first house, which has its beginning at the eastern semicircle of the horizon and, counted in the succession of the signs, ends below the horizon at the cusp of the second house, is called the horoscope — as it were, the marking and inspection of the hour, as Luca Gaurico [Lucas Gauricus] would have it (ch. 1, tract. 1, part 4 of the *Isagoge in Astrol.*), since the time is judged chiefly from the rising of the stars. It is also called the ascendant, ὁρίζων πρὸς ἀνατολὰς [Greek: horizōn pros anatolas, "the horizon toward the east"], the cardine or angle of the east, the first angle; and also the domicile of life. For from this house, in the γενεθλιαλογικῶ [Greek: genethlialogikō, "genethlialogical"] judgement, is taken the general signification concerning the life of the native: his health, his native temperament, which has not yet been changed or corrupted by a disordered life, his manners, his character, the form of his body, the native's own industry, and above all the signification of his first age. And this for the following reason: because, just as we take the beginning of this life at the moment when out of our mother's womb we come forth into this light, so this house is that part of heaven which, at the time of the nativity, is brought up out of the lower and hidden hemisphere of heaven into our sight, and makes the first impression. From this house, too, judgement is taken concerning the origin and motion of all things, and whether anything, according to the tenets of the Arabs, is to be begun auspiciously. [Margin: Joy of ☿.] ☿ is said to have its joy in this house, as being the chief significator of the animal spirits, which are judged from this house — although Giovanni Pontano [Iovianus Pontanus], in Book 2, ch. 5 of *De reb. cælest.*, where he gives the reasons for the joys of the planets in the houses, excludes Mercury from joy in the first house because of its changeable nature, as Julius Firmicus Maternus [Iulius Matern] had also done before him, in ch. 22 of Book 2. [Margin: Consignificator ♄.] Its consignificator, however, is ♄, the highest and first of the planets. Hence ♄ in this house — fortunate, propitious and strong, not harmed by the unfavourable rays of ♂ but strengthened by the good and fortunate rays of ♃ or ♀ — generally signifies that the native will have a long life and good health. [Margin: The colour of the first house, white.] The colour assigned to this domicile is white. By its own nature it is fortunate indeed, yet feminine, though turning masculine; and of a cold and moist, or phlegmatic, quality.

[Margin: Of the second house, of substance.] The second house follows the first, below the earth. In Greek it is called ἀναφορὰ [Greek: anaphora, "a carrying up"], in Latin the lower gate, because, as though its doors stood open, it carries the Sun and the other stars that are about to rise above the horizon up to the horoscope, that is, to the line of our sight. Astrologers call it the house of gain, of means, of private property and of household goods. For from here a conjecture is drawn about all the goods that are acquired by

industry and labour, not by inheritance. First, the ways are sought from here, lawful as well as unlawful, by which the native will acquire his resources; 2, the means — the persons and the things — through which he will obtain his substance; and 3, the state of his wealth: whether, that is, it will last to the end of the native's life, or whether the native will at some time lose it. And the reason why domestic substance is judged from the second house is this: since neither can life subsist nor the body perform its function without those things that supply nourishment to life and body, the house of resources, which are a second blood, is rightly placed after the house of life. In this house, however, none of the planets is held to have its joy. [Margin: Consignificator ♃.] Its consignificator, though, is ♃, the second of the planets, to whom, as the greater fortune, the sustenance of wealth and of life is entrusted: hence ♃, holding this house unimpeded, denotes that the native will be rich. [Margin: The colour of the 2nd house, green.] The colour assigned to this domicile is green. By its own nature it is fortunate, but feminine like the preceding one, and of a cold and moist, or phlegmatic, quality.

[Margin: The third house, of brothers.] The third house is called θεὰ [Greek: thea, "goddess"] in Greek, a name taken from the good and happy events which it is held to confer on the native; astrologers call it the house of brothers. For it claims for itself the signification of brothers, sisters and relatives. For, as Pontano reasons in ch. 4 of Book 2 of *De reb. cæl.*, man is a social animal, and nothing has been so deeply implanted in him by nature as the desire for society — and among societies the first and chief is the society and union of brothers, sisters and relatives. And this third house is the first of all the others to be joined to the horoscope in fellowship, and, among the rest, the first to regard it, with a sextile ray counted in the succession of the signs. With good reason, therefore, judgement is given from this house concerning the affection of brothers, sisters and other kinsmen toward the native; and likewise concerning the native's hospitality, his faith, and his religion or piety, in some measure; and besides, concerning controversies and disputes at law, and concerning shorter journeys and embassies. [Margin: Joy of the Moon.] ☽ has its joy in this house, [Margin: Consignificator ♂.] and its consignificator is ♂. [Margin: The colour of the 3rd house, saffron.] The colour assigned to this domicile is saffron. By its own nature it is a middling house, but feminine, and of a cold and moist, or phlegmatic, quality.

[Margin: The fourth house, of parents.] The fourth house is called υπόγ[?]ον [Greek: hypogeion, "under the earth"] in Greek, and in Latin the lowest part of heaven, from its situation and place; astrologers call it the house of parents and of patrimony, from what it signifies. For it signifies the parents and their state — above all, however, the father — and likewise the patrimony and the inheritances which anyone acquires from deceased parents, kinsmen or others. It also gives judgement concerning lands and their cultivation, mines, buildings, and whatever else is like these immovable goods. For just as judgement is pronounced from the second house concerning movable goods and treasures,

so from this house it is pronounced concerning estates and landed property. From here, too, a conjecture is drawn concerning the honour and reputation that follow the native after death. No planet has its joy in this house; [Margin: Consignificator ☉.] its consignificator, however, is ☉. [Margin: The colour of the 4th house, red.] The colour of this house is red. By its own nature it is middling, masculine, and of a cold and dry, or melancholic, quality.

[Margin: The fifth house, of children.] The fifth house is called ἀγαθὴ τύχη [Greek: agathē tychē, "good fortune"] in Greek, that is, good fortune; astrologers call it the house of children. For from here judgement is given concerning sons and daughters, their state, number and other accidents; likewise concerning gifts, and the things that make for pleasure, delight and joy — banquets, drinking and music — and likewise concerning familiar conversation, and messages and presents. For just as the third house was assigned to brothers because it is the first to be joined with the horoscope in fellowship of aspect — a fellowship which is itself, however, at times rather weak — so the fifth is rightly attributed to children because of the trine ray it has to the horoscope. For just as no bond is closer than that of father and children, so in the whole series and circuit of the signs proceeding from the horoscope no aspect of heaven, no syzygy of signs, is found closer and nearer than the one from the trine. [Margin: Joy of ♀.] Not only does ♀ have its joy in this house; [Margin: Consignificator ♀.] it is also its consignificator. [Margin: The colour of the 5th house, honey-coloured.] The colour assigned to this house is honey-coloured. By its own nature it is middling, masculine, and of a cold and dry, or melancholic, quality.

[Margin: The sixth house, of illnesses.] The sixth house is called κακὴ τύχη [Greek: kakē tychē, "bad fortune"] in Greek, that is, bad fortune, from its unhappiness; astrologers call it the house of illnesses. For it is most fertile — as it were a kind of tinder of diseases. Hence, because it is joined to the horoscope by no fellowship, judgement is taken from it concerning the inclination to this or that illness, and to the other evils that beset bodies and undermine life. For just as desert places, remote from the resort of men, breed not only wild animals but venomous ones too, and produce herbs of a most noxious sap, so the sixth house, removed from the first by every aspect, brings the native evils of various kinds. And as a rule, the more planets fall in this house, the more frequent the diseases signified, both through the whole of life and above all in old age, since a planet in the 12th, especially an unfortunate one, designates diseases in boyhood and early age. And since this sixth house embraces the second — which is the house of nourishment and of the household estate — in a benevolent fellowship, and regards it with a trine aspect, home-born slaves, servants and maidservants, and servile or domestic animals — this is what it denotes. For all these are aids to the household: so that, although master and servant seem to be at odds with each other because of lordship and servitude, yet, since the household estate cannot be managed without servants, these supports of the household and of the family's sustenance are also indicated from this house. [Margin: Joy of Mars.] ♂ has its joy in this house; [Margin: Consignificator ☿.] its consignificator

is ☿. [Margin: The colour of the 6th house, black.] The colour assigned to this house is black. By its own nature it is unfortunate, masculine but turning feminine, and of a cold and dry, or melancholic, quality.

[Margin: The seventh house, of marriage.] The seventh is called δύσις [Greek: dysis, "setting"] in Greek, that is, the setting, or the western cardine; astrologers call it the house of weddings, or the wife's house. For it signifies the native's disposition toward married life or celibacy, and likewise the number of his wives, and the character of the wife. And not without reason: for since the 7th house is opposed to the horoscope and has contrary dispositions — the first house tending upward and, as it were, driving and acting, while this seventh declines and suffers — and since these two houses are the primary angles of the figure, the wife is rightly signified from the 7th. For the husband acts and the wife suffers; she obeys, he commands; and both govern the household with authority, the husband, however, as endowed with the primary force and an active authority, the wife as holding a kind of second prerogative in her husband's house. It is no wonder, says Iovianus Pontanus (ch. 4, Book 2, *De reb. cæl.*), that very many quarrels over household affairs are stirred up between husband and wife, since these two domiciles regard each other with an opposite ray. For although the union of male and female is natural, yet because action and passion are contrary to each other and fight each other head-on, it happens that dissensions are often stirred up. From this house, too, are taken the judgements of buying and selling, and likewise of open enemies, robbers, exiles, and of the middle and end of life. No planet has its joy in this house. [Margin: Consignificator ☽.] Its consignificator is ☽. [Margin: The colour of the 7th house, white.] The colour of this house, likewise, is white. By its own nature it is fortunate, but feminine, and of a hot and dry, or choleric, quality.

[Margin: The eighth house, of death.] The eighth house is called [?]πικατάφορα [Greek: [?]pikataphora] in Greek, that is, the upper gate; and likewise ἀργὸς τόπ(ος) [Greek: argos topos, "idle place"], that is, the sluggish and idle place, since it is joined to the horoscope by no familiarity, but is rather connected with the most harmful places — with the sixth by a ✶ and with the twelfth by a trine. Astrologers name it the killing place and the house of death. For just as it leads down the Sun and the other stars, as they set from the upper hemisphere and hasten to their setting, as if through opened gates, and snatches them out of our sight by their setting, so that we cease any longer to enjoy their light and heat: so it signifies the death and end of life of the native, either a natural death from some disease, or an unnatural and violent one from some external cause, such as a blow, a fall, burning, strangling or drowning. It also signifies the inheritances of the dead, hidden treasures, sorrow, deadly poisons and the like. No planet has its joy in this house; the Moon, however, well placed in it in a nocturnal nativity, waxing, supported by the fortunate rays of the fortunate planets, and without the company of the malevolent stars, decrees happiness — as Julius Firmicus attests (Book 2, ch. 22), and Iovianus Pontanus (ch. 4, Book 2). [Margin: Consignificator ♄.] The consignificator

of this house is ♄. [Margin: The colour of the 8th house, black.] The colour assigned to it is black. By its own nature it is unfortunate, evil and feminine, and of a hot and dry, or choleric, quality.

[Margin: The ninth house, of religion and of journeys.] The ninth house is called θεὸς [Greek: theos, "god"] by the Greeks, with a masculine noun, just as the third is called θεὰ with a feminine one. The reason is that each of the two houses does good to the native, which is the property of the gods; but the force and authority of the ninth are greater than those of the third, since it supplies the significations of events pertaining to religion and divine things. For from the ninth house are taken the indications of piety, of religion, of ecclesiastical dignities, of wisdom, of the arts and of philosophical study. And not without reason. For since this house is joined to the ascendant in the upper hemisphere by the most familiar aspect, the trine, and the ascendant signifies the temperament of the body, the accidents of its bodily cohesion, and the quality of life itself, the native's aptitude and propensity toward religion is rightly taken from this ninth house, as being, as it were, the foundation of good morals and of the right formation of the mind. It also has the signification of sects, such as are chiefly considered in religion. Further, this house is also called the house of journeys, since the judgements of long travels and of embassies are sought from it. From this house, too, the account of dreams and divinations is established. [Margin: Joy ☉.] ☉ has its joy in it. [Margin: Consignificator ♃.] Its consignificator is ♃. The colour assigned to this house is honey-yellow; [Margin: The colour of the 9th house, honey-yellow.] and by its own nature it is moderate, feminine, and of a hot and dry, or choleric, quality.

[Margin: The tenth house.] The tenth house is called μεσουράνι(ος) [Greek: mesouranios, "of mid-heaven"] by the Greeks, that is, the mid-heaven, the culmen or summit; it is also called the Heart of Heaven, the royal cusp, the royal house and the house of honours. For from it, as from the highest place of heaven — and because the number ten embraces all the others and is a kind of limit — we gather the prognostics of the highest good as well, which among men is reckoned the first and is the principal end of civil goods: namely of honour and of dignities, by which the native stands out or excels among others; and likewise his manner of life, his arts, and whatever is conferred on the native by the support of the arts.

From it we also discern the favour, or affection toward the native, of great men — such as princes — or of others appointed to the discharge of public offices. Finally, this house also has a particular signification of the mother, whose condition and state after the birth of the infant it indicates. No planet has its joy in it. [Margin: Consignificator ♂.] Its consignificator is ♂. The colour honey-yellow suits this house; [Margin: The colour of the 10th house, honey-yellow.] and by its own nature it is fortunate, masculine, and of a hot and moist, or sanguine, quality.

[Margin: The eleventh house, of friends.] The eleventh house is called ἀγαθοδαίμων [Greek: agathodaimōn, "good spirit"], that is, the Good Genius,

from its designation of favour, of kindness, and of other happy events. For from it is drawn the state and condition of friends, faithful or unfaithful, with whom the native is to live on familiar terms — since it too is associated with the first house by a ⚹ aspect, and without friendship human life is, as it were, nothing. Judgements concerning the counsellors of kings and princes are also sought from here, since it stands next to the tenth house, the house of honours. [Margin: Joy ♃.] ♃ has its joy in it; and when he is well placed — so that he is neither retrograde nor combust, nor in his detriment or fall, but in one of his dignities, and is not harmed by the rays of the malevolent planets — he shows fortune and common favour in all things. The consignificator

[Margin: Consignificator ☉.] however, is ☉. The colour assigned to this house is saffron-yellow; [Margin: The colour of the 11th house, saffron-yellow.] and by its own nature it is moderate, masculine, and of a hot and moist, or sanguine, quality.

[Margin: The twelfth house, of prisons and of sorrow.] The twelfth house is called κακοδαίμων [Greek: kakodaimōn, "evil spirit"], that is, the Evil Genius, from the indications of sad and ruinous events that it is believed to display and to afford; astrologers call it the house of prison. For since it is joined to the ascendant by no aspect — indeed, the stars falling away from the ascendant enter it next by the apparent motion — it reveals various adversities in life, plots, enemies and hidden foes, prisons, and other disturbances and difficulties. From this house, too, judgement is made about the larger animals and beasts, and whether the native will suffer losses from them; likewise about the fidelity and the substance of servants, as also about certain diseases and illnesses, especially those that befall the native in his first age. Conjectures are also sought from here about the things that happen to women in childbirth, whether they are good or bad. [Margin: Joy ♄.] ♄ has its joy in it. [Margin: Consignificator ♀.] Its consignificator is ♀. [Margin: The colour of the 12th house, green.] The colour green suits it; and by its own nature the house is ill-omened and malign, yet masculine, and of a hot and moist, or sanguine, quality.

In this way the whole heaven is distributed into domiciles, so that there is scarcely anything in life, good or bad, of honour or of disgrace, of vice or of virtue, that will befall the one being born which is not portended from these places, from their state, and from the situation and constitution of their lords.

[Margin: The first division of the houses: into cardines.] Further, the houses are distinguished: first into cardines, succedents, and those cadent from the angles. The cardines — which astrologers everywhere also call the angles, centres, temples of heaven and towers of the heavens — are these 4 principal and chief houses in the whole figure of heaven: 1, 4, 7 and 10. For planets and fixed stars placed in them put forth their powers more manifestly and act more powerfully than in the others. Among the cardines, moreover, the first house holds the chief place, as the one that governs the greatest part of life and is the basis of the judgement; next comes the tenth. The 7th follows it; and finally the 4th. [Margin: Succedents] Succedents are the houses that follow

the cardines in the first motion, and they are these four: the second, which follows the first; the 5th, which follows the fourth; the 8th, which follows the seventh; the 11th, which follows the tenth. The Greeks call these houses επανάφοραι [Greek: epanaphorai, "raising, bringing back"], that is, the raising and the bringing-back houses, because they raise the stars and bring them back from their fall to the cardines or angles. Their force is less than that of the cardines. [Margin: and cadents] Finally, the houses cadent from the angles are called ἀποκλίμα(τα) [Greek: apoklima(ta), "declining"] by the Greeks, that is, declining domiciles, and likewise κα(τα)φοραὶ [Greek: kataphorai, "descents"], that is, falling or declining houses. For the stars in them have fallen a little before from the cardines or angles, and so have lost their powers; and these 4 domiciles are the 3rd, 6th, 9th and 12th. Julius Firmicus (ch. 20, Book 2) calls them the sluggish and abject places of the figure, because the force of these is the least of all, and the stars placed in them are weak — although in the same book, in the preceding ch. 19, he distinguishes the domiciles somewhat differently. For he gives the second place to those standing on either side of the highest and the lowest heaven, namely to the ninth and eleventh, and likewise to the 3rd and 5th houses; but the lowest and most abject place he assigns to those adjacent to the horoscope and to the setting, namely to the twelfth and second domiciles, and also to the 8th and 6th, as being joined to the horoscope by no fellowship.

[Margin: The second division of the houses: into quadrants.] Second, the houses are divided into 4 quadrants, to each of which three houses are assigned. The first quadrant runs from the horoscope to the mid-heaven, that is, from the first house exclusive to the 10th inclusive, proceeding, that is, according to the apparent motion of the heaven from the rising toward the south. [Margin: 1] This quadrant contains these three houses, 12, 11 and 10, and is called eastern, ascending, boyish, masculine, sanguine and vernal. [Margin: 2] The second runs from the 10th to the 7th and comprises these three houses, 9, 8 and 7; and this quadrant is called southern, descending, youthful, feminine, choleric and summery. [Margin: 3] The third runs from the 7th to the 4th and includes these three domiciles, 6, 5 and 4; and the quadrant is called western, descending, manly, masculine, melancholic and autumnal. [Margin: 4] The fourth, finally, runs from the 4th to the first, and embraces these three houses, 3, 2 and 1; it is called northern, ascending, aged, feminine, phlegmatic and wintry.

[Margin: The third division of the houses: the eastern are called ascending.] Third, the chart is divided into two halves, the ascending and the descending. The ascending half, which is also called eastern, extends from the fourth house through the first as far as the 10th, and comprises six domiciles: 3, 2, 1, 12, 11 and 10. [Margin: The western, descending.] The descending half, which is also called western, stretches from the tenth through the seventh to the 4th, and contains the remaining six domiciles: 9, 8, 7, 6, 5 and 4.

[Margin: Which houses are fortunate.] Further, those houses are established as the more fortunate by their own nature which signify fortunate events, such

as 1, 2, 3, 4, 5, 7, 9, 10 and 11; [Margin: Which are unfortunate.] and those as unfortunate which announce adverse accidents to the native, such as 6, 8, 12. [Margin: By what accident a house is called fortunate.] A domicile is rendered fortunate by accident, however, when a fortunate and benign sign of the zodiac falls in it, or when the bodies of the benign planets, or even their benign rays, such as the ⚹ and the △, are fixed in it. Conversely, a domicile is rendered unfortunate and is weakened when a malign sign of the zodiac holds it, or a malign planet is present in it, or casts its hostile ray, such as the opposition and the quartile, upon it.

[Margin: Testimonies of the strength and debility of the planets by reason of the houses.] Lastly, by reason of these domiciles, planets placed in the mid-heaven or the ascendant have 5 testimonies of strength; in the 7th, 4th and 11th, four; in the 2nd and 5th, three; in the 9th, two; in the third, one. Of debility, on the other hand, the testimonies in the twelfth house are 5; in the eighth and the sixth, 4. For planets are made strong in the fortunate houses, but weak in the unfortunate ones.

Caput VI.

On the accidental dignities of the planets, which are attributed to them either on account of their position relative to the Sun, or on account of their proper motion in their orbs, or also on account of their mutual configuration

In chapter 4 above we set out those dignities and infirmities of the planets which the common run of astrologers calls essential, since they either are inherent in the planets from their innate virtue, or from their familiarity — which they have with the signs of the zodiac of the same nature, are contracted.

Now, however, we must examine the accidental dignities and weaknesses, which Ptolemy calls ἐνεργείας κ[?] τ[?] γένεσιν [Greek: energeias k[?] t[?] genesin], that is, efficacies with respect to the figure of the heaven, or of the nativity. [Margin: What the accidental dignities of the planets are.] These are nothing other than the increases or decreases of the planets' implanted qualities and significations that belong to them, either by reason of their position relative to the Sun, or of their motion in their orbs, or of their configuration with the other planets. So, to treat each in order: to begin with, the planets admit a sixfold difference with respect to their position relative to the Sun.

[Margin: Planets have a sixfold difference with respect to their position relative to the Sun.] First, any planet except the Moon, in which this dignity is not considered (although, as it can and should be considered with respect to the ☉, so also with respect to the ☽, as appears from 4 Aph. 96 of Cardano), is said to be in Cazimi of the ☉, that is, to dwell in the heart of the ☉, [Margin: 1. They are said to be in Cazimi, or the heart of the Sun.] and to have the greatest force, when it is joined bodily with the Sun, so that a line going out

from our station to the planet at the same time touches or passes through the Sun. This happens when the planet is joined to the Sun within 16 minutes of longitude and latitude, as Schöner also advises in Canon 16 of the second part. For the planet then unites its virtue with the Sun, and acts on these lower things as though with a single ray and with the same virtue as the Sun. Thus ♃ is said to be in Cazimi of the ☉ on 1606 January 19, at 9 in the evening, since at that time, the Sun standing by the Prutenic calculation at 9° 20′ ♒, ♃ is at 9° 21′ ♒, removed from the Sun by a single minute only; and its latitude is only 14 minutes south. For it must be observed that the latitude of the planet too, whether north or south, must not exceed 16 minutes; otherwise it is not in Cazimi, but is believed to pass the bodily conjunction of the ☉, as the Moon passes the Sun in conjunctions that are not ecliptic. And in such a situation the planet acquires 5 testimonies of strength.

[Margin: 2. They are said to be combust.] Second, according to Schöner, in Canon 17 of Part 2, who took the definition from the *Amicus medicorum* of Jean Ganivet [Joannes Ganivetus], chapter 6, difference 2, a planet is called combust when it is in the rays of the ☉ up to the 6th degree before or behind the Sun; for beyond that, if it is distant as far as the fifteenth before or after, it is said simply to be under the rays only. But to set out this doctrine more precisely: we call a planet combust when it is distant from the Sun, before, or more than 16 minutes, but less than, or exactly, half its orb. [Margin: What the orbs of the planets are.] The orbs of the planets are the name for the spaces of the zodiac within which the planets, when joined to the Sun, are hidden for some time and lie covered; they are commonly called arcs of vision. If the planets are joined with the Sun within the halves of these spaces, they are said to be combust by the Sun. For, covered by the rays of the Sun and as it were impeded, they not only lie hidden, so that they cannot shed their light downward, especially the three superior planets, but they also suffer the greatest loss of their powers, and are judged to be as it were bound and imprisoned. And if a combust planet stands nearest to one not combust, it will give it what strength it has: 3 Aph. 33 Cardano. This impediment is therefore counted among the greatest infirmities of a planet — and in the collection of the testimonies of debility it is marked by the quinary number of misfortune. Haly, in Part 1, chapter 5 of the *Judgements*, likens a combust planet to a captive whose powers are bound and tied. [Margin: The halves of the orbs of the planets.] Although, however, the halves of the orbs are unequal, not only in different planets but also in one and the same planet, because of dissimilar size and light, different latitudes, a different situation relative to the Earth at the apogee and perigee of the eccentric, and other causes, so that according to Cardano, in the commentary on text 63 of Book 1 of Ptolemy's *Quadripartitum*, 10° are assigned to Saturn, 12 to ♃, 7° 30′ to ♂, 17 to the ☉, 8 to ♀, 7 to ☿, and 12° 30′ to the ☽: nevertheless, with the agreement of other astrologers, they are regularly taken as follows, so that 9° belong to ♄, 10 to ♃, 8 to ♂, 15 to the ☉ and the ☽, 8 to ♀, 7 to ☿, and 12° to the nodes of the ☽.

For the planets extend their powers to so great an interval, as is stated in 3 Aph. 29.

[Margin: 3. Oppressed under the rays.] Third, a planet is called ὕπαυγ(ος) [Greek: hypaug(os)], or oppressed by the Sun's rays, when before or after its conjunction with the Sun it is distant from the Sun by more than half its own orb, but by less than half the orb of the ☉, that is, 15°. A planet so placed is depressed by 4 testimonies of debility. And although some of the astrologers, following al-Qabīṣī in chapter 3, difference 3 of the *Isagoge*, confuse these two infirmities and make one out of them, and do not distinguish them as we do, it is nevertheless certain that they are accurately distinguished by Albumasar in Book 7, chapter 3 of the *Introd.*, and by others, such as Kaspar Peucer [Peucero], Garcaeo [Johannes Garcaeus], and so on. And not without reason, since combustion comes about from a place nearer the ☉, but occultation from a more remote one, and the former harms and injures more, the latter less. Haly too, in Part 4, chapter 5, does not distinguish the limits of combustion from oppression under the rays. For he says that ♄, when occidental of the Sun, with the Sun advancing toward it, requires a distance of 15°; when oriental of the Sun, only 10°. The same judgement is given about Jupiter. ♂ occidental of the Sun requires 15°, oriental 9. ☿ gives its gifts complete, provided it does not come nearer the Sun than 7 degrees; and if it gives anything between 5° and 7, it does not give it completely, because its powers are not yet restored from combustion. Beyond 7°, however, it gives its gifts completely. ♀ does the same, except that when it appears visibly at 5°, it then gives its gift complete. The ☽ within 15° bestows little. For in its application to the Sun within 10° it loses its force entirely; from 10 to 12 it gives a little, because of the combustion it underwent in those 10 degrees; but once it has passed 12°, it gives its gift completely. From these words it is plain that he lumps together, under "free from combustion", the strengths and debilities of the planets which they have by reason of their orientality and occidentality to the Sun, and then those which they have under the rays — which we have decided must be considered separately.

[Margin: 4. A free planet.] Fourth, a planet is called free from combustion and from the rays when it is distant from the Sun, before or after, by more than 15 degrees, or half the orb of the ☉. And then 5 testimonies of strength are assigned to it.

[Margin: 5. The Moon increased in light.] Fifth, the Moon is called increased in light, or rather increasing, when after its conjunction with the Sun it goes, illuminated, toward the opposition of the ☉. [Margin: And diminished in light.] It is called diminished, or decreasing, when it is carried from the opposition toward the conjunction. And the increasing Moon has 2 testimonies of strength, as the diminishing Moon has 2 of debility.

[Margin: 6 When the superior planets are called oriental. When occidental. The inferior planets likewise.] Sixth, the three superior planets, such as ♄, ♃ and ♂, are called oriental and dextral of the Sun from their conjunction with the

Sun up to the ☍; but occidental and sinistral from their ☍ with the Sun up to the ♂. To the oriental 2 testimonies of strength are assigned, to the occidental 2 of debility. The two inferior planets, ♀ and ☿, are likewise called oriental and dextral of the Sun as long as, by reason of the diurnal motion, they precede the Sun and rise in the morning before the rising of the ☉; occidental and sinistral as long as they follow the Sun and go down in the evening after the setting of the ☉. These inferior planets, if they are occidental, have two testimonies of strength; if oriental, two of debility. The reason is this: the superior planets when oriental, and the inferior when occidental, are moved from the more remote places of the heaven toward the Earth, approach it, and increase their powers. The superior planets when occidental and the inferior when oriental are carried upward daily from lower places nearer the Earth, and lose their powers. And all these things are considered in the planets with respect to the ☉. See Albumasar, Book 7, chapter 3 of the *Introd.*, and al-Qabīṣī, chapter 3, difference 3 of the *Isagoge*.

[Margin: Second, with respect to motion, planets are called direct, retrograde, swift, slow.] Next, the variation of motion also assigns to a planet certain dignities and dejections, or infirmities. For a direct planet has 4 testimonies of strength. A retrograde planet — which, according to Haly, Part 1, chapter 5, proceeds after the likeness of a traitor — has five of debility. So too a swift planet, having a diurnal motion greater than the mean, has two of strength. A slow planet, having a true diurnal motion less than the mean, or else a stationary one, receives two testimonies of debility.

[Margin: Third, with respect to the aspects.] Third, the aspects too change the dignities of the planets, since they are intervals in the zodiac of such a kind that in them the planets are believed able to communicate their virtues to one another and help one another, or on the contrary to afflict one another and cast each other down from their virtue. There are five: ⚹, □, △, ☍ and ☌. [Margin: Conjunction.] And although the conjunction is not properly an aspect, it nevertheless has the greatest virtue of all among the aspects. For the bodily presence of a planet always helps or afflicts more evidently than the ray of an absent one. Cardano says nearly the same, 4 Aph. 104: the conjunction is for the most part stronger than the opposition, the opposition than the quadrate, the quadrate itself than the trigonal radiation. But it rarely happens that the planets stand apart from one another under the zodiac by an interval as exact as the constitution of that aspect requires. [Margin: Partile aspects; platic.] Hence they are conveniently divided into partile and platic. The first three, ⚹, □ and △, are moreover divided into dextral and sinistral, [Margin: Dextral. Sinistral.] about all of which Julius Maternus [Julius Firmicus Maternus] treats at length in chapters 25 and 26 of Book 2, and Iovianus Pontanus in chapters 39 and 40 of Book 1 of the *de reb. cael.*; and we too explained them above, toward the end of chapter 1 of Part 2. For our astronomers, who turn their face toward the south, the dextral aspects are projected from the planet against the succession of the signs; the sinistral according to the succession of the signs — although

Luca Gaurico [Lucas Gauricus], at the end of the 1st tractate of his *Isagoge in Astrologiam*, lays down the contrary, or rather confuses himself.

[Margin: Partile aspects are more efficacious.] It should be noted, moreover, that partile aspects are always more efficacious, in good or in malignity, than platic ones. For in partile aspects the very — of the planets that aspect one another bodies and centres act upon one another. In platic aspects, by contrast, the planets mingle their powers with one another only within the quantity of the half of their orbs. [Margin: The half-orbs of the fixed stars.] And since earlier we showed the quantities of the semidiameters of the orbs of the planets, those of the fixed stars were to be noted here. The half of the orb of stars of the first magnitude, then, is 7° 30′; of the second, 5° 30′; of the third, 3° 30′; of the fourth, 1° 30′. The remaining, lesser ones are not much regarded. [Margin: Sinistral aspects more efficacious than dextral.] In the same way sinistral aspects are judged stronger than dextral ones, since they are projected into the following signs, toward which the very bodies of the planets are also carried by their own motions.

Further, the platic aspect is divided into application and separation, or defluxion. [Margin: Division of the platic aspect.] And [?] application is said to take place when a lighter or swifter planet, within the half of its orb, approaches a heavier or slower one; defluxion, on the other hand, when the lighter or swifter planet recedes from the heavier or slower one. Application, moreover, is stronger than defluxion; and the nearer either of them is, by body or by aspect, the stronger and more efficacious it is, as Cardano advises more fully on this matter in his commentary on text 63 of Book 1 of Ptolemy's *Quadripartitum*. And at 3 Aph. 31 he says: "When a planet applies to another that stands in a house or exaltation[91], it gives it its power, and all the more so if it is peregrine. But if the lord of the place applies to another, it will give power without profit, and its labours will be in vain."

[Margin: What a planet void of course is.] A planet is also said to be void of course, or solitary — according to al-Qabīṣī, chapter 4, difference 3 of the *Isag.* and the commentary of Johannes de Saxonia, and chapter 5 of Book 7 of Albumasar's *Introd.* — when a planet that was conjoined to another, by body or by aspect, in some sign, after its separation from that same planet is not in turn associated with any other, by body or by aspect, until it has gone out from that sign. For instance, if the Moon is joined to Saturn in ♈, by body or by aspect, and after its separation from Saturn meets no other in ♈ by conjunction or by ray, the ☽ will be called void of course and solitary.

[Margin: What a feral planet is.] A planet is called feral if it stands in a sign in which neither any planet nor any ray adheres. For just as a man is called feral, or wild, who has no society with others, so too a planet is called feral which has no conjunction with others.

[91] whose house is not stated

[Margin: On conjunctions.] Further, so that it may appear how planets, whether conjoined or regarding one another by ray, either strengthen or relax their powers, it must be noted that the conjunction of the benefic planets ♃ and ♀ obtains 5 testimonies of strength, and the ☌ of the malefics ♄ and ♂, as also of ☽ and ♂, 5 debilities. For the benefics, as Haly teaches in Part 1 of *De jud. astror.*, chapter 6, complete a thing when they give it; but the Malefics, if they give anything, regret having given it, and take it away again. So the conjunction of a benefic with an indifferent planet — as ♃ with ☉, ♃ with ☿, ♃ with ☽, ☉ with ♀, ☿ with ♀, and ♀ with ☽ — 4 testimonies of strength; but the ☌ of a malefic with an indifferent planet — as ♄ and ☉, ♂ and ☉, ♄ and ☽; likewise ☉ and ☽ — bestows 4 testimonies of debility. The ☌ of ☿ and ☽ also produces three testimonies of strength, but the ☌ of ☉ and ☿ three of debility. Finally, the ☌ of ♃ and ♂, likewise the ☌ of ♃ and ♄, and of ♂ and ♀, bring one of strength; but the ☌ of ♄ and ♀, of ♄ and ☿, and likewise of ♂ and ☿, one of debility.

[Margin: On trine rays.] So, among the benefic aspects, the △ of ♃ and ♀, as of benefic planets, [yields] 4 testimonies of strength; but the trines of ♃ and ☿, ♀ and ☿, ☉ and ♃, ☉ and ♀, and likewise ♃ and ☽, as of benefics with middling planets, three; the trines of ☿ and ☽, ♄ and ♀, ♀ and ☽, two. And finally the trines of ♃ and ♂, ♃ and ♄; ♂ and ♀, ♄ and ☽ exhibit one testimony of strength. [Margin: On sextiles.] The sextile of ♃ and ♀ bestows three testimonies of strength; as also the ⚹ of ♃ and ☿, ♀ and ☿, ☉ and ♃, ☉ and ♀, ♃ and ☽, 2. And the ⚹ of ☿ and ☽, likewise of ☉ and ☽, one. And although every trine ray brings good, as Cardano notes at 4 Aph. 105, nevertheless the trine or ⚹ of the malefics is of no benefit whatever, as Haly teaches in chapter 6, Part 1 of *De judiciis astror.*, from Almansor's proposition 9, and Schöner in Part 2 of the *Isag.*, Canon 11.

[Margin: On squares.] Among the malefic aspects, by contrast, 4 testimonies of debility are brought by the □ of ♄ and ♂, and likewise of ☽ and ♂; three by the □ of ☉ and ☽, ♄ and ☉, and likewise ♂ and ☉; two by the □ of ♄ and ☽, and likewise ☉ and ♀; one by the □ of ☽ and ☿. [Margin: On oppositions] So too the ☍ of ☉ and ☽ imports 4 testimonies of debility, the ☍ of ♄ and ♂ 3, the ☍ of ♄ and ☿, and likewise of ♂ and ☽, 2. And although every quadrate radiation as well, which falls between unlike signs, is bad (Cardano, 4 Aph. 105), nevertheless the □ or ☍ ray of the fortunes does no harm whatever, according to Almansor, proposition 9.

[Margin: On conjunction with the fixed stars.] Finally, the conjunction of a planet within a distance of 5 degrees, before or after, with Regulus, which is at 24 degrees of ♌, brings six testimonies of strength; with Spica, which is at 19 degrees of ♎, 5. With the head of Algol, or of Medusa, which is at 21 degrees of ♉, it exhibits five testimonies of debility. All of these have their place not only in the radical charts of nativities but also in directions and revolutions. But let what has been said here on the principles of predictions suffice.

[Margin: Magini is shown to play the slanderer, since he confuses astronomical matters with astrological.] Before I pass to the judgements themselves,

however, I am compelled to answer Magini, the Momus and slanderer of my labours, who barks at this sifting of the powers of the planets. For in the earlier edition I compared, astrologically, the benefic planets with the benefic, and with the middling and the malefic; in turn the middling among themselves and with the malefic; and the malefic among themselves — which I do here too; and for the sake of fuller understanding I set down the ⚹, △ and □ aspects of Mercury and ♀, ☉ and ♀, ☉ and ☿, and showed in general what power they have in producing effects. In this I imitated not only the jurists, who ascribe various actions to Titius and Sempronius, or again the natural philosophers and mathematicians, who build various conclusions on fictitious hypotheses, by which they investigate qualities in nature, and fortify their demonstrations; but above all learned astrologers, who everywhere consider these aspects in directions and profections in order to frame judgements rightly, and weigh their powers. Yet while I did so, Magini rises up against me and bitterly slanders this very thing, as though I set down those aspects truly and astronomically, and were deluded by this notable error against the principles of astronomical science or art — an error that would far outweigh the lapses of three or four minutes which he is forced, willing or not, to acknowledge he committed, although he does not correct them everywhere. And seizing the occasion from this, he lights a torch at noon and explains at length at what interval ♀ and ☿ digress both from each other and from the Sun — something not unknown even to laymen. But he would judge otherwise if he were in his right mind — that is, if he used right reason — and did not labour in his judgement from envy and malevolence and rage with the lust for slandering. For he understands that I, in this passage which he slanders, am speaking not astronomically but astrologically — as the very title written above, *Part Three, on effects*, shows — were it not that, out of a zeal for sophistry which malevolence kindles in him, he leaps slyly and cunningly from one genus into another and confounds the mathematician with the natural philosopher. He understands that whoever knows how to read also knows the first letter, A: that is, that I, who sketched the motions themselves in general terms from hypotheses in the preceding Second Part, chapter 1, and explain them more fully in what follows, also know this — that the Sun can have no aspect to Venus and Mercury, and that Venus and Mercury themselves are separated only by a ⚹, never by a □ or a △. Unless, that is, he were striving, rashly and in vain and not without notable slander, to persuade the unwary that I had never tasted the first elements of astronomy, or else had slipped in these matters through some negligence — meanwhile shamefully betraying his own ignorance, and tacitly convicting himself of knowing little of the foundations of astrology. It is unwillingly, indeed, that I deal rather harshly with a man who professes the same discipline as I do. All who rightly know my character will admit that I do so under compulsion; and this is sufficiently plain to anyone even from the Epistle to the Reader of the earlier edition, by which he thinks himself injured. There, although I dealt with him most courteously, he nevertheless, in his strawy *Apologia*, abundantly

displays the boorish pride with which he swells. But a fool had to be answered according to his folly, lest he seem wise to himself (Proverbs 26, verse 5).

SECVNDVM MEMBRVM

De Prognostico generalium απο[?]λε-σμάτων

The Second Member: On the Prognostic of General ἀπο…λεσμάτων [?] [Greek: apo…lesmatōn, "effects"]

Caput I.

De prima generalium eventuum divisione, & generali prognostico regionum, urbium & locorum.

Chapter 1. On the first division of general events, and on the general prognostic of regions, cities and places.

[Margin: The doctrine of prognostics rightly precedes genethlialogy.] Having completed the more principal foundations of astrology, we must now proceed to the forming of the judgements themselves. And the first place, following Ptolemy's example and method, we rightly assign to the prognostic of general ἀποτελεσμάτων [Greek: apotelesmatōn, "effects"], which he treats in Book 2 of the *Quadrip.*; for an astrologer pronouncing on anyone's nativity is not to be believed unless he too has first come to know the general constitutions of the regions, cities and places, and the qualities of the air into which the infant comes forth from its mother's womb, since these dispose the native in various ways.

[Margin: Because the Ape's-head, ignorant of Ptolemy, does not attend to this, he is rightly censured.] For since general things are prior to particulars, and arise from more general and more powerful causes, to which particulars are subject and which they obey — indeed, particulars are not even fully known without the general — and since general things have the power of changing particulars, that schoolman the Ape's-head [Simiæ caput], who in his own neighbourhood seems to himself singularly wise in astrological matters, acted foolishly indeed, and with rash daring showed himself off to others in this discipline, while this art, which belongs properly to mathematicians and natural philosophers, and can be rightly understood and practised only by those who are skilled in astronomy and physics, as above we showed in the Proem to this third part — he set it before youths in the trivial school, whom he would have done better to instruct in logic, and he did so by an inverted order of teaching: putting the special before the general, that is, treating genethlialogy first and universal prognostics afterwards; indeed, neglecting the explanation of first principles, against the laws of good method and against the prescription of Ptolemy. So[92] among right-thinking people he could not escape being branded with fickleness, because he neglected his own office and put his sickle into

[92] the page sets `a.` after `Ut`, not construed here

another's harvest. They have rightly condemned in him a way of teaching that is both preposterous and ruinous to learners, since he began this doctrine of prognostics (to leave genethlialogy in its own place) from elections — elections that cannot be determined without a knowledge of the weather — and only then dealt with the weather, next with the winds and other meteors, then with eclipses, and last with certain remaining questions belonging to prognostics, such as the grain supply, wars, and so on. [Margin: The precepts of the Ape's-head are childish and written in a confused order.] So when, some years ago, his teachings were shown to me by one of his pupils, they at once seemed to savour of childish ignorance and to breathe a merely empirical arrogance, one without right judgement; and for that reason they were far too slight to be of use either to me or to others wanting to know the true foundations. And yet this most impudent Thraso boasts among the common people that my teachings agree with his, and are even derived from his — teachings which I, applying sound judgement, and not without labour and the loss of other, more necessary studies, gathered here and there from the writings of the old astrologers and also of some of our own. In the first edition of our *Ephemerides* I omitted their names and places for the sake of brevity; here, to answer the slanders of a venomous man, I have added them, together with a not inconsiderable supplement.

But let us dismiss this vain man, who strives — in vain — to imitate the learned as the ape imitates men; who has at least shown himself off in the trivial school with scraps of astrology but has never dared to publish them, and who meanwhile, in writings published in his mother tongue, the vernacular, arrogantly claims a great deal for himself in some spirit or other; and let us attend to our own business. [Margin: The general prognostic is twofold.] The general [Greek: π[?]γνωστικον (…gnōstikon, "…gnostic")] is twofold.

[Margin: The first teaches how to judge the state of whole regions.] *The first teaches, from the relation of lands to the planets and the signs of the zodiac; from the great conjunctions of the planets; from the shifting of the planets' apogees and perigees; from the change in the eccentricity of the ☉ and in the obliquity of the zodiac; and also from the very slow motion of the fixed stars — about the state of regions, seas, islands and cities, and about the beginnings, changes and fall of empires, and where and when peace, war, sects, pestilences and floods occur. For since causes ought to be analogous to their effects, and different effects in the regions and cities of the earth show themselves only over a long time and after the lapse of several centuries, it is consistent that these effects too should come from causes that are not so perceptibly changeable as the motions of the planets, but are of slower and more notable change, such as the progressions of the fixed stars, the great conjunctions of the planets in the different trigons, and so on. This is what Leupold. teaches in the first part, tractate 4, of the Introductoria judicia, and Cardano [Cardan.] in the supplement to the Almanach, chapter 10 [?], and segment 1, aphorism 37. But this very judgement is involved in the greatest difficulties, since the progressions of the fixed stars and of the planets' apogees, the moments of the great conjunctions, the changes in the eccentricity and in*

the obliquity of the zodiac, and the other aids to this judgement are for the most part unknown, and not yet confined within certain and undoubted limits.

[Margin: The second determines [?] the annual weather in a given place, and what follows from it.] *The second makes predictions chiefly about the annual effects, from the return of the ☉ to the equinoctial and solstitial points; from the new and full moons, especially the eclipsing ones; from the other configurations both of the luminaries and of the remaining planets; from their approach to this star or that; and from the rising and setting both of the fixed stars and of the wandering ones. First, in the air: what kind of weather is to come — heat or cold, humidity, dryness, corruption or pestilence. 2. In the waters: whether a flood or a fall in the waters is to be expected, and a corruption or an abundance of fish. 3. On land: whether barrenness or fertility is to be feared. 4. In those things that live on the land, such as beasts and men: whether there will be plenty or scarcity of the beasts that serve our life or oppose it; and what kind of diseases will afflict men by reason of the temper of the air, and also whether wars, fires and other such evils will trouble them. Since we have many things of this kind of event found out by experience here and there by authors and set out in certain aphorisms, and since the very motions from which these prognostics are taken are more exactly determined, we can pass a surer judgement about this than about the first.*

[Margin: The globe of the earth is divided into 4 quadrants by the equator and the first meridian, drawn through the Fortunate Islands.] *To deal first, in this chapter too, with the first kind, we must know from Ptolemy's prescription (chapter 2, book 2 of the* Quadr.*) that the globe of the earth is divided into 4 quadrants by two great circles — the equinoctial, and the meridian drawn through the Fortunate Islands — and that the same judgement holds for all of them, so that once one is properly known, a like judgement may be passed about the rest.* [Margin: The first quadrant contains three parts, known even in ancient times: Europe, Asia and a great part of Africa.] *In this quadrant of ours, then, which contains the three customary parts of the earth, known also to the ancients — Europe, Asia and the principal regions of Africa, except those that stretch beyond the equator towards the Antarctic pole — two things are to be considered.* [Margin: In any quadrant two things are to be considered.] *First, what the difference of the air is by reason of the places; next, what inclinations follow from the familiarity of the signs of the zodiac and of the stars. For from this the account of the remaining quadrants will be established.* [Margin: First, the constitution of the air.] *In the first, where the constitution of the air is examined, three things should be considered: first, under which parallel of the equator the place lies; second, at what angle it stands off from the limit of rising and setting; and third, in what position the zodiac regards the place.* [Margin: In any quadrant there are three spaces.] *Any quadrant of the earth is divided into three spaces. The first of them is contained between the equator and the summer tropic — the space that Ptolemy calls "under the southern parallels" — and is assigned to the torrid zone. The second extends from the summer tropic to the Arctic circle and belongs to the temperate zone; the third extends from the Arctic circle all the way to the pole and is assigned to the frigid zone.* [Margin: 1. In the torrid zone.] *In the torrid zone, then, since the Sun is raised all the way to the vertical point in the sky, the surrounding air is fiercely*

heated by the most direct rays of the ☉, which are doubled in their reflection. Hence men's skin is scorched; they have curly hair, a contracted face and a twisted stature.

Next, by the temperament that follows the blood, they are hot, irascible and savage in their ways, because on account of their bilious and scorched blood their actions do not proceed from reason but rather from appetite. The other things too that grow on the earth and live in it have like accidents, in proportion to the nature of each.

[Margin: In the frigid zone.] *In the frigid zone, under the northern parallels, the air is cold and moist, because there the oblique rays of the ☉ do indeed light up the air but bring it no heat worth perceiving. Hence in men's bodies too there is an abundance of moist nourishment, which no heat exhausts; and the men become white in colour, with straight hair, tall stature, a cold temperament and savage ways, since their minds are, as it were, numbed by the stiffness of their spirits; in other respects they are found agile, on account of the strength of their native heat and their constant exercise — yet they are rough and deceitful, because men are scarce there, and because, fearing to be deceived, they prefer to strike first. The other things too, such as beasts and what grows on the earth, become larger there, but colder than elsewhere.* [Margin: 3 In the temperate zone.] *In the middle, temperate zone, however, the air is in a middle state, and hence everything there becomes moderate as well: the men are rosy and reddish in colour, being midway between white and black, of a temperate nature and gentle in their ways.*

Since, however, this zone has a great breadth, it must be understood that the places that come nearer to either of the extremes also share more in their nature. Hence those who live nearer the south, being hotter in temperament and closer to the circle of the wandering stars, turn out more ingenious and more inclined to the study of heavenly things and of mathematics. And of these, those who have the rising Sun sooner are more open by nature, more manly and more constant, from the condition of the ☉, whose half of the zodiac extends from the sign ♌ in the order of the signs to ♒, as we pointed out above in the third chapter, on the domiciles of the planets. Those who are more westerly, however, are judged to be of the nature of the ☽: softer, more effeminate and more inclined to conceal their counsels. For the power of the Moon is due rather to them, since after the interlunium she first appears in the west, and the half that is reckoned from ♋ against the order of the signs to ♐ [recte: ♓] belongs to the ☽.

[Margin: Places vary the ways of men.] *The condition of the places themselves, among other things, also gives occasion for differences of character. For open plains usually invite [men] to horsemanship, coastal places to seafaring, and fertile ones to gentleness. The inclinations of natures that arise from temperament are therefore changed to some extent by this. And so far we have shown how the condition of the inhabitants stands according to the nature of the air.*

[Margin: Second, the inclinations that depend on the stars.] *The variety of inclinations, however, that arises from the familiarity of places with the heavens and the stars is to be determined in this way, according to Ptolemy, chapter 3, book 2 of the* Quadr. *First, let our quadrant of the earth be taken — in the scheme let it be α β γ δ — and let it be divided into 4 parts by two lines. One of these is drawn from the north, from the sea of PetZorke, through Russia, the Maeotid marsh, the Pontus, the*

Aegean Sea and the Arabian Gulf, to the south, as ε ζ*; the other passes from the east, from the island of Japan, through the middle of China, the lake of Chiama, Persia, the Mediterranean Sea, to the Strait of Hercules in the west, as* η θ*. By this division,* α κ*, the first part, will comprise Europe and all its kingdoms; the second, opposite,* κ γ*, most parts of Asia — Arabia, Persia and the southern part of China; the third,* β κ*, Scythia, both the part belonging to the Duke of Muscovy and the part belonging to the Great Khan, and the northern part of China; and the fourth,* δ κ*, the northern kingdoms of Africa — Fez, Morocco, Barbary, Numidia, Libya and the like. Next, since there are 4 triquetral configurations in the zodiac — the fiery, the earthy, the airy and the watery — let the same number of triquetral configurations of the zodiac be fitted to this quadrant of the earth of ours and to its 4 parts. First, straight lines are drawn from the north to the west and to the east,* ε θ *and* ε η*, and likewise from the south to the west and to the east,* ζ θ *and* ζ η*, so that triangles are formed set opposite to one another, as the attached scheme shows.*

When, therefore, 8 triangles arise from this construction — 4 of them external, ε α θ*,* η γ ζ*,* η β ε *and* ζ δ θ*, and four internal,* ε θ κ*,* κ η ζ*,* ε κ η *and* κ θ ζ*, which meet within the figure — we must now note, in explaining each of them:*

Diagram. A trapezoidal figure standing for the quadrant of the inhabited earth: a short concave arc across the top and a longer convex arc across the foot, joined by two slanting sides. A horizontal line crosses the figure from the left corner-point to the right corner-point, and a vertical line runs from the midpoint of the top arc to the midpoint of the foot arc; lines from the top and foot midpoints to the left and right points divide the figure into four inner triangles about the centre and four outer triangles against the corners. Each outer triangle carries two planet sorts; each inner triangle carries a numeral; a planet sort stands at the centre.

- Top, above the figure: Septentrio ("North")
- Top-left corner: a[93]
- Top arc, midpoint: ε
- Top-right corner: β
- Left point of the horizontal line: θ, with Occasus ("West") beside it
- Right point of the horizontal line: η, with Ortus ("East") beside it
- Bottom-left corner: δ
- Bottom-right corner: γ
- Foot arc, midpoint: ζ, with Meridies ("South") below it
- Centre, beside the crossing: x [?]
- At the centre, set over the crossing of the lines: ☿
- Upper-left inner triangle: I
- Upper-right inner triangle: 3
- Lower-left inner triangle: 4
- Lower-right inner triangle: 2
- Upper-left outer triangle: ♂ ♃

[93]a roman a, the text's α

- Upper-right outer triangle: ♃ ♄
- Lower-left outer triangle: ♂ ♀
- Lower-right outer triangle: ♀ ♄

[Margin: On the external portions.] [Margin: I.] That the outer portion of the first quarter-part, ε α θ, is northern and western, and is therefore subject to the first triangle, which contains ♈ ♌ and ♐, and which the occidental planets ♃ and ♂ rule. The peoples subject to it are the Europeans, such as the Spanish, the French, the British, the Germans, the Danes, the Swedes and the Italians. All of these too, because of the primacy of their triangle and of its rulers, are impatient of kingly rule and lovers of liberty; they are also most devoted to arms and to war, patient of toil, and followers of eminence, elegance and fortitude. In particular, however, Britain, France, Germany, Denmark and Sweden are under Aries, to whose inhabitants Ptolemy attributes ferocity, truculence and obstinacy on account of the dominion of Mars. Italy and Sicily, by contrast, are subject to ♌, and their inhabitants, rather from the nature of the Sun, are devoted to excellence, kindness and friendship. And Spain [is subject] to ♐; hence a love of liberty and of elegance is assigned to the Spanish too, on account of Jupiter.

[Margin: II.] The outer portion of the second quarter, opposite to this one, η γ ζ, is eastern and southern, and is therefore subject to the second triangle, which contains ♉, ♍ and ♑; and it has as its rulers ♄ and ♀, oriental. The peoples belonging here are those of greater Asia, such as the East Indians, the Turks, the Parthians, the Persians, the Babylonians, the Assyrians and the southern Chinese. On account of the dominion of ♀ these are more desirous of venereal things and more delicate in dress and diet; in religion they are idolaters; on account of Saturn they are misshapen, wild and savage. To ♉, however, and to Venus belong more particularly Parthia, Media, Persia and a great part of Turkey, whose inhabitants are, in their sexual unions, more ardent, and more given to venery; they wear bright-coloured dress and eat delicate food. In particular, Babylon, Mesopotamia, Assyria and China are under Virgo and ☿, and so to them too has fallen an outstanding knowledge of the mathematical disciplines and the observation of the stars. To ♑ and to Saturn, however, East India properly yields; its inhabitants are misshapen, foul and savage.

[Margin: III] The outer part of the third quarter, ε β η, is eastern and northern, and is therefore subject to the third triangle, which embraces ♊ ♎ and ♒ and has as its rulers of the trigon [trigonocratores] ♄ and ♃, oriental. To it are subject the Muscovites, the Tartars, the Hyrcanians, the Caspians, the Armenians and the remaining Scythian peoples. But the ways of these peoples today do not correspond so closely to the signification of the celestial places. For ♄ and ♃, oriental, make men religious, rich, clean in their diet and honest in their habits, skilled in divine things, with ways disposed to liberty and justice, magnanimous, haters of wickedness, and moderate and pure in the use of venery. These ways are rather foreign to the ways of the Tartars and Muscovites, since in these times they lack equitable laws and a good form of

commonwealth and are more devoted to plunder. The cause of this, however, is not the heavens but the barbarism that now occupies those places. Further, in particular, Hyrcania and Armenia agree with ♊ and ☿; hence their inhabitants are more fickle and somewhat wicked. To ♎ and to Venus, on the other hand, [belong] Bactriana, northern China and the regions around the Caspian Sea, whose inhabitants are intent on amassing riches and indulge in the delights of music. But Muscovy, Sogdiana, Oxiona and Sarmatia [belong] to ♒ and to Saturn; hence their inhabitants too are savage, grim and wild.

[Margin: IV] The outer part of the last quarter, ζ δ θ, is western and southern, and is joined to the fourth triangle, which embraces ♋ ♏ and ♓, and it is ruled by ♂ and ♀, occidental. With it agree the people of Fez, the Moors, the Numidians, the Garamantes, and those who inhabit Barbary, Libya and Egypt. Hence these nations are prone to womanly venery and to unlawful unions of every kind; they are ravishers of wives, and given to the slave-trade on account of Venus; and on account of Mars they are wicked, tricksters, perverse, reckless and ready to meet dangers. Of these, the Dulgeridani, who were once called Numidians, and likewise the people of Tunis and of Carthage are owed to ♋ and the ☽, and they are therefore devoted to commerce; the people of Fez, the Moors and the Gaetulians to ♏ and ♂, and these are savage, warlike, ready to meet dangers and given to attacking one another; the Garamantes, the Nubians and the Egyptians to ♓ and to Jupiter, and hence they are of more liberal and simpler ways. In this manner the external parts of the earth are joined to their triangles and governors.

[Margin: On the internal portions.] The portions of each quarter that incline toward the middle of the earth, however, are allotted a different nature. For, first, each middle part acquires the nature that the external part toward which it inclines has; so the middle part of the first quarter passes into the nature of the outer part of the second, and conversely the middle part of the second into the nature of the first. Next, ☿ presides over all the middle parts, because it has a nature intermediate among the other planets. Moreover, since the middle parts have some breadth, the closer they come to the middle itself, the more they approach the nature of the opposite parts and of ☿; while the closer they are carried toward the base of their own external portion, the more they come to share its nature. In this way, then, it will be easy to join the remaining parts of the earth to their triangles and rulers.

[Margin: De] [Margin: I] And first, the middle portion of the first quarter, ε θ κ, is eastern and southern with respect to the external portion α ε θ; it is therefore subject to the second triangle, which embraces ♉ ♍ and ♑, and to its governing stars, Venus and Saturn; next, to ☿; and third, to ♃ and ♂, which rule the first triangle. In this part are the regions Illyricum, Macedonia, Thrace, Greece, Achaia, the Cyclades Islands, Crete, Cyprus and the coastal places of Asia Minor. Their inhabitants are well composed and tempered in body and mind. For ♂ makes them eager for excellence, brave, and haters of kingly rule; ♃ makes them eager for liberty and tenacious of their polity

and of their own laws and institutions; ♀ makes them devoted to contests and to elegance; ☿ makes them cultivators of friendship, hospitality, letters and eloquence, and merchants. In particular, however, the coastal places of Asia Minor, the Cyclades Islands and Cyprus are referred to evening Venus and ♉; hence they are more devoted to elegance and to pleasures. The Greeks, on the other hand, the Achaeans and the Cretans, belong to ♉ and ♍; hence they have turned out more ingenious and more learned. The Macedonians, the Thracians and Illyricum are subject to ♈ and ♄; they are not idle, indeed, in acquiring property, but they are rather alien to gentleness of manners and to hospitality.

[Margin: II] Second, the middle portion of the second quarter, κ η ζ, is western and northern with respect to the external portion η γ ζ. Hence it is assigned to the first, western triangle, which contains ♈ ♌ and ♐, and to its governing stars ♃ and ♂; to these ☿ is joined as a common ruler, nor are ♄ and ♀, which rule the adjacent external part, entirely neglected. In this part are the regions Idumaea, Coelesyria, Judaea, Phoenice, Chaldaea, Orchinia and Arabia Felix. Their inhabitants, on account of ☿ mixed with ♄ and ♀, are judged apt for trade; they are cunning, deceivers and unstable. On account of ♂ they are bold, impious and treacherous. On account of Jupiter they hold fertile soil, and they are liberal men who use dexterity in contracts and business. For the rest, Phoenicia, Orchinia and Chaldaea are under ♌ and the Sun; their inhabitants are celebrated as simple and as observers of the stars, who also venerate and worship the Sun. Arabia Felix is under ♐ and Jupiter; this region is also most productive of the finest spices, and it has inhabitants who are honest and liberal in their dealings. Coelesyria, finally, and Judaea and Idumaea are under ♈ and ♂; hence the men of those regions too are treacherous and truculent.

[Margin: III] Third, the middle portion of the third quarter, ε κ η, is western and southern with respect to the external portion ε β η, and it is therefore subject to the fourth triangle, which comprises ♋ ♏ and ♓ and whose rulers are ♂ and ♀, occidental, together with ☿. In this part are the regions Bithynia, Phrygia, Colchis, Syria, Cappadocia, Commagene, Lydia, Cilicia and Pamphylia. By reason of Venus, the ways of these peoples incline to her worship (for they worship Venus); by reason of ♂, to wickedness, plunder and raiding. By reason of ☿ they incline to mercenary expeditions, servile labours and thefts. Of these, in particular, the Phrygians, the Bithynians and the Colchians belong more to ♋ and the Moon; hence the men too are more fickle and compliant to women. Most of the women, on the contrary, are manly on account of the Moon — domineering, warlike, delighting in arms; and such, it is said, were the Amazons, who trained the female sex to manliness by cutting off the right breast in infancy. The Syrians and the Cappadocians belong to ♏ and ♂; hence they are wicked, treacherous and hard-working. The Lydians, however, the Cilicians and the Pamphylians yield to ♓ and Jupiter: they are liberal, easy-going in contracts, and more circumspect in acquiring property.

[Margin: IV] Fourth, the middle portion of the last quarter, θ κ ζ, is eastern and northern with respect to the external portion δ θ ζ; and it is therefore subject to the third triangle, ♊, ♎ and ♒, which ♄, ♃ and ☿ rule.

The regions that belong here are Cyrenaica, Lower Egypt, the Thebaid, Marmarica, Troglodyte, Arabia and Ethiopia. Their inhabitants are inclined and prone, on account of Saturn, to superstition, to ceremonies and to rites concerning the dead; on account of Jupiter, to command and to magnificence; on account of ☿, to wisdom, prudence, the understanding of things, and mathematical studies. In particular, however, the regions of the Cyrenaeans, of Marmarica and of Lower Egypt are referred to ♊ and ☿; they are therefore prudent, understanding of all things, and plainly excellent in mathematics. Those who hold the Thebaid and Troglodytice are subject to ♎ and to Venus. The Arabs, the Medes and the Ethiopians are given to ♒ and to Saturn, and they therefore lead a rather rustic life, like that of wild beasts. And this much we have wished to set out briefly: how whole regions are to be distinguished according to the signs of the zodiac and their chronocrators.

[Margin: The fixed stars too affect the inhabitants of kingdoms by their nature.] Ptolemy, moreover, advises at the beginning of chapter 4 of book 2 of the *Quadripartitum* that the fixed stars too must be considered, and their powers carried over to the regions and provinces, in this way: since they vary their longitude in the zodiac with the passage of time, a circle is to be drawn through them and through the poles of the heaven or ecliptic; the sign into which the circle falls is the sign to which the fixed star will belong, and it will regard the regions subject to that sign. And Cardano adds two examples in his commentary. [Margin: The first example, concerning the eye of Taurus.] The first concerns the eye of ♉, which by its nature — according to Schöner, chapter 6, book 1 of *de jud. nativ.*, which Cardano also approves, 4 Aph. 29 — makes men restless, turbulent, delighting in popular sedition. In Ptolemy's time it affected Cyprus and the coastal places of Asia Minor; now, however, it acts upon the Hyrcanians, the Armenians and Egypt, since it has entered ♊. [Margin: Example 2, concerning the heart of ♏.] The second concerns the heart of ♏. When it was formerly in ♏, it affected Syria, the Moors and the Cappadocians by its own Martial nature — by which, according to Schöner in the same chapter and Cardano, 4 Aph. 30, it signifies men who are cruel, rapacious and violent, yet well favoured by fortune; now, because it is passing into ♐, it affects the Spaniards, and makes them avaricious, crafty, eager to dominate, and cruel.

[Margin: On the change of lands and kingdoms.] *Before we treat of cities, however, and assign definite signs to them as to the regions, we must say what celestial causes change kingdoms, regions and lands. For we observe not only various changes and transfers in kingdoms, as we find now these, now those reigning and lording it over others, but we also detect that on the very surface of the earth nothing is perpetual; that, when times and places are compared, dry is exchanged for wet and wet for dry; and that some lands are wiped out by the waters while others rise up. And* [Margin:

Dan. 2 verſ. 21.] *although GOD, the author of nature and the first cause of all good, changes lands and transfers kingdoms at his good pleasure* [Margin: Prov. 25 v. 27.] — *and to scrutinize his majesty is the part of men who give little thought to their own lot* — *nevertheless,* [Margin: Ad Rom. 1. v. 20] *since he has engraved his invisible things and his everlasting power, for the most part, in the book of nature, and above all in the heaven, which measures times, motions and changes of every kind* — *indeed, has set the heaven before us to be for signs of things present and to come* — [Margin: Gen. 1 verſ. 14.] *we shall not be seen to act contrary to true religion if we inquire into those changes with fear and trembling, and ascribe no necessity to our reflections.*

[Margin: The first cause of the change of lands and empires is the change of the apsides of the planets.] The first cause, therefore, is held to be the change of the apsides of the planets, by which the five planets, together with the Sun, carry the places in which they are highest and farthest from the centre of the earth, and likewise lowest and nearest to the earth — and, together with those places, the swiftness and slowness of their motion — into ever different seats of the zodiac ſ. ſ. ſ. Cardano teaches this very point in general, 1 Aph. 37, in these words: *The changes of the apsides change kingdoms, regions and religions.* In particular, however, he speaks as follows about the change of the apsis of the Sun, whose power on earth is greatest, 5 Aph. 129: *The apsis of the ☉, proceeding from ♈ to ♋, makes the southern part uninhabitable, but the northern habitable; from ♋ to ♎, it makes the northern well habitable and ruling over the southern; from ♎ to ♑, the southern habitable, but by no means ruling over the northern part; from ♑ to ♈, it makes the southern ruling over the northern, [?] desolate.*

[Margin: The second cause is the change of the eccentricity of the Sun.] The second cause is the change of the eccentricity of the ☉. It is followed not only by ♀ and ☿, the two planets which we have placed in the same orb as the Sun in the Cosmography, but also by the change of eccentricity of the remaining, superior planets, since their true motions, according to the most accurate observations of Tycho, have regard to the true motion of the ☉ and are measured from it. That change is explained, following the prescription of Copernicus in chapter 20 of book 3 of the *Revolutions*, by the motion of a small circle which carries the centre of the eccentric around on its circumference, completing one period in 3434 years. Its diameter is set at 34′ 14″ of one part, of the kind of which the semidiameter of the eccentric has 60. Hence, since the least eccentricity, such as it is established it will be in the year of Christ 1653, in the month of March, is presupposed at 1° 55′ 53″, the greatest, which occurred 63 years before the birth of Christ, at about the very beginning of the Roman monarchy, will be 2° 30′ 7″. And Georg Joachim Rheticus [Georgius Joachimus Rheticus], in the *Narratio prima* of the hypotheses of Copernicus, addressed to Schöner, called this small circle the wheel of fortune, by whose revolution the monarchies of the world take their beginnings and undergo change. For just as the Roman empire reached its highest summit when the eccentricity was greatest, and declined into a monarchy, so, as the eccentricity decreased, the empire too, gradually growing old, was diminished and almost

collapsed. In the first quadrant, however, the Turkish empire began with the law of Muhammad, and grew very swiftly, in proportion to the motion. At this time, when the eccentricity is almost at its least, it flourishes most, and from there, toward the other quadrant, it will be weakened again, and will fall just as swiftly, God so willing, with a heavier fall.

[Margin: The third cause is the change of the obliquity of the zodiac.] The third cause is the change of the obliquity of the zodiac, which at its greatest is set at 23° 52′, and at its least at 23° 28′, as the Prutenic Tables teach, precept 1, and as follows from chapter 1 of book 2 and chapters 2, 3, 4, 5 and 6 of book 3 of Copernicus's *Revolutions*. This cause, moreover, agrees with the preceding one; for the obliquity of the zodiac increases and decreases with the eccentricity of the ☉, so that when the eccentricity is greatest or least, the obliquity too is found greatest or least.

[Margin: The 4th cause is the great conjunctions of the planets.] Finally, the fourth cause is judged to be the conjunction of the superior planets, especially of ♄ and ♃, which, as is established from 1 Aph. 64 of Cardano, is threefold: great, middle and lesser. He states, 1 Aph. 65, that the lesser recurs every 19 years, 315 days and 19 hours, and that in that time it completes $8^{s}\ 2°\ 59′\ 9″$. The middle one, by which the passage is made into a sign of the following trigon, of a different nature and triplicity, recurs in 198 years and 236 days; and the great one, by which the progress is made from the watery trigon into the fiery, in 794 years and 214 days. But the more exact calculation of the Prutenic Tables, according to precept 37, shows — from the daily excess of Jupiter over ♄, $2′\ 58″\ 40‴\ 16⁗\ 51^{V}\ 25^{VI}\ 2^{VII}$, divided into the whole circle of 6 sexagenes — that between two successive conjunctions of ♄ and ♃ there intervene 2 second sexagenes of days, 0 first, and $53^{d}\ 32′\ 28″\ 28‴$ approximately, that is, 7253 days, or 19 Egyptian years, 318 days, $12^{h}\ 59^{m}\ 23^{s}\ 12‴$; and by this interval they stand distant from the nearest ☌ by $8^{s}\ 2°\ 58′\ 42″\ 44‴$. The middle conjunction, therefore, containing 10 lesser ones, is reckoned at 198 years, 265 days, etc.; and the greatest, which comprises 4 middle ones, at 794 years, 331 days, etc., as the table adjoined shows.

Table of the conjunctions of ♄ and ♃, showing which conjunctions are lesser, which middle, and which great or greatest, and at what times they occur.

Conjunction	Interval of the conjunctions: Years	Days	Hours	Motion of ♄ and ♃ from the mean equinox: Signs	Deg.	′	″	‴
1 Lesser	19	318	$12^{h}\ 59^{m}\ 23^{s}$	♑	2	58	42	44
2 Lesser	39	272	$1^{h}\ 58^{m}\ 46^{s}$	4	5	57	25	29
3 Lesser	59	225	$14^{h}\ 58^{m}$	10♉	8	56	8	14
4 Lesser	79	179	$3^{h}\ 57^{m}\ 33^{s}$	8	11	54	50	58

Conjunction	Interval of the conjunctions: Years	Days	Hours	Motion of ♄ and ☊ from the mean equinox: Signs	Deg.	′	″	‴
5 Lesser	99	132	$16^h\ 56^m\ 56^s$		14	53	33	43
6 Lesser	119	86	$5^h\ 56^m\ 19^s$		17	52	16	28
7 Lesser	139	39	$18^h\ 55^m\ 43^s$		20	50	59	12
8 Lesser	158	358	$7^h\ 55^m\ 6^s$		23	49	41	57
9 Lesser	178	311	$20^h\ 54^m\ 29^s$		26	48	24	41
10 Middle	198	265	$9^h\ 53^m\ 52^s$		29	47	7	25
20 Middle	397	165	$19^h\ 47^m\ 45^s$		29	34	14	50
30 Middle	596	66	$5^h\ 41^m\ 36^s$		29	21	22	16
40 Greatest	794	331	$15^h\ 35^m\ 28^s$		29	8	29	41

[Margin: An error is noted of certain writers who wrongly measure the quantity of the great conjunctions.] Leupold, then, in tract. 4 and 5 of his *Introduction*, al-Qabīṣī at the beginning of difference 4 of his *Isagoge*, and many others who follow them, are in error when they assign 960 years to the great conjunction and assert that the superior planets return to the same point in the same space of time. For the foundation on which they establish that the lesser conjunctions return in a space of 20 years, and the middle ones in a space of 240 years, after 12 lesser ones, is false; and although Giovanni Pontano too embraces this foundation in his commentary on saying 65 of Ptolemy's *Centiloquium*, he nevertheless measures the greatest conjunction by nine hundred years only, but not without error. Next, an old codex found at Segeberg is also in error, from which the illustrious Heinrich Rantzau [Heinricus Rantzovius] transferred certain matters into the 9th member of chapter 3 of the second part of his astrological treatise. For it not only confuses the conjunctions themselves but also their numbering altogether, and teaches almost nothing that savours of truth.

[Margin: Which conjunctions are called lesser.] The lesser conjunctions (☌) of the two superior planets, however, are said to be those that occur in signs of the same nature, or of the same trigon, as the preceding ones, and they cannot bring about great changes. For although they too have their effects — just as Cardano, 5 Aph. 48, says of the ☌ of the superior planets in the watery signs that in them great wars arise because of ♏, which are nevertheless mostly

brought back to peace rather than to mutual slaughter, because of ♋ and ♓ — still, because they occur in signs of the same nature, they do not operate diversely, as the middle ones do, or wholly contrarily, as the great ones do, but for the most part continue nearly the same effects that they began at the change of the trigon itself. And ten of these always follow one another in due order.

[Margin: What the middle ones are.] Next, those are called middle conjunctions which occur in signs of a different trigon, though not contrary in all their qualities, as when the conjunctions pass from the fiery into the earthy, from the earthy into the airy, from the airy into the watery, and so from ♈ into ♑, from ♑ into ♎, from ♎ into ♋. About these it is certain that they produce diverse operations, change in some measure the state of empires, kingdoms and lands, and cause certain new empires and kingdoms to arise: just as the empire of Alexander the Great began in the airy, that of the Persians in the earthy, and that of Muhammad in the watery, as Cardano teaches, 1 Aph. 53. And of these conjunctions, provided their numbering is taken from the change of the fiery trigon into the earthy, three always occur within 596 years: the first in the earthy, the second in the airy, the third in the watery trigon.

[Margin: Which are called the greatest conjunctions.] Those conjunctions, finally, are called greatest which begin to occur in the fiery trigon, above all in Aries, the first sign of the zodiac. For since in them the passage is made from the watery into the fiery sign, which are most opposed to each other in their primary qualities, the greatest changes in the whole world also occur at those times, as histories testify.

[Margin: Examples of the change from the watery trigon into the fiery.] For when the calculation is carried backwards, and about 794½ years are assigned to each conjunction of this kind, we are led back from the year of Christ 16[numeral: ?][numeral: ?] — in which, in the Julian style, on August 28, by the mean motions, the greatest ☌ of the superior planets occurred at about 1° 28′ ♐, while the true one fell on December 14 of the same year at 9° 36′ ♐, and was indeed observed about 10 days before — first to the year of Christ 809, in which the Roman Empire, worn down by continual wars, was at last restored and enlarged under Charlemagne. From there to the year of Christ 15, soon after which came a great change of both the ecclesiastical and the political state. Then to the year 779 before the birth of Christ, which was followed some years later by the institution of the Olympic contests and of their reckoning of times, the birth of Romulus and Remus, the building of Rome, the grievous affliction of the kingdom of Israel by Tiglath-Pileser [Teglatphulassar], king of the Assyrians, and finally its destruction by his successor Shalmaneser. Proceeding further back from this time, we come to the year 1574 before the birth of Christ, around which Moses had already been born, who afterwards led the people of Israel out of Egypt by divine power. Then to the year 2368, within a century of which the universal flood followed. After that to the year 3163, and finally to 3957, around which GOD created the world out of nothing. And it is fitting that Rome was founded shortly after the beginning of the fifth

fiery trigon — counting as the first the one in which the world began — and afterwards grew by degrees, and among other cities, by the multitude of its inhabitants and of the peoples and kingdoms that it subjugated, raised its head, until at last, around the sixth fiery trigon, it had brought very many kingdoms of Europe, Asia and Africa into the form of a monarchy and supreme empire, and flourished at its very height. Then this Roman Empire, divided into two, the Eastern and the Western, worn out by civil wars and drained by the loss of kingdoms and provinces, seemed to collapse, until around the seventh trigon it was restored by Charlemagne and in some measure recovered its former shape. So this same empire, at this time too, under the eighth fiery trigon, is to undergo great changes; these we shall leave to experience rather than pass our own judgement on them.

[Margin: When the changes that arise from the great ♂ are chiefly to be noticed.] We hold, moreover, following saying 65 of Ptolemy's *Centiloquium*: that in the least conjunction the difference of the middle conjunction is seen, and in the middle one the difference of the greatest conjunction. That is, as Giovanni Pontano explains it: this threefold kind of conjunction puts forth its significations by certain degrees, as it were, just as through sons and grandsons. For things adumbrated and signified by the greatest conjunction, as though through a kind of mist, are brought more and more into the light in the course of time through several lesser conjunctions, until at last they are fully confirmed in the middle one. And the things presignified in the middle one display their effects more manifestly in the lesser ones that follow — just as happens in nativities, where likewise the things portended for someone born, by a certain general indication from the natal figure, are declared not in a single moment of time but successively and little by little.

[Margin: The opinions of others on the greatest, great and middle conjunctions.] There are some who speak differently about these conjunctions. For they call them greatest when the three superior planets ♄, ♃ and ♂ come together at once; in which case it is likely that, because of that meeting, they bring about greater alterations in this world than if only two, ♄ and ♃, meet. Great, when ♄ and ♃ meet; middle, when ♄ and ♂; lesser, when ♃ and ♂. And about the conjunction of ♄ and ♂ at the beginning of ♋, Heinrich Rantzau [Ranzovius] notes this in the place cited above: that because it occurs in the fall of ♂ and the detriment of ♄, it brings above all dryness and barrenness, unless a benefic has aspected them. But we rather embrace the doctrine given earlier.

[Margin: On what principle judgement is to be given about conjunctions.] [Margin: 1. The opinion of Messahala.] Further, so that the judgement on any conjunction may be rightly formed, it must be known that Māshā'allāh [Massahala], in chapter 10 of his *Epistle*, holds that some lord should be chosen from the place of the ascendant and the place of the conjunction, from whose nature the pronouncement on the effect is to be made. But since no planet can have an exact conjunction with another, except with the Moon — as Cardano teaches, 4 Aph. 79, with experience and reason bearing witness,

which show that this arises from the slowness of the motion and from the defect of observations, which are not well suited to examining such very small quantities in the motion, and the times; and Kepler too confirms this in chapter 11 on the fiery trigon; and since indeed the true lord of the conjunction is not conveniently chosen from the place of the ☌ alone, [Margin: 2. The opinion of Cardano.] it will be best to appoint as lord, and to take the judgement from, that planet which, first, is higher in its eccentric; and 2, on its small circle or epicycle; 3, which has more dignities in the place of the ☌; and 4, which has more stars similar to its own nature associated with it, as is found in Cardano, 2 Aph. 189. There he also adds this, in the following Aph. 190: that in a ☌ of the superior planets that one is higher on its small circle from the mean ☌ with the ☉ to the mean ☍, the one that is swifter; for it moves more slowly on its small circle. But from the mean opposition with the ☉ to the mean ☌, the one that is slower. All of this, however, is established more plainly from the Corollary added to each year in our Ephemerides, not only as regards the epicycle but also as regards the eccentric. [Margin: It is best to judge from the principles set out before.] Or else to derive the prognostic from it, so that, following the order of the principles set out in the preceding member, these are considered: first, the nature of the planets that are conjoined, and of the stars that are associated with them and either help or impede one or both. Second, the sign in which the conjunction takes place. Third, the house into which the ☌ falls — although to consider this, since the time is uncertain, seems both difficult and superfluous. Fourth, the strength or weakness that accompanies the conjoined planets, by reason both of the essential and of the accidental dignities in the chart of heaven; this chart can be erected close to the truth for the time of the ☌ according to the precepts of the last chapter of the preceding part. Fifth, the position in latitude, since the more northern are always stronger than the more southern, as is found in Cardano, 4 Aph. 80. Sixth, the rays that are directed to the place of the conjunction. For, as the aphorism at the end of the 9th member of the third chapter of part 2 of Ranzovius teaches: if ♂ and ☿ behold Saturn and Jupiter in conjunction with a benign aspect, such as a △ or a ✶, the lords of kingdoms and provinces will direct all their efforts to preserving peace and concord with their neighbours, and will give thought to establishing wholesome laws in the empire. Moreover, according to Cardano, 3 Aph. 136, it also very often happens that great men are born at the time of the great conjunctions, even though their nativities do not show this so expressly. And it is not only the conjunctions, but also the ☍ and □ rays of the superior planets, that signify great changes in the world. For of the opposition of ♄ and ♃ Cardano affirms this, 5 Aph. 49: that they signify wars and slaughters, in which the superior of the two wins — namely the one that has greater dignities in its place than the other and is of greater power. And on the quartile of ♄ and ♃, 7 Aph. 6: if ♄ is in ♎ and ♃ in ♋, great changes come about.

[Margin: From what the judgement on cities under particular signs is taken.] It remains now in this chapter for us to teach how cities and metropolitan

towns — above all those whose fortune the rest belonging to them follow — are to be assigned to the twelve signs of the zodiac. This assignment is taken either from the more principal places that the heaven occupied at the moment when the building of the city was begun, above all from the ascending sign; or else from long experience, which is drawn from the observation of eclipses and of the ominous ☌ or ☍ of the superior planets, and of the evils that accompany conjunctions and eclipses — such as invasions of peoples, devastations of lands, plagues, famines, dearth of grain, earthquakes, unusual winds, floods of rivers, and so on, as Johannes Garcaeus [Garcæus] teaches in chapter 32 on the judgement of nativities. Ptolemy teaches, in book 2, chapter 4 of the *Quadripartitum*, that there are three most principal places, if the time of the building is known and the chart of heaven is erected for the beginning of the founded city according to the precepts of the last chapter of the preceding part; from these the judgement about the city itself is taken. First, the place of the ☉.

[Margin: Three places above all are to be regarded: those of the ☉, the ☽ and the horoscope.] 2, the place of the ☽; and 3, the horoscope or ascendant. For the ascending sign signifies the state of the city in just the way it does in nativities: when it is affected, the city itself is affected too. And if the places of the luminaries, which have an agreement and a remarkable correspondence with the city, are harmed, the city itself will suffer some damage. Above all, eclipses of the luminaries pour out their effects on cities, provinces and kingdoms more than on persons of private condition, or even on kings, since they regard the multitude, as Cardano teaches, 5 Aph. 45. Cardano's aphorism 4 Aph. 179 should also be noted here: if anyone born has his ascendant in the opposite of the ☽ of the city in which he lives, he will be unfortunate in that city.

[Margin: In which city anyone may live most safely and most happily.] For in choosing a city in which one wishes to fix one's home, the positions of the planets both of the city and of the native are to be compared. And Cardano teaches, 2 Aph. 172: that the best dwelling for the native's health is where the native's ascendant agrees with the ascendant of the city; for the native's advancement or dignities, where the heart of heaven or the place of the Sun agrees with the ascendant of the city; for riches, where that of Jupiter does; for happiness in all things, where that of the Moon does. But where these are adverse to one another by a quartile or an opposite ray, it is reasonable that the contrary also comes about there. The sign, however, that stands in the mid-heaven at the time the city was built bears rather on the prince of the city and on the actions of the citizens: if it is happy and fortunate, it promises princes and governors good fortune in life and in their actions, and the citizens prosperity. [Margin: The king in the administration of government: which one is to be judged fortunate.] And as, in general, that king rules his kingdom firmly whose nativity agrees with the beginning of the kingdom, as is found in Cardano, 3 Aph. 119, and badly the one whose nativity disagrees. Indeed,

a city at whose beginning Mars stands in the heart of heaven is for the most part seditious. And if ♄ occupies the mid-heaven, the citizens do many things wrongly, and they are laborious, 2 Aph. 169. So in a particular comparison, the rule that Cardano gives in his commentary on text 20 of book 2 of Ptolemy's *Quadripartitum* is to be carefully observed. Where both nativities — that of the city and that of the prince governing the city — are at hand, one ought, for the general government, to consider the mid-heaven in the nativity of the governor and the places of the ☉, the ☽ and the ascendant in the nativity of the city, and to compare them not only with one another but also with the configuration of the preceding eclipses. [Margin: From what the tranquil and fortunate state of a city is to be judged.] If all these are in good condition, and happily disposed in their dignities and strengths, not harmed by the presence or the rays of the malefics, the state of the city and of the prince will be firm, tranquil and fortunate. And this consideration suffices if the prince is present in the city. But if he is far away and the city is governed by some proconsul, then its fortune is mixed from these three: 1, from the nativity of the city, which holds the first place; 2, from the place of the mid-heaven of the true prince; and 3, from the place of the mid-heaven of the one who governs in the prince's absence.

Finally, if the time when the city was built is unknown, and it is not known from the observation of eclipses or of the meetings of the superior planets to which sign the city is subject, and yet something has to be divined about the state of the city, let the nativity be taken of the one who holds power in the city, and let the pronouncement on the state of the city be made from his mid-heaven and its conditions.

[Margin: Which regions and cities are subject to each of the signs.] But lest we stray too far, we shall briefly assign in this place to each of the signs of the zodiac certain regions and cities which experience has proved to belong to them, so that they may be at hand for anyone who practises astrology. [Margin: ♈] First, then, ♈ has as its subjects, among regions: Great Britain or England, France, Germany, Swabia, Upper Silesia, Lesser Poland, Upper Burgundy, Denmark (although most refer it to ♒), Basternia, Syria and Palestine. Among cities: Naples, Capua, Ancona, Ferrara, Florence, Verona, Bergamo, Lindau, Trajectum, Padua, Marseille, Brunswick, Epidaurus, Kraków, Augusta Caesarea and Vincentium. [Margin: ♉] Next, ♉ has, among regions: White Russia, Greater Poland, the northern part of Sweden, Hibernia, now called Ireland, Lorraine, Campania, Helvetia, Rhaetia, Franconia, Parthia, Persia, the Cyclades islands lying between Europe and Asia, Cyprus, and the coastal places of Asia Minor. Among cities: Bologna, Siena, Mantua, Taranto, Palermo in Sicily, Perugia, Parma, Caput Histriae, Brescia, Zurich, Lucerne, Nancy, Metz, Würzburg, Karlstadt, Leipzig, Poznań, Gniezno and Novgorod. [Margin: ♊] Third, ♊ has, among regions: Sardinia, part of Lombardy, Flanders, Brabant, the Duchy of Württemberg, Hyrcania, Armenia, Mariana, Cyrenaica, Marmarica, and Lower Egypt. Among cities: Córdoba in Spain, Viterbo, Cesena, Turin,

Vercelli, Rhegium, Louvain, Bruges in Flanders, London, Mainz, Kitzingen, Hasfordia, Bamberg, Villach and Nuremberg (which Schöner and Cardano indeed refer to ♐, but Garcæus proves by many arguments to be more correctly referred to ♊). [Margin: ♋] Fourth, ♋ has, among regions: the kingdoms of Scotland and Granada, the County of Burgundy, Holland, Zeeland, Prussia, Dulgerid or Numidia, Africa, Bithynia, Phrygia, Colchis and Carthage. Among cities: Constantinople, Tunis, Venice, Genoa, Lucca, Pisa, Milan, Vincentia, Bern, Trier, York, St Andrews, Lübeck, Magdeburg, Wittenberg and Görlitz. [Margin: ♌] Fifth, ♌ has, among regions: Gallia togata, the Alps, Italy, Sicily, Apulia, the kingdom of Bohemia (which Garcæus, however, prefers to refer to ♋), part of Turkey, Aemilia, the Sabine country, Phoenicia, Chaldaea and Orchinia. Among cities: Damascus, Syracuse, Rome, Ravenna, Cremona, Ulm, Koblenz, Prague, Linz and Cremisium. [Margin: ♍] Sixth, ♍ has, among regions: Achaia, Greece, Croatia, Carinthia, Arthesina, the island of Crete, Rhodes, the Duchy of Athens, part of Gallia comata, part of the Rhineland, Lower Silesia, Mesopotamia, Babylonia and Assyria. Among cities: Corinth, Novara, Arezzo, Cumae, Jerusalem, Brindisi, Pavia, Sigina, Toulouse, Lyon, Paris, Basel, Heidelberg, Erfurt and Breslau. [Margin: ♎] Seventh, ♎ has, among regions: Austria, Alsace, Livonia, Savoy, the Dauphiné, Tuscany, Bactriana, Caspia, the Seres, the Thebaid, the Oasis, Troglodytica and the Sundgau. Among cities: Lisbon, Arles, Gaeta, Lodi, Suessa, Piacenza, Feldkirch, Freiburg im Breisgau, Strasbourg, Speyer, Frankfurt am Main, Hall in Swabia, Wimpfen, Heilbronn, Freising, Mosbach, Landshut, Vienna in Austria and Antwerp. [Margin: ♏] Eighth, ♏ has, among regions: Norway, Upper Bavaria, Metagonitis, Commagene, Cappadocia, Idumaea, Mauretania and the kingdom of Fez, Gaetulia and Catalonia. Among cities: Algera, Valencia in Spain, Trebizond, Urbino, Aquileia, Pistoia, Camerino, Treviso, Forum Iulium, Messina, Vienna, Eichstätt, Munich, Danzig and Frankfurt an der Oder. [Margin: ♐] Ninth, ♐ has, among regions: Spain, Dalmatia, Slavonia, Hungary, Moravia, Meissen, Celtica, Tyrrhenia and Arabia Felix. Among cities: Toledo in Spain, Volterra, Modena, Narbonne, Avignon, Cologne, Stuttgart, Rotenburg, Judenburg, Buda and Kassa. [Margin: ♑] Tenth, ♑ has, among regions: Macedonia, Illyria, Thrace, Bosnia, Albania, Bulgaria, Greece, Masovia, Lithuania, Saxony, Hesse, Thuringia, the March of Styria, the Orkney Islands, India, Ariana and Gedrosia. Among cities: Jülich, Clevonia, Berga, Mechelen, Ghent, Oxford, Vilnius, Brandenburg, Augsburg, Konstanz, Tortona and Faenza. [Margin: ♒] Eleventh, ♒ has, among regions: Amazonia, Sarmatia, Great Tartary, Wallachia, Red Russia or Muscovy, the southern part of Sweden, Westphalia, the Moselle country, Piedmont, part of Bavaria, Ethiopia, Oxiana, Sogdiana, Media, and Arabia Deserta and Petraea. Among cities: Hamburg, Bremen, Montferrat, Pesaro, Trento, Salzburg and Ingolstadt. [Margin: ♓] Twelfth, ♓ has, among regions: Cilicia, Calabria, Portugal, Galicia, Normandy, Phasania, Nasamonia in Libya, the Garamantes, Lydia, Pamphylia

and Upper Egypt. Among cities: Alexandria, Sibilia or Hispalis, Compostela, Parentium, Rouen, Worms and Regensburg.

Let this suffice on the distinction and affinity of regions and cities with the celestial signs and the planets, by which not only the condition of the air is expressed, but the customs of the inhabitants are also shown to agree or even to disagree, according to the agreement or disagreement of the planets and signs. Anyone who wants more should consult either Garcæus, chapter 32, on the judgements of nativities, or Luca Gaurico, tract 1 on nativities, where he discusses the charts of several cities.

Caput II.

On Eclipses

[Margin: The effects of eclipses are general.] Having completed the most general judgement on the change of regions and kingdoms, and having attached provinces and cities to particular signs of the zodiac, we shall now turn to the effects of eclipses, since these are general, and affect not only many cities but also whole regions — those set, above all, under the quadrangle of the sign in which the eclipse takes place, as most people hold — and indeed also men whose nativity has an affinity with the chart of the eclipse. [Margin: Preparations for the judgement of eclipses.] The astronomical matters belonging to this doctrine of eclipses were set out in the preceding part, chapter 10, and those concerning the conversion of astronomical time into civil time, the application of any ecliptic opposition or conjunction of the luminaries to different horizons, and its more exact determination, in chapters 5 and 6 of the first part. Now, therefore, we shall briefly explain the events that follow eclipses on earth, following the view of Ptolemy, book 2, chapter 5 and several of the chapters after it.

[Margin: The places of the planets are sought for the equal time.] First, then, when some eclipse is presented, whose time is recorded in the Ephemerides in equal time, for the middle of the eclipse, let the places of the planets and of the ☊ be sought for that same equal time, according to the precepts of chapter 3 of the second part. Let the latitudes of the planets also be noted, according to chapter 4 following.

For example, let us propose to ourselves the eclipse which, by Tycho Brahe's calculation, will occur in the year of our Lord 1607, on September 5 of the new-style year and August 26 of the old-style, at $15^{h}\ 47^{m}$ after noon in equal time. First, the places of the planets are found to be as follows: ☉ in 12° 48′ ♍, ☽ in 12° 48′ ♓, ☊ in

2° 49′ ♍, according to Tycho Brahe; ♄ in 12° 36′ ♑, retrograde; ♃ in 6° 16′ ♈, retrograde; ♂ in 29° 56′ ♌; ♀ in 26° 24′ ♎; ☿ in 9° 7′ ♎, according to the Prutenic Tables.

The latitude of the Moon is 0° 52′ 0″, southern, descending, according to Tycho. ♄ 1° 2′, northern, descending; ♃ 1° 52′, southern, descending; ♂ 0°

12′, northern, ascending; ♀ 0° 47′, southern, descending; ☿ 2° 15′, southern, descending.

[Margin: 2 The equal time is reduced to the apparent.] Next, since the time fits only the meridian of the Ephemerides, it is to be adapted to any other meridian we propose, and the equal time is to be reduced to the apparent or civil time, by the precepts of chapter 6 of the first part. In our example, since the Ephemerides were computed for our own meridian of Frankfurt, I reduce the equal time to the apparent only. And so I take away from the equal time 6′ 26″, which is the more accurate Tychonic equation of time, derived from the motions themselves, subtractive. There remains the apparent time: September 5 of the new calendar, but August 26 of the old, at $15^{h}\ 40^{m}\ 34^{s}$ after noon; or, in civil time, the day of September 6 of the new year and August 27 of the old, at $3^{h}\ 40^{m}\ 34^{s}$ before noon.

[Margin: 3 The chart is erected.] Third, for the apparent time of the middle of the eclipse, let a chart of the heavens be set up according to the precepts of chapter 11 of the preceding part, and let there be entered in it the places of the planets that were found, and some fixed stars, especially those that are rising or culminating; likewise those that stand near the eclipse and its lord, as you see in the attached figure.

Diagram. A square horoscope figure of the eclipsed full Moon: an outer square, a central square carrying the inscription, and diagonals and a diamond dividing the rest into twelve compartments. Each compartment carries a sign with degrees and minutes and, in several, a planet or a named fixed star, all set along the slanting lines. Labels are listed by compartment, each reading line as set; the grouping of sorts into lines is an editorial arrangement.

- Centre: "Plenilunium Eclipticum / Anno Christi / 1607 / Die } Augusti Iuliani 27 / Septemb. Liliani 6 / Hor. 3, 40′, 34″, A. M. / tempore apparente / Francofurti cuius } Longit. 36° 0′ / Latit. 52° 20′" — the eclipsed full Moon, in the year of Christ 1607, on the day of August 27 in the Julian calendar and September 6 in the Lilian [Gregorian], at $3^{h}\ 40^{m}\ 34^{s}$ in the morning, in apparent time; Frankfurt, whose longitude is 36° 0′ and latitude 52° 20′.
- Top compartment: "Orion Hum." with "15"; "Oculus ♉" with "4"; "♉ 11 45"; "Virg." with "24" — Orion's shoulder; the Eye of the Bull; ♉ 11° 45′; the Pleiades [Vergiliae].
- Upper-left, upper compartment: "Canis } Maior 9 / Minor 20" — the Greater Dog 9, the Lesser 20; "♊ 25 59".
- Upper-left, left compartment: "♌ 1 8"; "Lucid. hyd." with "22" — the bright star of the Hydra; "Cor ♌" with "24" — the Heart of the Lion.
- Left compartment: "♌ 24 48"; "♂ 29 56"; "☊ 2 49"; "☉ 12" with "48".
- Lower-left, upper compartment: "♍ 14 52"; "Cauda ♌" with "16" — the Tail of the Lion.
- Lower-left, lower compartment: "♎ 7 55"; "☿ 9 7"; "Spica ♍ 18 20"; "Arctur 18 25" — Arcturus; "♀ 26 24".

- Bottom compartment: "♏ 11 45"; "♐ 25 59"; "♄ 12 36 ♍ ℞".
- Lower-right, lower compartment: "♒ 1 8".
- Right, lower compartment: "♒ 24 48".
- Right compartment: "☽ 12 48"; "Scheat" with "♃ 26"; "☊ 2 49".
- Upper-right, lower compartment: "♃ 6 16 ℞"; "♓ 14 52".
- Upper-right, upper compartment: "♈ 7 55".

	Domus	Exalt.	Triplic.	Term.	Decan:	Detrim. & Casus
☽ in ♓, 12° 48′	♃	♀	♂	♃	♃	☿ ☿
Horoscope in ♌, 24° 48′	☉		♃	♃	♂	♄
M. C. in ♉, 11° 45′	♀	☽	☽	☿	☽	♂

So ♃ has 13 testimonies of strength, ♀ 9, ☽ 8, ☉ 5; and of debility, ♂ 1, ☿ 7.

Finally, let the significators be chosen in order. First, the lord of the eclipse: for, as Cardano rightly advises (2 Aph. 17), in every eclipse what is observed is not so much the eclipse itself as its signification and force on earth, and that from the power of the planet ruling at the time of the eclipse.

[Margin: The significators of eclipses are: 1 The lord of the eclipse.] [Margin: On the choice of the lord of the eclipse.] [Margin: Rule 1] The lord is sought by these three rules of Ptolemy, which stand in chapter 7 of book 2 of the *Quadripartitum*. The first of them is text 31: "Whatever wandering star is associated by more dignities with both places — that is, with the place of the eclipse itself and with that of the angle following it — shall alone take the rulership." The sense of these words is this: when the figure of the heavens has been set up for the middle of the eclipse, let it be considered which wandering star alone has rulership in the place of the eclipse and in the angle following it. The following angle is said to be the one that follows the place of the eclipse by the daily motion, or toward which the luminaries tend by their own proper motion and to which they come in the time that follows: thus if the eclipse falls between noon and sunset, the angle following the place of the eclipse will be the mid-heaven; if between sunrise and noon, it will be the horoscope. So as not to go astray in this matter, we consider both angles, the horoscope and the heart of heaven, since the force of each is very great; and Schöner, in canon 22 of the first part, and Leupold., in tract 6 on the change of the air, judge that the same should be done — although Albumasar, at the beginning of the *Flores*, recommends the ascendant only. And we have based our choice of the lord on these three things. First, having gathered the strengths and deducted the debilities from the table of essential dignities set out in the preceding section, chapter 4, we see which of the planets stands out by more testimonies of dignity in those three places. Second, which of them is more angular, and either flows toward those angular places in a succedent house or flows away from them in a cadent one. For, by the unanimous consent of astrologers, we judge the one flowing toward them in a succedent house more powerful than the one flowing away in a cadent; and likewise the one nearer to an angle more powerful than

the one more remote. Third, we also attend to the aspects that either promote or impede the planets. And the one that proves stronger than the others by all these votes will alone be judged the lord of the eclipse.

[Margin: Rule 2] The second rule, text 32: "But if one and the same star has not obtained the rulership of both places, the lord of the place of the eclipse will indeed be preferred (namely the lord of the conjunction, and in an opposition the lord of the Moon), but that one will also be taken which is seen to be joined to both places in more of the prescribed ways than the rest."

[Margin: Rule 3] The third rule, text 33: "But when many claim the rulership for themselves, (if, that is, several of equal authority are rivals for both places), then, because their relation to both places is equal, the one preferred to the rest will be either the more angular, or the more powerful, or the one that is of greater condition and sect." He rules, moreover, that an oriental planet is of greater condition than an occidental one; and in sect, a direct one than a retrograde.

So in our eclipse ♄ is established as the lord of the eclipse, since it has the most testimonies of strength, as the planet in whose domicile, term and face the eclipse takes place — especially since it is also oriental, and rejoices in the horoscope by triplicity and term. But since it cannot sustain the rulership alone because of its retrogradation, and since it has no dignity in the angle following the place of the eclipse, ♀ is rightly joined to it, which has its exaltation in the place of the eclipse and its house in the angle of the M. C. — especially since ♀ is occidental of the ☉ and direct, in her own house; and ♂ comes to her aid with his testimony, namely by a ✶ ray from the horoscope. In return for this favour, however, ♀ herself also sometimes yields the government to ♂, when he is also superior in place, very near the cusp of the horoscope, in his own term and face, in whose term ♀ too is found.

[Margin: 6. A bright fixed star closest to the place of the eclipse, preceding it.] Second, the fixed star, which is sought as follows, according to text 34 of book 2 of Ptolemy's *Quadripartitum*. In the chart of the heavens let it first be seen which place most nearly precedes the place of the eclipse, that is, which is at the shorter distance from the setting; then which follows it and is nearer to the rising. For the star which in the erected chart most nearly precedes the place of the eclipse, and is the most illustrious and first in brightness according to the nine modes that Ptolemy gives in book 8, chapter 4 of the *Great Construction*, will be the mistress. Next, the one that rises at the hour of the eclipse, or is in the mid-heaven following the place of the eclipse. Hence it is clear that if the eclipse takes place between the seventh place and the mid-heaven, the stars of the seventh place hold the first place, and after them those in the mid-heaven; but if it falls between the mid-heaven and the ascendant, the stars in the mid-heaven are put before those in the ascendant.

[Margin: The nine modes of conjunctions, oppositions and quadrate aspects in the heavens.] The nine modes, which Ptolemy calls σχηματισμούς [Greek: schēmatismous, "configurations"], that is, configurations or aspects of the stars

to the Sun, are these. [Margin: 1] The first, πρωινὸς ἀπηλιώτης [Greek: prōinos apēliōtēs], the morning subsolanus rising, by which a star, as the ☉ rises, itself also emerges above the horizon. It is either ἑῴα μὴ Φαινομ[?]η ἐπανατολή [Greek: heōa mē Phainom[?]ē epanatolē], when the star ascends a little after the ☉ but cannot be seen; or ἑῴα συνανατ[?]λὴ ἀληθινή [Greek: heōa synanat[?]lē alēthinē], when the star rises together with the ☉, a rising otherwise called the true cosmical rising; or ἑῴα π[?]ανατολὴ Φαι[?]ομ[?]η [Greek: heōa p[?]anatolē Phai[?]om[?]ē], when the star rises before the ☉ and begins to be seen — for which reason this rising is also called the morning heliacal rising. And Ptolemy seems to prefer this last one, in the first mode, to all the others. Of this kind, we say, in our chart is Scheat, or the right shin of ♒, a star of the third magnitude, of the nature of ☿ and ♄; for it most nearly precedes the place of the eclipse.

[Margin: 2] The second, πρωινὸν μεσουράνημα [Greek: prōinon mesouranēma, "morning culmination"], a morning culmination, as it were, by which a star, as the Sun rises, is carried either through the summit or the lowest part of the heaven. It is either ἑῷον μετουράνημα μὴ Φαινόμ[?]ον [Greek: heōon metouranēma mē Phainom[?]on], when, the ☉ having already risen, the star comes to the meridian above the horizon, and at that time also cannot be seen; or ἑῷον συμμεσουράνημα ἀληθινόν [Greek: heōon symmesouranēma alēthinon], when the star is carried across the meridian as the Sun ascends above the horizon; or ἑῷον π[?]μεσουράνημα [Greek: heōon p[?]mesouranēma], when the star crosses the meridian a little before the rising of the ☉, so that, as it advances across the meridian above the horizon, it can still be seen. As many distinctions arise if the star holds the lowest part of the heaven around the rising of the Sun.

[Margin: 3] The third, πρωινὸς λίψ [Greek: prōinos lips], the morning Africus, or setting, by which a star, as the ☉ rises, sinks below the horizon. It is either ἑῴα ἐπικατάδυσις [Greek: heōa epikatadysis, "a setting after the Sun's rising"], when the star goes down below the horizon after the Sun has risen; or ἑῴα συγκατάδυτις ἀληθινή [Greek: heōa synkatadytis alēthinē], when the star descends below the horizon at the very moment the ☉ ascends, a setting which is also called cosmical true; or ἑῴα π[?]δυσις φαινομ[?]η [Greek: heōa p[?]dysis phainom[?]ē], when, a little before the Sun rises above the horizon, the star is seen to sink below the horizon.

[Margin: 4] The fourth, μεσημβρινὸς ἀπηλιώτης [Greek: mesēmbrinos apēliōtēs, "meridian east wind"], the Meridian Subsolanus, by which, while the Sun holds the meridian, the star is carried up above the horizon. It is either ἡμερινὸς καὶ μὴ φαινόμ[?]ος [Greek: hēmerinos kai mē phainom[?]os, "diurnal and not visible"], when the star rises while the Sun occupies the mid-heaven; or νυκτερινὸς καὶ φαινόμ[?]ος [Greek: nykterinos kai phainom[?]os, "nocturnal and visible"], when, while the Sun holds the lowest heaven, the star is seen to ascend above the horizon.

[Margin: 5] The fifth, μεσημβρινὸν μεσουράνημα [Greek: mesēmbrinon mesouranēma, "meridian culmination"], a meridian culmination, as it were, by which, while the Sun occupies the mid-heaven or the lowest heaven, the star holds the mid-heaven or the lowest heaven together with the Sun, or else passes through its opposite. Of this mode there are 4 distinctions: two while the Sun runs through the mid-heaven, and two while the Sun runs through the lowest heaven.

[Margin: 6] The sixth, μεσημβρινὸς λίψ [Greek: mesēmbrinos lips, "meridian south-west wind"], a meridian Africus, as it were, or setting, by which, while the Sun holds the meridian, the star slips below the horizon. It is either ἡμερινὸν καὶ μὴ φαινόμ[?]ον [Greek: hēmerinon kai mē phainom[?]on, "diurnal and not visible"], when, as the Sun crosses the meridian above the horizon, the star descends below the horizon; or νυκτερινὸν καὶ φαινόμ[?]ον [Greek: nykterinon kai phainom[?]on, "nocturnal and visible"], when, as the Sun runs through the meridian below the horizon, the star appears to set.

[Margin: 7] The seventh, ὀψινὸς ἀπηλιώτης [Greek: opsinos apēliōtēs, "evening east wind"], the evening subsolanus rising, by which, as the Sun sets, the star itself rises above the horizon on the opposite side. It is either ἑσπερία ἐπανατολὴ φαινομ[?]η [Greek: hesperia epanatolē phainom[?]ē], when the star is seen to rise, the Sun having sunk below the horizon a little before; or ἑσπερία σ[?]ανατολὴ ἀληθινή [Greek: hesperia s[?]anatolē alēthinē], when the star itself rises at the same moment as the Sun sets — a rising that is otherwise called acronychal, or the true evening rising; or ἑσπερία π[?]ανατολὴ καὶ φαινομ[?]η [Greek: hesperia p[?]anatolē kai phainom[?]ē], when, as the Sun sets, the star has already risen.

[Margin: 8] The eighth, ὀψινὸν μεσουράνημα [Greek: opsinon mesouranēma, "evening culmination"], an evening culmination, as it were, by which, as the Sun sets, the star is carried either through the mid-heaven or through the lowest heaven. It is either ἑσπερινὸν ἐπιμεσουράνημα φαινόμ[?]ον [Greek: hesperinon epimesouranēma phainom[?]on, "evening culmination after the Sun, visible"], when, a little after the Sun's descent, the star is seen to cross the meridian; or ἑσπερινὸν συμμεσουράνημα ἀληθινόν [Greek: hesperinon symmesouranēma alēthinon, "true evening culmination together with the Sun"], when, as the Sun sets, the star too is carried through the meridian; or ἑσπερινὸν π[?]μεσουράνημα μὴ φαινόμ[?]ον [Greek: hesperinon p[?]mesouranēma mē phainom[?]on], when the star passes through the meridian a little before the Sun's descent. And as many distinctions arise if the star is situated around the lowest heaven during the Sun's descent.

[Margin: 9] The ninth, ὀψινὸς λίψ [Greek: opsinos lips, "evening south-west wind"], a late Affricus, as it were, or evening setting, by which, as the Sun sets, the star too slips below the horizon. It is either ἑσπερία ἐπικατάδυσις φαινομ[?]η [Greek: hesperia epikatadysis phainom[?]ē], when the star follows the Sun a little after the Sun has sunk below the horizon; and by another name it is called κρύψις [Greek: krypsis, "concealment"], or the evening heliacal

setting, by which alone all the fixed stars are hidden; or ἑσπερία συγκατάδυσις ἀληθινή [Greek: hesperia synkatadysis alēthinē, "true evening setting together with the Sun"], when the star sinks below the horizon together with the Sun — a setting that is otherwise called the true acronychal; or ἑσπερία π[?]δυσις μὴ φαινομ[?]η [Greek: hesperia p[?]dysis mē phainom[?]ē], when the star anticipates the Sun's setting by a little.

And indeed all these modes, directed to the place of the eclipse, are derived from conjunction and from mutual irradiation, either opposite or quadrate — of which the force in operating is the greatest, above all the others, as is clearly evident from chapter 5 of the preceding member. Since, then — to return to our example — we have the star Scheat, which most nearly precedes the place of the eclipse and is rightly established, in Ptolemy's judgement, as the significatrix of the events of the eclipse; and since another, more illustrious star is still to be added from the ascendant or the mid-heaven, we find none more suitable than the Heart of ♌, since it both holds the very cusp of the horoscope and lies very close to the ecliptic.

[Margin: 3. The asterism, or starry image, under which the eclipse takes place or the lords are situated.] Third, the asterisms or images of the stars — both those in which the eclipse takes place and those in which the rulers are situated — according to text 35 of book 2 of Ptolemy's *Quadripartitum*. For the property of the asterisms, whether the image is human, or a bird, or a serpent — as Hercules, the Eagle, the Hydra, etc. — shows by its own signature the quality of the kind of event.

Our eclipse takes place under the asterism of ♒, a human image; and ♃, the lord of the eclipse, is under the asterism of ♓, ♀ under ♏. The two fixed stars have been determined above.

[Margin: 4. The sign of the zodiac.] Fourth, the sign in which the eclipse takes place. Sometimes the signs of the angles also are usually considered, above all those of the ascendant and the mid-heaven.

[Margin: 5. The place of the eclipse.] In our example the principal signification will be taken from the sign ♓, in which the ☽ is eclipsed; next from ♌ and ♉.

Fifth, the place of the eclipse and of its lord in the chart. [Margin: 6. Magnitude and colour.] Sixth, the magnitude of the eclipse and its colour. And from the signification of them all, [judgement] is finally pronounced.

[Margin: What the planets that are lords of the eclipse signify.] To treat each of these separately: first, concerning the lord of the eclipse, Ptolemy, in book 2 of the *Quadripartitum*, chapter 8, or text 45, reports roughly the following from the effective nature of the planets.

[Margin: ♄] Saturn, when he alone has obtained the dominion, is universally the cause of corruption through cold. In particular, in the bodies of men he causes long-lasting diseases, wasting, consumption arising from catarrhs, disturbance of the humours, fluxes and quartan fevers. In life he brings exiles, want, distress, griefs, terrors and deaths, above all of those who are more

advanced in age. Among the brute animals, especially those that serve the use of men, he causes scarcity, and afflicts those that survive with diseases, so that the contagion reaches those who use them. In the air he signifies dreadful cold — icy, foggy, pestilent — disturbances of the air, dense clouds, mists, abundant snows, and those destructive. In waters and the sea he generally produces savage storms, shipwrecks, difficult voyages, and scarcity and death of fish; in particular, whirling waves in the sea, overflowings of rivers and corruptions of waters. On land he sends dearness of crops, scarcity and devastation, above all of things necessary for sustenance; and that through caterpillars, locusts, floods of water, the onset of rainstorms, hail, or other things that go so far that they kill men by hunger and the like.

[Margin: ♃] Jupiter, when he alone has gained the dominion, generally confers increase on things. But in particular, when the events pertain to the human race, he bestows glory, friendships, tranquillity, peace and increase of the household estate, εὐεξίας [Greek: euexias, "good bodily condition"] or good condition, and benefits of body and of mind; he also promises gifts from kings. He adorns governors with glory, magnanimity and magnificence; and, in sum, he is the author of happiness and of good things. He brings about an abundance of useful animals and the destruction of harmful ones. In the air he promises a good temperature — healthy, windy, moist, nourishing the things that spring from the earth; in waters, fortunate voyages of ships and moderate risings of rivers; on land, an abundance of crops and the like. These good things, then, ♃ promises in eclipses to men, animals and useful plants — eclipses that otherwise portend evil rather than good — just as he also brings destruction to harmful animals, those which, either by ferocity, like lions and wolves, or by venom, like serpents and scorpions, or by foulness, like hornets, flies, fleas, lice, etc., trouble man and other things, or consume necessities, like crows, locusts, mice, etc.; and he does so for this reason: since there are two kings in the heaven, the Sun and the Moon, as Cardano notes in his commentary on Ptolemy's text 45, when one of them fails, or suffers an eclipse, the planet that is most powerful at that time, or is of greater dignity and strength, succeeds to its place. Hence, if it is beneficent, it will do good; if maleficent, harm, etc.

[Margin: ♂] Mars, seizing the dominion, is generally the cause of corruption through heat. In particular, among men he stirs up wars, civil seditions, the destruction of cities, riots of the people and the anger of princes, and from these he brings about unexpected deaths. In bodies he produces bilious diseases, tertian fevers, eruptions of blood, acute diseases and violent deaths, especially of the young. In life he brings violence, injuries, fires, homicides, plunderings and robberies. In the air, heat, hot winds — pestilential and wasting — the hurling of thunderbolts, whirlwinds and drought he stirs up. At sea he portends sudden shipwrecks, on account of disordered blasts of wind, thunderbolts and other things of this kind. In rivers he sucks up the waters, dries up the springs and corrupts the streams. On land he ruins the grain and the things born of the earth that are necessary for use: either, while they are growing, he lays

them waste with destructive heat, or, even while they are being carried in, he destroys them by fires.

[Margin: ♀] Venus, when she rules alone, generally produces effects similar to Jupiter's, but with a certain charm. To men she promises glory, honours, gladness, fortunate and fruitful years, fortunate marriages, numerous offspring, favour in all dealings, increases of means, refinement in living, integrity, reverence in religion, a comely constitution of the body, and familiarity with princes. In the air [she brings] temperate and moist winds, fertile conditions, good weather, clear skies and timely rains; in water and the sea, happy and profitable voyages, useful overflowings of rivers, an abundance of the animals useful for life, plenty of crops, and other advantages.

[Margin: ☿] Mercury, having obtained the dominion, generally insinuates himself into the nature of whichever star he has been mixed with, but he is the most impetuous of all. In particular, as regards human ἀποτελέσματα [Greek: apotelesmata, "effects"], he makes men sharp and industrious in action, and such as can adapt themselves to every occasion — usurpers in robbery, theft and piratical raiding. In diseases, [he brings] difficult breathing; and, when configured with the maleficent planets, dry diseases, quotidian fevers, coughs, shortness of breath and consumptions. In ceremonies instituted by religion, and in laws, he brings changes. These he produces according to the varying occasion of his own alteration and the diverse κρά σει [Greek: kra sei, "mixture"] of the stars with which he is configured. In the air, since he is always near the Sun and is moreover swift in his course, he brings dryness, and stirs up winds that are violent, disordered, unstable and quick to change — indeed, even contrary ones. Hence he also sends thunder and flaming thunderbolts, shatters and shakes the earth, and stirs up lightning; and so he is deadly both to animals and to the plants that serve the uses of life. When occidental he diminishes the rivers; when oriental, he increases them.

[Margin: Planets configured with others, or placed in changed places, or in various ways relative to the Sun, mix their powers.] These powers, however, which each planet has by its own nature, it varies greatly by accident when mixed with others; and in this the configuration, the change of asterisms and the appearances relative to the Sun must all be considered. For in accordance with these accidents the planets both receive a corresponding tempering of their affections and display a varied and mixed property according to the nature of those with which they communicate. But since it would be an infinite labour to go through all of that, and not all the mixtures can conveniently be comprehended by teaching, we rightly commit the tempering of the judgements to the skill of whoever practises astrology.

[Margin: No peculiar powers are ascribed to the luminaries.] To the luminaries, however — since they are the principal causes of events, and dispose, confirm or weaken the operations and dominions of the other wandering stars — no peculiar faculties of this kind are ascribed. For the event is announced by

them only in general, but through the dominion of the planets it is restricted to a definite species.

[Margin: Example.] Our eclipse, since it has Jupiter as its principal ruler, to whom ♀ joins herself, and at times ♂ as well, can promise nothing evil. Rather, because of Jupiter's beneficent and tempered nature, if we look to men, it promises them good health, peace, increases of the household estate from the largesses that come from the settling of wars, fortunate journeys both longer and shorter, and a tranquil state of religion. If we look to the other animals that serve the needs of men, it signifies a fertile constitution and abundance, not only for the land animals but for the aquatic ones as well; but to the useless and harmful ones it threatens slaughter and destruction. It moves and purges the air with healthy winds, and does not trouble either things on land or ships on the water with violence or excessive commotion. ♃ also promotes clear skies, and ♀ rains at the right time, for an abundant yield of the things that spring from the earth. And although ♂ strives by his own nature to do harm through heat, and to sow bilious diseases and dissensions among men, whatever evils appear will at once be calmed by the force and power of the beneficent planets.

Secondly, as to the fixed stars, this must be understood: the same properties that have been assigned to the planets belong to them, whether these are attributed to them on account of their own constitution, or whether they acquire such a character from the wandering stars or from the places of the ecliptic in which they stand. Hence, just as their effective nature is usually designated by the names of the planets — some being called Saturnine, others Jovial, others Martial, and so on, as we noted above in chapter 2 of the preceding section — so each star expresses the force and efficacy of its own planet: the Saturnine stars promote the force of Saturn, the Jovial that of Jupiter, the Martial that of Mars, and so on. [Margin: The nature of the fixed stars.]

[Margin: Example.] In our eclipse, for instance, the star Scheat, of the nature of ☿ and ♄, strives to afflict men with diseases arising from cold defluxions to the feet, with swelling of the feet, and with fevers both quotidian and quartan, and to stir up quarrels between spouses over bad management of the household or the upbringing of children, since ♄, from the house of children, beholds the ecliptic place and the star with a sextile ⚹ ray in the long descensions; the more so because, in respect of longitude in the sky, the descending node ☊ or ☋ is near that same star. It also labours to agitate the air with violent winds and to cover the sky with murk. But the Heart of ♌, of the nature of ♂ and ♃, in the ascendant, makes for the settling of quarrels, resists diseases arising from a cold cause, purifies the air, and confirms the earlier significations adduced under the dominion of the planets.

Thirdly, as to the images of the stars, that is, the forms of the asterisms in which the eclipse occurs, or in which stars of weighty authority are placed, whether they lie in the ecliptic or outside it, Ptolemy notes this in text 35 of book 2 of the *Quadripartitum*. First, from their signature: the images of men bear on the human race, those of quadrupeds on quadrupeds, the images of

serpents on snakes and the like, those of wild beasts on wild beasts; and those belonging to tame beasts on tame and domestic beasts — as the images of horses on horses, of oxen on oxen, and so on; the winged figures, such as the Hen and the Crow, on birds and flying things; the images of water and of aquatic things on waters, aquatic creatures, fishes, and so on. In sum, of whatever form, mode or condition they may be, they decree future events for things like themselves. [Margin: The nature of the asterisms is weighed both from their signature,] Secondly, from the position of the asterisms: the northern forms bring earthquakes, sudden motions of the earth, and the southern ones downpours of rain-storms. [Margin: and from their position.]

Our eclipse, therefore, since it happens under a human asterism, ♒ pouring water from the urn, will affect men — above all since ☿ too lingers under ♍ — and the animals that live in rivers, such as fish, since ♃ too stands under the asterism ♓; but in such a way that, in accordance with the nature of the ruling planet, it signifies for them a good and fruitful constitution, fortunate associations and increases.

[Margin: The effect of the signs is considered: 1. from the quarters they occupy.] Fourthly, as to the signs of the zodiac in which the ecliptic place or the stars of prevailing authority stand, this is to be observed. First, following Ptolemy, text 36 of book 2 of the *Quadripartitum*: in which quarters of the year the eclipses fall. For in general, by physical consideration of the constitution of the season and of the air that is proper to each sign, it signifies the crops and affairs which usually come forth and are carried on in those quarters. In spring, namely, judgement is usually given about sowing and the things that first come forth from the earth, about the budding or shoots of fruit-bearing trees, and likewise about the hope of the vine, the fig and other fruits; in summer, about the harvest and the bringing in of the grain; in autumn, about fodder and winter sowing; in winter, about the vegetables, birds and fish of those seasons.

[Margin: 2. From the quadrangles, according as some are cardinal,] Next, following Ptolemy, texts 37 and 38 of the same book 2: in which quadrangle the eclipse occurs. For, with regard to political significations, the equinoctial signs give prognostications chiefly about sacred things and the worship of religion; the tropical, or solstitial, signs about the state and change of commonwealths and laws; [Margin: fixed,] the solid signs about the foundations and substructures of buildings, which are most suitably built under the fixed signs, since we want them to last as long as possible (Cardano, 2 Aph. 163); [Margin: common.] the bicorporeal signs supply prognostications about men and about kings themselves.

The eclipse before us falls, in respect of time, at the end of summer, and in respect of the eclipse's place, in the winter quadrant. But since, from the nature of the beneficent rulers, it signifies good, it announces benefit both to the buds of the trees, which are pushed out at the end of winter, and to the harvest and the bringing in of the grain. The fixed signs, too, placed in the ascendant

and the M. C., favour the building of houses, and fortify and strengthen them against injuries from outside.

[Margin: In the eclipse's place it is considered 1. whether it is eastern, western or about the mid-heaven.] Fifthly, as to the place of the eclipse and of its lords, these two things are to be observed. I. In what position relative to the cardinal points of the world the eclipse is seen, and whether its lords also agree in the same position. For the eastern angle, as Ptolemy teaches in chapter 7, or text 39, of book 2 of the *Quadripartitum*, and Cardano on the same passage, signifies the things that are in their first age, or have their first beginnings: among things born from the earth, the first shoots and the flowers; in the age of living creatures, boyhood, infancy and adolescence; in education, schools and novices; in the structure of buildings, the foundations. The mid-heaven signifies things perfected, which are already at their ακμη [Greek: akmē, "peak, prime"] and flourish in honour, such as grain near harvest, the age of manhood, kings, magistrates, temples and citadels. The setting and the seventh house signify things decreasing and declining, near their end, already inclining toward change, such as old age, the dead, customs, laws, and changes of institutions in states. It is clear that, if the place of the lords agrees with the place of the eclipse, one must look to one of these and direct the signification accordingly; if not, the judgement will have to be tempered according to the differing position. [Margin: 2. In which house it occurs.] II. In which house the eclipse occurs, and in which its lords stand. For the significations vary with the nature and signification of the houses: thus judgement is made from the seventh about the state of spouses and of open enemies; from the eighth about the manner of death, the punishments of the guilty, and hidden treasures; from the 9th about journeys and religion, and so on — according to the dominion and the state either of the beneficent or of the maleficent planets.

Our eclipse takes place in the west, where the principal significator ♃ also stands. It therefore signifies for those who are inclining toward old age a healthy and fortunate state, success in the things they are to accomplish, and a convenient and useful reformation of laws and statutes. Journeys, too, are favoured by Jupiter in the ninth and by ♀ in the 3rd house. And if any of those whom the eclipse's signification embraces should depart this life, a natural and peaceful passing is signified for them; for the lords of the eclipse, the beneficent ♃ and ♀, announce nothing but a gentle manner of dying.

[Margin: Magnitude.] Sixthly, as to the magnitude and colour of eclipses, the following should be considered. Small eclipses do little harm and act on few things. Moderate ones act on many and have greater efficacy. The greatest, however, act most strongly and spread their efficacy over most things — which Ptolemy indicates in text 40, and Cardano on the same passage.

Our eclipse, since it is not very large — by the Tychonic calculation only 4 digits 7′ — will also not exert the powers we have set out so strongly, or in many places.

[Margin: Colour.] The colour, too, of the luminaries, and of the things that usually form around the luminaries — such as rods, haloes and similar meteors — observed at the time of the eclipse, indicates in some measure the quality of the event, according to chapter 9, or texts 51 and 52, of book 2 of Ptolemy's *Quadripartitum*. For a black and somewhat livid colour in these signifies Saturnine effects; white, Jovial; reddish, Martial; yellow, Venereal; variegated, Mercurial. Further, if that colour has spread over the whole bodies of the luminaries, or over the whole region of the sky round about them, it decrees the event for many parts of the provinces; if the colour has formed on some one part only, the event will incline toward that same part of the region toward which the colour inclines. [Margin: The hairy stars, too, are not to be neglected.] Ptolemy also advises, in text 53 of book 2 of the *Quadripartitum*, that the hairy stars should be observed at eclipses, or at any other time, in universal considerations. For they have the nature and efficacy of ♂ and ☿ for wars, heats, disturbances and the things that usually follow them, as we shall point out on this subject below, in the penultimate chapter.

Since Cardano, in his *Aphorisms*, has set out certain things that greatly illuminate this astrological doctrine of eclipses, it seems they should by no means be neglected. He teaches, then, in 7 Aph. 59, that eclipses have threefold powers: [Margin: Eclipses act 1. by reason of the syzygy, ☌ or ☍.] a potent power, by reason of the ☌ and ☍; a general one, because they chill slowly, and their effects are therefore extended over many days; and a proper one, which is had from the ruler of the place, that is, the lord of the eclipse. The cause is this: just as the conjunctions and ☍ of all the planets have great powers, as has been shown above several times, so above all do those of the luminaries, since this lower part of the world is chiefly governed by them, as the supreme governors after God. Hence, if some new moon, or even an eclipse of the ☉ or the ☽, falls upon a tree in flower, it brings a scarcity of its fruit in that year, as in 7 Aph. 110. The effects of an eclipse of the ☉, however, are especially potent: so, if they fall upon a crop in flower, they bring barrenness (2. Aph. 16).

[Margin: 2. because they have the power of chilling.] Next, since we need a very great deal of heat to preserve the life of animals and plants, and ♄ alone among the wandering stars was created cold, and he alone cannot resist so many hot planets, it is fitting that GOD devised eclipses for this purpose: that, recurring at fixed intervals of time, they should cool the whole world. All eclipses, therefore, chill (7 Aph. 48). Those of the Sun above all chill a great deal, and for that reason they ought not to be general over the world; those of the Moon chill little, and of themselves always dry (7 Aph. 51). But because cold, by accident, increases moisture (7 Aph. 5[?]), eclipses also usually bring rains. ♄ and ♀ help the Moon toward floods, while ♃ and ♂ help the Sun toward droughts; ☿ is ready for either (7 Aph. 54). And when great eclipses are multiplied in some region, barrenness generally follows in the following years; for the earth is chilled and dried out (7 Aph. 52). But if heavy rains or floods follow upon this, as very often happens when the cold has been excessively

increased, then dire famine follows (7 Aph. 53). [Margin: 3. because the effects vary according to both the dominions and the places.] In particular, when eclipses or comets occur in earthy signs, they portend barrenness through drought; in watery signs, barrenness and plagues through an abundance of rain; in airy signs, winds and seditions, and pestilence too, though not always; in fiery signs, wars, fires and much heat (7 Aphor. 34).

[Margin: On which places eclipses act.] However, since no eclipse can signify scarcity or plague for the whole world, as Cardano teaches in 7 Aph. 121 — for it does no harm to those regions in which is not seen — although in nativities an eclipse has stronger effects in the fourth house, next to the lowest heaven, than in the 8th or 12th place, and stronger ones in the first house than in the ninth or 11th (7 Aph. 81). [Margin: 1 Those that lie under the ecliptic sign, or are joined with it.] We must now observe, in determining the places on which eclipses act, where eclipses operate or act most. First, on those regions and cities that either lie under the ecliptic sign or are joined with it in any way whatever, as Ptolemy teaches in chapter 5, or text 26, of book 2 of the *Quadripartitum*. Text 49 may also be consulted, and Cardano, c. 21, lib. 3, *Suppl. Alm.* To determine these more exactly, take the sign in which the eclipse occurs, and see, according to the doctrine of the preceding chapter, which province it designates, either of itself or by reason of its sign, or what agreement it has with the horoscope or with the places of the luminaries in the chart of the founding of a city, or with the mid-heaven in the chart of the man who holds power in that city. For the eclipses that are seen will pertain the more to these places of the earth, the more closely those places are joined with the ecliptic sign — yet according to these 4 rules. 1. If stars beneficent by nature have obtained the governance of the event, and are not overcome by other stars of the contrary condition, and the signs in which the eclipse takes place are joined to the places of the earth subject to the future event, either by identity or by a friendly ray, then the more will they furnish the good that they work by their own power. 2. If the signs are not joined to the subject places, but have struck them with a hostile ray, by opposition or square, or if the beneficent stars are overcome by the power of their adversaries, the less will they accomplish the benefit they promise. 3. If the stars that principally designate the event of the eclipse are maleficent by nature, and are overcome by stars of the opposite sect, and the signs in which the eclipse occurs are joined to the subject places by a friendly radiation, they will inflict less harm. 4. But if, the significators being maleficent, they are not held back by the beneficent stars, and either the sign in which the eclipse takes place agrees with the place of the earth, or it strikes the place of the earth with a hostile ray, in opposition or square, the more will they inflict the evil that they threaten from a pernicious constitution.

[Margin: Example.] So, since our eclipse takes place in ♓, a common or bicorporeal sign, it too pours out its good effect above all upon the regions and places that are subject to the sign ♓ or to ♋ and ♏ of the same trigon; or also

upon those in whose ascendant or M. C. ♓ or other signs of the same trigon are found. Less, however, upon those that belong to the quadrangle of Pisces, such as ♊, ♍ and ♐, according to the first two rules.

[Margin: 2 On men whose nativities agree with the eclipse.] Second, according to text 50 of book 2 of Ptolemy, eclipses also act on individual men in whose nativity the principal places, such as those of the luminaries and the cardines, are either joined with the place of the eclipse or opposed to it, so that they occupy precisely the same degree, of the same sign or of the opposite one; or also on those whose nativity is the same as the figure of the eclipse as regards the daily motion of the earth, which appears in the heavens, so that the ascendant is the same and the M. C. the same.

[Margin: 3 On the places for which eclipses are vertical, or their rulers.] Third and finally, those are affected most by eclipses for whom they are vertical, so that they take place above their heads, or for whom the principal significators pass through the vertex at the time of the eclipse — which Cardano, too, seems to hint at in the commentary on text 48.

[Margin: On the duration of the effects.] Lastly, as regards the duration of the effects, Ptolemy prescribes, in book 2 of the *Quadripartitum*, chapter 6, or text 27, that one should observe how many equinoctial hours the obscuration lasts. For however many hours we find, for so many years in a solar eclipse, and so many months in a lunar one, shall we declare that the effects will last (Cardano, 7 Aph. 75). For example, if an eclipse of the ☽ lasted three hours, the effects too would extend over three months. But a duration of one hour in an eclipse of the ☉ would also bring a duration of the effect over a whole year. The reason for the difference is plain from the difference in the periodic motion by which the Sun completes the zodiac in a year, the Moon in a month. But if some minutes are attached to the hours, a double operation is needed. One is for a solar eclipse: in the rule of proportions, 60 minutes, which make an hour, are set in the first place; second, 365 days, which make a whole year; and in the third place the minutes attached to the hours. The other is for a lunar eclipse: in the rule of three, 60 minutes of an hour are put in the first place; second, 30 days, which for astronomers are very nearly a whole month; and third, the minutes attached to the whole hours of the eclipse of the ☽. When the operation has been done, the result is the days over which the effects of any eclipse last.

So our eclipse of the ☽, according to the Tychonic calculation, has a time of incidence of $1^{h}\ 4^{m}\ 18^{s}$, and it lasts $2^{h}\ 8^{m}\ 36^{s}$. Its effect will therefore last 2 months 4 days, or about 64 days.

[Margin: On the beginning and end of the effects.] On the beginning and end of the effects, too, Ptolemy speaks in general terms, in the same place, text 28, as follows. If the eclipse falls on the eastern horizon, it signifies that the events will begin around the next 4 months that follow the eclipse; but their more violent progress, or effects, will be in the first third of the whole duration. If the eclipse falls in the mid-heaven, the events will begin in the

months immediately following, and the most violent effect will be in the middle third of the whole duration. On the western cardine, however, beginnings are signified around the last 4 months, and the greatest operation will be noticed in the last third of the whole duration. Cardano teaches much the same in 7 Aph. 76, where he says: "For those for whom the eclipse is on the line of the east, the change takes place at once; but the greatest vigour for those for whom it is in the heart of heaven." Yet a little later, in 7 Aph. 80, he wants this very thing understood of the lord of the eclipse, when he speaks thus: "For whomever the lord of the place is on the line of the ascendant at the time of the middle of the eclipse, to them the vigour of the effect will come at once. But for those for whom it is in the heart of heaven, in the declination of the eclipse, the effect is long-lasting, but not great."

[Margin: The calculation by which the beginning and end of the effect of an eclipse is gathered.] In order, then, to learn in particular the time of the beginning of the effect of any given eclipse, for the day on which it is seen: first investigate carefully, according to chapter 5 of Part One, the time of the rising and setting of the ☉ for your place, and what the length of the day or night is, in hours and minutes, on which the eclipse appears. Next, consider how many hours are counted from the moment the luminary rises to the time of the middle of the eclipse, or conversely from the middle of the eclipse to the time of the luminary's rising. This you will find as follows. If the middle of the eclipse follows the rising of the luminary, subtract from the time of the middle of the eclipse the time of the beginning of the day in a solar eclipse, but of the beginning of the night in a lunar one. But if the time of the middle of the eclipse precedes the rising of the luminary, subtract, conversely, the hours and minutes of the middle of the eclipse from the beginning of the day or night; what remains is the interval between the eclipse and the rising of the luminary. Third, to find the beginning of the effect: in the first place set down, in a solar eclipse, the length of the day, but in a lunar one the length of the night in which the eclipse takes place; second, the annual time of 365 days; third, the interval found before. When the operation of the rule of three has been done, a time will result which, counted from the day of the eclipse or before that day, shows the beginning of the effect.

[Margin: Example.] So our eclipse occurred on August 26 of the old year, September 5 of the new, at $15^h\ 40^m\ 34^s$, when the Sun is in 12° 48′ ♍. Now since the given day, August 26, extends the presence of the ☉ above the horizon to $13^h\ 11^m$, the following night, in which our eclipse occurs, will be $10^h\ 49^m$. And the setting of the Sun, or the beginning of the night — at which, as the Sun sets, the ☽, in opposition with the Sun, rises very nearly directly opposite it — will fall at $6^h\ 35^m\ 30^s$. I subtract this time from the time of the middle of the eclipse, namely $15^h\ 40^m\ 34^s$, and there remains an interval of time from the rising of the luminary to the middle of the eclipse of $9^h\ 5^m\ 4^s$. If I then set up this proportion — a night-time of $10^h\ 49^m$ gives a year of 365 days; what will

9^h 5^m 4^s give? — about 304 days are produced when the operation has been carried out. Counted from the time of the eclipse, August 27, they make the beginning of the effect fall on the day 1608 June 26, and it lasts until August 29 of the old year; yet in such a way that the more violent effects are noticed from August 8 up to the limit fixed by the Ptolemaic doctrine.

But since it may be asked where the effect of an eclipse lies hidden for so long that it shows itself only after so much time, this Ptolemaic doctrine is called into doubt, and not without reason. For it is consistent that eclipses should operate at once, and extend their effects for some time.

Caput III. On the general prognostic of the weather, and the other judgements that are taken from the lords of the year; and on the four quarters of the year.

Having set out the general prognostic of eclipses as well, which regards whole regions, we now take up the more special one, which is fitted to the individual seasons of the year, both in general and in particular. First, then, we shall speak of the choice of the lord of the year, and of the events that in general follow that same lord through the year; since the constitution of the air, and the whole scheme of judgements, is shaped throughout the whole time of the year to his nature, as to that of the supreme king and governor. [Margin: How the choice of the lord of the year is made according to Ptolemy.] On this, Ptolemy, the prince of all astrologers, whom all sound and learned makers of calendars rightly follow, speaks thus in book 2 of the *Quadripartitum*, chapter 10, or text 56 according to Cardano: "It seems to me fitting and natural, for the yearly inspections, to establish four beginnings, observing the preceding conjunctions of the ☉ and ☽ and the full moons, especially the eclipsed ones; and so to make a judgement from the beginning of ♈ about the state of the spring, from the beginning of ♋ about the summer, from ♎ about the autumn, and from ♑ about the winter." In these words Ptolemy hands us this precept: that for the general prognostic of the year's weather we should set up two charts of the heavens for each quarter of the year.

The first is set up for the entry of the ☉ into the first point of the sign, whether equinoctial or tropical; the second for the new moon or full moon immediately preceding. We have decided to add a third as well, for the new moon or full moon that likewise immediately follows the entry of the ☉ into a cardinal sign, especially if they are eclipses. For if we wish to give an exact judgement, we must attend not only to the form of heaven in which the luminaries flow toward the cardinal points, but also to that in which they flow away from them, in their mutual meetings and oppositions. And since there are 4 quarters of the year, and three figures are set up for each, there will be 12 charts of the heavens in all, which are needed for the general judgement. Of these, however, the four that are constructed for the cardinal points are called imperfect by Cardano, in his commentary on the said passage of Ptolemy, since the times of the entries cannot be had exactly, and in figures of this kind only

the position of the planets is weighed; just as in 1 Aph. 21 he sets the entry of the ☉ into the point of the equinox under a knowledge which nevertheless never comes exactly to be known. The rest are perfect, since the times of the new moons and full moons are established more precisely.

[Margin: The chart constructed for the entry of the ☉ into Aries is called the revolution of the year.] Further, the chart that is constructed for the entry of the ☉ into ♈, the first cardinal sign, we usually call the revolution of the year. For since the astronomers begin the zodiac from the beginning of ♈, and the year from the Sun's arrival at that point, as shown in chapter 1 of the preceding part, it is not unfitting that the astrologers should call the revolution of the year the figure of the heavens built for that moment of time, from which they examine and weigh, as though anew, the powers of the stars upon these lower things for the yield of crops and of the other things that happen in the year; since they judge from it no differently than, in nativities, what is going to happen to the native through the following years is usually pronounced from the figures of the revolutions, which are set up for the place of the ☉ that is in the radix.

[Margin: How the revolution of the year is sought.] One arrives at knowledge of the revolution of the year, as also of the other entries of the ☉ into the cardinal signs, in this way. From the precepts of the second part, first, according to chapter 3, let the hour and minute be sought at which the Sun enters the beginning of some cardinal sign: in the proportion, set in the first place the daily motion of the ☉ on the day it enters the cardinal sign; in the second place 24 hours; in the third place the number of minutes by which the Sun, at noon of the preceding day, is distant from the beginning of the sign. When the operation has been done, the time sought is gathered. And for that time let the motions of the other planets be gathered. Then, once that same time has first been made apparent, and, if need be, reduced for the difference of meridians, let a figure of the heavens be set up by the precepts of chapter 11 of part 2, into which not only the planets but also the more notable fixed stars are to be inserted; and it will be a complete figure of the heavens for the entries. One must proceed likewise with the lunations.

For once the lunations that immediately precede and follow the entries of the ☉ into the signs have been noted, let their times first be noted down from the ephemerides, and for them let the motions of the planets be sought. Next, since they are mean, let them be made apparent; and, if need be, let them be reduced for the difference of meridians; and finally, for those times, let the charts of the heavens be set up according to the rules declared earlier.

For example, let the revolution of the year be constructed for the year of Christ 1607, in which the Sun, by the Tychonic calculation, enters Aries on March 10 of the old calendar.

And first let the hour and minute of the entry be sought. To do this conveniently, let the place for March 10 be noted and compared with the place for March 11, in this way:

Die	☉ in ♓
10	29° 31′ 50″
11	♈ 0° 31′ 11″
Motus diurnus [daily motion]	0° 59′ 21″

Subtracting the upper number from the lower, the daily motion comes out as 0° 59′ 21″, which is set at the beginning of the rule of three. In the middle place set 24 hours; and in the last, 28′ 10″, by which the place of the ☉ on the 10th day is distant from the beginning of ♈. When the operation has been correctly carried out, the moment of the entry is gathered as about $11^{h}\ 23^{m}\ 24^{s}$.

Second, for this time I seek the places of the planets, having noted their motions for the 10th and 11th day, and having first sought the daily motion, in this way:

Martii Die	☽ in ♐	♄ ♍	♃ ♓	♂ ♉	♀ ♈	☿ ♓	☊ ♍
10	21° 24′	18° 16′	18° 18′	7° 12′	3° 46′	14° 0′	11° 19′
11	♍ 5° 21′	18° 20′	18° 32′	7° 54′	5° 0′	15° 51′	12° 2′
[Daily motion]	13° 57′	0° 4′	0° 14′	0° 42′	1° 14′	1° 51′	0° 43′

Diagram. Upper-left of four square horoscope figures. Title box: "Preventional spring full moon, in the year 1607; on March 3 Julian, 13 Reformed; at $6^{h}\ 35^{m}$ P.M., apparent time. In longitude of the earth 36° 0′; latitude 52° 20′."

- Upper-left corner, upper triangle: ♌ 11° 25′
- Upper-left corner, lower triangle: ♍ 9° 39′; ☊ 12° 9′; ☽ 22° 52′
- Left of the box: ♎ 1° 31′
- Above the box: ♋ 2 0
- Upper-right corner, upper triangle: ♉ 22° 51′
- Upper-right corner, lower triangle: ♂ 2° 26′; ♈ 23° 31′
- Right of the box: ♈ 1° 31′; ♀ 25 25; ☉ 22° 52′; ♃ 16° 42′; ♑ 12° 9′
- Lower-right corner: ♓[?] 9 39; ☿ 2 2; ♒ 11° 25′
- Below the box: ♄ 17° 48′; ♍ 2 0
- Lower-left corner: ♏ 22° 11′; ♎ 23° 31′

Diagram. Upper-right figure. Title box: "Postventional spring new moon, in the year 1607; on March [numeral: ?]7 Julian, [numeral: ?]7 Gregorian; at $8^{h}\ 36^{m}$ P.M., apparent time."

- Upper-left corner, lower triangle: ♎ 11 9
- Upper-left corner, upper triangle: ♍ 17° 27′
- Above the box: ☊ 11° 24′; ♌ 12° 45′
- Upper-right corner, upper triangle: ♊ 28° 57′
- Upper-right corner, lower triangle: ♉ 24° 50′
- Right of the box: ♂ 12° 22′; ♉ 1° 26′
- Lower-right corner: ♀ 12 51; ♈ 11 9; ♓ 17 27; ♃ 20 3; ☿ 27 45; ☉ ☽ 6 47
- Below the box: ♒ 12° 45′; ♑ 11° 24′

- Lower-left corner: ♐ 28° 57′; ♄ 18° 42′ ♒; ♏ 24° 50′
- Left of the box: ♏ 1° 26′

Diagram. Lower-left figure. Title box: "Preventional summer full moon, in the year 1607; on May 30 Julian, June 9 Lilian; at 17^{h} 20^{m} P.M., apparent time."

- Upper-left corner: ♊ 5° 28′; ☿ 0 28; ♈ 11° 33′
- Above the box: ♃ 4 57; ♉ 7° 27′; ♓ 5° 50′
- Upper-right corner: ♒ 15° 56′; ♒ 29° 53′
- Right of the box: ♄ 18° 12′; ♒ 10° 18′
- Lower-right corner: ☽ 18° 38′; ♐ 5° 29′
- Below the box: ♎ 11° 33′; ♍ 5° 50′; ☊ 7° 27′
- Lower-left corner: ♌ 15° 56′; ♋ 29° 53′
- Left of the box: ☉ 18° 33′; ♂ 2° 56′; ♋ 10° 18′; ♀ 13° 23′

Diagram. Lower-right figure. Title box: "Postventional summer new moon, in the year 1607; on June 13 of the old year, 23 of the new; at 20^{h} 40^{m} P.M., apparent time."

- Upper-left corner: ♀ 0 15; ♌ 3° 19′
- Above the box: ♂ 12 18; ☉ ☽ 2 6; ♊ 28° 46′; ☿ 10 5 ♊; ♉ 14 [numeral: ?]6
- Upper-right corner: ♈ 10 25; ♃ 6° 44′
- Right of the box: ♓ 17 1; ♉ 6 43; ♒ 26 52
- Lower-right corner: ♒ 3° 19′; ♄ 12 12 ♒; ♐ 28° 46′
- Below the box: ♏ 14° 46′; ♎ 10° 25′
- Lower-left corner: ♍ 17 1; ☊ 5 43; ♌ 26° 52′

And the ☽ is found, according to the calculation of Tycho, in 28° 0′ ♐; ♄ in 18° 18′ ♒; ♃ in 18° 25′ ♓; ♂ in 9° 31′ ♉; ♀ in 4° 21′ ♈; ☿ in 14° 52′ ♓; ☊ in 11° 39′ ♍.

Third, since the time found is mean, let it be made apparent by means of the table of the equation of civil days, according to the precepts of chapter 6 of the first part; the Tychonic equation comes out as 0^{m} 40^{s}, to be subtracted. The apparent time of the entry of the ☉ into ♈: day 10 of March, 11^{h} 22^{m} 44^{s} P.M.; the time expressed more exactly in the ephemerides for the year 1607 falls short of it by only 8 seconds.

Fourth, for this time let a figure of the heavens be set up according to the precepts of chapter 11 of the second part, of the kind that is found in the ephemerides themselves. In a similar way let three other charts also be set up for the entries of the ☉ into ♋, ♎ and ♒; for the year we have proposed, these are found below in the ephemerides. And finally, for the new moons and full moons that both immediately precede and immediately follow the entries, let 8 others be formed, as is clear from those appended here:

Diagram. Upper-left of four square horoscope figures. Title box: "Preventional autumn new moon, in the year 1607; on September 10 Julian, 20 Gregorian; at 19^{h} 30^{m} P.M., apparent time."

- Upper-left corner: ♉ 1° 59′; ♂ 9 30; ♌ 26° 28′; ♍ 22 53; ☉ ☽ 27 37
- Above the box: ♋ 18° 45′

- Upper-right corner: ♊ 7° 16′; ♉ 6° 41′
- Right of the box: ♈ 14° 10′; ♃ 4° 22′ R.
- Lower-right corner: ♓ 22° 53′; ♑ 1° 59′; ♒ 26° 28′
- Below the box: ♄ 12° 30′; ♍ 18° 45′
- Lower-left corner: ♐ 7° 16′; ♏ 6° 41′; ♀ 13 1
- Left of the box: ☿ 6 11 R.; ♎ 14° 10′

Diagram. Upper-right figure. Title box: "Postventional autumn full moon, in the year 1607; on September 25 Julian, October 5 Lilian; at 0^{h} 57^{m} P.M., apparent time."

- Upper-left corner: ♐ 2° 4′; ♀ 27° 49′; ♏ 16° 11′
- Above the box: ☉ 11° 37′; [?] 26° 52′
- Upper-right corner: ☿ 28° 41′; ♍ 22° 18′; ♂ 18° 33′; ☊ 1 15; ♋ 27° 50′
- Right of the box: ♊ 21° 55′
- Lower-right corner: ♊ 2° 4′; ♉ 16° 11′
- Below the box: ☽ 11° 37′; ♈[?] 26° 52′; ♃ 2 20 R.
- Lower-left corner: ♓ 22° 18′; ♑ 1 15; ♍ 27° 50′
- Left of the box: ♐ 21° 55′; ♄ 12° 46′

Diagram. Lower-left figure. Title box: "Preventional winter new moon, in the year 1607; on December 8 of the old year, 18 of the new; at 15^{h} 22^{m} P.M., apparent time."

- Upper-left corner: ♎ 12° 31′; ♍ 19° 2′
- Above the box: ♌ 14° 37′; ☊ 27° 19′
- Upper-right corner: ♋ 0° 39′; ♉ 26° 13′
- Right of the box: ♉ 2° 41′
- Lower-right corner: ♈ 12° 31′; ♓ 19° 2′; ♃ 29° 55′
- Below the box: ♒ 14° 37′; ♑ 27° 19′
- Lower-left corner: ♍ 0° 39′; ☿ 14° 23′; ♄ 18° 45′; ♏ 26° 13′; ♀ 22° 55′ ♐; ☉ & ☽ 26° 53′
- Left of the box: ♏ 2° 41′; ♂ 5° 19′

Diagram. Lower-right figure. Title box: "Postventional winter full moon, in the year 1607; on December 22 Julian, January 1 Lilian, in the year 1608; at 18^{h} 2^{m} P.M., apparent time."

- Upper-left corner: ♏ 23° 3′; ♂ 14° 6′; ♏ 6° 7′
- Above the box: ♎ 13° 55′
- Upper-right corner: ♍ 4° 26′; ☊ 26° 34′ ♌; ♋ 13° 31′
- Right of the box: ♊ 12° 13′; ☽ 11° 19′
- Lower-right corner: ♉ 23° 3′; ♉ 6° 7′
- Below the box: ♈ 13° 55′
- Lower-left corner: ♍ 13° 31′; ☽ 20° 24′ ♍; ☿ 26° 46′; ♑ 26° 34′ ♒; ♓ 4° 26′; ♃ 1° 23′
- Left of the box: ♐ 12° 13′; ♀ 17° 46′; ☉ 11° 19′

[Margin: The testimonies of the strength and debility of the planets are to be collected.]

When the figures have been set up in this way for the entries of the ☉ into the 4 cardinal signs ♈, ♋, ♎ and ♑, and for the lunations immediately preceding and following the entry of the ☉ into those signs, first let the strengths and debilities of the planets in each be sought out from the collection of the essential dignities, as was done in the preceding chapter in the search for the lord of the eclipse; for this purpose let the first and the 10th houses be used, and also the two luminaries ☉ and ☽. Next let the characters of all the planets be written down twice: once for collecting the testimonies of strengths, and again for collecting the testimonies of debilities. Under them let three series of triple numbers, matching the number of charts of each quarter, be written in the order of the planets, and let each series of triple numbers be gathered separately into one sum: *the first for spring, the second for summer, the third for autumn, the fourth for winter.* Finally, let these 4 also be added together for each planet. For the planet that is strongest of all and at the same time placed in favourable places of the heavens, not impeded in motion or light, especially at the time of spring, will be the lord of the year. The partner and associate of the dominion, however, will be judged to be the one that is next in the number of dignities.

For example, in the year of Christ 1607, as is clear from this collection of dignities.

For Spring.

In the chart of the entry of the ☉ into ♈

[row]	° ′	Strengths 5	4	3	2	1	Debilities 5	4
Hor	25° 59′ ♏	♂		♂	☿	♀	♀	☽
M.C.	19° 49′ ♍	☿	☿	☽	♄	☿	♃	♀
☉	0° 0′ ♈	♂	☉	♃	♃	♂	♀	♄
☽	28° 0′ ♐	♃		♃	♂	♄	☿	

In the preventional full moon[94]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
1° 31′ ♎	♀	♄	☿	♄	☽	♂	☉
2° 0′ ♋	☽	♃	♂	♂	♀	♄	♂
22° 52′ ♓	♃	♀	♂	♂	♂	☿	☿
22° 52′ ♍	☿	☿	☽	♄	☿	♃	♀

In the postventional new moon[95]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
1° 26′ ♏	♂		♂	♂	♂	♀	☽
12° 45′ ♌	☉		♃	☿	♃	♄	
6° 47′ ♈	♂	☉	♃	♀	♂	♀	♄

[94] rows in the order of the first block; the leaf sets no row labels here

[95] rows in the order of the first block; the leaf sets no row labels here

° ′	Strengths 5	4	3	2	1	Debilities 5	4
6° 47′ ♈	♂	☉	♃	♀	♂	♀	♄

[row]	Strengths ♄	♃	♂	☉	♀	☿	☽	Debilities ♄	♃	♂	☉	♀	☿	☽
Entry of the ☉ into ♈	3	13	16	4	1	12	3	4	5	0	0	14	5	4
Preventional new moon	8	9	11	0	10	13	9	5	5	9	4	4	9	0
Postventional full moon	0	10	23	13	4	2	0	13	0	0	0	15	0	4
Sum	11	32	50	17	15	27	12	22	10	9	4	33	14	8

Mars is judged the almuten, or lord, of the spring. *For in the spring figure he has testimonies exceeding in strength by 16; in the preventional full moon, by 2; in the postventional new moon, by 23; so that thus in all his signs of strength are 41, while those of Jupiter are only 22, of ☿ 13, of the ☉ 13, of the ☽ 4. Of debility, however: ♄ 11, ♀ 18.*

For Summer.

In the chart of the entry of the ☉ into ♋

[row]	° ′	Strengths 5	4	3	2	1	Debilities 5	4
Horosc.	29° 59′ ♊	☿		☿	♂	☉	♃	
M.C.	23° 18′ ♒	♄		☿	♃	☽	☉	
☉	0° 0′ ♋	☽	♃	♂	♂	♀	♄	♂
☽	4° 32′ ♊	☿		☿	☿	♃	♃	

In the preventional full moon[96]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
10° 18′ ♋	☽	♃	♂	♃	♂	♄	♂
5° 50′ ♓	♃	♀	♂	♀	♄	☿	☿
18° 38′ ♊	☿		♄	♀	♂	♃	
18° 38′ ♐	♃		☉	☿	☽	☿	

In the postventional new moon[97]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
26° 52′ ♌	☉		☉	♂	♂	♄	
14° 46′ ♉	♀	☽	♀	☿	☽	♂	
2° 6′ ♋	☽	♃	♂	♂	♀	♄	♂

[96]rows in the order of the first block; the leaf sets no row labels here
[97]rows in the order of the first block; the leaf sets no row labels here

° ′	Strengths 5	4	3	2	1	Debilities 5	4
2° 6′ ♋	☽	♃	♂	♂	♀	♄	♂

[row]	Strengths ♄	♃	♂	☉	♀	☿	☽	Debilities ♄	♃	♂	☉	♀	☿	☽
Entry of the ☉ into ♋	5	7	7	1	1	21	6	5	10	4	5	0	0	0
Preventional full moon	4	16	8	3	8	7	6	5	5	4	0	0	14	0
Postventional new moon	0	8	13	8	10	2	15	15	0	13	0	0	0	0
Sum	9	31	28	12	19	30	27	25	15	21	5	0	14	0

The Moon is judged mistress of the summer, *since she is raised by 27 testimonies of strength, adding Venus to herself with 19 testimonies. Jupiter, however, has the remaining votes of strength, 16;* ☿ *16,* ♂ *7,* ☉ *7. But* ♄ *languishes with the signs of debility, 16.*

For autumn

In the chart of the entry of the ☉ into ♎

[row]	° ′	Strengths 5	4	3	2	1	Debilities 5	4
Hor.	2° 39′ ♈	♂	☉	☉	♃	♂	♀	♄
M.C.	0° 58′ ♍	♄	♂	♀	♀	♃	☽	♃
☉	0° 0′ ♎	♀	♄	♄	♄	☽	♂	☉
☽	27° 47′ ♎	♀	♄	♄	♂	♃	♂	☉

In the preventional new moon[98]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
14° 10′ ♎	♀	♄	♄	♃	♄	♂	☉
18° 45′ ♋	☽	♃	♂	☿	☿	♄	♂
27° 37′ ♏	☿	☿	♀	♂	☿	♃	♀
27° 37′ ♏	☿	☿	♀	♂	☿	♃	♀

In the postventional full moon[99]

° ′	Strengths 5	4	3	1	1	Debilities 5	4
21° 55′ ♐	♃		☉	♄	♄	☿	
26° 52′ ♎	♀	♄	♄	♂	♃	♂	☉
11° 37′ ♎	♀	♄	♄	♃	♄	♂	☉
11° 37′ ♈	♂	☉	☉	♀	☉	♀	♄

[98] rows in the order of the first block; the leaf sets no row labels here

[99] rows in the order of the first block; the leaf sets no row labels here

° ′	Strengths 5	4	3	1	1	Debilities 5	4

[row]	Strengths ♄	♃	♂	☉	♀	☿	☽	Debilities ♄	♃	♂	☉	♀	☿	☽
Entry into ♎	21	4	12	7	15	0	1	4	4	10	8	5	0	5
Preventional new moon	8	6	7	0	11	23	5	5	10	9	4	8	0	0
Postventional full moon	18	8	7	11	12	0	0	4	0	10	8	5	5	0
Sum	47	18	26	18	38	23	6	13	14	29	20	18	5	5

♄ is thought to be the ruler of the autumn *because of his testimonies of strength, which prevail by 34, while* ♀ *has only 20,* ☿ *18,* ♃ *4, the Moon 1. Of debility:* ☉ *2,* ♂ *3.*

For winter

In the chart of the entry of the ☉ into ♍

[row]	° ′	Strengths 5	4	3	2	1	Debilities 5	4
Horosc.	18° 24′ ♏	♂		♂	♀	☉	♀	☽
M.C.	8° 9′ ♍	☿	☿	☽	♀	☉	♃	♀
☉	0° 0′ ♍	♄	♂	☽	♀	♃	☽	♃
☽	11° 5′ ♒	♄		☿	☿	☿	☉	

In the preventional new moon[100]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
2° 41′ ♏	♂		♂	♂	♂	♀	☽
14° 37′ ♌	☉		♃	♀	♃	♄	
26° 53′ ♐	♃		♃	♂	♄	☿	
26° 53′ ♐	♃		♃	♂	♄	☿	

In the postventional full moon[101]

° ′	Strengths 5	4	3	2	1	Debilities 5	4
12° 13′ ♐	♃		♃	♀	☽	☿	
13° 55′ ♎	♀	♄	☿	♃	♄	♂	☉
11° 19′ ♍	♄	♂	☽	☿	♂	☽	♃
11° 19′ ♋	☽	♃	♂	♃	☿	♄	♂

[100] rows in the order of the first block; the leaf sets no row labels here

[101] rows in the order of the first block; the leaf sets no row labels here

[row]	Strengths ♄	♃	♂	☉	♀	☿	☽	Debilities ♄	♃	♂	☉	♀	☿	☽
Entry of the ☉ into ♉	10	1	12	2	6	15	6	0	9	0	5	9	0	9
Preventional new moon	2	20	15	5	2	0	0	5	0	0	0	5	10	4
Postventional full moon	10	16	8	0	7	6	9	5	4	9	4	0	5	5
Sum	22	37	35	7	15	21	15	10	13	9	9	14	15	18

♂ governs the winter *with pre-eminences of 26, while only 24 are found in* ♃, *12 in* ♄, *6 in* ☿, *1 in* ♀; *and the signs of infirmity present themselves in the Sun, 2, in the* ☽, *3.*

When these have first been gathered into one sum, in this way:

In the figure	Strengths ♄	♃	♂	☉	♀	☿	☽	Debilities ♄	♃	♂	☉	♀	☿	☽
Spring	0	22	41	13	0	13	4	11	0	0	0	18	0	0
Summer	0	16	7	7	19	16	27	16	0	0	0	0	0	0
Autumn	34	4	0	0	20	18	1	0	0	3	2	0	0	0
Winter	12	24	26	0	1	6	0	0	0	0	2	0	0	3
[Sum]	46	66	74	20	40	53	35 [recte: 32]	27	0	3	4	18	0	3

[Margin: Mars lord of the year 1607, with ♃ and ☿.]

Finally, when the debilities have been subtracted, since ♂ *is the strongest — for he has 71 remaining testimonies of strength, while Jupiter retains 66,* ☿ *53,* ☽ *32,* ♀ *22,* ♄ *19 and* ☉ *16 — Mars is rightly established as the principal almuten, or governor, of the year; and to him are joined first Jupiter, then also* ☿, *as those that follow Mars most closely in dignities. For although Mars, at the beginning of spring, is in* ♉, *his detriment, and is occidental in the lowly sixth house of heaven in the figure of the revolution, yet because he is free of the rays and of combustion, swift in course, and in mutual reception by domicile with* ♀, *and moreover governs the extremes of the year, spring and winter, he is rightly preferred to all the others; above all since even* ♃, *who is next to Mars in testimonies of strength, and rejoices in his own house, and is oriental, could not sustain the dominion alone: for he lies hidden under the rays of the Sun in all three spring figures, and, because of his southern latitude and because he is in signs of oblique ascension, he is not able to free himself from his impediments and come forth into view. So Mercury too is placed after Mars, since he both does not have as many dignities and is in exile and in his fall in* ♓. *Saturn is also excluded from the governorship for this reason: although he is in his own sign and in the second house, and is oriental, he is nevertheless wholly without other pre-eminences; indeed, in the figures he is even cast down by eleven debilities.*

[Margin: Those who fight against Ptolemy are refuted.]

Nor are we called away from this Ptolemaic choice of the lord by those who, interpreting it wrongly, write that it squares poorly with the principles

of astrology. For the force of the signs that are ascending and culminating is very great, and we see them exercise their efficacy according to the dominions of the planets in such a way that, even when no planet is found appropriated in any of them, the signs of the ascendant and of the M.C. nevertheless show its nature most plainly — which it would not be difficult to prove by examples. And indeed, if in their opinion the dominion of the planets were to be assessed either from the nature of each in its own signs or from its bare situation in the angular houses, only the luminaries would prevail, whose efficacy is indeed everywhere very great, but general and not so determinate. The signs would do nothing without the planets, and only the planets would act, chiefly in the angles, then somewhat in the succedent houses, but not at all in the cadent ones; and the ninth house would not be preferred to the eighth, which all astrologers nevertheless place before it.

And although Albumasar at the beginning of the *Flores*, and Haly in chapter 4 of book 8 of *De judiciis astrorum*, lay down the same thing that I have said, from the opinion of Hermes — who make that planet simply the lord of the year which, in the revolution of the year, is in an angular house, 1, 10, 7, 4; then in 11, 9, 5, 3, etc., in that order indeed; so that if there is a planet in the first, no regard is paid to the one in the 10th; if in the 10th, no attention is given to the planet of the seventh, and so on in turn; and if it is in the seventh having two major essential dignities, let it be preferred to the planet in the tenth that has only one, or two minor ones, term and face, or to one in the first that has none — yet the doctrine of Ptolemy set out above is more reasonable. It is embraced not only by Leupold., in chapter 2 of tract. 6, *De mutatione aeris*, where he speaks in roughly this way: "For the quarters of the year, observe the entry of the ☉

[Margin: Which astrologers follow Ptolemy.]

in the equinoctial and solstitial points; also the preceding lunations, and the angles of heaven at those hours; also the lords of the places of the ♂ or ♌, and of the angles; and judge the quality of the air according to the strengths of the stars that dominate in them." — but also by Schöner, whom Cardano elsewhere rates very highly. For in Canon 22 of the first part of the *Isagoge*, Schöner sets up as governor of the figure the planet that claims for itself the greater strengths in the place of the ☽ (we rightly join to it the place of the ☉, as the greatest luminary), in the ascendant, and in the angle either preceding or following the Moon (we consult both, that of the ascendant and that of the M.C.), even if the planet is fixed in none of these.

[Margin: Another probable opinion on establishing the lord of the year.]

But if, for the times of the ☉'s entry into the cardinal signs, someone wishes to examine the individual planets separately, and to see which of them prevails in more testimonies of strength by reason of the essential dignities, without regard to its position in the figure, so that this planet is established as lord of the quarter, we do not much object — provided that he joins to it the planet that both holds the best place in the figure of the revolution and strongly

irradiates either both luminaries or the luminary of the condition [luminare conditionarium].

[Margin: Precepts of judgement.]

Finally, so that, once the lord of the year is known, we may judge its efficacy skilfully, all the things we shall set out here from approved astrologers must be considered. Authors note, here and there, certain precepts that must be weighed here; the first and most general of them is the one that Haly sets out very fully in chapter 3 of part 8: The lord of the year, well placed in the figure of the revolution, signifies a good and fertile year, in which good fortune and prosperity are promised to men. But placed unfortunately, it threatens an unfruitful year, in which men must fear difficulties, dangers and anxieties.

[Margin: General.]

From a bad constitution in the first house, losses in bodies; in the 2nd, in livelihood, household management and gains; in the 3rd, disagreements and contentions of brothers, cognates and agnates; in the 4th, losses in lands, farms and estates; in the 5th, the loss of children; in the 6th, loss of crops and of small beasts, and of servants; in the 7th, quarrels, lawsuits and fights between spouses; in the 8th, sudden and many deaths; in the 9th, losses on journeys; in the 10th, the despoiling and oppression of subjects by magistrates; in the 11th, the harassment of peoples and the despair of many; in the 12th, subjugation and chains at the hands of enemies, and also loss among the larger beasts. And all these chiefly in those tracts of land and places over which it presides; and it presides over those that lie under the sign in which it is.

Now follow the special rules for each planet, some of which Pietro Pitati [Petrus Pitatus] carried over into his Ephemerides *from Leupold.*

[Margin: Special rules showing what the individual planets signify when each is, on its own, lord of the year.]

[Margin: ♄ lord of the year.]

♄, when it has presided over the year without an aspect of ♂ or of a planet tempering its coldness, signifies intense cold in that year, which both kills the brute animals and hinders the earth's produce — above all when it is ascending from the middle circle of its apogee [augis] in the eccentric. Leupold, c. 1, tract. 6, *De mutatione aeris*. And Albumasar, c. 5, lib. 4, who also adds that these things are to be expected in the northern regions; but in southern places, hot with the heat of the ☉, it cools the breezes so far that the temperature will be suited to the life of animals and to the abundance of the young growth. ♄ also produces, according to Cardano [Card.], 7 Aph. 67, changes and variations in the air, earthquakes, snows and frosts, and immense cold. For in the time of heat it diminishes the heat, and in the time of cold it increases the cold: Haly, cap. 26, libr. 8, *De judiciis astr.*

[Margin: The course of Saturn through the individual domiciles of the revolution of the year.]

To run through the individual houses with Haly, cap. 7, libr. 8: ♄, fortunate in the ascendant — if the lord of the ascendant also irradiates it with a friendly aspect — signifies rest and a good state for men, and gifts from their superiors. But afflicted, it

designates harm to bodies, and Saturnine infirmities. In the 2nd, happily constituted, so that the lord of the second also beholds it happily, it promises a good state and gains in the management of the household, and fortune and good health to servants. Unfortunate, it threatens a diminution of substance and loss in household management. In the 3rd, happily placed, it promises joy and advantage, and companionship even among those who do not agree with one another. Afflicted, it brings hindrances on journeys, calumnies, and hatreds among men. In the 4th, powerful, it furthers agriculture and the building of houses, and the concern and care for building them. But powerless and cast down, it marks the ruin of houses, and hindrances in agriculture from enemies and from waters. In the 5th, fortunate, it pledges joy from children, and a useful yield to the stewards of estates. Unfortunate, it announces loss and trouble from children. In the 6th — especially if there is a human sign there — it brings upon men melancholic infirmities, epilepsy, the falling sickness, mania, and leprosy. If it is a sign of other animals, there will be loss and a morbific cause among beasts and among animals of the same signature. In the 7th, if it is a human sign, men will contract marriages more willingly with older people and the aged; if it is another sign, they will delight in whatever suits the signature of the sign. In the 8th it threatens death: to men if it is in a human sign, but to other animals if it is found in signs of their signature. In the 9th, fortunate, it marks long and lasting journeys in a movable sign; in a fixed sign, zeal for religion and for peace, and the practice of justice. Unfortunate, it designates troubles and labours on journeys, and the sinking of ships. In the 10th, fortunate, it announces to subjects a good state under the magistracy, and kings and princes will do well. But unfortunate, raised above the others, it will portend evil from cold and misfortune that will weigh on the whole land; and the kings themselves will change their places, will do many evil things, and will impose unjust tributes on the people. In the 11th, fortunate, it fulfils men's hope and desire, and enriches them from largesses and journeys. But unfortunate, it mocks hope and expectation, and brings evils and anxieties. In the 12th, safe, it promises men rest and mutual affection, and removes envy and ill-will. But unfortunate, it provokes men to lawsuits and mutual hatreds, and from these stirs up losses and misfortunes.

[Margin: ♃ lord of the year.]

2 ♃, without an aspect of another planet, or even with the Sun, tempers the air and produces northerly winds, though moderate ones, by which animals and seeds are strengthened. Pitati [Pitat.], p. 34, from the passages of Leupold and Albumasar cited earlier. Haly, cap. 4, part. 1, says that by the temperateness of Jupiter the heat of summer and the cold of winter are tempered, and that epidemic infirmities and plagues are lessened. For the air is made more wholesome by the northerly breeze or wind, which ♃ stirs, as will be said below in cap. 5, on the winds.

[Margin: The course of Jupiter through the individual houses.]

In the first house, fortunate — if the lord of the ascendant also beholds it with a favourable ray — it signifies good fortune, health, joy and many gains, above all for religious and honoured men; and churches and oratories will be built, and men will seek the studies of wisdom and of the laws. Unfortunate, it marks a diminution of substance,

and meanness: men will not give alms, nor will they contribute to public buildings without great difficulty. Kings will be more concerned for their own advantage than for the people's. In the 2nd, fortunate, it promises many gains and a splendid life. And if the lord of the second applies to it, gains will come from an unexpected quarter. But unfortunate, it indicates losses and the ruin of substance; and men will be anxious about paying the tributes, which will be unjustly imposed. For kings and princes will be eager to amass treasures and to snatch at the dominions of others by any means. In the 3rd, ♃ strengthens men's fellowship and affection; and they will be religious, generous toward the poor, and devoted to astrology, to divination and to journeys. In the 4th, strong, it favours the cultivation of the fields, from which it pledges a great yield.

Weak, it threatens sadness and diminution; and the thoughts of kings will be directed secretly toward divinations, incantations, the fortifying of cities and camps, and the beginning of wars. In the 5th it designates good health for children, and happy births for pregnant women. Kings too will be occupied in enlarging their ministries and in founding cities. In the 6th, fortunate in a human sign, it favours the state of servants; in a sign of quadrupeds, the state of those same animals, according to the signature. But unfortunate, it announces diseases from abscesses and from flatulence. In the 7th, fortunate, it promises men joy and singular friendship, or agreement, with women. Unfortunate, it brings feuds. In the 8th, fortunate, it resists death, and honours those who have died with religious observance. Unfortunate, it hastens death for many; the animals that answer to the signature of the sign will be afflicted; and kings will think about the drawing of ditches and the digging of pits. In the 9th it promises fortunate journeys both by land and by sea; kings will think about a change of air, and they will devote themselves to astrology and to the interpretation of dreams. In the 10th, fortunate, it increases the pursuit of justice; and honour and reward, worthy and lucrative, are conferred on subjects by the kings whom they themselves will serve profitably. But unfortunate, it alienates kings from the people, and neither will do its due duty; and kings will snatch dignities from one and lavish them on another. In the 11th, fortunate, it increases fortune and the splendour of life, and bestows unexpected gifts and goods. And in like manner in the 12th it promises profit and gain from lawsuits, and spoils from enemies. Haly, cap. 7, lib. 8.

[Margin: ♂ lord of the year.]

3 ♂, when it has presided over the year without an aspect of ♄ or of a cooling planet, tempers the cold of winter and increases the heat of summer — and all the more if it is in a hot sign and ascends in its circle. Hence it follows that in cold lands there is a strengthening of seeds and animals, but in hot ones destruction: Leupold, cap. 1, tract. 6, and Albumasar, c. 5, lib. 4. Mars as lord of the year also signifies heats, fires, lightnings, hailstorms, wars, 7 Aph. 68 Cardano [Card.]. And if in the revolution of the year it is in its own sign, it rains much; in a house of ♄, little; in the others, moderately: Leupold, cap. 2, tract. 6. Above all, rains will abound if ♂ beholds Venus from ♏. Leupold, in the same place. For — as Haly teaches, cap. 4, lib. 1 — ♂ is dry by nature, but very changeable, so that it is now moist, now dry. Above all it draws the moistures

and fumes of the earth upward, and its heat and dryness are strengthened when it ascends in its circle. But its heat is moistened and diminished when it descends toward the earth, and it then signifies infirmities and pains arising on account of the blood. It is also common to Saturn and Mars to portend plague, sterility and sedition, according to 7 Aph. 70 of Cardano.

[Margin: The course of Mars through the individual houses.]

Moreover, fortunate and received in the ascendant, it signifies, according to Haly, cap. 7, libr. 8, that the places subject to the sign in which it is will wage war successfully that year, will carry off spoils and ample gains, and will enlarge their dominions. Unfortunate, it marks discords, contentions, wars and the shedding of blood, with great detriment and loss. In the 2nd it designates an abundance of thieves and robbers, who will practise thefts, rapine and depredations; and men will live a wretched life because of the oppression and the imposition of tributes. In the 3rd it increases enmities and hatreds, and disturbs fellowships everywhere. In the 4th it directs its venomous nature upward to the other planets, all of which it infects, so that, when it is placed in fiery signs, burnings of lands and of farmsteads follow, and many losses by fire; in human signs, copious sheddings of blood from lawsuits and wars, especially about the end of the year. In the 5th it threatens pregnant women with harm and grievous labours. In the 6th, if it occupies a dry sign, it inflicts hot and dry infirmities; if a moist one, hot and moist ones; if an airy one, there will be epidemic infirmities from the blood and from windiness. The smaller beasts too suffer gravely and perish, if it holds the signs of animals. In the 7th it stirs up discords and pernicious hatreds, which slaughter follows, and announces frequent thefts.

In the 8th it indicates slaughters and the deaths of many, according to the nature of the sign. In the 9th it makes journeys unsafe with thieves and robbers, on which many are wretchedly butchered; in watery signs it promotes shipwrecks and pirate raids. In the 10th it signifies tyranny, by which kings and princes, neglecting piety and justice, kill their subjects, plunder them, or drain them with tributes. In the 11th it destroys the fellowships of men, and is held to drive them into discord on the slightest cause, so that neither trusts the other. In the 12th it portends fear, anxiety, many losses from enemies, and the shedding of blood.

[Margin: The Sun lord of the year.]

4 The Sun varies the quarters of the year according to the conjunctions and aspects of the hot or cold planets to it. For ♄ with the Sun in winter, without an aspect of ♂, increases the cold, and in summer diminishes the heat — and all the more in cold signs. For ♄ works more strongly in cold signs, and ♂ in hot ones: Leupold, cap. 1, tract. 6, and from him Pietro Pitati [Pitatus], p. 34 of the *Ephemerides*.

[Margin: The course of the Sun through the individual houses.]

When the Sun is lord of the year, if it is fortunate and received, it signifies prosperity and a fortunate state for kings, for the magistracy, and for all who live in dignity and splendour. Unfortunate, it signifies the contrary, and many will be stripped of their dignities. In the 2nd it denotes, in kings, a care for their stock of gold and silver, which they will draw to themselves by any means whatever, even to the detriment of their

subjects. In the 3rd it designates a love of the laws and of justice among men, and praise won from the pursuit of religion and of oratory. In the 4th it announces the destruction of pleasant gardens, and the fall of nobles from their dignity. In the 5th it harms the unborn children of pregnant women, and threatens them with miscarriage. In the 6th it brings many infirmities, above all of the eyes, and the smaller animals will die. In the 7th it signifies a solitary life for kings, in which they wish to live withdrawn from their subjects and from public intercourse. In the 8th it portends the deaths of many. In the 9th it promises stable fortune, the peaceful exercise of the laws and of religion, and honour for those occupied with them. In the 10th it brings pre-eminent dignity and renown to those kings and subjects of a realm who are bound by some kinship to the sign in which the Sun is. In the 11th it promises the common people a flourishing and happy state under the magistracy, and gifts from kings. In the 12th it separates the common people from the magistracy, so that neither does the other any good. Haly, cap. 7, part. 8.

[Margin: Venus lady of the year.]

5 Venus, when she presides over the year, increases the moisture in spring and winter; in summer and autumn she diminishes and relieves the dryness, above all in a moist sign, and so long as a dry planet does not aspect her at all. Pitatus, p. 34, from Leupold, cap. 1, tract. 6, and Albumasar, cap. 5, lib. 4.

[Margin: The course of Venus through all the domiciles.]

According to the opinion of Haly, cap. 7, part. 8, if the lady of the year is in the ascendant, she signifies health and vigour for human bodies, and many joys. In the 2nd, fertility and an abundant yield of crops, and also an affluent and liberal life. In the 3rd, hatred and quarrels. In the 4th, the jealousy of men toward women, so that they will not allow them to go out, and will keep them shut up, as it were. The end of the year too will be better and more fortunate than its beginning. In the 5th she marks company and enjoyment with girls, so that many will seem, as it were, to become boys again. For pregnant women too she intimates good fortune, and a more plentiful birth of girls through the year. Men will be given to the love of women, to music, to jesting and to finery. In the 6th, in a human sign, she designates gain from the buying of men; in a sign of quadrupeds, from beasts. Infirmities too are signified for women, arising from intemperance in food and drink and from weakness of the stomach. In the 7th, if she is fortunate, men will delight in women and will be eager to contract marriages, and there will be many weddings. But if she is unfortunate, women will quarrel with their husbands and be disobedient to them, and frequent divorces will follow from desertion. In the 8th many women will die, especially if ♀ is unfortunate and weak. In the 9th journeys will be fortunate, and men will be more given to the exercises of piety, justice and chastity than to company with women. In the 10th kings will have a singular affection toward women; they will adorn them and raise them to government. They will also do good to those who practise jesting and music, and the state of the realm will be peaceful and flourishing. In the 11th men will be seized by love of women, lawful and unlawful, and will indulge in dances, leaping and fornication. In the 12th men will hold women in hatred, will scorn them, and will take from them the licence to rule.

[Margin: Mercury lord of the year.]

6 ☿, as lord of the year, varies the quality of the air and corrupts the winds, especially in moist and windy signs; in hot and dry signs, however, it increases the dryness: Pitatus, p. 34, from the passages of Leupold and Albumasar cited before. Cardano too, 7 Aph. 69, says that Mercury makes deadly winds. Nor does Haly disagree, cap. 26, part. 8, where he says that Mercury in the air signifies variability, and makes many heavy and harmful winds.

[Margin: The course of Mercury through all the domiciles.]

Placed in the first house, it favours boys, so that nothing easily harms them, and it gives them cheerfulness and aptitude for taking up the arts and sciences. In the 2nd, fortunate, it marks gains for merchants and deserved rewards for those who labour; masters and servants will also be faithful to one another. But unfortunate, it signifies poverty; no wage will be given to those who labour, and many will seek gains unjustly. In the 3rd it stirs up among men the study of the laws, and there will be frequent disputation about the science of the laws. In the 4th it announces prison for scribes and for the prefects of the treasury — from which they will nevertheless soon be freed if ☿ *is in a movable sign, but slowly if it stays in a fixed one. And if, besides,* ♂ *aspects the place of* ☿*, they will also be afflicted with tortures; indeed, they will be punished with death outright. In the 5th, fortunate, it will help pregnant women with an easy birth, and they will bring forth children of subtle intellect. Unfortunate, it will harm pregnant women, so that they either miscarry or do not come to term. In the 6th it threatens infants with infirmities according to the nature and condition of the sign. In the 7th it designates illicit intercourse with boys, and aversion to women. In the 8th it takes many infants out of life. In the 9th it favours journeys and expeditions, and stirs up love for the study of the laws and of the other sciences. In the 10th it raises scribes and learned men to honours, prefectures and the public offices of cities, and they will administer their offices lawfully and for the public good, if a benefic has aspected that place; otherwise, and treacherously, if an unfortunate star has. In the 11th it signifies a convenient and useful friendship, in which each will strive to do good to the other. In the 12th, dissensions, brawls and hostile hatreds, above all among fellow-servants. Haly, part. 8, cap. 7,* De judiciis astrorum.

[Margin: The Moon lady of the year.]

7 ☽ every month mixes and tempers the nature and quality of the air from its conjunction with the Sun, just as the Sun too does the same in the quarters of the year: Pitatus, from Leupold. In the first quarter of the lunation, however, it is of itself hot and moist; in the second, hot and dry; in the third, cold and dry; in the fourth, cold and moist: Leupold, cap. 1, tract. 6; Albumasar, cap. 5, libr. 4. See also above, at the end of cap. 1 of the preceding member. But if in the revolution of the year ♀, ☿ and ☽ are in moist signs, rains will abound: Leupold, cap. 2, tract. 6. If the Moon aspects Venus and Mercury, and both are oriental at the beginning of the year, there will be many rains; if they are occidental, the contrary: Leupold, in the same place.

[Margin: The course of the Moon through the individual houses.]

Haly too teaches, cap. 7, part 8, that the Moon, as lady of the year, fortunate in the ascendant, signifies a year healthful for human bodies and for the things by which bodies are preserved. Unfortunate, the contrary. In the 2nd, fortunate, gains and an abundance of wealth; unfortunate, loss and want. In the 3rd, enjoyment in journeys and in company with kinsmen and friends. In the 4th, unfortunate, anxiety, oppression and sieges. In the 5th, fortune and joy from children. In the 6th, a religious life for the people, estranged from vices. In the 7th, fortune from women. In the 8th, a multitude of the dying, and, in the domicile of Mars, through slaughter. In the 9th, frequent journeys by sea and land. In the 11th[?], fortune abounding everywhere. In the 12th, brawls, quarrels and many dissensions.

It should be noted at this point, however, that if some one of the planets does not hold the dominion alone, —but has one or more joined with it, the significations must be mixed according to the nature and strength of the planets, as we also advised in the preceding chapter.

[Margin: When there are several lords of the year, let their significations be mixed.]

[Margin: Example.]

In our example, therefore, since the presiding planets of the year are Mars as principal, with ♃ and ☿ joined to it, a hotter constitution of the year is signified, by which both the cold of winter is softened and the heat of summer is intensified — especially since it is ascending not only on the epicycle but also on the eccentric, and is brought to the apogee of the epicycle on July 25 of the new style, but the 15th of the old; and to that of the eccentric on September 11 of the Julian year, but the 21st of the Lilian. Although, therefore, the dryness too is intensified by reason of the ascent — especially since ♂ is in ♉, an earthy, melancholic sign, and Jupiter brings dryness, as the parent of fair weather — nevertheless, because ♉ is the house of Venus and belongs to the Moon by reason of her exaltation, and Jupiter too stays for the most part in ♓, a watery sign, copious rains are portended at times, above all when ☿, the other partner in the dominion, aspects Mars by sextile ⚹ from ♓. Winds too will be frequent, and violent ones, which will shake trees and buildings, especially in the places that belong to ♉ and ♓, in which the principal significators of the year are. And because ♂ is in the 6th house in the chart of the revolution, frequent diseases are signified, and also the death of the smaller animals; nor will calves of either sex be reared successfully, because ♂ is in ♉, on account of the epidemic diseases that will infest them above all — although ♃ in the sign ♈ mitigates the evil in some measure. Mercury too, in the third, in its detriment and fall, denies men aptitude for the study and exercise of the laws, especially since it is joined to ☋ in a watery sign, which is otherwise hostile to meditation — even though ♃, concurring in its own house and in the exaltation of ♀, promotes the exercise of the laws and of justice. For Mars corrupts the faculty of reasoning and the interpretation of the laws.

[Margin: On the temperament of each of the four quarters of the year.]

Next, it also belongs to the general judgement that, besides the natural qualities of the quarters of the year, we should consider the position of the stars in each quarter of the year; for from this a surer prognostication of the temperature of the whole year

is drawn. The proper temperament of each quarter of the year depends chiefly on the Sun's approach to our zenith, by which heat is brought into the air, and on its withdrawal, by which cold is brought in; and on the natural qualities of the signs of the zodiac through which the Sun passes, and of the fixed stars with which it is joined and with which it rises or sets. And as a rule it is as follows in the individual quarters of the year.

[Margin: Spring]

The season of the spring quarter is hot and moist, suited to the sanguine temperament and to the age of boyhood. For then the Sun, having passed the intersection of the zodiac and the equator, comes nearer the zenith and approaches stars that are hotter by nature. The first winds to blow are also drier ones, such as the Subsolanus, which blows from the sunrise, and by them superfluous humours are consumed; seeds are fittingly entrusted to the earth, the earth is stirred to generation, the trees put out buds, flowers and leaves, and the earth is clothed with grass and herbs. But because the newly sprung crops need watering, the Pleiades rise in the morning with the Sun in ♉, the Hyades toward the north, the Kids toward the south, and at length Orion; and in the evening, as the Sun sets, Arcturus — stormy and moist stars, which stir up rains and moist winds. At that season, therefore, the southern winds blow, such as the Auster, and the western, such as the Favonius, by which a fertile temperament is produced in the air. Finally, in ♊ the Sun rouses a temperate heat, suited to the growing and swelling fruits.

[Margin: Summer]

The summer season is hot and dry, corresponding to the choleric complexion and to the age of youth. At its beginning the Sun, carried to the summer tropic, has its greatest altitude above our horizon; the grasses grow up into stalks and —form the beginnings of the grains. But since the blossoms of the trees have passed into fruit, and the things springing from the earth are tending toward their proper size, the fixed stars in ♋ rise — the Praesepe, the Aselli and others that have the power of moistening — and these, stirred by the approach of ☉[?], call forth rains to promote the growth of the crops. Then, when the things springing from the earth have reached their proper growth and heat is needed for ripening, the Sun comes to the hot sign ♌, and Syrius and Procyon, hot stars, rise. Great heat is therefore aroused, and to temper it the Etesian winds blow in the daytime. Afterwards, when the Sun has been brought on to ♍, an earthy sign, the same heat is gradually mitigated, and the morning rising of Arcturus toward the end of summer brings rains once more.

[Margin: Autumn]

The qualities of autumn are cold and dryness, which suit the melancholic complexion and declining age. For as the Sun sinks below the equator toward the south, and as summer ends, the heat abates. And although fertile rains fall, so that the grapes may draw in a more abundant juice and the winter sowing may be more convenient — a constitution of the air that the morning settings of the Pleiades, the Hyades and Orion bring on — nevertheless, so that the cold,

coming on suddenly, may not harm the seeds and the winter crop, the heat left in the air, which is also stimulated somewhat while the Sun is in ♐, a fiery and hot sign, draws out the remainder of the harmful moisture, and cherishes and fortifies the earth for the coming winter, once the roots of the seeds have first been made firm.

[Margin: Winter]

Winter, finally, is cold and moist, suited to the phlegmatic temperament and to decrepit age, in which many superfluous humours are also collected. At this season of the year, when ☉ has been brought to the winter tropic, the earth in our northern regions rests, so that it may in some way gather again the strength exhausted in summer. Hence winter mostly binds the earth, covers it with snow as with a garment and warms it, or refreshes it with copious rains. For snow and frost are wholesome to the crops and produce fertility. Afterwards, with its last part, at the end of ♒ and ♓, it unlocks the earth with the new blasts of Favonius and prepares it for the spring season.

And this is the general and proper temperament of the individual quarters of the year, as it was established by Johannes Stöffler [Ioanne Stefflero], Albumasar, Pe[?]cero and other astrologers from long experience and sound reasons. This must certainly always be considered in annual prognostications and in μετεωρολογία…[?] [Greek: meteorology, the study of the weather]*, so that we do not predict flowers in winter, ice in summer.*

As to the position of the stars in the individual quarters of the year, certain rules are found here and there in the authors, and they must be considered here. Of these, the general ones are these seven.

1. Whenever ☉, entering an equinoctial or a tropical sign, at once reaches a star of hot nature, such as ♂ or ♃, or the more notable fixed stars of the nature of ♂ or ♃, or else is joined to them by aspect, then a hotter constitution is signified for that quarter of the year. But if it approaches a star of cold nature, such as ♄ or ☿, or fixed stars of their nature, a colder state of the air is signified. Johannes Stöffler [Steffl.] in his *Ephemerides*.

[Margin: Rules on the position of the planets in the individual quarters of the year.]

2. The other planets too affect the quarter of the year according to their quality: thus in spring ♃ and ♂ in conjunction signify that the weather will be dry and hot, whereas otherwise it is moist in temperature; in summer, a most burning Sun; in autumn, a spring-like constitution; in winter, a milder and weaker cold.
3. The three superior planets in the northern signs indicate that the air too will be warmer —in that quarter of the year in which they are found so placed. In the southern signs, however, they signify the contrary.
4. ♄ placed in its own domicile ♑ or ♒ in the winter figure portends an intense and unusual cold; in the summer figure, a milder heat. In spring it increases the dryness and moderates the warmth. In autumn too it

increases the dryness and intensifies the cold. ♄ joined to Mercury does the same.

5. Any planets and stars whatever, if they are endowed with contrary and conflicting qualities and are joined either by body or by aspect, produce a tempering and a kind of mixture in the air, so that a mean results from it: for instance, if Saturn and Mars are in conjunction.
6. When ♂ and ☿ are joined and strike the Moon or the lord of the ascendant standing in the 6th or 7th place, they declare an immoderate dryness. 7 *Aph.* 163, Cardano [Card.]
7. When the Sun enters a tropical sign, if Venus then aspects the Moon from a moist sign while the Moon too is placed in a moist sign, there will be many rains. But if the Moon is then not in a moist sign, but only Venus, a pleasant temperature follows. Pitati [Pitat.], p. 34, from Leupold, tract. 6, chap. 2.

[Margin: Special rules on the individual quarters of the year.]

The special rules on the individual quarters, then, are these, from Leupold, tract. 6, chapter 2.

[Margin: On spring]

On spring. *1. In the conjunction or ☍ of the luminaries that precedes the revolution of the year, if ♂ aspects the place of the luminaries, there will be lightning, thunder and fiery torches. 2. Planets combust in spring bring mists. Pitati [Pitat.], from Leupold. 3. Retrogradations of ♀ in spring, while the Sun is in Aries or Taurus, make[?] the spring rainy. 4. ♄, as lord of the spring, produces a remarkably cold spring, yet not a dry one but slightly moist and slightly windy, though not altogether without winds. Cardano, on text 59, book 2 of Ptolemy's Quadr.*

[Margin: On summer.]

On summer. *1. In the summer quarter, if the five planets are direct, the summer will be fair on account of their cooling, not too hot. If they are retrograde, it will be intensely hot; for retrograde planets heat and direct ones cool. Leupold, in the same place. Against this Cardano, in the book de mutat. aeris, proposes aphorisms of this kind: Planets swift in motion increase the heat. Stationary ones, if hot, make the heat oppressive; if cold, the cold; the moist increase the rains; the dry dry things out. All retrograde planets cool, or heat less, except Jupiter opposite the Sun. 2. Planets combust in the summer quarter produce heat and a great deal of thunder. Leupold, tract. 6, chap. 2. 3. The Sun in the term of ♂ increases the heat in summer; but in winter and spring, dryness and a scarcity of rains. Leupold, in the same place, from the Centiloquium of Hermes, 35. 4. ♄, as lord of the summer, makes the summer not indeed cold, but temperate, immoderately dry, and wholly calm. Cardano, in the earlier place.*

[Margin: On autumn.]

On autumn. *1. Planets combust in the autumn quarter produce cold and moisture. 2. In autumn, if all the planets are retrograde and become direct in winter, there will be the greatest dryness in every clime. Leupold [Leup.] 3. When ☉ enters 18° [?], if ♀ is then in a watery sign, there will be rains to the point of flooding. The same [author].*

[Margin: On winter.]

On winter. *1. Planets combust in the winter quarter produce clouds and southern winds. 2.* ♀*, direct and oriental, while* ☉ *is in* ♑, ♒ *and* ♓*, gives few rains at the beginning of winter, many at the end, unless another star nearer to the Sun or more akin to it intervenes. The contrary happens if it is retrograde: there at the end it bestows few, and at the beginning abundant ones. Haly, chap. 4, part 1, puts this aphorism otherwise. For he lays down simply that when Venus goes retrograde and the Sun is in the winter signs, the winter of that year is moist and rainy. He holds the same too if she recedes while the Sun is in the spring signs. For the state of* ♀ *with the state of* ☉*, he says, is like the state of a woman toward a man; and because she then casts out moisture,* ♀ *is also the significatrix of showers and rains.*

3. If at the beginning or the end of winter ♄ *rules the Moon and the figure of the heaven, unusual frosts occur in that season, and in these expect snows. 7 Aph. 35, Cardano [Card.] 4. If to the Sun, as it proceeds from* ♑ *into* ♈*, one single retrograde planet is joined, there will be dryness; if two, a fitting moisture; if three, an excessive moisture; if 4, there will be a flood. Pitati [Pitat.] in Eph., p. 34, from Leupold. With the superior planets, however, this is to be understood only of aspect. For although the superior planets come to the Sun, they are never joined with it while retrograde.*

[Margin: Astrologers ought to be cautious in predicting excessive extremes.]

It should also be noted in this place that astrologers are accustomed to predict prodigious rains from a meeting of the planets in moist signs, yet often to the great discredit of astrology. So, in the year 1524, Johannes Stöffler [Ioannes Stefflerus] — otherwise a great man, but without knowledge of natural philosophy — predicted, as Cardano [Card.] 7 Aph. 34 records, an almost universal flood from the great conjunction of nearly all the planets in ♓ that then preceded the vernal equinox. Fearing this, very many people fled to the mountains, although at that time there was the most complete and most welcome fair weather, because ☽ was in a dry sign and because of the configuration of the planets with the more notable stars of the back and leg of Pegasus, which are of the nature of ♂; in this configuration ♃ too, together with Mars, proved stronger than Saturn. And the figure of the heaven then, from which he predicted the flood, at the time of the full moon, on February 19, 0^{h} 25^{m} P.M., of the year 1524, was of this kind, according to the equal method:

[Margin: Example of the year 1524.]

Diagram. A square horoscope figure.

- Centre (title): "Chart of the full moon that preceded the vernal equinox in the year 1524. February, day 19; hour 0, 25′ P.M. Heart of Heaven 17° ♓. For the latitude of the place, 45°."
- Top centre: ♈ 12
- Upper left, beside the top: ♉ 12
- Upper left, beside the left side: ♊ 12
- Left centre: ♋ 12
- Lower left, beside the left side: ♌ 12; ♌ 28 18; ☽ 10 4
- Lower left, beside the bottom: ♍ 12

- Bottom centre: ♎ 12
- Lower right, beside the bottom: ♏ 12
- Lower right, beside the right side: ♐ 12
- Right centre: ♒ 12
- Upper right, beside the right side: ☉ 15 4 ♓; ☊ 28 18; ♒ 12
- Upper right, beside the top: [?] 12 13; ☿ 12 26; ♃ 14 16; ♂ 21 33; ♀ 22 48; and a six-armed star sort [?] with 12

Although this configuration was followed by the peasants' uprising — which some think was signified by this meeting, since the Moon signifies peasants and common people, and in the Mercurial sign ♍ and the Jovial ♓ it signifies religion, so that the war that broke out raged against the peasants and carried off some thousands of them — we nevertheless rightly refer that war not simply to the stars but to other, nearer and more pressing causes, which the historians of those times record. Girolamo Cardano [Cardan.], however, relates that this meeting announced a savage plague to the people of Milan, which killed many; for the Moon, lady of the ascendant, stood in opposition to the ☉, which was with ♄ and an afflicted ☿ in the watery trigon of the ascendant, and both the Moon and the ascendant ♋, under which Milan is placed, were badly afflicted.

[Margin: Example of the year 1583.] [?]

Much the same happened in the year 1583, when almost the same great ☌ preceded the vernal equinox, on February 26 at 11^{h} before noon. Its figure is this:

Diagram. A square horoscope figure.

- Centre (title): "Configuration of the heaven at the full moon that preceded the vernal equinox in the year 1583. Day 25, hour 23 P.M. For the latitude of the place, 51°."
- Top centre: ☿ 26 40; ♀ 16 55; ☉ 16 52; ☊[?] 14 7; [?] 7 40
- Upper left, beside the top: ♈ 4
- Upper left, beside the left side: ♉ 28; ♃ 26 36
- Left centre: ♋ 5; ♂ 10 52
- Lower left, beside the left side: ♋ [numeral: ?]6
- Lower left, beside the bottom: ♌ 12
- Bottom centre: ☽ 16 52; ♍ [numeral: ?]
- Lower right, beside the bottom: ♎ [?]
- Lower right, beside the right side: ☊ 26 36; ♏ 28
- Right centre: ♒ 5
- Upper right, beside the right side: ♒ 26
- Upper right, beside the top: ♓ 1; ♒ 12

In that year, moreover, there was in spring the greatest and most welcome fair weather and dryness, so that the trees blossomed most happily, and the whole year was found to lean toward dryness.

Hence, although some of the astrologers — above all Caspar Peucer [Peucerus], in his book on divination, toward the end of the treatise on astrology — seem not without reason to advise that in erecting figures the signs

of the zodiac should be reduced to the asterisms, and that it is from the starred signs rather than from the dodecatemoria that judgement is to be sought. Yet if I am to say what I think, I judge that reduction to be unsuitable. For, as is plain from the doctrine of the principles set out above, the distribution of the signs according to the planets' domiciles, exaltations, trigons, terms and so on depends on the Sun's annual motion through the zodiac, which we reckon from the vernal intersection, and on the natural property, motion and order of the Moon and the other planets; and it has a foundation entirely different from the images and configuration of the fixed stars — stars and images which, as we have advised elsewhere, must also be given particular consideration in judgement. Who, then, does not see that the reduction of the signs to the asterisms is erroneous, especially since the asterisms are of unequal size, whereas the signs are of equal size? The planets, however, I hold, may rightly be reduced — mentally, that is — so that it may be seen among which stars they are moving, and so that the judgement may be shaped by the nature of the stars attending the planets, without neglecting the dodecatemoria.

[Margin: Those who reduce the charts of the heaven to the asterisms act against the principles and foundations of astrology.]

[Margin: Example of the year 1607.]

In the year 1607, which we have taken up, Mars, lord of the spring quarter, hastens the spring constitution of the air and intensifies it in heat, even though ♄ *in its own domicile* ♒*, though otherwise weak in the three spring figures, may seem to resist. The* ✶ *of* ♄ *and* ♃ *from their own signs promises a pleasant temperateness. A drier temperature, however, than the nature of spring brings is signified, since* ♂ *in* ♉*, an earthy sign, and* ♄ *in* ♒ *regard each other in platic trine. Nor will fairly strong west winds be lacking, because of Mercury's exact sextile to Mars in the preventional chart, especially since Mercury is also swift in motion; east winds, however, will sometimes oppose them. The Moon, lady of the summer, with* ♃ *and* ♀ *promises a suitable summer, in which the heat will indeed be excessive for the nature of the quarter, with Jupiter too in Aries, the house of* ♂*, and since it regards Mars with a* □ *ray; yet the heat will be found mixed with sufficient moisture, with showers and rains. Mixed fiery meteors too, such as flashes, lightning, thunder and thunderbolts, will be frequent, because of the same configuration of Mars and Jupiter, and because they receive each other from the signs of their exaltation, which are nevertheless of contrary nature. And although* ♄*, in its own domicile, in opposition to the* ☉ *and* ♂ *and in* □ *to Jupiter, strives to do harm with cold, and will bring some cold days on which hail will fall, it will nevertheless do harm in only a few places, since it is very weak and moreover retrograde through the summer. Winds will be rather rare; and if there are any, they will be found to be mostly westerly, veering sometimes to the north and sometimes to the south, because of Jupiter in* ♈ *and Venus in* ♋*; easterly winds will oppose them more rarely.* ♄*, the ruler of autumn, threatens a colder constitution of the air, by which winter is brought on before its time — especially since it also strikes the Sun with a* □ *ray from its own house, and in the chart of the* ☉*'s ingress into* ♎ *holds the mid-heaven, but in the postventional chart the horoscope. Nor can the trine of Mars to*

♄ *mitigate much, since Mars is weak and in the dejected places of the heaven.* ♀*, from a* ✶ *from* ♏ *into* ♍*, tempers Saturn's aridity with rains, especially as it is western, swift in course and quite strong. Hence* ♄ *in* ♍ *also brings drying east winds, veering somewhat to the south, more frequent and indeed vehement; but* ♀ *in* ♏ *indicates westerly and southerly winds, and gentler ones, though rarer. The lord of the winter season,* ♂*, in its own house, was bound to temper the cold somewhat and to denote a milder constitution of the air than the nature of the quarter requires, above all since the partile* ✶ *of the* ☉ *also supports it, and the* □ *ray of* ♃ *to the Sun, from the sign of the exaltation of* ♂*. But the cold is increased, first, by* ♄ *joined partilely to Mercury, which, being in Saturn's own sign* ♍*, takes on the nature of Saturn and promotes a cold constitution of the air; toward them the Sun also moves down; and then by the cold signs, watery and earthy, which occupy the angular houses at the time of the Sun's ingress into* ♍*.*

Not only the position of Mars in ♏ *but also a retrograde* ♀*, moving among the turbulent stars of* ♏*, indicates a moister winter too, abounding in snow.* ♂*, the lord, in* ♏ *points to an abundance of west winds, which Mercury's* ✶ *to* ♂ *increases, although* ♄ *and* ☿*, because of their position in* ♍*, sometimes try to mix in east and south winds.*

Caput IV. De Lunationum judicio speciali.

Chapter IV. On the Special Judgement of Lunations.

The method of teaching now brings us to the point where, the qualities and temperatures of the four quarters of the year being known, we should show how the individual lunations are to be treated and weighed in a special, and so more exact, examination of the weather. For this purpose not only the new moons are employed, but also the full moons and the two quarters. For it is true that Ptolemy, in aphorism 62 of his Centiloquium, affirms: "He can judge the change of the air in any month who makes the minute of the conjunction his starting point and establishes the judgement according to the ruler of the angle; since this one overcomes the nature of the air, the quality of the present season also being taken into account." *By these words he implies that, since the Moon is the lady of the month and stirs the air according to its own disposition, the astrologer can rightly predict the quality of the whole month only if he examines the Moon's motion, and the configuration of the heaven at the time when she is joined with the Sun, properly and skilfully. Cardano [Card.] 2 Aph. 166 too gives this very advice in these words:* "The lord of the interlunium has great power over the quality of the air, and so has the one that regards the luminaries, then above all if it is in the angles." *Yet, since daily experience teaches that entire lunations are not of the same nature — that they do not bring exactly the same weather, but vary it according to the condition of the quarters of the synodic lunar month, Ptolemy himself, too, in chapter 12, or text 62, of book 2 of the Quadripartitum, commends the full moons to us together with the interlunia in the monthly considerations; indeed, if the full moons immediately precede the ingress of the* ☉ *into the cardinal signs, he prefers them to the new moons, and directs that through the whole quarter of the year they be observed in preference*

to the new moons. And in the following text, 63, he would have the intermediate syzygies of the interlunia and full moons, that is, the quarters, also weighed in a finer prognostication. Nor do the rest of the astrologers dissent on this point, as Pontano does not either, in his commentary on the aphorism of Ptolemy cited above. For who would be of such an opinion as not to judge that each of these must be carefully considered separately?

[Margin: Requirements for the judgements of lunations.]

[Margin: In the judgement of lunations, the positions of the interlunium, the full moon and the two quarters must be considered.]

The way of making a special weather prognostication, then, is everywhere prescribed to us as follows.

First, a figure of the heaven is to be set up for the time of the syzygy noted in the ephemeris, made apparent and, if necessary, reduced to the place in question. *Next*, the lord is to be chosen according to the precepts of the preceding 2 chapters; and where the choice is doubtful, preference goes to the one that excels and stands out in dignity either in the place of the luminary that is above the earth, as some would have it, or in that of the Moon, as Ptolemy holds, or in one of the angles, especially the one that follows the Moon. For a ruler that is cardinal intensifies what it signifies more strongly, according to aphorism 34 of Ptolemy's Centiloquium. *Third*, the qualities of this lord and of its sign, and of the sign the Moon occupies, are to be weighed, and likewise the operation of the asterisms in stirring up

[Margin: First, then, let a chart be erected for one of them. Then let the lord be chosen.]

[Margin: 3. Let the qualities of the lord be weighed.]

the weather. *Fourth*, the position of the lord of the syzygy in the figure, and its latitude and that of the Moon: since they move the winds, which chiefly govern the weather, from that quarter. *Fifth*, let the aspects be considered: first those of the planets among themselves, without the Moon, or with the lord of the figure; then those of the ☽ to the planets. For when the Moon comes to the rays of the lord of the figure, or of the angular planets, it displays above all the signification of that planet. *Sixth*, let the risings, settings and culminations of the fixed stars that coincide with each day be observed. For according to Cardano [Card.] 7 Aph. 71 one must observe the risings and settings of the brighter stars, since it can hardly happen that drought and diseases do not prevail at the rising of the Dog Star, and rains at the setting of Arcturus. And unless the risings and settings of the fixed stars had some effect, rains would not come at one time more than at another. For the concourse of the planets is uncertain, 7 Aph. 72. *Seventh*, let the transits of the planets through the stormy fixed stars be examined — the Hyades, the Pleiades, the Aselli, etc. — but above all those of the ☽, ♀, ♂ and ☿. *Eighth*, let the season of the year be weighed, so that we predict what agrees with its quarters and is customary: hail, that is, in April and October, snows in winter, thunder in summer. *Ninth*, let experience and observation be consulted for the horizon in question. For, as Cardano

[Card.] 7 Aph. 29 advises, we must know the sky of the region, and at what season of the year it is stormy, and also which sign the region best suits, if we wish to attain the truth in judging. *Tenth*, let eclipses, comets and other general configurations also be observed, which sometimes temper the special ones. Nor, finally, let the rule of Eudoxus be wholly neglected, which Pliny relates near the end of c. 47 of book 2 of the Natural History: that the same alternations return when a four-year period is complete — not only of the winds but also of the rest of the weather, for the most part. For although that rule rests on this foundation alone — that when a four-year period is complete, after the intercalation of a day, the civil year agrees almost exactly with the astronomical year as to the time and the rising, setting and culmination of the fixed stars with the Sun, while the motion of the ☽ and of the remaining planets is meanwhile very different — yet since the force of the Sun and of the stars in moving the weather is the greatest, and the Moon, when a four-year period is complete, stands not far from the opposite of its earlier place, nearly the same weather seems to return. The mansions of the ☽, however, which many astrologers follow far too boldly out of the commentaries of the Arabs, we do not heed, on the sound judgement of the most approved authors. For Cardano [Card.] 7 Aph. 57 also advises: "Do not look at the mansions of the Moon." For the Moon's force is from its own place, from its place in the zodiac, from the light, from the planets and the fixed stars.

[Margin: 4. The position in the figure.]

[Margin: 5. The aspects to the lord and the Moon.]

[Margin: 6. The risings and settings of the fixed stars.]

[Margin: 7. By the transit of the planets.]

[Margin: 8. The season of the year.]

[Margin: 9. Let experience be consulted.]

[Margin: 10. Let meteors also be taken into account.]

[Margin: On the rule of Eudoxus.]

As an example, we shall examine the ecliptic full moon that will be observed on 1607 August 27, at about $3^h\ 41^m$ *before noon, in the morning, and we shall track down what kind of weather will follow it. Now in chap. 2 of this member, above, we established Jupiter as the lord of this full moon; he is in the fiery sign* ♈ *with stars of* ♓ *at the beginning of the 9th house, while the Moon, in* ♓ *with stars of* ♒*, stands at the beginning of the eighth. And* ♃*, with the Moon, has a southern descending latitude.* ♃ *also regards Mercury by an opposite ray, and Saturn by a platic* □*;* ♄*, for his part, regards the Sun by a* △ *and the Moon by a* ✶*. Regulus, moreover, is rising, and there are no planets with stormy fixed stars. Finally, it is still summer, which is hot and dry by nature.*

In order, then, that — the efficient causes or objects to which one must look in judging having now been set out — it may be known what kind of change of the air is to be expected, not only at this configuration but in general at any other, we shall briefly note here the nature both of the signs and of the asterisms, afterwards of the

planets, and the most reasonable aphorisms that the astrologers have collected here and there from their varied disposition.

As regards, then, the nature of the signs, which is taken from the trigons, it is established from the Introduction of Stöffler to his Ephemerides, under the title "On the change of the air", that the *fiery signs* ♈, ♌ and ♐, when they have predominance in an eclipse or in any other notable configuration — above all a ☌, ☍ or □ of the luminaries — signify in summertime great heat and intense burning, and in winter a tempering of the air and some remission of the cold. The *earthy signs* ♉ ♍ and ♑, by contrast, naturally signify cold — more intense in winter, while in summer a milder heat, or a tempering of the burning heat. The *watery* ♋ ♏ and ♓ make rains, and a tempering of the heat and burning in summer; in spring and autumn, sometimes hail. The *airy* ♊ ♎ and ♒ denote a temperate air, above all if ♃ and ♀ occupy them, but frequent winds if ☿ holds them.

[Margin: On the nature and effects of the signs.]

Next, as regards the images or asterisms of the signs, which the fixed stars make, Cardano, 7 Aph. 73, teaches in general the following: that ♓, ♈ and half of ♉ move winds; the rest of ♉ and whatever belongs to ♊ make a sweetness of the air and sudden showers — ♊, however, are also authors of winds, 7 Aph. 61. But ♋ and ♌ stir up great heat and hail; ♍ abates heat and supplies showers; ♎ and ♏ give an unevenness of the air; ♐ snows and showers, ♑ cold; Aquarius, with the beginning of ♒, increases the waters.

[Margin: On the operation of the asterisms in stirring up the weather.]

But chap. 26 of the *Suppl. Alman.* sets out the nature of the asterisms more accurately and distinctly, from Ptolemy [Ptol.] book 2 chap. 11 of the *Quadripartitum*; and Stadius also explains it in the Catalogue of the general and particular qualities τῶν ἀστερισμῶν [Greek: tōn asterismōn, "of the asterisms"] appended at the end of the *Tabulae Bergenses*, where one reads roughly the following:

[Margin: ♈]

The first parts of Aries, *beginning at 28° ♈ and ending at 4° ♉, move rains and winds, on account of Martial and Saturnine stars, which some Mercurial ones also attend; the rains and winds, however, are less than in the age of Ptolemy. For the Sun, passing through the horns and the neck of ♈, heats more and purifies the air more than in that age, when the stars of ♈ had also advanced farther to the north; hence milder winds are generated.* The middle parts, *from 4 to 10° ♉, are temperate, inclining somewhat to dryness and heat on account of the Martial stars in the hind foot, the loins and the hock of ♈, to which some Saturnine ones toward the south in Cetus, and Saturnine and Venereal ones in Cassiopeia toward the north, are joined.* The last parts, *from 10 to about 17° ♉, are sultry, and more so than in Ptolemy's age, but less pestilent. There are also* northern *stars in ♈, such as* the Horns *and* the Neck, *of the nature of ♄ ♂ and ☿; likewise Mercurial ones of the Triangle, sweltering and harmful.* The southern ones, *on account of the Saturnine stars of Cetus, are icy and rather cold.*

[Margin: ♉]

The first parts of Taurus, *from 17° ♉ to 27, in which space the Pleiades appear to be of the nature of ♂ and ☽, are turbulent, windy and cloudy, yet less than in the age of Ptolemy.* The middle parts, *from 27° ♉ to the beginning of ♊, are somewhat moist and temperate in heat, on account of the Saturnine and Jovial stars of Perseus.* The last parts, *from the beginning of ♊ up to 25°, in which stand the Hyades and the horns of ♉, of the nature of ♂ — and likewise the shield, the foot and the left shoulder of Orion, of the nature of ♃ and ♄ and ♂ and ☿ — are thunderous, fiery and full of lightning, more than formerly. Further, the* northern space *has a temperate climate, since it consists of the temperate Saturnine and Jovial stars of Perseus.* The southern *is unstable and uncertain, on account of the Martial stars of ♉, with which Mercurial and Saturnine ones, and ones bearing the nature of ☽ and ♂, are mixed.*

[Margin: ♊]

The first parts of Gemini, *from 26 ♊ to 6° ♋, are somewhat moist and harmful, in this age too.* The middle parts, *from 6° to 14 ♋, containing Saturnine stars in the arms and knees of ♊, are temperate, yet drier than formerly:* the later parts, *from 14 to 24° ♋, are mixed and uncertain, inclining to dryness, on account of certain Saturnine stars, certain Martial and Mercurial ones, as is the preceding Head of ♊, and certain Martial ones only, as is the following Head of ♊.* The northern *part moves winds and shakes the earth.* The southern *produces aridity and heat.*

[Margin: ♋]

The first parts of Cancer, *from 24° ♋ to 1 ♌, having near the feet and the Manger stars partly Martial and Mercurial, partly of ♂ and ☽, shake the earth and pour out murk.* The middle parts, *from 1° to 7 ♌, in which are the Aselli, of the nature of ♂ and ☉, were indeed temperate formerly; now they are drier and hotter.* The last parts, *from 7 to about 13° ♌, having Saturnine and Martial stars, were windy formerly, now less so; they are, however, very dry. Moreover,* both the northern and the southern *parts are harmful and sultry.*

[Margin: ♌]

The first parts of Leo, *from 13° to about 24 ♌, where Regulus is, filled with stars partly Saturnine and Martial, partly Saturnine and Venereal, partly Martial and Jovial, are stifling and pestilent, as formerly.* The middle parts, *from 24° to 4 ♍, adorned with Saturnine and Venereal stars, and likewise with Venereal and Mercurial ones, are temperate, inclining slightly to moisture.* The last parts, *up to 17° ♍, in which the Tail of ♌, a Saturnine and Venereal star, is also contained, are temperate, moderately hot and moderately moist, although formerly they were dry and harmful. Further, the* northern part *is fiery and unstable, on account of the neighbouring Martial stars in the Great Bear.* The southern *is moist, on account of the Saturnine and Venereal stars of the Water-serpent.*

[Margin: ♍]

The beginning of Virgo, *from 17° ♍ to the end, on account of Mercurial and Martial stars in the wings, is rather warm and harmful, yet less than formerly.* The middle, *from the beginning of ♎ to 18°, containing Mercurial and Venereal stars in the left wing and the leg, is temperate.* The end, *however, from 18° ♎ to 8 ♏,*

in which stands Spica ♍, *a Venereal and Martial star, and other stars in the train, Mercurial and Martial, is watery, more than formerly.* The northern *part is windy, on account of the Mercurial stars. The southern, however, is temperate, on account of the Saturnine and Jovial stars.*

[Margin: ♎]

The first parts of Libra, *from 8° to 15* ♏, *containing Saturnine stars that share with Martial ones in the southern scale and in the serpent of Ophiuchus, are temperate, yet drier than formerly.* The middle parts, *from 15 to 19°* ♏, *are also temperate.* The last parts, *to 26°* ♏, *are watery.* The northern part *is windy, on account of the stars of* ♄ *and* ☿. The southern, *dry and pestilent.*

[Margin: ♏]

The first parts of Scorpio, *from 26°* ♏ *to 6* ♐, *filled with Martial stars that share with Saturn or Jupiter, such as Antares at 4°* ♐, *produce snows, and indeed more than formerly.* The middle parts, *to 16* ♐, *where the stars of Ophiuchus are, Saturnine and Venereal, are temperate, but moister than formerly.* The last parts, *to about 26°* ♐, *are turbulent on account of Mercurial and Martial stars.* The northern parts *are hot;* the southern make moist.

[Margin: ♐]

The first part of Sagittarius, *from 26°* ♐ *to 6* ♑, *is moist and colder than formerly. The middle, to 16* ♑, *is temperate, inclining to cold, on account of the stars of* ♐ *of the nature of* ♃ *and* ♂. The last, *to 28* ♑, *is fiery.* The northern part *is windy.* The southern, *moist and inconstant.*

[Margin: ♑]

The first parts of Capricorn, *from 28°* ♑ *to 7* ♒, *on account of Venereal stars sharing with* ♂, *are sweltering and do harm.* The middle parts, *to 15* ♒, *are more temperate.* The last parts, *however, to 21°* ♒, *are observed to be rainy. Moreover,* both the northern and the southern *part is moist and harmful.*

[Margin: ♒]

The beginning of Aquarius, *from 21* ♒ *to its end, is moist.* The middle, *to 8°* ♓, *is temperate, on account of Saturnine and Jovial stars.* The end, *to 15°* ♓, *windy.* The northern parts, *however, are hot:* the southern *are snowy.*

[Margin: ♓]

The first parts of Pisces, *from 15°* ♓ *all the way to the end, were indeed temperate formerly; now they are colder.* The middle parts, *from the beginning of* ♈ *to 15°, are moist, and more so than formerly.* The later parts, *up to 28°* ♈, *were formerly sultry, thickening and darkening the air, and so they are now too, but a little less.* The northern part *is windy:* the southern, *watery.*

[Margin: On the nature of the planets.]

So much for the signs; it remains for us to consider the nature of the planets in the same way.

[Margin: ♄]

Saturn, then, since he is far colder than he is dry (especially when he is oriental, as was shown above in the first chapter of the principles of the preceding member, and Cardano teaches the same, 7 Aph. 47), produces clouds and cold

in the air, most of all, however, in the earthy signs. Placed also in the angle of the mid-heaven, in some dignity of his own, in the season of heat he lessens the heat, but in the season of cold he brings great cold. Remote from the angles, he cannot change the air much: Haly, part 8, chap. 26, and from him Pitati [Pitat.], in the treatise *De mutatione aeris*. When ♄ passes from one sign into another, fiery signs appear in the sky for several days: Hermes, *Centiloquium* 33, and from there Cardano, 7 Aph. 40. In general ♄ causes floods, earthquakes, snows, hoarfrosts and immense cold, 7 Aph. 67.

[Margin: ♃]

Jupiter, because of his heat and dryness, is set down as the parent of fair weather. He therefore produces serenity of the air, and winds from the north that clear the sky. Yet when occidental he increases heat more, and when oriental, moisture: Cardano, chap. 18, *suppl. Alman.*

[Margin: ♂]

Mars, since he is hot and dry in excess, also produces heat and dryness. When oriental, however, he increases the heat; when occidental, the dryness: Cardano, in the same place. He is judged, moreover, the lord of rains, and of storms with thunder, hail and flashes of lightning, above all in the rainy signs and near the rainy stars, which Cardano too hints at, 7 Aph. 68, where he states that heat, fires, lightning and hail come from Mars. Stadius, in the *tabulae Berg.*, chap. 7, or folio 200, writes that he observed that the passage of ♀ and ♂, or even of Mars alone, through the Pleiades produced rainy weather for several days.

[Margin: ☉]

The Sun is the cause of heat, but according to its aspect both to its own sign and to the other stars, fixed as well as wandering. The ☉ at its greatest strength produces hail; at its least, hoarfrost and snow; at a middling strength, rain. Strong winds, moreover, assist both extremes, 7 Aphor. 56, Cardano.

[Margin: ♀]

Venus is moist and cold in a temperate degree, or even somewhat hot, yet with moisture predominating. For she is the mother of rains (Cardano, on text 56 of Book 2 of Ptolemy's *Quadr.*), above all in the rainy signs; and Rasis said that ♀ at the beginning of ♋ makes rain, 7 Apho. 42, Cardano.

[Margin: ☿]

Mercury is of a versatile and changeable nature, because he takes on the nature either of the sign in which he is, or of the planet with which he is joined by body or by aspect. He is, however, set down as the father of winds, and in the watery signs, especially when he lies hidden under the rays of the ☉, he stirs up sudden rains with great blasts. In the airy signs he causes thunder and lightning.

[Margin: ☽]

The Moon in herself, as was said above in chap. 1 of member 1 of this part, has the power of moistening and of heating a little. But she changes her efficacy, first according to her position relative to the Sun. And although Cardano says, 7 Aph. 85, that the Moon, when she moves away from the Sun and takes on

more light, that is, is waxing, dries more, and when she approaches the Sun and is waning, moistens more, these things are nevertheless to be taken only of the air, in which the Moon exerts these operations in stirring up storms; otherwise, when waxing she increases the humours in bodies, and when waning she diminishes them and dries them out. Second, according to her aspect to the other planets, dry or moist. 3, according to the sign in which she is. 4, according to the stars with which she is associated. 5, according to her latitude. 6, according to the house of heaven. Full moons also are found to be cold in summer and temperate in winter, unless the force of Saturn resists. New moons, by contrast, are hot in summer; in winter they usually bring very cold nights, 7 Aph. 100, Cardano. And since oppositions of the stars, from the diameter, stir the air toward moisture most effectively, which conjunctions do not do, one should expect fair weather at conjunctions, and rain rather at the oppositions of the luminaries and of the other planets, 7 Aph. 125. So much for the planets taken singly.

What they signify in each of the signs there is no need to note, since from a comparison it will easily be apparent to anyone what kind of effects are to be attributed. Whoever wishes may also consult chap. 12, book 2, of Cardano's de restitutione tempor.*; we shall, however, append some general aphorisms, which will sharpen not a little the judgement of future weather.*

[Margin: General aphorisms concerning the weather, from the disposition and concourse of the planets in the signs.]

1 Great changes of the air do not occur unless one of the superior planets, ♄ or ♃ or ♂, is present by conjunction or by ray. And the reason is that, as their motion is slow, so the operations they put forth are more effective, and impress a greater and longer-lasting change on the air. But if the Sun meets with the inferior planets, or the inferior planets meet among themselves, without great fixed stars, they change the quality of the air either little or not for long, unless these things happen at the meetings of both luminaries.

2 Calamities do not occur unless the malefics predominate. Hence in ♓ or ♋ very dangerous floods cannot occur, because the Moon is lady of ♋, and ♃ of Pisces, 7 Aphor. 66, Cardano.

3 When the apsides of the malefics (that is, the apogees or perigees of the epicycles of ♄ and ♂) are in the watery signs, especially in ♋ and ♏, floods occur. When they are in the fiery signs, barrenness and conflagrations; when in the earthy, very great earthquakes, especially in coastal places; when in the airy, plagues. It is required, moreover, that the fixed stars near which the malefics stand be also of a like nature to the places of the apogee, 7 Aph. 124.

4 When strong configurations, and those of contrary planets, present themselves, contrary winds are stirred up; from this come a gathering of rains, snow and hail, 7 Aphor. 117.

5 All great configurations incline to snow in winter, and to winds in spring; in summer, however, to hail, 7 Aphor. 115.

6 Snow is produced chiefly from a fine moisture, and it is therefore assisted and multiplied by the hot planets and signs, 7 Aph. 74.

7 Planets bring droughts by their swift motion; when stationary, winds; when retrograde, waters, 7 Aphor. 127.

8 A weak planet, namely one that is occidental, retrograde, slow or combust, signifies rain, except Mars, who when combust increases dryness. A strong one, however, that is oriental, direct, swift in motion, or free of the rays, denotes dryness.

9 The planets are not changed by the fixed stars according to the reckoning of the times, but are strengthened, that is, their power is doubled; the Sun and Moon, however, are excepted, 7 Aph. 64. For the luminaries, when they are carried to other fixed stars, vary their effects according to the nature of those stars.

10 When hot and moist planets are with hot and moist stars, or in similar signs, that is, hot and moist ones, they make the air turbulent, sultry and unhealthy, 7 Aph. 119. Cloudy stars, moreover, also make the weather cloudy.

11 Fair weather arises from the Sun and the three superior planets, ♄, ♃ and ♂; rain from the inferior ones. Hence fair weather comes both with great heat and with great cold, while all rains are mild, 7 Aph. 126.

12 Of the superior planets none but Mars can produce rain; of the inferior planets none but Mercury can produce fair weather, 7 Aph. 118.

[Margin: On the opening of the gates. 1. What it is. 2. How many kinds there are.]

13 The openings of the gates and doors, or cataracts, by which we understand a new, peculiar and evident change of the air toward storms, winds, rains, hail and showers, occur either, first, when planets whose houses are opposite, and of contrary nature, are joined by body or by □ or ☍ aspect; or, 2, when the Moon is carried from one of them, or from its aspect, to the other, or to the aspect of the other, whose nature is contrary. For then the one is said to open the gate or door to the other for an action suited to its nature.

[Margin: 1.]

The first is usually called, properly, the opening of the gates, as Schöner indicates in Canon 22 of the first part. To it belong these three grades of such syzygies, ☌, ☍ and □. First, ♄ to the luminaries: for Aquarius, the house of ♄, is opposed to ♌, the house of the ☉; and then ♒, the other house of ♄, is opposed to ♋, the house of the ☽. Second, of Jupiter to ☿, because ♓ and ♍ are opposed. Third, ♂ to Venus, because ♏ and ♉ are also opposed, 7 Aph. 24. And these constellations usually bring about great changes. As the effect of ♄ and the luminaries is in turbid air: toward cold, hail and snow in wintertime; in summer, toward a parched, oppressive and exhausting heat, so is that of Jupiter and ☿ in winds, disturbances of the air and the increase of heat; that of Mars and ♀, in clouds, lightning and showers.

For the change comes about chiefly according to the nature of the superior planet: Cardano, 7 Aph. 65, and chap. 26, *suppl. Alman.* The second is properly

called the opening of the doors and cataracts. For it is the path by which the Moon proceeds directly from one of the planets to the other, which rules the opposite sign; and so she is carried from the ☌, ☍ or □ of ♃ to Mercury, of ♂ to Venus, and of ☉ to Saturn, which is most effective, especially if the planets themselves also aspect each other. For the Moon's direct passage from Jupiter to Mercury, or from Mercury to Jupiter, stirs up the course and blowing of winds, above all northerly ones. From Mars to Venus, however, or from Venus to Mars, it brings moisture of the air, rain, lightning and thunder in summer, but in winter snow and southerly and westerly winds. From the Sun, finally, to ♄, or from ♄ to the Sun, it brings darkness of the air, a thickening of the clouds, and from this rain, especially when both, or one of them, stands in a watery sign; in winter it brings cold and snow: Schöner, in the place cited before.

[Margin: The planets that are lords of the lunations: of what kind]

Further, so that it may be known what the lords of the chart signify in any lunation, and what the principal syzygies, the ☌, ☍ and □, effect by the planets' ray, first

[Margin: storms they portend.]

indeed, we shall treat of the lordships of the planets separately, and afterwards also of the combination of the planets, from what Stöffler noted in the Ephemerides on the change of the air.

[Margin: ♄]

When, therefore, Saturn is lord of the figure of any lunation, it signifies a Saturnine quality of the air, according to the quarter of the year: dense, thick and murky clouds, disturbances of the air, great mists, cold, hail, and also frost and snow. With fortunate aspects of ♃, however, it promises fair weather even in winter, because its east wind is fair.

[Margin: ♃]

When ♃ is lord, then from the nature of Jupiter it denotes for the most part a fair and mild air, healthy for living creatures.

[Margin: ♂]

♂, as lord of the figure, generally signifies dry air and fiercer heats, especially in ♊; and the rest according to its nature.

[Margin: ☉]

The Sun brings an air of moderate warmth and somewhat drier.

[Margin: ♀ ☽]

Venus and the Moon promote moisture. The lordship of Venus, however, is more agreeable and fairer than that of the Moon.

[Margin: ☿]

☿ signifies instability of the air, and windy weather.

[Margin: On the planets in combination.]

It is necessary, however, that other significations also be considered at the same time, above all the quarter of the year. For much is changed in each of these significations, both by reason of the quarter of the year and by reason of the concurring aspects, which must now be discussed.

[Margin: On Saturn with[?] Jupiter]

♄ and Jupiter, especially when conjoined (this conjunction is called the great one), affect the air for many days, according to the quality of the signs of the zodiac and of the fixed stars near which the conjunction takes place, because of the slowness of their motion, by which they are separated only with difficulty: either with fair weather, or with rains, or with a stirring of winds. Cardano also points this out, 7 Aph. 20, where he says: ♄ *and* ♃*, when they come to a conjunction of rays or of bodies, make settled spells of weather, that is, they set such weather in motion, which lasts for some while without change.* These effects work in this way above all if a similar aspect of the luminaries is added. Hence in fiery signs they produce great drought; in moist ones, continual floods and local deluges. ♄ joined to Jupiter by aspect in moist signs is also the cause of great changes of the air. For it brings about rains with winds and hail for several days before and after.

[Margin: Saturn with Mars]

♄ conjoined with Mars in moist signs sometimes makes copious rains with hail, and with thunder, for about three days before and after, especially in summer, 7 Aph. 21. In winter and spring, snows. The rays of these planets do the same.

[Margin: Saturn with the Sun.]

♄ with the Sun for some days, especially in watery signs, makes the air cold and rainy, and very often hail as well. And it is a powerful opening of the gates, and a proof of astrological truth, 7 Aph. 43. In ♐ and ♑ it chills greatly, 7 Aph. 41.

[Margin: Saturn with Venus.]

♄ with ♀ acts according to the quality of the signs, so that in moist signs, with the testimony of the ☽, it produces cold and rains.

[Margin: Saturn with Mercury.]

♄ with ☿ likewise makes rains in moist signs, according to the quality of the signs, and dryness in dry ones.

[Margin: Saturn with the Moon.]

♄ with the ☽ in airy signs increases the cold for a few days, and very often makes hail too.

[Margin: On Jupiter with Mars.]

♃ also stirs the air with the planets according to the character of the sign. For with ♂ in moist signs it produces healthy rains, winds and flashes of lightning; and when rains are signified, it adds thunder and thunderbolts. In fiery signs, joined to Mars among stormy stars, it makes hail even in midwinter, but at other times snows, 7 Aph. 18.

[Margin: Jupiter with the Sun]

♃ with the Sun, especially in airy signs, makes the air fair: Hermes [Herm.] *centil.* 34, and following him Cardano [Card.] 7 Aph. 41. It also brings breezes of healthy and fair winds; in moist signs, fruitful rains as well.

[Margin: Jupiter with Venus.]

♃ with ♀ act, indeed, according to the nature of the stronger in the chart, but in general they bring fair weather. In watery places, however, mild and gentle rains; and this the more surely if the testimony of the Moon is added by ray or by ☌.

[Margin: Jupiter with Mercury.]

♃ with ☿ increases winds and heat, disturbs the air, and makes rains that are not general: Cardano [Card.] *suppl. Alm.* chap. 26. For it is a great opening of the gates: Stöffler, and from him Pitatus [Piratus].

[Margin: Mars with the Sun.]

Mars with the Sun, especially in bicorporeal signs, makes heat and a dark air, and diseases besides, above all in spring: Hermes [Herm] *centil.* 34, and from it Cardano [Card.] 7 Aph. 41. Otherwise it acts according to the quality of the signs, but with vehemence. In watery signs, indeed, it makes showers, lightning and thunder; in fiery ones, drought. And as a rule, when combust, it diminishes rains; with the Sun it generates hail;

[Margin: Mars with Venus.]

with ♀ it is a cause of the opening of the gates, and stirs up abundant rains, especially in moist signs, which Cardano also points out, chap. 26 *suppl. Alm.*, in these words: Mars with ♀ makes rains, thunder and strong flashes of lightning.

[Margin: Mars with Mercury.]

With ☿ it acts according to the nature of the signs: in hot signs, heat; in dry ones, dryness; in watery ones, showers. Properly, however, it produces winds rushing with violence, since each of the two is impetuous and vehement. In autumn it makes hail, 7 Aph. 21; in winter and spring, snows.

[Margin: The Sun with Venus.]

The Sun with Venus properly signifies moist weather. For according to Haly part 1, chap. 4, the state of ♀ with the state of the ☉ is like the state of a woman toward a man. For when she is joined with a man, she casts out her moisture; and she is the significatrix of rains, clouds and showers. Hence when ♀ goes retrograde while the Sun occupies ♑, ♒ and ♓, the winter is moist and rainy; and when she goes retrograde while the Sun is in ♈ or ♉, rains and moistures occur in the spring of that year, because of her approach toward the Sun. Leupold [Leup.] lays down the same, tract. 6 chap. 2.

[Margin: The Sun with Mercury.]

In other respects the Sun works according to the quality of the sign in which it stands. And so, joined to ☿ or coupled with it by aspect, it also acts in general according to the nature of the signs; properly, however, it produces winds in airy signs, rains in moist ones.

[Margin: Venus with Mercury.]

Although Venus with ☿ acts according to the nature of the signs, like the other planets, she properly makes showers.

[Margin: Mercury's operations.]

Mercury also, since he is one of the three planets that signify rains — by his change from sign to sign, and by his station, retrogradation and direction;

likewise by conjunction, opposition and □ ray to the Moon — offers a judgement, above all on the motions of the winds, and afterwards also of the storms that accompany the winds. For when he passes from one sign into another, or when he is stationary or retrograde, he signifies stormy winds, rains and a disturbance of the clouds. Similarly, when he is in opposition to the ☽, with the Moon in one of the watery or airy signs, he signifies the same: Haly, part 1, chap., *de iudic. astr.*

[Margin: On the applications of the Moon to the planets.]

Moreover, since the signification of the applications of the Moon to the planets, and of their aspects, is the principal and daily one (for the Moon carries the powers of all the planets down to the lower things), careful attention must now be paid to how her powers exert themselves. And first, indeed, let the sign the Moon occupies be considered; second, the fixed stars with which she is joined, or their aspect to her; 3, the latitude. Finally, however, just as in the preceding chapter, we said that from the conjunctions and ☌ of the luminaries, which include the ingresses of the ☉ into the cardinal signs, the whole quarter of the year is judged in general, and each of the lunations that follow them. So from the conjunctions, ☌ and □, judgement is to be passed on the individual weeks; and to this the following axioms will certainly be of no small weight.

[Margin: Saturn with the Moon.]

Saturn, as ruler of the place of the ☽, has doubled powers when the Moon applies to him again: 7 Aph 62. Thus the cold is increased by the ☽ when she is full and is coupled with Saturn either by body or by aspect, 7 Aph. 45. But when the Moon, void of course, is joined to Saturn or aspects him, dryness is increased, 7 Aph. 64. The Moon with Saturn in dry seasons produces hoarfrost and blight, 7 Aph. 23; in moist ones, however, she brings a cloudy and cold day. At the same time, however, it must always be considered whether there will be some opening of the gates, which indeed happens when the Moon, departing from Saturn, applies immediately to the Sun, either by conjunction or by any other ray. For when this concurs, a great and notable change of the air is observed, especially if the rays of the superior planets among themselves also add their testimonies: Stöffler in the Ephemerid. on the changes of the air.

[Margin: Jupiter with the Moon.]

Jupiter, joined to the ☽ or coupled with her by □ or ☌ ray, acts for the most part, indeed, according to the quality of the signs. By itself, however, it produces fair weather and northerly winds. In ♈ or ♏, it scatters white clouds over the whole sky. But if the testimony of Mars is added, it makes flashes of lightning or thunder. If the Moon is carried from Jupiter to Mercury, there is an opening of the gates toward winds: Stöffler [Steffler.], in the same place.

[Margin: Mars with the Moon]

Mars with the Moon acts according to the quality of the signs and of the stars which it afterwards applies to. By itself, however, especially in fiery signs, it makes red clouds, tumults of winds, and also flashes of lightning, thunder and lightning, at times suited to these. In earthy signs in winter it makes the

air cloudy, cold and rainy. In watery signs it brings warmth to the air, and dissolves the cold with warmer west winds. If the Moon goes from Mars to Venus, there is an opening of the gates of the nature of ♀, especially if the rainy planets bear witness: Stöffler.

[Margin: The Moon with the Sun.]

The configuration of the Moon with the Sun does not signify one thing. For it denotes now spells of fair weather, now rains, now winds, now a calm state of the air, according to the condition of the signs. The Moon proceeding immediately from the Sun to Saturn, however, makes an opening of the gates. Thus when she is ascending, and has gone from the point opposite the apsis to the apsis, and is near the nodes with a stormy star, or in aspect of ♄, she stirs up long-lasting showers, 7 Aph. 114. The fourth day from the conjunction of the luminaries also generally shows what the Moon will do in the whole month, because then she first shows herself to the earth after the conjunction: which Virgil also points out in *Georg.* book 1, where he says: But if at her rising on the fourth — for that is the most certain authority — etc.; and Pliny, book 2 chap. 46.

[Margin: The Moon with Venus.]

The Moon with Venus in moist signs produces light and mild rains with cold. But if she is carried from Venus to the ☌ or ray of Mars, she brings an opening of the gates toward showers, thunderbolts and thunder.

[Margin: The Moon with Mercury.]

The operation of Mercury, as we have often said, is according to the quality of the signs. Hence when he is associated with the Moon in moist signs, he makes showers. But from Jupiter to Mercury the ☽ proceeding, opens the gate of the winds, especially if ♄ and ♂ bear witness with a □ or ☍ ray: Stöffler, on the change of the air, in his Ephemerides.

[Margin: In the judgement of the weather the risings and settings of the stars are not to be neglected.]

Careful consideration not only of the risings and settings of the fixed stars — with which the Sun and the other planets are joined, in the lunations and outside them, and rise and set together, a subject we shall pursue at greater length in chap. 6, so that from them we may track down the weather of the individual days more exactly — but also a noting of the transits of the planets past fixed stars that lie at a longer interval toward the north or the south and are placed in the same longitude of the zodiac, also contributes to more certain forecasts of the weather. These transits anyone can determine from the nature of the stars, which we have ascribed to the stars several times above, and likewise from the operations of their rising and setting, so that it is not necessary to examine them in this place.

[Margin: Likewise the transits of the planets past stormy fixed stars.]

[Margin: How the times at which the weather changes are to be determined.]

By way of a conclusion, however, it must be observed that the time of the change of the weather is judged in general: 1. From the application of the ☽ to the bodies or rays of the significators, which, as to the day and hour it happens, is found noted in the

Ephemeris. 2. From the passage of the planets through the stormy fixed stars, and from the nature of the sign in which they are. 3. From the rising and setting of the fixed stars.

There are, however, some who judge that it is to be determined in particular in this way. They direct the ascendant of the chart of the lunation to the lord of that chart, or to the planets in the angles, taking one whole day for 13° 11′, which is the mean daily motion of the ☽. And then a change of the air comes about according to the nature of the planet to which the direction has come.

It is also to be noted: 1. When the Moon or any other planet passes the degree of the ascendant, either by body or by opposite ray, a change of the air takes place. 2. When a change of the weather has begun from the ingress of the ☽ into some sign, and no obstructing rays occur, that state of the weather lasts about 52 hours: 7 Aph. 36. For that is as much time as the ☽ stays in one sign.

[Margin: Our example.]

In our example of the full moon, since the lord is ♃, a temperately warm planet that brings fair weather, fair weather with a more intense heat would indeed have to be signified, especially since ♃ is lodged in ♈, a fiery sign, and the summer quarter of the year, hot and dry, is in progress. But since he is among the stars of ♓ that belong to its middle part, which are moist, and toward the south, where ♃ has latitude, watery ones; and the Moon besides is placed in ♓, a watery sign, with the windy stars at the very end of ♒, and toward the south, toward which part the latitude of the ☽ inclines, with snowy ones: the judgement must be conformed to a constitution of the air temperate indeed in heat, indeed somewhat colder, since both the ☽ in ♓ and ♄, by a quadrate ray to Jupiter, a ✶ to the ☽ and a △ to the Sun, resist the heat both of Jupiter and that which the summer quarter indicates; but inclining toward moisture and winds because of ☿ to the ☌ of ♃. Therefore, among the colder, watery and windy days after the full moon, a few fair, temperate ones will be mixed in. The winds, however, although they will have no fixed station and will change for a slight cause, now to the east, now to the west, will nevertheless be found to be partly northerly, because of Jupiter in ♈, and ☿ in ♎, and the rising Regulus, which produces Aquilonian winds; inclining toward the east because of ♄, toward the west because of the Moon in ♓. Partly also southerly, because of the southern latitude of both Jupiter and the ☽. But what kind of weather is to be expected on the individual days from the full moon to the last quarter will be stated toward the end of chapter 6.

Chapter V. On the Winds.

Since the force of the winds in changing the daily weather is great, and since it is most fitting for anyone who wishes to understand or write forecasts correctly to know their state in the regions assigned to them, as Cardano, 7 Aph. 77, rightly advises, we shall briefly set out their doctrine here. And we shall treat 1. of their names and distinction; 2. of their nature; and 3. of the astrological causes of the events.

[Margin: The great force of the winds in changing the weather,]

As regards the definition, Aristotle, chap. 4, book 2 of the *Meteor.*, and other philosophers make wind a hot and dry exhalation, drawn up by the force of the heaven as far as the middle region of the air, driven back again from there by the cold, and, because of the meeting of other exhalations ascending from below, moved laterally near us and stirred, so that the air does not become corrupt.

[Margin: What wind is.]

According to Aristotle, chap. 6, book 2 of the Meteor., there are only 12 winds; but according to more recent writers and sailors, 32.

[Margin: The winds were formerly established as 12, now 32.]

[Margin: The four cardinal winds]

Four are cardinal, which blow from the 4 cardinal points of the world. The first is Solanus or Subsolanus, called ἀπηλιώτης [Greek: apēliōtēs, "the wind from the sunrise"] by the Greeks, and Levans and Ost by sailors; it blows from the equinoctial east. Gellius, book 2, chap. 22 of the *noct. Attic.*, also calls this wind Eurus. But we, with Vitruvius, chap. 6, book 1 of the *Archit.*, Cardano and others, place the same wind somewhat away from the equinoctial east toward the south, and make it a lateral wind, as will be said later.

[Margin: Subsolanus.]

2. Favonius, called ζέφυρ(ος) by the Greeks, as if ζωήφορ(ος) [Greek: zephyros … zōēphoros, "west wind … life-bearer"], ὅταν τῷ θέρει πνέοντ(ος) αὐτοῦ οἱ καρποὶ αὔξοντ(αι) [Greek: "when, as it blows in summer, the fruits grow"]; by sailors Ponens, West; from the equinoctial west.

[Margin: Favonius.]

3. Auster, called νότ(ος) by the Greeks, from νοτίς [Greek: notos, "south wind"; notis, "moisture"], which means moisture, since it is cloudy and moistening; by sailors it is called Sud; from the south.

[Margin: Auster.]

And 4. Septentrio, called ἀπαρκτίας [Greek: aparktias, "north wind"] by the Greeks, as if blowing from the Bear; by sailors Transmontanus, Nord; from the north, or the angle of midnight.

[Margin: Septentrio.]

[Margin: The intermediate winds, 4]

The intermediate winds, which occupy the places exactly midway between east, south, west and north, are as many; Ptolemy also lists them in chap. 17 of the book of the *Quadripartitum*. And these are expressed by compound names, Boreus or Notius being put first and another joined to it: for example, Borrhapeliotes, midway between the northern and the eastern quarter, Nordost; Notapeliotes, midway between the eastern and the southern quarter, Sudost; Notolibycus, midway between south and west, Sudwest; and Borrholibycus, midway between west and the northern quarter, Nordwest. And these 8 winds enumerated are otherwise called the principal winds; they were also, for the

most part, known to the ancients, although not by quite the same names. The remaining ones, of which 24 more are counted, are called less principal, and are divided into Laterals and Collaterals.

[Margin: Borrhapeliotes.]

[Margin: Notapeliotes]

[Margin: Notolibycus.]

[Margin: Borrholibycus.]

[Margin: The laterals, and Boreas.]

There are eight laterals: 1. βορέας [Greek: boreas, "north wind"], a sonorous and violent wind, ἀπὸ τοῦ βοᾶν καὶ῾ ρεῖν [Greek: apo tou boan kai rhein, "from roaring and flowing"], neighbouring Septentrio toward the east, which is also called Aquilo, from its lofty and vehement blast; Nordnordost.

[Margin: Caecias.]

2. καικίας [Greek: kaikias, "north-east wind"], Caecias, which is also called Hellespontius, standing next to Subsolanus toward the north, or toward the summer sunrise; Ostnordost.

Table of all the winds, of which 32 are counted in the nautical square.

Diagram.

- Above the frame: Septentrio ♃ — the north
- Below the frame: Meridies ♀ — the south
- Left, outside the frame, set vertically: Ortus ♄ — the east
- Right, at the edge, set vertically: Occasus ♂ — the west
- Centre: ☉ ☽ ☿ are the common significators of the winds.
- Ring, clockwise from the top: ♈ (about one o'clock); ♌ (about two o'clock); ♐ (about half past two); ♋ (about four o'clock); ♏ (about half past four); ♓ (about half past five); ♉ (about half past six); ♍ (about seven o'clock); ♎ (about eight o'clock); ♊ (about half past nine); ♎ (about half past ten); ♒ (about eleven o'clock)
- Radial labels, clockwise from the top:
- ἀπαρκτίας [Greek: aparktias, "north wind"], Nord, Sept.
- Mesocirc. Nordẽwestẽ
- Cire. Nordnordwest
- Vpocir Nordwestnord
- Borrholyb. Nordwest
- Vpoc. Nordwestẽwest
- Corus Westnordwest
- Mesocor. Westennordẽ
- Zephyr. Favon. West
- Vpafric. Westensuden
- Africus Westsudwest
- Mesaf Sudwestẽwest
- Notolyb. Sudwest
- Vpolib. Sudwestẽsud
- Liban[?]. Sudsudwest

- Mesolib. Sudẽwestẽ
- Νότ(ος) [Greek: notos, "south wind"], Sud, Auster
- Mesoph. Suden osten
- Phaenix, Sudsudost
- Vpophaenix, Sudostẽsud
- Notapeliotes, Sudost
- Meseurus, Sn[?]dosten ost
- Eurus, Ost sudost
- Vpeurus, Osten suden
- ἀπηλιώτης [Greek: apēliōtēs, "the wind from the sunrise"], Ost, subsol.
- Mesocaec. Osten norden
- Caecias, Ostnordost
- Vpocaec. Nordostenost
- Borrhapeliotes, Nordost
- Mesaqui. Nordostẽnord
- Aquilo, Nordnordost
- Vpaquil. Nordenostẽ

[Margin: Eurus]

3 Eurus or Vulturnus, Pliny chap. 47 book 2, and Seneca chap. 16 book 5 of the *Natural Questions*. It neighbours Subsolanus toward Auster, toward the winter sunrise; Ostsudost.

[Margin: Phoenix]

4 Φοίνιξ [Greek: phoinix, "Phoenician" — the south-east wind] or Phoenicias, which is also called Euronotus or Euroauster, since it declines from Eurus toward Auster; Sudsudost.

[Margin: Libonotus]

5 Libonotus or Austroaffricus, which inclines from Auster toward Affricus; Sudsudwest.

[Margin: Affricus]

6 Affricus, which takes its name from the regions of Africa and Libya, from which it comes, near the winter setting; otherwise called λίψ [Greek: lips, "the south-west wind"]; Westsudwest.

[Margin: Corus]

7 Corus or Caurus, which is also called Iapyx, and likewise ἀργέστης [Greek: argestēs, "the bright one"], from lightning; it neighbours Favonius toward Septentrio; Westnordwest

[Margin: Circius.]

8 Circius, which turns everything round, and which is also θρασκίας [Greek: thraskias, "the north-north-west wind"], from θράττω [Greek: thrattō, "I trouble"], "I turn about". The Spaniards call it Gallicus, because it is found to blow from the parts of New Gallicia. It is near Septentrio toward the setting; Nordnordwest.

[Margin: 16 collaterals]

Finally, 16 collaterals are established, which are marked by the names Meso and Upo, with the laterals themselves added to them by composition. For μέσ(ος) [Greek: mesos, "middle"] means, as it were, intermediate between a principal and a lateral; Vpo, on the other hand, is said as if from ὕπο [Greek: hypo, "under"], because it is subordinate to the lateral. Hence come these names: Mesaquilo, Vpaquilo, Mesocaecias, Vpocaecias, Meseurus, Vpeurus, Mesophaenix, Vpophaenix, and so on. We have chosen to set out in this table the positions and names of these winds, taken from Cardano's commentary on chapter 12 of book 2 of Ptolemy's *Quadripartitum* and from the nautical square of Gemma Frisius. See the preceding page:

[Margin: Special winds. Whirlwind]

There are indeed also other special winds, mixed from contraries, which arise when different significators join their rays. Such is τύφων [Greek: typhōn, "whirlwind"], that is, the whirlwind or vortex, a circular wind that sweeps round in a circle whatever it has snatched up with it and carries it aloft;

[Margin: Squall.]

ἐκνεφίας [Greek: eknephias, "a wind bursting from the clouds"] or squall, a sudden blast that arises suddenly with a great crash, lays many things flat, and ceases suddenly;

[Margin: Prester]

πρηστήρ [Greek: prēstēr, "fiery whirlwind"] from πίμπραμαι [Greek: pimpramai, "I am set on fire"], "I set on fire": a fiery whirlwind, which sets the air on fire and colours it with fiery force. But the meteorological books of the natural philosophers give instruction about these. We shall briefly consider the nature and the astrological causes of those described earlier.

[Margin: On the nature of the winds.]

As to their nature, it is indeed certain, as Messahalah [Māshāʾallāh] also notes in the book *De scientia orbis*, in the discourse on the winds, that the hot and dry exhalation of the winds is varied or changed according to the diversity of the regions and places through which it is carried. So when it passes over the sea it becomes cold and moist; when over cold land, it too becomes cold; over hot land, hot and dry. And in some regions places are moistened by the east wind and dried by the west; in others they are moistened by the latter and dried by the former. And Cardano, in his commentary on text 62 of book 2 of Ptolemy's *Quadripartitum*, hands down this general rule: all strong winds cool and dry and produce clear weather; weak ones heat and moisten, and also bring forth rain.

[Margin: Septentrio]

Hence Septentrio, which is nearest to us, both by nature and by position cools, dries, and clear weather

[Margin: Auster.]

in the greatest measure produces. Auster, on the other hand, is by nature hot, moist and rainy, since it is far distant from us both in position and in nature. But since we must speak of each one in particular.

[Margin: Southern winds.]

The southern winds, together with their neighbours on either side as far as Notapeliotes and Notolybicus, are by nature hot, moist and rainy, ἀνάλογοι [Greek: analogoi, "analogous"] to the first age. For they blow from hot places which, lying under the Sun's rays, heat more strongly, and they gather clouds, from which rains follow. They are, besides, dark, thundery, heavy and unhealthy. And if Auster has blown gently for a long time, it at last becomes clear, but it brings sultry weather; sometimes also, rising suddenly, if it has become more violent and rapid, it pours down cold showers.

[Margin: Eastern winds.]

The eastern winds, Subsolanus and its nearest neighbours Vpeurus and Maesocaecias, are clear and dry, ἀνάλογοι to the age of youth, yet hot in summer and very cold in winter. For they are carried to us from a region in which their matter, because of its greater distance from the Ocean and the sea and the Sun's delay in that same region, is made finer and purer by the Sun, and so is heated and dried. These winds rise and grow when the Sun rises, and they are mostly silent at night. But if they begin a rain, which nevertheless seldom happens, they continue it through the whole day. Eurus and Caecias gather clouds and generally end in rain, and so do their collaterals on the other side, Vpocaecias and Meseurus. Vpocaecias, however, which looks more toward Septentrio, is colder, and scatters snow in winter. Meseurus inclines toward mildness, and is sometimes a cause of rain. Notapeliotes is moister than Eurus with its neighbours; it often also ends in Auster, and although it does not rain abundantly, it nevertheless keeps the sky cloudy and dark. Borrhapeliotes is cold and dry, yet it makes clouds and occasional snow.

[Margin: Etesians]

As for the Etesians, or anniversary winds, which blow for the most part from the east in the season of the Dog Days, it must be noted of them that with us the Etesians generally blow from Eurus, and on a clear night turn toward Circius, and for that reason the nights too become colder. Cardano, 7 Aph. 107, says: "The Etesians blow in Pontus from Aquilo, in Africa and Spain from the east, and in other places from the south. They begin in the morning from the third hour of the day and cease in the evening", which Pliny also notes, book 2, chap. 47. They are also accustomed to blow from the winter solstice, but gentle and for a few days. Seneca, however, does not put the Etesians back into winter (chap. 10 of book 5 of the *Natural Questions*), because in the shortest days the Sun ceases before the cold is overcome. Stadius, chap. 7 of the universal Prognostication in the Bergen tables, speaks of the Etesians in this way: "The Etesians keep scarcely any fixed station, but we have observed them to blow chiefly from Eurus, Aquilo and Boreas, and likewise from Libonotus, or the winter setting. They follow the rising of the ☉ by 50 times of the equator (that is, 3^{h} 20^{m}), and at sunset they let their blasts drop, as though their duty were done."

[Margin: Northern winds.]

The northern winds, with their laterals and collaterals as far as Borrhapeliotes and Borrholybicus, are cold and dry, corresponding to advancing age, and clear. We gave the reason earlier from Cardano: that they are nearest and strongest to us; or also that they come from watery and frozen places. Septentrio, however, is more freezing than the rest, clearer, and healthier as far as the clear state of our bodies is concerned. Aquilo and its collaterals, Mesaquilo and Vpaquilo, if they blow in April and May, as often happens, scorch the blossoms of the trees and the buds of the vines with their frost: they seldom bring snow. Circius and Borrholybicus pile up snow in winter and hail in summer.

[Margin: Circius, the wind peculiar to Gaul.]

Of Circius too Seneca writes, in chap. 17 of book 5 of the *Natural Questions*, that it is a wind peculiar to Gaul, to which the inhabitants give thanks even though it shakes their buildings, as though they owed the healthiness of their sky to it alone. He adds too that the deified Augustus, while he was staying in Gaul, built and maintained a temple to it.

[Margin: Western winds.]

The western winds are indeed, as a rule, established as cold and moist, ἀνάλογοι to decrepit age. But we find by experience that those which blow directly from the setting, such as Favonius or

Zephyrus, and its collaterals Mesocorus and Vpaffricus, are warm and somewhat moist, and with their warm showers often clear as well; so they break up the winter. We see Horace alluding to this in Ode 4 of book 1 of the *Carmina*:

Sharp winter is loosening with the welcome turn of spring and Favonius, and the machines haul down the dry keels.

Affricus, on the other hand, with Mesaffricus and Notolybicus, which incline toward the south, are moist and stormy; they darken the sky with the scudding of clouds, and often rush on with a roar.

[Margin: The wind Chelidonius.]

Stadius, chap. 7 of the Bergen tables, reports that the Chelidonius blows from Affricus around the Nones of March, so called because while it blows the swallows revive and return; it is a wind otherwise full of hail and snow, yet milder than Corus. And after it has lasted for about 12 days, it at last ends in Favonius with heavy rain or a hailstorm. This wind is also said to press so closely on the earth that hunting dogs cannot scent their quarry. According to others, as Pliny, chap. 47 book 2, the Chelidonius is said to blow from Favonius; it is also called ὀρνιθίας [Greek: ornithias, "the bird wind"], as it were, the bird wind, although Aristotle, in the book *De mundo*, chap. 4, judges the ὀρνιθίαν to be of the Aquilonian kind, which Ptolemy too indicates in the significations of the wandering stars, at the tenth day before the Kalends of March.

[Margin: Corus or Caurus.]

Finally, Corus, a wind declining somewhat from the setting toward Septentrio, is with us most violent and full of hail, raging with a howling. And this wind brings hail when the Moon comes to Saturn in the months of February and March. In the month of May it is a cause of calamities; around the end

of October and the beginning of November it likewise brings hail. It is most violent when it is roused from a gate, that is, by the meeting and syzygy of ♃ and ☿, and especially if the evening rising of Arcturus also coincides with it, while the Sun is at the end of ♓.

[Margin: Which winds are healthy, and which unhealthy]

[Margin: Septentrio the most healthy.]

Moreover, of all the winds Septentrio and Aquilo are judged the most healthy. For they are calmer, and milder in stirring up storms. And although, as Levinus Lemnius warns from experience in chap. 3 of book 3 of *de nat. mirac.*, they are harsh in the winter months and blow violently, so that, according to Hippocrates, 3 Aph. 5, they stir up catarrhs, pleurisies and quinsies, yet according to the same Hippocrates, 3 Aph. 17, they compact and strengthen bodies, and make them more agile, more ready and of better colour.

[Margin: Subsolanus moderate.]

Subsolanus is moderate, and by its quality it disperses the clouds of the spirit and the mind. And although it is found to be rather cold in the hours before dawn, it grows warm at midday. So when these northern and eastern winds are blowing in summer, rooms should above all be opened, since by their dryness they remove and ward off putrefactions, and so turn away the plague itself, but Aquilo most of all. Histories testify that Marcus Varro did exactly this. For when he was at Corcyra, which was then infected with a pestilential plague, he preserved himself and his retinue by closing all the windows except those that face Aquilo, from which the harsher winds blow.

[Margin: Auster the worst.]

But Auster is the worst. For when it blows the earth grows wet with showers and is abundantly soaked with moisture, so that bodies putrefy very readily and take on corruptions of the humours. Hence Hippocrates too, 3 Aph. 5, reports that Auster dulls the hearing, draws a mist over the sight, weighs down the head, and brings sluggishness and languor to the body; and in Aph. 12, 16 and 17, that the same wind also brings on long fevers, dizziness, deafness of the ears, ringing in the ears, apoplexies and quinsies, and stirs up catarrhs and fluxes into the throat, the windpipe and the lungs, from which head colds, hoarseness and coughs arise.

[Margin: Favonius and its collaterals are doubtful.]

Finally, Favonius and its laterals and collaterals are ambiguous. For although at the beginning of spring, gentle and mild, they are found to cherish and refresh everything; for (to use the most elegant words of Levinus Lemnius, chap. 3 book 3 of *de nat. mir.*), warmed by the moderate heat of the Sun, they draw out shoots and little flowers, bring everything back to life and renew it, so much so that they even bring out the blood and the pure humours that lay hidden in winter, and, dispelling sadness and the clouds of the mind, restore the spirit with cheerfulness and gladness. But when autumn is ending and the circuit of the year is turning toward winter, the western winds rage without mercy and shake lands and seas with turbulent storms; and in stirring up cold and

phlegmatic diseases they are no less harmful and destructive than the southern blasts. In the same place you will find more things worth knowing about the other winds as well.

[Margin: On the alternation of the winds.]

Moreover, when a change of the winds is at hand, the earlier wind generally falls quiet in a great silence, and winds blowing from the opposite quarter usually follow, even for the slightest causes: Cardano, 7 Aph. 106. In the hottest and the coldest seasons, too, winds are rare and gentle; hence they are gentler both at midday and at midnight: 7 Aph. 107. And, as Pliny says, book 2, chap. 47, at the middle of the day and of the night they are mostly lulled altogether, because they are dissolved either by excessive cold or by heat: by cold, because the pores of the earth are closed by it and the exhalation is prevented from breathing out; by heat, because the vapour of the wind is consumed by it. So too the winds are lulled by rains. For rain fills the pores of the earth, shuts in the spirit conceived within, and without any blowing presses down the exhalation that has been drawn upward. By night, however, Auster is the more violent, by day Aquilo; at sea, too, Auster, on land Aquilo: 7 Aph. 105.

[Margin: On the astrological causes of the winds.]

Finally, as for the astrological causes of the winds, the winds are governed by the planets, above all by those whose force and authority in the figure are greatest: first, according to their own nature; second, according to their position in the figure; third, according to their latitude. And they move the winds above all when the Moon is with them or has approached them. Nor should the signs of the zodiac be neglected, which contribute an operation peculiar to this matter; likewise the risings and settings of the stars.

[Margin: The force of the planets in stirring up winds.]

To speak first of the nature of the planets: it has been found by experience, as the same Cardano teaches in his commentary on text 62, book 2 of Ptolemy's *Quadripartitum*, that *Saturn* moves the eastern winds, *Mars* the western, *Jupiter* the northern, *Venus* the southern, and that *Mercury* assists all of these; since it has a general power of moving any winds whatever, as the father of the winds. Yet it mostly follows the position of the sign in the figure. The Sun and the Moon likewise move different winds, from different signs, in different positions.

[Margin: On the position and latitude of the planets.]

Next, under position, one must consider the place of the significators in the figure, and their latitude from the ecliptic, above all the Moon's. For the southern winds, as Cardano teaches, 7 Aph. 78, arise from planets in mid-heaven, and in southern latitude and declination. *The eastern winds*, on the other hand, from planets placed in the angle of the east, or if they first become eastern of the Sun. So *the western* winds are produced by western planets, both in place and in their relation to the Sun. *The northern winds* from northern latitude and declination, and from the lowest heaven. Intermediate winds arise when the planets are weaker.

[Margin: Which winds the signs of the zodiac move.]

Third, the nature of the signs according to the trigons should also be attended to in this part. *For the signs of the fiery trigon*, ♈, ♌ and ♐, move the Borrholybic winds, between Septentrio and the west. So ♃ and ☿ in conjunction in ♌ and in northern latitude make strong northern winds, inclining a little toward Circius in the direction of the setting, as Cardano notes in his commentary on text 62, book 2 of Ptolemy's *Quadripartitum*. *The signs of the earthy trigon*, ♉, ♍ and ♑, move the Notapeliotic winds, between the rising and the south. *The signs of the airy trigon*, ♊, ♎ and ♒, stir up the Borrhapeliotic winds, between the east and Septentrio. And finally *the signs of the watery trigon*, ♋, ♏ and ♓, move the Notolybic winds, between the west and the south, as we also pointed out above, in chap. 3 of the preceding section. The signs also act on the winds in different ways, and most of all when the Sun is in them. For ♓ usually stirs up western winds, ♈ northern, ♉ eastern, and ♊ southern: 7 Aph. 79. *But a planet always has more force than a sign.*

[Margin: On the nature of the fixed stars in moving the winds.]

Lastly, the winds are also moved according to the nature of the fixed stars, which is taken from their kinship with the planets. For the Saturnine stars move the winds that are more eastern, the Jovial the northern, the Martial the western, and the Venereal the southern. Hence the Pleiades and the Hyades, which are of the nature of Mars, move western winds, winds also from the setting.

Caput VI.

De particulari Prognostico tempestatum ad singulos dies.

Chapter 6. On the particular prognostic of the weather for individual days.

[Margin: The seven grades of weather.]

In recording the weather for individual days, Cardano, in his commentary on text 62, book 2 of Ptolemy's Quadripartitum *cited above, advises that nineteen grades should be observed, by which the changes of the air are usually noted. We, however, to be brief, shall reduce these to fewer, counting in as well some others that Cardano left out.*

First, then, Cold *is what is either cold simply, or frost; also mild or sharp.* 2. Warm, *which is either warmth or heat.* 3. Clear, *by which we mean dry and bright; and this is either pure and unmixed, in which case a glad clearness is set down, or mixed, in which case either dew or hoar-frost is added: for example, dewy clear weather, clear weather with hoar-frost.* 4. Dark: *mist, dark clouds, standing or flying.* 5. Moist: *and this is either dewy, when a damp mist, as it were, is sprinkled, or even without the appearance of mist; or rain, continuous or intermittent, heavy or light; likewise a shower, hail, snow.* 6. Calm, *which is a breeze without winds, and that either entirely, or to some degree, or as it were Etesian.* And 7. Winds, *whose names are set down in the calendars as far as possible. Their quality is added as well: whether they are slack, strong, turbulent, gusty, cold, warm, etc.*

[Margin: In a particular judgement, the risings and settings, and likewise the culminations of the stars, should be considered.]

Then, so that the weather appropriate to each individual day may be assigned, not only is the general judgement consulted first, which concerns the new moons, full moons and quarters, but also the risings and settings of the stars, and their culminations with the Sun. Likewise the applications of the Moon to the fixed stars are carefully examined, and from the nature of the planet they reflect, their force and efficacy are judged. For, as Stadius advises, chap. 7 of the Bergen tables, and as we said in the preceding section, chap. 2: Saturnine stars *are icy and cold, and also* hail-bearing. *The* Jovial *are windy and healthy. The* Martial *are thunderous, as are those of Jupiter too, but more violent, sudden, fiery and stormy. Mixed with Saturn, pestilent, suffocating. Those of the* Sun *are sultry. The* Venereal *are moist, cold. Those of* Mercury *are indifferent. Mixed with Venereal stars, poisonous and pestilent; with Jovial, tempestuous; with Martial, violent; with Saturnine, tepid. The* Lunar *are turbid, murky and gloomy. The nebulous stars make mists. And not only are the applications of the planets to the bodies of the fixed stars examined, but also their aspects to the fixed stars, especially those of the first magnitude.*

[Margin: The effects of the fixed stars.]

[Margin: The applications and aspects to the fixed stars, too, are rightly to be attended to.]

This can be done more easily if the fixed stars are inserted into a chart of the heavens set up for some lunation. The risings of stars with the Sun, however, make a greater change than their settings. The morning rising is the strongest; next comes the evening rising. After this follows the culmination. After that the morning setting holds the fourth place, the evening setting the fifth. Cardano hints at this in general terms as well, 2 Aph. 185, where he says: Rising stars move the weather more; next, those that are in the heart of heaven; last, those that set. Moreover, just as a setting happens on one day, so it ends on one day. But the change of the air that comes about on the first day of a rising lasts for several days. So the effect of the rising of Arcturus lasts 8 or 10 days; that of the Dog Star 30 days, some of which are counted before its cosmical rising and some after. The writings of approved astrologers, confirmed by experience and long observation, must therefore be consulted, and from them both the effects and the duration of the effects must be sought.

[Margin: The risings and settings of the stars change with the passage of time.]

In order, then, that the rising and setting of the principal stars and their efficacy may be judged more easily, we shall set down here the observations of others and our own, arranged in the order of the months and adapted to our times and our horizon. For the stars always keep their powers and never change them of themselves; but their risings and settings they gradually shift to other places and other days, because of their progress in consequence, the differing latitude of the place, and the variation of the days of the civil year, above all the Julian year, which does not fully agree with the heavens. This the Ape's-head does not yet seem to understand, even after so long a time, in

which he boasts that he has gathered astrological lore from the teachings of his instructors and set it before his schoolboys, in a piece of writing published in the vernacular, in which, in the manner of revellers, he rages foolishly against the reputation of others and his own. For if he wished to be, and to be held, an astrologer, he ought to know both that the heavens are in perpetual motion and that the risings and settings of the stars vary their times and places. And when he chatters that in these matters I depart from the teachings of his instructors, while in the rest I agree with him, he not only betrays his own ignorance, but plainly shows anyone who understands the matter that he is playing the slanderer. For how can he claim for himself what belongs to others? How can he teach others what the wretch has not understood, and whose meaning he has not grasped? But it usually happens that whoever digs a pit for another falls into it himself. Leaving Pyrgopolinices behind, we shall go on with our own work.

[Margin: πιθηκοκέφαλ(ος) [Greek: pithēkokephalos, "ape-headed"] is rebuked here.]

January of the Julian year not yet reformed

On January 1 *and some following days, while the* ☉ *advances from 19° to 23°* ♍, *there rise in the evening on this horizon of ours, from 19° as far as 23°* ♋, *three bright stars of* Orion's Belt; *of this belt Ptolemy, in his account of the significations of the stars, writes thus at the Nones of February: The Belt of Orion emerges; the air is turbid with the blowing of Favonius.*

[Margin: Orion's Belt, Or. V.]

January 3: on this day the Beak of the Crow, *of the nature of* ♄ *and* ♂, *sets in the morning with 22°* ♋, *and brings a turbid and thick air.*

[Margin: The Beak of the Crow, Occ. M.]

January 6: *there rises in the morning with the Sun, in 25°* ♍, the left shoulder of ♒, *of the nature of* ♄ *and* ☿; *and the armpit of* ♐, *of the nature of* ♃ *and* ♄: *a cold, freezing breeze joined with an east wind is observed.*

[Margin: The left shoulder of Aquarius, Or. M.]

January 8: *there rises in the evening the nebulous star* in the head of Orion, *of the nature of* ♃ *and* ♄. *There sets, however, with the Sun, and with 27°* ♍, *the right arm of Hercules, of the nature of* ☿; *Borrhapeliotes blows, and thickens the air with an easing of the cold.*

[Margin: The nebulous star of the head of Orion, Or. V.]

On January 9 *there rises in the morning* the Tail of ♏, *of the nature of* ☿ *and* ♂, *and the neck of the Crow sets, of the nature of* ♄ *and* ♂; *the state of the air becomes changeable.*

[Margin: The Tail of ♏, Or. M]

On January 10 or 11 the Bright star of the Crown *sets in the evening, with 0°* ♒: *of it Ptolemy: The Crown sets, and causes stormy weather. About that time there also rise in the evening the Aselli and the Manger, the Northern Ass, for its part, with 29°* ♋, *the Southern with 3°* ♌, *the Manger with 1°* ♌ *On these, Stadius, chapter 7 of the Bergen tables. The Aselli and the Manger carry no small signification of*

rains when they are joined to the Moon or to Venus, or when ♃ *aspects them from the opposite or the quartile side, especially in stormy or wet signs, the Moon flowing like a messenger from Mercury to Jupiter. In the morning, however, there set the Southern Ass on January 12, with 2°* ♌; *on January 14 the Manger, with about 5°* ♌.

[Margin: The Bright star of the Crown Occ. V.]

[Margin: The Aselli and the Manger Oriunt. V.]

On January 16 *there rises in the evening* the Lesser Dog *with 6°* ♌ *the state of the air is changeable.*

[Margin: The Lesser Dog Or. V.]

On January 21 the Northern Ass ♋ *sets in the morning with 11°* ♌

[Margin: The Northern Ass Occ. M.]

On January 21 *there rises in the evening with 11°* ♌ the Belly of the Hare *of the nature of* ♄ *and* ☿, *the cold is sharpened.*

[Margin: The Belly of the Hare Or. V.]

On January 23 *there sets in the morning* Algorab, or the right wing of the Crow, *of the nature of* ♄ *and* ♂, *with 13°* ♌, *and they add a disturbance of the air and clouds scattering snow.*

[Margin: Algorab Occ. M.]

On January 28 Sirius *rises in the evening with 18°* ♌, *and brings an easing of the cold with a gentle breeze.*

[Margin: Sirius Or V.]

On January 30 the Eagle *sets in the evening with about 20°* ♌; *and, according to Ptolemy, it causes stormy weather.*

[Margin: The Eagle. Oc. V.]

February

On February 3 Regulus, *in the evening, the Sun being in 24°* ♒, *rises with 24°* ♌.

[Margin: Regulus Or. V and Occ. M.]

On February 4, however, *it sets in the morning with 25°, according to Tycho with 26°* ♌ *Of it Ptolemy at the Kalends of February: The bright star in the breast of* ♌ *begins to set, Aquilo blows, and at times it rains. Cardano when the heart of* ♌ *sets, the Favonian winds rise, 7 Aph 94. At the same time there also sets* the left shoulder of ♒, *a star of the nature of* ♄ *and* ☿.

[Margin: The left shoulder Occ. V.]

On February 5 *there rises in the evening* the back of ♌, *a star of the nature of* ♄ *and* ♀, *and it fills the air with mists and cold.*

[Margin: The back of ♌ Or. V.]

On February 9 *the* ☉ *enters the beginning of* ♓ *and Ptolemy, at the 15th day before the Kalends of March the days are wintry. On the same 9th day of February* the Tail of the Dolphin *sets in the evening with 0° 30′* ♓. *Of this setting, since it is a stormy star of a Saturnine and Martial nature, Ptolemy hints at the 15th day before the Kalends of February that Auster becomes more violent, with rain: there is also sometimes a clash of winds, with snows. Cardano, 7 Aph. 94 at the evening setting of the Dolphin the days are wintry.*

[Margin: The Tail of the Dolphin Oc. V]

On February 14 the Bright star of the Hydra *rises in the evening with 6°* ♍, *the weather becomes rainy or snowy.*

[Margin: The Bright star of the Hydra Or. V]

On February 15 the right elbow of ♒ *sets in the evening with 6° 30′* ♒ *and the same breeze persists.*

[Margin: The right elbow of ♒ Oc. V.]

On February 19 the Tail of ♌ *rises in the evening with about 9°* ♍ *and stirs up wet weather. About the same day the more southern of the three of the neck of* ♌ *also, of the nature of* ♄ *and* ☿, *sets in the morning, with about 9°* ♍, *according to Tycho with 6°* ♍, *and sharpens the cold.*

[Margin: The Tail of ♌ Or. V.]

On February 20 *there sets in the evening with the Sun and with 10°* ♓ the Mouth of the Swan, *a star of the nature of* ♀ *and* ☿, *and it threatens storms at sea and, elsewhere, a wet and windy breeze.*

[Margin: The Mouth of the Swan Oc. V]

On February 28 *there sets in the evening with 18°* ♓ *the star in* the left thigh of Hercules, the preceding one, *of the nature of* ☿, *and it stirs up violent west winds. According to Tycho this setting falls in 13°* ♓, *on February 23.*

[Margin: The preceding one in the thigh of Hercules Oc. V.]

March

On March 2 *there rises in turn in the evening, with 20° 30′* ♓, *the one that set a little before,* the preceding one in the left thigh of Hercules, *and by its rising it brings forth changeable winds. According to Tycho this rising falls on the 6th or 7th day of March, and in 26°* ♓.

[Margin: The same Or. V.]

On March 6 the Vintager, *a star of the nature of* ♄ *and* ♀, *rises in the evening with 25°* ♍, *at whose rising Ptolemy writes that a freezing Aquilo blows.*

[Margin: The Vintager Or. V.]

On March 9 *there rises in the morning* the Horn of ♈ *with 28°* ♓. *Ptolemy, at the 12th day before the Kalends of April, says;* ♈ *emerges on its side, it rains or snows.*

[Margin: The Horn of the Ram Or. M.]

On March 10 *there rises in the evening* Arcturus *with about 29°* ♍ *to which Ptolemy always assigns storms.* Cardano, *7 Aph. 94, says: When Arcturus rises in the evening, the swallows appear, and it is now spring.* Stadius, chapter 7 of the fixed stars, *writes: At the evening setting of Arcturus we see the swallows withdraw in flocks, just as at its evening rising we see them fly in. Then blows* Favonius, *which is also called by Pliny, book 2, chapter 47,* Chelidonius *and* Ornithias, *from the coming of the swallows. Stadius further reports that he has observed Ornithias blowing, generally with Africus, at the evening rising of Arcturus, around the Nones of March; and that Chelidonius is also harsh and turbulent, but far milder than Corus, bringing hail and snow, and, as far as has been established up to now, blowing for 12 days, and ending in Favonius with great rain or a hailstorm. Ptolemy, in the significations of the fixed stars, around the end of February and the beginning of March, also makes mention, at the rising of Arcturus, of rains, and of Favonius blowing for 12 days. And*

Stadius, right at the beginning of chapter 7 of the fixed stars, reports this: that the star of Arcturus does not emerge without stormy hail, Pliny is witness, with Columella, especially if it is helped by the rays of the Moon or ♂: *If* ♄ *has joined it, we have observed rainy weather for several days in a row.*

[Margin: Arcturus Or. V.]

[Margin: The Chelidonius wind.]

On March 11 or 12 *the* ☉ *enters Aries. Favonius blows far and wide, the stork appears, and crosses the sea. So Ptolemy at the 17th day before the Kalends of April. For our people, however, the stork comes on the day of Gertrude, or March 17.*

On March 14 the Bright star of the Crown, *of the nature of* ♀ *and* ☿, *rises in the evening with 3 according to Tycho 4°* ♎, *and threatens storms at sea and, elsewhere, a wet and windy breeze. Nor does* Spica ♍, *a star of the nature of* ♀ *and slightly of* ♂, *which sets in the morning on March 22 with 10°* ♎, *work dissimilar effects.*

[Margin: The Bright star of the Crown Or. V.]

[Margin: Spica of the Virgin Oc. M.]

On March 23 the Tail of ♏, *of the nature of* ☿ *and* ♂, *sets in the morning with about 12°* ♎. *And, as Ptolemy notes at the 5th day before the Kalends of April, a violent wind blows, and mixes rains with thunder. At times, too, a rainy Septentrio blows.*

[Margin: The Tail of the Scorpion Oc. M.]

On March 29 the right wing and the Neck of the Crow, *of the nature of* ♄ *and* ♂, *rise in the evening with 18°* ♎, *and bring on a rainy Auster.*

[Margin: The Neck of the Crow Or. V.]

On March 30 the nebulous star following the sting of ♏, *sets in the morning, with 19°* ♎. *Of this setting Ptolemy speaks thus at the Kalends of April: The Scorpion sets, and the sky is cloudy with the blowing of Aquilo. On the same day there rises in the evening, with 19° and 30′* ♎, Spica ♍, *and the air is observed to be colder, wetter and more turbulent.*

[Margin: The nebulous star of the Scorpion Oc. M.]

[Margin: Spica of the Virgin Or. V.]

April

On April 6 the Beak of the Crow, *of the nature of* ♄ *and* ♂, *rises in the evening with about 21°* ♎ *and brings cold air. At the same time there also rises* the right shoulder of Hercules, *a star of* ☿, *and it stirs up an east wind.*

[Margin: The Beak of the Crow Or. V.]

On April 2, however, the right arm of Hercules *likewise rises in the evening, and has the same working.*

[Margin: The right shoulder of Hercules and the right arm Or. V.]

On April 5 the left shoulder of Hercules *rises in the evening, with about 25°* ♎, *and stirs the air, mixed with snow and rains.*

On April 7 the Head of Andromeda *sets in the evening with about 27°* ♈, *and brings a cold constitution of the air.*

[Margin: The Head of Andromeda Oc. V.]

On April 11 *there sets in the morning* the tail of ♌ *with 1°* ♏, *and it threatens snows, the air being colder. According to Tycho it belongs to April 15 and 5°* ♏.

[Margin: The Tail of the Lion Occ. M.]

On April 14 the Back of ♌, *a star of* ♄ *and* ♀, *sets in the morning, and produces mists with falling dew. On the same day there also sets in the evening* the belly of the Hare *with 4°* ♉, *and brings colder winds.*

[Margin: The Back of the Lion Oc. M.]

[Margin: The Belly of the Hare Oc. V.]

On April 17, *by the Prutenic calculation, there rises in the morning* the narrow end of the Pleiades *with 6° 30′* ♉: *according to Tycho with about 12°* ♉; *and the other stars of the Pleiades accompany it. Of them Ptolemy, in the significations of the fixed stars, at the 10th day before the Kalends of May, reports this: The Vergiliae rise, Favonius blows; And he adds, three days later; spring ends. At the Nones of May, too, he adds this: The Vergiliae rise in the morning, and Favonius blows: And he places the beginning of summer on the following day, and adds that Favonius prevails. Nor does Cardano disagree, 7 Aph 103, where he says: The rising of the Vergiliae stirs up the Subsolanus wind. Likewise Stadius, chapter 7, where, following the teaching of Hippocrates, he extends spring from the equinox to the morning rising of the Pleiades: and summer from the rising of the Pleiades to the last sight of Arcturus, or its heliacal setting. But we, at this time, define spring from the equinox to the summer solstice. From there, however, as far as the autumnal equinox, we define summer.*

[Margin: The Pleiades Or. M.]

On the same 17th of April, or the 18th according to Tycho, there also rises in the evening the Head of Hercules *with about 7°* ♏; *since it is a star of the nature of* ☿ *and* ♂, *it often stirs up thunder.*

[Margin: The Head of Hercules Or. V.]

On April 19 the Bright star of the northern Scale *rises in the evening with about 8°* ♏, *as does the bright star of the southern Scale on the following day, with 9°* ♏ *and they promise colder nights, because of the nature of the stars of* ♄. *The morning setting, however, of* the Bright star of the southern Scale, *on April 22, with 11° 50′* ♏, *according to Cardano, 7 Aph. 94, stirs up showers.*

[Margin: The Bright star of the northern Scale Or. V.]

On April 23, or also 24, *there sets in the evening* the left foot of Orion *with 13°* ♉ *about: And since it is a star of the nature of* ♃ *and* ♄, *it promises a comfortable temper of the air: but when* ♄ *bears witness, it brings frosts.*

[Margin: The left foot Occ. V.]

There also rises on April 24, with the Sun, the last of the tail of ♈, *which, because it is a star of Venus, moistens the air with morning dew. More accurate observations anticipate the rising of this star by three days.*

[Margin: The last of the tail of the Ram Or. M.]

On April 30 the Shield of Orion *sets in the evening with the Sun, in about 19°* ♉, *and makes the air rainy.*

[Margin: The Shield of Orion Occ. V]

May

On May 2 the last of the tail of ♈ *sets in the evening with the Sun, and brings forth rains at night.*

[Margin: The last of the tail of the Ram Occ. V.]

On May 3 the Heart of ♏ *sets in the morning with 21°* ♏, *and makes the air hot.*

[Margin: The Heart of the Scorpion Oc. M.]

On May 4 Sirius *sets in the evening with 22°* ♉, *the air is disturbed by Auster, and Aquilo, if it is mixed in at the same time, according to Ptolemy at the last day of April. Stadius, chapter 7 of the Bergen tables, reports that the evening setting of Sirius, if it comes two days before or after the full moon, foretells rust for the crop and blight for the flowering plants: for this reason the Romans too, to soften the injury from the heavens, celebrated the Robigalia or rubigalia, which Pliny mentions in book 18, chapter 29, and the Floralia; the former by the decree of Numa at the 7th day before the Kalends of May, the latter by the oracle of the Sibyls at the 4th and the 3rd day before, on the day before, and on the Kalends of May themselves. In our own age, however, it is credible that the purifications of the crops and the fruits, made widely with solemn procession on St Mark's day and on the Rogation days, are made in imitation of this.*

[Margin: Sirius Oc. V.]

On May 6 and 7 the Hyades *begin to set; of them Ptolemy, at the 17th, 16th, 13th and 6th day before the Kalends of May, writes this: The Succulae set, cold winds blow, Favonius, and likewise Africus in the evening, the turning of spring takes place, there blows also*

[Margin: The Hyades Oc. V.]

Auster: *And it has been proved by observations that the breeze is then, for the most part, noticed to be moist. On the same days, too,* the Girdle of Orion *sets in the evening, with 23 up to 25°* ♉, *and it makes the weather moist and windy.*

On May 9 the Pleiades *begin to set in the evening with 27°* ♉; *of them Ptolemy, at the beginning of April, writes that they stir up the Africus wind, which in the end turns into Favonius. This too is to be noted, that Stadius, chapter 7, warns about the Pleiades in these words: We have observed that the transit of* ♀ *or* ♂ *through the Pleiades stirs up rainy weather for some days: The same happens by the* παρόδῳ [Greek: parodō, "passage"] *of Mars alone.*

[Margin: The Pleiades Oc. V.]

On May 11 Lampadias, or the Eye of ♉, *sets in the evening with 29°* ♉, *and brings forth storms. Almost the same is done by* the Northern Eye of ♉, *which sets on May 12 with the beginning of* ♊.

[Margin: The Eye of the Bull Oc. V.]

On May 15 the Right Shoulder of the Centaur, *a star of Venus and of Mercury, rises in the evening with 4°* ♐ *and makes the air moist.*

[Margin: The Right Shoulder of the Centaur Or. V.]

On May 18 Procyon *sets heliacally. And at these times the wines surge in the cellars, according to Stadius, chapter 7 of the fixed stars.*

[Margin: Procyon Oc. Hel.]

On May 21 the Heart of ♏ rises in the evening *with 9° ♐ and produces storms.*

[Margin: The Heart of the Scorpion Or. V.]

On May 22 there *rises with the Sun* the Northern Eye of ♉, *and does almost the same.*

[Margin: The Northern Eye of the Bull Or. M.]

On May 23 the Eagle *rises in the evening with about 12°* ♊, *and stirs up sudden rains, lightning and thunder. Of it Cardano, 7 Aph. 95, reports this, following the opinion of Pliny, chapter 29, book 18: If the rising of the Eagle falls on the interlunium or the full moon, all the early and spring fruits must be harmed. And 7 Aphoris. 57. If the full moon falls while the Eagle is rising in the evening, it not only deprives the olives and vines, flowering at that time, of their fruits in the highest degree, but also makes them less fruitful for the future. Stadius, chapter 7, applies the evening rising of the Eagle to June 2 in his own horizon, and says that if it falls at the full moon, it portends barrenness both of oil and of wine, while each is then in flower. And this is the reason why the common people judge of the vintage from the day of Urban, namely May 25.*

[Margin: The Eagle Or. V.]

On May 24 the Hyades *rise in the morning with 12°* ♊, *and make rains, which are of evil omen for the yield of the wine. Ptolemy, at the 13th and 9th day before the Kalends of June, says: The Succulae begin to rise, Aquilo blows and it rains.*

[Margin: The Hyades Or. M.]

On May 27 the Eye of ♉ *rises in the morning with about 16°* ♊, *and makes rains and storms.*

[Margin: The Eye of the Bull Or. M.]

On May 30 and 31 the Dolphin *rises in the evening with 18 and 19°* ♐, *and produces a changeable and cloudy sky.*

[Margin: The Dolphin Or. V.]

June

On June 1 the left thigh of ♐, *a star of the nature of* ♄ *and* ♃, *sets in the morning with 20°* ♐, *and clears the sky. At that time there also set in the morning certain stars of Ophiuchus, which darken the air with clouds, since they are Saturnine and Venerean.*

[Margin: The left thigh of the Archer Occ. M.]

On June 6 Procyon *sets in the evening with 24°* ♊, *concerning which Cardano, 7 Aph. 96: The setting of Procyon, which extends over about four days, to the flowering harvest; if it has taken in the full moon, all the crops must be harmed. And Stadius, chapter 7 of the wandering stars: The evening setting of Procyon, if it happens at the interlunium, brings injury from blight to the flowering olive and vine.*

[Margin: Procyon Oc. V.]

On June 7 *there sets in the morning with 25* ♐ the Armpit of ♐, *and promises clear weather.*

[Margin: The Armpit of the Archer Occ. M.]

June 8 *is the day of* Medard, *from which, whether it is rainy or clear, the common people judge of the harvest. For a rainy one promises rain: a clear one a clear harvest.*

And although this judgement does not always correspond exactly with the outcome, yet it rarely goes wholly astray. At that time, too, there rise in the morning several stars of ♊, *of Venus and of Mercury, which bring very doubtful constitutions of the air. The preceding Head of* ♊, *however, a star of the nature of* ♂ *and* ☿, *moves westerly winds.*

[Margin: The day of Medard, why it is critical.]

On June 9 the Dart of ♐, *a star of Mars and of the Moon, setting in the morning with about 28°* ♐, *threatens rains; nor does* the right shoulder of Pegasus, *rising in the evening, act differently.*

[Margin: The Dart of the Archer Oc. M.]

On June 12 the ☉ enters ♋, *and it is the solstice, and at that time, according to Pliny, chapter 25, book 16, the vine flowers, and the olive, which begins a little later.*

On June 16 Arcturus *sets in the morning with 4°* ♎: *Of it Ptolemy speaks thus at the last day of June: Arcturus sets in the morning, and there is intemperate weather of the air. For it is a stormy star, which, rising and setting, brings evident changes of the air.*

[Margin: Arcturus Oc. M.]

On June 17 the nebulous star of ♐ *rises in the evening with 5°* ♎, *and produces mists.*

[Margin: The nebulous star of the Archer Or. V.]

On June 18 the Bright star of the Water-serpent *sets in the evening, a star of the nature of* ♄ *and* ☿, *and covers the sky with clouds, with a certain amount of rain.*

[Margin: The Water-serpent Occ. V.]

On June 20 the nebulous star of ♐ *sets in the morning, with the air turbulent and cloudy.*

[Margin: The nebulous star of the Archer Occ. M.]

On June 21 the Left Shoulder of Orion *rises in the morning with 9°* ♋. *Of it Ptolemy writes thus at the 15th day before the Kalends of July: Favonius blows with Auster, the shoulder of Orion appears. On the same day there also rises in the morning the following Head of* ♊, *and it creates westerly winds.*

[Margin: The Left Shoulder of Orion Or. M.]

On July 23 the head of Andromeda, *a star of the nature of* ♀ *and* ♃, *rises in the evening with 11°* ♎, *and a pleasant temper of the air is caused by it.*

[Margin: The Head of Andromeda Or. V.]

On June 29 the Right Shoulder of Orion *is raised up with the Sun in the morning, and threatens rains: On the same day there also sets in the evening the bright star outside the figure of* ♊, *of the nature of* ♄, *and it signifies a colder breeze.*

[Margin: The Right Shoulder of Orion Or. M.]

July

On July 2, which is the day of the Visitation of Mary, there rises in the morning the first of Orion's Belt *with 19°* ♋. And it is a critical day. *For if rain has fallen on this day, it often happens that it lasts continuously for 4 weeks. And Stadius, chapter 7 of the fixed stars, speaks in this manner of the rising of Orion: If Jupiter is mixed with the Sun, or* ♂ *with Jupiter, while Orion is rising, the violence*

of that star will produce a storm around the rising of Sirius. The forerunner Aquilo will blow away the corruption of the air, the Etesians will blow through mild and dry, and the autumn will be healthy. A mixture of Jupiter and Mercury promises the same things. Cardano holds almost the same, in his commentary on text 57 of book 2 of Ptolemy's Quadripartitum, *where he says: When Orion rises, Aquilo blows. Ptolemy, however, at the 14th and 13th day before the Kalends of July, advises this: Orion rises in the morning, Auster and Favonius blow, it rains and thunders.*

[Margin: Orion's Belt Or. M.]

On July 5 the Beak of the Crow *sets in the evening with 22°* ♋, *and brings forth a turbulent, thick and unhealthy breeze.*

[Margin: The Beak of the Crow Occ. V.]

On July 7 the left foot of Orion *rises in the morning, with 24°* ♋, *and signifies a calm and clear state of the air.*

[Margin: The left foot of Orion Or. M.]

On July 8 the Left Shoulder of ♒ *rises in the evening with 25°* ♍, *and bestows a cold breeze with winds.*

[Margin: The Left Shoulder of Aquarius Or. V.]

On July 10 the Neck, or nape, of the Crow *sets in the evening, and brings great inconstancy of the air, with lightning and thunder.*

[Margin: The Neck of the Crow Occ. V.]

On July 12 the Northern Ass *rises in the morning with 29°* ♋, *and gives an evident signification of rains.*

[Margin: The Northern Ass Or. M.]

On July 13 the Bright star of the Crown *sets in the morning with the beginning of* ♌; *according to Ptolemy, Auster blows at the Nones of July.*

[Margin: The Bright star of the Crown Occ. M.]

On July 15 and 16 the Southern Ass *sets first in the evening, and afterwards rises in the morning, and signifies rains and a dark sky, with the setting of the Manger coinciding.*

[Margin: The Southern Ass Or. V. Oc. M.]

On July 20 Procyon *rises in the morning with 6°* ♌. *And Ptolemy, at the Ides of July: The Etesians grow strong.*

[Margin: Procyon Or. M.]

On July 21 the following Head of ♊ *sets in the evening with 7, according to Tycho with 8°* ♌, *and produces westerly winds, especially if* ☿ *bears witness.*

[Margin: The following Head of the Twins Oc. V.]

On July 25 or 26 the Northern Ass *sets in the evening with 13°* ♌ *according to Tycho; at which time the Aquilones, forerunners of the Etesians, usually blow. Cardano, 7 Aph. 103, following the opinion of Pliny, book 2, chapter 47, reports this: The forerunners, the Aquilones, precede the rising of the Dog Star by eight days: And two days after them follow the Etesians, for 40 days, through which the force of the Dog Star also nearly lasts. Stadius, chapter 7, confirms the same from his own experience. For he says: It is true that in some past years the forerunner Aquilo blew about eight days before the rising of the Dog.*

[Margin: The Northern Ass Occ. V.]

On July 27 the Right Wing of the Crow *sets in the evening with 14° ♌, and produces clouds and nocturnal rains. Winds, however, are stirred up by the morning setting of the left shoulder of Hercules, on July 28.*

[Margin: The Right Wing of the Crow Oc. V.]

August

On August 1 Sirius *rises in the morning, with 18° ♌. Of it Cardano, 7 Aph. 94: The rising Dog Star shakes the seas and the lands, and almost every kind of living creature. And 7 Aph. 72. It can hardly happen that under the rising of the Dog Star droughts and diseases do not flourish. Likewise Stadius, chapter 7: At the morning rising of Sirius the seas boil, the wines surge in the cellars, (which, we noted above at May 18, happens among us also at the heliacal setting of Procyon) the pools are stirred, dogs are driven to madness, some fish are seized by sideration. Stadius adds this too, in the same chapter: When mixed, ♂ provokes the burning Sirius, ♃ soothes it, Venus relaxes it, if they are mixed singly with the Sun. But if, their rays confused, they pour themselves round together, they will kindle heat, so that if you then foretell some rain as about to come down, you will rightly say, with Aristotle, that it will fall by chance.* Diaphanes writes: *If, when Sirius rises with the Sun, the Moon passes through the Ram, know that rainy weather is foretold; if ♉, stormy; if ♊, pestilence; if ♋, drought; if ♌, scorching heat; if ♍, frequent showers and miscarriages of women; if ♎, dry intemperate weather; if ♏, plague; if ♐ and ♑, rainy weather; if ♒, dry and sickly; if ♓, abundant rain through the following year. Whether these things are true, I rightly affirm with Stadius, has not yet been examined exactly by me. A presage sought from the various causes of the mixtures seems, however, more secure.*

[Margin: Sirius Or. M.]

On August 3 the Eagle *sets in the morning with 20 or 21° ♌ and Ptolemy, at the end of July and the beginning of August: Africus blows, the air is turbulent, and the heats are parching. Cardano says, 7 Aph. 84: The Eagle, setting in the morning, stirs up the Etesian winds, which, according to Ptolemy, blow at the 12th day before the Kalends of August for 21 days.*

[Margin: The Eagle Oc. M.]

On August 7 Regulus *rises in the morning with about 24° ♌, at whose rising, Ptolemy writes at the 4th day before the Kalends of August, mild Aquilo blows.*

[Margin: Regulus Or. M.]

On August 8 Regulus *sets again in the evening with about 25° ♌. Of it Cardano, 7 Aph. 94, writes: When the heart of ♌ sets, the Favonii rise up.*

[Margin: Occ. V.]

On August 9 the back of ♌ *rises in the morning together with the breast, with 26° ♌, and tries to bring forth a somewhat cold and moist breeze because of the Saturnine and Venerean stars.*

[Margin: The Back of the Lion Or. M.]

On August 11 the Southern one of the right shin of ♒ *sets in the morning, and produces thunder and flashes of lightning.*

[Margin: The Southern one of the right shin of Aquarius Oc. M.]

On August 13 Sirius rises *heliacally, which gives the beginning of the year of the Greeks. Of this rising Cicero, near the end of book 1 of* On Divination, *recounts from Heraclides Ponticus that the Ceans were accustomed to watch the rising of the Dog Star carefully every year and to form a conjecture: If the star appeared dimmer and, as it were, murky, the sky being, that is, thick and dense, the season would be heavy and pestilent. On the contrary, if it is found bright and very clear, a pure and thin sky is signified, and on that account healthiness of the air is promised. On the same day, too, there sets in the morning* the Dolphin *with the beginning of* ♓, *at whose setting — which, according to Ptolemy, happens on the same day together with the Hare, not without sultry and foul heat — autumn begins, Ptolemy at the 16th day before the Kalends of September. Stadius, chapter 7, reports from Pliny, book 18, chapter 3[numeral: ?]. If there are showers at the morning setting of the Dolphin, they will not come when Arcturus rises. In our age and horizon this space comprises an interval of 30 days, For Arcturus rises on September 12.*

[Margin: Sirius Rises Hel.]

[Margin: The Dolphin Oc. M.]

August 19 the right shoulder of ♒ *sets in the morning; and the bright one of the Water-serpent rises in the morning with 5°* ♍, *and brings forth both rains and winds not without lightning. The right elbow of* ♒ *setting in the morning August 20 does nearly the same.*

[Margin: The right shoulder of ♒ Oc. M.]

August 22 the tail of the Whale *sets, in the morning with about 8°* ♓ *and produces mists.*

[Margin: The tail of the Whale Oc. M.]

August 23 the tail of ♌ *rises in the morning and is a cause of storms and hailstorms.*

[Margin: The tail of ♌ Or. M.]

August 24 *is the day of Bartholomew, whom they hold to be the first autumnal saint; if his day is clear, the farmers think a good autumn will follow. Fowlers also then observe the wind of the preceding night: for if a single one is blowing, they judge that the fowling will be lucky. Stadius, chapter 7 of the fixed stars, proves by several examples that around these times, namely around the end of August, Corus rages most, a stormy, turbulent, hail-bearing, impetuous, violent Wind, which overturns buildings, lays trees low, and upsets laden wagons, especially if it is provoked by the conjunction of Jupiter and* ☿ *with Arcturus.*

[Margin: The day of Bartholomew.]

September

September 1 is the day of Aegidius and the hunters' Critical day, *since on this day the stags begin to rush into venery: But if they are carried into lust more slowly, they give a sign of a later winter. About this day the hunters judge that if it does not rain on it, the rest of the autumn will be dry, which very thing experience proves does not always happen. On the same day, too, there sets in the morning* the preceding star of Hercules in the left thigh *with 18°* ♓ *and it is a cause of westerly winds.*

[Margin: Aegidius Critical for hunters]

[Margin: The left thigh of Hercules Oc. M.]

September 8 the Vintager *rises in the morning with 25° ♍ and brings forth a cold and moist breeze. Ptolemy says at the 6th day before the Kalends of September: The Vintager emerges Auster and Favonius blow.*

[Margin: The Vintager Or. M.]

September 11 *there rises in the evening* the preceding horn of ♈ *with 28° ♓ and brings on instability of the air.*

[Margin: The horn of the Ram Or V.]

September 12 Arcturus *rises in the morning. About it Ptolemy, at the 3rd day before the Ides of September and the 12th day before the Kalends of October, advises this: When Arcturus [Aucturo] rises, abundant showers fall. And at the Ides of September he says: The swallows are not seen. For just as they arrive at the setting of Arcturus, so they withdraw at its rising. See above, the day March 10. Pliny also writes, book 2, chapter 39, that the star of Arcturus emerges not without stormy hail And we find this most true when it is assisted by the rays of ♄. Stadius, chapter 7, says: We see the swallows withdraw in flocks at the morning rising of Arcturus.*

[Margin: Arcturus Or. M.]

September 13 is the Equinox: *from which we regularly begin autumn. Concerning the autumnal equinox Cardano, 7 Aph. 103, following the opinion of Pliny, book 2, chapter 47, lays down this, that at it Corus blows, the most vehement wind.*

September 17 the bright one of the Crown *rises in the morning with 3, according to Tycho with 4° ♎ and stirs up winds: Ptolemy speaks thus of this rising at the Nones of October: The Crown emerges and it is the turning of the summer. Likewise at the 3rd day before the Ides of October the Crown rises in the morning, the winds change, and a harsh winter comes on at sea. Spica ♍, setting in the evening with 10° ♎ September 24, also moves winds from the west, and threatens the approaching winter.*

[Margin: The bright one of the Crown Or. M.]

September 25 the tail of ♏, *sets with 11° 40′ ♎ According to Ptolemy, at the 10th day before the Kalends of November, Aquilo blows and at sea there is a dreadful storm.*

[Margin: The tail of ♏, Oc. vesp.]

October

October 2 the right wing and the neck of the Crow *rise in the morning with 18° ♎ and bring unsettled air. In the evening, however, the misty one following the sting of ♏, sets, and makes the sky dark with mists and clouds.*

[Margin: The neck of the Crow Or. M.]

October 3 *there rises in the morning* Spica ♍ *and increases cold and moisture.*

[Margin: Spica of the Virgin Or. M.]

October 4 the beak of the Crow *rises in the morning and produces unsettled air. There also rises at nearly the same time the right shoulder of Hercules, which announces blasts of winds.*

[Margin: The beak of the Crow Or. M.]

October 8 the left shoulder of Hercules, *a* ☿ *star, rises in the morning with 25°* ♎, *and stirs up sudden storms with wind and rains. It also adds, if a quartile of* ♄ *and* ♂ *coincides, thunder.*

[Margin: The left shoulder of Hercules Or. M.]

October 10 *there sets in the morning with 27°* ♈ the head of Andromeda *and promises a pleasant temperateness of the air.*

[Margin: The head of Andromeda Occ. M.]

October 14 or rather 17 the tail of ♌ *sets in the evening with 1°: or rather 5° 30′* ♏ *according to Tycho. Around this time most of us expect the last warmth of the air, which in our German tongue we call* den Gallenſommer, *whose beginning and end are to be observed.*

[Margin: The tail of the Lion Occ. V.]

October 17 the preceding horn of ♈ *sets in the morning and brings instability of the air.*

[Margin: The horn of the Ram Occ. M.]

October 18 the back of ♌ *sets in the evening, and darkens the sky with clouds and mists.*

[Margin: The back of the Lion Occ. V.]

October 19 the belly of the Hare, *setting in the morning, moves the air with winds, and agitates it. The Head of Hercules too, rising in the morning with the Sun and 6°* ♎, *produces nearly the same effects.*

[Margin: The belly of the Hare Occ. M.]

October 21 the bright one of the northern scale-pan *rises in the morning, with about 8°* ♏, *and Favonius blows. Ptolemy at the 4th day before the Ides of October. At these times too the* Pleiades *rise in the evening, and soak the earth with abundant rains. Auster also blows, Ptolemy at the day before the Ides of October.*

[Margin: The bright one of the scale-pan Or. M.]

[Margin: The Pleiades Or. V.]

October 23 the bright one of the southern scale-pan *rises in the morning, and begets irregular winds.*

[Margin: The bright one of the scale-pan Or. M.]

October 26 the head of Ophiuchus, *rising in the morning with about 13°* ♏, *sharpens the cold, and produces clouds. For it is a Saturnine and Venereal star. On the same day, too, the left foot of Orion sets in the morning, and very often brings snows mixed with abundant rains. The last of the tail of* ♈, *rising in the evening, confirms the same signification.*

[Margin: The head of Ophiuchus Or. M.]

October 30 the apex of the Triangle, *setting in the morning with 16°* ♉, *moves westerly winds.*

[Margin: The apex of the Triangle Occ. M.]

November

November 1, the shield of Orion *sets in the morning with about 19°* ♉ *and denotes air overcast with clouds, with wind, yet without rain.*

[Margin: The shield of Orion Occ. M.]

November 2, *on which the Sun stands in 20° ♏, is a Critical day for the Arabic Astrologers, since from it, according to Pitati [Pitat.] in the treatise on the change of the air, from the sayings of Haly, Omar and Safar, etc., which Giuntini also notes, chapter 1 of the treatise on the revolutions of the years of the world, the disposition of the air in rains, thunders and lightnings in general is known. For if at that time ♃ ♀ and ☿ are Occidental or retrograde, many rains are judged for that year. But if ♄ and ♂ are also considered, which of them is the stronger, and what association they have with the Planets, especially with Mercury, the remaining things pertaining to the change of the air are known.*

November 3 the last of the tail of ♈ *sets in the morning, and produces rains mixed with snows.*

[Margin: The last of the tail of the Ram Occ. M.]

November 5 Antares, or the heart of ♏, *sets in the evening with 22° ♏, and signifies rains. On the same day, too,* the Greater Dog *sets in the morning, and Ptolemy, at the third day before the Kalends of December: With Africus blowing the day is rainy. On the same day, too, there begins to set in the morning, with 23° ♉,* Orion's Belt. *Of it Ptolemy speaks thus at the last of November: Orion sets, Favonius blows, and with Auster blowing it rains.*

[Margin: The heart of the Scorpion Oc. V.]

[Margin: The Greater Dog Occ. M.]

[Margin: Orion's Belt Occ. M.]

November 8 the Succulae, or Hyades, *begin to set in the morning, to which Ptolemy, at the 10th day before the Kalends of December, ascribes icy rains.*

[Margin: The Succulae Occ. M.]

November 10 *is the Vigil of Martin, to which the Germans dedicate feasts, and they eat geese. The Northern peoples, moreover, are accustomed, as Olaus Magnus reports, book 19, from the bone of a goose's breast an augury to take, how harsh and lasting the winter to come will be, in this way: If the bone of the breast is clear when the flesh has been eaten, a rigid winter will appear. If thick and opaque, very much snow and a mild winter will follow. But this augury appears to be false, because there is no, I will not say correspondence, but not even Analogy of the weather with the goose-bone: and indeed the very breastbones of geese slaughtered and boned at the same time by no means agree with one another, which has been proved many times by experience.*

[Margin: On judging the weather from the breast of a goose.]

November 11 *and on some following days the* Pleiades *set in the morning. Of them Ptolemy, at the 4th and 3rd days before the Ides of November, reports this: The beginning of winter the Vergiliae are hidden: And Cardano, 7 Aph. 103, from Pliny, chapter 47, book 2: The setting of the Vergiliae stirs up the wintry Aquilo: Stadius, however, chapter 7, makes this setting Critical: The morning setting of the Vergiliae, he says, if it happens in a cloudy sky, announces a rainy winter: If in a serene one, a harsh one. He likewise says in the preceding words: Pliny has handed down that the setting of the Succulae and of the Pleiades is, on land and sea, also turbulent. But you*

will find things truer if Mars has goaded those stars by his approach. If ☿ *too, or by the casting of the rays of Mars, either opposite or quartile, will be pressed.*

[Margin: The Pleiades Oc. M.]

November 12 Palilicium *sets in the morning with 29°* ♉, *not without disturbance of the air and rain mixed with snow: which constitution the northern eye of* ♉ *setting November 13 with the beginning of* ♊ *also confirms.*

[Margin: Palilicium Oc. M.]

November 14 the hollow of the left foot of Ophiuchus *rises in the morning with 1° 30′* ♐, *and begets both mists and dark air.*

[Margin: The hollow of the left foot of Ophiuchus Or. M.]

November 16 the right shoulder of the Centaur *rises in the morning, and brings forth both winds and snow or rains.*

[Margin: The shoulder of the Centaur Or. M.]

November 16 the right ankle of the Charioteer *rises in the evening, a Martial and Mercurial star, with 3° 30′* ♊. *And it produces a southerly constitution of the air with turbulent wind.*

[Margin: The right ankle of the Charioteer Or. V.]

November 21 the heart of ♏ *rises with the Sun and 9°* ♐, *and brings both storms and a moist temperateness of the air.*

[Margin: The heart of the Scorpion Or. M.]

November 24 *there rises in the morning with the Sun* the Eagle *and brings rains or snows with a slackening of the cold. At the same time, too,* Arcturus *sets heliacally, a rising which, Cardano 7 Aph. 71, can hardly take place without showers.*

[Margin: The Eagle Or. M.]

[Margin: Arcturus Oc. Hel.]

November 28 *there rises* the Eye of ♉ *in the evening with about 16°* ♊ *and makes the breeze moist and snowy.*

[Margin: The eye of the Bull Or. V.]

The last of November the right foot of Ophiuchus *rises in the evening, a star of the nature of* ♄ *and* ♀, *and closes the month with a misty and dark constitution of the air.*

[Margin: The right foot of Ophiuchus Or. V.]

December

December 1 *there rises in the morning with the Sun* the tail of the Dolphin, *an indicator of rains or snows.*

[Margin: The tail of the Dolphin Or. M.]

December 2 *there sets in the evening* the left thigh of ♐ *and tries to bring forth both winds and a serenity of the air.*

[Margin: The left thigh of the Archer Oc. V.]

December 6, *which is the day of Nicolaus,* Procyon *sets in the morning. Of it Ptolemy, at the 3rd day before the Kalends of December, advises this: The Dog sets in the morning, and with Africus blowing it rains. Cardano, from the opinion of Pliny, book 2, chapter 47, speaks thus of this time, 7 Aph. 94: The nearest seven days from midwinter, and as many before, are seldom troubled by winds, and are called*

halcyonian. Nor does Stadius disagree, chapter 7 of the fixed stars, saying: We have observed that the Halcyonia, or the most tranquil weather, happen to us too around the Winter Solstice. For that tranquillity usually occurs without blasts of winds; when the winter is harsh and in some measure serene, and the earth is bound by the greatest frost, so that almost nothing of vapours can be drawn out of the earth. But if the winter is mild and moist, the winds are noticed rushing just as at other times, nay with greater force.

[Margin: Procyon Oc. M.]

December 7 the armpit of ♐ *sets with the Sun in the evening, and a serenity with more intense cold is signified.*

[Margin: The armpit of the Archer Oc. V.]

December 10 the Dart of ♐ *sets in the evening, which, with the right shoulder of* Pegasus *rising in the morning, promises a gentler breeze and a more relaxed cold.*

[Margin: The Dart of the Archer Oc. V.]

December 16 Arcturus *sets in the evening with 4°* ♍, *before whose setting southerly winds blow, Cardano 7 Aph. 103.*

[Margin: Arcturus Oc. V.]

December 17 the Nebulosa of ♐ *rises in the morning with the Sun, and produces both mists and humidities with a battle of winds.*

[Margin: The Nebulosa of the Archer Or. M.]

December 18 the lucida of the Water-serpent *sets in the morning, and produces nearly the same effects.*

[Margin: The lucida of the Water-serpent Oc. M.]

December 20 the Nebulosa of ♐ *sets in the evening, and brings forth mists and darkness of the air.*

[Margin: The Nebulosa of the Archer Oc. V.]

December 21 the following head of ♊ and the left shoulder of Orion *rise in the evening with 9°* ♋, *and bring a slackening of the cold with a disturbance of the air and a battle of winds.*

[Margin: The head of the Twins and the shoulder of Orion Or. V.]

December 27 the head of Andromeda *rises in the morning, and promises a serenity of the air.*

[Margin: The head of Andromeda Or. M.]

December 29 the preceding head of ♊ sets in the morning, and the right shoulder of Orion rises in the evening, *and they produce snows with westerly winds.*

[Margin: The preceding head of the Twins Oc. M.]

And these things, indeed, I wished to set out briefly concerning the operations of the rising and setting of the principal fixed stars, so that from them the efficacies of the rest also might be better judged. But although daily experience shows that these significations of the fixed stars do not always display themselves in the same way in which they have been determined, so that a doubt could arise for someone whether faith should be placed in this account, it must nevertheless be understood that assent is by no means to be denied; since

the fixed stars and the Sun, from whose joint or opposite ascent and descent this determination has been taken, truly operate and effect what we have said, provided that they are not hindered by the suffrages of the other planets, but rather assisted.

[Margin: Why the risings and settings of the stars are not always effective.]

For just as in political government a Prince deserted by his Counsellors and his other more powerful subjects cannot carry out his decrees in the way in which he has decided, so too in the heavenly government over these lower things the Sun, king and leader of the heavenly bodies, rarely accomplishes the operations it intends without the help and the consenting rays of the rest of the Planets, but with them carries them out best. We see, therefore, that the Hyades and the Pleiades, although they are stars most apt for producing rains and humidities, yet by their rising and setting with the Sun quite often frustrate the outcome which many either desire or fear, and do not change a settled serenity into rains: which has been abundantly proved even by the example of the preceding Year 1605.

But, to return to the full moon proposed earlier, which we decided to explain by way of example: from August 27 Julian to September 3 of the year [numeral: ?]607, in which the last quarter falls, this constitution of the air is promised. *First, although some serenity may precede the full moon, yet the opposition itself, because it takes place with Jupiter, the lord of the full moon, standing in southern latitude, with moist stars belonging to the middle part of* ♓, *and with the Moon placed in the watery sign* ♓, *with windy stars of* ♒, *with* △ ☉ *and* ♄ *concurring in the cold earthy triplicity, and a* ✶ *of the Moon to Saturn, promises a cold breeze with a Notolybic wind and clouds, which will give a gentle but intermittent rain, August 27 and 28. But in the afternoon of the 28th day, when the Moon is carried down to Jupiter nearly in the opposite of* ☿, *the rainy constitution will be changed through some storm into serenity, which will extend also into August 29, the breeze still remaining cold because of the* □ *of the Moon and* ♄. *This serenity, however, will not be lasting, but with the Moon approaching the op-*

[Margin: Our example.]

-posite of ♀, *it will in turn change somewhat, with Jupiter, retrograde with moist stars, not objecting, although otherwise he is held to be the parent of serenity. In turn, therefore, the sky will be covered with clouds and will threaten rains toward night. On the 30th day of August, the opposition having been overcome, serenity is to be expected again, with Notus also blowing, until at last the Moon in* ♉, *her own exaltation, having advanced to some point, in her rising with the Pleiades, will give both clouds and abundant rain by night, between August 30 and 31: but the day itself is to be hoped for more serene because of* △ ♄ *and* ☽, *likewise* ☉ *and* ☽, *from the dry earthy signs.* The first of September at last *will in turn gather clouds, and will scatter gentle rains with Africus blowing: for the Moon approaching* □ ♂ *and* ✶ ♃, *with which the irradiation* □ ♄ *to* ☿ *mingles itself, seems to promise this: and a similar constitution lasts until September* [numeral: ?] *and the beginning of the waning quarter: For this full moon cannot bring anything other than the greatest inequality of the air, clouds*

and rains mixed with serenity, as has been said, the significators being so variously intermixed.

Caput VII.

On the Fertility of the Earth, or the Grain Supply.

Although most people seek the scarcity and plenty of the grain supply or of the fruits from the beginning of the year, or from the figure of the revolution and of the nearest lunations, we nevertheless hold that it is more truly taken, according to Cardano, segm. 7 Aph. 111, from the temperature of the air in moist and dry, or its inequality, and then also from the full moons and new moons, the rising of the stars and the Eclipses, especially if all these are explored for the time at which the individual things flower. For trees and other fruits, when they flower, are most affected by the injuries of the sky, and are like women in labour. But when they bring forth fruits, they are like women giving suck and nursing, *7 Aph. 109. Hence, as Stadius rightly advises, chapter 7 of the universal prognostications in the Bergen tables, for judging the fertility and sterility of any fruits whatever, there must first be considered, for the proposed horizon, from experience and from the writers on country matters, the times at which the individual fruits first germinate and flower. Then those at which they reach maturity. Thirdly, those at which they ought to be gathered. And afterwards the qualities of the weather at those times are examined by the prescribed means; and at last a pronouncement is made about the cheapness and dearness of the grain supply.* For whoever, *as it is in Cardano, 7 Aph.* 112, cannot predict distinctly for the individual days about frost, about snow, hail, rain, and wind, is not to be believed when he predicts abundance or scarcity of crops.

[Margin: The best judgement about the grain supply is drawn from the temperature of the parts of the year.]

But first, to deal with the qualities of the individual quarters of the year, from the commentary of Cardano on text 56 of book 2 of the Quadripartitum *of Ptolemy: Let us suppose that in spring there are signs of much moisture, and then there will be signified rot of the fruits, and fewness of them, and an abundance of useless herbs: For flowering trees, and the other things springing from the earth, are hindered, because the remains of the winter cold, not yet consumed, then both insinuate themselves and do harm by their quality. But if signs of heat are present, the trees will quickly put out leaves, and will flower quickly: And the spring fruits, such as cherries and strawberries, will be early: and if they are not gathered before due maturity, especially the cherries, they will breed worms, above all in warmer places. To us, indeed, this almost never happens, but in Italy it is very frequent. The roses too will appear before their time, not very o-*

[Margin: A spring too moist]

[Margin: A warm spring]

-dorous, and everything will be more arranged for show, that is, for grace and ornament, than for the thing itself. The spring will therefore be beautiful and useless. But if signs of cold and dryness are present, and a frost falls at the end of spring near

the full moon, there will be very few fruits in that year, and of wine and nuts almost nothing. But if the spring is dry, not very warm, the fruits will be few and good, and a scarcity of grain. But if it turns out cold, the fruits will be few and the same ones late, which will reach maturity either more slowly or not fully.

[Margin: A cold, dry spring.]

[Margin: A dry spring]

[Margin: A cold spring]

But the summer, *if it abounds in many rains, the summer fruits will rot, and there will not be plenty of grain, and many diseases will rage. If it is drier, there will be a scarcity of grain, the summer fruits will be wholesome, the fish will die in the waters because of the corruptions of the waters, and very acute diseases will rage. But if warmer, there will be both many diseases and a great plenty of summer fruits, and the wine that is produced will be generous. If, finally, it is colder, the year will indeed be healthy, but the fruits will be late.*

[Margin: A moist summer]

[Margin: Drier.]

[Margin: Warmer]

[Margin: Colder]

A moister autumn *rots the grapes, and makes wines which are spoiled in spring, because of the quantity of water which is gathered together with the grapes and is mixed with the wine. If it is moister in its last part, in the following year there will be a scarcity of grain. If drier in its first part, there will be a scarcity of millet in that year. If warmer, it will be sickly and altogether bad. If colder, there will be a loss of the autumn fruits in quantity, flavour and grace.*

[Margin: A moister autumn]

[Margin: Drier]

[Margin: Warmer]

[Margin: Colder]

A cold and dry winter *is praiseworthy; the coldest kills trees, especially those that delight in a warm sky, such as the pomegranate, the fig, the peach, the citron, the orange, the lemon, etc. But a warm and moist winter is unhealthy and pestilent, and hostile to the crops. For it suffocates the sown seed with excessive rains. Moderate snows, too, make the fields fertile, and bring an abundance of crops. For they kill the little worms and warm the earth. 7 Aphor. 113 Moreover, every immoderate intemperance and perversion of the seasons is bad.*

[Margin: A cold and dry winter]

[Margin: A warm and moist one.]

A multitude of winds through the year, too, is harmful to the fruits, fewness to the crops; calm through the whole year is suspect of pestilence. These things, therefore, the Astrologer must predict once the first qualities are known: and this judgement is the best and safest of all.

[Margin: The use of the winds]

Next, so that a safer judgement may be made, let these few rules also be considered at this point: 1 Any immoderate constitution whatever brings forth

a scarcity of the grain supply and destruction for animals, Cardano 7 Aph. 123. 2 Strong constitutions, while the sown crops are flowering, if they fall into the opposition of the Moon or ♂, for the most part bring on a scarcity of the grain supply, 7 Aph. 98. 3 Generally, new moons, if they fall at the flowering or the first coming-out of the shoots or of the sown crops, or with the rising or setting of the most powerful stars, bring calamities to the yield of the crops, 7 Aph. 99 and Stadius chapter 7. 4 Eclipses which fall on a flowering tree bring a scarcity of its fruit in that year, 7 Aph 110. Stadius holds the same, chapter 7, speaking thus: If an eclipse of the Sun happens while a tree or any other sown thing is flowering, it will shed its blossom with difficulty, and will cheat the hope of fruit. 5 ♄ in the fixed signs ♉, ♌, ♏ and ♒ makes a scarcity of the grain supply, and the death of men, as Rasis says, Cardano 5 Aph. 60. 6 Meteors, especially

[Margin: Certain rules concerning the grain supply] of comets, if they appear in springtime, bring on a scarcity of all fruits and a dearness of the grain supply, since their vaporous mass scorches the shoots and sucks the sap out of them: Stadius, chapter 7. From this source, too, other judgements pertaining to this matter, taken from the rising and setting of the stars, which we touched on here and there in the preceding chapter, can be sought.

The common run of astrologers, however, as was said at the beginning, judges this question of the grain supply either from the chart of the revolution of the year alone, following al-Qabīṣī in this respect, who explains the method at the end of his introductory little book. Or from the chart of the ☌ or ☍ of the luminaries which most nearly preceded the vernal equinox, which Haly expounds in part 8 of De judiciis astrorum*, chapter 31: Or from the comparison of three vernal figures, which are set up both for the ingress of the ☉ into ♈ and for the new moons and full moons most nearly preceding and following the ingress. For in these they consider these three things: 1 The lord of the place of the ☽, or of the whole figure, and whether it is configured with good or bad planets or rays. 2 The lord of the fourth house and the 4th house itself, and by which meetings or rays of the planets it is either made fortunate or made unfortunate. 3 The ascendant or first house, and by which planets and syzygies it too is either strengthened or weakened. For if these significators are fortunate for the most part, they signify the fertility of the year; if unfortunate, its sterility. They are also accustomed to hand down some Rules, which are to be observed in reading the authors and tested by use: as 1 When ♄ presides over the lunation preceding the revolution, especially if this too concurs, that ☿ is in the very place of the ☽, then it portends famine and a dearness of the grain supply. 2 If ♃ in the revolution is most fortunate, in its own house or exaltation, oriental, in an angle, and free from the bad ones, it signifies, according to Hermes, a scarcity of the grain supply,* Centiloquium *70. But although too much is not to be attributed to these latter modes of judging, in the opinion of Cardano 7 Aph. 111, they can still be joined with the preceding ones: and above all the region must be observed, whether it is for the most part fertile or sterile, so that the judgement may be given the more safely.*

[Margin: How the common run of astrologers judges of the grain supply.]

[Margin: 1]
[Margin: 2]
[Margin: 3]

Al-Qabīṣī and other Arabs, so as to be able to predict about everything in a compendious way, invented parts of the grains, which they investigate in no other way than the way we are accustomed to seek the part of fortune in nativities. Their style concerning these, moreover, must be observed: for they speak thus: *Take the part of wheat from the Sun to Mars and project it from the ascendant*, that is, to find the place of the figure of the revolution and of the first lunation which signifies the yield of wheat: subtract the place of the ☉ from the place of Mars, and to the remainder add the ascendant.

[Margin: The Arabs invented parts of the grains, from which some judge.]

For example, in the chart of the ingress of the ☉ into ♈ of the year 1607, which is set out expressly in the Ephemerides, let the place of the ☉ in 0ˢ 0° be subtracted from the place of ♂ in 1ˢ 7° 32′, and let the ascendant, 7ˢ 25° 59′, be added: there result 9ˢ 3° 31′, so that the part of wheat falls in 3° 31′ ♍, namely in the second house, set between the ☽ in 28° 0′ ♐ and ♄ in 18° 18′ ♍. Besides, they establish these parts of the grains: of lentils, from Mars to ♄; of millet, beans, onions and acrid foods, from ♄ to ♂; of honey, from the ☽ to the Sun; of sugar, from ☿ to ♀; of wine, from ♄ to ♀; of oil, from ☿ to the ☽; of wheat, from the Sun to Mars; of dates and sweet foods, from the Sun to ♀; of saffron, rye and bitter foods, from ☿ to ♄; of barley, from the ☽ to ♃; of nuts, from ☿ to ♂; everywhere to be projected from the ascendant, as we went ahead and showed the method in the preceding example: namely, in all these subtract the prior planet from the posterior, and to the remainder add the ascendant. For if the part falls into fortunate aspects and a fortunate place, the thing signified will be fortunate: the contrary is to be judged in contrary cases. But since it is not permitted to us to invent for the heaven stars which do not exist in nature, this doctrine of the Arabs is rightly rejected: and Stadius ridicules and censures it more fully, toward the end of chapter 7 of the Bergen tables.

CHAPTER VIII.

ON DISEASES AND THE PLAGUE.

How one is to judge of diseases from the quality of the seasons, Hippocrates taught most copiously in book 3 of the Aphorisms. For as a rule the year is healthy, and suited to the life of living creatures, when each of the year's quarters keeps its natural temperament; so that spring is sanguine, hot and moist: summer choleric, hot and dry: autumn melancholic, cold and dry: winter phlegmatic, cold and moist, and all these in moderation. *For everything excessive is hostile to nature. But when the quarters of the year do not keep their temperament, various diseases arise, according to Hippocrates and the commentator Galen, 3 Aph. 8. And although, of the weathers of the year, droughts are healthier than rains and less disease-bearing, 3 Aph. 15: yet when drought predominates, acute fevers are generated: 3 Aph. 7. Wasting diseases are also stirred up, ophthalmias, pains of the head and of the joints, difficulties of the intestines and of the urine, 3 Aph. 16. But when moisture predominates, fevers*

are produced, putrid, long-lasting, fluxes of the bowel, catarrhs, quinsies, apoplexies, 3 Aph. 16. The north winds too, although they are much healthier than the south winds: for according to Hippocrates 3 Aph. 17 they compact bodies and strengthen them: yet according to the same, 3 Aph. 5, they set catarrhs and coughs moving, by constricting the brain and squeezing out moistures; they stir up pleurisies, harden the bowel, suppress the urine, stir up shiverings, and according to 3 Aph. 17 they dry the bowel and sting the eyes. The south winds, however, loosen and moisten bodies, and bring on bodies heaviness of the head, dizziness, difficulty of hearing, of sight, weariness of the limbs and languor, 3 Aph. 5 & 17. According to these circumstances, therefore, the pronouncement must be made.

[Margin: A healthy year, in which the parts of the year keep their native temperament.]

[Margin: Unhealthy when they depart from the proper temperature.]

[Margin: A drier year is healthier than a moist one.]

But if the *spring season* is stormy, yet dry and northerly, it threatens diseases and death to the elderly, abortions to the pregnant, and dysenteries around summer to phlegmatic natures: since it draws phlegm down from the head into the belly, and produces a smoothness of the intestines. To the bilious it signifies dry ophthalmias, 3 Aph. 12. A spring too moist brings in summer smallpox, abscesses, phrenitis, and fevers hard to cure, 3 Aph. 11 & 20. A very cold one, with many rains and southerly winds, increases putrefactions, and brings on diseases and the plague.

[Margin: Spring diseases]

A dry and hot summer brings smallpox, measles, fevers, pains of the head: a moist and hot one, putrid diseases, acute fevers, dysenteries, much sweating. A somewhat cold summer is good for the bilious, especially if moisture comes with it: but a clear one with northerly winds is good for phlegmatic natures.

[Margin: Summer ones]

Autumn, among the seasons of the year, is the most dangerous and the most pernicious, as the one in which the most acute diseases flourish, 3 Aph. 9, and especially harmful to the consumptive, Aph. 10. A northerly and dry one also harms the bilious very greatly. For it brings them dry bleariness of the eyes, and fevers both acute and long-lasting, compression of the chest, and an overabundance of black bile. But to the phlegmatic and to women it is beneficial. Hippocrates and Galen 3 Aph. 14. A moist autumn, however, is suited to human bodies and healthy. But if there is excessive moisture from

[Margin: Autumn ones] the beginning to the end, the head will be filled beyond measure, and it will produce in the following winter coughs, hoarseness and violent colds, and headaches besides.

Winter, if it keeps its own nature, will indeed have no great disease arise in it, but only headaches, coughs, hoarseness and colds will be troublesome, which are symptoms of a full head, Galen in the commentary on 13 Aph. sect. 3. But if it is northerly and dry, men will be troubled by cough, retention of the bowel, dysuria and pain of the parts of the chest: Galen in the commentary on

11 Aph. of the same section. If moist, an abundance of phlegm and of watery superfluity will be gathered, and diseases proceeding from it will be generated.

[Margin: Winter ones.]

But the more accurate astrologers, although they too derive their judgements of diseases from the qualities foreseen, as from a nearer cause — just as, if for some days in winter the south wind and the east wind are promised, with great fogs present without rains, they pronounce that the seeds of contagions are scattered in that very winter as well, and that great trouble is to be expected from catarrhs — are nevertheless accustomed to attend above all to the figures of the revolution of the year, and of the preventional and postventional lunations: then to look also at the remaining cardinal points, and the new moons and full moons, and from them to judge according to the position of the planets in the first house, the 8th and the 12th. For if the horoscopes are made fortunate by the presence of beneficent planets or of rays, and the Moon is free from misfortunes, and the lords of the places of ☌ or ☍ are also fortunate, applying to some fortune, and both luminaries, or the conditional luminary, have regarded those lords with a benign ray, freedom from diseases and a prosperous state of health will be signified. But if either all the significators or the greater part of them are unfortunate, many diseases will be portended, and these according to the nature of the malefic.

But if, moreover, the lords apply to the lord of the eighth, or are in the eighth house, more violent diseases which will slay men will be signified: if they are joined to the sixth, lasting diseases. Haly part. 8 chap. 3 and Cardano 4 Aph. 114.

Above all, ♂, the significator of diseases, indicates hot and acute diseases, especially if it is swift in course and in a hot sign: but ♄ cold, long and lasting infirmities, especially if it is of slow motion and in a cold sign. Thus far about diseases, at whose onsets too we are accustomed to consider the conjunctions of the luminaries most nearly preceding: for from these we can also judge about diseases to come, 1 Aphor. 98 Cardano. It remains for us to give notice about the plague.

As the external and proximate efficient causes of the plague, these three principal ones are noted here and there in the books of the physicians: *1 Malignity of the air, which arises from a dyscrasia of the seasons, and from corruption and putrefaction of the substance of the air. 2 Contagion, which comes from meeting and associating with the infected. 3 A disordered diet of men, and the use of summer or autumn fruits, by which the humours are corrupted. For from all these, if they concur, the plague generally both arises and spreads in some place.*

[Margin: The causes of the plague according to the physicians, three.]

But the astrologers, searching out the causes more deeply, teach that ♄ is the effecting and signifying cause of pestilential diseases, both because by its malign quality it brings notable and grave changes and corruptions upon the air, and because by its periodic motion it marks out the periods of pestilential diseases. For when ♄ is in the fiery signs, ♈, ♌ and ♐, then, because these signs have a certain solar and martial nature, it corrupts the air by its presence and scatters the seeds of plague: which is what Cardano teaches, 5 Aph. 142.

[Margin: According to the astrologers, Saturn.]

"Plagues," he says, "occur when the force of the ☉ is afflicted through the air, and that of the Moon through the waters." Moreover, in the preceding Aph., 141, he points out that the Sun guards fire and air and the living things that are in the air, but the Moon water and earth and the life of those living things. Hence moles and worms die when they see the Sun. Beasts, when they enter the earth or the water. But above all ♄, when it lingers in ♌, which is a solar sign, stirs up the plague; when ♌ too, as the sign opposite its own house, is especially hostile, and in that same sign, nearer to our vertex, it brings murk and corruption upon the air, and affects the heart, over which ♌ presides. Yet the airy signs too, especially ♒, are to be added, in which ♄ works the same, but with a milder effect. And a conjunction of ☿ and ♀ near the Saturnine stars intensifies the plague signified.

But since it is impossible to know the plague of any region from the disposition of the stars alone, as Cardano affirms, 2 Aph. 132, it will therefore have to be sought from histories and from experience in what periods it infects a given region.

[Margin: Plague is not known from the disposition of the stars alone: experience too must be consulted.]

For it is certain that in some places there are fairly fixed times at which the plague rages. And we have found by experience here at Frankfurt that the seeds of plague have shown themselves about every ten years: for instance in the first year of the inauguration of the Academy, 1506 of Christ, with Saturn standing in ♌; 1516, in ♐; 1526, in ♈; 1539, in ♍; 1552, in ♒; 1565, in ♌; 1577, in ♑; 1585, in ♈; 1598, in ♎; 1602, in ♏. And Caspar Peucer [Peucerus] points out in his book on divination that the passage of ♄ through ♌ or ♒ also infested the district of Wittenberg with pestilential diseases, and that a meeting or an opposition of Mars intensified and aggravated them.

By way of conclusion, however, let Cardano's Aphorism of section 7, 121, be noted, where he says: *the plague can never last 4 years.* This Aphorism is certainly to be understood not of different places but of one and the same place. For experience proves that in one place the plague does not persist beyond four years; but that otherwise the contagions of the plague advance from place to place, so that in their progress they often extend themselves even beyond the fourth year, which the examples of these times have amply proved.

Chapter IX

On Wars, Fires, Earthquake and Floods.

"There is almost no knowledge of wars," says Cardano, 7 Aph. 120, "if it is compared with nativities and with the constitution of the times, which are taken from the stars." Yet about certain things pertaining to this matter not only he himself gives notice here and there in his astrological books, but others too, who have written down the precepts of judgements. This is common and much repeated by most: that eclipses, especially in the fiery signs, and likewise comets, signify wars; but where and in which places is not determined alike by all. It seems consistent, however, that if they signify

wars, they indicate them in those places which lie under the signs in which they occur and have kinship with them; on which matter I also set out some things above, chap. 2 of this member.

[Margin: Wars are signified above all by eclipses in the fiery signs.]

This is the precept of most: that the revolution of the year is to be inspected, and the lord of the revolution considered; and if this is either ♂ alone, or with others, not wholly excluded from the dominion, it will signify wars and seditions. For it stirs up the bilious humour in men, so that on slight cause they burst into anger, quarrels, disputes and wars. Haly, part 1 of *De judiciis astrorum*, chap. 4, reports this: When ♂ is in the angles and succedents, or received

[Margin: Some judge wars from the revolution of the year, above all from the constitution of Mars.]

by the angles in the revolution of the years of the world, then it shows that there will be wars in that year, from the condition of the place in which it is; and to it belong robbery, theft, plunder, ambushes on the roads, striking, burning and the like.

Albumasar, in his *Flores*, in the chapter on wars and hostilities, does not differ from Haly. The knowledge of wars and battles, he says, comes from the place and lordship of ♂, and likewise from its ☌, ☍ and □ ray to ♄. For when ♂ is placed in the human asterisms, then deaths, slaughters, killings and devastations by fire and sword are most to be feared. By contrast ♃ is in general the significator of peace, and the author of concord and tranquillity, which comes about by the settling of discords and wars; and with Mars it sometimes signifies war for the defence of justice rather than for attack. Guido Bonatti [Bonat.] thinks the same, saying: The years in which ♂ rules are years in which outbreaks of wars, seditions and like calamities are stirred up. And Haly adds, part 8 of *De judiciis astrorum*, chap. 13, that if ♂ in the revolution of the year is in the angle of the earth, namely the fourth house, it denotes wars, lawsuits, killings and much shedding of blood among men; and that this evil is fixed and lasting if ♂, placed there, is in a fixed sign; but that it is easily removed and changed if in a mobile one; and lastly that it ceases, and is renewed in many ways, if it stands in a common sign. *Haly also pursues the significations of Mars in this matter more fully in the same place, house by house, showing that Mars in the ascendant signifies much shedding of blood, blows and wounds in bodies. In the 2nd, deprivations of goods. In the 3rd, the cutting off of forebears, brawls and enmities and lawsuits. In the 4th, hard sieges, in which the carrying away of necessities is prevented. In the 5th, the carrying off of children. In the 6th, frequent thefts, captivities and servitudes. In the 7th, plunderings and rapes of women. In the 8th, deadly epidemics. In the 9th, cold and abandonments of one's own property. In the 10th, oppression from kings, who themselves will also suffer harm from their neighbours. In the 11th, discords and defeats. In the 12th, assaults and boastings of enemies.*

At the same time, however, it must be carefully considered whether the effect of some great conjunction, especially of ♄ and ♃, or also a quartile, falls in the year proposed. For if ♂ is the lord of that ☌ or quartile, the astrologers

commonly affirm that outbreaks of wars above all are to be feared by men in that year. Cardano also writes, 5 Aph. 91, from the opinion of Rasis and of Almansor, prop. 132: if two malefics are conjoined, one must see with which of them the Moon agrees in latitude. For if she agrees with ♄, there will be famine and plague; if with Mars, massacres, slaughters, and the overturning of kingdoms. And Aph. 92, from prop. 134 of Almansor: When the two benefics ♃ and ♀ are conjoined and the Moon agrees with Jupiter in latitude, peace, justice and quiet on earth are signified. If with Venus, there will be cheerfulness, joy and prosperity. Likewise prop. 133 of Almansor: From the conjunction of ♄ and ♃ in the mobile signs a change in the state of the world is known; similarly from their ☌ in the fixed signs. But if also in some year the significator of war, ♂, and of peace, ♃, hold the lordship together, a union of peace and a settling of wars is signified. Hermes also hands down this rule, Centil. 77: In the revolution of the years of the world many difficulties and battles arise, if ♃ and ♄ are found in their exaltations. *But Almansor warns, prop. 79, that a king must beware of going out to battle at the time when the Lord of his ascendant proceeds to the Lord of the seventh.*

[Margin: From great conjunctions too, judgement is made about wars.]

Haly, part 3 of De judiciis astrorum*, chap. 42, and part 8, chap. 3, considers three parts in this matter, as the Arabs usually do:* 1 The Part of discord and killing, *which he takes from Mars to the ☽, and projects from the degree of the ☉. For he subtracts Mars from the Moon and adds the Sun to the result. And he lays down: if that part falls in the place of Mars, or in its malign ray, or in a fiery asterism, that wars are signified in that year.*

[Margin: The Arabs consider threefold parts in this matter.]

2 The Part of prosperity in litigation, *which he takes from the Sun to Mars and projects from the ascendant. And whichever of the litigants that part is made more fortunate for, he comes out the victor.* 3 The Part *of escape, which he takes from the degree of the ☉ to the degree of the occident, and projects from the ascendant. If this part is firm, not badly afflicted, those who want battle will indeed win; if weak, the others will win. But like the other precepts of the Arabs, so these very precepts of Haly are fabricated and vain; yet they are to be considered, so that it may be apparent to anyone to what superstitions our forebears were given.*

The fires *the astrologers judge will be many in the year in which some great eclipse falls, or its effect, especially of the ☉, and its chief lord is ♂, placed above all in a fiery or airy sign. ♂ too, holding the lordship in the year and being strong, signifies fires of cities and of country houses; and this will be most to be feared when the Moon, in the revolution of the year or in the preventional figure, has been joined to Mars by a hostile ray. The effect, moreover, will be greatest in those places which are subject to the signs in which ♂ the significator is found. The □ or ☍ rays of Mars and ♃ in the airy and fiery signs also threaten fires. For hot planets in hot signs, especially if both fair weather, which is signified by Jupiter, and men's carelessness in guarding fire are added, prepare the air and combustible things to receive inflammations readily, so that*

fire is kindled with no trouble. ☿ *too adds its vote, especially when it is in the windy signs and in* ♍*, its exaltation.*

[Margin: On fires.]

Earthquakes and floods *the astrologers, following the teaching of Haly, part 8 of* De judiciis astrorum*, chap. 1, hunt out chiefly from ♄ in the earthy and watery signs. For if, either in the revolution of the world, or in some great ♂, or in an ecliptic place, it alone has held the lordship, and is strong in the earthy signs, and has struck the impeded Moon with an opposite or quartile ray, it will designate earthquakes; which Albumasar also asserts in the book of the great ♂. But if the testimony of ♀ and ☿ in the signs of the watery trigon, and above all in ♋, is added, unusual floods will be signified, as Bonatus hints in the book of Revolutions. By no means, however, is ♂ to be neglected, which, joined to the Saturnine stars, or even coupled with Saturn in body or by a quartile or ☍ ray, portends almost the same. The passage of Mars through the Pleiades designates the same.*

[Margin: On earthquake and floods.]

Chapter X

On the Condition of Men.

In the general astrological-physical prognostic which is usually added to the annual calendars, mention is rightly made of the condition or fortune of men of every station or order whatever; since we see some flourishing and thriving at one time, others at another, and now these, now those pressed by misfortune and adversities, not always through their own fault or circumspection, but by a certain heavenly cause and inclination not evident to all. This whole judgement depends, first, on the comparison of the planets with the things and persons that are subject to the individual planets.

[Margin: Mention is rightly made in calendars of the condition of men.]

[Margin: It is known from the comparison of the planets with the things and persons that are subject to each.]

And to Saturn indeed belong agriculture, things growing out of the earth, fruits of every kind, things dug out of the hidden places of the earth, buildings, prisons, the inheritances of the dead, debts, sadness, avarice, timidity. Likewise melancholic men, the sad, the avaricious, old men, fathers, grandfathers, great-great-grandfathers, farmers, rustics, miners, stonecutters, architects, and those who ply the meaner trades

[Margin: ♄] tanners, shoemakers, saddlers, diggers, potters, and those who love a solitary life, hermits, monks, or even those who carry on commerce fraudulently and deceitfully, the envious, the taciturn, etc.

To Jupiter belong political and ecclesiastical affairs, riches, justice, laws, glory, commendations, benefits; likewise honoured men, cardinals, bishops, theologians, chancellors, counsellors, jurists, judges, senators, and the leading men of cities, etc.

[Margin: ♃]

To Mars, warfare, tyranny, violence, brave deeds, the crafts of the workshop, trades that are carried on by fire, alchemy; likewise choleric men, the vehement,

the bold, the rash, the irascible, the pugnacious, the seditious, robbers, surgeons, physicians, soldiers, military commanders, bombardiers, blacksmiths, founders, etc.

[Margin: ♂]

To the Sun, magnanimity, fortitude, splendour, honour, nobility, kingship, gold, and golden vessels; likewise splendid men, the famous, those eager for honours, the ambitious, kings, princes, counts, barons, nobles, magistrates, who rule over others.

[Margin: ☉]

To Venus, love, compassion, courtesy, refinement, ornaments, and precious and beautiful things, music, dances, gifts from women and friends, dowries, luxury, games, lusts, etc. Likewise sanguine men, youths, girls, singers, painters, wives, mothers, women joined by blood, concubines, prostitutes, poets, dancers, cooks, apothecaries, organists.

[Margin: ♀]

To Mercury, trade, contracts, business dealings, divinations, journeys, the invention of new things, and all the speculative arts, above all mathematics; likewise clever men, mathematicians, philosophers, chancellors, scribes, merchants, sculptors, moneyers, printers of books.

[Margin: ☿]

To the Moon, rivers, seas, their flow and ebb, voyages, and things which abound in moisture, embassies, pilgrimages; likewise phlegmatic men, those of the female sex above all, queens, widows, envoys, couriers, messengers, charioteers, hunters, fishermen, millers, etc.

[Margin: ☽]

Secondly, from the consideration of the good fortune or strength, and likewise of the misfortune or weakness, of the planets, which they have in the individual revolutions of the quarters of the year and in the lunations. For if a planet is found fortunate and strong, so that it is direct and swift in course, in a good place of the heaven, not stationary, nor retrograde, the things and persons pertaining to the planet are made fortunate. But if it is impeded and weak, and at the same time either stationary or retrograde, the things and persons suited to it are made unfortunate and are depressed. For the stations of the planets, above all of Mars, are the worst, and among these the second are the worse, 7 Aph. 147 Cardano [Card.]. And the planets have the greatest power in harming for as long a space of time as the retrogradation lasts, 7 Aph. 135.

[Margin: 2 From the strength or weakness of each planet.]

For example, if ♄ is the lord of some quarter of the year or of a lunation about which the question is asked, and is fortunate in essential dignity, and in place and motion, it promises good fortune to Saturnine people, the melancholic, fullers, tanners, shoemakers, farmers. If ☿, the talents of youth will be roused to ingenious exercises and the liberal arts. If ♂, good fortune is promised to all things which are of the nature of ♂. But if they are badly constituted, and are combust, retrograde, or otherwise impeded, the contrary is signified, and impediments, adversities and other evils are indicated. So ♂ in the 8th, in the

revolution of the year, signifies many hangings; in the 12th, the imprisonment of many; joined to Venus, many adulteries, lusts and fornications.

Haly, part 8, chap. 6, on the annual condition of the magistracy and the people, bids us look to two things: to the Sun for the magistracy, and to the Moon for the subjects. For in the revolutions of the year and of the quarters, or in the charts of the lunations, if the Moon, whether it is firm and powerful in an angle or in a succedent house and in its dignities, or weak and cadent outside its dignities, applies to some beneficent planet, ♃ or Venus, a fortunate condition of the people will be signified, by which gains will accrue to it, and necessities will abound; and if it applies to Jupiter, justice, peace, liberty will flourish; if to Venus, there will be cheerfulness, joy, frequency of marriages, above all if it is in the seventh house. In the fifth it designates frequent and happy births. But if the Moon, weak and peregrine, applies to the malefics ♄ or Mars when they are powerful, misfortune will be denoted for the people, depression, hindrance in business, want of food and of gain, and many infirmities will afflict the people. But if, moreover, the Moon applies to the lord of the eighth house, very many will die: from a cold cause indeed if ♄, from a hot one if ♂ is lord of the eighth.

[Margin: Consideration of the magistracy and the subjects. The Sun signifies the magistracy, the Moon the subjects.]

Likewise, if the Sun in the annual and quarterly revolutions, or in the lunations, has been fortunately placed, the condition of kings, of nobles and of men set in magistracy will be happy and fortunate. But if the Sun is weak in a bad place, or has been afflicted by an eclipse, by other hostile rays of the malefics, the authority and dignity of kings will grow cheap, and in all their actions they will experience impediments and adversities.

It belongs, moreover, to the good faith and diligence of astrologers to inquire into the nativities of all princes, dukes, counts, nobles, consuls, as far as can be done, and also of the chief theologians, bishops, counsellors, physicians. For it is not only great praise to say something about them in particular, having consulted prior experience, but public fortunes too depend on their welfare. For whatever madness the kings commit, the Achaeans are punished.

[Margin: It belongs to a good astrologer to have very many nativities of distinguished men.]

Moreover, considering in particular the condition of religions or sects, ♄ is said to signify the Jews. *And their fortune is judged from the fortunate or unfortunate position of Saturn, with which ☿ is joined, as Cardano hints in his commentary on text 18 of book 2 of Ptolemy's* Quadripartitum*; and so they are also made especially industrious, talkative, and devoted to acquiring wealth. The airy signs, moreover, suit this sect, being most accommodated to tempering Saturn, ♊, ♎ and ♒, in which it has its joy, house and exaltation.*

[Margin: Saturn signifies the Jews.]

♃ signifies the Christians, *with which the Sun is joined, not only because the Christians keep the day of the Sun, as the Jews the Sabbath on account of ♄, but because they love justice, candour, and truth more than other sects. The fiery trigon, ♈, ♌ and ♐, moreover, suits them. There are those who go on to greater superstitions,*

when, moreover, they seek particular significators of the sects in the Christian religion. But we rightly laugh at their vanity.

[Margin: The Christians, Jupiter and the Sun.]

The Turks, Tartars and similar tyrannical nations ♂ *is established to signify, with which* ♀ *or the Moon is joined. The Moon indeed with Mars, because they are most laborious and wandering, and carry the image of the Moon on their banners, and draw up crescent-shaped battle lines in wars. Venus, however, because they are lustful, and to have several wives at once, by law, to them permitted*

[Margin: Turks and Tartars, ♂ with ☿ and ☽.] [?]

is. And the watery trigon, ♋, ♏, *and* ♓, *suits them, since the law of Muhammad also had its beginning under* ♏, *as it is, 1 Aph. 68, in Cardano.*

The Ethiopians and similar idolatrous nations ♀ *signifies, with which* ☽ *is joined, oriental: on this account they also fashion many gods and many forms of them, according to the variety of the forms of the* ☽. *The earthy trigon, containing* ♉, ♍ *and* ♑ [?], *suits them.*

[Margin: The Ethiopians ♀ and ☽.]

☿ is set down as the significator of learned and lettered men. *If in the revolution of the year or of the quarters, and likewise in the lunations, it is fortunate and strong in a good ray of* ♃ *and* ♀, *it signifies a happy condition of the lettered. But badly affected, the contrary. In the 6th house, diseases; in the 12th, imprisonments; in the 8th, death and dangers of death. But if it is also fortunate and free in the house of* ♄, *it signifies good fortune, and a mind apt for investigating clever and profound things, through the year or the quarter of the year whose chart it is. If it beholds Mars favourably with a* ✶ *or* △ *ray, it signifies that good fortune, prudence and cunning are increased. But if* ☿, *badly affected in the abject eighth house, has also been harmed by the malefic* □ *or* ☍ *ray of Mars, it will designate derangement of the mind and disturbed actions of the brain.*

[Margin: The lettered ☿]

Venus is the significatrix of women. *When fortunate, she promises a fortunate condition to women. When unfortunate, she threatens the contrary. But the quality of either the good or the bad signified is judged from the house in which she is. For in the angular houses, prosperity. In the abject houses, such as 6, 12, and 8, especially when badly affected, she portends many evils to the female sex. The Moon also is to be observed, because she too, well affected in the more principal charts, benefits women. Badly affected, she threatens evils.*

[Margin: Women ♀]

The condition of pregnant women, *as may be gathered from part 1 of Haly's* De judiciis astrorum*, chap. 43, is judged chiefly from the fifth house of the revolution; also from the lord of the fifth, whom the Arabs call the almuten. Nor is the relation of the remaining planets to the fifth house and the lord of the fifth to be neglected. For when the fifth house is cherished and helped by the good rays of the benefics, and the lord of the fifth is direct, strong and fortunate, then a fortunate condition is promised to pregnant women, and a happy birth of healthy children. But if the fifth house is badly disposed, without the good

rays of the benefics, and attacked by the evil rays of the malefics, and the lord of the fifth is retrograde, combust, or badly affected in any other way, dangers of miscarriage are signified for pregnant women, or difficult births of sickly children: above all if ♂ is lord of the fifth, or bodily in the fifth, or has aspected the fifth with an evil ray.*

[Margin: The condition of pregnant women.]

Finally, the condition of a city, *as was said above toward the end of the first chapter of this section, is known chiefly from its planet and sign, a comparison of the disposition of the luminaries also being applied. For if the planet of the city is well disposed, the men of that place will have happy and prosperous success in the conduct of affairs; if on the contrary its significator is weak and badly affected, the contrary must be laid down. Thus if a ♂ of the malefics falls in the sign either of the city or of the region, or a comet appears in that place, or also an eclipse, calamity is signified for it, unless something is mitigated by the ray of the benefics.*

[Margin: How the condition of a city is known.]

Conversely, when the benefic planets have either been placed bodily in that sign, or at least have illuminated it with a good ray, a happy condition will be signified. But which cities and regions are subject to the signs, we have set out above in chap. 1 of this section.

Caput XI.

On journeys, metals and comets.

The significators of journeys *are the third and ninth houses. For from the third one judges of the shorter journeys, from the 9th of the longer. It must therefore be seen, in the revolution and in the quarters of the year, which signs hold the 3rd and 9th houses, who are the lords of those signs, and which of the planets occupy the said places and their lords, whether good or bad. If the named places and their lords are well affected, they signify that the journeys in that year, and in that quarter of the year which you are considering, will be happy. Of the contraries the contrary is to be pronounced.*

[Margin: The prognostic of journeys is taken from the 3rd and 9th house.]

Above all, however, difficulties and evils are signified when ♂, in the revolution of the year or in the quarter proposed, occupies the third or 9th house bodily. The Moon also and ☿ are general significators of journeys; hence, when badly affected or joined to the malefics, they signify unhappy journeys. Conversely, when prosperous and fortunate, they promise all things happy. Nor does the lord of the year or of the quarter seem to be negligible in this respect. For if he is ☿ and ☽, he will denote many journeys, above all if both the third and the 9th house of the quarters of the year have a good disposition toward them. The quality is judged from the goodness or badness of those attending and those beholding.

Of metals, the condition *the astrologers track down in this way. They judge of the state of lead and of its profit from the position of ♄. For fortunate, swift in course, in a good place of the heaven, he denotes a good yield; unfortunate, a bad one. Thus*

they pronounce on the state of bronze and copper from Jupiter; on iron and sulphur from ♂; on gold from the Sun; on tin from Venus; on quicksilver from ☿; on silver from ☽: hence also the alchemists have given these metals these names of the planets.

[Margin: Of metals.]

Cardano, however, disagrees somewhat. For in 5 Aph. 130 he says: The Sun has gold, ☽ silver, ♃ bronze, ♂ iron with steel or edge-steel and the lodestone, ♄ lead, ♀ tin, ☿ copper. But metallic substances, such as quicksilver and sulphur and chalcanthum and others of this kind, he lays down as subject rather to the fathers of heaven, not to the planets, 5 Aph. 131. *So* he holds that stones and gems, and likewise the species of herbs and trees, are subject rather to the fixed stars, though in some of them the power of the planets appears more, 5 Aph. 132. Several following aphorisms may also be consulted, in which he sets out in particular to which planets gems and trees are subject.

The appearance of comets, chasms and other fiery meteors *the astrologers predict, according to the teaching of Haly, chap. 1, part 8,* De judiciis astrorum, *when ♂ is lord of the year, above all if he either stands bodily in the signs of the airy trigon, or also illuminates them with a ray, and moreover the Moon is at the same time impeded; likewise if ♂ obtains the dominion in the eclipse preceding the revolution of the year or of the quarter, or in some great conjunction, and the effect falls in the same year. Ptolemy, chap. 9, book 2,* Quadripartitum*, sets these meteors down as of the nature of ♂ and ☿. Of Mars, indeed, because according to the teaching of the ancients and the Aristotelian they are fiery. Of Mercury, however, because they have colour and a varied motion, like ☿.*

[Margin: Of comets and other meteors.]

Hence they seem to arise from their dominion in the revolution of the year or in an eclipse, above all of the Sun. Cardano also brings in Saturn for the judgement. For he says in 7 Aph. 40 that when Saturn passes from sign to sign, bright signs occur in a clear sky for very many days; hence this too is commonly said among the astrologers: If the two malefics ♄ and ♂, with ☿, in some eclipse, especially a great one of the ☉, strike the two luminaries with ill-omened aspects, comets are produced and come into being. That this is true and has been tested many times, some attempt to demonstrate from several comets foreseen in this way.

[Margin: From which celestial causes comets arise.]

The events, moreover, are taken from comets in a manifold way. *First*, if their place in the zodiac, or in a particular house of heaven in which it is first seen, is considered. For comets harm above all those regions to which they are vertical, or in whose signs they are. And in the earthy signs they denote barrenness on account of dryness; in the watery, barrenness and plagues, on account of the abundance of rains; in the airy, unusual winds, seditions and pestilence, but not always; in the fiery, wars, fires and heats, as Cardano teaches, 7 Aph. 34. But what they seem to signify in the individual signs Albumasar sets out in 5, On the Great Conjunctions, and at the end of the Flores, where he leads ☊ through all the signs; and Leupold, tract. 5, On the Revolutions

of Years; likewise Francesco Giuntini, in his treatise On Comets. Moreover, if they have been detected in the 12th or 8th house of heaven at the time at which they first appear, they are said to portend contagions of epidemic diseases, pestilence, loss of crops. In the 11th, deaths of nobles. In the cardines, above all if they are seen in the west after the setting Sun, deaths of kings. In the ninth, loss of religion; 3 Aph. 117.

[Margin: Events are judged from comets]

[Margin: 1 From the place of the comet.]

Second, if their position with respect to the Sun is regarded. For if a comet is matutine, and is seen in the morning before the rising of the Sun in the eastern quarter of the world, the astrologers say that it signifies the death of the king or prince of that region which is subject to the comet's sign. It seems to signify the same much more if it is vespertine and appears in the west itself. Cardano, however, writes in 2 Aph. 204 that comets signify, most of all in the east, the rise of a great man, a lawgiver; in the mid-heaven, of a most powerful king; but rarely in the west, and in a succedent, the same. And when a comet indicates that some great man is being born, the man held to be born under it is not the one born in its time, but the one born in the region that lies under its angle and sign: the Sun also, or the Moon, stands in its place, while the other luminary is in a cardine, and the ascendant likewise, and the lord of the ascendant is in the cardines; the comet also either rises, or sets, or occupies the summit of heaven. Then, moreover, the conjunction, or at least the opposition, preceding his nativity must have taken place in the comet's place. With these, as it were, barriers Cardano encloses, or rather wraps in clouds, the things signified concerning the man who is to be born under a great comet, 2 Aph. 203. Moreover, an eastern comet also shows its effect more quickly, a western one more slowly, which Leupold and Cardano urge throughout.

[Margin: 2 From the position with respect to the Sun.]

Third, if the motion is weighed. For motionless comets indicate seditions, moving ones wars from outsiders, 3 Aph. 117. Motion, moreover, against the order of the signs signifies a change of laws and statutes, likewise a foreign and alien enemy; according to the succession of the signs, civil wars and internal seditions. From the east into the north, it brings from the parts of the east either plague, or a law, or a prince who throws the northern nations into confusion and lays them waste. If toward the south, it brings much moisture, and

[Margin: 3 From the motion.]

from there scarcity and dearness of the corn supply, and famine; Cardano, in his commentary on text 54, book 2 of the Quadripartitum of Ptolemy.

Fourth, if the form is attended to. For those that are likened to swords are Martial, and signify the destruction of cities. Those that are hairy, of changing colours, or well tailed, are Mercurial, and are set down as heralds of winds, seditions and heresy. Black ones, with a short tail and no hair, are Saturn's, and signify barrenness and long wars; Cardano, in the same place.

[Margin: 4 From the form of the comet]

Fifth, the duration. Long-lasting comets signify the greatness and long duration of the effects, and a condition that is stable in the disturbance they bring. Lesser and less stable effects are brought by less long-lasting comets.

[Margin: 5 From the duration]

Finally, the beginning and end of the effects are usually investigated by almost the same method that we prescribed above, chap. 7, for eclipses: namely, the distances of the comets from the Sun are compared at the middle times of the appearances, in the parallels of the equator, and the reckoning is made according to the unequal or planetary hours. For the beginning of the effect can be deferred by as many months as there are unequal hours by which the comets are distant from the Sun, the counting, however, being made from the comet s. s. s. to the Sun.

[Margin: 6 The beginning and end of the effects.]

Caput XII.

ON ELECTIONS.

Since, besides what has been set out so far, certain signs of elections are also usually inserted in calendars, by which times merely suitable and convenient, from the disposition of the heaven, for undertaking these or those actions are noted, while the freedom of men's choice is by no means constrained; since, too, Pitatus, at the beginning of his treatise On Elections, holds that to despise the election of the hour is rather a precipitancy of choice, not freedom. So that we may leave nothing unexamined that seems to pertain to the composition of calendars, we will treat of elections here.

[Margin: What we understand by election.]

Nor will it deter us from this doctrine that either Ptolemy did not treat of elections in the books of the Quadripartitum, or even that Cardano, in the preface of his commentary on the 3rd book of Ptolemy's Quadripartitum, called them sortilegious and unworthy not only of a Christian man but even of a good man; and that many of the Arabic writers treat in them, [Greek: αναιτι[?]λογη[?] — "without assigning causes"]*, of things which either have no causes and are merely fortuitous or voluntary: as whether a man, or a woman, or a youth, or a maiden, and she either of sound or of bad repute, known or unknown, will come to meet one going out, etc.; or things whose causes it is impious to inquire into in the stars: as at what times an infant brought into the light is to be baptised, etc. For it is commonly said among the astrologers that Ptolemy did not explain the whole of astrology, but laid down only the roots of the art, which Cardano also affirms, 4 Aph. 140, and therefore omitted many things which were found and proved by the diligence and observation of later men. And in the Centiloquium many things are found pertaining to this doctrine, as will be clear from what follows: on which account, however, many deny that Ptolemy is the author of the Centiloquium. Cardano too rejects not all elections indiscriminately, but those which have no foundation in nature: indeed he himself treats of many in the Aphorisms, especially sect. 2, and in the book of interrogations. Thus he advises, 2 Aph. 129: In matters which you wish to be hidden, wait for the Moon placed under the rays of the*

☉. *And 2 Aph. 163: when you wish to put something in charge quickly, the Moon and the significator in*

[Margin: Which elections are to be disapproved.]

[Margin: Which are to be approved] *movable signs, set them; when you wish a work to last long, in fixed ones. For this reason it is difficult to attain both. And we will set out at least those elections which, derived from natural causes, assist nature, either in preserving and recovering health or in managing household affairs rightly: in which we see that physicians, architects and writers on country matters alike have been and are occupied.* For that is better accomplished which, with nature as guide, has the stars favourable, than what is done by human industry; *Cardano, 2 Aph. 164. And Alexander de Ales [Alexander of Hales], part 2 of the Summa, question 3, article 6, judges those physicians unworthy of this name, and calls them rather spice-sellers, who in healing illnesses and giving medicines do not attend to the celestial bodies. But we will not deal with those things that are merely and purely voluntary and do not obey the actions of the stars, such as doing this or that; or that even have no causes in nature.*

The time of election is judged in general, first, from common use and experience, on which one must tread as on a royal road. Second, from the general constitution of the time. *For neither sowing in January nor public baths on feast days are to be undertaken.* Third, from the disposition of the Moon, *whether it is free from impediments and fortunate, is placed in a sign suited to the matter proposed, and has a fortunate aspect to the planet signifying that matter.* Fourth and last, from the strength of the planet that rules the matter proposed, from its favourable irradiation with the others, and from its situation in the world. *For if all these are suited to the election, they will promote it; if otherwise, they will hinder it.*

[Margin: The circumstances from which the time of election is judged in general.]

And, to give precepts first on phlebotomy: two times are to be observed in its use. One is of necessity, *which does not allow the day and hour to be chosen, since to wait for it is dangerous.* The other is of election, *which does not so press for the letting of blood that one may not attend to a suitable time, a convenient day and hour: namely the spring or autumn season; then a clear and serene day, on which a cloudy, dark, southern or western wind does not stir the air, but either a northern or an eastern one blows gently; then some morning hour, at which digestion too is complete, and the position of the heaven is the one that above all suits the letting of blood.*

[Margin: On phlebotomy.]

As regards the position: for administering phlebotomy healthfully, first of all the signs are to be considered, in which it is either good or bad; then the aspects of the planets; next the complexion of the man himself; and finally the age, as Schöner advises, Canon 3 of the third part of the Isagoge. As regards the signs, these signs are by everyone's opinion bad for the letting of blood: ♊ because of the arms and hands; ♌ because of the heart; the latter half of ♎, and ♏. To these some add ♉, which, together with the first 10 degrees of the

Fishes, Jean Ganivet [Ganivetus] sets down as especially pernicious, chap. 6, diff. 4 of the Amicus medicorum. Likewise ♍ and ♑, earthy signs, as Pitatus teaches, chap. 4 of On Elections. But Schöner writes that the three earthy signs are suited to sanguine people. The good ones are ♈, the former half of ♎, and ♒ except for its last 10 degrees. Finally, ♋ and ♓ are set down as middling, except for the first degrees, as I said before. ♐ too, although it is for the most part disregarded; yet only those parts are to be understood through which the via combusta proceeds. Otherwise Ganivetus commends it.

[Margin: In the astrological consideration of phlebotomy.]

[Margin: 1 The bad signs are to be regarded]

[Margin: Good.]

From the aspects, these are set down as bad for the letting of blood by Ganivetus and Pitatus: 1. The Moon in ☌, □ or ☍ with the Sun, because the whole state of nature is then changed. 2. The Moon in ☌, □ or ☍ with Saturn, Mars or ☊. Others add ☊ as well. 3. The Moon placed in bad signs is also judged bad for the evacuation of blood. 4. The Sun conjoined with ♄ or ♂. Likewise the conjunction, □ or ☍ of ♄, ♃ or ♂ with one another hinder the letting of blood. The letting of blood is judged good, however, if the Moon is in a good sign; and then, if it is without any aspect, good or bad, or in a middling sign not impeded by bad rays, it calls for a single cross[102]. It likewise requires a single cross if the Moon is in a fortunate aspect of the middling or even of the bad planets, or in a bad aspect, that is, □ or ☍, of the good ones, ♃ or ♀. But that day will be marked with a double cross[103] on which the Moon is conjoined with Jupiter or ♀, not combust, or else beholds the same benefics with ✶ or △ from good or middling signs. The ☌ of the ☽ and ☉, however, hinders for two whole days before and after, as Ganivetus and Pitatus attest; □ for 12 hours before and after; ☍ for a whole day before and after. So the Moon conjoined with Saturn or Mars, or in ☍, hinders for a whole day before and after; but □ only for 12 hours before and after. Finally, ♄ conjoined with Mars, or beholding him with a □ or an opposite ray, hinders the letting of blood for two days before and after.

[Margin: 2 Bad aspects]

[Margin: Good]

This too is to be observed, which Schöner advises, Canon 3, part 3 of the Isagoge: that blood be let at that hour at which the ascendant has a suitable sign, and the lord of the ascendant and the Moon are not found in the fourth or 8th house, nor have any aspect with the lord of the 8th house; and at which the malefics are removed as far as possible from the angles, and the seventh and its lord are not impeded; otherwise error easily falls upon the phlebotomist. Above all, however, one must beware, according to the opinion of Ptolemy, Aph. 20 of the Centiloquium, that a member be not struck with iron when the Moon holds the sign that rules that member. For as the Moon moistens the whole

[102] a cross sign is printed here

[103] a double-cross sign is printed here

body, so it fills more abundantly with humours the member that is subject to the sign in which it is found. From its excessive moistening great harm is done to the member if it is struck with iron; hence follows a cure not only difficult but also dangerous, since ulcers, distensions of the nerves and other ills usually follow from it, as Giovanni Pontano warns in his commentary. So, according to Cardano, 2 Aph. 152, one must beware that the head be not touched while the Moon is in ♈, and above all when the malefic ♄ or ♂ has directed its ray there.

[Margin: A necessary caution.]

Third, as regards the complexion: ♄ presides over melancholy; ♃, ☉ and ♀ over blood; ☽ over phlegm; and ♂ over choler. At the time of phlebotomy, therefore, the planets are to be weakened according to the complexion, and one must beware that it is not done in their hours: so that if you wish to purge choler, see that it is not done in the hour of Mars. For ♂ increases the strength of choler in its hour, and resists evacuation. So one must beware that Mars is not strong in the heaven, in some dignity of its own, and either in the ascendant or in the angles, but in the cadent houses and outside its dignities. For ♂ when strong opposes itself to the drawing off of choler, but when weak cannot oppose itself.

[Margin: 3 The complexion of the man.]

As to the signs, Ganivetus indeed holds, chap. 6, diff. 4, that likes are to be purged by likes through the cutting of a vein; but Schöner and Pitatus, in the places cited before, more rightly lay down that contraries are to be evacuated by contraries. Hence for the sanguine the earthy ♍ and ♑; for the phlegma-tic, the fiery ♈ and ♐; for the choleric, the watery ♋ and ♓; and for the melancholic, the airy ♎ and ♒ are suitable.

Finally, concerning the ages this is to be noted: the synodic lunar month, in which all the φάσεις [Greek: phaseis, "phases"] of the Moon return in a circle, has 4 [?] quadrants, of which the first is from the ☌ to the first □; the second from the first □ to the ☍; the third from the ☍ to the other □; and the fourth from the other □ to the ☌. Thus not all suit all ages indiscriminately, but each suits its own. For the first quadrant benefits only the youthful age; the second the youthful and the manly; the third the manly and the old; and the fourth only the old. Necessity, however, has no law, as I have also advised above; since in great and dangerous diseases, as when someone suffers from pleurisy, the calendar is not always to be consulted. Let young men in good health, not plethoric, also see that they do not open a vein rashly. For the temperament, which at that age they have at its best, they sometimes gravely injure by a rash letting of blood, and they call forth the vital spirit.

[Margin: 4 Age.]

Baths and scarifications, *which are usually marked with the sign of drawing blood by cupping-glasses*[104] *are in general most suitable on those days on which the cutting*

[104]a sign is printed here

of a vein too is healthful, as Schöner notes, Canon 5 of the third part of the Isagoge. But let care be taken that it is not marked on a feast day, on which the soul rather than the body is to be cared for by the people, and God is to be served, not the belly; but above all on the day before the feast.

[Margin: On baths and scarifications.]

Above all, however, let it be considered whether someone wishes to use a bath for the sake of cleanliness and adornment, or, on the other hand, for the sake of health. For if someone wishes to enter a bath for the sake of cleanliness, he will do it with the Moon occupying ♎ or ♓ and applying to Venus with some favourable ray. But if he wishes to use a bath for the sake of recovering health, he will see to it, in drying, when someone abounds in humour, that the place of the Moon is in fiery signs and in fortunate aspects of ♂ and ☉; but in moistening, of the kind that suits the consumptive and the lean, he will observe the Moon in watery signs and in fortunate configurations of ♀ and ♃. For the rest, baths are hindered by days on which the Moon stays in earthy signs, or on which bad aspects of ♂ and ♄ also present themselves.

[Margin: Baths are used either for the sake of cleanliness, or for the sake of health.]

In the choice of medicines by which the natural powers in men are preserved and stimulated — such as Attraction, which flourishes in heat and dryness; Retention, which flourishes in cold and dryness; Alteration or digestion, in moisture and heat; and Expulsion, in moisture and cold — this above all is to be attended to, that like powers be helped by like medicines or remedies. For the physician rightly looks to nature in its sound condition, so that if he notices it failing or slipping in some power, he may support and promote it with like things. The attractive power, *then — over which, according to Ganivetus and Pitatus, the Sun presides, but according to Schöner, Canon 8 of the third part of the Isagoge,* ♂*, which the others exclude because of its malefic and corrupting nature — is strengthened in fiery signs, especially* ♈ *and* ♐*, if the Moon is there. For Leo, because it is the strongest sign and is set over the heart, and subsequently also works in the stomach, ought not to be chosen for medical operations, whether the Moon is under it or it is ascending, as it was also rejected before in phlebotomy, and will be repudiated in purgatives, in the opinion of Ganivetus, chap. 1 and 2 of difference 4.*

[Margin: On medicines.]

[Margin: The natural powers: the attractive.]

The retentive [power], *which by the reckoning of all the astrologers* ♄ *governs, is strengthened when the Moon is in the earthy signs,* ♉ *above all and* ♍*; for* ♑ *is excluded because of its retrograde nature, and because it is the exaltation of* ♂*.*

[Margin: Retentive.]

Thus the digestive or alterative *power, over which* ♃ *presides, is strengthened when the Moon stays in the airy signs,* ♊*,* ♒ *and* ♎ *in the former half. For since the latter half is rejected in phlebotomy too, with the best right it is not attended to here either.*

[Margin: Digestive.]

The expulsive [power], finally, *which frees the human body from superfluities and excrements of every kind, is strengthened by the Moon, and indeed placed in the watery signs ♋, ♏, and ♓, since like things added increase the forces, and the watery signs promote the flow of useless residues.*

[Margin: Expulsive.]

But since in this power it counts for most that the humours be retained in a just κράσει [Greek: krasei, "mixture, temperament"] and that the excess be purged in the due manner, one must see first that both a suitable time and then fortunate aspects are carefully selected for instituting purgations.

[Margin: In the expulsive, since most rests on it:]

In the former consideration, the spring seasons above all, in which bodies are most filled and abound in humour, and then the autumn seasons, are established as suitable and fit for purgation.

[Margin: 1 A suitable time, spring or autumn, is to be attended to.]

For because purgations ought to be made not in a distempered air, namely when one or other of the primary active qualities, heat and cold, is in excess, that is, in summer or winter: just as physicians openly teach that in the dog days and around the winter solstice, outside a case of necessity, one must abstain from drugs. And Hippocrates too, 4 Aphor. 5, hints at the same, saying: Under the Dog and before the Dog purgations are troublesome; which we interpret both of the acronychal or winter rising of the Dog, and of the cosmic or summer rising. But rather in an air that is temperate and brought to a certain evenness, in which neither heat nor cold exceeds measure, such as there is in spring and autumn: it is plain that in the election of the time at which purging medicines are to be administered, it must above all be seen what suits in spring or autumn.

In the latter, however, the Moon, mistress of the humours, must be weighed: in what kind of signs she herself stands, and not only that, but also with which planets she is configured.

[Margin: 2 The position of the Moon in the signs:]

We have said, indeed, that the most suitable signs are the watery ones, which Cardano too teaches, 2 Aph. 151, in these words: Both purgations and emetics ought to be made with ☽ in moist signs; of these the chief are ♓, after that ♋. And in the treatise on interrogations he especially commends Cancer, because it is a movable sign. And Ptolemy, Aph. 21 of the *Centiloquium*: When ☽ is in ♏ or ♓, and the lord of the ascendant is joined to a star placed under the earth, it is good to use purgations. But if he is joined to a star set above the earth, whoever has taken the potion will vomit it up again. For it is fitting that the lord of the sign be joined to a subterranean planet, either by aspect or by conjunction, so that, the forces being doubled, the noxious forces are thrust downwards. Otherwise, if the star that is mistress of the ascendant is conjoined with a star that is carried in the upper heaven, nausea will be aroused and the stomach will be moved, and the vomiting that follows this motion will hinder the purgation: Pontano [Pont.], in the commentary. Cardano, however, seems to neglect ♏ for this reason, because it is a fixed sign. For at 2 Aph. 148 he

says: If the Moon is in a fixed sign, the medicine acts less. And Ptolemy for this reason does not count Cancer among the signs that promote purgations, since it presides over that part of the body, namely the breast, which vomiting

[Margin: The signs suited to purgation are the watery.]

[Margin: ♋ ♏ ♓] above all provokes. We judge that all the watery signs are to be attended to, following the example of Ganivetus, chap. 1 and 2 of difference 4 of the *Amicus Med.*, of Schöner, Canon 4 of the third part of the Isagoge, and of Pitatus, chap. 5 of the treatise on elections; but the dry and hot ones we condemn, among which the worst is ♌. Nor does it seem that the signs ♎ and ♒ are to be wholly neglected, if they are lit up by fortunate rays of ☉, ♂ or ♀; since these too assist the expulsive power, and offer days suitable for purging the humours.

[Margin: Nor can the two airy ones, ♎ and ♒, be neglected.]

Further, since the forces of the planets, when intensified, increase the corresponding humours — ♄ melancholy, ♃ ☉ ♀ blood, ☽ phlegm, ♂ bile — care must be taken that in purging the humours we consider solely the agreement of the planets, the debility, but the strength of the contrary ones, which is aroused by the presence or by a suitable ray of the Moon. Therefore, just as Cardano rightly teaches in general, 2 Aph. 165: When ☽ is with Venus, bile is driven out better and more safely; with Jupiter, melancholy; with ☉ and ♂, phlegm: so in particular, according to Pitatus and Ganivetus: the Moon in ♋ with a trine or ✶ aspect of ♀ assists the expulsive power for evacuating choler by an electuary. With the same aspect of ☉ or ♂ it assists the expulsive power for evacuating phlegm; with Jupiter, finally, for purging melancholy. Thus ☽ in ♏, in △ or ✶ of ♀, arouses the expulsive power for evacuating choler with a potion; in △ or ✶ of ☉ and ♂, for purging phlegm; of Jupiter, for melancholy. Finally the Moon in the sign ♓ recommends evacuation by pills: with △ or ✶ of ♀, of choler; of ☉, however, or ♂, of phlegm. But of melancholy, with △ or ✶ of ♃.

[Margin: 3 The configuration of the Moon with the planets, or of the planets among themselves.]

Also, the waning Moon is better for instituting purgations than the waxing, especially if she is without bad rays, with the rays of Jupiter and ♀ retrograde, not near the Sun, nor joined with the malefics. But increased in light, that is waxing, and free from the aspect of the evil ones, she is suited to treating the eyes, as Hermes teaches, prop. 39 of the *Centiloquium*, above all if a fortunate irradiation of Jupiter to ☽ is also added.

[Margin: The waning Moon is better for purgations than the waxing.]

For the rest, one must beware, according to the same, prop. 74 of the *Centiloquium*, that in taking a drug the Moon does not run through the ruminant signs, which according to Cardano, 2 Aph. 149, are ♈, ♉ and ♑, since they readily provoke nausea and vomiting. But if someone nevertheless wishes to take an emetic, he will do it with the best success when the Moon is in a ruminant sign, as Ganivetus teaches, chap. 2 of difference 3.

[Margin: Caution in administering purgatives.]

[Margin: Purgatives are not to be given while the Moon is in ♈ ♉ ♋ and ♍.]

The sign of Leo too, although it is not ruminant, is rejected: partly because it is the domicile of the Sun, partly because a member in whose sign the Moon is, is not to be touched or injured, from Aph. 20 of Ptolemy's *Centiloquium*.

Since, then, the Moon presides over the stomach, to which purging medicines are otherwise hostile, a drug is not conveniently administered with the Moon in ♋. For then too nausea and vomiting are stirred up.

Likewise drugs are also to be avoided at the time when the Moon looks at Saturn or Mars with any ray, above all if this is done with a □ or ☍ ray. The Moon too, joined most fortunately to Jupiter, hinders purgations, according to Ptolemy, sent. 19 of the *Centiloquium*: because it blunts the force of the purgative, and strengthens nature; and when nature is strengthened, the operation and effect of the medicine is indeed overcome; rather, the medicine is digested, so that it cannot expel the noxious humours.

[Margin: Bad aspects to the Moon.]

In the cutting of hair this above all is to be attended to: whether we want the locks to grow back quickly, or slowly.

[Margin: On the cutting of hair.]

For if we earnestly wish it to grow back quickly and with comeliness, the hair must be cut, according to Schöner, Canon 6 of the third part of the Isagoge, with the Moon waxing and most fortunately placed in an aspect △ or ✶ of ♃ or ♀, in the hairy signs ♉, ♏ and ♎; and the bad aspects must be avoided, and the strength of the malefic planets, and the sign ♈, if the cutting is to be on the head. For infants too, especially little girls, so that the hair may grow becomingly, it must be cut for the first time with the Moon waxing and the full moon nearer, in the aspect and signs as we have said.

But if we want the hair not to grow back, or at least to grow more slowly, ☽ must be observed waning in ♋, ♏, ♓ and the tail of ♍, in a good aspect of ☿ and ☉. For these are foreign to hairs. And Cardano, 2 Aphor. 157, says: If anyone long observes the practice of cutting his hair with the Moon waning, he will become bald; the same thing Marcus Terentius Varro also attests, book 1, chap. 37 of *De re rustica*. Baldness is also hastened if anyone cuts his hair with the Moon in ♈, waning and moreover condemned, that is, injured by a bad aspect of the evil planets.

Sheep and those whose wool or coat of hair we use are also better shorn, on the testimony of Varro, with the Moon waxing than waning, since with the Moon waxing the hair grows.

[Margin: On the shearing of sheep, and the castration and slaughter of cattle.]

But if perhaps certain other things are to be cut, plucked or shorn so that they are preserved from putrefaction, or if boars, bullocks, rams, swine, kids, etc. are to be castrated or even slaughtered so that the meat, salted and hardened

in smoke, may last for some time, all this, as Pliny hints in book 18, chap. 32, is done more harmlessly with the Moon waning than waxing.

It is also known to some by experience that from careless paring of the nails the nails have become misshapen, or abscesses have arisen around them.

[Margin: On the paring of the nails.]

The astrologers have therefore noted, above all Schöner in chapter 7 of the third part, that in cutting the nails one must observe the Moon increased in light and motion, and in one of the houses of ♀, Taurus or ♎, or even ♈ or ♌, aspecting Venus, or looking at the Sun with a friendly ray. ♊, however, and ♓ are rejected before the other signs, both for the place of the Moon and for the ascendant.

In the weaning of infants, who have already been nourished for a year and more on the nurse's milk alone, this above all is to be considered, according to Canon 10 of the third part of Schöner's Isagoge: whether someone wishes his infant to be delicate, or an eater of meats, legumes, roots or fruits growing from the earth. For generally the appetite of the weaned infant will incline according to the nature of the sign of the Moon and of the planets.

[Margin: On the weaning of infants.]

And therefore, if we want the infants to be delicate, let us make the sign of the ascendant and of the Moon a human one, with a benevolent aspect of ♀ added; if greedy for meats, ♌ and Mars. If for fish, ♋, ♓ and the tail of ♍. If for legumes, roots, fruits and similar things growing from the earth, the earthy signs, but especially ♍ and a fortunate shining of ♄ let us choose. Above all, however, a wild ☽ [feralis] is recommended, that is, one without any aspect. For this makes the nurse forgotten. Whoever is weaned with the Moon standing in ♈, ♊, ♐ or ♒ easily grows used to any foods at all. The Moon, too, suits weaning the more, the farther it stands from the Sun and the nearer it is to the full moon. But a house of ♀, such as ♎ or ♉, hinders weaning, if ☽ is found placed in any one of them. For then infants naturally wish to stay with their nurses.

Although the time suited to undertaking sowing is above all to be inquired of the experienced farmers and gardeners of any given place, so that it is not most shamefully noted down by the writers of calendars at the winter solstice and the dog days, nevertheless the astrologers too hand down some precepts according to which sowing is to be undertaken.

[Margin: On sowing.]

And indeed the writers both on agriculture and on astrological observations have taught that the Moon must be observed for a time suitable for sowing and planting, since ☽ above all rules those bodies which are called vegetable, such as plants and things growing out of the earth: so that if anyone wishes to sow or to plant in moist ground, or a moist seed, he should do it most conveniently, as Schöner teaches, Can. 9, part 3 of the Isagoge, at the interlunium, with the Moon waning. But if the intention is to sow in dry ground, or a dry seed, let him do it with the Moon waxing, near the full moon.

[Margin: In sowing, the Moon is chiefly to be attended to.]

Above all, however, one must look ahead, as Virgil warns in book 1 of the *Georgics*, and Pliny in chap. 25 of book 18, to where the cold star of ♄ withdraws. For ♄ rules the earth and presides over sowing and seeds, as Pontano notes in his commentary on sentence 10 of Ptolemy's *Centiloquium*. Hence that planet, favourably configured with ☽, with Jupiter and ♀ breathing favour at the same time, assists the cultivation of the earth. But aspects of ♂ to the Moon hinder the same. Sowing, too, is usually done on the day before or after the new Moon. After, however, is better, especially if ☽ is swift in motion and in mobile signs. For the signs suitable for sowing are the mobile ones, ♈, ♋, ♎ and ♑, to which ♍ and ♓ are rightly joined. But for planting the fixed signs are conducive, above all ♉ and ♒: which very thing Pitatus also teaches in the doctrine of elections: The planting, he says, of trees, vines or similar things is to be undertaken at the time when the fixed signs ascend, above all if the Moon runs through Taurus with ♀, or is affected by her with an aspect. But if you cannot have the Moon in ♉, place it in ♒, finally in ♌, yet in such a way that it is aspected from a watery sign by Saturn, Jupiter or Venus. Cardano also teaches, 2 Aph. 162, that the Moon in the earthy signs ♉, ♍ or ♑, in a useful aspect of Saturn, suits sowing, planting, and the digging over of vineyards. So in ♋ every kind of crop can be committed to the earth, and in ♎ and ♒ gardens can be tended. But sharp things you should neither sow, nor gather, nor store, unless the Moon is below the earth, 2 Aph. 154. In general, also, sowing and planting are better when rain is soon to follow. If you prune vines with the full Moon shining in ♉, ♌, ♏ or ♐, neither mice nor birds will attack the grapes, 2 Aph. 155.

[Margin: Planting.]

Although the times of betrothals are best found out from the nativities of the persons who seek marriage, nevertheless in general the astrologers, as Schöner advises, Canon 11, part 3 of the Isagoge, consider, for the happy betrothal of a husband, the rays of ☽ and ♀ fortunate between themselves and conjoined; but for the marriage of a young woman, the fortunate rays of ☉ with ♂.

[Margin: On the time of betrothals.]

The beneficent aspect of Jupiter to the said significators also brings not a little good fortune to that matter, especially if the Moon is in some sign of Venus or of Jupiter, ♉, ♎, ♐ or ♓. On the whole, however, to obtain offspring, let the Moon be in the signs of many children, such as are the watery ones, ♋, ♏ and ♓, and in benign aspects of ♃ and ♀.

In undertaking journeys it is indeed best, according to Schöner, Canon 18 of the third part of the Isagoge, to know the nativity of the one who wishes to travel. For if first the place of ☽; second, the ascendant of the nativity or of the revolution; and third, the ninth house or its lord, are fortunate, they will also signify a fortunate journey; not so, if they are disposed otherwise.

[Margin: On the time of journeys.]

And if one must pronounce on journeys in general: that journey over land is indeed judged fortunate which is begun after the presence of the divine power has been obtained by prayers, while ☽ either dwells in the earthy signs, or the ascendant holds earthy signs, and the Moon herself is made fortunate by the favourable rays of the planets, with the benefics ♃ and ♀ standing in good places of the heaven, but the malefics in the cadent ones. But above all one must beware, according to sentence 41 of Ptolemy's *Centiloquium*, lest at the time of departure the eighth place and its lord suffer affliction: and at the time of return, the second place, which is opposite the eighth, and its lord be ill disposed. For otherwise both the journey and the business will be dispatched unhappily, and the fruit of the expedition will be either none or troublesome. But that journey over water is made fortunate which is undertaken with the Moon, or the ascendant, holding watery signs, and with favourable rays of the planets shining on both the Moon and the ascendant, the malefics holding the cast-down places, and not striking the Moon and the ascendant with an unfavourable aspect.

[Margin: In general.]

[Margin: By water.]

But here too one must beware, according to sentence 55 of Ptolemy's *Centiloquium*, lest, when a ship is given to the sails, ♂ stands either in the mid-heaven or in the eleventh place. For in these places he ruins the ship, with robbers seizing it by force: since by Mars in the mid-heaven are signified men whose offices, dealings, operations and actions are directed to inflicting injuries, and who strive to get property for themselves by force and plunder. But in the eleventh place is signified the private property, the value of the vessel, and the wares and goods, to all of which ♂, standing there, announces loss either from pirates or from lawful enemies, as Pontano teaches in the commentary.

The ship, moreover, is set on fire if the ascendant is further afflicted by some fixed star which is of the mixture of Mars. And rightly, following Abenragel, Pitatus in his treatise on elections advises that five roots above all are to be considered in journeys by water: first, the ascendant under which the ship began to be built. Second, the hour at which the ship is bought. Third, the one at which it is first brought down into the water. Fourth, the one at which a man boards the ship: and fifth, the one at which the ship is first committed to the winds. For in all these one must beware lest anything be undertaken or begun in the hour of ♄ or ♂: and lest ☽ run through the sign ♏; and let the Moon be free of the ☌, □ or ☍ ray of the malefics, supported by a △ or ✶ ray of the benefics ♀ or ♃.

That we may also know with which persons we may fittingly converse at any time, it must be attended to, when we wish to approach a king, a duke, or one established in the highest magistracy, that we do it, as Pitatus teaches in elect. itinerum partic., with the Moon joined to the Sun, or at least to the lord of the 10th house, in a △ or ✶ aspect. But it will be best if the Sun and the lord

[Margin: On mutual dealings with a magistrate.]

of the 10th receive each other mutually, and ☉ is in a good place of the heaven, the first, 10th or 11th house. For in the 7th, 5th or 4th it signifies little good, or good with great and lasting labour. Above all one must beware lest ♄ or ♂ stand at the same time in any of the angles, and lest the Moon be ill affected either by the evil rays of the evil planets, or by combustion, or with ☋. If religious bishops, theologians, senators and the leading men of cities, judges or guardians of the laws are to be addressed, let it be done with the Moon either joined to Jupiter, or linked with a beneficent aspect, △, ✶ or even □, but with reception, from one of the angles, or from another good place of the heaven.

[Margin: With religious persons.]

In the same way, if anything is to be transacted with old men, farmers and other austere people, let ♄ be chosen, shining on the Moon with a good aspect. If with the leaders or commanders of the army, ♂: and let the ☌, □ or ☍ of ♄ or of ♂ to the Moon be avoided; likewise the retrogradation, misfortune and slowness of motion of that planet to which the Moon is carried by body or by ray. For these portend various hindrances, and various labours in one's actions. So if one must deal with the female sex, or with those who belong to Venus, let ♀ be looked to, placed in a masculine sign and regarding the Moon with a fortunate ray. But with clever men, chancellors, merchants or sculptors, ☿; as these things are in some measure known also from the preceding chapter.

[Margin: With old men and farmers.]

[Margin: With soldiers.]

[Margin: With women.]

[Margin: With clever men.]

Boys are to be handed over to teachers at the time when, as Schöner notes, Canon 12, part three of the Isagoge, the Moon, increased in light, is placed in a human sign with Mercury; or else looks on Mercury with a fortunate ray: or, if we wish to determine the time more exactly, let ☿ be strong in its house or triplicity, let it be swift in motion, occidental, in an angular house of the heaven, or else in the 9th or 11th, and let the horoscope hold some human sign, its lord meanwhile either occupying the mid-heaven, or likewise regarding it with a favourable ray. Nor does that time seem one to be neglected in which ☿ is placed with the lord of the ascendant in some fortunate irradiation.

[Margin: When boys are to be handed over to teachers.]

Clothes, according to Schöner, Can. 14, part 3, are most conveniently procured and bought if the Moon is increased in light, and the second house and its lord stand in a common and mobile sign and are lit by fortunate rays, and the Sun occupies the mid-heaven.

[Margin: On putting on and procuring clothes.]

But they are put on most safely if ☽ and the ascendant are in mobile signs, with ♃ and ♀ joined either by body or by ray. For one must beware of the fixed signs, as Hermes teaches, sentence 82, and Ptolemy, sentence 22 of the *Centiloquium*. To cut or to put on new clothes, they say, with the Moon standing in a fixed sign, and especially in ♌, is dangerous; above all, however,

when the Moon is ill affected in ♂ or ♂ with ☉, or hindered by the evil rays of the malefics. And Pontano gives the reason in the commentary: that things which are made for the sake of the body's use must rightly be more imperfect and less lasting than the body, which they serve or wait upon. But clothes made and first put on in stable signs are presumed to last longer than the body, which, they intimate, is hindered either by diseases or by other evils, so that their use is not continued, and thus, laid aside and stored away in a chest, they do not serve their master's use. In making garments, therefore, one must look to this: that they, as fluid and fragile things, grow old, but the body remains unharmed. About ♏, however, which is also a fixed sign, Cardano speaks otherwise, Aph. 153: Do not make clothes while ☽ is in ♏, the more so if she is full of light, and ♂ regards her. For they will quickly be torn: perhaps because it is a sign of Mars, and watery, which above all promotes corruption.

The astrologers judge the time for hunting opportune, according to Canon 19, part 3 of Schöner, if the ascendant is a mobile sign, and the Moon in the mid-heaven is made fortunate by Jupiter, with Jupiter indeed and Venus ascending, Mars occupying the seventh, and Saturn cadent, nor irradiating the ascendant in any way. But it is best if ☽ is in ♋, Jupiter holds ♓, on this condition: that the Moon applies to Jupiter, and does not flow away from the same. The times, however, are to be avoided in which retrograde planets stand in the angles, and the Moon, unfortunate, applies to them. For in those times, the astrologers hold, hunters waste all their effort and come back home without prey.

[Margin: On hunting.]

Finally, timber for building is to be felled with the Moon waning, from Martin to Fabian: or, as Schöner will have it, Canon 21 of the third part, from the summer solstice up to the Kalends of January; in the months of July, August, September, October, November and December. For in these months, especially from the 15th of the Moon up to the 22nd according to Schöner, or rather, as Pliny will have it, chapter 36, book 16, from the 20th day to the 30th, with the moisture decreasing, the timber is drier, sturdier and more solid, and it does not easily, eaten away as it were by an inner scab of worms, turn to dust, as Pliny hints, book 16, chapter 41.

[Margin: On the cutting of timber.]

And in the cutting of timber, clear and not humid days are to be watched for, since timber moistened at the time of cutting is more easily spoiled by rot. But that timber which the wind has thrown down is to be rejected, since in windy times it is moved and gives out a sound. Cardano also, sect. 2, Aph. 158, from Pliny, book 16, chapter 39, advises that coppice wood for work be reaped or cut with the Moon waning. If more carefully, for outstanding works, in the last quarter; but far better if on the day of the interlunium; best of all, and making for eternity, if the day of the interlunium falls at the same time on the last day of midwinter, and Saturn regards the Moon, while the Moon is under the earth. For not only do they not feel rot, but they are also made very hard. But for fuel for the fire you will fell woods and groves, and whatever you wish to grow quickly again, with no care taken of what is cut, with the Moon above

the earth in the first quarter, joined to ♀ or to Jupiter, as Cardano affirms in the following Aph. 159, sect. 2.

[Margin: Timber that ought to last should be cut on clear days; not on windy ones.]

But let students look at calendars carefully written by approved craftsmen, and compare them with the rules handed down and with their own ephemerides. When they have done this for one year and another, they will attain everything more easily.

TERTIUM MEMBRUM — The Third Member

On general genethlialogical judgement

Proem

On the continuation of this member with the preceding one, its division, and the necessary requisites.

Now that those matters are finished which belong to the common judgement, which Ptolemy calls καθολικὸν προγνωστικόν [Greek: katholikon prognōstikon, "universal prognostic"]*, since it contains predictions from the stars which apply to many peoples and cities: it now remains that we pass on to the specific, and show how judgements proper to individual men are to be composed;* these are called γενεθλιαλογικά [Greek: genethlialogika, "genethlialogical"], since they show, from anyone's nativity, the things that are to be expected for the one born, in respect of the heaven as efficient cause. *But although each judgement presupposes a certain* διάθεσιν [Greek: diathesin, "disposition"] *of the heavenly bodies, from which the kinds of events are to be conjectured which, it has been found by experience, the heavenly bodies signify from their own property: yet some difference occurs: 1 That the* προγνωστικόν [Greek: prognōstikon, "prognostic"] *of universals is perfect in itself, even if this judgement of particular subjects is not subjoined. Next, that the principles are different in each: For in the universal, which is concerned with regions and cities, since there cannot be one beginning, many principles must be set up, to which the* διαθέσεις [Greek: diatheseis, "dispositions"] *of the heavenly bodies are adapted. But in the prediction of particulars there is one principal beginning, namely that which belongs to the generation of the man, which indeed determines the species of the thing, and those things which are proper to the nature of each. The remaining beginnings, which are certain distinctions according to the stages and times of age, befall this principal one as a kind of subject, and only increase or diminish its properties.*

[Margin: Ptolemy, book 3 of the Quadripartitum, chapter 1, or text.] [numeral: ?]

[Margin: The general judgement of regions and the genethlialogical judgement differ. Ptolemy, text 2.]

The beginning of generation, however, is twofold in time: one of conception, the other of birth, when it is brought forth into the light. *If the beginning of conception is known, either by chance or through observation, it is more fitting to follow it than the other; namely by considering what force and efficacy in acting the*

σχηματισμός [Greek: schēmatismos, "configuration"] *of the heaven has which occurs at that moment. For at this time the* σπέρμα [Greek: sperma, "seed"]*, from the disposition of the surrounding air, first becomes of a certain definite temperament, and puts on a peculiar nature; and although this nature, in the succeeding times in which it is changed and shaped into a living body, becomes somewhat different in temperament, yet for the most part it retains the property with which it was first imbued, and by its own force so tempers and separates the matter from which it receives growth, as this first impression requires. Therefore the properties of mind and body can best be had from this beginning, about which I noted some things above, chapter 12 of part 2.*

[Margin: The beginning of the generation of man is twofold. Ptolemy, text 3, book 3 of the Quadripartitum.]

[Margin: One, of conception.]

But if it is not known, as it is almost perpetually not known, then attention must be paid to that moment at which someone comes forth into the light; since, according to segment 1, Aph. 26 of Cardano, A boy is said to be born at the moment when he first draws in air through the mouth outside the mother's womb. For both the force of this beginning is the greatest, and it differs from the former only in that it does not show what happens before birth: otherwise it is of equal power; indeed, as it is later in time, so in actual fact it is held to be more perfect. For the moment of conception is only the beginning of the seed in human generation, and a kind of commencement, as it were. But the hour of birth is the beginning of the man and the principal starting-point of life, by which whatever is lacking is completed at the last. And if anyone should object that a man is perfect in every part before he comes forth into the light, and that the chart of the heaven constructed for the time of birth contributes nothing to the particular nature of each: to him the answer must be: that the nature which the foetus first acquired from the heavenly impression, just as it properly tempers the rest to itself, so after maturity and completion it is carried by its own impulse, so that the foetus comes forth under such a constitution of the heaven as was the one that earlier formed the foetus. For it agrees, *as we noted above, part 2, chapter 12, from saying 51 of the centiloquy of Ptolemy and the Rule of Hermes Trismegistus:* the place of ☽ at birth with the place of ☽ at conception, and vice versa. *Although, therefore, the constitution of the heaven at the time of birth does not effect the things which have by then been effected in the one begotten, yet by its power it has the force both of effecting and also of signifying such things. In genethlialogical theory, therefore, if the beginning of conception is not had, this other is to be sought out, and once it is assumed, the rest are to be deduced from it in their order. Hence, if a judgement is to be passed from the stars on the state of anyone born, since the time of conception can hardly be given, inquiry is made about the time of birth: and once that is given, the chart of the heaven is set up according to the precepts of chapter 11 of the preceding part 2, and the principal significators are directed according to the last chapter of the same part; so that finally a judgement may first be made in general, without a definite determination of the years, as to what constitution of body, what health, what kind of powers of disposition, character, and actions, which follow the temperament; likewise goods of fortune, friendships, acquaintances, journeys, marriage, children, and other*

accidents, and indeed death itself, and the kind of death, are signified for the one born by the disposition of the heaven; and afterwards the single things signified may also be defined in particular by their times. But first, in this member, we shall set out the general judgement, and we shall begin it from the examination of the strength and debility of the significators, and in the rest we shall observe that order which is prescribed to us partly by the division of the houses, partly also by nature itself, and by the succession of significations in life.

[Margin: The other, of birth.]

[Margin: The moment of birth is of the greatest force in the judgement of nativities.]

[Margin: The place of the Moon at birth agrees with the place of the Moon at conception.]

[Margin: In genethlialogical judgement the chart is first erected, and its principal significators are directed.]

Caput I — Chapter I

On the collection of the dignities of the individual Planets, and on their government and that of the houses; likewise on the good or ill fortune of the houses.

In the inquiry into genethlialogical judgements this must be regarded before everything — as, besides other astrologers, Cardano, Schöner and most of the ancients, Cyprianus Leovitius also taught, and Giuntini after him; likewise Peucer in his astrological lectures; and as the right method of teaching suggests — that the strengths and debilities of the Planets be examined: which of them, and in which places, naturally exert their effects more vehemently, and again when and where they are weaker. For whenever anything is to be pronounced about the conditions of the native, such as life, dignity, marriage or similar things, certain places must be inspected, which we customarily call significators; and according to their constitution, their mutual agreement toward the signification of the same event, their nature, their position in the world and in the chart, their motion, and their meeting and configuration with other benign and malign stars, judgements on the question proposed must be passed; since, as Haly rightly advises in part 1, chapter 5 of the Judgements: One Planet makes another fortunate, and one condemns another, and they set out among themselves the examples of men who come to one another's aid from among their friends, and fight for them, and harass their enemies.

[Margin: Examination of the strength and debility of the planets.]

In the Planets, moreover, these 6 accidents are chiefly considered. First. *Whether the Planet is placed in one of its essential dignities, or whether it is peregrine, cadent, or in its detriment. And this consideration is made according to the table of essential dignities set out and explained above in chapter 4 of the first member of this part: In which a Planet, standing,*

[Margin: Six accidents are chiefly considered in the planets.]

[Margin: 1 Essential dignities.]

Has dignities		Has debilities	
In domicile or mutual reception from domicile	5	In detriment or exile	5
In exaltation or reception from exaltation	4	In fall, that is dejection	4
In triplicity	3	Peregrine	5
In term	2		
In decanate, face, joy and almugea	1		

Second, *how the Planet is placed in the figure of the nativity, whether in an angle, or in a succedent or cadent house. For a cadent Planet, according to Haly, is like one travelling abroad, a matter we dealt with in chapter 5 of the same member.*

[Margin: 2 Position in the chart.]

Hence a Planet

In mid-heaven or the ascendant	5	In house 12	5
In house 7, 4 and 11	4	In house 8 and 6	4
In house 2 and 5	3		
In house 9	2		
In the third	1		

Third, *whether it is direct, swift, slow or retrograde.*

[Margin: 3 Motion of the Planets]

For a Planet

Direct, which must not be taken of the Sun and ☽	4	Retrograde	5
Swift in course	2	Slow	2

Fourth, *whether oriental or occidental, and thus increased or diminished in light.*

[Margin: 4 Position relative to the Sun.]

For oriental, of the three superiors ♄ ♃ ♂	2	Occidental, of the 3 superiors	2
Occidental, of the two inferiors ♀ and ☿	2	Oriental, of the 2 inferiors	2
☽ increased in light, that is waxing, occidental	2	☽ diminished in light, waning	2

Fifth, *whether combust, under the rays, in cazimi, or free from combustion, from the rays.*

[Margin: 5 Nearness to the Sun.]

Sixth, *whether it is associated with the benefic Planets by a benign aspect, or configured with the malefics by a hostile aspect. On these see chapter 6 of this member.*

[Margin: 6 Association]

A Planet, therefore,

Has dignities		Has debilities	
Free from combustion and rays	5	Combust by the Sun	5
In cazimi, that is, the heart of the ☉	5	Under the rays of the ☉	4
Partile ♂ ♃ or ♀	5	Partile ♂ with ♄ or ♂	5
Partile ♂ ☊	4	Partile ♂ with ♅	4
Partile △ ♃ or ♀	4	Besieged by ♄ and ♂	5
Partile ✶ ♃ or ♀	3	Partile ☍ ♄ or ♂	4
Conjunction with Regulus in 24° ♌, within a distance of 5°	6	Partile □ ♄ or ♂	3
♂ with Spica ♍ in 18° ♎	5	♂ with the head of Med., called Algol, in 12° ♉, within a dist. of 5°	5

The consideration of these accidents, however, is set up in this way. First the individual Planets are taken separately, and their strengths and debilities are ascribed to them in order, with their numbers. Then the sum of both sets of numbers is collected. For from this emerge the titles of dignity or indignity, according to the number which wins:

[Margin: Manner of the examination]

For 1 whoever has two or three principal essential dignities, such as house, exaltation, triplicity, the aspect of the benefics, and is free from the Sun, will be called fortunate. On the contrary, one who lacks these, unfortunate: and, as Haly reports in chapter 5, part 1 of the Judgements, an unfortunate Planet is like a sick man.

[Margin: Four rules of the examination.]

[Margin: 1]

2 If it is swift, in a happy house, increased in light, and oriental among the superiors, occidental among the inferiors, it will be called strong: on the contrary, weak.

[Margin: 2]

3 If they cannot be called either fortunate or strong, and yet the testimonies of strength win, they are called only happy. On the contrary, unhappy, if the testimonies of debility win.

[Margin: 3]

Finally, when the testimonies of strengths and debilities are equal, they are called middling. It should be noted, however, that there is not so much need for careful solicitude about the difference of the titles, since without risk we can be content with these words only: strong, weak and middling. *And from an examination of the Planets of this kind and a collection of the dignities, a definite order of the Planets is at last established, according to the dignity and power of each; this order is taken from the subtraction*

[Margin: 4] *of the debilities from the strengths. For that one of the Planets which has more testimonies of strength is to be preferred to that which has fewer. But if, however, equal ones of two or more present themselves, the one that is adorned with more essential dignities is preferred.*

But so that it may be clear to anyone in what way the testimonies of strengths and debilities are to be collected, we shall now examine the individual Planets in

order in this nativity, appended here and set out above on page 379, corrected by the animodar.

Diagram. A square figure of the heaven: an outer square, an inner square at its centre, and twelve compartments between them — a triangle at the middle of each side and two triangles in each corner, divided by the corner diagonals. The inner square carries the data of the nativity; each compartment carries a sign with figures, and several carry planets, stars or the Part of Fortune. No house numbers are printed. The labels are set at angles, and are listed here compartment by compartment.

- Inner square: "The noble Lord Ulrich von Biberstein [Ulricus à Biberstein], Lord in Forst and Pforten, is born, in the year 1543, January; Day 5, Hour 4, 46′ 8″ P.M.; under an elevation of the pole of 51° 50′."
- Top side, middle triangle: ♈ 9 23; the first of ♈, 27 30.
- Top-left corner, upper triangle: ♉ 23; Palil. 3 30 ♊; the right shoulder of Orion, 22 50.
- Top-left corner, lower triangle: ♋ 6; Castor 14 10; Poll. 17 20; ⊕ from ☽ to ☉, 29 41.
- Left side, middle triangle: ♌ 3 6; ⊕ from ☉ to ☽, 6 31.
- Bottom-left corner, upper triangle: ♌ 22; ♍ 23 9; the Heart of ♌, 23 20.
- Bottom-left corner, lower triangle: ♍ 11; the Tail of ♌, 15 20.
- Bottom side, middle triangle: ♎ 9 23; Spica ♍ 17 30; ♃ 27 33; ♄ 18 58.
- Bottom-right corner, lower triangle: ♏ 23; ♐ 6; the Heart of ♏, 3 0 ♐.
- Bottom-right corner, upper triangle: ☽ 28 32; ☉ 25 7; ♀ 9 23; ☿ 5 40.
- Right side, middle triangle: ♒ 3 6.
- Top-right corner, lower triangle: ♒ 22.
- Top-right corner, upper triangle: ♂ 14 23; ♓ 11.

In this first nativity of the illustrious Baron, ♄ is in 18° 58′ ♏, and has [Margin: First example.]

Testimonies of strength		Of debility	
In the fifth house	3		
Direct	4	Because peregrine	5
Swift in course	2		
Oriental	2	It therefore wins by 11 testimonies of strength.	
Free from combustion and rays	5		
In sum	16		

♃ is in 27° 33′ ♎

	By reason of face	1
Supported by testimonies of strength	Of the fourth house	4
	Of direction	4

Of swiftness of course	2	
And because oriental	2	And since it is cast down by no debilities, it is established
Free from combustion and rays	5	to be strong by 18 testimonies
In sum	18	

♂ is in 14° 23′ ♓

	In respect of triplicity	3			
Rejoicing in testimonies of strength	Of the ninth house	3		Occi-dental	2
	Of direct course	4	Of debility		
	Of speed	2	Hence it is judged happy by 14 testimonies.		
	And because free from combustion and rays	5			
	In sum	16[105]			

☉ is in 25° 7′ ♍

		But in the sixth house	4
In its own face	1	from which, with one testimony of debility exceeding,	
And swift in course	2	it is left weak	

♀ is in 9° 23′ ♍ having testimonies

Because direct	4	Because peregrine	5
Swift in course	2	In the sixth house	4
Free from combustion and rays	5	Oriental	2
In sum	11	In sum	11

From this, because the testimonies cancel each other out, it is judged middling.

☿ is in 6° 40′ ♍

		Because in the sixth house	4

[105] the five figures above, as printed, add up to 17; the conclusion and the ranking below follow 16

Supported by testimonies of strength	Because in term	2	Cast down by debility	Retrograde	5
	Free from combustion and rays	5		Oriental	2

Hence, because of the 4 testimonies of debility in excess, it is left weak.

☽ is in 28° 32′ ♍, rejoicing in almost no testimonies of strength, *except that it is occidental.*

But it is afflicted by very many debilities	Because peregrine	5
	In detriment	5
	In the sixth house	4
	Combust by the Sun	4

It is therefore judged unfortunate by 16 remaining testimonies of debility.

And so it is evident that in this nativity Jupiter is the strongest, by 18 counts: after it, ♂ 14: then ♄ 11. ♀ is middling: ☉ weak by 1 testimony: ☿ 4, ☽ 16.

[Margin: Second example.]

In this second one, however, of my special friend,

♄ is in 25° 30′ ♓	In house XI	4			
And it has testimonies of strength, because	Direct	4	Of debility because	Peregrine	5
	Swift in course	2			
	Oriental	2			
	Free from combustion and rays	5			
	In sum	17			

Diagram. A square figure of the heaven: an outer square, an inner square at its centre, and twelve compartments between them — a triangle at the middle of each side and two triangles in each corner, divided by the corner diagonals. The inner square carries the data of the nativity; each compartment carries a sign with figures, and several carry planets, fixed stars or the Part of Fortune. No house numbers are printed. Most labels are set at angles; they are listed here compartment by compartment.

- Inner square: "M. I. S. I., my friend, is born, in the year 1554, April; Day 23, Hour 17, 53′ 17″; in the latitude of the place 51°."
- Top side, middle triangle: ♒ 6 10; ☽ 6 25.
- Top-left corner, upper triangle: ⊕ from ☉ into ☽, 3 58 ♓; ♄ 25 30; ♒ 28 59.

- Top-left corner, lower triangle: [?] 17 14; ♂ 27 12; ♀ 6 11 ♉; ☉ 12 42; ☿ 0[?] 14; ♊.
- Left side, middle triangle: ♊ 10 15; the right shoulder of Orion, 22 33 ♊.
- Bottom-left corner, upper triangle: ♋ 5 36; Castor 14 2; ☊ 14 39; Poll. 17 4.
- Bottom-left corner, lower triangle: ♋ 20 59.
- Bottom side, middle triangle: the Heart of ♌, 23 38; ♌ 6 10.
- Bottom-right corner, lower triangle: ♌ 28 59; ♃ 25 57 ♍ ℞; ⊕ from ☽ to ☉, 16 28 ♍.
- Bottom-right corner, upper triangle: the Heart of ♏, 3 34; Spica ♍ 17 37; ♎ 17 14.
- Right side, middle triangle: ♐ 10 15.
- Top-right corner, lower triangle: ♑ 14 39; ♒ 5 36.
- Top-right corner, upper triangle: ♒ 20 59.

Since therefore the testimonies of strength exceed the debilities in number, I pronounce Saturn to be strong by 12 testimonies.

♃ is in 25° 57′ ♍ ℞

	In the fifth house	3		In detriment	5
Whose testimonies of strength are counted, because	Free from combustion and rays	5	Of debility, because	Peregrine	5
				Retrograde	5
				Occidental	2
				Partile ☍ of ♄	4
	And so in sum, testimonies of strength	8		Of debility	21

♃ is therefore unfortunate and weak by 13 testimonies.

♂ is in 27° 12′ ♈

	In its own house	5			
	Direct	4			
Powerful in testimonies of strength, because	Swift in course	2	Of debility, because	In house 12	5
	Oriental	2			
	Having scarcely emerged from the rays of the ☉				

But when, the debilities being subtracted, 8 testimonies of strength remain over, ♂ is altogether strong

☉ is in 12° 42′ ♉

Having absolutely no testimonies of strength	But of debility, because	Peregrine	5		
		In house XII	5		
		Slow	2		
		In sum	12		

The Sun is therefore pronounced unfortunate and weak.

♀ is in 6° 11′ ♉

	In its own house	5			
	In triplicity	3		In house XII	5
And it has testimonies of strength, because	In term	2	Of debility, however, because	Oriental	2
	Direct	4		Combust	5
	Swift	2		In sum	12
	In sum	16			

from this, the debilities being subtracted, it is still judged fortunate by 4 testimonies.

☿ is in 0° 14′ ♊

	In its own house	5		
Shining with testimonies of strength, because	In term	2	But in house XII	5
	Direct	4		
	Swift	2	It is therefore fortunate and strong by 15 remaining testimonies.	
	Occidental	2		
	Free from combustion and rays	5		
	In sum	20		

☽ is in 6° 25′ ♒

	In the M. C.	5		Peregrine	5
Supported by testimonies of strength,	Swift	2	Cast down by debility,	Diminished in light	2
because	Free from combustion and rays	5	because		

From this it is determined to be still strong by 5 testimonies.

It is therefore clear that in this nativity ☿ is the strongest and fortunate, by 15 testimonies: after it, ♄ 12; next ♂ 8: ☽ 5: ♀ 4. The weak are ☉ with 12, ♃ with 13 testimonies.

Moreover, in this examination of strengths and debilities, Cyprianus Leovitius [Leovicius] teaches that Ptolemy considers the Part of Fortune no less than any planet, with this difference, however, that he does not assign aspects to the Part of Fortune except insofar as it is aspected by the planets themselves. *For the ⊕ is only a place of the heaven in which the rays of the ☉ and the ☽ concur by this analogy: that whatever configuration the horoscope has to the Sun, the ⊕ has that same one to the Moon: and so it is considered, as it were, the horoscope of the Moon.* Its strengths and debilities, however, are examined in this way. *First* the signs in which it is placed are considered: and those are judged happy which are the houses of the benefics; unhappy, those which are the houses of the malefics. *Second* the aspects of the planets, which, if they are happy, increase the powers of the Part of Fortune, and if unhappy, diminish them. *Third* the place of the celestial figure in which it is. And *fourth* the royal or violent fixed stars with which it is associated. Finally, the strengths are distinguished by numbers in this way.

[Margin: The ⊕ too is usually examined, whether it is weak or strong.]

	Has strengths	⊕	Has debilities	
	♉ and ♓	5		
In the signs	♎ ♐ ♑ and ♋	4	♏, ♍ and ♒	5
	♊	3	♈, although it is the house of ♂: yet it does not take away or add,	
	♍	2	since the ☉ is exalted in it.	
	☌ ♃ or ♀	5	☌ ♄ or ♂	5
In aspect	☌ ☊	3	☌ ♇	3
	△ ♃ or ♀	4	☍ ♄ or ♂	4
	✶ ♃ or ♀	3	□ ♄ or ♂	3

	Has strengths	⊕	Has debilities	
	1 or 10	5	12	5
In the house	7, 4 or 11	4	8 or 6	4
	2 or 5	3		
	9	2		
	3	1		
Thus the ⊕ joined with Regulus brings			With the Head of Algol	4
dignities		6	Combust	5
With Spica ♍		5		
Neither combust nor under the rays		5		

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In our first example the ⊕, from the Sun to the ☽, in ♌ 4, in the first house 5, and not combust 5: in sum it has 14 dignities. But from the ☽ to the Sun, in ♋ 4, in the first house 5, not combust 5, and in sum it has 14 pre-eminences.

[Margin: First example.]

In the second example the ⊕, from the ☉ to the ☽, has 5 dignities in ♓, in ✶ to ♀ 3, in the eleventh house 4, not combust 5: and so it is made fortunate by 17 dignities. But from the Moon to the Sun it has 2 dignities in ♍, and in the fifth house 3, not combust 5: in sum 10.

[Margin: The other example.]

In both examples, therefore, the Part of Fortune is sufficiently fortunate and happy, especially in the first, since in it the ascendant surrounds and embraces [the Part of Fortune].

For the rest, once the strengths and debilities of the planets have been examined in this way, the next thing now is that we also inquire into the governors of the planets and of the domiciles, since these too have great force in genethlialogical judgement. At the outset, however, one must distinguish between the lord of that sign which begins a house, and the lord of the degree of that sign which either begins the cusp of some house or in which some planet stands. For the lord of the sign is called by the Greeks οἰκοδεσπότης [Greek: oikodespotēs, "master of the house"], or lord of the house.

[Margin: There is a distinction between the lord of the sign]

For example, in the first nativity the lord of the horoscope is ☉, since ♌ is rising. But of the M. C., ♂, because ♈ passes through the M. C. In the other, the lord of the horoscope is ☿, since ♊, which ascends, ☿ has its house : but of the mid-heaven the lord is ♄, which rules ♒.

But the lord of the degree of that sign which either is on the cusp of some house or receives a planet is called ἐπικρατήτωρ [Greek: epikratētōr, "ruler, master"], that is, disposer, victor, and by the Arabs Almuten, a word which is without doubt derived from the Hebrew [Hebrew: מ[?]וֹן], which signifies judgement or also contention in a court of judgement. For Almuten is said as if [Hebrew: לַמַּא[?]וֹן], victor in the judgement of the dignities: and it is the one which has the most essential dignities in the degree proposed. The governors of the individual planets and of the houses are sought, moreover, from the table of essential dignities set out above on page 425, that is, in chapter 4 of the first member of this third part.

[Margin: And the lord of the degree of the sign, which is called Almuten.]

For example, in the first example 3° ♌ ascending shows that the Sun is the lord of the horoscope. For although ♃ has 3 by reason of triplicity, and ♄ two by reason of term and one dignity by reason of face, and so has 3 in number, yet the Sun, as lord of the house, surpasses the rest with its 5 dignities.

[106] The column heads of this table are printed on the preceding page; they are repeated here from there.

In the other example 10° 11′ ♊ ascends: from this, since Mercury has 5 dignities by reason of domicile, ♄ 3 by reason of triplicity, ♃ 2 by reason of term, and ♂ 1 by reason of face, ☿ will be called ἐπικρατήτωρ [Greek: epikratētōr, "ruler, master"] or Almuten, since it surpasses all in the number of dignities.

But it should be noted that for the most part the lords of the degree of the sign which either the planets or the cusps of the houses occupy are not inquired into so scrupulously: rather, astrologers are mostly content with the lords of the signs, since for the greatest part they also agree, as was clear from the examples adduced.

Finally, astrologers are also accustomed to call the houses themselves fortunate, unfortunate, or middling, according as they are occupied by the signs of fortunate, middling, or unfortunate planets, or are aimed at by happy or unhappy rays; since happy houses bestow happy significations, and the native is happy in the significations of that house. Unhappy ones, however, deny or disturb the significations, so that the native is cheated of them. Middling ones bring middling fortune. Fortune and misfortune, moreover, are judged in almost the same way as the strength and debility of the ⊕, except that neither the number of the houses is attended to, nor combustion. In their place, however, the conjunctions of ☉, ☽ and ☿ are taken, provided they are outside combustion and retrogradation; likewise the rays of △ and ✶, yet so that 3 of the number of good fortune is ascribed to the conjunction, 2 to △, and 1 to ✶. To the unhappy rays, ☍ 2 and □ 1 are counted; and so, from the number of the prevailing ones, they are pronounced strong, middling, or weak: see below, chap. 9.

[Margin: Which houses are fortunate, unfortunate, or middling.]

Caput II

On the general judgement of life and on the election of the Aphæta, or hylech, and the Alcochodon.

Since the outcomes of things which the astrologer has to judge belong to the living, not to the dead, as Giovanni Pontano [Pontan.] rightly warns in his commentary on sentence 17 of the *Centiloquium* of Ptolemy [Ptol.], and according to Ptolemy [Ptol.], book 3, chapter 10 of the *Quadripartitum*, pronouncements on the remaining accidents of the native, such as his character, morals, riches, marriage, journeys, etc., are made in vain when it is not first established whether the man's life will last to an age suited to such actions: therefore, so that we may proceed in due order, we shall first treat of the native's life in general. And although a more exact judgement of the longer or shorter span of life can be drawn from the doctrine of directions, namely when the hylech is directed to the Anæreta, or killer, and is brought to it either more slowly or more quickly: yet this general consideration too is not to be omitted; on the contrary, it must always be placed before the directions. For if through this general π[?]γνωστικὸν [Greek: p[?]gnōstikon, "…gnostic"] we observe

that the stars decree a long life for the native, we rightly inquire through special directions into the number of years of his age. But if we recognize that his life will be weak and short, so that the native will scarcely, or even not at all, get past the years of nursing, much less reach mature age, we omit the special judgement. And first, indeed, in this general consideration of life, one must look in the parents' nativities at what the significators of children are like.

[Margin: Life is necessarily judged first.]

[Margin: In the judgement of life the native's parents are to be considered first.]

For just as the firmness of fruits depends on the temper of the root, so too children whose parents have unhappy significators die from a slight cause, unless the children's nativity is quite fortunate for their own life. The children, moreover, are signified in the parents' nativity by the 5th and 11th houses. Hence those who have Saturn or Mars placed in those houses mostly lose their children.

Secondly, the horoscope is considered, which is the most proper significator of life, whether it is happy or unhappy. It is happy, indeed, through the sign and term of a happy and beneficent planet, or also through the rays or presence of the beneficent planets.

[Margin: Second, the native's horoscope.]

For example, lives are established as strong for those in whom ♈ or ♌ ascends and the Sun is in the 9th, 10th, 11th or 7th house; or ♉ or ♋, and the ☽ stands in these: 5 Aph. 157 Girolamo Cardano [Card.]. It is unhappy, however, either through a bad term, namely when a malefic besieges the horoscope with its body, or also when the horoscope falls into a malign aspect of a malefic, especially of the killer. See chap. 20, book 1, *de Genit.* of Cardano [Card.]. Now the killers, or Anaretæ, are established in every nativity as follows: 1 the one which occupies the eighth house with its body, so that it is placed 5 degrees before or 25 degrees after the cusp, especially if it comes as close as possible to the cusp. 2 The lord of the eighth house. 3 The planet which is joined to the lord of the eighth. 4 The Almuten, or disposer, of a planet in the eighth house. 5 The Almuten, or disposer, of the lord of the eighth house. It should be noted, however, 1 that the right ✶ of ♄ and the left of ♂, in signs of long ascensions, are also held to be malign aspects, even though they are good ones of the malefics; 2 that the terms of the malefics and of the killers are lethal, especially, however, those of the Anæretæ of the first and second order, which are the most powerful of all. For when a direction to the lord of the eighth is bad, danger of death is present.

[Margin: Who is established as the killer in a nativity.]

Thirdly, the lord of the horoscope is also considered. For according to Haly, part 1, chapter 1, *de jud. astr.*, if it is safe, free from the rays and from combustion, and swift in motion, it signifies a long life, especially if it is free from the malefics and the malefic planets which are lords of the 8th, 12th, 6th or 4th houses; or also if it stands very fortunate in the horoscope itself, that is, the first house. For

placed here it signifies for the native fortune and long life, and health of body and mind, and he will be honoured among his kinsmen: Johannes Schöner [Schon.], book 2, *de jud.*, chapter 3. But if the lord of the horoscope is afflicted and is under the rays, entering combustion, death is signified, especially if it is also in the first house. For there, as a rule, a combust planet signifies a short life: Schöner [Schon.], in the same place.

[Margin: Third, the lord of the horoscope.]

Fourthly, in the general judgement of life the luminaries ☉ and ☽ are also to be considered, above all the luminary of the condition, that is, the ☉ by day, the ☽ by night: for the Moon governs the natural power, the Sun the vital power; and again the Moon the humours, the Sun the spirits. Whenever, therefore, these are placed happily in a nativity, they promise life; when unhappily, they deny life. They are placed happily, moreover: 1 when they are set in the angles, especially the first and 10th house, free from the malefics, in configuration with the benefics. And it has been observed that the Moon happy in the ascendant has always signified a long life. And Cardano [Card.], 5 Aph. 152, says: It is best for life that the ☽ be in ♉, ♋ or ♓, free in the ascendant: 2 if the Sun with Venus or Jupiter from some angle

[Margin: Fourth, the luminaries.]

[Margin: When the luminaries are placed fortunately.]

looks upon the Moon with a favourable ray, or conversely the Moon, placed in dignity and in an angle, aspects the Sun with a beneficent ray; then they promise a native in good health and of long life.

As examples the following can serve us: 1 The nativity of Pope Paul the Third [Paul III], who, born at Carini, a town of Etruria, on 1468 February 28, after the 5th hour of the morning, had the Sun placed in ♓, the house of Jupiter and the exaltation of ♀; the ☊, which carries the beneficent nature of ♃ and ♀, immediately preceded it, while ♀ followed it. And the Sun aspected the Moon in

[Margin: The nativity of Pope Paul the Third.]

Diagram. Upper left of four square nativity figures: an outer square, a central square holding the data, and twelve triangular compartments around it. Central panel: "Pope Paul the Third is born in the year 1468, in the month of February. Day 27, 17^{h} 23^{m}. Elevation of the pole 5°." Labels by position (a run is given as it stands; where a run lies on a dividing line its compartment is not settled):

- Top centre: ♐ 10 0
- Upper-left corner, top part: ♐ 28 23
- Upper-left corner, left part: ♍ 19 17; ☿ 22 10 ♒; ♒ 24 48
- Left centre: ☊ 0 58 ✶; ☉ 18 19; ♀[?] 29 1
- Lower-left corner, left part: ♈ 15 23; ♄ 16 0 ♉; ⊕ 23; ☽ 16 30
- Lower-left corner, bottom part: ♉ 20 5; ♂ 23 4
- Bottom centre: ♊ 10 0; ♃ 21 46
- Lower-right corner, bottom part: ♊ 28 23

- Lower-right corner, right part: ♋ 19 17
- Right centre: ♅ 0 58 ♍; ♌ 24 48
- Upper-right corner, right part: ♎ 15 23
- Upper-right corner, top part: ♏ 20 5

Diagram. Upper right of the four figures, of the same construction. Central panel: "Christian II [Christiernus], King of Denmark, is born in the year 1481, in the month of July. Day 1, 18^{h} 16^{m}. Elevation of the pole 56°." Labels by position:

- Top centre: ♊ 10; ♈ 23
- Upper-left corner, top part: ☉ 18 56; ☿ 28 54; ☊ 12 54; ♋
- Upper-left corner, left part: ♋ 20; ♂ 23 45; ♃ 11 35 ♌
- Left centre: ♌ 15; ♀ 29 37
- Lower-left corner, left part: ♍ 3; ☽ 18 40
- Lower-left corner, bottom part: ♍ 24; ♄ 7 25 ♎
- Bottom centre: ♎ 23
- Lower-right corner, bottom part: ♐ 10; ♅ 12 54
- Lower-right corner, right part: ♑ 20
- Right centre: ♒ 15
- Upper-right corner, right part: ♓ 3
- Upper-right corner, top part: ♓ 24

Diagram. Lower left of the four figures, of the same construction. Central panel: "Augustus, Elector of Saxony, is born in the year 1526, in the month of July. Day 30, 17^{h} 38^{m}. Elevation of the pole 50° 38′." Labels by position:

- Top centre: ☽ 16 51; ⊕ 27; [?] 6[?]; ♃ 15; ♊ 17
- Upper-left corner, top part: ♊ 21 54; 20 ♋[?]; ☿ 1; ♅ 11 1; ♂ 28 42
- Upper-left corner, left part: ♌ 3 54; ☉ 16 24
- Left centre: ♌ 27 35
- Lower-left corner, left part: ♍ 18 11
- Lower-left corner, bottom part: ♎ 12 6
- Bottom centre: ♏ 16 36
- Lower-right corner, bottom part: ♐ 29 54; ☊ 11 1; ♑
- Lower-right corner, right part: ♒ 3 54
- Right centre: ♒ 27 35
- Upper-right corner, right part: ♓ 18 11
- Upper-right corner, top part: ♄ 19 13; ℞; ♈ 12 6; ♉ 16 36

Diagram. Lower right of the four figures, of the same construction. Central panel: "Ioann. Heidenrichius, Doctor of Theology, is born in the year 1542, April. Day 21, 11^{h} 58^{m} A.M. Elevation of the pole 51°." Labels by position:

- Top centre: ♀ 14 29; ☿ 2 20; ☉ 10 26
- Upper-left corner, top part: ♊ 23 36; ☽ 20 25
- Upper-left corner, left part: ♋ 28 54
- Left centre: ♌[?] 23 0; ♅ 6 55
- Lower-left corner, left part: ♍ 13 30; ♃ 19 35
- Lower-left corner, bottom part: ♄ 5 16 ♐[?]; ⊕ 3 ♏; ♎ 6 31

- Bottom centre: ♂ 11 49; ♏ 10 0
- Lower-right corner, bottom part: ♐ 23 36
- Lower-right corner, right part: ♍ 28 54
- Right centre: ☊ 6 55; ♒ 23 0
- Upper-right corner, right part: ♓ 13 20
- Upper-right corner, top part: ♉ 10 0; ♈ 6 31 its own exaltation, ♉, and the house of ♀, where it was placed, with a ✶ ray. Since, therefore, the disposers of the luminaries were benign planets, and the ☉ stood in the first house, he lived 81 years and 8 months.

2 The constitution of Christian, King of Denmark, born on 1481 July 2, at the 6th hour of the morning. For he had ♌ ascending and the two luminaries in ✶ aspect: the Sun, indeed, in ♋, the domicile of the ☽ and the exaltation of ♃; the Moon, however, in ♍, the domicile of ☿; and the benefics themselves attending the horoscope on either side. He therefore lived 77 years and almost 7 months. For he died on 1559 January 25, after he had been driven from his kingdom in the year of Christ 1523, had lived in exile for ten years, and at last had been held in prison for 26 years.

[Margin: Of Christian, King of Denmark.]

3 Of Augustus, Elector of Saxony. For he had the Sun in its own house, and Jupiter irradiating the Sun from the mid-heaven with a ✶ aspect, which corrected the Sun's situation in the 12th house; and the Moon, moreover, in the M. C., in its own exaltation, the sign ♉, in the right □ of the ☉; nor does any of the malefics infest the luminaries. He therefore lived 59 years, 6 months, 11 days, since on 1586 February 11 by the old style, he was carried off by apoplexy, when shortly before, namely on the 3rd day of January, he had joined to himself in marriage Agnes Hedwig [Agnes Hedvvig], a girl of thirteen years, the daughter of Joachim Ernst [Ioachimus Ernestus], Prince of Anhalt.

[Margin: Of Augustus, Elector of Saxony.]

4 Of Ioannes Heidenrichius Leobergensis, Doctor of Theology and Professor of the Academy of Frankfurt. For this man, since he has ♌ ascending and the Sun as οἰκοδεσπότην [Greek: oikodespotēn, "master of the house"] culminating in the mid-heaven in ♉, the house of ♀ and the exaltation of the ☽; and the Moon in its own sign and in ✶ with the ☉; Jupiter in △ with the ☉ and in ✶ with the ☽, is now in his 67th year and vigorous in mind and body; nor have ♄ and ♂, which stand in opposition, done him any harm in life, however variously they have changed his fortune in his offices. To this the ☽ contributed most, which beholds the culminating Sun with a ✶, and Saturn and Mars, placed in the lowest heaven in the watery triplicity, with a △.

[Margin: Of Ioannes Heidenrichius, Doctor of Theology.]

5 Of Andreas Sartorius Bregensis, I. U. D. and Professor of the same Academy of Frankfurt, who likewise has ♌ ascending, and the Sun in ♉, joined to Venus, culminating in a platic ✶ with the ☽, which is placed in ♋, its own sign and the exaltation of Jupiter; and this, so placed, surely promises him a longer life. For although ♉, in the horoscope, exposes him to various dangers to his life,

and the Moon, having the malefics joined to it, corrupts the humours of the body and brings grey hair before its time, the ☽ nevertheless flows away from them; and it signifies a health that is indeed sometimes afflicted, but does not harm his life.

[Margin: Of Andreas Sartorius, Doctor of Law.]

6 Of Martin Benekendorf, Doctor of Philosophy and of Law and Professor in the same Academy, who, still flourishing in strength of body and mind, is in his 64th year of age. For he has the luminaries in the angles and in the fiery solar △: the Sun in the domicile of Jupiter, joined to the ☊; the Moon in ♈, the exaltation of the ☉; nor are the places of the luminaries afflicted by the presence or the malign ray of the malefics.

[Margin: Of Martin Benekendorf, Doctor of Law.]

The constitution of Joachim Camerarius [Ioachimus Camerarius] is similar, born on 1500 April 12 before noon, a little after the 10th hour; see Garcæus, book on judgements, page 150. For the Sun occupies the M. C., in the house, triplicity and term of ♀, free from the evil rays of the malefics; the Moon holds the angle of the lowest heaven, strong enough, in mutual reception and in the exaltation of ♄ and in △ with ♀. He therefore completed 74 years and 5 days of his age, since he died on 1574 April 17.

[Margin: Of Joachim Camerarius.]

Diagram. Upper left of four square nativity figures, of the same construction as those on the preceding pages. Central panel: "Andr. Sartorius, V. I. D., is born in the year 1562, in the month of May. Day 7, 9^{h} 52^{m} A.M. Elevation of the pole 50° 54′." Labels by position (a run is given as it stands; where a run lies on a dividing line its compartment is not settled):

- Top centre: ☿ 12 50 ♉ ℞; ♀ 23 4; ☉ 25 34
- Upper-left corner, top part: ♊ 7 30; 50; ♂ 23 30 [?]; ♄ 2 37 [?]; ☽ 10 4
- Upper-left corner, left part: ♋ 16 38; ♈ 9 12
- Left centre: ♌ 11 50
- Lower-left corner, left part: ♍ 1 26
- Lower-left corner, bottom part: ♍ 22 30; ⊕ 26 20
- Bottom centre: ♎ 23 0
- Lower-right corner, bottom part: ♐ 7 30
- Lower-right corner, right part: ♑ 16 38; ☊ 9 12
- Right centre: ♒ 11 50
- Upper-right corner, right part: ♓ 1 26
- Upper-right corner, top part: ♈ 23 0; ♓ 22 30

Diagram. Upper right of the four figures. Central panel: "Mart. Benekendorfius, V. I. D., is born in the year 1545, December. Day 10, 23^{h} 33^{m} 20^{s} P.M. Elevation of the pole 52°." Labels by position:

- Top centre: ♐ 23 0; ☊ 26 30; ☉ 29 7
- Upper-left corner, top part: ♃ 11 35; ♑ 5 47
- Upper-left corner, left part: ♑ 24 57
- Left centre: ♓ 11 32; ☽ 7 27 ♈

- Lower-left corner, left part: ♉ 13 10
- Lower-left corner, bottom part: ♊ 8 5; ⊕ 19 49
- Bottom centre: ♉ 26 29; ♊ 23 0
- Lower-right corner, bottom part: ♋ 5 47
- Lower-right corner, right part: ♋ 24 57
- Right centre: ♍ 11 35
- Upper-right corner, right part: ♀ 21 10; ♂ 14 44; ♏ 13 10
- Upper-right corner, top part: ♄ 17 50; ☿ 15 30; ♐ 8 57

Diagram. Lower left of the four figures. Central panel: "A girl is born in the year of Christ 1504, on the 16th day of March, at the 5th hour P.M." Labels by position:

- Top centre: ♃ 5 ♋; ♄ 5; ♂ 12
- Upper-left corner, top part: ♌ 0
- Upper-left corner, left part: ♍ 0
- Left centre: ♍ 23; ♉ 24
- Lower-left corner, left part: ♎ 15
- Lower-left corner, bottom part: ♏ 13
- Bottom centre: ♐ 21
- Lower-right corner, bottom part: ♒ 0; ☿ 20 ♒
- Lower-right corner, right part: ♓ 2[numeral: ?]; ♓ 0
- Right centre: ☽ 7 ♈; ☉ 6; ☊ 24
- Upper-right corner, right part: ☿ 24; ♈ 15
- Upper-right corner, top part: ♊ 21; ♉ 1[numeral: ?]

Diagram. Lower right of the four figures. Central panel: "Alexander, second son of Augustus, Elector of Saxony, is born in the year 1554, February. Day 20, 14^{h} 15^{m} A.M." Labels by position:

- Top centre: ♎ 18; ☽ 21 33
- Upper-left corner, top part: ♏ 10
- Upper-left corner, left part: ♏ 27
- Left centre: ♐ 16; ♑ 12
- Lower-left corner, left part: ♉ 17 56; ☿ 14 and ♀ 20, joined by a brace to ♒
- Lower-left corner, bottom part: ✶ 11; ♂ 11 8; ☉ 11 41; ♄ 18 35
- Bottom centre: ♈ 18
- Lower-right corner, bottom part: ♉ 10
- Lower-right corner, right part: ♉ 27
- Right centre: ♊ 16
- Upper-right corner, right part: ☊ 17 56; ♋ 12
- Upper-right corner, top part: ♃ 0 42 ℞; ♍ 11

But the luminaries are placed unfortunately 1 when they are partilely conjoined or opposed, especially if an evil aspect of the malefics is also added, above all of ♄. For those born at the new moon or at the full moon are rarely long-lived or enjoy prosperous health: these indeed, born at the full moon, because of excessive moisture; those because of excessive dryness. And this is

indeed so well known even to the common people, that not only does Aristotle say in the book on the generation of animals that bodies born in the ♂ of the ☉ and ☽ are weaker, but midwives and mothers too fear for those so born because of their weakness.

[Margin: When the luminaries are placed unfortunately.]

Such a configuration is read, in Garcæus, in the book *de jud. genit.*, page 30, to have been that of a certain girl born in the year 1504, on the 16th day of March, at the 5th hour P.M. For she had the luminaries partilely coupled in the western hinge of heaven, and they are afflicted by the □ rays of the malefics from the angle of the mid-heaven: from which she also died on the second day after her birth.

[Margin: The chart of a certain girl.]

But if nevertheless the luminaries are partilely conjoined or opposed, so that they cling in the same minute, and at the same time a benefic planet is placed in the horoscope, they will signify not only a long-lived man but also one fortunate in the principal actions of life; yet he will not reach extreme old age. You will perceive the contrary if a malefic is in the ascendant, which Ptolemy also teaches in maxim 18 of the Centiloquium.

2 *When either both luminaries, or one of them, especially the luminary of the condition, is harmed by the malefics with a malign ray in some angle. According to Gauricus, the Sun is harmed notably in the ♂ by Mars, the ☽ by Saturn; but in the ♌ the ☉ by ♄, the ☽ by Mars. And this evil is set down as graver and more dangerous if the lord of the ascendant is also afflicted or combust. For then it will be impossible for the native to live, or if he lives, he lives unhappily.*

As in the chart of Alexander, son of Augustus, Elector of Saxony: the ☉ is peregrine and, in a cadent place of heaven, besieged by the malefics on both sides, almost partilely. The horoscope too was grievously harmed by their quadrate rays: the ☽ alone stood free from the injuries of the malefics, in a strong place of heaven. Hence this configuration granted him a life exceeding indeed the years of nursing, but not lasting to the ἀκμήν [Greek: akmēn, "the prime, the peak"]. For he died in the 12th year of his age; see Garcaeus [Garc.] pages 14 and 38.

[Margin: Of Alexander, son of Augustus, Elector of Saxony.]

3 *When a benefic is conjoined to a luminary by body or by ray, which has fewer degrees, and from which the luminary departs; but from there the luminary is carried to a malefic having more degrees, the native will indeed live, but will die in childhood. But when the luminaries pass from a malefic to a strong benefic, the infant is indeed brought up with difficulty, but is nevertheless brought up. For those malefics harm most of all to which the luminaries approach, not those from which they depart.*

4 *The Moon diminished in light and besieged, and not supported by any aspect of a benefic, signifies that the native will die either before, or even at the very exit from the mother's womb: and if by chance he is born alive, he comes forth blind, and the mother is in danger of her life, Haly part 4, ch. 1.*

5 *The Moon placed in the 8th house in* ♈, *if it is the luminary of the time, denotes a man* βραχύβιον [Greek: brachybion, "short-lived"] *who will die in adolescence, especially if it is also unfortunate in any of the modes enumerated before.*

6 *The almuten of the luminaries, partilely conjoined with the malefics according to longitude and latitude, also denies life.*

Fifth, *in the general judgement of life the positions of the remaining planets should also be considered, in this way:*

[Margin: Fifth, the remaining planets.]

1 If several planets are in the 6th, 8th or 12th house, and the lord of the horoscope has not aspected beneficently either them, or the luminaries, or the horoscope, the native will not live.

2 A ☌ of several planets in the ascendant too, as if either 4 or 5 occupy the ascendant, indicates that the native will not live, Haly part 4, ch. 1.

3 Each of the malefics in the ascendant, with the luminaries falling from the angles, shortens life. They do the same if the malefics are mutually opposed to each other, so that ♄ is in the first, ♂ in the 7th house, and the luminaries are moreover in the cadent houses.

[Margin: Aphorisms pertaining to the remaining planets.]

4 If all the planets are under the earth outside the ascendant, the native, just as he is judged to be of short life, so is he unhappy, 7 Aph. 1 Cardano [Card.]. But against this aphorism Iunctinus, on pages 321 and 322, produces four examples, so that it cannot simply be trusted.

5 The lord of the ascendant approaching the lord of the eighth also shortens life, if the other things have agreed.

6 When ♀ and ☿ are joined in one degree in the ascendant, they signify that the native will not live. For both are contrary, and they cannot be joined to show a good outcome, Haly part 4, ch. 1.

7 ☊ or ☋, if they are conjoined with ♂ or ♄ in the 4th house, deny life to the native.

This too should be noted, from the opinion of Haly: that the power of ♂ in cutting off life is greater when it is in ♈ above the earth in diurnal nativities; but that of Saturn, when it is in ♑ above the earth in nocturnal nativities.

To apply all these to our two examples: it must be known of each that the significators of the parents, as regards children, were without doubt fortunate enough, since the parents of the former, the Noble gentleman, had besides this son three daughters, and one of them quite long-lived; but those of the latter, besides my friend, had quite numerous offspring, and his brothers and sisters are for the most part surviving. But since the nativities of the parents are not at hand for us, we must consider the rest.

[Margin: Explanation of our examples.]

In the former example, therefore, *the horoscope is indeed fortunate, as being the sign of the* ☉, *and it is flanked on both sides, the eastern and the western, by the part of fortune. But the dispositor of the horoscope, the* ☉, *is very weak, since it is found not only peregrine in the sixth house, but also in the detriment of the* ☽, *and conjoined to the Moon. The Moon too, since it is in conjunction with the Sun, combust*

by the Sun, can promise nothing good: it is best that the Moon should have passed the Sun, and should approach the cusp of the 7th house, and flow further away from the Sun. Nor is it the case that, since almost all the planets are under the earth, the single Mars excepted, a long life was to be hoped for from the stars; except that, sustained by the particular providence of GOD, together with provident care of his health, he has prolonged his life up to this time, not without the greatest difficulties and the frequent use of medicines.

In the other example *the horoscope is found fortunate enough, both because it is the term of* ♃*, and because it has its dispositor* ☿ *present, which makes it fortunate by its presence. The Moon too regards the horoscope with a fortunate* △ *ray. And although* ♄ *strikes the horoscope with a sinister* □ *ray, [and]* ♃ *also aspects the horoscope with a dexter* □*, yet since it is in a Jovial sign and in the exaltation of* ♀*, and Jupiter holds the sign and exaltation of* ☿*, these configurations cannot shorten the life of the native, but denote only more frequent illnesses. Next, the lord of the horoscope,* ☿*, is also fortunate by many testimonies, as was said in the preceding chapter. Third, the luminaries are not unfavourably disposed for the signification of life. For the Moon holds the cusp of the M. C., and aspects the horoscope with a fortunate* △*: it is also very swift in motion, and free from the rays of the* ☉ *and from combustion, yet in* □ *of the* ☉*: the Sun, in the house of* ♀ *and the exaltation of the* ☽*, is indeed very weak, but is troubled by none of the malefics. From this they promise the native a life long enough, or lasting, yet not without various illnesses, especially since several planets occupy the 12th house, and the Moon is in the house and triplicity of Saturn.*

The prorogator of life, *which by the Greeks* κύρι(ος) τῆς ζωῆς [Greek: kyrios tēs zōēs, "lord of the life"]*; likewise* ἀφέτης [Greek: aphetēs, "releaser"] *as it were Emissarius; but by the Arabs* Hylech*, a walker, from the Hebrew* [Hebrew: הָלַךְ (halakh, "he walked")] *he walked, is called;* is either a

[Margin: What the prorogator of life, or Hyleg, is.]

planet or place of heaven, from whose digression or direction astrologers judge of the state of life. *It is found in this way, according to Ptolemy, ch. 11 and 13, book 3 of the Quadripartitum, and Haly part 4, ch. 3. 1 In a diurnal nativity let the Sun be looked at, but in a nocturnal one the* ☽*. For if they are in the hylegial places, that is, those suited to the dignity of* Hyleg, *they will be* Hyleg. *These are, as Ptolemy says,* τόποι ἀφε[?]κ[?]ì, ἐν οἷς εἶναι δεῖ πάντως τὸν μέλλοντα τὴν κυρίαν τῆς ἀφέσεως λαμβάνειν [Greek: topoi aphe[?]k[?]i, en hois einai dei pantōs ton mellonta tēn kyrian tēs apheseōs lambanein, "places …, in which the one who is to take the lordship of the release must by all means be"]*, that is, the hylegial places, in which he must necessarily be found who would take possession of the jurisdiction of governing the life: the fortunate houses standing above the horizon, these five: 1, 10, 11, 7 and 9, of which each has 30 degrees of the equator, if we wish to follow the rational mode, five indeed before the beginning of the house, and the 15 degrees next following the cusp of the house*[107]*. But all the places that are under the*

[107]so printed; five and 15 make 20, not the 30 degrees stated. Another copy of this printing (BSB 10501686) reads 25, which gives the 30

earth are rejected, except the 25 degrees of the horoscope. And the reason is that stars that cling under the earth at the time of the nativity are believed to be less effective toward the upper hemisphere. So too the houses 8 and 12, although they stand above the earth: yet since they cohere with the horoscope by no aspect, and also signify evil events, they are judged useless for this matter.

[Margin: How the hyleg is found. First rule.]

And although there are some astrologers, as Haly reports in ch. 3, part 4, who hold that the Moon too, in the third house, is fit to be Hyleg, because it rejoices in it: yet it is more reasonable in this respect to adhere to Ptolemy; since most too, especially that noble Cyprianus Leovitius, take only the degree of the ascendant for hyleg, and direct it, according to the order of the signs and degrees, to the killing places, that is, the malign planets, and their hostile rays. Although some also prefer the 10th house to the first, from the opinion of Ptolemy, because the stars are of greater efficacy at midday, where they have more direct rays to the earth, than at rising: yet since judgement is made principally from the first about the life, temperament and manners of the native, the first house is by all means to be preferred to the tenth house in this choice of hyleg.

[Margin: The Moon placed in the third house is not suitably taken for hyleg.]

[Margin: Nor the tenth house.]

2 *If the Sun in a diurnal, and the ☽ in a nocturnal genesis, are not in suitable places, let the Moon too be consulted in a diurnal, but the ☉ in a nocturnal genesis.*

[Margin: Second]

3 *But if neither luminary can be hyleg, let another planet be sought for hyleg in this way: 1 In a diurnal nativity Ptolemy takes the new moon preceding the nativity; but in a nocturnal one principally the full moon preceding, and considers who rules in those places. 2 The place of the ☉: and 3 the ascendant, in place of which, in a nocturnal genesis, if the full moon precedes, he takes the place of the ⊕. Now whichever of the planets has the most dignities in these three places, and is as it were the almuten and victor of all, if indeed at the nativity it holds a hylegial house, is hailed hyleg.*

[Margin: Third]

4 *But if the planet found in this way is also not in such a house, let the horoscope simply be consulted in a diurnal nativity; but in a nocturnal one, if the interlunium has preceded, the horoscope too; if the full moon, the ⊕. For if it stands in an aphetic or hylegial place, it will be able to be the moderator of life, according to Ptolemy. But since we cannot attribute so much force to bare places of heaven, and experience too cries out against this doctrine, we judge, with other most excellent and practised astrologers, that in all nativities the ascendant is most safely taken for hyleg, if the ☉ and ☽, according to the two earlier rules, are less apt for that office.*

[Margin: Fourth]

In our first example, which is a nocturnal nativity, neither ☉ nor ☽ can suitably be established as hyleg: from this we rightly take the ascendant for hyleg. For when there have also been examined, according to the table of essential dignities, first, the place of

the meeting in the preceding conjunction of the luminaries, which is 24° 50′ ♍; and second, the place of the Moon in the natal chart, at 28° 32′ ♍; and third, the ascendant, at 3° 6′ ♌, in this form:

[Margin: First example.]

☌ ☉ & ☽	in ♍ 24° 50′	♄	♂	☽	♂	☉
☽ in the radix	in ♍ 28° 32′	♄	♂	☽	♄	☉
Ascendant	in ♌ 3° 6′	☉		♃	♄	☉

Saturn is noticed to have the most dignities: but since it is not suitably placed in a hylegial place, the ascendant is rightly chosen according to the 4th Rule.

In the other example, since in a diurnal nativity the Sun cannot be established as hyleg, seeing that it stands in the 12th house, the Moon will be hyleg according to the 2nd rule: for it is found in the 10th house, a hylegial place.

[Margin: The other example.]

Alcochodon, *by an Arabic word compounded either from* [Hebrew: בָּכַךְ (kōkhav, "star")], *which signifies a star, or* [Hebrew: חֹו (vōaḥ, "virtue")], *which* [signifies] *virtue, and* [Hebrew: דָן (dan, "he judged")] *or* [Hebrew: דון (dwn, "he judged")], *he judged, is called* the star of virtue, in which the primary judgement of life consists; or it is the giver of years, from which judgement is taken about the years that the native will live according to the course of nature, unless by reason of a direction, or of some other violent and sudden mishap, something else intervenes, and the life of the native is broken off sooner. *We can also call the same the Almuten, or disposer of the hyleg, since the Alcochodon, as Haly holds, part 4 ch. 4, and certain others among the astrologers, is established as the planet which has the greater dominion in the Hyleg, whether it aspects the Hyleg or not.*

[Margin: Alcochodon, or Almuten of the hyleg.]

But although at this time little attention is paid by the astrologers, since they judge of life principally from the direction of the hyleg, or also of the horoscope: yet, for the fuller understanding of the astrological precepts which are handed down by the superstitious Egyptians, and in Dorotheus, Zahel son of Alfadal, and Haly himself, we shall note some things here.

[Margin: Rules on the election of the Alcochodon.]

And first, as regards the election of the Alcochodon, it must be known that if the luminaries are hyleg, and are in their own house or exaltation, they are established as both hyleg and Alcochodon.

[Margin: 1]

2 If the luminaries are indeed hylech, but not in their own house, exaltation or term, that one will be Alcochodon which is the disposer of the place of the hyleg, the same is to be judged if some other besides the luminaries is hyleg.

[Margin: 2]

3 But when several contend for primacy, the one which aspects the Hyleg is preferred to the one which does not aspect: and when none aspects, that one

is preferred which surpasses the rest in more dignities; as, if one is lord of the house, another of the exaltation and term, a third of the triplicity, term and face, the third is preferred to the first and second.

[Margin: 3]

4 By day, too, an oriental is preferred to an occidental, namely the one nearer the ascendant to the one which approaches more nearly to the 7th house. But by night an occidental to an oriental, that is, the one which is placed toward the setting to the one which is nearer the ascendant.

[Margin: 4]

5 In general it is not conducive that either the Moon or any other planet be established as Hyleg or Alcochodon, if they enter combustion, Haly part 4 ch. 4.

[Margin: 5]

Next, as regards use, it must be noted that judgement is made in general about the years of the native's life from the strength and debility of the Alcochodon.

[Margin: On the use of the Alcochodon itself.]

First, then, if the Alcochodon or giver of years is strong and fortunate, in some angular house, especially the first and the tenth (for the Seventh and 4 are reckoned in this judgement by most as among the succedents), it will give the native its greater years. It is necessary, however, that the remaining dignities also be added, so that it is Oriental of the Sun, occidental of the Moon, free from combustion and retrogradation, and is in its own dignities, house, and exaltation, or term. For the Alcochodon does not give the full complement unless all the dignities are joined: Haly part 4 ch. 4. If it stands in a succedent house, and the said eminences are added, it will give the middle years. If in a cadent, and it has the said strengths, it will give the lesser years, as the table added shows.

[Margin: 1]

Years of the Alcochodon

Greater	Middle	Lesser
♄ 57	43 ½	30
♃ 79	45 ½	12
♂ 66	40 ½	15
☉ 120	69 ½	19
♀ 82	45	8
☿ 76	48	20
☽ 108	66 ½	25

The greater years, however, are taken, on the witness of Pontano, ch. 23 book 1 *De rebus cælest.*, from the number of the terms which are assigned to the individual planets through the whole zodiac according to the opinion of Ptolemy.

Second, if the Alcochodon is combust, it loses its signification and force. For it signifies only days or some hours by reason of its weakness, Haly part 4 ch. 5.

[Margin: 2]

Third, a fall too, contrary to the exaltation of the planet, and the retrogradation of the Alcochodon take away a half moiety of what was given or promised from the number of years: seeing that a retrograde planet bears the likeness of one disobedient, and one in its fall represents a captive, or one who has fallen, and is removed from his dignity, Haly in the same place.

[Margin: 3]

Fourth, aspects too add to or take away something from the years found for the Alcochodon. For ♃ and ♀, joined to the Alcochodon by any aspect whatever, or irradiating it, add their lesser years to the years of the Alcochodon; which, however, Haly ch. 6 part 4 does not admit of the aspect □ or ☍, which it is consistent should add or diminish nothing, or if they add, they add half the lesser years. ☉ ☽ and ☿ perform the same, good aspect. ☊ within the 12th degree from the Alcochodon adds a fourth part of the lesser years. ♂ and ♄ give nothing by good aspects. By bad ones they take away the lesser years. The bad rays of ☉ ☽ and ☿ do the same.

[Margin: 4]

As in our first example, the disposer of the horoscope, which is Hyleg, is indeed ☉*, and thus the Alcochodon; but since* ☉ *stands in a cadent house, it promised only 19 years; and since the native also outlived these, the example seems to agree neither with the rules of life nor with the astrological precepts on the Alcochodon.*

[Margin: First example.]

In the other example, *of the Moon, which is hyleg, the disposer is* ♄*: and therefore the Alcochodon: which, since it is strong, in a succedent house, bestows on the native the middle years, 43 and a half, to which the opposed* ♃ *adds half the lesser years, that is, 15 years: so that the years become 58 and a half.*

[Margin: The other example.]

By way of conclusion, however, this caution is to be observed: that it is rash and to be condemned in an astrologer either to deny a long life to the native altogether, or even to promise it boldly, from these astrological indications alone, without considering directions, profections, transits, revolutions and other circumstances, above all the origin from which someone has been brought into the light, and the manners by which he lives. For just as God

[Margin: A caution to be diligently observed by the astrologer.]

promises long life to those who fear him and keep his precepts, Deut. ch. 30 and Prov. ch. 3 v. 1 and 2, seeing that length of days is in his right hand, and in his left riches and glory, v. 16; and he preserves many whom not only more remote but also nearer causes already seem to call away from this life: so neither ought the astrologer to trust his art too much, and to promise the native 100 or more years from the precepts of the ancients, which were written in the most flourishing time of the world, and for men living under the most temperate sky; since in this weakness of nature, and in our more northern climates, almost no one reaches the age which either ☉ or ☽ promise. Let the astrologer therefore be mindful of the rule of Moses, Ps. 90, in which among other things these

words are found, verse 10: The days of our years are 70 years, or at the most 80: of which what is best is trouble and labour: for the passage is swift, and we fly away.

Caput III

ON THE LORD OF THE NATIVITY AND OF THE PLANETARY HOUR.

The lord of the nativity, called by the Greeks κύρι(ος) τῆς γ[?]έσεως [Greek: kyrios tēs g[?]eseōs, "lord of the …"], *or in one word* οἰκοδεσπότης [Greek: oikodespotēs, "master of the house"]; is that planet to which, among the others, the stronger parts in the whole genesis are ascribed, and which has the greatest force in the temperament and in the manners which correspond to the temperament, nay rather stands as the special significator of the whole life. *The astrologers have indeed not yet firmly concluded to which planet they would wish to attribute this highest authority in the nativity: but in this business Cardano's Aphorism 180, segment 5, pleases, when he says: The true way is not yet known in the art; he acts rightly who faithfully recites the sayings of the ancients: And therefore we too shall first recite the various opinions of the astrologers on the mode of choosing the lord of the nativity; afterwards we shall see where reason most leads us.*

[Margin: What the lord of the nativity is.]

But the first is certain: *that most call that sign which ascends above the horizon at the moment of the nativity the sign of the nativity; and constitute the planet which rules that sign, or which is the Almuten of the horoscope, the Planet of the Nativity or lord of the nativity, which they also make the significator of the body, the disposition and the manners of the native. For since the force of the horoscope is greatest upon the body, life and temperament of the native, they hold that one must not digress from it to another sign and another planet, but must adhere to it alone. And to this are to be referred the judgements which are fitted to the signs and planets in the German books of the Planets.*

[Margin: The various opinions of authors on choosing the lord of the nativity.]

[Margin: The first, on the horoscoping sign and its lord.]

There are some, however, who think that those signs in nativities regard the places of the ☽: from this some parents are accustomed to take from the calendars the signs in which the Moon is moving, and to ascribe them to the times of their children.

There are others too, who suppose that those signs are to be referred to the places of the ☉ in which it stands at the time of the nativity. And from this Johannes Indagine [Ioannes de Indagine] wrote a particular astrology, which he calls natural; in which, for whatever time of nativity, whether before noon or after noon, he always places the Sun in the eastern horizon, and from each decade of degrees of a sign weaves particular judgements about the form, stature, temperament and accompanying actions. But since we judge the

former opinion on the horoscoping sign, and its planet, to be not altogether foreign to the true foundations of astrology;

so we rightly reject this opinion of Ioannes de Indagine, as less consistent with reason.

Next, there are those who ascribe the dominion of the whole nativity to that planet in whose bounds, at the time of the nativity, the Sun is by day indeed, or in a diurnal nativity, but the Moon by night. And, as Pontano relates in book 8, ch. 1, de reb. cœl., they seem to have established this on the reasoning that, since the Sun and the Moon are the authors of generation, they would delegate this particular dominion to that star, as to a sub-minister, in whose star's bounds the Sun itself would be found at the diurnal time, but the Moon at the nocturnal time; since the diurnal rule also belongs to the Sun, the nocturnal to the Moon, even by the prescription of GOD, Gen. 1.

[Margin: The second, on the planet in whose term the Sun is by day, the Moon by night.]

Third, Iulius Firmicus; *whose footsteps Pontano openly confesses he follows, ch. 1, book 8, de rebus cœlest., who also is read to have been the first among the ancient Latins to write down his predictions, 170 years after Ptolemy, around the year of Christ 320 approximately; declares in book 4, ch. 12, that that planet is the lord of the nativity which rules the sign which the Moon enters next after the nativity,* ♌ *and* ♋ *excepted, over which the luminaries rule. For the luminaries disdain, as Pontano says in the place cited before, to descend from so great a rank to a particular ministry, and as it were a kind of servitude, since they are the authors of generation, of life and of animality.*

[Margin: The third, Firmicus's, on the planet of that sign which the Moon enters next after the nativity.]

For example, if at the time of someone's nativity the Moon is in ♈, then ♀, who rules ♉, the next sign, will be mistress of the nativity. So if the Moon is in ♏, the lord of the nativity will be ♃, because the ☽ passes next from ♏ into ♐, the sign of Jupiter. But if the Moon is in ♊, not the Moon, who rules ♉ [recte: ♋], nor the Sun, who rules ♌, but ☿, to whom the sign ♍ is assigned, will be lord of the nativity. For by a peculiar privilege the luminaries are not employed for the dominion of nativities, from which judgement is to be made of the state of life, of the form of the body, of profession, and of other things, since otherwise the force of the luminaries is very great, so that according to their quality they either add splendour to the decrees or take it away. But when a pronouncement is to be made regarding the durability of the vital virtue, on rank, on marriage, and on certain other things, then the luminaries themselves too are attended to. And Pontano confirms this opinion of Firmicus thus, by the likeness of transplanting. For just as a plant torn out of the place in which it was born, and moved into another soil, yields to that soil in which, dug in afterwards, it grows up and is nourished: so the Moon, as the mother and nurse of the offspring brought forth by her, seeking for herself a partner in nourishing it, chooses for herself as helper, and as it were fellow-minister, that star into whose star's house she first falls. But Cardano, in the commentary on book 4

of Ptolemy's *Quadripartitum*, ch. 10 or text 74, decides that this mode is absurd, and devised by someone unskilled in the art.

Fourth, *most of the more recent follow Ptolemy, who, as in book 3 of the Quadripartitum, ch. 11, he takes the aphetae or governors of life from the five hylegial places, so they themselves gather the lord of the nativity from the same. For he who has the most essential dignities in the ascendant, the M. C., the place of the ☉, the place of the ☽ and the place of the ⊕, debilities however being deducted, is established as lord of the nativity. The partner of the dominion, however, is he who possesses the next dignities. But if two or three have dignities in equal number, all these are held as lords of the nativity.*

[Margin: The fourth, Ptolemy's, on the planet having dominion in the 5 hylegial places.]

For example, in our former example

			Strengths					Debilities	
The ascendant is	3° 6′	♌	☉		♃	♄	♄	♄	
M. C.	9° 23′	♈	♂	☉	♃	♀	♂	♀	♄
Place of ☉	25° 7′	♑	♄	♂	☽	♄	☉	☽	♃
Place of ☽	28° 32′	♑	♄	♂	☽	♄	☉	☽	♃
⊕ *from* ☉ *to the Moon*	6° 31′	♌	☉		♃	☿	♄	♄	

Str. ♄ 18 ♃ 6 ♂ 14 ☉ 16 ♀ 2 ☿ 0 ☽ 6

Debil 14 8 0 0 5 0 10

Therefore, since the ☉ has 16 testimonies of dignity, ♂ 14; ♄, debilities deducted, 4 remaining, ☿ none, ♃ is cast down, with testimonies of infirmity remaining 2, ♀ 3, ☽ 4, it is evident that the Sun, in the opinion of certain of the more recent, is the Lord of the Nativity.

In the other example

	° ′		Strengths					Debilities	
The ascendant is	10° 15′	♊	☿		♄	♃	♂	♃	
M. C.	6° 10′	♒	♄		♄	☿	♀	☉	
☉ *place*	12° 42′	♉	♀	☽	♀	♀	☿	♂	
☽ *place*	6° 25′	♒	♄		♄	☿	♀	☉	
⊕ *from* ☉ *to* ☽	3° 58′	♓	♃	♀	♂	♀	♄	☿	☿

Strengths. ♄ 20, ♃ 7, ♂ 4, ☉ 0 ♀ 18 ☿ 10 ☽ 4

Debilities. 0 5 5 10 0 9

From this, since ♄ has 20 testimonies of dignity, ♀ 18, ♃ 2 remaining, ☿ 1, Mars a debility of 1, ☉ 10, Saturn is rightly established as lord of the Nativity.

In place of the mid-heaven, however, Schöner, book 1, ch. 1, de jud. Gen., and likewise al-Qabīṣī, book 4, take the preceding conjunction or opposition of the luminaries. Since, therefore, in the later example the Moon in ☍ was in 6° 30′ ♏, it is evident in the same place that Mars has the house, ♀ the triplicity, ♃ the term, and ♂ the face.

From this 8 testimonies are withdrawn from ♄, from Mercury 2, from Venus 1. But 6 are added to Mars, to ♀ 3, to ♃ 2; and so ♀ is raised to the dominion of the nativity by 20 testimonies of strength.

Fifth, *Giuntini relates in the commentaries on ch. 2, book 3 of Ptolemy's Quadripartitum that the Greeks take as lord of the whole nativity that planet which has the most essential dignities in the place of the ☽ and ☿. For Mercury, in the opinion of Ptolemy, is lord of the spirit, of vigour and of the mind, as the Moon is of the body.*

[Margin: The fifth, of the Greeks, on the lord of the places of the Moon and Mercury.]

For example, in our first example

		°								
☽	*is*	*in* 28° 31′	♍	·	♂	☽	♄	☉	☽	♃
☿		*in* 6° 40′	♍	·	♂	☽	☿	♃	☽	♃

Saturn therefore, having 12 pre-eminences, is established as lord of the nativity, since ♂ has only 8, ☿ 2, ☉ 1, ♀ 0; the Moon is cast down by 4 debilities, ♃ by 7.

In the other example

☽	*is*	*in* 6° 25′	♒	♄	♄	☿	♀	☉	☊
☿		*in* 0° 14′	♊	☿	♄	☿	♃	♃	☊

From this, because ♄ prevails with 11 testimonies of strength, he will be lord of the nativity; since ☿ has only 9, ♀ 1, Jupiter is weak by 4 testimonies, the Sun by 5.

Sixth, *Cyprianus Leovitius, and the greater part of the astrologers at this time, set over the dominion of the nativity that one who both in respect of the essential dignities is more powerful than the rest, and at the same time holds the worthiest place in the figure. But if these two things do not happen together to some one planet, namely that it both conquers and surpasses the rest by the value gathered from the essential dignities, and at the same time occupies the more powerful place of heaven, the one who excels the others in essential dignities will indeed be preferred to all the rest: but nevertheless there is to be associated with him in this office the one who, in respect of the place of the celestial figure,*

[Margin: The sixth, Cyprianus's, on the strongest planet in the chart.]

is more powerful. For it is probable, and altogether likely, that he who is worth more in strength and dignity in several places is to be preferred to him who surpasses the others by one single prerogative only, since he who is more powerful than the rest in the root, and best constituted, exerts his strength on the native more manifestly than another whose strength is weaker. But which planet is the most powerful in the chart is known from the collection of the testimonies of the single planets, about which we gave notice in the preceding chapter. But the order of the places, from which it is known which planet is the more powerful in respect of the place of the celestial figure, is this; 10, 1, 11, 7, 4, 5, 2; 9, 3, 8, 6, 12. For the tenth house is preferred to the first, the first to the 11th, the eleventh to the seventh, etc.

We judge it safest, in this diversity of opinions, if we choose two lords of the nativity: *First* indeed the Lord of the horoscope according to the common mode set out in the first place. *The other*, the most happy and most fortunate in the nativity; according to the mode of Cyprianus.

[Margin: What is to be decided in this variety of opinions.]

In our former example we make Jupiter lord of the Nativity, as one who both surpasses the others in dignity in the examination of strengths, and is trigonocrator of the ascendant. He is not fortunate, however, since he has no essential dignity.

But in the other example ☿ is lord of the nativity. For not only did we find him the strongest in the examination of strengths above, ch. 1, but he is also the almuten of the horoscope; And he is fortunate enough by reason of the essential dignities, however much he stands in a cast-down house.

The lord of the planetary hour, *which is otherwise also called the lord of the orb by al-Qabīṣī, diff. 4, ch. 12, and by Schöner, book 3, de nativ., ch. 10, is called in any nativity that planet whose force, in the opinion of the Arabs and the Egyptians, seems to be greatest at that moment of time in which the native comes forth into the light. For since every day, just as the night too, is divided into twelve hours, which some call temporal: And to the single hours single planets are assigned, the beginning being taken from the rising of the ☉, and from that planet from which the day is named: it is evident that in any temporal hour a particular planet exercises dominion. But although a diverse opinion about the hours is found among the authors, while some divide the hours of any day into 12 equal parts, the division into 12 parts being made equally of that arc which ascends of the equator either by day or by night; others into unequal ones, the division being made of the half of the zodiac ascending by day and by night into 12 equal parts. We, however, since the reckoning of these hours seems to be taken not from the ascension of the degrees of the equator, but rather from the ascension of the degrees of the ecliptic (for we are compelled to adjust to them the parts of the equator ascending by day or by night), divide any day into 12 unequal hours, according to the ascension of 15 degrees of the ecliptic.*

[Margin: Who the lord of the planetary hour, or lord of the orb, is.]

In the search, therefore, for the Lord of the planetary hour, let the Canon of ascensions suited to the place in which the nativity took place be consulted. And first indeed, entry being made with the place of the ☉, let the ascension of the place of the ☉ be sought from it. Afterwards also of the opposite place. Finally, if a diurnal time is given, let the ascension of the place of the ☉ be taken away from the ascension of the opposite place, a whole circle being added if the subtraction cannot be made: Or if a nocturnal time is given, let the ascension of the opposite place be subtracted from the ascension of the place of the Sun, a whole circle being likewise added, if

[Margin: The method of finding the lord of the planetary hour.]

the subtraction cannot be made: And there remains the arc of the equator ascending by day or by night together with the half of the zodiac rising with it. If this arc is converted into time, there arises the quantity of the day or of the night, counted in hours and minutes of hours; half of which shows the setting

of the ☉, but the half taken away from 12 hours shows the rising. If now a diurnal time is proposed, the hours of the day are counted in order, beginning from the rising, and assigning to the first hour that Planet from which the day is named, and to the single hours 15 degrees of the Ecliptic, until one arrives at the proposed hour of the nativity; and to that hour is assigned the Planet which, descending from the higher to the lower, and returning from the lowest to the highest, presents itself in order. One must proceed similarly if a nocturnal time is given, according to the table adjoined.

[Margin: In what order and manner the Planetary hours are counted.]

Table showing the Planetary Hours and their governors through the whole week and each of its days.

Days of the week	Diurnal hours 1	2	3	4	5	6	7	8	9	10	11	12	Nocturnal hours 1	2	3	4	5	6	7	8	9	10	11	12
First ☉	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿
Second ☽	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃
Third ♂	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀
Fourth ☿	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄
Fifth ♃	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉
Sixth ♀	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽
Seventh ♄	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂	☉	♀	☿	☽	♄	♃	♂

[Margin: Second example.]

Just as in our other example, with the place of the ☉ in 12° 42′ ♉, I consult the table of oblique ascensions constructed for latitude 51°, and I find there, applying the proportional part, the ascension of the proposed place of the ☉, 19 temp. 57′ of the equator. But the ascension of the opposite place, 12° 42′ ♍ [recte: ♏], 239 temp. 7′ of the equat. Hence, since a diurnal nativity is given, I subtract the former ascension, of the place of the ☉, from this, and the remainder, 219 temp. 10′, I convert into hours and minutes of hours; there is produced the quantity of the day, 14^h 37^m approximately: Half of it, 7^h 19^m, I subtract from 12 Hours, and there remains the time of rising, Hour 4, 41^m from midnight. But if I further take away the ascension of the place of the Sun at 12° 42′ ♉, which is 19 temp. 57′, from the ascension of 27° 42′ ♉, 29 temp. 9′, there remains for the first hour of the day an arc of 9 temp. 12′, which gives no hour, 37^m approximately. From this, the second hour begins at hour 5, 18^m: And again I subtract the ascension 29 temp. 9′ from the ascension of 12° 42′ ♊, 40 temp. 41′. This from

the ascension of 27° 42′ ♊, 55 temp. 3′: And so on, until one arrives at 12° 42′ ♏, at whose ascension the day ends and the night begins; there is produced the arc of the second hour, 10° 32′; that is, of minutes of an hour 42: And for the third hour 14 temp. 22′, or minutes of an hour 57, and so consequently. Hence the second hour of the day ends at the sixth hour; the third, at the sixth hour, 57^{m}, etc. But since the nativity took place on the Day of ♂, at Morning hour 5, 53^{m}, it is established that the native was brought forth into the light in the second hour of the ☉.

But in the first example the place of the Sun in 25° 7′ ♍ has, at latitude 51° 50′, an oblique ascension of 326° 36′; the opposite place, 25° 7′ ♋, obl. asc. 87 temp. 32′. Hence, since the nativity is nocturnal, this ascension of the opposite place is taken away from the former: And the remaining arc, 239 temp. 4′, is changed into time; there is produced the quantity of the night, 15^{h} 56^{m}: Half of it, 7^{h} 58^{m}, taken away from 12 Hours, shows the beginning of the night, afternoon Hour 4, 2^{m}. But if I further take away the ascension of the opposite place, 25° 7′ ♋, which is 87 temp. 32′, from the ascension of 10° 7′ ♌, 108 temp. 20′; And I convert the remainder, 20 temp. 48′, into time, 1 Hour, 23^{m}: it is plain that, this time being added to Hours 4, 2^{m}, there results Hour 5, 25^{m}. And since the hour of the nativity is given as 4, 46^{m} after noon on the day of ♀, it is established that the first nocturnal hour is ♂, and that the native was brought forth into this light the same places.

[Margin: First example.]

Moreover, the Arabs, from the doctrine of Hermes, wished to seek out for this purpose the lord of the orb or of the planetary hour, so that from its strength or weakness, felicity or infelicity, no otherwise than from the lord of the ascendant, they might judge the more certainly about the native's general condition of life, and of fortunes. For they held that when it is direct and fortunate, not standing in cast-down houses of the heaven, safe from the presence and evil rays of the malefic Planets, and fortified by the bodies or beneficent aspects of the fortunate stars, especially if it has a beneficent nature itself, a long life is signified to the native, and all other things prosperous in life. Otherwise, if it is found constituted differently.

[Margin: On the use of the lord of the orb or of the hour of the Planet according to the Arabs.]

They also lay down, as al-Qabīṣī reports, diff. 4 c. 9, and Schöner, book 3, de nativ. c. 10, that the horoscope is to be given to the lord of the hour of the nativity, and that from its condition in the chart of the root the health of the native, firm or infirm, is to be judged in the first year, no otherwise than from the lord of the ascendant. Afterwards, that to the lord of the second hour of the nativity the second house is to be assigned in the second year, and that from its state in the root and in the revolution of the second year judgment is to be made about the substance and similar goods of the native, in the same way as from the lord of the second house. Third, that to the third hour the third house is to be assigned in the third year, and that from its disposition, both in the root and in the revolution, judgment is to be passed about the state of brothers and sisters, and the things that are usually joined to these, in the same way as from

the lord of the third house, and so on consequently, as the order of the Planets and of the houses brings: And when the return to the first has been made, the former is again constituted lord of the first. Hence, just as in general the Lord of any Planetary hour is usually called the Lord of the orb, so in particular too the one who has dominion in the first hour of the nativity is called the Lord of the first house: And the lord of the second house, the one who in the second hour. The Lord of the third house, the one who rules in the third hour. But since this doctrine of the Arabs seems to turn aside a great deal from the natural operation of the heaven toward empty superstition, there is no reason why we should labour much in unravelling it.

[Margin: Another opinion.]

Caput IV.

On nutrition.

Having dispatched the generalities which pave the way to forming judgment rightly, let our first care now be to consider diligently whether the native can be nourished, and complete the years of nutrition, which are the first 4. For at that time our life is most exposed to accidents and diseases because of weakness, and the tenderness of a body not sufficiently firmed. And although this consideration a great kinship

[Margin: The years of nutrition are the first 4 of each native.]

has with ch. 2, in which we also taught how to pass a general judgment about life: nevertheless many special things are proposed here, which will instruct us about the life of infants and their diseases. But in nutrition these 5 significators are to be attended to: *1* The Horoscope, *that is, the sign into which the cusp of the ascendant falls, and its affection, since it signifies the body of the native,* 2 The Moon *and its state, which governs the natural power.* 3 The Sun, *which presides over the vital power, and this according to the opinion of Ptolemy, Centil. 68.* 4 The lord of the Nativity, *who moderates the life and fortune of the native in general: And* 5 the two benefics ♃ & ♀.

[Margin: In nutrition 5 significators are to be considered.]

For if the said significators, either all of them or the greater part of them, are weak and unfortunate, there is no reason for you to doubt that the signification of the stars portends a notable weakness for the native. But if either all of them or the greater part of them are well disposed, they denote that the native can be nourished easily and very well. But if part of them is afflicted, and part on the contrary safe and fortunate, it is signified that the native can indeed be nourished, but will struggle with frequent illnesses, as Giuntini teaches from Leovitius in the chapter on nutrition.

In general, too, it is certain about the luminaries that if they are placed fortunately in the figure, in a configuration of the benefics, they bring a very great deal of help not only to health and the strength of the body, but also to elegance of form. They threaten the contrary if they are placed unfortunately. But if the luminary of the time (that is, the ☉ in a diurnal, the ☽ in a nocturnal nativity) is free from the malefics and from its evil accidents, it signifies that the nutrition of the native will be completed, especially

if the lord of the triplicity of the time is also in the ascendant, the midheaven, or the 11th or 5th house. But if the degree of the ascendant and the luminary of the time are badly affected, it will be signified that the native is not nourished, unless the Lords of the triplicity are safe and in the angles. Haly, part. 4 cap. 1. Cardano, 2 Aph. 43, gives an Aphorism of this kind: He will not complete a year whose luminary of the time is in the angle of the seventh, that is, in the apex, and a malefic elevated above it, peregrine, and no fortune has aspected the place, nor is there another significator of life. Ptolemy, book 3 of the quadr., cap. 9, also gives rules of this kind pertaining here.

[Margin: General points about the luminaries.]

[Margin: General rules of Ptolemy about the luminaries.]

1 If one luminary occupies an angle [cardinem], and one of the malefics comes together with it, or is opposed to it partilely, in such a position that the circles drawn from the poles of the Zodiac through the luminary and the malefic make an isosceles [æquicrurum]; or, what is the same, if they have in the opposition an equal latitude, on the same side, and no benefic is configured; moreover, if the star ruling the places of the luminaries is held in the places of the malefics; what is born will not be able to be nourished long, but will die.

[Margin: 1]

2 If an isosceles is not formed by the position of the luminaries and the malefics, but these apply most closely to the places of the luminaries, and afflict either both luminaries by a mutual application, or by an opposite regard, or also if one of them harms the other luminary, what is born will by no means be of long life. And affliction occurs in the ☌ the ☉ by Mars, the ☽ by ♄: In the ☍ the Sun by ♄, the ☽ by Mars, especially if the malefics occupy the places of the stars

[Margin: 2] *ruling in the places of the luminaries and of the horoscope. But if also, with the luminaries and the malefics standing in the angles, this double opposition in an isosceles occurs, as if the Sun is joined to Mars, and the Moon is opposed: but Saturn is joined to the ☽ and opposed to the Sun, the one who is born will come forth into the light either dead or half-alive.*

3 If the luminaries flow off from some benefic, being either conjoined with it or configured with it by a ray, to a malefic, the native will indeed live, but only for as long a space as is the interval of degrees between the luminary and the nearest malefic. In which judgment, however, one must look at the magnitude of the affliction from the malefic, and the power of those stars which have the force of a cause.

[Margin: 2]

4 But if the luminaries flow off from some one of the malefics, being either conjoined with it or configured with it by a ray, to a benefic, the one brought forth into the light will indeed fare badly at the beginning, but will at length recover and live; about which matter we also gave notice above, in chapter 2.

[Margin: 4]

But in order that we may also consider here the Aphorisms of other authors: *first, as regards the ascendant, let these aphorisms be noted.*

[Margin: Aphorisms of others. First, on the horoscope or ascendant.]

1 If the ascendant is in the term of a malefic and at the same time is afflicted by the hostile rays of the malefics, the native will not escape the years of nurture, especially if the remaining hylegical places also, ☉, ☽ and M.C., are in a bad state.

2 The Astrologers determine that the native can scarcely live the space of a month, whose ascendant is afflicted, with Mars occupying the eighth house.

3 He whose lord of the ascendant is unfortunately placed, so that it is destitute of all essential dignities, and is either cadent or peregrine, and is moreover also combust, especially if the combustion happens in the 8th house or in another unfortunate place of the nativity, cannot live long, Haly part. 4 cap. 1.

4 Those for whom the lord of the ascendant is with a malefic and combust, and both luminaries unfortunate in the sixth, are born dead, and their mothers also perish, Cardano 2 Aph. 5.

5 If the lords of the triplicity of the ascendant are in the third house, made unfortunate by any Planet whatever, they signify a short life, unless the lord of the triplicity is the Moon. For the Moon is strong in the third house on account of her joy. Haly part. 4 cap. 1.

6 But if the lords of the trigon of the ascendant have fallen (that is, are in their fall), but a benefic is in the ascendant, or a fixed [star] of the nature of a benefic, or the lords of the trigon from among the first, the native will be able to be nourished, Cardano 5 Aph. 58.

7 If a misfortune is in the ascendant and at the same time has some dignity in it, or also some fortune aspects it, it signifies that the nutrition will be completed. For the malefics, when they are in their dignities, are diminished: the malice indeed of ♂, if it is by night in feminine signs; but of ♄, if it is by day in masculine signs. But if the contrary is the case, the misfortune is increased and grows. We experience something different in the benefics. For benefics set in dignity increase the good; outside it they diminish it. Haly in the place cited before.

Second, let these things be observed concerning the Moon. 1 The greatest harm, so that the native is not nourished, is from the Moon, since she signifies the brain. For children, if she is badly constituted, are seized by convulsion, Cardano 5 Aphor. 113.

[Margin: 4 On the Moon.]

2 The ☽ unfortunate in the ascendant, afflicted by the presence or the rays of the malefics, denies nutrition and life to the native. But the Moon placed fortunately in the ascendant, free from the presence and rays of the malefics, signifies the contrary, Haly part. 4 cap. 1.

3 The Moon also, either conjoined with or opposed to the Sun, makes the native of shorter life, especially if the rays of the ill-omened malefic Planets approach, as we also gave notice above, cap. 2. Cardano 5 Aph. 145 brings a similar Aphorism: When the Moon is in the same part with the Sun (conjunction is understood) and both are in □ or ☍ ♄, the native will not be nourished.

4 The Moon in the 4th house, being in □ or ☌ of the malefic Planets, indicates difficult births, and signifies very great dangers for the mother. Haly in the same place.

5 The ☽ unfortunate in the 7th and without the aspect of a benefic, especially if one of the malefics also is in the angle of the M.C. or of the horoscope, signifies that the native will scarcely live one hour, Schöner cap. 4 lib. de nativ.

6 They judge that that native dies immediately after birth, or even perishes in the birth itself, for whom the Moon is placed with Mars in the ascendant, and none of the benefics irradiates the Moon, and ♄ holds the eighth house, Schöner ibid.

7 When the Moon in ♈ is in the partile opposite of Mars, especially if a benefic does not aspect her, the native will scarcely be nourished, Schöner ibidem and Cardano 5 Aph. 148. The ☽ increasing in light, bodily joined to Mars in ♈, signifies the same, Haly part. 4 cap. 1.

8 But if, with both being in an angle, each malefic is opposed to them diametrically, the native will not taste food, 2 Aph. 38.

9 If the Moon is between Mars and the Sun, or with them, the native will be of short life, 5 Aph. 143.

10 With Mars after the Sun or before the Moon, but Saturn after the Moon and before the Sun, both luminaries being in an angle and thus impeded, and ascending to the apex of the angle, with a moderate distance standing between the luminaries and the malefics, the native will not be nourished, 2 Aph. 39.

11 Whoever has the Moon peregrine near the quartile or opposite rays of a malefic, distant less than 17′, suffers great misfortunes in nutrition, 5 Aph. 150.

12 When the Moon is between both malefics, falling chiefly in ♏, or ♑, or in a masculine sign, especially if a benefic also does not aspect her, the native will scarcely or never be nourished, Schöner cap. 4 lib. 1 de nativ. And Cardano 5 Aph. 149.

Third, let these things be attended to concerning the Sun: 1 The Sun in the ascendant, or also in some other angular house, especially the 10th or 4th, placed fortunately in its exaltation or house, *not harmed* by the presence or rays of the malefics, promises a longer life. But afflicted, it denotes a shorter life, if the other things which are to be considered agree.

[Margin: 3 On the Sun]

2 If the Sun is in an airy or earthy sign, and in the degree of the ascendant, or before or after up to 3 degrees, and with the Sun or in the degree of the ascendant there is any one of the 15 bebenian stars (which namely are those royal stars, conjoined with the luminaries, the greatest significations producing, such as the Heart of ♌, the Spica of ♍, the brighter of the southern scale; especially those which are of the nature of the benefics; or also one of the two benefics; or also the Moon with a trine or ✶ ray; or the ray of some fortune has aspected the Sun, it signifies that that native will die before he receives food: since the Sun, when it ascends in airy signs, signifies nothing but fire. It also denotes the same in the earthy ones. For when fire is joined with earth, their

drynesses are joined, and the complexion is weakened, from which the native cannot be nourished: Haly part 4 cap. 1.

3 In a diurnal nativity, if the Sun is in the ascendant and in the sign ♒, it signifies a good and temperate life for the native. For the native will be of an even complexion, of the nature of Jupiter, Haly in the same place. *Let these things also be observed about the dispositors of the luminaries.*

[Margin: On the dispositors of the luminaries.]

1 When the one disposing the places of the luminaries is in the place of the malefics, and the luminary of the time in the same part with a malefic in one of the angles: or those are in an isosceles figure in the same angle, and the latitude is the same, the one who is born will not taste food, Cardano 2 Aph. 37.

2 When malefics rule over the places of the luminaries and are elevated above them, and do not aspect them, the native will indeed live, but not a long life, 2 Aph. 42.

3 If the Lords of the trigon of the luminary are powerful, the native will be well nourished and will be strong. But if they are weak and contrary, he will not be nourished, 2 Aph. 58.

Fourth, let this be noted concerning the lord of the nativity: The lord of the nativity, extremely afflicted, with the luminaries also languishing, and especially the luminary of the condition, takes away life from the native at his first rising. But a little of life is granted to those whose lord of the nativity falls from an angle, the Moon being infected by the presence or ray of an evil one.

[Margin: Fourth, on the lord of the nativity.]

Fifth, let these things be considered concerning the remaining Planets: 1 ♄ afflicts life more, and ♂ nutrition. So ♀ and ☽ favour nutrition more, but ☉ and ♃ a long-lasting life, Cardano 5 Aph. 151.

[Margin: 5 on the remaining Planets.]

2 Benefics that are fortunate, and in a good configuration of the ascendant and of fortunate luminaries, give life even with the lords of the triplicities unwilling. But benefics regarding only the luminaries, and malefics afflicting the ascendant, promise life to the native up to the point at which the ☉ or ☽ reaches the malignant rays by direction.

3 When both malefics are in the ascendant, and both luminaries fall from the angles, the native is not nourished, Cardano 5 Aph. 146.

4 All the Planets in the 6th, 8th or 12th house deny nutrition to the native, 5 Aph. 112. And Schöner and Giuntini also hand down the same Aphorism from Albubater.

5 Four or five Planets joined in the ascendant for the most part also deny life to the native. For the conjunction of the Planets does not signify life, Haly part. 4 c. 1.

The Arabs distribute the four years of childhood into three classes, and since they establish three trigonocrators of each sign, as I noted above in the principles, they hand these same over to the three lords of the triplicities of the ascendant to be governed, so that the first governs the first year and 4 months,

and afterwards the remaining two in order. But if the first lord of the triplicity is strong and fortunate, it will indicate that the first third part of nutrition will be good; if weak and unfortunate, bad. The same is to be pronounced about the others.

[Margin: The doctrine of the Arabs on the governors of nutrition.]

In our first example, *our Generosus is judged to have got past the years of nurture by the kindness of GOD from these celestial causes: that both the horoscope* ♌, *and the lord of the nativity* ♃, *which at the same time is also lord*

[Margin: The first example.]

of the triplicity of the ascendant, are favourably disposed, and although the luminaries languish, yet they are afflicted by no rays of the evil ones, nor does the □ *of Jupiter to the luminaries cause any harm, since it is a beneficent Planet. Moreover the remaining Planets are in mutual agreement, so that they cannot impede nutrition.*

In the other example *a sufficiently suitable nutrition is promised to the native. For* 1 *the horoscope is well disposed in the term of Jupiter, and is afflicted by no rays of the malefics. Its lord* ☿ *is also strong and fortunate, in its own sign and term, free from combustion and from the rays of* ☉. *And although in the chart it stays in the* 12*th house, there nevertheless it suffers no injury from the malefics, but rather is fostered by the trine ray of* ☽. *Moreover the lord of the triplicity of the ascendant,* ♄, *is fortunate in the* 11*th house, and looks upon Mercury, the other lord of the triplicity, with a platic* ✶ *ray.*

[Margin: The other example.]

2 ☽ *too is fortunate: For it both stands in the midheaven free from the evil rays of the evil ones, in the term of Mercury, lord of the ascendant, and aspects the ascendant with a benign* △ *ray. The* □ *rays of Venus and* ☉, *by which the Moon is struck, hinder nutrition in nothing whatever.*

3 ☉ *indeed is unfortunately placed. For it is found both peregrine and in a cadent house: But because it stands in the term of* ☿, *lord of the ascendant, and in the sign of* ♀ *and the exaltation of* ☽, *it throws no impediments in the way of nutrition.*

4 *The lord of the nativity,* ☿, *in its own house and by the trine ray of* ☽, *promotes nutrition.*

5 *The remaining Planets are so disposed that they promise the native not only the years of nurture but also a longer life. For they afflict neither the luminaries nor one another with evil rays, except the single opposition of* ♄ *and* ♃, *which nevertheless itself also does not impede nutrition.*

CHAPTER V. ON TEMPERAMENT.

The natural philosophers call temperament, or complexion, the innate mixture of the 4 primary qualities and of the 4 natural humours, blood, phlegm, yellow and black bile, and the harmony of these made in such a way that it suits a certain species: *But although the variety of temperaments is infinite, which arises both from the manifold mixture of dissimilar humours, and from the diverse nature and temper of the parents who beget the children, and from this and that position of the*

stars: yet as there are 4 principal humours in the bodies of living beings, so 4 principal κράσεις [Greek: kraseis, "mixtures", that is, temperaments] *correspond to these*

[Margin: What temperament is.]

[Margin: Temperaments are infinite.]

1 Sanguine, *which is temperately hot and moist.*

2 Phlegmatic, *which is moist and cold.*

3 Choleric, *which is hot and dry.*

And 4 Melancholic, *which is cold and dry.*

[Margin: They are brought back to four kinds.]

Since these κράσεις [Greek: kraseis, "mixtures"] *are gathered from the proper qualities and natures of the significators of the temperaments: First the general doctrines of the qualities of the signs according to the 4 trigons, and of the Planets: likewise of the four quarters of the year, from the two preceding members, will have to be brought back here.*

For first the qualities of the signs, according to the nature of the trigons, are as follows,

[Margin: Temperaments are judged 1 from the qualities of the signs.]

♈ ♌ ♐		hot and dry, Choleric
♉ ♍ ♑	are signs	Cold and dry, Melancholic
♊ ♎ ♒		Hot and moist, Sanguine
♋ ♏ ♓		Cold and moist, Phlegmatic.

Afterwards the qualities of the Planets are distinguished thus:
[Margin: from the qualities of the Planets.] [numeral: ?]

♄	Oriental	is	Cold and moist somewhat.
	Occidental		Dry.
♃	Oriental	is	Hot and moist.
	Occidental		Moist only.
♂	Oriental	is	Hot dry.
	Occidental		Dry.
♀	Oriental	is	Hot and moist.
	Occidental		Moist.
☿	Oriental	is	Hot.
	Occidental		Dry.

The qualities of the luminaries undergo a greater change.

For the Moon from	Conjunction to the first □	is	hot and moist.
	the First □ to opposition		hot and dry.

	Opposition to the second ☐	Cold and dry.
	the Second ☐ to ♂	Cold and moist.

The powers of the Sun are considered here according to the quadrants of the year

For there is, the Sun being in	♈ ♉ ♊	a season	Vernal, hot and moist.
	♋ ♌ ♍		Summer, hot and dry.
	♎ ♏ ♐		Autumnal, cold and dry.
	♑ ♒ ♓		Winter, cold and moist.

☊ is of the nature of ♃ and ♀ : but ☋ is of the nature of ♄ and ♂.

Afterwards, the nature of the significators being known, It must be seen which significators are to be applied in the judgement of temperaments, namely these 10. 1 The sign of the horoscope. 2 The lord of the horoscope, *The ascendant, however, signifies rather the body, and its lord the soul 4 Aph. 112.* 3 One Planet or more in the horoscope: *yet so that 5 degrees before the cusp and 25 after the cusp are counted for the horoscope: to which ☊ and ☋ in the horoscope are also joined.* 4 The aspects of the Planets falling on the horoscope. 5 The Moon, *which properly rules the humours.* 6 The Planets *aspecting the Moon with the half of their orbs.* 7 The quarter of the year„ *which is known from the sign which ☉ holds.* 8 The lord of the nativity of Cyprianus· 9 The partaker *of dominion according to the common way.* And 10 the *more notable fixed* stars *occupying the horoscope.*

[Margin: The significators of the temperaments, 10.]

Third, before the collection of testimonies is instituted, the qualities of each Planet which it has both by reason of its position with respect to the Sun and by reason of the sign in which it is, are to be examined; the qualities of both the Planet and the sign being written beside. And since the pronouncement on the quality of the complexion must be made according to the number of those prevailing, it will now have to be attended to which qualities fight among themselves and mutually cancel one another, which do not fight.

For if one testimony is of hot, the other of cold, one of dry, the other of moist, nothing will remain to the Planet, but the qualities will mutually cancel one another. Only those qualities, however, will have to be retained which do not fight among themselves or are not struck out by contraries.

[Margin: The qualities of the significators are first, deservedly, compared.]

Fourth, let the collection of testimonies be made in this way, that to the single significators of the temperament their qualities are written beside in order, and the same thing signified is repeated as often as the same significator recurs in the order. For it can happen that the same Planet is both lord of the nativity and of the horoscope,

and at the same time also falls in the horoscope with its body. When this happens, it is to be applied three times in the collection of testimonies. So when ☽ is placed in the horoscope, it is applied twice, as Garcaeus [Garc.] rightly advises from Leovitius [Leov.], c. 6 of his book de jud. genit.

[Margin: At length they are collected.]

So that all these things may be rightly accommodated to our two examples, we shall first consider the qualities of each Planet by reason of its position with respect to the Sun and by reason of the sign, before we collect the testimonies taken from the single significators for the temperament. In the first nativity, therefore, of Generosus

[Margin: The comparison of the significators in the first nativity.]

♄	Oriental it is cold and moist In ♏ cold moist	Therefore cold and moist.
♃	Oriental it is hot and moist In ♎ hot and moist	Therefore hot and moist.
♂	Occidental dry In ♓ cold moist	Therefore cold only.
♀	Oriental hot and moist In ♍ Cold and dry	Therefore temperate in qualities.
☿	Oriental hot In ♍ cold and dry	Therefore dry only.
☽	from conjunction to the 1 □ Hot and moist In ♍ Cold and dry	Therefore temperate.
☉	in the winter quarter cold and moist In ♍ cold and dry	Therefore cold only
♉	of the nature of ♄ and ♂ cold and moist In ♌ hot and dry	Therefore temperate.

From this, the testimonies of the significators being collected:

[Margin: The collection of testimonies in the first nativity.]

Significators	Heat	Cold	Moist.	Dryness
Horoscope ♌	Hot.	○	○	Dry
☉ Lord of the horoscope	○	Cold.	○	○
♉	Hot.	Cold.	Moist.	Dry
□ ♄ to the ascendant in ♏	○	Cold.	Moist.	○
✶ ♃ to the ascendant from ♎	Hot.	○	Moist.	○
☽ in ♍	Hot.	Cold.	Moist.	Dry
♄ Lord of ☽	○	Cold.	Moist.	○
♂ ☉ and ☽ in ♍	○	Cold.	○	○
□ ♃ to the Moon from ♎	Hot.	○	Moist.	○
Winter quarter of the year	○	Cold.	○	Dry
Lord of the nativity ♃	Hot.	○	Moist	○
	6	7	7	4

The native is judged cold and moist, or phlegmatic, since few testimonies of heat and dryness are present. By reason of the place of the luminaries, however, he turns somewhat toward melancholy on account of ♍, an earthy sign, and Saturn, which is strong in the chart.

In the other nativity, however, of my friend

[Margin: In the other nativity, the comparison of the qualities.]

♄	Oriental it is cold and moist In ♓ cold and moist	Therefore cold and moist perfectly.
♃	Occidental it is moist In ♏ cold and dry	Therefore cold only.
♂	Oriental it is hot and dry In ♈ hot and dry	Therefore hot and dry perfectly.
♀	Oriental it is hot and moist In ♉ Cold and dry	Therefore temperate in all qualities
☿	Oriental dry In ♊ hot and moist	Therefore hot only.
☽	from the opposition to the second □ Cold and dry In ♒ Hot and moist	Therefore temperate.
☉	by reason of the vernal sign hot and moist.	

Finally let the collection of testimonies be arranged thus

[Margin: The collection of the testimonies.]

Significators	Heat	Cold	Moist.	Dryness
Horoscope ♊	Hot.	○	Moist.	○
☿ almuten of the horoscope	Hot.	○	○	○
☽ △ to the ascendant in ♒	Hot,	Cold.	Moist.	Dry
□ ♄ to the ascendant in ♓	○	Cold.	Moist.	○
□ ♃ to the ascendant in ♏	○	Cold.	○	○
☽ in ♒	Hot.	Cold.	Moist.	Dry
♄ Lord of ☽	○	Cold.	Moist.	○
□ ♀ to the Moon from ♉	Hot.	Cold	Moist.	Dry
△ ☿ to the Moon from ♊	Hot.	○	○	○
□ ☉ to ☽ from ♉	Hot.	○	Moist.	○
Vernal quarter of the year	Hot.	○	Moist.	○
Lord of the nativity of Cyprianus ☿	Hot,	○	○	○
Right shoulder of Orion of the nature of ♂ and ☿	Hot.	○	○	Dry
	10	6	8	4

And it is evident from this collection of testimonies that heat prevails in the temperament, which exceeds cold by 4 testimonies; to it moisture is to be joined, which likewise overcomes dryness by 4 testimonies. From this, the temperament of the native is hot and moist, that is, sanguine; which, however, in the course of time degenerates more toward phlegm than toward melancholy, since the testimonies of dryness are very

few. Melancholy, if any shows itself, is from the place of the Sun, the luminary of the condition, which stands in ♉, a melancholic sign.

Caput VI.

On the form, stature and habit of the body.

Although these very accidents of the body do not befall men by chance, nevertheless they are not to be derived from one cause either, but from several, which is what Haly teaches, part. 4, cap. 9. For it is certain, first, that the likeness of the parents does much, which sometimes lasts a very long time in families and is propagated to posterity, since each follows the seeds of his own nature; and that the region, or the nature of the place of birth, also does much. For we give proofs of the origin from which we were born. *Next, this too is established by experience, that upbringing, the manner of diet and of life at a tender age, do much for the conformation of the body; since at that age, through the unskilfulness or negligence of midwives, the delicate bodies of infants are sometimes moved away from their natural shape and deformed. The Astrologer must therefore be circumspect, and not approach this judgement before those things about which I have just advised are properly known. For judgements about these accidents of the body, as must be wholly confessed, can be sought from the natal chart very obscurely, because in the constitution of forms the force of the near and particular causes is often greater than that of the remote and general ones. Since, however, experience also teaches that fortunate positions of the stars sometimes add a remarkable beauty to the forms of bodies, and that unfortunate positions, on the contrary, evidently deform the forms of bodies, we shall show here only in general how one is to pronounce on the forms of bodies from the chart, since Ptolemy [Ptol.] too does not omit this consideration, but joins it with the judgement on the temperament.* And first we shall deal here with the likeness of the native to the parents; afterwards with the proportion of the members; third with the colour of the face and of the hair; 4 with the stature; and 5 with the habit of the body.

[Margin: The form and habit of bodies depends 1 on the parents.]

[Margin: 2 on upbringing]

[Margin: 3 on the position of the stars.]

[Margin: The five principal members of this chapter.]

As for the likeness, it is judged in two ways. 1 From the position of the Planets which signify the parents in the horoscope. For the Sun in a diurnal nativity, ♄ in a nocturnal one, on the cusp of the horoscope, makes natives like the father. For the Sun by day, ♄ by night, signifies the father. ♀ in a diurnal nativity, however, and ☽ in a nocturnal one, on the cusp of the horoscope, makes them like the mother. For ♀ by day, ☽ by night, signifies the mother. 2 From the face of the ascending sign in the horoscope, as is evident from Schöner [Schon.], cap. 5, lib. 1, de jud. nativ., who in this part followed Albubater.

[Margin: 1 On the likeness of the native to the parents.]

For first, if the Sun is lord of the face, the native will be like the father. The same is to be pronounced of Saturn. If the Moon is lady of the face, the native will be like the mother. The same is to be said of Venus. 2 If the lord of the face of the ascendant is lord of the fourth house, and a masculine Planet, and the

native is a son, the native will be like the father. But if the Planet is feminine, and the native is a daughter, she will be like the mother. 3 In general also, if the face of the ascendant belongs to a masculine Planet, the native will be made like the father; if to a feminine one, the native will be made like the mother. 4 If the lord of the face of the ascendant is lord of the place of ☉, the native will be like his paternal uncle. If, however, it is lord of the place of ☽, he will be like his maternal uncle.

[Margin: Rules of judgement.]

This caution, however, is to be noted: to avoid ill repute it is better to pronounce in general that the native inclines toward the paternal or the maternal family than to name specifically either the maternal uncle or the paternal uncle, because very few nativities have the true degree of the horoscope.

In our first example *none of the Planets, indeed, is in the horoscope, from which a judgement could be made about the likeness of the native to the parents; the solar sign* ♌, *however, in the ascendant, in which* ♄ *has a face, shows that the native takes after the father's family, since it is also Oriental with respect to the Sun, becomes masculine, and stands in the fourth house.*

[Margin: First example.]

In the other example *likewise none of the Planets is in the horoscope; the Mercurial sign* ♊, *however, of an indifferent Planet, holds the horoscope, and the face of* ♂ *indeed extends from the 10th degree to the 20th. Hence, since the face belongs to a masculine Planet, and* ♂ *becomes masculine from the Sun because it is Oriental, I judge the face of the native to be doubtful indeed, but that it nevertheless comes closer to the likeness of the father.*

[Margin: Second example.]

Before we proceed to the remaining members, some things are to be brought forward about the significations of the signs and Planets as regards form, so that from them, as from principles, the judgement may be formed all the more correctly.

In the natures of the signs, therefore, and indeed of the starry ones, from which the reasons of the operations are sought, and not from the bare dodecatemories, as Girolamo Cardano [Card.] teaches on text 51, lib. 3 of the *quadrip.* of Ptolemy [Ptol.], in his commentary, let these things be considered which Haly noted, part. 4, cap. 9, Schöner [Schon.], c. 5, libr. 1, and Garcæus, cap. 8, de jud. nativ.

[Margin: The natures of the starry signs, or rather their signatures.]

♈ signifies a long neck, small ears, small legs, much and curly hair tending to whiteness: otherwise, however, it makes a good and fitting figure, a face bent or inclined, a hard skin, and it indicates a middling stature, yet rather long; the body thick in the first degrees, lean in the later ones.

[Margin: ♈]

♉ designates a long and raised forehead, long nostrils with wide openings, open and large eyes, a thick and fat neck, large and black eyebrows, a broad chest, red and upright hair (Haly, however, has black), a hoarse voice, a middling

stature somewhat longer. The body, as in ♈, thick in the fore parts, lean in the hinder.

[Margin: ♉]

♊ present a body well proportioned in all its members, a broad chest, and moreover a comely form, though rather pale, a middling stature, mixed hair, graceful hands: the body lean in the fore parts, thick in the hinder.

[Margin: ♊]

♋ makes natives of short and low stature, the upper members thicker than the lower; in general, however, all of them lean in the fore parts of the sign, thick in the hinder; ill-set teeth, crooked and irregular, a large belly, small eyes, large eyebrows, curly hair tending to blackness, broad shoulders, a subdued and low voice.

[Margin: ♋]

♌ bestows a tall and large body, yellow and abundant hair, a broad chest, upper members thicker than the lower, hence slender legs: in general, however, all parts thicker in the fore parts of the sign, lean in the hinder; large and in a way lynx-like eyes, a sharp nose, a malicious and fierce countenance.

[Margin: ♌]

♍ promises a body well proportioned, middling as regards thickness, a face likewise middling, comely and pleasant, of a blackish colour, a tall stature.

[Margin: ♍]

♎ makes them handsome, beautiful and well proportioned, middling in flesh and in stature, yet longer, white in the face and black in the rest of the body.

[Margin: ♎]

♏ denotes small eyes, a small face, much and thick hair, yet red, limbs unsuitably proportioned, long legs and large feet, a middling stature verging toward the longer, agile in the limbs and a runner.

[Margin: ♏]

♐ signifies a large and weak body of a yellow and whitish colour, and a tall stature, a large belly, thick legs, a long face, a flowing beard, yet of fine hair, a beautiful voice.

[Margin: ♐]

♑ brings a dry body and of small stature, slender legs, a long and slender face, after the likeness of a goat, slender ears, a great abundance of hair, and a long and black beard, a middling voice.

[Margin: ♑]

♒ makes them handsome, adorned with well-proportioned limbs, of middling stature yet shorter, with a sweet and pleasing voice, somewhat black hair, and sometimes one of the legs larger than the other.

[Margin: ♒]

♓ indicate a large and heavy face, otherwise a small head and a short stature, a broad chest, round and seemly eyes, likewise a beautiful beard, and white hair, and usually a mark disfiguring the face, a fine voice.

[Margin: ♓]

And these qualities of the signs are considered chiefly in the ascendant, and in the place in which the lord of the horoscope and the Moon stand; to sum them up, it is clear from what has been set out that ♌ ♍ *and* ♐ *bring magnitude of stature,* ♓ ♋ ♑ *smallness: the remaining 6 signs* ♈ ♉ ♊ ♎ ♏ *and* ♒ *promise middle size. The beginnings of the signs* ♈ ♉ *and* ♌ *also bring about thickness of bodies, the ends leanness: on the contrary the beginnings of* ♐ ♊ *and* ♏ *procreate leanness, the ends thickness:* ♋ *and* ♑ *indeed produce middle size; yet the prior part denotes rather thinness, the posterior thickness. So* ♍ ♎ ♒ *and* ♓ *also suggest middle size, yet thinness in the posterior parts.* ♍ ♎ *and* ♒ *bring about an even and good proportion. But an uneven and in some way distorted one* ♉ ♏ *and* ♓.

[Margin: These natures of the signs are to be attended to above all in the ascendant.]

But these are the properties and effects of the Planets. ♄, significator of the form and stature of the body, brings about black and large eyes, and in one of them some mark, or one smaller than the other, a long face, a savage aspect, black hair, thick and curled, irregular teeth, feet bent and having cracks. Oriental, it makes men dusky, somewhat black, pale, but well proportioned and of middling stature, inclining to shortness, in whose complexion coldness and moistness prevail. Occidental, however, black, of short stature and lean, in whose complexion coldness and dryness dominate, and it makes the hair sparse.

[Margin: The natures of the Planets.]

[Margin: ♄]

♃ in general denotes a good state in the quality and quantity of the body, middling hair, and a curly beard. Oriental, it brings about men fair and of elegant stature, tending somewhat to yellowness, since then too moistness prevails.

[Margin: ♃]

From this they turn out of taller stature, of large eyes, of a small pupil, of middling hair, and they have a sign on the right foot. But Occidental, it marks them fair indeed and more handsome, but of shorter stature, who have a sign on the left foot.

♂, Oriental, bestows a colour of the face midway between white and ruddy, a tall and well-proportioned stature, blue eyes, a hairy body, and a middling head of hair. For heat and dryness prevail in its complexion. Occidental, it brings about red ones, of middling stature, with a large head, and prominent in front, of small eyes, with sparse hair with a certain yellowness, a round face with certain marks, or a marked forehead, large nostrils, long teeth, and who in their gait make long or military strides.

[Margin: ♂]

☉ adorns the body with a certain magnificence, which has a composed gait; it bestows a colour glowing and shining, a large head, a round face, large eyes, extended hair, growing bald at the last, a somewhat hoarse voice, and a middling stature of the body.

[Margin: ☉]

♀ provides a face beautiful, pleasing and graceful, and coming very close to womanly elegance, succulent, tender and delicate. But in particular it imbues the eyes with a somewhat black colour, with a certain gracefulness, which play and wink: it curls the hair a little, and brings about thicker legs. But Oriental it provides these more than occidental.

[Margin: ♀]

☿, Oriental, brings about a good colour, a moderate size, a fitting proportion of the limbs, small eyes, a middling head of hair and yellowing. For heat prevails. Occidental, it promises pale, lean ones, with slender limbs, a sparse beard, of a sharp voice, and of a sharpness of disposition not common. For dryness prevails. But in gait such are of small steps.

[Margin: ☿]

☽ promises ones whitish in face and aspect, a seemly beard, and a body well sound, unless it be in ♂ or ☍ ☉: likewise a tall stature.

[Margin: ☽]

But in general, as Ptolemy [Ptol.] notes, cap. 15 lib. 3 *quad.* or text. 49: likewise Haly part. 4 cap. 9 and from the same Schöner [Schon.] cap. 5 lib. 1 de judic. Nat., the morning Planets make large bodies: in the first station, strong and enduring bodies: retrograde ones, unequal bodies, so that the limbs do not answer to due proportion. In the second station, weak bodies.

And these are the properties which are assigned to natives either by the signs placed in the horoscope or by the Planets, the significators of form.

But the Astrologer ought in no way, in pronouncing judgements, to depart from the office of the physician, but so to mix and temper the significations of the signs and of the significators that things agreeing are gathered into one, and from them, so gathered, the sentence is spoken: but contraries are set against one another, and from them the mean is taken, and so the prediction is woven.

Further, the proportion of the face, of which we must now treat, is governed by these five: *1 the ascending sign and its lord. 2 the Planets and the rays of the Planets in the ascendant, 3 the luminaries. 4 the quarter of the year and 5 the fixed stars placed in the horoscope*

[Margin: 2 On the proportion of the face and limbs let 5 be considered.]

—which Ptolemy [Ptol.] by no means judges are to be neglected, text. 46 libr. 3 *quadr.*

And first, indeed, the human signs ascending give gracefulness and make them beautiful, ♊, ♍ *the prior part,* ♐ *and* ♒. *But the deformed signs bring about deformity,* ♉ ♋ ♏ ♑ *and* ♓, *likewise the posterior parts* ♈ *and* ♌, *and the milky way in the ascendant: the rest, as* ♎ *the prior part,* ♈ *and* ♌, *the posterior* ♐, *promise a middling state of form.*

[Margin: 1 The ascending sign]

2 Among the Planets ♀ *and* ♃ *give the best proportion, and any other fortunate constellation in the ascendant, without the intervention of the malign; but* ☿ *and* ☽ *hold the next parts, which Planets, however, are evil with the evil. But* ♄ ♂ ☊ *and*

☋ *threaten deformity; likewise their unfortunate constellation to the ascendant. And Almanſor says, prop. 14: Whoever has a malefic in the ascendant will suffer a foul mark in the face.*

[Margin: 2 Planets]

3 The luminaries happily disposed help the beauty of form: and the Sun indeed bestows proportion, not gracefulness. But the Moon procures a certain womanly form. Yet the luminaries condemned in the oblique signs, likewise with the dark stars, bring forth deformity.

[Margin: 3. luminaries]

Almanſor says, prop. 15: His eyes will not be able to escape a grave impediment in whose nativity both luminaries are impeded, or badly placed with the malefics. Also when the malefics are joined among themselves, or with the luminaries, in ☊ or ☋, or when they are in their tails, or even in the bellies of the dragon, that is, in no latitudes or the greatest, then they deform the body with humps, swellings and lameness.

By way of example we may have the nativity of Paul Eber [Pauli Eberi], *to whom* ☿ ♄ *and* ♂ *with* ☊ *denied form, nor did the ascending* ♍ *help him. But thrown from a horse in boyhood and gravely injured, he also became hunchbacked. And Cardano [Card.] elsewhere also hands down an Aphorism of this kind, 4 aph. 72: When* ♂ *and* ☽ *are with* ☊ *or* ☋ *in the 12th and the Sun and* ♃ *in the 4th house, the native will be hunchbacked. To this refer the* chart of the hunchbacked youth *which* Johannes Garcaeus [Garcæus] *sets out cap. 8 jud. genit., and is found a little after joined to Eber's. For this one had the Moon, lady of the ascendant by reason of exaltation, partilely joined to* ♄ ℞, *in the square of the horoscope, and moreover Mars in its detriment afflicting the ascendant;* ☋ *also in the 12th and the Sun in the 4th house. From this, since* ♉, *a deformed sign, also ascends, and* ☽ *strikes Saturn himself with a* □ *ray, while* ♂ *taints with its bodily presence, deformity and hunchback are decreed for the native.*

[Margin: The nativity of Paul Eber, theologian.]

[Margin: Chart of a hunchbacked youth.]

4 As regards the quarters of the year, of which Haly treats cap. 9 part. 4, the spring brings beauty of form, fleshiness, loveliness of hair and of colour, and a sanguine constitution. The summer, thicker limbs, middling in length, much hair, large eyes, and a choleric complexion. The autumnal makes them lean, of extended hair, of beautiful eyes, of middling but comely stature and of melancholic complexion. The winter brings about indeed a comely form of the native, of black colour, of extended and sparse hair, but of phlegmatic constitution.

[Margin: 4 Quarters of the year.]

5 The fixed stars are to be judged according to the predominant Planets; for the Jovial and Venereal ones at the cusp of the ascendant give a liberal form. Deformity

[Margin: 5 fixed stars] *is threatened by the Saturnine and Martial ones. The milky way, too, in the ascendant, and dark stars harm form.*

Diagram. Upper left of the block. Caption box: Paul Eber [Paulus Eberus], theologian, is born in the year 1511, November. Day, Hour, Minute: 8, 1, 0 A.M. At Kitzingen [Kitz.] in East Franconia. Elevation of the pole 59° 53′.

- Upper-left corner, upper triangle: ♌ 29
- Upper-left corner, lower triangle: ♍ 13
- Left triangle: ♎ 5
- Lower-left corner, upper triangle: ♂ 5 20; ☊ 25 52; ♄ 26 54; ♏ 2
- Lower-left corner, lower triangle: ☉ 24 40; ♐ 9
- Bottom triangle: ☿ 13 37; ♀ 10 22; ♑ 19
- Lower-right corner, lower triangle: ♒ 29; ♃ 19 43; ⊕ 2 49
- Lower-right corner, right triangle: ♓ 13
- Right triangle: ♈ 5
- Upper-right corner, right triangle: ♉ 2; ♅ 25 52
- Upper-right corner, upper triangle: ♊ 9
- Top triangle: ♋ 19; ☽ 29 57

Diagram. Upper right of the block. Caption box: A hunchbacked youth is born in the year 1550, in the month of June. Day, Hour, Minute: 30, 11, 40 P.M. Elevation of the pole 52 degrees.

- Upper-left corner, upper triangle: ♄ 8 17 ℞; ☽ 8 31; ♒ 29
- Upper-left corner, lower triangle: ♅ 28 26 ♓; ♉ 2
- Left triangle: ♂ 16 7; ♊ 11
- Lower-left corner, upper triangle: ♀ 5 49; ♃ 18 2; ♊ 29
- Lower-left corner, lower triangle: ♋ 13
- Bottom triangle: ☉ 17 34; ♌ 0
- Lower-right corner, lower triangle: ♌ 29; ☿ 5 2
- Lower-right corner, right triangle: ♏ 2; ♅ 28 26 and ⊕ 11 31, the two rows braced together to ♍[108]
- Right triangle: ♐ 11
- Upper-right corner, right triangle: ♐ 29
- Upper-right corner, upper triangle: ♑ 13
- Top triangle: ♒ 0

Diagram. Lower left of the block. Caption box: Joachim Camerarius [Joachimus Camerar.] of Bamberg is born in the year 1500, in the month of April. Day, Hour, Minute: 11, 22, 15 P.M. Elevation of the pole 49° 56′.

- Upper-left corner, upper triangle: ♊ 25; ♀ 22 0; ☊ 14 2; ♄ [numeral: ?]7 14
- Upper-left corner, lower triangle: ♂ 27 38; ♌ 0 8
- Left triangle: ♌ 22
- Lower-left corner, upper triangle: ♍ 11
- Lower-left corner, lower triangle: ♎ 8 0
- Bottom triangle: ☽ 12 10; ♏ 18
- Lower-right corner, lower triangle: ♅ 14 2 ♐; ♐ 25

[108] both nodes of this figure are printed with the same sign, ♅

- Lower-right corner, right triangle: ♒ 0 8
- Right triangle: ♒ 22
- Upper-right corner, right triangle: ♓ 11
- Upper-right corner, upper triangle: ♃ 22 48; ♈ 8 0
- Top triangle: ♉ 18; ☉ 6 14; ☿ 21 36

Diagram. Lower right of the block. Caption box: Philipp Melanchthon [Philip. Melanchthon] is born at Brettæ in the Palatinate, in the year 1497, February. Day, Hour, Minute: 16, 7, 6 P.M. Elevation of the pole 49° 5′.

- Upper-left corner, upper triangle: ♍ 4 28; ☽ 2 20; ♋ 10 26
- Upper-left corner, lower triangle: ♍ 27 8
- Left triangle: ♎ 19 49
- Lower-left corner, upper triangle: ♏ 18 23
- Lower-left corner, lower triangle: ♃ 11 3[numeral: ?]; ♂ 12 54; ♐ 26 37
- Bottom triangle: ♒ 5 23
- Lower-right corner, lower triangle: ♋ 10 26; ☿ 27 57; ♓ 4 28[109]
- Lower-right corner, right triangle: ♓ 27 8; ☉ 7 53
- Right triangle: ♈ 19 49; ♄ 9 44; ♀ 6 17
- Upper-right corner, right triangle: ♉ 18 23
- Upper-right corner, upper triangle: ♊ 26 37
- Top triangle: ♌ 5 23

In our former example the prior parts of ♌ ascending promise a middling form, yet an unsettled face, and the upper parts thicker than the lower: but the □ of ♄ to the ascendant inclines toward deformity; ☉ and ☽ conjoined are also opposed to form: the winter quarter denotes indeed a comely form, yet black and sparse hair. Nor do the stars of ♋, since they are small and dark, increase the beauty of form. We therefore judge that the native declines somewhat from a middling form toward deformity.

[Margin: Our first example.]

In the second example, 1 ♊ in the horoscope procured a comely form for the native. For they are a human, airy sign, over which ☿ presides, a Planet of middling form, not very far preceding the horoscope. 2 △ of ☽ from an airy sign. 3 The Moon herself, which holds ♒, a human sign, and promises beauty. 4 The spring quarter of the year, which gives the native a middling fleshiness and a florid colour. 5 The stars of Orion, especially the left foot, of the nature of ♃ and ♄, and the right shoulder. From this, although ☉ in ♉ seemed to deny form, it could nevertheless achieve little, because of the preponderating significations of a beautiful form.

[Margin: The second example.]

Colour is taken, though in general of the whole body, yet chiefly of the colour of the face; next, of the eyes and hair. And it is worthy of wonder that, although we are all human beings, we nevertheless differ so in eyes and hairs that one is distinguished from another by this mark also. Now the colour of the face, which we chiefly consider here, is judged 1 from the Planets in the ascendant, whose colours we treated a little before in the general doctrine. 2 From the horoscoping signs, about which we likewise advised

[109] both nodes of this figure are printed with the same sign, ♋

before. 3 From their lords. 4 From the Planets which partilely aspect the degree or the lord of the horoscope. 5 From the fixed stars rising at the same time, which retain the colours of their Planets, whose nature they have. And 6 from the temperament. For the sanguine temperament makes them fair: the phlegmatic, pale: the choleric, yellow and ruddy: the melancholic, black. But above all the benefics and the rays of the benefics in the ascendant give a good and pleasing colour, as the malefics a bad and unpleasing one. Next, the summer or Northern signs, as ♈ ♉ ♊ ♋ ♌ ♍*, likewise the houses of the benefics, as* ♓ *and* ♐*, make a cheerful colour: but the winter ones and the houses of the malefics a gloomy one. The colours, however, are white, black, yellow and ruddy. For the others are mixed from these.*

[Margin: 5 On the colour of the native.]

[Margin: Six significators are considered in the judgement of the native's colour.]

In the judgement, therefore, of the colour of the face and of the locks, one must proceed in this way. At the start, suitable colours are to be assigned to the significators set out. Then the like colours for each are to be gathered into one sum. And finally judgement is to be pronounced according to the number of those prevailing.

[Margin: The method of judging the native's colour.]

There are those who inquire into the native's colour from the lord of the Planetary hour. For to ♄ oriental they attribute pallor, to occidental, blackness. To Jupiter oriental, whiteness mixed with blackness; to occidental, whiteness only. To Mars, redness. To Venus, a pleasing whiteness, to ☿ yellowness, to the Sun duskiness, and to ☽ a spotted whiteness.

[Margin: How the native's colour is judged from the lord of the hour.]

In our former example *the lord of the planetary hour was indeed found to be* ♂*, which, occidental, signifies a yellow and reddish colour. But if we attend to the prior precepts, in this former nativity there is no Planet in the horoscope, but the sign* ♌ *horoscoping brings yellowness. The almuten of the horoscope, the Sun in* ♑*, blackness, and the star of* ♋ *horoscoping, a pale and somewhat blackish colour of the hair, bring: hence we also judge this noble native to be of a colour more blackish than white or red. It is to be noted, however, that colours vary as age increases, and tend toward blackness more than whiteness.*

[Margin: The first example.]

In the second example *since the Sun is lord of the Planetary hour in which, above, cap. 3, we found the native to have been brought forth into this light, we judge the native to be of a dusky colour from the nature of the Sun. But if we gather the testimonies according to the preceding precepts. There is 1 indeed no Planet in the horoscope.*[110] *The sign horoscoping,* ♊*, however, denotes hair of a mixed colour. 3 The almuten of the ascendant,* ☿*, brings yellow and reddish locks. 4 The Moon, beholding the horoscope partilely by* △*, denotes somewhat black hair by reason of* ♒*. 5 The fixed star*

[110] no item 2 is printed.

[Margin: The second.]

—especially the left foot and the right shoulder of Orion, signifies duskiness. The native's colour, therefore, is judged not black nor white, but mixed and in some way dusky.

As for the fourth, namely stature, judgement is made about it according to these two rules, which Garcaeus [Garc.] notes from Leovitius [Leov.], c. 8 de jud. gen. First *it is judged according to the natures of the Planets set out above, from the Planet partilely aspecting the lord of the horoscope, and, if several aspect it, from the stronger one, having the most dignities. Here, however, it is to be noted that the two inferior ones,* ♀ *or* ☿*, aspecting the lord of the horoscope from their domiciles and exaltations, decree a tall stature; on the contrary, in their fall or detriment, a short one. But the three superior ones,* ♄ ♃ *and* ♂*, do not have the power of decreeing anything different from the natures set out before, if they lack their dignities, unless they are also retrograde at the same time: for only then do they denote a shorter stature.* Second, *that if no Planet partilely aspects the lord of the horoscope, judgement is taken from the lord of the horoscope itself, the sign not being considered, provided it is direct. But if it is retrograde, or in its fall, then judgement is given not from the nature of the Planet, but rather from that of the sign which it occupies. And then, as Cardano [Card.] notes, 2 Aph. 180: Large persons are judged to be born under the great signs of long ascensions, at the beginnings of the signs, and under Planets standing at the height of the Eccentric and the Epicycle: the luminaries, however, ruling the horoscope, bestow stature only according to the nature of the sign in which they are. But Mercury ruling the horoscope decrees stature according to the nature of its almuten or disposer. And if it is in its own house, or in that of the Sun or of the Moon, it moderates the stature of the body according to the nature of the sign which it occupies.*

[Margin: 4 On the native's stature: it is judged from two rules.]

[Margin: First]

[Margin: Second]

For instance, in the nativity of Joachim Camerarius [Ioachimi Camerarii], formerly Professor at Leipzig, the disposer of the horoscope was ☉. Since this is aspected partilely by none, judgement is taken from the sign ♉ in which ☉ stands: which also decreed for him a middling stature, yet tending somewhat toward tallness.

[Margin: The chart of the nativity of Joachim Camerarius [Joachimi Camerarii].]

In the same way, in the nativity of Master Philipp Melanchthon [Philippi Melanchthonis], no Planet partilely aspects ☿, the lord of the horoscope; for which reason, according to the second rule, the judgement about stature will have to be conformed to the nature of ☿ itself, the lord of the horoscope. But since it decrees nothing by itself, its disposer ♄ is to be looked to, which, since it is occidental of the Sun, denoted for him a short stature and a rather dry body.

[Margin: Of Philipp Melanchthon [Philippi Melanthonis].]

In our former example ♃ *beholds the lord of the horoscope, the Sun, by an almost partile square. Therefore, according to its nature, which, when Oriental, bestows a taller stature, the noble native is also found to be of taller stature.*

[Margin: Our first example.]

In the second example *no Planet beholds Mercury, the lord of the ascendant. But since it too is in its own sign and has no other disposer, judgement is taken from the sign* ♊ *itself, which decreed a middling stature for the native.*

[Margin: The second]

Finally, as regards the last member, namely the habit of the body, we understand by it the thickness or leanness which, after the ἀκμήν [Greek: akmēn, "the prime"] *or settled age, that is, the 30th year of age, or a little after, when bodies no longer grow, comes naturally to bodies, not in so far as bodies depart from their natural size through disease or an unsuitable manner of living. Now the judgement of this is taken*

[Margin: 5 On the habit of the native's body, or thickness and leanness.]

according to Cyprianus, from the sign of the horoscope, or also from the lord of the horoscope, namely the Planet which holds the most dignities in that sign, its quality not being neglected, to which the Ptolemaic precepts look.

Being now about to judge the bodily habit of some native. First look at the sign of the horoscope. Then also its almuten: *And do not neglect the qualities of those Planets or fixed stars which either beset the horoscope or are also conjoined with the almuten of the horoscope. For first, if the horoscope is aspected partilely by its own almuten, give judgement according to the nature of the horoscoping sign.* Second, *if not, give judgement according to the nature of the sign which the almuten of the horoscope occupies, provided it is aspected partilely by some one.* Third, *if the almuten is aspected partilely by none, judge from the half of the sign which the almuten does not occupy.*

[Margin: Method of judging.]

You will note, moreover, what Garcæus also notes from Cyprianus, c. 8 of the book de jud. Genit.: 1 that the lord of the house or of the exaltation of the horoscoping sign, joined to the Sun within half of its orb, provided ♂ is absent, decrees a large body, especially if the consent of the horoscope or of its almuten is added. But if the presence of ♂ is added, it brings leanness even when the horoscope or its almuten dissents. 2 That if two Planets are almuten of the horoscope, the one which is aspected partilely, or also the one which holds the house, is to be preferred to the one which is placed in exaltation, even if it too is aspected. Ptolemy also hands down, in sentence 53 of the *Centiloquium*, an Aphorism of this kind, which is to be noted: The lords of the nativity of lean men do not have latitude; those of fat men, however, have it. But if the latitude is Southern, they will be agile, although they are fleshy. If Northern, not agile and heavy.

Nor are the fixed stars to be neglected, since a crowd of fixed stars in the horoscope adds strength to the body. Above all, however, as we also advised at the beginning, the nature and complexion of the parents is to be attended to in

this consideration, since the melancholic and the choleric are always lean, the Phlegmatic thick, the Sanguine fleshy.

In our first example the horoscope ♌ is not aspected by its almuten. But since ♃ beholds the Sun partilely, I take the judgement from the later part of ♍, which the Sun holds, and I judge the native thicker. For the earlier part of ♍ denotes more leanness, the later thickness, yet not exceeding the just measure.

[Margin: First example.]

In the other example the earlier part of Gemini rises, which designates a certain leanness. And although it is not aspected by its almuten ☿, it is nevertheless present in body. That he is not designated extremely lean, however, both the sanguine complexion indicates and the latitude of ☿, sufficiently evident.

[Margin: Second.]

Caput VII.

On twins and monsters.

Since it sometimes happens that two or more are brought forth in one birth, one after another, it is to be noted that the causes of this matter too are drawn by Astrologers from the heaven. For Ptolemy, in book 3 of the Quadripartitum*, chapter 7, holds that these three significators above all are to be considered:* the Sun, the Moon and the horoscope. *For if two of these, or even three, occupy bicorporeal signs, and especially if the stars ruling those places at the same time have aspected them, or some of these aspecting and ruling stars are in bicorporeal signs, twins will come forth. But if also the three*

[Margin: In the judgement of twins three things are to be considered.]

said significators not only stand in bicorporeal signs but are also configured with several Planets, even more than two will be born together. Above all, however, ☿ increases the number, if it is configured with the said places, since it is a biform Planet, bicorporeal or of double nature. The sex of those born, moreover, depends on the signs and stars which occupy the said places. For if masculine signs and the masculine Planets ♄ ♃ and ♂ have held the said places, males: if feminine signs and the feminine Planets ♀ ☽, and ☿ made effeminate, are present, they will denote females. All these things, however, are to be judged more from the chart of the conception than from that of the birth. For the chart which is set up for the time of birth indicates this very thing more obscurely. This too is to be noted: that such fetuses, being several, are for the most part born premature, and often bring monstrous limbs with them. Iunctinus [Francesco Giuntini] *sets out some examples in the commentary on the cited passage of Ptolemy. Likewise Garcæus, cap. 5 of his book de jud. genit., which can be referred here.*

Monsters, *although they cannot be born except beyond the common course of nature, since God too wills that the distinction of species remain perpetual, and that man be born from man, dog from dog, wolf from wolf, etc., and that we be taught from this that the world did not come into being by chance and from a random concourse of atoms, but that there is a wise and regular cause which preserves this perpetual order in nature: yet common experience proves that they are sometimes born. There are, moreover, several causes of monsters. For either God through them depicts for us the*

customs of nations or of tyrants, and foreshadows the changes of kingdoms that will follow; or the Devil, out of hatred toward the human race, brings forth, not without divine permission, prodigious fetuses of this kind, by which the image of God in man is deformed; or an abundance or deficiency of matter either adds something to the fetuses or takes something away; or external causes coming in, and the imaginations of mothers, alter the fetuses; or finally an unfavourable coming-together and mixture of the stars signifying the form and constitution of bodies generates monstrous births.

[Margin: Monsters are born more rarely.]

[Margin: Causes of monstrous fetuses. 1 God 2 The Devil 3 Abundance or deficiency of matter. 4 Imaginations and other external causes 5 The position of the stars.]

We shall for the present consider the last cause, the Astrological one. Ptolemy, moreover, lays down, cap. 8 of book 3 of the Quadripartitum*, that the rationale of monstrosity is threefold: the first indeed, which regards the things of fortune: the second, which regards the form of the body: the third, which regards the habits of the mind.*

In the first consideration, which denotes a wretched, vile and abject state of a man, this is to be attended to: if the luminaries at the time of birth have fallen from the angles, and have been unjoined to the horoscope, and two malefic stars have occupied the angles, the native, according to the condition of his state, will be afflicted with a certain monstrous misery, Gaurico [Gauric.] [Luca Gaurico] *cap. 3.*

[Margin: 1 Monstrous fortune]

In the second, which signifies a distorted form of the body, this is to be seen: if the disposers of the place of the conjunction or ☍ of the luminaries which most nearly precedes the nativity have not regarded that place itself, and neither the ascendant nor the Moon at the time of the nativity has had a regard to that place, the native will be signified to be of a tangled and less proportioned body, or to have a monstrous form of body: And Ptolemy adds, if in this of the places

[Margin: 2 Monstrous form.]

state, the luminaries have occupied the signs of quadrupeds or of wild beasts, and the malefics have been in the angles, the fetus will not be judged to be of the human kind, but to be foreign to the human form, especially if none of the benefics has aspected the luminaries, but the malefics have given their testimonies to the luminaries. Cardano [Card.] teaches almost the same, 2 Aph. 34: If the luminaries and the lord of the ascendant, and of the place of the ☌ or ☍, so fall from the angles that they aspect neither the ascendant nor the place of the ☌ or ☍, a monstrous one will be born. And in the next: But if, these places and Planets being so disposed, the malefics are in the angles, there will be a monster foreign to human nature, and it will die at once.

Let these Aphorisms of Girolamo Cardano [Cardani] also be observed. 1 The tropical signs, such as ♋ and ♑, make men unequal in mind and manners and in body; the equinoctial ones, ♈ and ♎, moderate ones, 5 Aph. 77.

[Margin: Special Aphorisms.]

2 The malefics do not make men monstrous, unless they are conjoined with bad parts of the heaven and are themselves powerful. It is manifest, therefore, why monstrous natives are of short life, 5 Aph. 147.

3 Lamenesses, obliquities of the eyes and of the legs, and the other calamities, are produced by the Moon when harmed, because she stirs up convulsion, 6 Aphor. 8.

4 When ♂ is near the lowest part of heaven with its own node, or ☽ where it tends toward the South, and the ascendant has aspected by square, the native will be lame, Aph. 13.

5 When ♂ from ♏ [?] has struck a Planet by a square radiation, or by an opposite one, that Planet will have a shameful impairment in the body, which will persist right up to death. The same if ♄ from ♒, 3 Aph. 14.

6 When the luminaries have stood in crooked signs with any nodes, especially ☽, in the aspect of the malefics, and in an angle, the native will be hunchbacked or twisted, 4 Aph. 71.

In the third, which regards the goods of the mind, this comes to be observed: that if the luminaries are in human signs, and the testimonies or rays of the benefics have come to the luminaries, the native, although he is of distorted proportion, will nevertheless have suitable manners, will be honoured; and if the testimony of Mercury is added, he will be especially apt for prophesying, an interpreter of oracles and dreams. Moreover, the placing of ♄ ☉ ☽ *and* ☊ *in the same degree of the ascendant makes the native a hermaphrodite.*

[Margin: 3 Monstrous mind]

Caput VIII.

On the manners and intellect of the native.

So far we have taught, from the constitution of certain parts of the figure, how judgement is to be formed about the more notable accidents of the body, and whether they will be in the natural state or will decline from it. Now we shall show how the accidents of the soul too, and their qualities, are known from the first house and from the Planets inhering in it or pertaining to its significations. The accidents of the soul, moreover, are twofold: some pertain to the rational *part of the soul, or understanding, and are commonly marked by the name of intellect.* Others are proper to the irrational part of the soul, *that is, of the vegetative or sensitive power, and are usually understood by the name of manners. The disposition of the rational soul, which Ptolemy [Ptol.] lib. 3 quad. c. 17, according to the division of Cardani, calls* τὸ νοερὸν καὶ λογικὸν μέρος τῆς ψυχῆς [Greek: to noeron kai logikon meros tēs psychēs, "the intellectual and rational part of the soul"]*, through the place of Mercury.* [The disposition] *of the vegetative and sensitive, however, which in Ptolemy [Ptol.], in the same place, is called* τὸ ἠθικὸν καὶ ἄλογον τῆς ψυχῆς [Greek: to ēthikon kai alogon tēs psychēs, "the ethical and irrational of the soul"]*, is known from the qualities of the place of* ☽.

[Margin: The accidents of the soul are twofold.]

[Margin: Of the rational soul.]

[Margin: 2 Of the vegetative and sensitive.]

If, therefore, in general ☿ and ☽ have been well affected in the chart, and have aspected each other with a benign and friendly ray, a certain agreement is brought about between the rational soul and the remaining inferior powers. Hence Haly too says, part 4 chap. 9: Whoever has had in the root of his nativity the Moon agreeing with Mercury will never lose his sense. But if they have been badly affected, or have stood in separate signs, beholding each other by no aspect at all, a natural discord and fight will be stirred up between reason and the inferior forces; in which, however, either reason will rule the inferior powers, and will be able to restrain and bridle the passions and the remaining actions of the inferior powers, or, on the contrary, the passions and the impulses of the inferior powers will overcome reason, and will not obey it when it counsels what is right. For ☿ stronger in the commanding signs and those of long ascensions, but the Moon weaker in the obedient signs and those of short ascensions, denotes that reason rules the passions. But the Moon, in this way stronger than Mercury, shows a man who will indulge much in depraved appetites, which a weaker reason will not be able to restrain and repress; see Schöner [Schon] chap. 7 book 1 de jud. Genit.

[Margin: General rules.]

So that we may give precepts about each one separately and in order: first, indeed, we shall show how judgement is to be made about the qualities of the vegetative and sensitive soul, that is, about the manners and passions of the native, from the consideration of certain significators. Afterwards we shall deal with intellect.

But although manners in a man have certain other, nearer causes, such as 1 the temperament, which rules the inclinations, as Gal. [Galen] demonstrates in the book that the manners of the soul follow the bodily temperament; 2 the fatherland, since some manners are those of the Germans, others of the Poles, others of the Italians, others of townsmen, others of country people; 3 the nature of the parents; 4 teaching and instruction; 5 custom: about the last three of these causes Horace [Horat.] sang excellently, Ode 4, book 4 of the Odes:

[Margin: On the manners of the native.]

[Margin: Six general causes of manners.]

There is in bullocks, there is in horses, the excellence of the sires, nor do fierce eagles beget the unwarlike dove: but teaching advances the inborn power, and right cultivation strengthens the breasts.

Yet a certain force is also detected in the stars, which shows of what kind the future manners of the native will be. Cyprianus lays down that the significators of manners are the same as those of the temperaments. We, however, shall principally consider these 7: First, Mercury and the Moon, of which we have already spoken. 2 One Planet or more standing in the horoscope. 3 The lord of the horoscope, who is also, for the most part, the lord of the nativity. 4 Venus, as the one who bestows charm and provides liveliness. 5 The signs in which the said significators inhere, above all the horoscope. 6 Fixed stars placed in the horoscope or with the Planets that signify manners: and 7 the temperament which is decreed for the native from the stars. And judgement is passed according to these rules, which Johannes Garcaeus [Garcæus] mentions, chap.

10 of the book de jud. genit., and Francesco Giuntini [Junct.] in the commentary on chap. 14 of book 3 of the Quad. [Quadripartitum] of Ptolemy [Ptol.]

[Margin: Seven astrological significators of manners: concerning the first, it has been treated in the general rules.]

The first. *When some Planet is placed in the horoscope, whether it is in the ascending sign or in an intercepted one, it stands as the principal significator of manners. But the participant of the significator will be its dispositor, that is, the Planet which has dominion in the sign of the significator.*

[Margin: Concerning the second and third, 7 particular rules are given here.]

Hence judgement will have to be formed according to the nature of this Planet and of its dispositor. For, first, a benefic significator Planet, powerful and strong, and configured with the benefics, decrees honest, good and praiseworthy manners according to the nature of the Planet. 2 A significator benefic indeed by nature, and configured with the benefics, but weak, produces manners praiseworthy indeed in appearance, but obscure and diluted, or counterfeit and simple. 3 A strong and fortunate malefic, although it makes good manners, namely upright and severe ones: yet it always mixes in something of poison, and impresses some traces of impiety 4 A weak malefic, and one infected by the rays of the malefics, bestows bad and distorted manners, according to its own nature.

[Margin: If one Planet is in the horoscope.] [?]

But it is to be noted that ☿, which is an indifferent Planet, assumes the nature of that Planet with which it is most nearly conjoined, or in whose sign and dignity it stands: So the luminaries placed in the horoscope, although in general they dispose the manners according to the nature of their dispositors, yet if they lack dispositors, and are themselves situated in their own dignities, they make dignity of person, and add a certain natural pride to the manners.

So, in order that we may illustrate this Rule by examples: In the nativity of Ermolao Barbaro [Hermolij Barbari], a most learned man, the charm of whose intellect and the elegance of whose manners drew a good many learned men to Rome for converse with him, born in the Year 1453, on the 20th day of May, at $12^h\ 50^m$ after noon, ♃ alone is placed in the horoscope, moderately strong, and stands as the significator of manners. As participant, however, it takes Mars, in whose essential dignity it is situated. These Planets therefore marked out for this man very elegant and praiseworthy manners. ♃ n. excited in him a love of honest things and of the studies of the arts, especially as it stands in the middle of heaven, ♐, a rational sign and apt for studies. ♂ added sharpness of intellect, and excited more ardent impulses in his mind, which, however, the principal significator ♃ tempered with wonderful gravity and grace, and adorned. He was therefore most learned in almost all kinds of sciences, most averse to all barbarism, modest, grave, prudent, noble-minded, open; on account of which gifts of nature he was also created Patriarch of Aquileja.

[Margin: The nativity of Ermolao Barbaro [Hermolai Barbari].]

Thus in the nativity of Angelo Poliziano [Angeli Politiani], *a most celebrated Orator and Poet*, born in the Year 1454, on the 14th day of July, at $1^{h}\ 28^{m}$ P.M., ♄ alone is placed in the East, peregrine and weak. Its dispositor is the other malefic, ♂, striking Saturn at the same time with an almost partile opposite ray from the angle of the west, likewise weak and peregrine, yet joined to ♃: These weak significators therefore produced in him manners not very praiseworthy: ♂ indeed, since it is corrected by the neighbouring Jupiter, stirred up sharpness of intellect and an impulse toward the oratorical faculty: but ♄ added peevishness, faithlessness, an importunate gravity, so that he could not be faithful even to himself. For, having taken poison, he at length inflicted a violent death on himself.

[Margin: Of Angelo Poliziano [Angeli Politiani].]

In the same way, in the nativity of Gian Giacomo Medici [Ioannis Iacobi Medicis], which Cardano [Cardan.] places sixth among those which he added to the commentary on the Quad. of Ptolemy [Ptol.], Mars alone stands in the horoscope as significator of manners, but in the house of ♀, which is a co-significatrix. ♂ therefore, in ✶ with ☉ and in △ with ♃, signified for him vehemence, irascibility, a ready hand, fortitude with a certain rashness, sagacity, magnanimity and a desire for revenge. And because ♀, which is afflicted by ♂ with a □ ray, was a participant in the signification of manners, therefore he was given to pleasures and lusts. Hence, since ♂ too was in its exile, various signs of wickedness appeared in him: violence, cruelty, rashness, ambition and extravagance.

[Margin: Of Gian Giacomo Medici [Ioannis Iacobi Medicis].]

The second, *When several Planets occupy the horoscope, all are significators of manners, and produce a variety of manners. The strongest among them, however,*

[Margin: The second, if several hold the horoscope,]

Diagram. Horoscope figure of Hermolaus Barbarus, upper left of the leaf.

- Centre: Natus est Hermolaus Barbarus Anno 1453 / Maij Die Hor. / / 21 12 50 P.M. / Poli elevatio 45 gr. / Venetijs. / Vixit annos 66 — "Hermolaus Barbarus was born in the Year 1453, May, Day 21, at $12^{h}\ 50^{m}$ P.M. Elevation of the pole 45°. At Venice. He lived 66 years."
- Top middle: ♐ 22 48
- Top left, upper triangle: ♍ 9 50
- Top left, lower triangle: ♒ 1 50
- Top right, upper triangle: ☊ 16 38; ♐ 4 30
- Top right, lower triangle: ☽ 0 13; ♏ 6 40
- Right middle: ♄ 24 10; ♎ 0; ♍ 15
- Bottom right, upper triangle: ♌ 1 50
- Bottom right, lower triangle: ♋ 9 50; ♂ 18 50
- Bottom middle: ♊ 22 48
- Bottom left, lower triangle: ☉ 9 5; ☿ 16 15; ♉ 16 38
- Bottom left, upper triangle: ♉ 6 40; ♀ 15 5; ♊ 4 30

- Left middle: ♎[III] 15 0; ♃ 8 36 [?]

Diagram. Horoscope figure of Angelus Politianus, upper right of the leaf.

- Centre: Natus est Angelus Politianus Anno 1454 / Iulij Die Hor. / / 14 1 28 P.M. / Poli Elevatio 43 grad. / Florentiæ. — "Angelus Politianus was born in the Year 1454, July, Day 14, at 1^h 28^m P.M. Elevation of the pole 43 degrees. At Florence."
- Top middle: ♌ 22 8
- Top left, upper triangle: ♍ 25 3
- Top left, lower triangle: ♎ 19 54
- Top right, upper triangle: ☉ 29 36; ♋ 12 5
- Top right, lower triangle: ☿ 10 56 ♋; 5 24; ⊕; ♀ 13 46; ♊ 7 3 [numeral: ?]
- Right middle: ♉ 24 30; ♃ 28 0; ♂ 12 11
- Bottom right, upper triangle: ♉ 12 0; ♈ 19 54
- Bottom right, lower triangle: ♓ 25 3; ⊕ 17 36 [?]
- Bottom middle: ♒ 22 [?]; ☽ 23 0
- Bottom left, lower triangle: ♍ 12 5
- Bottom left, upper triangle: ♐ 7 36
- Left middle: ♏ 12 0; ♄ 15 14; ☊ 24 30

Diagram. Horoscope figure of Joan Jacobus Medices, lower left of the leaf.

- Centre: Nascitur Illustris Joan Jacobus Medices Princeps Anno 1498 / Mense Febr. / Die Hor. / / 13 3 22 A.M. / Poli elevatio 44 gr. — "The Illustrious Prince Joan Jacobus Medices is born in the Year 1498, in the month of February, Day 13, at 3^h 22^m A.M. Elevation of the pole 44°."
- Top middle: ♍ 15; ☊ 21 27; ⊕ 28 23
- Top left, upper triangle: ☉ 4 11; ♀ 6 27; ♒ 4
- Top left, lower triangle: ♓ 6; ☿ 6 26; ♄ 21 26; ♓
- Top right, upper triangle: ♃ 9 24; ♐ 28
- Top right, lower triangle: ♐ 8
- Right middle: ☽ 2 34; ♏ 0
- Bottom right, upper triangle: ♍ 6
- Bottom right, lower triangle: ♌ 4
- Bottom middle: ♉ 21 27; ♋ 15
- Bottom left, lower triangle: ♊ 28
- Bottom left, upper triangle: ♊ 8
- Left middle: ♉ 0; ♂ 1 28

Diagram. Horoscope figure of Rodolfo Pio da Carpi [Rudolph. Pius], lower right of the leaf.

- Centre: Nascitur Rudolph. Pius Cardinalis Carpo: / An. 1500 Febr. / Die Hor. / / 23 17 58 P.M. — "Rudolph. Pius, Cardinal of Carpi, is born: Year 1500, February, Day 23, at 17^h 58^m P.M."
- Top middle: ♉ 12 15; ♐ 10 47
- Top left, upper triangle: ☽ 7 [numeral: ?]6; ♐ 26 37

[III] another copy of this printing (BSB 10501686) sets ♓ here

- Top left, lower triangle: ♍ 16 36; ♒ 22 0
- Top right, upper triangle: ♏ 21 3
- Top right, lower triangle: ♎ 1[numeral: ?] 43
- Right middle: ♌ 22 0
- Bottom right, upper triangle: ♋ 16 36
- Bottom right, lower triangle: ♊ 26 37
- Bottom middle: ♊ 10 47; ☊ 12 15
- Bottom left, lower triangle: ♉ 21 3; ♂ 24 42
- Bottom left, upper triangle: ♈ 15 43; ♄ 17 41
- Left middle: ♃ 7 23; ☉ 14 36; [?] 19 56; ♀ 26 45; ♓

excites manners more durable through the whole course of life, and coherent with most actions. The rest excite less durable ones, and such as last only for a time. But which manners, at what time especially they will show themselves in the native, and how long they will last, the directions of the Moon and of the horoscope show. For when they reach Venus, they excite Venereal manners, such as cheerfulness, honesty, sweetness, etc.; when [they reach] ♄, or come upon its rays, Saturnine manners, such as gravity, taciturnity, peevishness, etc.; and so of the rest.

[Margin: Nativity of Rodolfo Pio da Carpi [Rodolphi Pii], Cardinal.]

As in the chart of Rodolfo Pio da Carpi [Rodolphi Pij], Cardinal, born in the year 1500, February 23, at 17^{h} 58^{m} P.M., ♃ ☉ ☿ and ♀ are placed together in the horoscope. These therefore are all significators of the manners: yet ♃ and ♀ hold the principal parts in deciding the manners, which are stronger than the rest, ♃ indeed in its own house, ♀ in its exaltation, above all ♃, whose nature ☉ also assumes by reason of the sign. He was therefore endowed with praiseworthy and good manners, he was gentle, grave, faithful, just, cheerful, handsome, on account of ♀ eloquent, liberal and most munificent toward those endowed with virtue, a philosopher, fluent, and an outstanding theologian, see Gaurico [Gauric.] in nativ. tract. 2.

[Margin: Third. When none occupies the horoscope, let the one joined to the Moon or to Mercury be consulted]

Third. *When no planet is situated in the horoscope or in an intercepted sign, it is to be seen whether any of the planets is joined to the Moon or to Mercury, and according to its nature the manners of the native are to be judged.*

[Margin: Nativity of George of Trebizond [Georgii Trapezuntij].]

[Margin: Of Marcello Cervini [Marcelli Cervini], Cardinal.]

Just as in the nativity of George of Trebizond [Georgii Trapezuntij], born (as Cardano has it in example 2 of 100 Genit.) in the year 1396, April 4, at 12^{h} 30^{m} P.M., Mars is joined to Mercury. Therefore, being the sole significator in that nativity, it signified manners to him from its own nature. And since ☿ is weak and unfortunate on account of combustion, and because it is peregrine and joined to Mars, he was endowed with manners not altogether praiseworthy. For he is written to have been deceitful, sly, inconstant, crafty, not very sincere, meddlesome, fraudulent, quarrelsome. So in the nativity of Marcello Cervini [Marcelli Cervini], born in the year 1501, no planet is placed in the horoscope.

But Saturn alone is joined to Mercury, for which reason he was endowed only with Saturnine and Mercurial manners. For he was, as Gauricus writes tom 2 pag. 160[numeral: ?], melancholic, taciturn, thoughtful, upright, modest, outstanding in intellect, and most skilled in Latin and Greek letters.

[Margin: Fourth. When several are joined to the Moon or to Mercury.]

Fourth. *When several planets are joined to ☽ or ☿, or when to both, that is, to Mercury and ☽ together, some planets are joined, all are significators of the manners, just as when several planets are placed in the horoscope: but yet among them the strongest produces the most evident and durable manners, the rest however less conspicuous ones, which only show themselves at times, and last for some time, but do not accompany the native through the whole life.*

[Margin: Nativity of Joseph Scaliger.]

Just as in the nativity of Joseph Scaliger, born in the year 1540, August 5, several planets are joined to ☽ and Mercury. To Mercury indeed, in a fiery sign, ♃, which signifies for him a singular sharpness of intellect and knowledge of many things, eloquence, and from these authority, likewise integrity of manners and the worship of religion and constancy. But to the Moon are coupled, in an airy sign, ♀ in its own house on the right, Saturn in its exaltation on the left, which placements procured for him alacrity, readiness and charm in actions, mixed with gravity. The partile sextile of Jupiter, from its own triplicity, also breaks the malignity of Saturn, if there were any. From this he is placed in authority among his equals, in favour with his superiors.

[Margin: Fifth, the lord of the horoscope, of the manners signifi-]

Fifth. *When no planet is situated in the horoscope, nor is any joined to the Moon or to Mercury, the lord of the horoscope is appointed significator of the manners, and according to its nature and condition, as said in the first rule, it is pronounced concerning the quality of the manners: on this condition, however, if the lord of the horoscope itself regards the same partilely by some aspect.*

[Margin: -cator is appointed, if it aspects the horoscope itself partilely.]

Diagram. Horoscope figure of George of Trebizond [Georgius Trapezontius], upper left of the figure block.

- Centre: Nascitur Georgius Trapezontius Anno 1396 / April: Die Hor: / / 4 12 20 P.M. / In Creta Insula, cujus latit: est 36 part: — "Georgius Trapezontius is born in the Year 1396, April, Day 4, at 12^{h} 20^{m} P.M. On the island of Crete, whose latitude is 36°."
- Top middle: ♁ 11 25; ♎ 24
- Top left, upper triangle: ♄ 20 32; ♏ 18
- Top left, lower triangle: ♐ 9
- Top right, upper triangle: ♍ 20
- Top right, lower triangle: ♌ 7
- Right middle: ☊ 11 44; ♋ 3
- Bottom right, upper triangle: ♊ 9
- Bottom right, lower triangle: ♉ 18; ♃ 1; 4
- Bottom middle: ♈ 24; ♀ 7 18

- Bottom left, lower triangle: ♓ 20; ☉ 23 55; ☿ 17 11; ♂ 10 15
- Bottom left, upper triangle: ♒ 7; ☽ 2 20
- Left middle: ♍ 3; ♉ 11 44

Diagram. Horoscope figure of Marcello Cervini [Marcellus Cervinus], upper right of the figure block.

- Centre: Nascitur Marcellus Cervinus in oppido Montis Fani: Anno 1501 / Maij Die Hor: / / 5 23 19 P.M: / Elevatio poli 43 — "Marcellus Cervinus is born in the town of Montis Fani: Year 1501, May, Day 5, at 23^{h} 19^{m} P.M. Elevation of the pole 43."
- Top middle: ☿ 14 48; ♄ 8 19; ☉ 24 45; ☊ 19 51; ♉ 15 42
- Top left, upper triangle: ♊ 23
- Top left, lower triangle: ♋ 28
- Top right, upper triangle: ♀ 0 10; ♃ 22 28; ♈ 11
- Top right, lower triangle: ⊕ 5 49; ♂ 20 45; ♓ 15
- Right middle: ♒ 23 54
- Bottom right, upper triangle: ♍ 28
- Bottom right, lower triangle: ♐ 23; ☽ 6 40; ⊕ [numeral: ?]1 59
- Bottom middle: ♉ 19 5; ♏ 15 42
- Bottom left, lower triangle: ♎ 11
- Bottom left, upper triangle: ♍ 15
- Left middle: ♌ 23 54

Diagram. Horoscope figure of Joseph Scaliger [Iosephus Iustus Scaliger], lower left of the figure block.

- Centre: Nascitur Iosephus Iustus Scaliger Iulii Cæsaris filius Anno 1540 / August: Die Hor: / / 5 13 30 P.M. / Sub Elevatione poli 44 — "Iosephus Iustus Scaliger, son of Iulius Cæsar, is born in the Year 1540, August, Day 5, at 13^{h} 30^{m} P.M. Under an elevation of the pole of 44."
- Top middle: ♓ 16; ☊ 9 50
- Top left, upper triangle: ♈ 23
- Top left, lower triangle: ♊ 9
- Top right, upper triangle: ♒ 22
- Top right, lower triangle: ♒ 3
- Right middle: ♍ 11
- Bottom right, upper triangle: ♐ 9
- Bottom right, lower triangle: ♎ 23; ♂ 4 12 ♏
- Bottom middle: ♍ 16; ♀ 7 12; ☽ 8 30; ♉ 9 50; ♄ 11 4[numeral: ?]
- Bottom left, lower triangle: ♌ 22; ☉ 22 15
- Bottom left, upper triangle: ♌ 3; ♃ 12 [numeral: ?]7; ☿ 20 18
- Left middle: ♋ 11

Diagram. Horoscope figure of Andrea Alciato [Andreas Alciatus], lower right of the figure block.

- Centre: Nascitur Andreas Alciatus Iurisconsultus Anno 1492 / Maij Die Hor: / / 8 18 23 P.M. / Sub elevatione poli 45 Gr. 6/. — "Andreas Alciatus,

jurist, is born in the Year 1492, May, Day 8, at 18^h 23^m P.M. Under an elevation of the pole of 45° 6′."

- Top middle: ♒ 28 44
- Top left, upper triangle: ♉ 13 0; ☿ 15 50 ♉; ♂ 17 11; ♈ 0
- Top left, lower triangle: ♉ 21; ☉ 27 25
- Top right, upper triangle: ♒ 8
- Top right, lower triangle: ♍ 21
- Right middle: ♄ 20 28; ♐ 25
- Bottom right, upper triangle: ♏ 21
- Bottom right, lower triangle: ☊ 13 0 ♏; ♎ 0 1; ☽ 20 13
- Bottom middle: ♌ 28 44
- Bottom left, lower triangle: ♌ 8
- Bottom left, upper triangle: ♋ 21
- Left middle: ♊ 26; ♀ 27 26; ♃ 9 30

[Margin: Nativity of Paul Eber.]

Just as in the nativity of Doctor Paul Eber no planet indeed is found in the horoscope, nor is any joined even to ☽ or to Mercury. Mercury however, lord of the horoscope, regards the very cusp of the ascendant partilely with a □ from ♐, a Jovial sign. From this, just as he was distinguished by sharpness of intellect, and conspicuous for his outstanding learning, so also he was endowed with manners praiseworthy and honest, yet somewhat varied: For he was faithful, beneficent, liberal, composed in conversation, but at the same time shrewd and deceitful.

[Margin: The sixth aspecting the Moon or Mercury partilely.]

Sixth, *If the dispositor of the lord of the horoscope regards the horoscope itself by no aspect, it will have to be seen which one aspects ☽ or ☿ partilely, and according to its nature, as we advised in rule 1, the qualities of the manners will have to be judged. But if several planets aspect the Moon, or Mercury, or both together, it will be just as if several planets were placed together in the horoscope, as said in rule 2. For all produce a variety of manners, yet of such a kind, in which the manners denoted by that very planet will be most conspicuous which is the strongest among them, and strikes ☽ or ☿ most with a partile ray. The quality of the ray is also to be considered, namely whether it is benign or hostile.*

[Margin: Example of Camerarius.]

Just as in the nativity of Joachim Camerarius, as no planet exists in the horoscope, so neither is any joined to Mercury or the Moon. But ♀ regards Mercury with a partile ✶ from the house of Mercury: from this this placement not only bestowed on him intellect and a singular faculty for oratory and poetry, but also attributed to him charming and amiable manners and the worship of religion and of piety, and the means of dispatching grave affairs with dexterity.

[Margin: The seventh the lord of the places of the Moon and of Mercury significator of the manners.]

Seventh. *When according to none of these rules the significator of the manners can be drawn out, let the almuten of the places of ☽ and ☿ be taken, that is, the planet*

which holds the most essential dignities in the said two places of ☽ and ☿, and let it be appointed significator of the manners.

Just as in the nativity of Philipp Melanchthon, likewise neither is any planet found in the horoscope, nor any coupled to the Moon or Mercury, by body or by aspect. Mercury itself is therefore taken, which rules in the place of the Moon and of Mercury, which, since it is both lord of the horoscope and strong, signified for him composed manners and an excellent sharpness of intellect and singular learning.

It has seemed good moreover to bring in here also the nativity of Andrea Alciato [Andreæ Alciati], jurist, who, although according to the second rule he had ♀ in the horoscope, in ♊, with Jupiter in the following sign ♋: yet ♃ and ♀ alone cannot be appointed significators of the manners, because ♀, which approaches most nearly to the cusp of the first, was in mutual reception with ☿ from domicile. For ☿ disposed Venus, and ♀ Mercury: And therefore ☿ took some part of the judgement for itself; but since it is varied and indifferent and is judged chiefly from the planet joined to it; ♀ with Mars seem in that nativity to have disposed the manners, with the testimony of ♃ added. From this, by reason of the beneficent ♀, charming, cheerful, benevolent, humane manners were designated; ☿ also, being a participant and well disposed, decreed for him an admirable excellence of intellect, and made him studious and capable of various learning, an outstanding poet and doing everything with dexterity: but ♂ inclined his intellect to curiosity about the affairs of others and to quarrels, from which many enmities and other troubles arose for him, yet chiefly for the sake of defending the truth, which ♃ denotes.

Let there also be noted here the aphorism of Cardano [Cardan.] 1 Aph. 82: If someone's nativity is unknown, only see in what things the man takes delight, and you will have the planet predominating over the qualities of the mind.

[Margin: The natures of the planets in the judgement of manners.]

Since, however, the judgement of manners is much easier if one has ready to hand what kinds of manners are signified by the individual planets in particular, we, in order to assist the studies of learners in this part, will enumerate the significations of each from Ptolemy [Ptol.] cap. 17 libr. 3 quadr. and Haly part: 4 cap. 9; having first set out, however, the natures of the planets from cap 12 libel. 3 de jud. Genit. Cardano [Cardan.] ♄ signifies memory, patience; ♃ counsel, judgement, prudence; ♂ boldness, sharpness, promptness, anger; ☉ gravity, moderation, continence and pride; ♀ pleasure and concupiscence; ☿ intellect and imagination; ☽ reason and discourse: And by two aphorisms of Cardano [Card.], which set out the matter summarily. ♄ envious; ♃ intent on riches; ♂ raging, ☉ ambitious; ♀ luxurious; ☿ crafty; ☽ makes a vagabond 2 Aphor. 173.

♂ makes prodigal; ♃ liberal; ♀ incontinent with money in pleasures; ☽ tenacious; ☉ continent; ☿ sparing; ♄ avaricious 6 Aph 125.

[Margin: ♄]

Saturn, then, as sole significator of the manners, strong and well disposed, makes people grave with a certain authority, thinking deep things, disputing gravely about matters, as being of good counsel and of deep intellect, lovers of

hidden things, taciturn, solitary, because they take counsel from themselves in their own affairs, patient of labours and troubles, heapers-up of wealth, sparing, desirous of dominion and of money, eager for their own advantage, jealous; having care of their own body, in promises not always truthful (For it is never so well constituted that it wholly puts off its natural malice) lovers of agriculture, dear to kings and to famous men. But weak and unfortunately placed, it produces men of no authority, abject, squalid, thinking humble things, querulous, negligent, timid, fleeing the light and lovers of solitude, sad, shameless, base, obstinate, suspicious, livid, detractors, envious, ἐπιχαιρεκάκους [Greek: epichairekakous, "rejoicing at the misfortunes of others"], superstitious, uncultivated, malignant, laying snares for their own and fearing snares, avaricious, harsh, lazy, deceivers, liars, pursuing the good with hatred, see also Cardano [Card.] 4 Aph 17 & 98.

[Margin: ♃]

Jupiter, as sole significator of the manners, strong and well disposed, makes people honest, religious, renowned, just, beneficent, humane, benevolent, faithful, modest, chaste, magnanimous, splendid governors, caring for great things, grave with a certain moderation, devoted to their own business, prudent, living in orderly fashion, lovers of themselves and of their kindred, candid, open, liberal. Feeble and unfortunately placed, it makes manners almost similar to the former, but more obscure and more diluted, inclined to the extremes, as, in place of piety, superstition; in place of fidelity, a counterfeit and simulated candour; in place of magnanimity, arrogance of mind and pride; in place of modesty, shamelessness and timidity; in place of prudence, hesitation, negligence, obstinacy; in place of liberality, prodigality. Such men also serve demons secretly; Cardano [Cardan.] 4 Aph. 34.

[Margin: ♂]

Mars, as sole significator of the manners, strong and well disposed, produces people generous, contemptuous of others, suited above all to the governance of soldiers, spirited, brave, irascible, cruel, fighters, eager for arms, vehement of hand, prompt, open, with a certain rashness not fearing dangers, desirous of vengeance, impatient of servitude and of injuries, boastful, caring little for riches. But weak and unfortunate, cruel, unjust, quarrelsome, tyrannical, despising GOD, ruling their own citizens badly, truculent, Thrasos, rash, destroying what is others' and what is their own, shameless, extravagant, drunken, turbulent, shedders of blood, fierce in provoking and, when it comes to the point, timid, authors of discords, robbers, arrogant, seditious; Cardano [Card.] 4 Aph. 42 & 98.

[Margin: ☉]

The Sun, although in the judgement of manners it is not principally employed by Ptolemy [Ptol.] and Leovitius, just as neither is the Moon, who in place of the luminaries take their dispositors or lords; yet, as it is also adopted by Cardano, when the principal signification pertains to it, as for instance when it is either in the horoscope, or is joined to Mercury, or is lord of the horoscope:

For it then makes, Cardano [Card.] 4 Aph. 47, people famous, just, brave, magnanimous, chaste, prudent, pious, faithful, of true dreams, guardians of friendship, not loving their children, and their wives still less, most eager for honours and dignities, cruel also and holding on to anger, neat and clean: So by Ptolemy [Ptol.] text. 74 lib. 3 quad., and Haly part. 4 cap. 9 it is not wholly neglected. For it decrees the manners according to the nature of its dispositor: and if it lacks a dispositor, that is, when it is in its own domicile, it does indeed decree something, but very generally. Therefore the remaining significators too, of which it was said in the last two rules, are then to be employed for the judgement. But having an agreement with the principal significator, or even being a participant in the signification, it greatly assists the principal significator, and promises something outstanding from its own nature. For a strong ☉ adds gravity joined with splendour: But a weak one diminishes the goodness of the principal significator, and as it were dilutes the manners signified by it and renders them imperfect.

[Margin: ♀]

Venus, as sole significatrix of the manners, strong and well constituted, makes people charming, good, suited to winning the goodwill of men, glad, cheerful, handsome, graceful in their gestures, elegant, beneficent, merciful, peaceable, and inclined to pleasures, given to neatness and to dances, lovers of delights, exercising a natural benevolence toward their own, sociable, worshipping GOD religiously, impatient of labours, of anger, of quarrelling and of misfortune. For the nature of women, as Haly teaches, part. 1 cap. 4, is effeminate, which is roused and grieves for a slight cause. But weak and unfortunate, womanizers, timid, lovers of girls, and incurring much loss in love, careless of good repute or ill repute, unwarlike, cowardly, suitors, inclined to lust, jealous.

[Margin: ☿]

Mercury, as sole significator of the manners, strong and well disposed, makes people excellent in sharpness of intellect, studious, capable of the disciplines, teachable, sagacious, bringing ancient and secret things back into the light, sly, skilful, cautious, conjecturing well, and doing everything with dexterity, Poets, Geometers, Mathematicians, learning easily and much without a teacher, eloquent, disputing elegantly about matters, composed in manners, accommodating themselves to any persons and to the time, good imitators, readily embracing trade, lovers of painting, sculpture and the plastic art, Cardano [Card.] 4 Aph. 49. But feeble and unfortunate, unstable, malevolent, malicious, sly, perfidious, liars, especially with ♉, in the essential dignity of the malefics, and afflicted by them, simulators and dissimulators of any matter whatever, secretly contriving snares and frauds, and dangerous counsels, forgers, thrusting themselves in everywhere, forgetful, stupid, infamous, blundering, etc.

The Moon, finally, if it presides over the manners, in the opinion of Cardano [Card.] 4 Aph. 51, makes people obstinate, vain, of blunt intellect, vagabonds, vile, timid, useless, and of no service. Badly placed, it also makes fools. But although Ptolemy [Ptol.] and Leovitius [Cypr.], as said, do not grant the

signification of the manners principally to the luminaries, but only to their dispositors or lords: yet we judge that it is not badly employed then, when it is joined to the chief significator, or otherwise, through a benign aspect or mutual reception, agrees with it. For also according to Ptolemy [Ptol.] text. 74 libr. 3 quadr. and Haly part. 4 cap. 9. the Moon greatly assists the significations set forth: And in the limits of latitude, both northern and southern, it produces changeable spirits, wandering widely, of many arts, and inconstancy in all things. In the nodes, subtle spirits, of light motions, and of good intellect in affairs. *Waxing in light* it increases the renown of the native, and makes him more open and sincere in manners, careful in his business. *Waning*, it denotes the native as base, of little name, counterfeit, and slow in his affairs. And from these it can now easily be understood what manners any planet, existing as sole significator, is accustomed to decree.

[Margin: When several planets are significators of the manners, how the mixture is made.]

Since, however, it rarely happens that one planet alone is the significator of the manners, it will now have to be shown how the significations of several planets are to be mixed with one another. In this commixture, certainly, no moderate diligence and judgement is needed. For first *it is to be seen which are the significators of the manners, and which of them is the principal, but which the less principal and participant.* Second *it is to be considered whether both are strong and weak, or whether one only is strong and the other weak, and whether the principal significator is strong, but the less principal weak, or the reverse. For since the principal significator of the manners, holding the first parts in decreeing the manners, bestows more evident manners, and lasting through the whole life. The less principal or participant, holding the second parts, decrees more obscure manners, and not so durable. Therefore, if they signify manners contending with one another, let such a mixture be made, in which the qualities of the principal significator prevail and win, especially when both are at once strong or at once weak. But when the principal significator is strong, but the other, the participant, weak, the judgement of the manners is to be established from the nature of the principal significator, yet in such a way that the weakness of the participant takes something away from those significations. When, finally, the participant is strong and the principal weak, manners are decreed for the native from the nature of the principal significator, counterfeit and obscure, which the native will indeed often try to amend and correct on account of the strong participant; yet in most actions of life this attempt will be vain, and the manners of the principal significator will recur. But so that the method of mixing together the significations of several planets in the manners may be more rightly perceived, I shall propose some examples of this mixture and also of assimilation.*

[Margin: Saturn and Jupiter significators of the manners together, and strong.]

When ♄ and ♃ are significators of the manners, and each is strong and well disposed, they will make manners most praiseworthy. For to the gravity and modesty which ♄ produces, Jupiter will add a fitting moderation, and elegance.

Such men therefore will be grave with moderation, upright, modest, pleasant and agreeable in conversations and in familiar intercourse; they will cultivate justice, and will love honesty and equity; in counsels they will be grave, and Fabii or delayers, undertaking nothing rashly; in elections and administrations they will apply measure and reason; they will attend their friends and household with a benevolent look, and will display mildness, gentleness and evenness everywhere. For the benignity of Jupiter will temper and dilute the nature of the malign ♄: There will also be in the minds of such men a singular deference and reverence toward old men, magistrates, teachers, and in general those in whom they detect signs of wisdom and virtue. And since ♃ bestows rectitude of judgement, but ♄ loves contemplation; there will be roused in such men a zeal for the honourable arts, a desire of investigating abstruse and hidden things, gravity of life, in teaching and learning the investigation of truth, prudence, love toward country matters: for ♄ presides over the earth, but ♃ loves and produces abundance. They will therefore love estates, the cultivation of fields, of gardens, etc. See Pontano [Pont.] lib. 6 de reb. cælest. c. 1. [Margin: Weak.] But when both are weak and badly affected, they make the mind of the native estranged from friendships and from familiarity with men, malevolent, neglectful of himself and of his own, loving solitudes, in which he will be wonderfully delighted, suspicious, a dissembler of his own counsels, a concealer, sacrilegious, an idle whisperer, administering affairs confusedly without discrimination or judgement, inept, faithless, feigning piety, ambitious, perpetrating crimes under the pretext of good, unjust, etc. When one of them is strong, the other weak, the strong one indeed decrees manners according to its own nature, yet diluted and more obscure. For it remits something of its own nature on account of the weakness of the other.

[Margin: Saturn assimilated to Jupiter, what it signifies.]

But if ♄ is assimilated to Jupiter (that is, according to 20 Aphor. Cardano [Cardan.] segm. 4, stands in the dignities and aspect of Jupiter; let it, namely, be in ♐, Jupiter being in ♎ ✶ ♄) and moreover is well disposed, in any of its dignities (let it, namely, be free from combustion and from the rays of ☉, also from the rays of the malefics, direct, Oriental, in an angle, conjoined with a beneficent fixed star, swift in course, diurnal above, nocturnal below the earth, increased in light), the native will be very prudent, magnanimous, quiet, a Philosopher and a minister of the realm, 4 Aph 23. But if it has been badly disposed, (that is, as Cardano [Cardan.] 4 Aphor. 18 explains, has stood in the contrary of its dignities, entering the rays of ☉, retrograde, struck by the rays of the malefics, Occidental, nearest to the Sun by 30°, cadent from an angle, conjoined with a bad powerful fixed star, impeded, stationary, slow-paced, sylvan, diurnal below the earth by day, or by night above the earth, nocturnal in the contrary way, Oriental vespertine, Occidental matutine, and diminished in light) the native will be without sense, obstinate, given to vain arts, solitary and wearisome, difficult, unfortunate, 4 Aphor. 23.

[Margin: Saturn and Mars significators of the manners.]

If ♂ is associated with Saturn in the judgement of the manners, in a prosperous constitution, men are made who undertake many things without discrimination, and do not complete those very things, since the heat of Mars incites, the cold of Saturn restrains and deters; turbulent boasters, seditious, θρασυδείλους [Greek: thrasydeilous, "bold cowards"] (timidly bold) merciless, implacable, disdaining others, puffed up, vainglorious, windy, fraudulent, tyrannical, harsh, wicked, inhuman, deceitful, crafty, very covetous, greedy for gain, seeing the death of brothers: for ♄ signifies death, ♂ brothers. But in an adverse constitution it makes robbers, highwaymen, evildoers, insolent men, given to base and infamous gain, plotters, thievish, sacrilegious, violators and despoilers of tombs, perjurers, violators of all humanity, voracious, and so prone to the belly that they do not abstain even from forbidden foods, poisoners, and utterly wicked, Pontano [Pont] libr. 6 cap. 2.

[Margin: Saturn assimilated to Mars.]

Thus Cardano [Card.] 4 Aph. 24 teaches: If ♄ is assimilated to Mars, well disposed, the native will be obstinate, cruel, a traitor, rash, talkative, irascible, a flatterer; he will pursue Gods and men with hatred, he will be an assassin, he will be moved by no prayers, by no reasons, a gambler, a boaster, immoderate in all things, laborious, wretched, harmful, criminal, incestuous. If it is badly disposed, these will be stronger, and the native will be a thief, a robber, impious, and altogether unfortunate. Nor will dissimilar things be signified if Mars is assimilated to Saturn, except that he will retain the properties of Mars more. For he will be bolder, more irascible, and headlong, but less a traitor and dissembler, avaricious and envious, 4 Aph. 25.

[Margin: Saturn and Venus significators of the manners.]

If ♀ is united with Saturn, and it is itself fortunately placed, it denotes men estranged from women, shrinking from ambition, from company, and from beautiful things and persons, inclined toward old men, graceless, harsh, envious, leaning on their own opinions, irascible, religious, eager for mysteries and oracles, Philosophers, faithful, steady, cautious, irascible, suspicious in marital matters and jealous. Unfortunately placed, lascivious, inconstant, obscene, unclean, infamous, inclined even to Venus forbidden by laws and nature, detractors, tipsy, drunken, acting without deliberation; impious, irreligious, mockers of the Gods, profaners of mysteries and sacred things, leaving nothing unattempted, see Pontano [Pont.] lib. 6 cap. 3.

[Margin: Saturn assimilated to Venus.]

Thus if ♄ is assimilated to Venus, well disposed, the native will be a hater of women, and will spurn beautiful things, and will be faithless, a deceiver, evil-speaking, of hidden counsel, peaceable, a diviner, modest, Jealous, wearisome, middling in cleanliness; he will not believe his own law, yet he will fear GOD. For ♄, when it is assimilated to Venus, is in some way good. But when it is joined to her, bad Cardano [Card] 4 Aph. 61. But badly disposed, the native will be a drunkard, polluted with every Venereal outrage; he will desire to suffer, not only to act; he will even be inclined to intercourse with beasts,

contemplating things worse than these, evil-speaking, most envious, unclean, idle, slothful, wretched and unfortunate, 4 Aph. 26.

[Margin: Saturn and Mercury significators of the manners.]

If Saturn is united with Mercury, and is placed in an honoured place, natives are made curious, eager to inquire into secrets, investigators of law, studious of healing, architects of wonders, Sophists, captious, carefree or living from day to day, agile, skilful, cautious, sharp, somewhat bitter, sober, industrious, Pontano [Pontan.] libr. 6 cap. 4. But unfortunately placed, it makes natives sad, perverse, mindful of injury, hard, laborious, haters of their own, envious, thieves, merciless, Magi, enchanters, deceitful, and men who satisfy their desire by evil arts.

[Margin: Saturn assimilated to Mercury.]

Thus if ♄ is assimilated to Mercury, and is well disposed, it makes a good intellect, and one wonderful for all things; he will know hidden things, he will be envious, crafty, evil-speaking, a Sophist. *If* badly, he will be a deceiver, a Necromancer, a liar, laborious, unfortunate, most envious, hateful to his kin, he will pass restless nights, Cardano [Cardan.] 4 Aph. 31.

[Margin: Saturn assimilated to the Sun.]

If ♄ in a good disposition is assimilated to the Sun, it will signify the native as religious, taciturn, faithful, proud in mind, and sometimes cruel. But in a bad one, a despiser of GOD, most avaricious and most proud, a great dissembler and uneven 4 Aph. 27. [Margin: Saturn assimilated to the Moon.] If ♄, well fortunate, is assimilated to the Moon, it involves the native in vile occupations, who loves sordid and vile things, and is benign in appearance but a deceiver, and is avaricious, obstinate, and loves old women. Unfortunate, it makes the native wretched, perjured, most obstinate, most timid, a vagabond, unfortunate, of no esteem, even if he has been a prince, yet always a lover of country matters, 4 Aph. 28.

[Margin: Jupiter and Mars significators of the manners.]

When ♃ and ♂ are significators of the manners, and each is strong and well affected, they make natives pugnacious, bold, arrogant, obeying no one, exposing themselves willingly to dangers, busy, presiding over tribunals, pronouncing sentence on others, of free speech, harsh, contentious, striving after primacy, spirited, ambitious, taking to themselves judgement about every matter, Pontano [Pontan] :lib. 6 cap. 5 rer. cœl. Such men are also fortunate in Medicine and Surgery. Badly affected and weak, they denote natives insolent, obstinate, irreconcilable, contentious, stubborn, calumniators, changeable, rash, laying hands on anyone whatever, querulous, fickle, prodigal, turbulent, seditious, unfortunate, triflers, etc.

[Margin: Jupiter assimilated to Mars.]

Thus if ♃ is assimilated to Mars, in a fortunate state the native will be most brave, most prudent in warfare, an avenger, cunning, cruel, magnanimous, very irascible, desirous of honour, fortunate, advancing himself to greater things. But in an unfortunate state he will be shameless, holding others cheap, proud,

disobedient, a plunderer, penitent, fickle, faithless, most savage, squandering his own without sense and without counsel, rash, a despiser of GOD.

[Margin: Jupiter and Venus significators of the manners.]

When ♃ and ♀ signify the manners in a happy state, they denote natives of most agreeable manners, cheerful and given to pleasure, lovers of beautiful things, desirous of knowledge and of music, singers, jocular, witty, not at all bad, pious, worshippers of GOD, eager for contests, prudent, lovers of charm, but not without majesty, liberal, modest, honest in Venereal matters, lovers of equity, ambitious, and in general decently and elegantly upright, and therefore agreeable to all: from which this one, placed, raises the poor native out of the dung, and makes him acceptable to all. Unhappily placed, they give natives given to delights, effeminate, extravagant, amorous, sluggish, sleepy, adulterers, too much given to adornment, soft, prodigal, pimps, yet trustworthy and not wicked, pleasant in company, and affable, Pontano [Pont], lib. 6 cap. 6.

[Margin: Jupiter assimilated to Venus.]

Thus if ♃ ♀ is assimilated, the native will be very pious, loving, agreeable, just, humane, splendid, neat, clean, most liberal; desirous of jest and of food, upright, faithful, observant of his kinsmen by marriage, he will love his friends, devoted to Venereal things according to the law, loving his sons and his wife, of sound sense, cultivating learning and the sciences more than possessing them, of candid mind, for the sake of GOD willing even evils of his own accord, merciful; 4 Aph. 38.

[Margin: Jupiter and Mercury significators of the manners.]

When ♃ and ☿ are significators of the manners, strong together, they make men clever, vehemently desiring knowledge of many things, and excellence and integrity of manners, pious, religious, beneficent, civil, diligently increasing their household estate, also taking up the patronage and procurations of others, given to eloquence, and gaining esteem for themselves from this, elegant and articulate, learned in delivering orations and public addresses, famous, prudent in giving counsels, and moderately grave. For ☿ the sharpness of intellect, and heat and a keen power of reasoning; but ♃ produces moderation. Hence ♃ also moderates by a certain gravity the headlong force of Mercury, and excessive haste in actions, or even levity and inconstancy, and restrains perversity as if by a kind of bridle: from which such men are not only endowed with a sharp force of intellect, but can also add a fitting gravity to their actions, and fortify them with a certain authority. Therefore they can bring forth counsels sharp and prompt by reason of Mercury, but faithful, mature, grave and full of authority by reason of Jupiter: from which they also attain glory, honours, riches, etc. But if they are weak and abject together, the contraries of all these will result: for such men will be fools, senseless, triflers, mockers, displaying a feigned wisdom and virtue, arrogating much to themselves, deceitful, mountebanks, who in the crossroads boast of and profess skill in many things: Pontano [Pontan.] libr. 6 cap. 7 rer cœlest. [Margin: Jupiter assimilated to Mercury.] Thus if ♃ is assimilated to Mercury, the native will be skilled in all the sciences, of good

intellect, of counsel, of good manners, beneficent; he will love Colleges, he will cherish friends and kinsmen; he will have riches and honours, and will administer the affairs of princes; yet he will be of diverse manners, shrewd and fraudulent [?] Aph. 39.

From these it is clear how the qualities of the manners in the remaining Planets, if they exist together as significators, are to be mixed with one another; of which mixtures many examples are extant in 17 cap. 3 lib. quadr. Ptolemy [Ptol.]. In cap. 9 part. 4 Haly: In 6 libr. Pontani de reb. cœl. And Cardano [Card.] 4 segm. Aph.; from which the studious may seek them out.

But it is useful, when there are several significators of the manners, to consider whether they are also joined to one another by some aspect, or whether they cling in separate signs. For when they behold one another with a benign ray, they produce more laudable manners. But when they afflict one another with a hostile ray, or do not behold one another at all, the mixture of the qualities becomes more obscure and more imperfect, from which less laudable manners arise, as said earlier about assimilation.

[Margin: On the malefics]

But in general the worst manners are made by the malefics, especially when joined to one another, or with Mercury, in the 7th place, next in the 8th, then in the 9th. For then they will not fear GOD, and this the more if they have strength in the ascendant, 4 Aph. 134: And ♂ in the 9th, unfortunate, for the most part makes liars, despisers of the gods, 5 Aph. 169. The malefics also, in the 10th place, not friendly to the ascendant, and peregrine there, make the native full of suspicion, especially if they have been in the heart of the heaven, 4 Aph. 139.

[Margin: On the fourth Venus which either honourably.]

And since Venus signifies pleasure, it will therefore also have to be considered above all how ♀ is placed in the nativity. For, honourably placed, she signifies honourable and praiseworthy; dishonourably, shameful manners with pleasure.

She is placed honourably, however, when she is happily set in some dignity, or with Jupiter ☊, ☽ or the Sun, yet so that she is not joined to the Sun, or under its rays: but in mutual reception or assimilation and the other aspects △ ✶; for ♃ in Venereal matters denotes beauty, comeliness, neatness and pleasure without infamy 6 Aph. 17. [Margin: Or is placed dishonourably.] Conversely she is placed dishonourably when she stands in abject places, and in no dignity, or also with ♂ ♄ or ☋, or also in the □ or opposite ray of these. For ♄ in Venereal matters increases foulness, horror, turpitude, shamelessness and infamy, 6 Aph. 17.

Thus when ♀ is with ♄, and they have aspected the lord of the ascendant, the native will love boys, or, where he is not admitted, little old women and sordid maidservants, 3 Aphor. 15. But if ♄ ♀ and ☿ are also mixed, they make a man polluted with every kind of lust 6 Aph. 12. If ♂ ♀ and ☿ are mixed, then the native's shameful deeds will be immense; he will use violence in debaucheries and will be a spintria, a cruel masturbator, a deceiver, and without reason,

potent in Venus; yet he will love Women more than boys, 6 Aph. 13. Venus in the houses or exaltation of Mars always promises something of base lust, 5 Aph. 37.

Concerning the Moon, let it also be noted that, full of light and joined to Saturn, she makes men prudent, tenacious, mindful of injuries. She afflicts, however, the brain and the stomach, and the member corresponding to the sign in which she is, 4 Aph. 153. But if ☽ has come together with Mars, the native will be bold, headlong, irascible and ill-advised and agile, 3 Aph. 78. The Moon also, in the ☉ square, not received, makes men humble in heart and sparing, but yet such as are immoderate in certain things, ambitious, splendid and desirous of honour, 4 Aph. 154.

[Margin: On the fifth, namely on the signs.]

Moreover, besides the significations of the Planets enumerated, it is fitting also to apply to this consideration the natures and the effects of the temperaments of the signs of the Zodiac in which the significators of the manners cling, and of the fixed stars to which they are joined, above all of those which are not far distant from the Ecliptic, and are of either the first or the second magnitude. Of all of which we shall still say something.

[Margin: The nature of the signs.]

As regards the natures of the signs, then, the Human signs, as ♊, ♍, ♎, ♐ and ♒, if they are in the ascendant, or offer hospitality to the lord of the ascendant, seem to make men humane, gentle. But the Bestial, as ♈, ♉, ♋, ♌, ♏ and ♑, inhumane, insolent and rapacious, 1 Aph. 176. Likewise sent. 45 Centil. Ptolemy [Ptol.]. The Cardinal or movable signs make men inconstant, and, as Haly holds, cap. 9 part. 4, beget spirits loving things pertaining to the common good of the people, and striving to speak and to act concerning the affairs of the community and of states. Such men also love a good reputation, and love divine things; they are temperate, pious, of good manners, and follow and desire the judgements of the stars. ♂, however, in these makes natives quick to anger, yet nowhere more than in ♋, nor less than in ♑; but in ♋ it renders the tongue inept 5 Aphor. 110. The Fixed make men constant, and produce in the native a spirit upright, loving, truthful, not defrauding, firm in affairs, just, intelligent, patient of labours, brave. If, however, all the Planets are in fixed signs, they make men most obstinate.

The Bicorporeal or common signs make men turncoats and crafty. For they bring forth changeable spirits, easily altering themselves, from which the manners of such men are known with the greatest difficulty. Yet they are lovers, Musicians, intelligible, vagabonds. Cardano [Cardan.] says 5 Aph. 12 that Women for whom the ascendant and ☽, ♂ ♀ and ☿ are in bicorporeal signs are of the worst manners.

The Commanding signs, or Northern, make men sensible: the Obeying, or Southern, faint-hearted: the Masculine, manly: the Feminine, womanish.

The earthy Trigon also makes men slow to anger, but such as retain it, once conceived, perpetually: the Airy, easily angered, but briefly, the Fiery, not

keeping it long, but suddenly avenging: the Watery makes men slow in all things, 2 Aph. 82. ♂, however, in ♋ causes a sudden anger, but not at all tenacious, Cardano [Card.] 3 Aph. 51. The earthy and watery also to war: the airy and fiery are suited to contemplation: and therefore nations fierce in war have always been hostile to letters 3 Aph. 153. The airy signs also make traitors, and among these ♏ excels, 5 Aph. 166.

[Margin: Significations of the ascending signs in the judgement of the manners.]

Certain special things are also attributed to the ascending signs, which the studious may observe both by reading and by experience. For ♈ makes a clever man. ♉ a laborious one; ♊ fraudulent, a lover of the arts; ♋ inconstant; ♌ grave, of sad face; brave, cruel; ♍ loving the arts, rapacious, yet less cruel; ♎ inconstant, crafty, a despiser of the arts; ♏ of bad manners; ♐ bold, military; ♑ salacious; ♒ humane; ♓ a mute sign, lisping, deceitful. But in particular, to one for whom ♈ ascends, occasions of sadness befall of their own accord. To one for whom ♉, he brings sickness upon himself through excessive labours: To one for whom ♋, he anxiously seeks friends for himself, 2 Aph. 92.

Even and moderate in their affections are those for whom the beginnings of ♈ and ♎ ascend, or the ends of ♓ and ♍. Immoderate, however, those for whom the beginnings of ♋ or ♑, or the ends of ♊ and ♐, 4 Aph. 108. Light are those for whom ♉ and ♒ ascend, lighter those for whom ♓, but lightest those for whom ♈, and inconstant: Inconstant also those for whom ♋, but not light, yet credulous; but those for whom a light Planet, swiftest in course, is in the ascendant are prompt, deceitful and inconstant 4 Aph. 137.

[Margin: What Venus signifies in the single signs.]

♀ also in ♈ makes the native delighting to see beautiful pictures, to hear Music, and one who rejoices in odours and in things sumptuously seasoned: In ♉ a Musician, drunken, gluttonous: In ♊ delighting in rings, and who is held by the desire of painting, of fashioning and of playing Musical instruments: In ♋ rejoicing in navigations, waters, popular affairs, his own singing: In ♌ a lover: In ♍ rejoicing in pleasure of every kind. For desire is in the liver, and it makes men gluttonous: In ♎ and ♏ intent on Venereal things: In ♐ and ♑ rejoicing in leaps and Horses: In ♒ in running: In ♓ a dancer, delighting in dances and going through pleasant places. These things, however, appear more clearly in boys, who are less restrained by instruction or shame, 4 Aph. 32. ♂ in ♌, elevated by itself alone, makes murderers, and a depraved wrath, 2 Aph. 136.

[Margin: On the sixth, namely the fixed stars.]

Furthermore, neither are the fixed stars to be neglected, if they are set in the horoscope, or with the significators of the manners, since they too hold great force in determining the manners, and excite and increase the powers of the Planets; but they operate mostly according to the natures of the Planets which they represent.

[Margin: The Head of Medusa.]

For the Head of Medusa, in about 21° ♉, engenders cruelty and violence in the native, since he either inflicts a violent death on himself or on others, or furnishes the cause of a violent death. [Margin: The Pleiades] The Pleiades in 24° ♉ make the native lascivious and prone to pleasure, ambitious, turbulent. [Margin: The Eyes of Taurus.] The Eye of ♉ in 4° 20′ ♊ brings ferocity, animosity, military spirits to the native, who is made turbulent, restless and seditious, yet sometimes a good companion, if it is in the ascendant or with ☽, 4 Aph. 29. But if the lord of the ascendant has also been with the eye of ♉, the native will be a murderer: And this if such a lord has been a masculine Planet, especially a malefic or ☉ 2 Aph. 138. ♄ also, with the eye of ♉, generally causes great detriments, and decrees shameful vices of the mind, 2 Aph. 10[numeral: ?].

[Margin: Capella.]

Capella in 16° 30′ ♊ engenders curiosity in the minds of men and anxiety with timidity. Such men desire to know everything, and willingly hear new rumours. [Margin: The Belt of Orion] The Belt of Orion, from 17 into 20° ♊, sharpens the intellect, brings memory and industry. [Margin: The Dog Star] The Dog Star in about 9° ♋ designates a man petulant, prone to anger, proud, incautious, violent and unbridled. [Margin: Hercules] Hercules, or the following Head of ♊, [?] 19° ♋, brings the native cunning and astuteness, and likewise boldness and audacity joined with rashness and cruelty. [Margin: The Heart of Leo.] The Heart of ♌, or basiliscus, in 14° ♌, with the lord of the horoscope or with the significators of the manners, adds magnanimity, and grants grave and generous manners, and likewise the desire of dominating. Cardano [Card] 4 Aph. 86 writes. Just as it is proper to the heart of ♌ to make brave and affable, so to the heart of ♏ rapacious and headlong: but to the Dog Star ambitious and magnanimous. [Margin: Spica ♍] Spica ♍ in 18° 26′ ♎ marks sweetness of manners, diligence in the knowledge of the arts and sciences, especially joined to Mercury, and gravity: With Saturn jealous, harsh and unbecomingly grave: With Mars severe, stolid. Stadius [Stad.] chap. 9 Canon. Berg.

[Margin: Arcturus]

Arcturus in 18° 50′ ♎ brings fidelity and integrity of manners; it also engenders the desire of reigning. [Margin: The Heart of Scorpio] The Heart of ♏ in 4° 24′ ♐ signifies magnanimity, rash impulses, audacity, cruelty, and rapacity; yet good fortune with ☽ in the ascendant, Cardano [Card.] 4 Aph. 50: With Mercury cruel men, assassins, killers, especially with Mars assisting, Stadius [Stad.] in the same place. [Margin: Lyra] Lyra in 9° 54′ ♑ inclines the mind of the native to Music and pleasures [Margin: Aquila] Aquila in 26° 20′ ♑ denotes spirited, brave, bloodthirsty and unconquered, and also adds ferocity to the manners. [Margin: The Gape of Capricorn.] The Gape of ♑ at the beginning of ♒ denotes an excellent intellect, if ♀ is mixed in. [Margin: The Dolphin] The constellation of the Dolphin, from 9° into 15 ♒, denotes one simple indeed in countenance, but cheerful, who delights in swimming

and dancing, and is double in mind, that is, hides one thing in the breast and brings out another with the voice, and feigns friendship and candour. [Margin: The Tail of the Swan.] The Tail of the Swan at the beginning of ♓ makes a man clever and apt for the studies of the liberal arts.

[Margin: On the seventh, the Temperaments.]

Finally, these are the effects of the temperaments: The sanguine temperament makes men cheerful, liberal, faithful, affable, glad, open, peaceable, truthful, modest; religious, mild, placable, not tenacious of offences, pleasant, lovers of conversation, and in conversation more prone to pleasures, and shunning the gloom of studies and the peevishness of discipline. The choleric makes irascible, contentious, eager for quarrels and revenge, ambitious, importunate, imperious, incautious, rash, light, exposing themselves to many dangers, stirring up tumults and wars, sowing discords, yet clever, open and easily changeable. The melancholic makes slower to act, fraudulent, concealing their plans, of deep thought, prudent, severe, tenacious, suspicious, sad, timid, trembling, peevish, long mindful of offences, inexorable, ambitious, contemptuous of others. The phlegmatic makes faint-hearted, womanish, inconstant, revealers of secrets, incredulous, slow in actions.

[Margin: Our first example.]

Thus in our first example, since none of the Planets occupies the horoscope, while to Mercury ☿, Luna Sol is joined platically, and ♃, the lord of the nativity, beholds the Moon with a □ ray, and the temperament is phlegmatic, as could be seen from chap. 5, a certain variety of manners is indicated, which by reason of the temperament faint-hearted, slow in actions; by reason of ♃ honourable, religious, humane, grave with moderation, living in an orderly way, candid and open; in these, however, because of ♎, the mobile sign in which ♃ is, inconstant, but loving those things that concern the common good of the people, not caring for lawful

Venus, because of the constitution of ☿ in ♍, which is the domicile of ♄, and the exaltation of Mars. The waxing Moon would add something to the celebrity of the name, unless debility in turn diminished the same. The lord of the nativity ♃ and the Planetary of the hour ♂ add spirit toward medical studies, and promise felicity in the same. The earthy trigon also, in which most of the significators are, shows the native most tenacious of anger once conceived, and rejoicing in war, since also, Jove excepted, all the Planets are situated in earthy and watery signs.

[Margin: The other example.]

In the other example, since none of the Planets is found in the horoscope, nor is any joined to Mercury or the Moon, we set Mercury, the lord of the first, as significator of the manners according to rule 5, especially since he is also lord of the nativity. To him, however, we join the Moon, which beholds the horoscope with a △ ray, and also Venus, which regards the Moon with a partile □; but in such a way, nevertheless, that we judge principally from Mercury, who, in ♊, a rational, masculine, commanding and bicorporeal sign, denotes

one humane, gentle, sensible, manly, easily angered but briefly, delighting in Music and harmonious concords, and in his own house clever, learned, doing all things with dexterity, of composed manners, and accommodating himself to any persons and to the time. The Moon waning and peregrine a certain slowness in affairs: but Venus in her own house adds charm and grace to the manners. The temperament also, for the most part sanguine, signifies him cheerful, liberal, affable, open, peaceable, pious and religious, not tenacious of offences.

So much concerning the manners: Now concerning the intellect.

[Margin: What intellect is]

We call intellect the faculty of the soul in the brain by which, stirred by sensible things with natural sagacity, it knows things, judges, and holds them in memory. [Margin: Fortunate] Hence that intellect is called fortunate which either devises many things prudently and quickly, or easily recognizes and judges things handed down by others, or in acting carries out all things skilfully. [Margin: Unfortunate] But unfortunate and dull is that which is able neither to devise anything by itself, nor to understand things found by others, nor to carry out the things that are to be done. [Margin: The significators ☿ and ☽] The significators of the intellect are ☿, the primary, and the Moon, the secondary. For she governs the substance, he the spirit or virtue of the brain: Cardano [Card.] com on 64 text. book 3 quad. Ptolemy [Ptol]: The Nodes also, ☊ and ☊ [recte: ☋][112], configured with these, make the intellect.

[Margin: Judgement from ☿]

First, then, this is to be noted in this matter concerning Mercury: that ☿ fortunately placed bestows a fortunate intellect. Unfortunately constituted, none or a small one. He is placed fortunately, 1, in his own houses ♊ and ♍, in which he makes arithmetical intellects, or those of Saturn, ♑ and ♒, in which he gives Mathematicians and Physicists searching out the secrets of nature: or in the airy signs ♊ ♎ and ♒, in which he gives the eloquent: just as politicians in ♓ ♐ ♉ and ♎, the Jovial and Venereal signs. To this pertains Aph. Cardano [Card.] 171 segm. 2: ☿ in ♎ and ♒ furnishes a celebrated intellect, as nowhere else; he also does something in ♑. 2 With a fortunate aspect ✶ or △ or with assimilation of ☽. 3 Outside the 6th and 8th house. For although, together with the first house, the 3rd, 5th, 9th and 11th are principally to be considered, which behold the ascendant with ✶ or △: yet it is certain that the 2nd, 4th, 7th, 10th and 12th are not altogether excluded. For in the 12th house ☿ is judged to confer a fortunate intellect, Almansor [Almans.] Aphor. 34, where he says this: To whomever ☿ is in the 12th, he will be wise, and a great Philosopher. 4 With the good rays or the body of the good, or without the presence or the evil rays of the malefics.

[Margin: From the Moon.]

[112] the print sets the ascending-node sign both times

Next, concerning the Moon, let this also be noted: that, fortunately placed, waxing in light, and near the nodes, especially when she is near the ☌, she favours the intellect.

[Margin: From the other Planets.]

Third, concerning the other Planets, let this be observed: that when very many of them are constituted in the airy △, they also greatly increase the powers of the intellect.

[Margin: Particulars concerning ☿]

In particular, however, let these things be noted concerning Mercury: 1 ☿ existing solitary below the earth helps the arts, above the earth rather eloquence, 7 Aph. 131; it also makes the thoughtful, who speculate in private. 2 ☿ swiftest in motion makes the most inconstant, and quick in inventing, and those who easily slip from one opinion into another, and are ready in reasonings. But slow or Retrograde, the hesitant, and those who are slow in inventing, Cardano [Card.] in com. ad text. 64 libr. 3 quadr. Ptolemy [Ptol.] 3 ☿ hidden under the rays designates those treating obscure and useless things. But shining, those that are in common use and more useful 4 Oriental gives a freer nature: Occidental makes a dissembler. Cardano [Card.] in com on text. 73 lib. 3 quad. Ptolemy [Ptol.]. It is to be noted, however, that the Planet which presides over the place in which ☿ stands has the greatest force in directing the proposed decrees: 5 ☿ safe, not injured partilely by the malefics, especially by Mars, in a good place of the heaven, in the airy signs, chiefly ♒, and with ☊ or ♌, makes the cleverest, apt for all disciplines, and always gives a plurality of languages, 3 Aph. 69 Cardano [Card.]. They can serve us in place of an example. [Margin: The genesis of Melanchthon.] 1 The nativity of Philipp Melanchthon [Philippi Melanchthonis], in which ☿ is in the last degrees of ♒, having before itself ♌ in the 5th house. From this, by the felicity of his intellect, he benefited literary affairs so greatly that from his teaching and writings not only the Germans but also other nations felt the greatest advantage [Margin: The genesis of Andreas Vesalius.] 2 Of Andreas Vesalius [Andreæ Vesalii], Physician of the Emperor Charles V and most celebrated Anatomist. For ☿ in 7° ♒ in the second house, free from the other Planets, except that it is illuminated by Jove with a △ ray and by Saturn with a ✶, granted him a most acute intellect, a divine memory, and a zeal inclined to searching out the secrets of nature; from this he also wrote an outstanding work on Anatomy, by which he also wonderfully illustrated this part of Medicine, and opened to others the way of inquiring into more things.

6 ☿ safe, in any of the angles, especially in the ascendant, in its own sign, or in any other, excepting however ♉ and ♓, makes an intellect accommodated to all things.

[Margin: Of Justus Jonas, the Theologian.]

Such was the constitution of Justus Jonas [Iusti Ionæ] of Nordhausen, the Elder, and Theologian. For he had Mercury in the horoscope and most of the Planets, ♀ ☉ ♂ and ☽, in airy signs, which granted him the greatest force of

intellect and judgement, although otherwise, according to Cardano [Card.] Aph. 140 segm 2, it is dulled in humid signs, and indeed in ♏, makes maleficent. Likewise that of Johannes Heidenreich [Ioannis Heidenrichij], Theologian. For he has ☿ in ♊, its own house, conjoined to Venus in the M. C., free from combustion and rays. [Margin: Ioannes Heidenrichius D.] 7 To whom ☿ is on the line of the ascendant, swiftest in motion, in a human sign, he will be of good memory, and of a good and sharp intellect, but changeable in counsels, 3 Aph. 45 8 It also benefits the intellect, if ☿ is in the 7th house, provided that it is in its own sign, or is lord of the first house. [Margin: Hieronymus Wolf] Thus in the nativity of Hieronymus Wolf [Hieronymi Vuolfij] of Oettingen, the Rhaetian, a most outstanding Philologist, ☿ is in the 7th house, in its own sign and exaltation, whose excellent intellect the very many writings which he published sufficiently prove. 9 ☿ safe in the essential dignity of ♂, received by the same from the same dignity, with the rays of the other malefic absent, furnish an excellent force of intellect. [Margin: Joachim Camerarius] [Margin: Erasmus Reinhold.] The nativities of Joachim Camerarius [Ioachimi Camararii] and Erasmus Reinhold [Erasmi Reinholdi], men most noble in intellect and learning, can be examples for us: of whom the former had Mercury in ♈, the domicile of ♂, around the middle of the heaven, but Mars in ♊, the domicile of ♀, in ✶ aspect. For the latter, however, Mercury in ♏, the domicile of ♂, and ♂ in ♍, the domicile of ☿, is likewise constituted in ✶ aspect.

But if, however, this reception has Mercury ℞ and afflicted by the malefics, it makes the intellect industrious indeed and sharp, but too crafty, ambitious and quarrelsome. And such was the constitution

Diagram. Upper-left figure of the plate: a square horoscope figure with a central box and twelve triangular compartments. The central box reads: "Andreas Vesalius, most celebrated Anatomist, is born. Year 1514, Dec. Day 30, 17^{h} 45^{m} P.M. Elevation of the pole 51° 4′." Labels by compartment (positions as the figure stands on the page):

- Top angle: ♎ 18
- Upper-right corner, upper triangle: ♍ 13
- Upper-right corner, right triangle: ♉ 25 30 ♌; ♋ 26
- Right angle: ☽ 15 20; ♊ 22
- Lower-right corner, right triangle: ♃ 7 22; ♊ 0
- Lower-right corner, lower triangle: ♉ 11
- Bottom angle: ♈ 18
- Lower-left corner, lower triangle: ♂ 15 26; ♓ 13
- Lower-left corner, left triangle: ♍ 26; ☿ 7 34 ♒; ☊ 25 3; ♀ 6 28
- Left angle: ☉ 19 18; ♐ 22
- Upper-left corner, left triangle: ♐ 0; ♄ 3 16
- Upper-left corner, upper triangle: [sign: ?] 11

Diagram. Upper-right figure of the plate, of the same construction. The central box reads: "Iustus Ionas, Doctor of Theology, is born. Year 1493, June. Day 4, 17^{h} 20^{m} P.M. Elevation of the pole 51°." Labels by compartment:

- Top angle: ♓ 10 42
- Upper-right corner, upper triangle: ♄ 3; ☽ 26; ♒ 20
- Upper-right corner, right triangle: ♒ 3
- Right angle: ♍ 13
- Lower-right corner, right triangle: ♐ 10
- Lower-right corner, lower triangle: ♎ 18; ☊ 22
- Bottom angle: ♏ 10 42; ♂ 3 32
- Lower-left corner, lower triangle: ♃ 10; ♌ 20
- Lower-left corner, left triangle: ♌ 3
- Left angle: ♋ 13; ☿ 18
- Upper-left corner, left triangle: ♊ 10; ☉ 22 50
- Upper-left corner, upper triangle: ♀ 5; ♉ 22; ♈ 18

Diagram. Lower-left figure of the plate, of the same construction. The central box reads: "Hieronym. Vvolfius of Oettingen is born. Year 1516, Aug. Day 13, 6^{h} 30^{m}. Elevation of the pole 48°." Labels by compartment:

- Top angle: ♐ 11; ♄ 11
- Upper-right corner, upper triangle: ♏ [?] 23
- Upper-right corner, right triangle: ♎ 18
- Right angle: ♀ 14 18 ♎; ☿ 4 14 ♏; ⊕ 3 15; ☉ 29 51
- Lower-right corner, right triangle: ♌ 10; ♃ 7 14; ☊ 23 42
- Lower-right corner, lower triangle: ♊ 25; ♋ 15
- Bottom angle: ♊ 11
- Lower-left corner, lower triangle: ♉ 23
- Lower-left corner, left triangle: ♈ 18; ♂ 14 58
- Left angle: ♒ 10; ☽ 14 52 ♓
- Upper-left corner, left triangle: ♍ 15; ♉ 23 42
- Upper-left corner, upper triangle: ♐ 25

Diagram. Lower-right figure of the plate, of the same construction. The central box reads: "Erasmus Reinholdus is born. Year 1551, Octob. Day 21, 13^{h} 30^{m}. Elevation of the pole 50° 46′." Labels by compartment:

- Top angle: ♊ 0 23
- Upper-right corner, upper triangle: ♉ 26 47; ♈ 24 5
- Upper-right corner, right triangle: ♓ 28 29
- Right angle: ♓ 7 29
- Lower-right corner, right triangle: ♃ 18 18; ♒ 14 20
- Lower-right corner, lower triangle: ♍ 12 15
- Bottom angle: ♀ 24 14 ♐; ♐ 0 23
- Lower-left corner, lower triangle: ♄ 24 56; ☊ 26 47; ☿ 24 20; ☽ 9 15; ☉ 7 [?]
- Lower-left corner, left triangle: ♏ 28 29; ♎ 24 5
- Left angle: ♏ 7 29; ♂ 24 56
- Upper-left corner, left triangle: ♌ 14 20
- Upper-left corner, upper triangle: ♋ 12 15

in the chart of Matthias Flacius Illyricus [Matthiæ Flacij Illirici]. For ♂ receives Mercury from its domicile, but in turn injures the same with a □ ray, which ♄ also does. From this he was endowed with an intellect indeed sharp enough, but too turbulent, quarrelsome and ambitious.

[Margin: Of Matthias Flacius Illiricus.]

[Margin: Of Georgius Sabinus, the Poet.]

[Margin: Of Andreas Alciatus.]

10 ☿ also, safe in some angle of the figure, received either by Venus or by the ☽ from domicile or exaltation, signifies an outstanding skill of intellect, and learning. As in the nativity of Georg Sabinus [Georgii Sabini], a most outstanding Poet and Orator: ☿ is in ♉, the house of Venus, but ♀ in ♊, the house of ☿; which constitution granted him both intellect and a singular eloquence. Almost similar is the nativity of Andrea Alciato [Andreæ Alciati]. For ♀, constituted in the horoscope in the sign ♊, the house of ☿, receives ☿ in its own domicile, which reception indeed

Diagram. Upper-left figure of the plate: a square horoscope figure with a central box and twelve triangular compartments. The central box reads: "Matthias Flacius Illiricus is born. Year 1519, Mar. Day 3, 12^{h} 0^{m} P.M. Elevation of the pole 45°." Labels by compartment (positions as the figure stands on the page):

- Top angle: ♍ 23; ♃ 18 20 ℞
- Upper-right corner, upper triangle: ♌ 13
- Upper-right corner, right triangle: ♋ 4
- Right angle: ♂ 28 55; ♊ 5
- Lower-right corner, right triangle: ☊ 4 19; ♉ 5
- Lower-right corner, lower triangle: ☽ 0 0 ♉; ♈ 21
- Bottom angle: ♓ 23; ☿ 5 53 ℞
- Lower-left corner, lower triangle: ☉ 22 42; ♀ 19 27; ♒ 13
- Lower-left corner, left triangle: ♅ 4; ♄ 20 2
- Left angle: ♐ 5
- Upper-left corner, left triangle: ♏ 5; ♆ 4 19
- Upper-left corner, upper triangle: ♎ 21

Diagram. Upper-right figure of the plate, of the same construction. The central box reads: "Georg. Sabinus, Poet and Orator, is born. Year 1508, April. Day 22, 19^{h} 0^{m} P.M. Elevation of the pole 52° 36′." Labels by compartment:

- Top angle: ♒ 23
- Upper-right corner, upper triangle: ☽ 20 49; ♒ 7
- Upper-right corner, right triangle: ♅ 20
- Right angle: ☊ 4 23; ♐ 28
- Lower-right corner, right triangle: ♏ 17
- Lower-right corner, lower triangle: ♃ 11 26 ℞; ♍ 23
- Bottom angle: ♌ 23; ♄ 6 24; ♂ 11 18
- Lower-left corner, lower triangle: ♌ 7
- Lower-left corner, left triangle: ♋ 20

- Left angle: ♊ 28; ♅ 4 23 ♋
- Upper-left corner, left triangle: ♉ 17; ☿ 27 0; ♀ 9 38 ♊
- Upper-left corner, upper triangle: ☉ 12 35; ♓ 23

Diagram. Lower-left figure of the plate, of the same construction. The central box reads: "Joan. Schosserus Æmilianus, Orator and Poet, is born. Year 1534, Octo. Day 11, 12^{h} 21^{m} P.M. Elevation of the pole 51°." Labels by compartment:

- Top angle: ♉ 3 18
- Upper-right corner, upper triangle: ♈ 1
- Upper-right corner, right triangle: ♓ 8
- Right angle: ♒ 18 26
- Lower-right corner, right triangle: ♅ 2 25; ♃ 24 27; ♍ 24
- Lower-right corner, lower triangle: ♐ 17; ☽ 27 57
- Bottom angle: ♂ 5 56; ♏ 3 18
- Lower-left corner, lower triangle: ☉ 27 49; ☿ 8 53; ♎ 1
- Lower-left corner, left triangle: ♍ 8; ♀ 21 53
- Left angle: ♌ 18 26
- Upper-left corner, left triangle: ♋ 24; ♄ 8 41; ☊ 2 25
- Upper-left corner, upper triangle: ♊ 17

Diagram. Lower-right figure of the plate, of the same construction. The central box reads: "Cornelius Agrippa is born. Year 1486, Septemb. Day 14, 15^{h} 24^{m}." Labels by compartment:

- Top angle: ♉ 24; ♂ 20 ♊
- Upper-right corner, upper triangle: ♈ 19
- Upper-right corner, right triangle: ☽ 16; ♓ 23
- Right angle: ⊕ 17 16; ♓ 2 53
- Lower-right corner, right triangle: ☊ 2 15; ♒ 8
- Lower-right corner, lower triangle: ♍ 6
- Bottom angle: ♄ 6 ♐; ♏ 24; ♃ 3 ♍
- Lower-left corner, lower triangle: ♎ 19
- Lower-left corner, left triangle: ♍ 23 ♎; ☉ 0 44; ☿ 10 24
- Left angle: ♍ 2 53
- Upper-left corner, left triangle: ♌ 8; ♀ 18; ♅ 2 15
- Upper-left corner, upper triangle: ♋ 6

[Margin: Of Ioannes Schosserus Aemilianus.]

provides the same, as if each Planet were in its own house. Likewise of Johannes Schosser [Ioannis Schosseri Aemiliani], a most elegant Poet and Orator, a most dearly missed kinsman by marriage. For he had ☿ in ♎, the domicile of ♀, and Venus in ♍, the domicile of ☿: which placing gave him a singular grace of speaking and a weighty judgement, Mercury being especially constituted in ✶ of ♄.

[Margin: Of Iosephus Scaliger.]

Similarly, concerning the Moon in particular, let this be noted: that, swift in the nodes and fortunate, even if she beholds Mercury with no aspect, she

makes the clever, the agile, and those subtle in intellect and most ready, above all when waxing in light: of which kind is the constitution of Joseph Scaliger [Iosephi Iusti Scaligeri]. For the waxing Moon is joined not only to ♆ in the angle of the lowest heaven, but also to Venus: which constitution won a singular intellect and charm for his speech, especially since ♃ is also coupled with Mercury in ♌; by which ♂ it adds eloquence and a certain gravity to his thoughts and writings. For ☿ in ♌ makes the eloquent, in ♈ those pleasing in speech, 2 Aphor. 171.

[Margin: Of Mercury with the Moon.]

[Margin: Of D. Andreas Sartorius.]

[Margin: Of Cornelius Agrippa.]

Next, if we consider Mercury with the Moon, let these Aphorisms be observed: 1 ☿ conjoined to the ☽, or beholding the same with a ✶ or △ ray, gives a happy intellect. The △, however, for Leovitius [Cypr.] is weaker than the ✶, for Cardano, however, stronger. In this way Andreas Sartorius, I. D., whose chart I set out above, has the Moon constituted in ✶ of ☿. 2 The □ of ☿ and ☽ also gives intellect, but somewhat disturbed and less sagacious. The opposition of ☿ and ☽ makes stubborn and seditious intellects. Such was the constitution of Heinrich Cornelius Agrippa [Cornelii Agrippæ], in whose genesis the opposition of ☿ and ☽ denotes an intellect indeed sagacious and varied, but maleficent and stubborn. 3 ☿ received by the ☽ from domicile or exaltation bestows an outstanding skill of intellect. 4 ☿ and ☽ placed in ♊ ♎ ♐ and ♍ make keen and Methodical intellects, if they are located with their seats exchanged; as if Mercury should have ♒ or ♍, the Moon possessing Gemini or ♎, or the contrary, Caspar Peucer [Peuc.] in libr. de divin sub Astrol. 5 If to Mercury, either solitary or also conjoined to the Moon in ♒, ♃ and ♂ from Gemini or ♎; or also to Mercury occupying Gemini the same ♃ and ♂ from ♎ or ♒; or to it inhering in Libra the same from the remaining two signs, meet with a △, or also a ✶ ray, they entirely perfect intellects, and produce an acumen at the highest, most sagacious and most dexterous, Peucerus in the same place.

[Margin: Of Mercury with the other Planets.]

[Margin: Of Erasmus of Rotterdam.]

Third, concerning Mercury with the other Planets, let these things be observed: 1 The benefics configured with ☿ in fortunate places help the intellect. 2 ☿ with ♀ in ♉, Occidental, makes αὐτοδιδάκτους [Greek: autodidaktous, "self-taught"] and Mathematicians; stupid, if ♀ is absent. It provides the same in ♊, and indeed of a most happy intellect. 3 ☿, ♀, ☽ and ☊ conjoined, especially in the ascendant, make most learned orators. Such in part was the constitution of Erasmus of Rotterdam [Erasmi Roterodami], whose most weighty judgement, most acute intellect, and most copious speech, from the most learned writings published, is known to all. For he had ☿ with ♀ [?] in the horoscope, in the airy sign ♎, and ♃ beholding ☿ and ♀ with a trigon ray. 4 ☿ approaching the fortunate rays of ♄ increases memory, patience of labours, and the finding of secret things. 5 ☿ approaching Jove or his rays increases wisdom. 6 He to

whom ☿ is well, the ☽ badly placed, understands well, but deliberates badly. He counsels others excellently, himself very badly, 5 Aph. 172. 7 Very learned are those for whom ♄ ♀ ♃ and ☽ regard Mercury exquisitely; one of these being in the ascendant, not, however, Saturn nor the ☽, and no other Planet being constituted in an angle, nor of these themselves. For every Planet strong in an angle impedes wisdom, 6 Aph. 119. 8 ☿ joined to the Sun makes those apt for dispatching business. For if any things are to be dispatched in secret, and with authority, and prudently, they are rightly handled by the native having such a position. For ☿ under the Sun provides all things, because it is not seen, and is supported by the force of the Sun, and is as it were near the king, Cardano [Cardan.] in com ad text. 64 lib. 3 quad. Ptolemy [Ptol.] 9 ☿ with the nodes provides a great subtlety of intellect, yet a happier one with ☊ than with ☋, 3 Aph. 69.

It is also to be noted that the other Planets help the force of Mercury. For ☿ for the most part assumes the nature of that Planet whose house it occupies, or to which it is joined partilely by body or ray; so that Cardano [Card] also contends, in com. super text. 64 libr. 3 quadr., that Ptolemy judges of intellect not from ☿ itself, but from the lord of ☿. ♄, moreover, signifies perseverance, and makes the cautious; ♃, probity and simplicity, and makes the learned; ♂, fortitude and anger[113], and makes the efficacious. ☉ love of glory, and ambition or pride, and makes the grave. ♀ love and luxury, and makes the eloquent. ☿ prudence and craftiness, and makes the ready: ☽ instability, and makes the [?], Cardano [Card.] in the said place of his com.

[Margin: Of Mercury with the fixed stars.]

Fourth, concerning ☿ with the fixed stars let it be noted: 1 That fixed stars, small and bright, provide intellect. For as a great light impedes us in studies, so also great stars never decree a clear intellect. 2 A fixed star proportioned to Mercury from its nature, or a benefic one conjoined to it, makes the native illustrious in intellect and learning, 6 Aph. 156. ☿, moreover, delights in airy and dry signs, such as are ♊ ♌ ♎ and ♒, not in moist ones. 3 ☿ with fortunate fixed stars of the nature of ♃, ♂ or ☉ gives a common eloquence, all the more if they are great: with the stars of ♄ a profound intellect, and a dull power of persuading, 7 Aph. 130. 4 The fixed stars which bestow intellect are three small ones in the gape of ♍, which pertain at the present time to the beginning of ♒: the preceding one in the right foot of Serpentarius at 15 degrees ♐, the head of Serpentarius at 16 degrees ♐, especially if ☿ is mingled with them. 5 Saturnine and Jovial fixed stars with ☿ make the studious, wise and industrious; Jovial and Martial ones with ☿ make outstanding Physicians, Stadius [Stad] cap. 9 de stellis fixis. 6 Of the brighter stars Spica ♍ with ☿ or the ☽ is preferred; likewise with the lord of the horoscope. For the power of speaking, joined with a singular sweetness, is conferred on him, says Cardano [Card.] genit. 14, who has either the ☽, or the ascendant, or the lord of the nativity with Spica ♍.

[113] the print reads irani

7 ☿ in the houses of ♄, ♍ and ♒, likewise ♎, and with Saturnine stars, helps memory, rarely eloquence. In the houses of ♂, however, especially in ♈, an eloquent one, Ptolemy [Ptol.] 38 sent. of his centil. 8 The ☽ also, with Spica and Arcturus, decrees a man pleasant and filled with every kind of letters and of Music, Cardano [Card.] 3 Aph. 58.

[Margin: Special things about the individual Planets.]

[Margin: Of Saturn.]

Here also certain special things about the individual Planets are to be noted. Of ♄ indeed. 1 ♄ especially helps memory, and therefore its fortunate constellation makes a fortunate memory, an unfortunate one an unfortunate. 2 ♄ with the right shoulder of Orion or of the Charioteer, in 23 and 24 degrees ♊, provides great diligence, perseverance and sedulity, and from this an illustrious name, 2 Aph. 100. 3 ♄, lord of the ascendant, with ☊ shows one crafty, very shrewd, and of concealed counsel, Cardano [Card.] gen. 72: with ☿, however, it makes one faithless and avaricious. 4 ♄ with the wing of Pegasus in 3 degrees ♈ makes a remarkable memory. 5 ♄ with Antares in 3 degrees ♐ in ✶ ☿ gave memory, study and a profound intellect to Andreas Vesalius [Vesalio], as Cardano [Card] shows, gen. 9.

[Margin: Of Jove.]

[Margin: The genesis of Seth Calvisius [Sethus Calvisius], Chronologer.]

[Margin: Of Pietro Bembo.]

Of Jove. ♃ has wisdom, prudence and humanity. Therefore 1, fortunately placed in the places of intellect, the 1, 3, 9, 5, 11 house, it makes the clever, prudent and humane. It is so placed in the nativity of Seth Calvisius [Sethi Calvisii], Chronologer and Musician of Leipzig. For he has Jove in the ascendant and in its own house with the ascending node, which also, placed by itself in the horoscope, provides intellect to him; and ☿ beholds Jove with a partile □, but in such a way that ♃ is the superior one and the lord of the place of ☿, and is on the right with respect to ☿. From this, as he is merciful, pious, honoured, and first among the brothers by reason of Jove, so on account of Mercury he delights in the studies of numbering and measuring, in which, being also excellently instructed, he is of service not only to himself but also to others. He would live in riches, unless the nocturnal genesis drove him to seeking a livelihood for himself, and promised benefit from the munificence of others. 2 ♃ joined to Mercury with the shoulder of Orion makes most outstanding craftsmen, of a most teachable intellect, divine Astrologers, Stadius [Stad.] c 9 de stellis fixis. 3 ♃, lord of the ascendant, solitary and fortunate, makes the native love the disciplines, 2 Aph 65. 4 ♃ ascending in ♏ gave a mellifluous manner of writing to Bembo [Pietro Bembo], Cardano [Card.] gen. 75, which the trigon irradiation of ♄ helped. The chart itself, however, as it is set out by Cardano, since it errs most greatly in the time and in the place of Jove, we give more correctly from Garcæus [Garcao]; and we ascribe the keenness of intellect and the eloquence to the mutual reception of ♀ and ☿ from the domiciles, and to the △ ray of ☿ to the ascendant, although ♀ ☌ the Sun in △ of the ☽ also seems

to suggest the same. 5 ♃ with the Sun in ✶ of ♄, if ☉ is lord of the ascendant, makes Cato remarkable in memory, Cardano [Card.] gen. 3.

Diagram. Upper left figure. In the central box: Erasmus of Rotterdam [Erasmus Roterodamus] is born. In the year 1467. October. Day 27, 16^h 30^m. Elevation of the pole 54° 0′.

- Above the central box: ♋ 16 17
- Upper-left corner, triangle along the top edge: ♌ 22
- Upper-left corner, triangle along the left edge: ♍ 19; ⊕ 11 18
- Left of the central box: ♎ 13 0; ♀ 20 40; ☿ 29 18
- Lower-left corner, triangle along the left edge: ♏ 1; ♉ 7 17; ☽ 11 40; ☉ 13 22
- Lower-left corner, triangle along the bottom edge: ♐ [?] 6
- Below the central box: ♑ 16 17
- Lower-right corner, triangle along the bottom edge: ♒ 22
- Lower-right corner, triangle along the right edge: ♄ 11 52; ♂ 26 40; ♓ 19
- Right of the central box: ♈ 13 0
- Upper-right corner, triangle along the right edge: ☊ 1 17; ♉ 1
- Upper-right corner, triangle along the top edge: ♃ 25 42 ℞; ♊ 6

Diagram. Upper right figure. In the central box: Seth Calvisius [Sethus Calvisius] is born. In the year 1556. February. Day 20, 13^h 30^m. Elevation of the pole 51° 24′.

- Above the central box: ♎ 5 59
- Upper-left corner, triangle along the top edge: ♏ 0 0
- Upper-left corner, triangle along the left edge: ♏ 17 42; ♃ 5 17
- Left of the central box: ♐ 6 43; ♉ 9 17
- Lower-left corner, triangle along the left edge: ♑ 5 58; ♒ 24 14
- Lower-left corner, triangle along the bottom edge: ♀ 26 36; ♂ [numeral: ?]5 0 ♓; ☉ 11 10; ☿ 5 46
- Below the central box: ♄ 10 22; ♈ 5 59
- Lower-right corner, triangle along the bottom edge: ♉ 0 0
- Lower-right corner, triangle along the right edge: ♉ 17 42
- Right of the central box: ♊ 6 43; ☊ 9 17
- Upper-right corner, triangle along the right edge: ☽ 22 36; ♋ 5 58
- Upper-right corner, triangle along the top edge: ♌ 24 14

Diagram. Lower left figure. In the central box: Pietro Bembo [Petrus Bembus], Cardinal, is born. In the year 1470. May. Day 28, 1^h 3^m. Elevation of the pole 45°.

- Above the central box: ♊ 23 0; ♉ 17 56; ♂ 25 48
- Upper-left corner, triangle along the top edge: ♃ 25 43; ♌ 0 40
- Upper-left corner, triangle along the left edge: ♍ 0 21
- Left of the central box: ♍ 24 22
- Lower-left corner, triangle along the left edge: ♎ 17 41
- Lower-left corner, triangle along the bottom edge: ♏ 16 5
- Below the central box: ♐ 23 0; ☊ 17 56 ♑

- Lower-right corner, triangle along the bottom edge: ♒ 0 40; ☽ 6 25
- Lower-right corner, triangle along the right edge: ♓ 0 21
- Right of the central box: ♓ 24 22
- Upper-right corner, triangle along the right edge: ♉ 16 5; ♈ 17 41
- Upper-right corner, triangle along the top edge: ♀ 3 46; ☉ 7 45; ☽ [?] 20 52; ☿ 17 4

Diagram. Lower right figure. In the central box: Brother Cornelius is born. In the year 1482. November. Day 1, hour: the rising of the ☉. The heart of heaven 3 degrees ♍.

- Above the central box: ♌ 19
- Upper-left corner, triangle along the top edge: ♍ 19; ♃ 0 21
- Upper-left corner, triangle along the left edge: ♎ 19; ♄ 0 32; ☿ 8 22; ☊ 17 6; ☉ 18
- Left of the central box: ♏ 19
- Lower-left corner, triangle along the left edge: ♐ 19; ♀ 25 22
- Lower-left corner, triangle along the bottom edge: ♑ 19
- Below the central box: ♒ 19; ♂ 6 6
- Lower-right corner, triangle along the bottom edge: ♓ 19
- Lower-right corner, triangle along the right edge: ♈ 19; ☊ 17 6
- Right of the central box: ♉ 19
- Upper-right corner, triangle along the right edge: ♊ 19
- Upper-right corner, triangle along the top edge: ☽ 19 6; ♋ 19

[Margin: Of Mars.]

Of Mars. ♂ signifies boldness for labour, and contentions: it is not, however, well joined to ☿. For, joined, it makes the wicked and the shameless, yet industrious about the arts: from which they are for the most part of bad morals: 5 Aph. 168. But ♂ coupled to Mercury with a fortunate ray, if the testimony of Jove is added, makes sharp disputants; with ☋, fraudulent ones, deceivers.

[Margin: Of the ☉.]

[Margin: The genesis of Brother Cornelius.]

Of the Sun. 1 The Sun in the ascendant with ☊ or ☋ bestows a most acute and most outstanding intellect, by a rule that is not fallacious: Cardano [Card.] genit. 20, of Brother Cornelius, which I wished to add here even for this reason, since I shall also make mention of his diseases below, c. 13, so that it may appear that intellect is not denied to those who have almost all the Planets in watery signs, which are otherwise adverse to intellect, provided the rest are in good order, as in this genesis, ☉ with ☋ in the ascendant. 2 The Sun with a combust Mercury denies the arts indeed, does not prohibit history and eloquence. For jurists and scribes for the most part have Mercury combust, conjoined to the Sun, Cardano [Card.] ad text. 64 lib. 3 quad. Ptolemy [Ptol.]

[Margin: Of Venus.]

Of Venus. The gift of Venus is charm. Therefore, fortunately configured with Mercury, especially in the first house, it provides alacrity, and grace of speech and of manners. So Erasmus of Rotterdam [Erasmus Roterodamus] had

it constituted. 2 ♀ with the stars of the feet of ♊, or in the neck of ♉, makes poets; with the heart of ♏, Musicians and Poets: Stadius [Stad.] cap. 9 de stellis fixis. 3 ♀ joined to Spica in the horoscope makes a great sweetness of speaking, and, with a fortunate ray of ♂, outstanding instrumental Musicians. The Moon in ♈ provides a good but changeable intellect, 6 Aph. 7.

[Margin: Of the fixed stars.]

Of the fixed stars by themselves. 1 The belt of Orion, ascending, sharpens intellect, and makes the industrious: Stadius [Stad.] ex Cardano [Card.] c. 19. suppl. Alm. 2 Spica ♍ in the ascendant provides wit and religion: Cardano [Card] gen 80. 3 Those born from 12 to 20 degrees ♓ become clever and sly because of the Triangle in the ascendant: 5 Aph. 128. 4 The Triangle in the setting makes the crafty and cunning. 5 For the learned, for the most part, these of 4 signs ascend, Cardano [Card.] gen. 3: ♉ ♋ ☊ [?] and ♒; to which we rightly add ♍ and ♊: Libra is also the ascendant of many learned men, because of Spica ♍ rising.

[Margin: Of the houses most suited to intellect.]

[Margin: The genesis of Hieremias Setseri, P. and I. D.]

Of the houses. The houses of heaven are also usually considered for intellect, according to Garcæus [Garc.] c. 9 de gen., chiefly the 1, 3, 9, 5, 11. For the third and the 9 signify religion, the 11 and 5 conversation, and the 1 the soul. When the significators of intellect, ☿ ☽ ☊ and ♃, are in these houses, they increase what is signified of intellect. So ☿ in the 9 or 3 gives a sharper intellect than if it were in the 7 or 12 or elsewhere. Refer here the genesis of Hieremiae Setseri, Philosopher and J. V. D., Professor in the Academy, who has Mercury in the 9 house illuminated by a fortunate △ ray of the ☽ and ♂; likewise Jove in the 5, in ♐, its own sign, fortunate, in △ of the ascendant, of which it is also, with the Sun, the trigonocrator: this constitution, since fiery and airy signs also hold the primary cusps, signified to him a singular intellect, dexterity in judging, and outstanding learning; by which he has also won the favour of the great for himself, so that he is employed for deciding the weightiest causes. See the chart below in the following chapter.

[Margin: Calebus Trygophorus, Philos. D.]

Likewise the genesis of Calebi Trygophori, Doctor of Philosophy and Professor in the Academy of Francofurt. [Frankfurt an der Oder]. For he has all the significators of intellect in suitable houses: the Moon with ♃ in the 9, ☿ with ☊ in the 3; Venus also and ☿ conjoined near the stars of Serpentarius in the foot and head, decreeing intellect in ♐, a Jovial house, irradiating the horoscope ♎, a Venereal sign, with the Sun with a ✶ ray. This position produced for him sweetness of speech, with elegance of manners and singular modesty. And although ☿ is retrograde and combust with ♀, yet I recalled above that a retrograde Mercury does not deny intellect, but only brings slowness: which, however, in this nativity all the remaining Planets correct, except the ☽, in fiery signs, which add sharpness to invention. The ☽ also, in ♋, its own house, near ♃, still full of light, sharpens the intellect. ♀, finally, swift in course, according

to Cardano [Card] c. 6 lib. 3 suppl. Almanah, fears combustion less than all the other Planets, since it is moist: indeed, with the Sun it provides favour with princely men, and advantages from others. The signs favouring intellect in these houses are also: 1 the Saturnine, ♒ ♑. 2 The Jovial, ♐ and ♓. The first part of the sign ♓, however, up to 12 degrees, impedes intellect, on account of the Saturnine fixed stars. 3 The Venereal, ♎ and ♉: Libra is also better, because it is an airy sign. Cardano also thinks that ☊ and ♍ in the ascendant increase intellect. But the remaining Planets, fortunately placed in the houses of intellect set out, 1, 3, 9, 5 and 11, increase intellect. Fortunate Planets in these houses, without a fortunate position of ☿ or ☽, or ☊ and ♍, bestow indeed the opinion and honour of erudition, but do not admit solid knowledge.

[Margin: Of the temperaments.]

Of the temperaments. The phlegmatic temperament is hostile to studies, and makes slow intellects. Asinine Melancholy provides the same. The sanguine rarely persevere in studies, as also the choleric, because of natural alacrity, which does not suffer the bridle of discipline. But the best temperaments for studies are those which from the sanguine κ… [?] [Greek: k…] incline towards melancholy. From this Aristotle also said: good intellects are melancholic. The choleric too, if something of melancholy is added, are most clever.

[Margin: Of the weakness of disposition.]

Of the weakness of intellect. 1 An unfortunate ☿, that is, retrograde, peregrine, cadent, in an abject house, combust, under the rays, slow in motion, harmed partilely by Mars or ♄ with a □ or ☍ ray, signifies a meagre and stolid intellect, slow in actions. For ☿ swift in motion, promptness; retrograde, it effects slowness, as I also warned above. And those are of bad mind for whom ♂ is in □ radiation of Mercury: 2 Aph. 32. 2 ☿ greatly afflicted by the Sun and Saturn makes fools, especially in ♉, ♓ and [?]. 3 ♂ conjoined to Mercury makes the industrious indeed, but faithless and stubborn, 5 Aph. 168. But with the Heart of Scorpio it signifies the cruel, assassins, murderers, and in the third house fratricides: Stadius [Stad.] c. 9 de stellis fixis. But yet the same ♂ conjoined to Mercury with a fortunate testimony of Jove makes sharp Sophists and most fortunate military intellects. 4 If Mercury is in the constellation of Mars, that is, in sign or aspect, the native will be of bad understanding, on account of excessive dryness: Cardano [Card.] 7 Aph. 151. 5 If Venus is with Saturn, and ♂ and ☿ in the place of the ☽, the native will be a fool, thinking himself a Philosopher, 6 Aph. 113. 6 When ♄ is with Mercury in the ascendant, and ♃ opposed to them, retrograde, in the 7 place, the native will be of dull sense: 6 Aph. 116. 7. ☿ entirely separated from the Moon, so that it beholds her with no aspect at all, denotes a weak intellect, unless it is in some way fortunate: Garcæus [Garc.] cap. 9 de jud. genit.

[Margin: Of Mercury in the signs.]

Of Mercury in the signs. 1 ☿ in the moist signs, especially ♓, without the rays of Venus or other fortunate rays; likewise in the neck of ♌, makes the stupid and the idle. Stadius [Stad.] c. 9 de stel. fixis. ☿ in ♓ also makes an impediment

in the tongue, and absurdity in speech. For such people say something other than what they have conceived in the mind. The same happens to those for whom ♓ ascends. 5 Aph. 8. 2 ☿ in ♓ with a fortunate testimony of Jove or Saturn does not deter from the study of letters, although because of various impediments it rarely grants solid erudition. 3 Do not praise the intellect of one who has ☿ in ♉ or ♍ occidental, much less in ♑, however outstanding it may seem, without Jove, the Moon, ♀, or a fixed star of their nature, 6 Aph. 6. 4 ☿ in ♉, retrograde or combust, or in ♑ in the 12 place, partilely condemned by the malefics, makes the simple and the unlearned, although the ☽ beholds it. 5 ☿ in ♒ conjoined to Mars in the 8 or 12 house damages intellect wonderfully, so much that it is plainly denoted rude and simple, unfit for studies.

[Margin: Of Mercury in the houses.]

Of Mercury in the houses. ☿ in the 7 signifies a perverse study, unless it is lord of the ascendant; and then it makes one very prudent in business: Gen, 43 Cardano [Cardan] In the 8 it makes the foolish, the slow and the malicious. In the 11, those devoted to pleasures. In the 12, robbers, according to Cardano, especially when it is there together with ☋, and with an evil constellation of Mars.

Of the Moon. The Moon combust by the Sun harms the body and fortune; it also makes the pensive and the melancholic. For the brain is scorched: Cardano [Card.] 2 Aph. 30. But if, nevertheless, ☿ is fortunately placed, in ♂ with ☉ and ☽, it does not hinder intellect, as in the nativity of Erasmus of Rotterdam [Erasmi Roterodami];

who was most clever but sickly. 2 The ☽ joined with the stars of ♒ from 4° to 10 ♓, or with other Saturnine stars, provided that it is diminished in light and near to combustion, makes the stupid, according to Cardano, who are notable for stolidity and rashness: Stadius [Stad.] c. 9 de stellis fixis. 3 The Moon harmed makes the native decline from common custom. Therefore such people are called fools. When Mercury is harmed they are called only dull.

[Margin: First example.]

In our first example of a noble native, there is no connection between ☿ and ☽, except that both dwell in one and the same Saturnine sign, the exaltation of ♂; ☿ at the beginning, the ☽ at the end of ♑. The Moon also is combust in her detriment, and very weak, and unfortunate. ☿ also weak, yet stronger than the Moon. From this a discord of reason with the affections is inferred, in which sometimes reason, and sometimes also the affections, dominate; yet for the most part the affections are subjected to right reason. For the signs of goodness of intellect and of judgement are that ☿ stands in ♑, a Saturnine sign, in its own term, free from combustion and rays, and in ♂ with Venus, which herself also, in reception with Mercury by exaltation with Mars, beholds Mars with a ✶ ray. But the signs of infirmity of intellect are that ☿ and ☽ cling in the 6 house, that the Moon is unfortunate and combust by the Sun; ☿ weak, retrograde, alien to the Moon, beholding her with no ray. Also, except Jove, which is in ♎, an airy sign, all the remaining Planets are in earthy and watery signs. From

this an intellect not so fertile, yet a firmer memory, is decreed for the native: and although, as regards studies, the native, by reason also of his condition, inclines to deficiency, when he delights more in Martial things, in the handling of horses and of loves, and in things that are worked by fire, because of Mars beholding Mercury and ♀ with a ✶ ray: yet because ♀ is joined to Mercury, he shows himself courteous, affable and kind to all.

[Margin: Second example.]

In the other example, an outstanding agreement of the rational faculty of the soul with the remaining powers is promised to the native, on this foundation; that ☿ and ☽ behold each other with a △ ray from airy signs. And although the Moon, by reason of her place in the M. C., may seem stronger than Mercury, which is in the 12 place, yet ☿ is much more powerful than the Moon, as we showed above, cap. 1, in the collection of the essential dignities: and ☿ is in a commanding sign, although of short ascensions, the Moon in an obeying one. Hence reason rules the inferior powers, and the affections obey right reason. A fortunate intellect is also decreed for the native, both because ☿ is safe, outside combustion, direct, swift, in its own house, and lord of the Nativity; and because it is illuminated by a △ ray of the Moon, and a △ of ♃ is not far off, although from the end of a sign of a different nature; likewise a ✶ of ♄ to ☿, in ♌ of Jove; all of which confirm the goodness of intellect and memory. Although therefore the Moon, decreasing and separated from the nodes, likewise struck by a □ ray of ♀ from an earthy sign, strives to bring some harm to intellect, just as ♄ also, in a watery sign, to harm the memory: we nevertheless decree for the native, because of the prevailing testimonies of a fortunate intellect and memory, which the ☽ also strengthens in a Saturnine sign, a good intellect, most suited to the studies of the arts and of Philosophy, perspicacious and cautious in giving counsel, whose help friends use, yet not without loss and cares to the native, because of the opposition of ♄ and ♃ from the 5 and 11 house: finally a moderate memory, by which he is able to retain, and to communicate to others, what he has learned: it indicates a sanguine temperament, frequent conversation with friends, and hence a slackening from studies.

CAPUT IX.

Of the fortune and misery of the native in general, and in particular of riches.

Up to this point we have completed that part of astrological doctrine which teaches how to judge concerning the accidents pertaining to the very essence of the native, that is, to the body or the soul: now we shall show in what way judgement is to be made concerning the remaining accidents, which come from outside and are separable from the substance of the native, such as are riches, means, agnates, sisters, brothers, blood relations, relations by marriage, marriage, children, health of the body, religion, journeys, honours, dignities, friendships and familiarities, enmities, prisons and the like.

[Margin: Of those things which are outside the substance of the native a judgement is made more obscurely.]

But it is to be observed at the beginning, in general, that concerning all these, since they exist outside the substance of the native, a judgement more obscure and less certain can be taken from the chart than concerning most of the preceding things, which accompany a man inseparably as soon as he is born, and adhere to him right to the end of life; and that in these very things also a certain diversity is found. For those of them which are joined with a closer bond to the life of a man, as riches, means, by which life is sustained; likewise diseases and afflictions of the body, since a man contracts the seeds of these too in his very first formation, partly from a defect of the parents and of the seed, partly from an unlucky position of the stars, and from other nearer causes: of these a more certain judgement can be gathered than of those which subsist outside the substance of the native, and separated from it, entirely apart; such as are brothers, sisters, spouse, children, and the like. But first we shall teach of riches, since the second house, bearing the signification of means, immediately follows the first, and the condition of human life shows this order, that the infant, born into the light, immediately seeks the means by whose help it may sustain and for some time prolong life.

[Margin: Of riches, why they are treated here.]

But so that we may proceed from the more general to the more special. First indeed we shall treat of felicity, infelicity and mediocrity in general, afterwards of riches in particular.

Of felicity.

[Margin: Rules of felicity.]

1 When three, 4 or more Planets are found placed in their essential dignities, namely in their own house, exaltation, or their mutual reception, then they signify an excellent fortune, and swift and prosperous successes in accomplishing affairs. Julius Firmicus Maternus [Iulius Firm.] libr. 2 cap. 24, and Garcæus [Garc.] cap. 24 lib. de jud. Genit.

[Margin: The genesis of Matthias Corvinus [Matthiæ Hunniadis], King of Hungary.]

Such was the constitution in the chart of the Most Powerful Hungarian King Matthias Corvinus [Matthiæ Hunniadis]. For he had 4 Planets in mutual reception, ☉ in ♓ in the exaltation of ♀, ♀ in ♈ the exaltation of ☉. Mercury in ♒, the house of ♄, and ♄ in ♊, the house of ☿: from this, although at first he was pressed by various calamities, yet at last he emerged from them in such a way that, raised from the prison in which he was being detained by George of Poděbrady [Georgium Podiebracium], governor of Bohemia, to the royal dignity in the year of his age 15, of Christ 1458, he was formidable not only to Frederick III [Friderico Austriaco] the Emperor, but also to the Turks.

[Margin: Of Maurice, Elector of Saxony.]

Similar also was the nativity of Maurice, Elector of Saxony [Mauritii Electoris Saxoniæ]. For three Planets are for him in their own houses: ♀ in ♉, ♃ in ♐,

♄ in ♒, and ☉ in ♈, its exaltation. Hence he enjoyed outstanding felicity in carrying out his affairs, so that he even arrived at the Electoral dignity, and drove the Emperor Charles V [Carolum V] to the Passau settlement in religion: Yet a violent death to him ♂, by nature malefic, lord of the horoscope and at the same time disposer of the ☉, afflicting the Sun with a square in its fall, and finally ☿, lord of the 8, in detriment and its own fall, being the disposer of ☽, brought. For in the year 1553, on the ninth day of July, at the village of Peina near Brunsuicum, in a battle with the Margrave Albrecht Alcibiades [Alberto], he was shot through the flank with a hand-gun and ended his life two days later, in the 33rd year of his age. For those to whom great felicities come suddenly, great detriments also suddenly afflict, 1 Aph. 6 Cardano [Card.]

[Margin: Of Marcello Cervini.]

To this also can be referred the nativity, set out above, of Marcello Cervini [Marcellini Cervini], who, the son of Riccardo Cervini [Ricardi Cervini], quaestor in the Picene territory, was applied to the study of letters, was first tutor to Alessandro Farnese [Alexandri Farnesii], then Bishop of Nicastro, soon Cardinal of S. Croce, and at last was made Roman Pontiff 226, called Marcellus 2, in the year of Christ 1555, in which year also, after attaining the Pontificate, he immediately died. For to him ♀ and ☿ placed in their own domiciles, likewise ♃ and ♂ regarding each other from mutual domicile, and ☉ with ☊ in the M. C. brought constant fortune and outstanding dignities.

2 If the luminaries and their disposers are happy, that is, are found in domicile, exaltation or mutual reception, in the best places of heaven, namely 10, 1, 11, 2 and 5, they signify fortune and prosperous successes in life, as do also ♃ and ♀ conjoined in the 1, 10 or 2 houses without an evil aspect of ♄ or ♂.

[Margin: Of Augustus, Elector of Saxony.]

Such was the nativity of Augustus, Elector of Saxony [Augusti Electoris Saxoniæ]. For he had the Sun in its own house ♌, in the ascendant, nearly in ✶ of Jupiter; the Moon in the heart of heaven in its exaltation and in the house of Venus, received by the same in the exaltation of Jupiter, ♋.

3 Illustrious fixed stars which are of the first magnitude, as Regulus, Spica ♍, Arcturus, the right shoulder of Orion, Sirius, Procyon, the Pleiades, the Eye of ♉, etc., placed with the Planets or in the angles, also bring outstanding felicity, which is indeed constant or more lasting if they are associated with the benefics; less lasting if with the malefics.

4 But if the ascendant, its lord, likewise the lord of the nativity and the luminaries are happy, felicity also is promised.

5 All Planets increased in motion denote the very happy. For such people easily accomplish their business, 4 Aph. 148. 6 ☽ in △ ♃ with ☊ signifies great felicity of life, 3 Aph. 58. 8 When ♃ is joined to a powerful star, or the Sun to a benefic, but the Moon is in opposition or □, great fortune with a bad outcome is decreed for the native, 3 Aph. 95.

[Margin: Of infelicity.]

Infelicity is judged from the contrary. For first, three, 4 or more Planets in their detriments, fall, or wholly peregrine, without mutual reception from the essential dignities, signify endless impediments.

[Margin: The genesis of Johann Friedrich [Ioannis Friderici], Elector of Saxony.]

An example is in the genesis of Johann Friedrich, Elector of Saxony [Ioannis Friderici primi Electoris Saxoniæ]. For he had the three superior Planets in their detriments, ♄ in ♋, ♃ in ♊, ♂ in ♉, and Venus peregrine in ♌ near the angle of the west: from this, also captured by Charles V [Carolo V], he was deprived of the Electorate. A red cross was seen on his back at his birth, which omen a certain Priest interpreted thus. This boy will bear a cross manifest to the whole world.

2 The luminaries and their Almuten peregrine, in fall, detriment, or in calamitous places of heaven, as 6, 8, 12; likewise ♃ and ♀ unhappy, signify infelicity. Refer here the Aph. Cardano [Card.]. He for whom ♀ is placed very badly will never feel pleasure in life, 4 Aphor. 87. Likewise, he for whom the Moon and ♃ are very unfortunate, even if the rest are arranged at will, the native will nevertheless be most unhappy, 3 Aph. 11. Likewise, for whomever ♄ and ♂ are in the same part of the zodiac, it is necessary that great misfortunes occur in their life. 2 Aph. 6. 3 Where

Diagram. A square figure of the heaven (the upper left of four set in one ruled frame): a central box with the particulars of the birth, and twelve triangular compartments around it, formed by the lines joining the midpoints of the frame and the diagonals running from its corners to the corners of the box. The compartments carry sign sorts, planet sorts and figures, set at angles along the ruled lines.

Central box:

Calebus Trygophorus, Prof. of the Acad. of Frankfurt, is born. In the year 1563 Dec. Day Hour ′ 1 14 54 P.M. At Corbachi 0 ′ Under the elevation of the pole 51 14

- Upper-left corner, triangle against the left side: ♎ 2
- Upper-left corner, triangle against the top: ♍ 5
- Upper middle triangle: ♋ 29 36; ♄ 2 36; ♃ 7 31; ♌
- Upper-right corner, triangle against the top: ☽ 14 58; ☊ 8 45; ♊ 17
- Upper-right corner, triangle against the right side: ♉ 13
- Right middle triangle: ♂ 28 40; ♈ 22 30
- Lower-right corner, triangle against the right side: ♈ 2
- Lower-right corner, triangle against the bottom: ♓ 5
- Lower middle triangle: ♍ 29 36
- Lower-left corner, triangle against the bottom: ♐ 17; ☿ 18 3 ℞; ☉ 19 10; ☊ 8 45 ♍
- Lower-left corner, triangle against the left side: ♏ 13; ♀ 15 21
- Left middle triangle: ♎ 22 30

Diagram. A square figure of the heaven (the upper right of the four), built as the first.

Central box:

Matthias Hunniades Corvinus, called the Most Powerful King of Hungary, is born. In the year 1443 Febr. Day Hour ′ 23 17 24 P. M. Elevation of the pole 48 degrees

- Upper-left corner, triangle against the left side: ♐ 11 35; ♉ 4 0 ♍
- Upper-left corner, triangle against the top: ♏ 24 40
- Upper middle triangle: ♏ 4 43
- Upper-right corner, triangle against the top: ♎ 3 28
- Upper-right corner, triangle against the right side: ♌ 11 38
- Right middle triangle: ♋ 4 18
- Lower-right corner, triangle against the right side: ☊ 2 ♋; ♄ 12 35; ♊ 11 35
- Lower-right corner, triangle against the bottom: ♉ 24 40
- Lower middle triangle: ♉ 4 43; ♃ 12 34
- Lower-left corner, triangle against the bottom: ♈ 3 28; ♀ 27
- Lower-left corner, toward the left side: ♒ 11 38; ☿ 20 46; ♂ 8 4 ♓; ☉ 14 18; ⊕ 21 18
- Left middle triangle: ♍ 4 18; ☽ 9 20

Diagram. A square figure of the heaven (the lower left of the four), built as the first.

Central box:

Mauritius, Elector of Saxony, is born at Friburgi in Misnia. In the year 1521 Mart. Day Hour ′ 21 9 34 P.M. Elevation of the pole 51 degrees

- Upper-left corner, triangle against the left side: ♎ 24 38; ♉ 24 39
- Upper-left corner, triangle against the top: ♎ 2 35
- Upper middle triangle: ☽ 25 14; ♍ 0 4
- Upper-right corner, triangle against the top: ♂ 27 4; ♋ 16 24
- Upper-right corner, triangle against the right side: ♊ 9 3
- Right middle triangle: ♀ 17 47; ♉ 14 51
- Lower-right corner, triangle against the right side: ☊ 24 39; ♈ 24 38
- Lower-right corner, triangle against the bottom: ♈ 2 35; ☉ 10 51
- Lower middle triangle: ☿ 25 14; ♓ 0 4
- Lower-left corner, triangle against the bottom: ♍ 16 24; ♄ 12 58 ♒
- Lower-left corner, triangle against the left side: ♐ 9 3; ♃ 22 27
- Left middle triangle: ♏ 14 51

Diagram. A square figure of the heaven (the lower right of the four), built as the first.

Central box:

Ioannes Frideric. I, Elector of Saxony, is born. In the year 1503 Iun. Day Hour ′ 30 6 32 P. M. Elevation of the pole about 52 degrees

- Upper-left corner, triangle against the left side: ♐ 3 7
- Upper-left corner, triangle against the top: ♏ 17 11

- Upper middle triangle: ♎ 28 0
- Upper-right corner, triangle against the top: ☊ 7 29; ☽ 9 48; ♍ 23 57
- Upper-right corner, triangle against the right side: ♀ 13 17 ♌; ♋ 29 39
- Right middle triangle: ☿ 19 52; ☉ 16 54 ♓; ♄ 8 5; ♃ 28 50
- Lower-right corner, toward the right side: ♊ 24 15; ♊ 3 7
- Lower-right corner, triangle against the bottom: ♉ 17 11; ♂ 17 24
- Lower middle triangle: ♈ 28 0
- Lower-left corner, triangle against the bottom: ♓ 23 57; ☋ 7 29
- Lower-left corner, triangle against the left side: ♍ 29 39
- Left middle triangle: ♐ 24 15

no splendid fixed star is either in the angles or with the Planets, but all the significators are in dark and empty places of heaven. 4 Where the 4 significators of felicity named in Rule 4 are unhappy, or all the Planets also are slow and impeded in motion, they signify infelicity and impediments in life.

But since nativities that are excellently either happy or unhappy are rare (as Cardano [Card.] rightly warns, 7 Aph. 17: It is impossible for anyone to be blessed in every respect), mediocrity will be indicated, and indeed from these 4 Rules: 1 When of the superior significators

[Margin: Of mediocrity.]

part is well affected in the essential dignities, part ill affected outside the dignities. 2 When the significators are indeed in their own dignities, but in abject places of the figure of heaven. 3 When the Planets are without essential dignities, and yet in happy places of the figure. 4 When the fixed stars are in the happy angles, but not with the Planets.

[Margin: First example.]

As in our first example, there are no testimonies of felicity; of mediocrity, few. For none of the Planets is in its own dignity, except that ♀ and ♂ are in mutual reception from exaltation, ♂ in ♓, ♀ in ♍: most of the Planets also, except ☿ Retrograde, are swift in course, and promise a middling dispatch in carrying out affairs. But testimonies of infelicity occur in very great number. For the luminaries are outside the essential dignities, the Moon combust by the Sun, ♄ ♀ and ☽ peregrine, and most of the Planets in the sixth house. From this, infelicity is decreed for the native, which presses the native down below a befitting condition; although, on account of ♃ and ♂ very strong in the 4 house, an abundance of the things necessary for sustenance and splendour is at hand for him.

[Margin: Second example.]

In the second example the testimonies of more evident felicity are three Planets, ♂ ♀ and ☿, in their own domiciles; likewise ☽ culminating in △ of Mercury, and ☿, lord of the nativity, strong and moderately fortunate. Of mediocrity they are that the significators are indeed in their own dignities, but are in an abject place of the figure, the 12 house. Of infelicity, that the significators are attended by no splendid stars, And the luminaries are peregrine, especially the Sun, which is also made unfortunate by reason of the 12 house,

in which it stands. There is added that the principal places, the first and the 10 house, likewise all the Planets except Jupiter, are in signs of short ascensions, concerning which position such an Aphor. is read in Cardano [Card.] 3 Aph. 42. Those who have the principal places in signs of short ascensions obey others by force or willingly. From this we judge, since the testimonies of felicity are the stronger, that the native is for the most part fortunate in actions, and lives in dignity: yet Venus combust, and ♃ opposed to Saturn, threatens a certain loss of wealth: he will also serve others of his own accord, although by reason of the ascending sign ♊, masculine and commanding, he could or should command.

[Margin: Of riches.]

By the mention of riches, which we must now treat, Astrologers understand in general all that which either has been left or is left to the native by the parents; or which, acquired by the native himself by his own industry, is preserved, increased or dissipated. And this place is one of the principal ones, about which we have noticed that every native is anxious, since each desires to know his fortunes, authority and credit. For as much as each man possesses in his chest of coins; so much credit also he has. But several circumstances are usually considered concerning this place, before treating of which we shall show the significators in general, of which nine are commonly set up.

[Margin: Nine significators of riches]

[Margin: The first, the second house.]

[Margin: In which is attended to 1 The sign.]

The first is the second house, namely that space which is counted from the 5 degree immediately preceding the cusp of the second house up to the fifth degree preceding the cusp of the third house. In the examination of this is considered: First the sign which is in the cusp, and the other, if any is present or is intercepted. If these are good and fortunate Planets, they will signify riches; if evil and unfortunate, poverty: Antonio da Montulmo [Anton. de Montul]: cap. 10 de jud. nativ.

[Margin: 2 The aspects]

Afterwards the aspects to the Planets; which, if they are good, will denote good things; if evil, the contrary.

[Margin: 3 The fixed stars]

Finally the presence of the fixed stars. And the house is examined in plainly the same way in which we taught above, cap. 1 of this member, that the part of fortune is to be examined.

[Margin: Second, the lord of the second.]

The second is the lord of the second: where first the lord of the sign beginning the second house is sought. Then the lord of the sign intercepted, or beginning, in the second: And its strengths and debilities are explored, according to the precepts set out in cap. 1. For when the lord of the second place, or of the place of Jupiter, proceeds to the lord of the ascendant, and especially if that lord of the ascendant is ♃, the native will be so happy in acquiring riches for the whole time of his life that people marvel at him: Cardano [Card.] 5

Aph. 83. But if the lord of the second is alien from the lord of the first, useless labour and vain exhaustion in increasing property are signified to the native: Haly part. 4 cap. 12. If ♃ also is with the lord of the second, riches are decreed: Cardano [Card.] cap. 22 suppl. Alm. The lord of the second combust and the lord of ⊕ ill disposed indicate extreme poverty, Schöner [Schon.] cap. 9 de jud. genit.

[Margin: Third, the Planets in the second.]

[Margin: Rules on the Planets in the second.]

The third are the Planets in the second, concerning which let these rules be observed:

1 When Planets are in the second house, they are most powerful by bodily presence, and indeed more than if they look upon the second house with some ray. But that one produces more evident effects which is nearer to the beginning of the second house. 2 The benefics in the second give riches and felicity, especially ♃ 5 Aph. 22. For ♃ in the second signifies riches and every kind of felicity, Cardano [Card.] cap. 1 libelli de jud. Genit: The nativity of D. Johannes Heidenreich [Ioannis Heidenri[?]bii] can serve us as an example, whom ♃ in the second, in △ of ☉, lord of the ascendant, increased with riches, gold, and glittering gems.

[Margin: The genesis of D. Ioannis Heidenrichii.]

So ♀ in the second signifies riches and favour, and every kind of felicity, Cardano [Card.] cap. 1 libel. de jud. Gen. ♃ and ☉ in the second make splendid, 5 Aphor. 24. ☊ also in the 2, Schöner [Schonero] cap. 9 and Haly part. 4 cap. 12, denotes increase of substance, and good fortune 3 The Malefics, especially unhappy, signify a bad state concerning goods: ♄ indeed poverty. For in the second it makes the native be in need, distrustful even of his own provisions, in some avaricious, and generally unfortunate, Cardano [Card.] cap. 1 de jud. genit. ♂ however signifies dissipation and profusion. Hence it reduces to want, and exposes to dangers; Cardano [Card.] ibidem. Let him who has Mars in the second beware of trade 6 Aph. 146. 4 ☉ in the 2 makes prodigal out of liberality, or dissipates riches in magnificent display: Cardano [Card.] cap. 1 libel. de jud. Gen. 5 ☿ in the 2 bestows riches by evil arts: Cardano [Card] ibidem. 6 ☽ in the 2 signifies means fluctuating variously, just as she herself too is variable in face: Cardano [Card] ibidem. 7 ☉ and ♂, likewise ♉ in the second, peregrine, signify a man pouring out his substance, 3 Aph. 168. 8 The increase of riches through Saturn happens gradually, through Mars suddenly, moderate from each: 6 Aph. 44.

[Margin: The fourth is Jupiter.]

The fourth is Jupiter. For it has so great a signification of riches that they cannot exist without its testimony. For substance will not profit the native, denoted by the existence of a strong lord of the house of substance, even in the ascendant, or another good place of heaven, unless it has testimony from Jupiter or ♀. For ♃ benefits the native from its own substance: ♀ however brings advantages from eating, drinking, playing with women. But when ♀

or ♃ have not aspected the second or the significators of substance, the native will guard his substance and will not take advantage from it; he will be sparing. Haly cap. 12 part. 4.

[Margin: Rules on the constitution of Jupiter.]

Concerning it, therefore, let these rules be noted: 1 He will never be poor and needy whose lord of the nativity is ♃, Almansor [Almans.] prop. 19. 2 Jupiter powerful in the nativity always promises a huge good, 5 Aphor. 14. 3 He will not be altogether unhappy whose principal places are all in the dignities of Jupiter, 3 Aph. 169. 4 He will not be poor whose lord of the places of the erratics is ♃. But he for whom Saturn[114] will either not become rich, or will not make use of what is left: 2 Aphor. 62. 5 ♄ and ♃, of the superior Planets, administer fortune principally. Therefore he for whom both are unhappy will scarcely have in life anything worthy of his labours. But in whose nativity they regard one another by trine in the angles, from their own houses or exaltation, that native they denote rich and of good fortune. Astrologers pronounce the same of ♀ in ♉ and ♄ in ♎ from a diurnal nativity. But if ♃ also has some dignity, power or testimony, the native will not be able to be very poor: Haly part. 4 cap. 12. 6 ♃ retrograde does not give riches, except at the end of life: But if besides this it is impeded, together with its lord, never. Combust with its lord, it signifies the same: 6 Aph. 153. 6 ♁ with Jupiter never enriches: 2 Aph. 4. 8 ♃ in ♍, peregrine and cadent in the 12, signifies poverty. But if its lord ☿ has shown itself strong, the native, poor at the beginning, will be enriched in the course of time. 9 When ♃ is in the sixth place ℞, and the lord of the second place a Malefic, peregrine, nor has a fixed star helped, the native will be poor: 2 Aph. 141. 10 He whose ♃ is combust in ♏, that man will never be either poor or rich: 6 Aphor. 154. 11 ♃ combust and ☿ in □ of Saturn give want and labours: Genit. 3 Cardano [Card.] 12 ♃ in ♈, and ☉ in ♋: or ♃ in ♈, ☉ in ♐: or ☉ in ♐, ♃ in ♏: or ♃ in ♎, ♄ in ♋: which is a happy reception of each, either from house or from exaltation, in the same degrees, the native will be very rich, from princes, or from public employment, Cardano [Card.] cap. 10 libel. de jud. genit. 13 When ♃ and ☽ are in the same part, ascending to the apsis, the native will be most happy in riches: 5 Aphor. 96. 14 The three benefics ♃ ♀ and ☽, or ♃ ☽ and ☊, happily joined in a good place of heaven, signify outstanding wealth from the friendship of princes or of the childless: Cardano [Card.] in com. super 2 cap. lib. 4 quadr. Ptolemy [Ptol.] see also the nativity of the same 3c[115]. 15 The opposition of ♀ and ♃ is also good, and signifies gain: Genit. 69. 16 ♃ in the first 7° of Aries bestows great goods on the world and on the native, 2 Aph. 64. 17 ♀ in cazimi of ☉ bestows huge riches: 3 Aph. 49. ☽ in the heart of ☉ also performs the same: Antonio da Montulmo [Ant[?]n. de Montulmo] cap. 10 lib. de jud. nativ. 18 ♃ alone cannot give royal riches, unless the testimony of the other luminary has been added: 5 Aph. 18.

[Margin: The fifth is the part of fortune.]

[114] no verb is set here

[115] so printed

The fifth is the part of fortune. Although Cardano [Cardan.], cap. 22 suppl. Alm and in certain other places, rejects it, and attributes the signification of riches only to Jupiter and to the lord of the second house: yet Ptolemy values it highly, cap. 2 libr. 4 quadr., and experience approves the customary precepts of Ptolemy [Ptol.]. But it is examined in the same way as we set out above in cap. 1.

[Margin: Rules of the part of fortune.]

And concerning it Haly part. 4 cap. 12 hands down these things. 1 If ⊕ is powerful and fortunate in a good place, and the lords of its triplicities have aspected it from good and strong places; it is signified that the native will be an acquirer of substance, rich, powerful, abounding, happy. But if any of the damning malefics has so aspected it from ☍ or □, the native's state will be changed, and he will bear now want, now abundance, and labours will befall him in guarding his substance.

2 If ⊕ is in the term of a malefic, and its lord has aspected it from a good and fortunate place, and the malefics have not harmed it, nor its lord, it will be signified that the native mixes himself in vile things for the sake of gain, belittling himself; yet he will gain, and will be the guardian of what he will gain.

3 If ⊕ is in the house of substance, with the malefics not aspecting it, nor casting their rays upon it, and the lord of its house has aspected it from a good place, and in a good state, strong, bright, and free from the malefics that affect ill, it will be signified that the native will be rich, and that riches will come to him without trouble and labour. But if the lord of its house has not aspected it, but the luminaries look upon either it or its lord, without the aspect and harm of the malefics, the native will be fortunate and of a good life; he will gather substance and riches from a king, and from nobles having dominion. But if neither the lord of its house nor any of the luminaries has aspected it, he will be of modest substance, of weak life; he will provide his living for himself from the labour of his own body, nor will he provide more than he consumes each day. And if it is unfortunate and weak there, and under the rays of the Sun, or in the rays of the malefics, he will be very poor, nor will he have that from which to live, except from alms, in collecting which, however, he will also be unhappy.

4 If ⊕ and the almuten of the ascendant is in the 4, they signify lasting fortune. And if it is with the lord of the journey, his fortune will be in journeys. Likewise if ⊕ and its lord are in the fourth house, or one of them in the fourth, it will be signified that the native's fortune will come from treasures, or the keeping of treasures. But if they are in the 12 or 10, it will be signified that the native has dominion over captives, and those cast into prisons.

5 ⊕ in the East, and its lord regarding it, signifies the native rich and powerful in the goods of fortune.

[Margin: Sixth, the lord of the part of fortune.]

The sixth significator is the lord of ⊕, or of the sign in which ⊕ stands, which is usually examined like the other Planets.

[Margin: Rules.]

Concerning this let these two rules be noted: 1 The lord of ⊕ fortunate, and placed in a good place of heaven, 1, 9 or 11, happily aspecting ⊕, makes rich and happy, especially with the happy ray of Jupiter approaching. But unfortunate, and in an abject place of heaven, not aspecting ⊕, with Jupiter being peregrine, or not irradiating the part of fortune, it does the contrary. 2 The lord of ⊕ received by the luminaries, with one of them standing in the 1 or 2, increases riches. But altogether alien from the luminaries, and in abject places, it diminishes means.

[Margin: Seventh, illustrious fixed stars joined to the remaining significators.]

The seventh are the eminent fixed stars, conjoined or coupled with the preceding significators.

For 1 royal fixed stars, mixed with the luminaries or with beneficent significators, such as ♃ ♀ or ⊕, increase riches and honours remarkably: Stadius [Stad.] c. 9 tab. Berg. But the principal stars pertaining to riches and honours are: Regulus, Spica, which gives religious riches: likewise Arcturus, Lyra, the flying vulture, the right shoulder of Orion, and the Swan's tail with Jupiter. These give great gifts, and raise from poverty to sublimity, which the 7 Planets do not do: Almansor [Almans.] prop. 27. 2 The lord of ⊕ well affected, with a royal fixed star, in a good place of heaven, or in its own essential dignity, as house or exaltation, conjoined with the benefics, or with the other luminary, or in mutual reception, from the same dignities, decrees a great abundance of riches. 3 Fidicula in house 2, mixed with Jupiter, ♀ or ⊕, promises immense riches. So the right shoulder of Orion or of the Charioteer with Jupiter denotes an ample increase of means. 4 Spica ♍ or regulus with ⊕ perform the same as ♃, but more slightly. 5 Arcturus with Jupiter promises an abundance of riches with excellence of dignity. Spica ♍ with the same performs the same, and moreover presignifies ecclesiastical dignity: Stadius [Stad], cap. 9 tabul. Berg. And Garcaeus [Garc.] cap. 22 lib. de jud. Genit: But ♄ with Arcturus, the squandering of property; with spica ♍, threatens beggary. 6 The Head of Medusa culminating with Jupiter bestows power of life and death over others; the same also with the Sun, if it is helped by Jupiter, decrees. But with the lot it signifies the confiscation of riches or the dissipation of property: Stadius [Stad.] in the same place. In short, Jovial and Venereal stars in the Sun's escort, or in the retinue of ☽, heap up dignity and means. The Saturnine, crowding round the Sun, entangle in various miseries, and press down more heavily. The Jovial with Mars denote prodigals and spendthrifts; if ☿ is mixed in, gamblers.

[Margin: The eighth the fourth house.]

The eighth is the fourth house. *We consider it, therefore, because it signifies the earth, the common mother, and the parents: from this the judgements of patrimony, of the fruits of the earth, and of metals are sought from it. Albubater, cap. 136 and*

138, recites certain aphorisms concerning this house, from which Cyprianus wrote out two memorable rules on metallic fortune, which Garcæus in cap. 23, and from there Francesco Giuntini [Francisc. Iunct.] in c. 1 lib. 4 Ptolemy [Ptol.], reviews.

[Margin: Rule.]

1 Saturn, lord of the fourth, placed in the fourth house, strong and fortunate, namely in its own domicile or exaltation, direct, swift in motion, in a happy aspect of the benefics, signifies an abundance of wealth and riches from the working of metal mines. And such was the configuration in the nativity of the Emperor Maximilian the First. [Margin: Genesis of the Emperor Maximilian the First.] For ♄ was direct in ♍ and in the fourth house, swift in motion, in △ ♃, and not harmed by Mars. From this he carried off a remarkable fortune from metal mines, with which he also greatly increased his power. Cyprianus relates that such a position was also in the chart of Jakob Fugger [Iacobi Fuggari] the elder, who flourished while Maximilian was ruling. [Margin: Jakob Fugger the elder.] For this man, having formed a partnership with the Noble Lords Turzones, took immense profits for some successive years from the metallic veins of gold in Hungary, so that this man's fortune even extended itself to all the posterity of his family. Yet a certain caution is handed down by Cardano, 4 Aph. 1[?]6., which is to be observed: ♄ in the fourth place, in a fixed sign, especially in ♉ or ♒, does signify a firm fortune, but for the most part a bad end. For its malice is indeed broken, but not removed. 2 The lord of the fourth house, received by essential dignity by one luminary, or by the disposer of one luminary, likewise signifies a remarkable metallic fortune. Such was the configuration of Johannes Rosenberger [Ioannis Rosenbergeri] of Augsburg, [Margin: Johannes Rosenberger of Augsburg.] for whom ♄ is in house 4, and in its altitude, and ☿, lord of the fourth, received by Venus, disposer of one luminary: This configuration decreed him an ample fortune from metal mines, which, however, because of ♄ retrograde, raised him up more slowly. 3 ♃ in the fourth house increases the patrimony, as Cardano [Card] cap. 1 de jud. Genit. witnesses.

[Margin: The ninth significator are the significators of dignities.]

The ninth significator are those which bring wealth in an extraordinary way, *of which kind are the significators of dignities. For since excellent dignity is seldom without riches, therefore the significators which of themselves denote great honours and general happiness of life seem also to signify riches, but by accident.*

Diagram. Square nativity figure, upper left of the plate. The central caption panel reads:

- Nativity of Maximilian I
- Emperor
- In the year 1459
- March, day 22, hour 5, 0 minutes, P.M.

Label clusters in the compartments, clockwise from the upper left:

- Upper left corner, the triangle along the top edge: ☊ 23° 50′; ♂ 11° 40′; ♌ 3°

- Upper left corner, the triangle along the left edge: ♍ 3°; ♃ 22° 10′ ℞
- Top: ♊ 25° 15′
- Upper right corner, the triangle along the top edge: ♉ 17°
- Upper right corner, the triangle along the right edge: ⊕ 3° 28′ ♉; ♀ 28° 0′; ♈ 19°
- Right: ☿ 17° 45′ ℞; ☉ 10° 40′ ♈; ♓ 26°
- Lower right corner, the triangle along the right edge: ♓ 3°
- Lower right corner, the triangle along the bottom edge: ♒ 3°; ♅ 23° 50′
- Bottom: ♐ [?] 25° 15′; ♄ 8° 31′ ♌
- Lower left corner, the triangle along the bottom edge: ♏ 17°; ☽ 18° 8′
- Lower left corner, the triangle along the left edge: ♎ 19°
- Left: ♍ 26°

Diagram. Square nativity figure, upper right of the plate. The central caption panel reads:

- Ioannes Rosenberger,
- patrician of Augsburg, is born
- in the year 1510
- May, day 10, hour 18, 53 minutes, P.M.
- Elevation of the pole 48° 22′

Label clusters in the compartments, clockwise from the upper left:

- Upper left, beside the left rule: ♊ 5° 12′; ♀ 23° 13′ ℞; ☽ 6° 30′
- Upper left, toward the top edge: ☉ 29° 11′; ♅ 24° 47′; ☿ 7° 47′ ♉
- Top, over the caption: ♈ 14° 49′
- Upper right, along the top edge: ♓ 8° 34′
- Upper right corner: ♒ 17° 11′
- Right, upper: ♌ 29° 50′
- Right: ♃ 21° 26′; ♄ 9° 17′
- Lower right: ♐ 5° 12′
- Bottom right: ♎ 14° 49′; ♂ 22° 17′ ℞; ☊ 24° 47′ m
- Bottom: ♄ 1° 42′ ℞; ♍ 8° 34′
- Lower left: ⊕ 16° 35′; ♌ 17° 11′
- Left: ♋ 29° 50′; ♋ 9° 17′

Diagram. Square nativity figure, lower left of the plate. The central caption panel reads:

- Matthæus Cuno, P. & I. D.,
- Ordinarius, is born
- in the year 1551
- September, day 14, hour 23, 30 minutes, P.M.
- Elevation of the pole 52° 20′

Label clusters in the compartments, clockwise from the upper left:

- Upper left corner: ♎ 9° 48′; ♀ 16° 6′
- Top, left of centre: ♂ 25° 18′; ♎ 20° 26′
- Top, over the caption: Spica ♍ 17°; ☉ 1° 19′; ☿ 0° 51′; ♍ 23° 15′
- Upper right: ☊ 5° 2′; ♌ 9° 55′

- Right, upper: ♃ 28° 41′ ♋; ♊ 26° 29′
- Right: ⊕ 5° 13′; ♉ 29° 16′
- Lower right: ♉ 9° 48′
- Bottom: ☽ 7° 16′; ♈ 20° 26′
- Bottom, left of centre: ♓ 23° 15′
- Lower left corner: ♒ 9° 55′; ♄ 15° 51′ ℞; ♅ 5° 2′
- Left: ♐ 26° 29′; Cor ♏ 3° ♐ (Heart of ♏)
- Left, upper: ♏ 29° 16′

Diagram. Square nativity figure, lower right of the plate. The central caption panel reads:

- Hieremias Setserus, P. & I. D.,
- is born in the year 1568
- March, day 8, hour 0, 30 minutes, P.M.
- Elevation of the pole 50° 49′

Label clusters in the compartments, clockwise from the upper left:

- Upper left: ♋ 5°; ☽ 19° 9′; ♂ 23° 32′
- Left, upper: ♉ 21°
- Top, over the caption: ♈ 7° 40′; ⊕ a [?] ad ☉ 9° 4[numeral: ?]′; ♅ 16° 13′
- Upper right: ☉ 27° 33′; ☿ 18° 44′ ℞; ♓ 11°
- Right, upper: ♒ 21°
- Right: ♀ 12° 2′; ♒ 1° 23′
- Lower right corner: ♐ 5°
- Bottom right: ♏ 21°; ⊕ a ☉ 22° 59′; ♃ 10° 4′ ♐
- Bottom, over the caption: ♎ 7° 40′; ☊ 16° 13′ ♎
- Lower left: ♍ 11°; ♄ 23° 27′ ℞
- Left: ♌ 21°; ♌ 1° 23′

[Margin: Rules]

First, therefore, when a signification appears without which there cannot be riches, such as a kingdom, and magistracies, and priesthood: then you may predict riches, as when the luminaries are coupled with fortunate fixed ones Cardano [Card.] cap. 10 lib. de jud. gen. 2 The luminaries give manifest and splendid riches. Oriental Planets more quickly and more manifestly, occidental ones later and more hiddenly: 6 Aph. 49. 3 The luminaries conjoined make fortunate in the acquisition of substance. For to such ⊕ is in the horoscope. So if the luminaries are opposite each other, the native will likewise be fortunate, because for them the part of fortune is in house 7: from this they grow rich from marriages: Leupold. tract. 7. To this and to the preceding rules handed down concerning the 2 house, Jupiter and ♀, can be referred the γένεσις [Greek: genesis, "nativity"] of Matthäus Cuno [Matthæi Cunonis], Ordinarius and president of Law in the Academy of Frankfurt, [Margin: Genesis of Matthäus Cuno [Matthæi Cunonis], Ordinarius of Law.] in which ♃, lord of the 2 house, in its exaltation, in the eighth house opposite the second, in ✶ ☿ and platic △ ♀: and ♀ in mutual reception by domicile with Mars, regarding the second with a ✶: the Sun joined to Mercury in the M.C., aspecting the second with

a △ ray, finally ♁ in the 7., the luminaries being opposite each other: greatly increased a man remarkable for disposition and learning with dignities and riches acquired from the inheritances of the deceased and by his own industry. And spica ♍, occupying the cusp 11, made dear and acceptable to princely men. 4 The Moon signifies riches and fame: happy in the ascendant, it designates great and perpetual happiness, Gen. 49. 5 The Moon with the node in the horoscope makes a perpetual increase of fortune, Gen. 12. 6 ☉ standing in its exaltation, and aspecting the Moon with a △ aspect, and both free from the malefics, denote the native rich, and always abounding in goods, and also leading an adorned life, especially in a diurnal birth: Albubater [Albub.] c. 135. 7 When ☉ is from the 8 to the sixth, and the three superiors from the first to the second, the native will always rise with the greatest impediments, and will be in perpetual increase of fortune. But if ☉ in 8, and the three superiors also in 8 or 7 are found, the native, rejoicing in great happiness from the beginning, will always decline with the passage of time, until he becomes wretched: 5 Aph. 107. 8 ☉ in ♌ raises a man up and does not allow begging: 5 Aph. 33. 9 When ☽ in ♋ is in the heart of heaven, an inconstant fortune of the native will be signified: 2 Aph. 143. 10 When ♃ is in the opposite of ♀ in the third place, regarding the Moon by trigon or ✶, the native will profit from journeys: 2 Aph. 79. 11 ♃ in 2 and the Moon in 1, or in 1 ♃ in its dignity, and ☽ in 2 in its dignity, likewise furnish riches: 6 Aph. 48 12 When ♄ in a diurnal birth is in house 8, and one of the fortunes has aspected it with a good aspect, the native will obtain money from the dead: Albubater [Albub.] c. 137. 13 When the lord of the 8 house, standing in some one of its dignities in the M. C., is fortunate, the native will have good fortune, and will obtain money from the dead: Albubater [Albub.] ibid. 14 When the lord of ♁ is in house 8, and the lord of the ascendant has aspected it, the native will live from the goods of the dead: The same, c. 137. 15 When ♄ is in a good place of heaven, and in its dignity, house or exaltation, and has aspected the ascendant with a trine ray, the native will be rich from lands, gardens or fields. 16 When ♃ and ♀ are unfortunate in bad places, and moreover ♁, struck by the bad ray of the malefics, has an unfortunate disposer, you will not hesitate to judge the native unhappy and poor. Albubater [Albub.] c 143. 17 ☽ conjoined with ♄ in one of the angles, even if he is a king, will be reduced to want. The same, cap. 148, and from him Cardano [Card.] 6 Aph. 144. So □ and ☍ ♄ with ☽ are unhappy. 18 When the malefics in the angles, the fortunes in the succedents: or the Moon combust and the lord of its place happy: or the place of ♂ or of opposition oppressed by the malefics and cadent, and its lord a powerful fortune; or ♃ cadent, and the lord of its place happy and powerful: the native, from the lowest fortune and wretched in youth, will come to a good state. The same in the contrary cases: 6 Aph. 142. 19 For whom ☽ is in the place of Jupiter, if ♃ is not altogether unhappy, it promises good: 6 Aph. 143.

However, all the significators having been shown in order, how they stand in our examples is now to be shown.

[Margin: First example.]

In the first example, therefore: 1 ♌ *holds the second house, to which 4 testimonies of strength are given: It is also favoured by the* ✶ *ray of* ♃, *the trigonocrator, from house 4, with three testimonies; Nor are there any bad rays of the malefics to the second;*

so [?], apart from the platic □ ♄, *which, as also the* ♉ *being present, detracts three testimonies of debility.* ♍ *also occupies the second, the house of* ☿, *which the same regards from the 6 house with a* △ *ray. 2 The lords of the second,* ☉ *the primary,* ☿ *the secondary, are unhappily disposed, as shown in the examination of the first chapter. 3 None of the planets is in the 2 house;* ♉, *however, brings detriment. 4* ♃ *is very strong in the genesis, yet in* □ *of the luminaries. 5 Each part of fortune holds the horoscope, and makes it fortunate in the fortunate sign* ♌: *yet it is favoured by no rays. 6 The lord of both* ⊕, ☉, *is weak in the cadent sixth house. 7 The royal fixed stars do not assent to the significators. 8 The fourth house is moderately happy through the presence of* ♃ *and the sign of a benefic planet. Yet the succeeding sign* ♏, *in which* ♄ *is, mixes in some poison, although there is a trigon between* ♄ *and* ♂. *9 The extraordinary significators are: 1 the luminaries conjoined, which promise mediocrity, because they are in the sixth house. 2 All the planets below the earth, except Mars, which threaten unhappiness.*

[Margin: The other example.]

In the other example, *since* ♎ *occupies the second house, to which 4 testimonies of strength belong: it is also in the* ✶ *aspect of* ♀, *to which 3 are assigned, and* ✶ ☉, *to which 1. Moreover* ☊ *is present, which bestows 3 testim. of strength, and it is assailed by no bad rays; the second house is judged happy and auspicious with 11 testimonies. Next, the lady of the second,* ☽, *is strong, in a good place of heaven, although it is assailed by a partile right* □ *ray of* ♀ *from the 12 house, likewise by a platic* □ *of* ☉ *from the same. Nor is the lady of the second alien from the lord of the first,* ☿, *since it regards her from a trigon with a left ray. Third, no planet indeed is found in the second house, of substance;* ☊, *however, makes it fortunate by its presence. Fourth,* ♃ *has no communion with the 2 house, as neither its lady the Moon; just as* ♂ *is retrograde, peregrine and cadent: yet it looks upon the lord of the horoscope,* ☿, *placed in the 12 house, with a platic right* △: *from this it is judged more weak and unfortunate than middling. 5 That* ⊕ *which is projected from the Sun to* ☽ *has, in* ♓, *5 testimonies of strength by reason of the sign; in* ✶ ♀ *3, in the 11 house 4: and so, placed well enough, it is happy with 12 testimonies. But neither the lord of the triplicity,* ♂, *nor the lord of the house,* ♃, *but only the lady of the exaltation,* ♀, *regards it, the luminaries being farther removed. That one, however, which rises from* ☽ *to the Sun, although by reason of the sign* ♍ *it has 2 testimonies of strength, by reason of the house 3: yet the opposition of* ♄ *in turn casts it down with 4 testimonies of debility, and compels to remain in mediocrity. The Sun afterwards props it up with a* △ *ray: but the lady of the triplicity,* ♀, *is removed farther from it. From this each* ⊕ *is moderately disposed, and inclines more to happiness. 6 The lord of the former* ⊕, ♃, *is extremely weak in the chart. But of the latter,* ☿, *very strong. From this, since* ☿ *irradiates the Moon placed in the M.C. with a right* △, *the weakness of the former is brought back to mediocrity.*

7 No royal fixed stars support the significators. 8 The fourth house also is empty of stars, except that ♀ and ☉ have a □ ray into it, ☽ the opposite. Nor is the Sun, lord of the fourth, happy in the chart, as is evident from the examination of chapter 1. 9 The extraordinary significators are: 1 ♀ moderately disposed, yet under the solar rays, ♃ unfortunate and in the opposite of ♄. 2 All the planets above the earth, except Jupiter, which constitution promises mediocrity. 3 Neither luminary partilely harmed by the malefics.

[Margin: How the testimonies are to be collected.]

Let the collection of the testimonies, however, be made in this way. *Let 1 four classes be arranged, of which the first is to be of the strong regular; the second of the strong extraordinary; the third of the middling, both regular and extraordinary; the fourth of the feeble. Afterwards let the individual significators, as their nature requires, be referred into the fitting classes; and let the collection of them be made; when it has been rightly set up, it will be judged truly and skilfully.*

[Margin: First example.]

And in our first example this appears to be the disposition of the significators.

Strong regular.	Strong extraord.	Middling	Feeble
House 2 ♌.		□ ♃ to ☉ and ☽.	□ ♄ platic to the 2 house.
✶ ♃ to the second.		The luminaries ♂.	♉ in the second.
♃ in the genesis makes fortunate.			The lords of 2, ☉ and ☿, unhappy.
Each ⊕ in the horoscope.			The lord of both ⊕, ☉.
House 4 happy through the presence of ♃.			No fixed stars with the significators.
			♄ in house 4 in ♏ [?].
			All the planets below the earth except ♂.
Testim. 5		2	7
House 2 ♎ in the term. of ♂.	In the other, however, this ♀ in its own house, yet under the rays of ☉. and in the 12 house.	✶ ☉ to house 2.	♃ having no communion with 2, and at the same time unfortunate in the nativity.
✶ ♀ to house 2.		☽ in □ ♀ and ☉.	The Moon, lady of 2, not agreeing with Jupiter.
☊ in 2.		Lady of 2 ☽ in △ ☿.	No fixed stars with the significators.
The lady of the second, the Moon.		△ ♃ and ☿ platic.	☉, lord of 4, unhappy.
		Each ⊕ middling.	☍ ♃ and ♄.
		The lords of ⊕ middling.	
		Almost all the planets except ♃ above the earth.	

Strong regular.	Strong extraord.	Middling	Feeble
		Neither luminary harmed by the bad.	
4	1	8	5

[Margin: The other example.]

Finally, the significators having been collected, let judgement be sought for five questions. 1 Whether the native will be rich, or poor, or middling. Likewise whether the riches will be splendid or obscure. 2 From where, or from what efficient cause, riches, poverty or splendour will come. 3 Whether the riches will be licit or illicit. 4 Whether durable: and 5 at what time riches or poverty will befall the native.

On the first question

Whether the native will be rich?

[Margin: Significators of riches, of poverty. And of mediocrity]

General rule: the strong significators signify riches. The feeble, however, losses and poverty. The middling incline to the side which they favour more, yet they grant nothing peculiar.

Hence 1 all the strong significators signify the supremely rich, abounding in plenty of all things, in need of nothing.

2 All the feeble designate, beyond dispute, the extremely poor and beggars, placed in the utmost want.

3 All the middling significators denote neither the altogether poor nor the rich. Or where there are as many testimonies of fortune as of poverty, mediocrity is promised.

4 But where the strong overcome the feeble, there the natives do indeed feel losses, but yet they breathe again.

5 Where the testimonies of feebleness prevail, he is more poor than rich: and although he sometimes gains something, yet he profits nothing.

6 Finally, splendour of riches is signified when the luminaries are well placed with the royal fixed stars, or when the benefics are with Regulus and Spica, or those benefics themselves are happily placed in good places, are illuminated or conjoined by the rays of the benefics. Above all, however, ♃ has the greatest force in deciding riches.

[Margin: First example.]

For instance, in the first example there are indeed more testimonies of debility than of strength: some also of mediocrity: but more manifest are [those] of strength. From this a middling state in riches, according to the condition of the lineage, is signified for the native. For the second house, fortunate in itself, and illuminated by the ✶ ray of Jupiter, the strongest planet in the nativity: likewise each ⊕ enclosing the horoscope, makes the native in need of nothing. Therefore, although ♉ in the second house and a fiery sign denotes notable loss and want; the lords also of the second and of both ⊕ unhappy (especially since also no fixed stars attend the significators), and all the planets being below the earth, signify a state of the native less splendid, indeed toilsome,

humble, and cast down below the condition of the lineage: yet ♃, *trigonocrator of the second, in the 4 house increased the patrimony, and supplied sufficiency from the inheritance.*

[Margin: The other example.]

In the other example, *since the testimonies of the weak are more powerful than of the strong, but the most numerous of the middling, it is signified that the native's riches will in some way decline from mediocrity to deficiency: both because the strong significators have some feeblenesses mixed in; (for the beginning of the second house is in the term of* ♂. *And the lady of the second,* ☽, *is inconstant in bestowing riches) and because the weak significators are propped up and refreshed by no comforts. For* ♃ *is extremely unfortunate in the genesis, nor has it a manifest connection with the second house or with the other significators. The Sun, lord of the fourth, is weak, and in a cast-down place of heaven: and* ☿, *lord of the first, is alien from the Sun. Yet necessities are for the most part not lacking to him, since* ♀ *too, the other fortune, is in its own house, and does good to the native from its own substance: but that too which it bestows, it in turn consumes, because of the rays of the Sun under which it clings. The losses which occur are not violent, because they depend not on the malefics, but on the weakness of the benefics, on the inconstancy of* ☽, *and on the sign of the second. Each* ⊕ *loses in friends and children the goods it exhibits, because of the* ☍ *of* ♄ *and* ♃ *from the fifth and the eleventh.*

On the second question

From where will the native acquire riches?

[Margin: The signification of poverty and of riches is taken from 5 significators.]

Only those planets which are strong and fortunate signify and confer riches on the native, as said. So the middling significators also confer on the native something of the goods of fortune. But the feeble designate poverty, and those which assail the middling. The signification of riches and of poverty, moreover, is taken according to Leovitius: 1 from the nature of the planets. 2 from the signs in which the significators are. 3 from the houses in which the significators are found. 4 from a partile ray to them, either good or bad. 5 from the nature of the fixed stars to which the significators are joined. *For Spica* ♍ *ecclesiastical things: Regulus signifies political things more. Thus the Saturnine stars signify land. The Jovial, offices and dignities. The Martial, military commands, etc.*

Further, the planets, signs and houses, in the judgement of riches and of want, always signify two things: things and persons. Therefore it is asked here from which things and persons riches or poverty are to be expected. So that these may be considered in order, we shall first see the natures of the planets from Cyprianus Leovitius, and Antonio da Montulmo [Antonio Montulmo], chap. 10.

[Margin: First, from the nature of the planets.]

[Margin: ♄]

♄ therefore signifies earthly things and the earth itself, and the things which are dug out of the earth and grow: hence it denotes agriculture, metal mines,

buried moneys or hidden treasures, and the goods of the dead; likewise inheritances and prebends, earthly crafts, sordid and impure ones, from clay, lime, stone; tenacity, hard labours, buildings, voyages, prisons and the like. Likewise the persons who handle these things: sailors, architects, rustics, diggers, stonecutters, cobblers, potters, tanners, monks, old men, the suspicious, the taciturn, the solitary.

[Margin: ♃]

♃ signifies religious things and laws, namely ecclesiastical and praetorian offices, courtly ones, commendations, religion, the benefices of kings. Likewise religious persons, those outstanding in authority, learned persons, those who pronounce law, prefects of provinces and of cities, senators, bishops, prelates, nobles, and males rather than females.

[Margin: ♂]

♂ signifies fire, anger, military service, armies, wars, brawls, impostures, smiths' works, chemical things, iron, horses. Likewise the persons who handle fiery, violent and military things, such as founders, smiths, gunners, soldiers, captains, leaders, alchemists, brawling men, advocates in the courts, surgeons, robbers.

[Margin: ☉]

☉ signifies public offices, and callings in political government, commands and magistracies, honours, political stipends, magnanimity. Likewise persons in magistracy, lovers of honour, the magnanimous, kings, princes, counts strong in authority.

[Margin: ♀]

♀ signifies pleasures, womanly things, love, mercy, courtesy, gifts from women, marriages, dowries, ornaments, the weaver's art, precious things, music, lust and luxury. Likewise persons adorned, affable, cheerful, merciful, fond of women; the mother, the wife, the female friend, musicians, poets, painters, workers of precious stones, fringe-makers, jewellers.

[Margin: ☿]

☿ signifies liberal studies, philosophy, mathematics, writings and numbers, divinations, trades, embassies. Likewise political persons, learned ones, those who handle numbers and writing, mathematicians, geometers, philosophers, orators, merchants, and ingenious craftsmen.

[Margin: ☽]

☽ signifies water, and things variously mobile, such as fisheries, voyages, the brewing of beer, alum, nitre, salt, embassies, travels abroad, likewise the study of histories. Inconstant persons, runners, those who handle waters, queens, widows, the common people, sailors, envoys, fishermen. It also signifies the mother, and at times the mother's household.

[Margin: On planets coupled.]

But if the planets are coupled with one another: the constitution of Saturn with Jupiter is proper for obtaining inheritances; then ♄ and ♀: lastly ♄ and ☽: 6 Aph. 45. So the constitution of Jupiter and ♀ furnishes riches from the

priesthood. The fixed stars which are of the nature of these planets promise the same: 6 Aph. 46.

Second, we shall weigh the nature of the signs.

[Margin: Second, from the nature of the signs.]

For *the fiery* signify profit from the things which are done by fire, or by contentions and robberies. *The earthy*, from the abundance of things growing out of the earth *The airy*, from windmills, from the benefits of the magistrate, and from donations; because these are given by the voice as if by wind. *The watery*, from waters, water mills, fishponds, voyages. So *the Saturnine* furnish riches from the earth, grain, metal and usury. *The Jovial*, from public or ecclesiastical offices. *The Martial*, from brawls, contentions, robberies and things cooked by fire. *The Solar*, from kings, princes and their gifts. *The Venereal*, from women and donations. *The Mercurial*, from disposition, trade, one's own industry. ☽ from embassies, journeys.

Third, we shall consider also the nature of the houses.

[Margin: Third, from the nature of the houses.]

For the first and the 2 house signify the native's own industry and labour: the third brothers, kinsmen, short journeys, 4 parents, ancestors, and the earth which is the mother of all, patrimony, fields, metal mines, 5 children, the education of children, care and guardianship, gifts, donations, banquets, pleasures, likewise association with the age of boyhood. 6 diseases, the sick, medicine, servants, small animals, bees, doves, hens, geese, pigs 7 marriage, women, partnerships, lawsuits, open enemies, robberies, seditions: 8 the dead, testaments, legacies, inheritances, enchantments, poisonings 9 religion, divination, dreams, longer journeys, embassies. 10 the state of life or of calling, each one's honoured office, the art which a man practises, public magistracies: separately also the mother. 11 The favours of men the promotions of friends and the commendations of acquaintances. 12 hardships, labours, poverty, prison, hidden enemies, harlots, large animals, horses, oxen, cows.

[Margin: The manner of judging.]

When about to judge, therefore, consider the significators promising riches, and from the nature both of them and of the domiciles in which they dwell, judge of the means by which the native is either to acquire or to lose substance. For instance, the lord of the second in the second signifies riches from revenues and one's own office; in the third, from kinsmen or journeys. Every planet, therefore, in its own house shows something good or bad: 5 Aph. 4.

[Margin: Our first example.]

In our example, first, *house 2, ♌, in the ✶ of Jupiter, and ♃ strong and fortunate in the fourth, bestow on the native notable and stable means from inheritance, especially since each ⊕ also holds the horoscope; although the native acquires nothing by his own industry, which the lord of the second, ☉, unfortunate in the sixth, shows. But although the □ of Saturn to the second house afflicts the inheritance somewhat, and ☿ in the second, in the fiery sign ♌, threatens losses from fire: ♄ also, at the end of the fourth, peregrine in ♏ [?], a Martial sign, consumes something of the goods of*

the patrimony by contentions in court: yet the native will not come to want, Jupiter being most happy in the nativity. The luminaries conjoined, and almost all the planets under the earth, show certain vicissitudes of fortune and of misfortune. And since the luminaries, above all ☉, almuten of the first and second house and of ♁, are made unfortunate in the sixth, he has made many expenditures for the sake of the sick; unfaithful servants also have carried off much. For it is worthy of praise and celebration that our Well-born [Generosus] of his own accord succours the infirm and those lying ill from diseases, men of middling fortune as much as the poor, with counsel and with medicines, which by the chemical art at the greatest expense he both prepares himself and has prepared.

[Margin: The other example.]

In the other example, *because the bestowers of goods are only the second house, which is in the sign ♋, over which ☽ presides, being in the tenth house, likewise the ✶ of ♀ to the second from a fixed earthy sign, ☊ in the second, and ♀ in its own house. Therefore goods are promised to the native principally from his own industry, journeys, embassies, the art which he practises, or an honoured office. He also has certain things from women, who contribute to the native something from their own substance towards immovable goods, since both ☽ and ♀ are in fixed signs, ♀ especially in ♉, an earthy sign: ♁ above all, which in the fifth house ☿ ♍ supplies necessities from the instruction of youth, liberal studies; and public stipend: the other, in the exaltation of ♀ in 11, brings the favour of men, and dowries and gifts from women, yet by turns, at times bestowing something, at times taking away, when these things are signified by middling ones. The losses to be feared from children and certain friends arise because of Jupiter unfortunate in 5, and ♄ opposite: and the things to be expected from immovables, those ☉, lord of 4, unhappy in the twelfth, in turn consumes and loses.*

On the third question

Whether the native will acquire riches lawfully or unlawfully.

[Margin: The means by which riches are acquired are judged from 4 significators.]

This judgement, in the opinion of Cyprianus and Garcæus, is taken from 4 places, 1 From the nature of the significator planet, which is either benefic, or malefic, or indifferent. 2 From the sign which it occupies, either malefic or benefic. 3 From the strength of the planet, which is either firm or infirm, combust or retrograde. 4 From an aspect to the significators, good or bad.

[Margin: Rules.]

First, therefore, benefics by nature in the signs of the benefics, and not at all participating with the malefics by a ray, signify lawful means. But if they are retrograde or combust, they mix in some unlawful ones, 2 Malefics in the signs of the malefics, and not participating with the benefics by a ray, denote unlawful means. The malice is increased if in addition they are retrograde or combust. 3 Benefics in the malefics' and conversely malefics in the benefics' dignities mix the unlawful with the lawful, and conversely. Which Cardano [Card.] also

hints at in the commentary on text 7 of book 4 of Ptolemy's *Quadripartitum*, saying. The greatest wealth will be procured if the malefics are strongly and well disposed, with the favour of the benefics: because then they grow rich both by right and by wrong. 4 But if a benefic in the malefics', or vice versa a malefic in the benefics' dignities, is at the same time retrograde or combust, the malice in this business is doubled, and natives in this way will amass riches by unlawful rather than by lawful means. 5 In the same way benefics in the malefics', and malefics in the benefics' ray participate in their nature. 6 The middling are judged according to those planets to whose nature they most approach. But it must be seen whose testimonies prevail, and according to them it must be pronounced.

[Margin: First example.]

For instance, in our first example *the principal significator of substance, ☉, is indeed weak, and placed in the sign ♍ of the malefic ♄, just as ☿ also, succeeding it, is disposed in a similar way, and in addition retrograde. From this all these things denote that the native will seek riches by unlawful means, which ♉ also seems to hint at and confirm. But since riches do not depend for the native on those significators, as we noted in the preceding question, but chiefly on Jupiter, who, being in the house of ♀, is trigonocrator of the ascendant, of the second house, and of each part of fortune, and most strong in the genesis, it is signified that the native will acquire and possess his goods legitimately.*

[Margin: The other example.]

In the other example *the chief significatrix of riches is the Moon, lady of the 2 house, strong enough in the chart, and in the M. C. Likewise ☊ in 2, of the nature of Jupiter, in the exaltation of the same; which signify that the native will use legitimate means, by which he may sustain himself and his own, and acquire substance. But although the Moon, in the dignity of ♄, a malefic planet, assailed by the □ of ♀, mixes in some illegitimate things, yet this bad signification is softened, both because ♄ is in the house of ♃ and the exaltation of ♀, benefic planets, and because ♀ is in its own house and the exaltation of ☽, yet combust.*

On the fourth question

Whether the riches will be durable?

[Margin: The duration of riches is taken from the principal significator.]

Since it not rarely tends to happen that the richest become poor: Therefore it is rightly asked whether the riches that are signified will also be constant. This judgement, moreover, is taken from the principal significator of riches, which is to be chosen before all else in this question.

[Margin: Which is the principal significator.]

Further, there is called principal significator *according to Leovitius [Cypr.] and Garcaeus [Garc.] cap. 22 de jud. Genit. 1 the one which stays in the second house, and if several are present, the one which is stronger. 2 If none is in the second, the one is taken which claims for itself more dominion over the remaining significators; so that its signification is repeated more often: which happens if it is lord both of the second,*

and of ♁, and of ♃, and so of several. 3 If none is employed more often than once, let the Almuten of all the significators together be sought, that is, the planet which has more dignities in the places of the significators of riches. And finally let judgement be given according to these rules.

[Margin: Rules of judgement.]

1 If the principal significator is benefic and strong, the riches last perpetually without impediment. 2 If weak, they last with difficulty, so that now he loses, now he recovers. 3 If a malefic is strong, they last, although with difficulty. 4 If a malefic and feeble, they do not last, but are overturned. 5 If middling ones, it must be seen to which part they incline, or which planets' nature they assume. For from the virtue of those, judgement is rightly given.

Here belong the rules on the malefics in the 2 house, on ♄ with ☽, and similar ones, some of which we have handed down above: Also these from Schöner book 1 chap. 9. 1 If any of the evil ones has aspected the significator of substance, and both are retrograde, cadent, peregrine, in signs of contrary nature; the native will be perpetually poor and needy. 2 The lord of 2 in the seventh, if ♈, ♏, ♑; ♒ have occupied the seventh house, denote that goods will be taken from the native through enemies or foes, or also through associates, a mistress; a wife, and other friends, unless the lord of the ascendant is in a △ or ✶ ray with the lord of 7, or also in other aspects with reception. 3 ♄ ♂ and ☉ are bad in the second. And it will be worse with the lord of the second combust, and ♁ condemned. For they signify exile and the confiscation of goods. 4 When the Moon is joined to Saturn in an angle, even if he is a king he will be reduced to want, 6 Aph. 144. 5 If the luminaries are in an angle, and apply to planets in angles, the native will remain in riches as he was born. But if the luminaries are in angles, and apply to cadent planets, the native will diminish the substance of the progenitors. But if the luminaries are cadent, and apply to planets in angles, the native will be raised from a humble place on high. 6 The Eye of Taurus, the Heart of Scorpio and the Head of Medusa joined with ♁, or to its lord; threaten loss of substance and riches, and poverty. Stadius [Stad.] in Ephemerid. page 58. 7 He will be avaricious, Schöner [Schon.] in the place cited before, who has had the signification of riches from the malefics or from the houses of the malefics, or who has had ♄ and ♂ conjoined in 7 or 12: or ♁ with ♄. He will not be avaricious who has had the signification of riches from ☉ or ☽.

[Margin: First example.]

In our first example no planet indeed, except ♉ bearing the nature of a malefic planet, occupies the second house: But ♃, principal trigonocrator of the second and the first, likewise of each ♁, most strong in the chart, shows that the native will be constant in riches right up to the end of life. The □ of the luminaries to Jupiter takes away something, but of slight moment.

[Margin: The other example.]

In the other example *no planet either, except ☊, is in the 2 house, bearing the nature of a benign planet: yet the Moon, lady of 2, since in the cusp of the 10 house, which is of dignities, she beholds Venus, and ☉ with a square, but Mercury with a △*

ray, can be established as principal significatrix, which, because it is strong enough in the chart, indicates that the native will remain in a middling state.

ON THE FIFTH QUESTION.

ON THE TIME OF THE INCREASE OR DECREASE OF RICHES.

[Margin: The general time of riches is taken from the four quarters 1 2 3 4]

This question is resolved either in general or in particular. The general time is judged by Cyprianus and Garcæus from the position of the chief significators in the 4 quarters of the chart of heaven. For if they are placed in the first quarter, between the horoscope and the 10 house, riches are signified as coming in Youth, or the flourishing age. If in the second quarter, between the M. C. and the setting, in the manly age. If in the 3 quarter, between the setting and the imum cœli, in old age. If in the last quarter between the imum cœli and the rising, riches are signified around the end of life. But if the significators are dispersed through all 4 quadrants, opportunities of acquiring resources and of increasing possessions will offer themselves through the whole life. Cardano [Card.] in the commentary on text 7 of book 4 of Ptolemy's Quadripartitum *distributes the times thus; Planets, he says, in the angles signify Youth, and in the centres and cusps of the angles they give riches at once. In the succeedents, in the middle age: In the cadents, late and in old age. Significators of riches placed in the Oriental part in Oriental signs, oriental from the Sun, in angles and full of light, also bestow wealth quickly and in Youth: Occidental from the Sun, diminished in light and in cadents, more slowly and in senescence. So the swift in motion and direct signify swift events, The slow and retrograde, slow ones. And Genit. 92 Cardano [Card.] teaches: When* ♃ *has fallen, and the lord of Jupiter's place has proved strong, the native, being poor from the beginning, will be enriched in the course of time.*

From these circumstances some general time is usually drawn out. Prudence, however, must be applied: Because riches which must come from an art are not decreed from boyhood, but from the youthful age. So riches from a dowry do not come in infancy; or the last senescence, but youth and the manly age.

[Margin: First example]

Thus in our first example ♃ *is indeed Oriental from the Sun. Each* ⊕ *also is almost in the cusp of the first house, which signify to the native the acquisition of the paternal inheritance in Youth: But the greatest accession of riches befell him in old age, because of the chief significators between the 7 and 4 house, yet not without a certain cost, and a loss of goods through fire, because of* ♄ *in the 2 house.*

[Margin: The other example.]

In the other example *since the chief significators of riches are between the 1 and 10 house, and the Moon in the angle of the tenth, they were shown to the native in middle Youth, by which he could emerge to resources. The manly age was less favourable because of the remote significators, and the signs of the malefics, which hold the 9 and 8 house, likewise* ♄ *in the eighth. So neither is the first old age suited to the collection of riches, because of the opposite rays of the significators, and Jupiter weak and* ℞ *in the fifth place. Yet around the end of life a certain hope of increasing wealth shines*

forth; when ☊ too in the second, and the significators in cadent domiciles; and finally ♀ in △ ☽ is occidental from the Sun:

[Margin: The special time is taken from directions.]

The special time, however, is taken most safely from directions. Ptolemy [Ptol.] indeed directs ⊕ to the bodies of the benefics or malefics. Others direct ♃ as the general significator. Cardano [Card.] 3 Aph. 39 wants the planets, and the fixed, and the rays of the planets to be directed to the second house for riches. But the best is to direct the chief significator to the benefic promissors and their rays, and conversely: yet in such a way that the significators of honours are not neglected. Likewise the directions of the ascendant and of the Moon. For from all these carefully considered by direction; If the significators fall into the happy rays of ♃, ♀, or of happy fixed ones, or also into the bodies of the same, a happy state of the native can be pronounced, and an increase of riches. ♄ too, can signify riches. For happy and fortunate in body or ray, it provides riches and revenues from fields. But if they fall into unhappy rays or the rays of unhappy stars, especially if the same are not proper significators, they bring losses.

CHAPTER X.

ON THE BROTHERS AND SISTERS OF THE NATIVE.

Difficult indeed and uncertain is the judgement which is sought from the chart concerning the brothers and sisters of the native, since brothers and sisters exist outside the substance of the native, and can be entirely separated from it, with nothing departing from the substance of the native: yet the certainty of this judgement is greater then, when the judgement is taken from the nativity of the first-born. Lest we pursue everything that astrologers everywhere hand down without true reasons on the condition of brothers, we shall here see only generally. First, whether the native will be without brothers or sisters, 2 what their condition is, and 3 whether they will agree with him, or rather disagree from him. *At the outset, then, the significators must be considered, of which 4 are established by Leovitius and Garcæus cap. 17. First the 3 house, which extends from 5° immediately preceding this house, up to 5° immediately preceding the following house. 2 The lord of the 3 house, not only the one that rules the emerging sign, but also the intercepted. 3 ♂, which is always the general significator of brothers, as ☽ of sisters. 4 The planet or planets placed in the third house.*

[Margin: Three questions are treated in this matter.]

[Margin: The significators of brothers and sisters, 4.]

[Margin: Whether the native will have brothers.]

Now so that it may be known whether the native will have brothers or sisters, *it must be considered at the outset in the significators; whether 1 they are fertile or sterile. 2 Whether they are placed in fertile or sterile signs. 3 Whether they are masculine or feminine, or in masculine or feminine signs,*

[Margin: Fertile planets]

[Margin: Sterile]

[Margin: Indifferent.]

The planets *fertile* by nature, however, are ♃ and ♀; to which ☊ can be added, since it is of the nature of ♃ and ♀: *The sterile*, on the other hand, are ♄ and ♂, to which ♉ can likewise be joined. *The luminaries hold a certain middle state,* so that ☉ comes nearer to sterility, because of an excess of dryness: ☽ because of moisture is more fertile than sterile. ☿ is indifferent, fertile with the fertile, sterile with the sterile. Its condition, however, is considered in two ways: 1 ☿ assumes the nature of that planet with which it is configured by aspect, in which the stronger aspect is always to be preferred to the weaker, as ☌ to the trine, and this to the sextile, ⚹ in turn to the square, and the square to the opposition. The partile also is preferred to the platic, which is very well known from the above. 2 ☿ assumes the nature of that planet in whose essential dignity it is found. Since therefore it is now established that ☿ can assume the natures of two planets First indeed of that one with which it is associated by aspect. 2 of that one in whose essential dignities it dwells; it must be known in this case that conjunction is worth more than essential dignities; But that the essential dignities themselves take precedence over the remaining aspects.

[Margin: On the nature of the signs.]

As regards the nature of the signs, ♈, because of the domicile of ♂ and the exaltation of ☉, is more infertile and sterile, and therefore of few children. ♉, because the domicile of ♀ and the exaltation of ☽, is more fertile than sterile. ♊ are simply sterile, because of the domicile of ☿, ♋ is fertile because of the exaltation of ♃, and because a watery sign. ♌ and ♍ are sterile signs, both from the signature and because of the domiciles of ☉ and ☿. ♎ is middling, yet more fertile than sterile, because the house of ♀. ♏, fertile, because a watery sign, although ♂, the lord of the sign, detracts something. ♐ is indeed reckoned fertile because of the lordship of Jupiter; yet because it is a fiery sign, and ♉ also detracts something, it is held middling. ♑ and ♒ are of few children. ♓ is established as a fertile sign and of many children. For it is the domicile of ♃ and the exaltation of ♀.

[Margin: The collection of testimonies.]

Afterwards the testimonies of each, both of the Planets and of the signs, are to be collected in this manner. First let sterile, fertile and middling be written for use as a heading. Then under each let its own testimonies be placed, in this way. A fertile *Planet in a fertile sign is set down twice. For first its sign, second the Planet is set down. Thus the sterile in a sterile sign is in the same way repeated twice. But the fertile in a sterile, or the sterile in a fertile, is set down once in the class of the middling. Aspects in the third house retain the nature of the Planet. Signs are assessed by themselves, as was done in the judgement of the temperament.* [Margin: Rules of judgement.] *It is pronounced, however, according to the winning number. Now if all the significators, or the greater part of them, are fertile, they signify many brothers and sisters. Conversely, all, or the greater part of them, sterile, signify few brothers and sisters, or none. Thus masculine Planets and signs, brothers: the feminine signify sisters.* ♄ *in the east also signifies elder brothers, that is, who were born before him;* ♂ *in the west younger.*

[Margin: Ptolemy's opinion.]

Ptolemy, however, in cap. 5 or text. 17 of libr. 3 quadr., lays down that judgement can be made of uterine brothers and sisters only: and therefore refers the judgement about brothers at the same time to the mother, as streams to the source, and establishes the significators. 1 The middle of heaven, then ♀ by day, the Moon by night. But if the benefics are configured with those places, they increase the brothers in proportion to the multitude of the stars configured, and of the signs, either uniform or bicorporeal. The malefics, on the other hand, elevated, or opposed by diameter, signify a fewness of brothers, and most of all if together they enclose the Sun.

[Margin: Special aphorisms on the number of brothers.]

Let these special Aphorisms also be noted, 1 Let no one investigate the number of brothers too precisely and one by one, beyond what can be done, according to the sober Astrological precepts: Ptolemy [Ptol.] in the place cited before. For, as Cardano [Card.] rightly warns at the preceding text 16, it is fitting for us to be too bold neither in the judgement of brothers, nor of parents, nor of sons, nor of sex, nor of number, nor of monsters; especially since in our regions, which are very far distant from the Tropic of ♋, the stars of the zodiac have less efficacy, and a truth as it were shadowy: so much so that if anyone wishes to trust much, he will commit great errors. 2 Take the number of brothers from the sign of the 3 house. For if it is of the signs of several sons, and its lord likewise, say that several brothers will be: if of few, and its lord likewise, say few: Schöner [Schon.] c. 3 lib. 1 de jud. Genit. 3 You will also know the number of brothers from the distance of the lord of the triplicity of the 3 house from the ascendant, if it is above the earth, or from the ascendant to the lord of the triplicity itself, if it is below the earth, giving one to each sign, but two to a double sign: Schöner [Schon.] in the same place, and 6 Aph. 15c. Cardano [Card.]

4 The nativities of brothers mostly have one ascendant, because the place of sons in the parents is often one: 5 Aph. 2. 5 ♄ in 3 denies brothers, Genit. 71 Cardano [Card.] 6 If the ascendant of the native is 3° ♏, the native will have no brothers by his own mother. Schöner [Schon.] in the place cited before. 7 As many Planets as aspect the 3 house, or its lord, from masculine signs, so many brothers will the native have. If it is in feminine signs, so many sisters. And if they aspect each other with a good aspect, they will live; if with a bad, they will die, Schöner [Schon.] ibid. 8 Mars combust signifies a fewness of brothers, and the death of the younger. 9 The lord of the house of brothers combust, or ☉ in the house of brothers, or in the opposite of Jupiter, signifies few brothers, and that they will be destroyed and scattered. 10 ♄ or ♃ in the 1 house makes either the first or the most honoured among the brothers. 11 ♄ or ☉ in any of the angles in its own dignity, or if the lord of the ascendant is one of the three superiors, and is in the third; or the lord of the third house is one of the inferiors in the ascendant, signifies the first-born, or the chief. 12 The lord of the house of brothers in the ascendant signifies the first-born, or the solitary, Schöner [Schon.]

[Margin: The first example.]

As in the first example the significators of brothers and sisters are disposed in this way.

Fertile *is*	Middling *are*	Sterile
△ ♀ *to the third.*	♂ *in* ♓	☽ *in* ♑ *in* ☌ ☉.
	☌ ♀ *and* ☿	*The third house in* ♍.
	△ ☽.	*The lord of the third* ☿ ℞.
		△ ☉ *to the third.*
		☍ ♂.
		✶ ♄.

Since, therefore, the sterile testimonies prevail, no brothers, but some sisters, and indeed three in number, are signified to the native, from △ ♀, △ ☽, *and* ☌ ♀ ☿, *of whom one also lived fairly long, since she had been designated by a good aspect; the rest died in childhood.* ♂ *in* ♓ *and the 9 house gave no brothers, because it aims at the third with an opposite ray. And what* ☌ ♀ *and* ☿, *or also* △ ☽, *brought about, that they also lost at once, since those significators stand in the 6 house, of illnesses.*

[Margin: The second example.]

In the second example	Fertile *are*	Middling	Sterile
	The third house ♋	☽ *in* ♒	♂ *in* ♈
	The third house ☽		△ ♄
	✶ ♃		□ ♂
			✶ ☿

Hence, since the chief significators are fertile, ☽ *also in the M. C. middling, and only the rays of some to the third house sterile, which cannot hinder this very thing that the fertile bring about, it is signified that the native has some uterine brothers and sisters. And sisters indeed four, since the Moon is 4 whole signs away from the horoscope. But brothers, the native himself counted in, three, since the horoscope is also three signs distant from Jupiter. For* ♋ *too, a feminine sign with the Moon as lady, more sisters; but the Moon in a masculine sign, and* ♃ *in a feminine, note fewer brothers.*

[Margin: On the condition and fortune of brothers.]

Then, for judging the fortune of the brothers, the strength of the significators must be considered, whether they are strong or weak. For if all the significators, or the greater part of them, are powerful, in good places of heaven, configured with benefics, they signify a happy state of the brothers, so that long life, honours, favour with the great, and riches are decreed to them: from which advantage will also come to the native. Conversely, if they are feeble in abject places of heaven, they signify obscure, ignoble and unhappy brothers. If they are partly powerful, partly weak, to some brothers a middle state, to some danger is portended, according as the strong the weak, or conversely the weak overcome the strong.

[Margin: On Mars]

Above all, however, since ♂ is the significator of brothers: therefore, strong and in its dignities, it denotes prosperity, power and fortune to the brothers: if it is cadent from house or exaltation, it portends the contrary: Haly part. 4 c. 13. Schöner [Schon.] also, lib. 2 c. 4, in the significations of the Planets in the 12 places of heaven, advises this on ☊ and ♅. [Margin: On ☊ and ♅] The Head in the third makes noble and fortunate brothers, and the native to be of worse condition than his brothers; gives exaltation in Ecclesiastical matters, makes prelates, fearing GOD. And gives good fortune in small journeys. ♅, on the other hand, signifies the destruction of brothers and sisters, and that the native is better than his brothers, and he will have lawsuits with neighbouring kinsmen, and misfortune in short trips.

[Margin: On the Moon.]

It must be noted, however, that if the Moon is stronger than Mars, greater fortune to the sisters: but with Mars more fortunate than the Moon herself, greater fortune is decreed to the brothers. If they are equal, equal things are signified to each sex.

Thus if the lord of the 3 is joined to the bad by body or by a bad aspect, the death of the brothers will be signified. But the lord of the 3 in the company of the benefics gives the brothers joy and happiness. Thus where the signs of the 3 and 8 houses are of one Planet, there the brothers of the native depart from life while he himself is living. Where ☽ applies to a Planet standing in its house or exaltation, the native will have dignity above his brothers.

[Margin: The first example.]

As in our first example we said that three sisters are signified to the native by the △ *of Venus,* ☌ ♀ *and* ☿*, and* △ ☽*: of whom, however, the one who survived is judged neither very fortunate nor unfortunate, because Venus is indeed free from the rays, direct and swift, but peregrine and in the 6 house, of diseases. The joy too, which was signified to one sister by the lord of the third, Mercury, joined with Venus, proved very unstable and fleeting, because* ☿ *itself is also weak and* ℞*, and is joined to Venus, not powerful, in the sixth house; which constitution also foretold the death of a sister before our native.*

[Margin: The second example.]

In the second example *the significators of brothers* ♃ *and* ♂ *are disposed in different ways; for* ♃ *is very unhappy and unfortunate;* ♂*, on the other hand, happy and strong, though in the 12 house.* ♃ *is also configured* ✶ *to the 3 house, but* ♂ □*. Hence the state of the brothers middling and doubtful, and of the native better and more illustrious than of the brothers, is signified; which, however, is itself also tolerable, since* ♂ *is in its own house. The brothers anticipate the native in death, because* ♄ *is opposed to Jupiter, and* ♂ *itself is found in the opposite of 6 and* □ *8.* ☽*, lady of the 3, significatrix of sisters, placed in the 10*[116] *house, promises indeed a certain dignity to the sisters, and fortune; yet they will be less happy than the brothers, since* ♂ *in*

[116] printed as a 1 followed by an open round sort shaped like a c; read as 10

the chart is stronger than the Moon, which was made manifest from the collection of dignities made in the first chapter.

[Margin: On the concord of brothers in general.]

Third, in discerning the concord of brothers, the lord of the ascendant must be looked at, and compared with the lord of the 3 house. For the Lord of the ascendant signifies our native: but the lord of the 3, his brothers. Therefore in general, if they are in concord, namely joined, or beholding each other with a benefic ray △ or ✶, they signify friendship and usefulness from the brothers: if they are strangers to each other, or in a bad aspect □ or ☍ to one another, they portend enmity and disadvantages: And ☍ is a worse ray than □. The nativities of brothers, however, mostly have one ascendant, because the place of sons in the parents is often one, 5 Aph. [numeral: ?].

[Margin: In particular.]

In particular, however, according to Schöner [Schon.] c. 3 lib. 1 de nativ and Albubater [Albub] c. 151, let these things be noted: If the lord of the ascendant aspects ♄, or ♂, or both, with a bad aspect, little peace and tranquillity among the brothers is signified. But if Mars, above all the lord of the third, has been aspected by the lord of the horoscope from a △ with reception, the native will agree with the brothers even when they are quarrelling among themselves. Gaurico [Gauric.] cap. 1 tract. Astr. and Schöner [Schon.] 2 The lord of the third in the ascendant, agreeing with the lord of the ascendant either by mutual reception or by a ray, or so that the same is Lord of the 3 and of the first, signifies remarkable concord and agreement among the brothers. 3 The native will have profit from the brothers if the Lord of the third is joined bodily to ⊕ or to its lord, in good places of heaven. 4 ☋ in 3 and the lord of the second combust signifies that the native will lose means on account of his brothers. Say the same if it has burned the lord of ⊕. 5 The brothers agree if the lord of the third has agreed with ♀ by day, with ☽ by night: And if the same have come together with ⊕, the one will help the other. 6 ♈ or ♎ in 1 makes the brothers either base or hostile. 7 ♋ or ♍ in 1 signifies brothers powerful, but enemies of the native. 8 ☋ and ♒ in 1 usually signify brothers either dying, or nursing grudges and dissensions. 9 ☿ joined or opposed to Mars makes discord among the brothers. 10 ☿ with the Heart of ♏, in the 3 house, mixed with Mars, signifies fratricides according to Stadius [Stadio], which indeed he asserts he has confirmed by two examples, c. 10 tab. Berg.

[Margin: The first example.]

In our first example ☉, lord of the ascendant, compared with ☿, lord of the third, beholds it with no aspect, nor agrees with it, but is rather a stranger to it: from which it is signified that the native cared little for the sisters. ♄ and ♂ also aspect the Sun ✶, which good ray of the malefics marks certain disagreements and grudges, which ☋ in the ascendant confirms.

[Margin: The second example.]

In the second example, *the lady of the third house is the Moon, but of the ascendant ☿. Since, therefore, these two Planets behold each other in the genesis with a △ ray, and ♂ too has a sextile ray to the first, consent and concord of the native with*

the brothers is signified, and neither ♄ nor ♂ aspects Mercury, lord of the first, with any ray. The square of ♂ to the third, however, if it stirs up any dissension among the brothers, does not bear on the native, since neither is it directed to the horoscope, nor is any other bad one, apart from □ ♃, which has a slight, and □ ♄, which has no signification of brothers.

[Margin: This doctrine of brothers can also be applied to relatives by marriage and to other kin.]

It must be observed, however, by way of a conclusion, that whatever we have said about brothers is to be understood also of relatives by marriage and other kin. For the marriages of brothers and sisters win us affinity. Hence such as the brothers and sisters signified to us are, such also are the relatives by marriage understood to be; about whom, however, it does not seem necessary to treat specially here, since below too, in the chapter on friends, we shall deal with them more fully. Let only an aphorism of Schöner be noted here, cap. 3 libr. 1 de nativ. ♂ by day, or ♄ by night, in the ascendant or the fourth house makes the native humane towards his kinsmen.

Chapter XI.

On Parents.

[Margin: Why the judgment about parents from the stars is doubtful.]

As the judgment which Astrologers weave about the brothers and sisters of the native is difficult and less certain: So too what they put forward about parents can be called into doubt, since parents, like brothers and sisters, stand outside the person and actions of the native, and are for the most part unknown to Astrologers.

[Margin: Why it is not to be neglected.]

This judgment seems, however, not to be neglected, even for this reason, that we find by experience that the nativities of sons and of parents have a hidden kinship with each other, so much so that from the nativities of the sons often the condition of the parents, above all that which follows their nativity, as Cardano [Card.] teaches in com. on text. 10 lib. 3 quad. Ptolemy [Ptol.], and from the genesis of the parents the qualities

[Margin: The genesis of the first-born gives stronger indications about the state of the parents.]

and accidents of the sons are in some way judged. Above all, however, judgments are to be sought from the nativity of the first-born, as Schöner [Schon.] notes, cap. 2 lib. 1 de nativ., since the first-born has a stronger signification over the being of the father than any other, who exhibits only something of signification, as Almansor says, Aph. 95. And Cardano [Card.] says, 5 Aph. 75: The first-born has a greater signification over the parents, and indeed a complete one, until another son is born. He calls it complete, however, only by comparison with him, in what it is able to signify. Moreover, as the nativities of sons change the fortune of the father and of the nursling, up to the nativity of the following one, 5 Aph. 40, which he also hints at in the com. cited earlier in these words: When a son is born, the state of the parents and kinsmen is changed for better or worse: So the nativities of the parents govern the fortune of the

children, up to their adult age, namely when they are torn away from the parents: 6 Aph. 108.

[Margin: Significators of the father and of the patrimony, 5.]

Further, these four signify the father and the patrimony, as Garcæus teaches, cap. 16 de jud. Genit. 1 The fourth house. 2 Its lord. 3 The Sun in a diurnal, ♄ in a nocturnal nativity. 4 The Planet or Planets in the fourth house. 5 The rulers of these places.

[Margin: General rules.]

For if these significators, either all of them or for the greater part, are powerful and propitious, in good places of the figure, joined with the benefics ♃ or ♀ by body or by a beneficent ray △ or ✶, they signify an illustrious and splendid fortune, and longevity of the father after the nativity of the son. For about the state before the genesis, the native not yet existing, it cannot be judged from the nativity of the native: as Haly warns in com. on cap. 4 lib. 3 quadr. Ptolemy [Ptol.]. But if they are weak and impeded, in bad places of the figure, falling from the angles, outside the good of the good, and in the bad aspects of the bad, □ or ☍, they designate a humble, abject, inglorious and unhappy father, or a sickly one, and of short life. If they are partly powerful, partly weak, from which a middle state is usually gathered, that will have to be judged chiefly from the concurring testimonies of the Planets in the fourth house. But if one has occupied the fourth house, the middle state will have to be either heightened or lowered according to its nature. If several, let the one superior in dignity be preferred to the rest.

[Margin: Particulars about the fourth house and its lord as to the quality of the father.]

In particular, however, about the fourth house and its lord, let what Schöner teaches be noted, cap. 2 lib. 1 de nativ. If you find fortunate stars in the fourth house, and their lords in the angles or succedents, and well disposed, without aspect of the malefics, judge that of the parents[117] to be praiseworthy and good. But if they are in the cadents or unfortunate, or if there are unfortunate stars in the fourth house, or the lords of the aforementioned places are badly affected by the malefics, or in bad places, judge that the parents will come into misery; and all these things by weighing according to their strength and weakness, and by the measure of the nativity. 2 Almansor says, prop. 76: When the lord of the fourth house is impeded by the Lord of the ascendant, there will be fear for the father of the native: Conversely, therefore, the Lord of the fourth house agreeing by mutual reception, or conspiring by a friendly ray with the Lord of the ascendant, signifies a flourishing and fortunate state for the father. 3 ☉ or ♃ in the fourth signify renown of the parents. The same is decreed if they aspect the fourth house:

Schöner [Schon.] 4 The Planet signifying the father, if it has stood in an angle or a succedent house, or also in its own house or exaltation, signifies honour of the father: Albubater [Albub.] cap. 154. 5 ☉ ♄ ♂ and ☿ joined in the fourth show that the father will die soon, Schöner [Schon.] in the place cited above.

[117] no noun is printed for this genitive

[Margin: Particulars about the Sun and Saturn.]

About ☉ and ♄, however, let these things be observed. 1 If ☉ in a diurnal, or ♄ in a nocturnal genesis, and the lord of the fourth house, in a diurnal as well as in a nocturnal one, is in the angles, above all in the midheaven, and in its houses, or exaltations, or terms, or triplicities; irradiated by fortunate stars, it signifies that the father of that native will be noble, renowned, and praised in the stock from which he was born. But if it is in house or exaltation, or some one of its dignities, removed from the angles, and none of the benefics has aspected it, it signifies that the father of the native has lost the power which he had. So if it is in a peregrine sign, and yet strong in the midheaven and in the aspect of the benefics, it signifies that the father was indeed base, but gained nobility and power: Haly part. 4 cap. 15. 2 ☉ placed in house or exaltation, and in a good place of heaven in a diurnal nativity, signifies a father of high name and of great voice, that is, of fame: Albubater cap. 154. You will judge the same of ♄ in a nocturnal nativity when it is disposed similarly. 3 The Sun beholding the angle of the earth, and also ♄ and ♃, with some reception, with a good aspect, denotes the dignity of the father in a magistracy: Albubater [Albub.] in the same place. 4 The Sun, ♃ and ☊ joined, so that they are not more than one degree apart, especially in an angle, signify great felicity of the parents: 3 Aph. 44. 5 If ♃ and ♀ in the figure, in whatever way, and from whatever application or aspect, are associated with the Sun or ♄, or ♃ is associated with Venus; and there is a fit association between the Sun and ♄, so that either they are conjoined, or they aspect each other by △ or ✶, with each being strong, they announce long life and fortune to the father. But if they are not strong, they portend poverty indeed to the father, but a long life. But if they do not agree, as has been said, and ♂ is elevated above the Sun or Saturn, and the Sun does not come together with Saturn, but aspects him from a square or ☍ ray, with both the Sun and Saturn removed from the angles, they will signify weakness: but in the angles, also a short life, or harm of the parents: Schöner [Schon.] cap. 2 lib. 1 de nativ. 6 The Sun in the term of a benefic in a diurnal nativity signifies good health of the father. The constitution is better if the Sun is with Jupiter in his term. Schöner [Schon.] in the same place. 7 If the Sun is placed alone in 11, the parents will have great fortune, and he himself will have a great name in distant lands, and will be fortunate in his works. 8 The Sun with ☊ and ☽ in the fourth house gives nobility to the father, and to the native a modest life. 9 ☉ in a better state than the Moon signifies a father nobler than the mother. And if the Moon is in a better state than the Sun, the mother is nobler than the father of the native, Schöner [Schon.] in the same place. 10 ☉ and ☽ conjoined in a masculine sign signify dignity of the father, but death of the mother before the father. 11 ☉ and ♃ in abject places, either conjointly or separately, so that one is in 12, the other in 6, signifies that the father of the native was a servant. 12 ☉ in the house of ♄ in the sixth indicates the father of the native a servant: Schöner [Schon.] in the same place. 13 ☉ or another principal significator of the father, above all the lord of the fourth, peregrine

in 12, signifies humility or depression of the father; Albubater [Albub.] cap. 155. 14 ☉ with ♉ [?] in a bestial sign, cadent, signifies humility of the parents: Albubater [Albub.] in the same place. 15 ♄, significator of the father, in ♌, signifies the improvement of the state and his prosperity:

Schöner [Schon.] 16 ♄ in M. C. in a nocturnal nativity, or in the place of ♁, or in some good place, signifies the father of the native fortunate and rich.

[Margin: On the death of the father. Aphorisms.]

[Margin: In a diurnal genesis]

Whether the father will die soon, and what the future diseases of the father are, is judged from the following Aphorisms. In a diurnal nativity, then: 1 If the Sun is in the term of a benefic in a diurnal nativity; or better still; if the Sun is with Jupiter in its own term, it signifies goodness of the life of the father: Schöner [Schon.] cap. 2 lib. 1 Nativ. 2 The Sun, or the lord of the sign in which ☉ is, badly placed in the figure, signifies the father about to die soon: Schöner [Schon.] in the same place. 3 ☉ and ☽ conjoined threaten the parents with a bad death, Schöner [Schon.] 4 ☉ and ♄ in the cadents signify adverse health for the father, and his debility. 5 ☉ in the second, in □ of ♄ or even joined to it, shows the father of the native about to die either of phthisis or of dysentery. 6 If ☉ or the lord of its place is found badly located, the father will perish first; if ☽, the mother. 7 ♄ afflicting the Sun brings death to the father from a melancholic fever, or from noxious humours: Gaurico [Gauric.] cap. 1 tract. Astrol. 8 If ♁ is unfortunate and combust in a masculine sign, the father will die before the mother. If in a feminine one, the mother will die first: Haly part. 4 cap. 16. 9 If ♄ has aspected the Sun by □ or ☍, or is elevated above the Sun, fevers with trembling will befall the father, or abscesses in the throat and many infirmities, scarcely or never curable, and they will denote a notable debility of the body. 10 One of the malefics in the house of ☉, in a diurnal or nocturnal nativity, condemns the father in the eyes or in the quantity of life. 11 ♂ afflicting the Sun, and aspecting with either a □ or a ☍ ray, denotes that the father will incur great debility after the nativity of the son, or will even die suddenly. 12 If ☉ is in the second, and ♂ is in its □, the father of the native will perish by blood suddenly bursting out. 13 If ☉ is in 7, but ♂ and ♄ in the fourth, unless they are mitigated by the aspect of fortunate stars, the father of the native will die of wasting or consumption. 14 ♂ ascending after the Sun condemns the power of the father, and gives an indication of a bad death. 15 If ♂ is in the house of ☉, a sudden death for the father will be signified, Schöner [Schonerus]. 16 When ☉ is with Saturn, struck by the rays of Mars in a diurnal nativity, the father will die in that year. If ☽ in a nocturnal one, the mother will die from childbirth. 6 Aph. 155.

[Margin: In a nocturnal one.]

But in a nocturnal nativity, ♄ is considered in exactly the same way as we have already considered the Sun in a diurnal one. And ♄ injured by Mars injures the father with Martial diseases and affairs. But it is to be noted: When you see that the decrees of the father do not come about for him who nurtures the

son as his own, you should be certain that the son is adulterine, 3 Aphor. 144. Albubater gives the same warning, cap. 161.

[Margin: First example.]

In our first example, ♎ occupies the fourth house, in which ♃, fortunate and happy, is present bodily in the chart, and favours it. And since the house is that of Venus, which beholds the cusp with a partile □ ray, and the exaltation of ♄, which is also significator of the father in a nocturnal nativity, and strong and fortunate, irradiating with ✶ the lord of the first, the Sun, placed in the Saturnine house ♑: therefore, from this agreement of the lord of the first, ☉, and ♄, a flourishing and fortunate state is signified for the father of the native; which, however, ☉, in the sixth house, a cadent one, somewhat depresses. But the △ of ♂ to Saturn raises [the state] again, in whose domicile ♄ is. Finally, since ♄ is in the term of Jupiter, a beneficent and powerful Planet, good health and a longer life are decreed for the father, nor can the ☌ of ☉ and ☽ harm, since the genesis is nocturnal, nor does either ♂ aspect the Sun, or the Sun ♄, or even ♂ himself Saturn, with a maleficent ray; rather, the rays between them are beneficent.

[Margin: The other example.]

In the other example, ♌, *the sign of ☉, occupies the fourth house, which sign by its own nature is indeed happy and fortunate. But its Almuten, ☉, in the examination of the first chapter, according to the form of the heaven rational, instituted, in which it was detected to pertain to the 12 house, declines somewhat from strength to debility, whereas in the equal form it is referred to the 11 house, in which it is established to be somewhat powerful in strength. The Sun too, in this diurnal nativity the principal significator of the father, is in the house of ♀, which is moderately strong, however much it is under the rays of ☉, conjoined to its disposer, and in platic △ of ♃, but square to the fourth house. Hence this constellation shows the father of the native to have been placed, after the time of the nativity, in a sufficiently flourishing state, and in an office conspicuous on account of the Sun, favourable to Ecclesiastics on account of the △ of ♃, but dangerous on account of the square ray to the fourth house. The △ of ☉ and ♃ designates firm health and life for the father after the nativity of the native, especially since ☉ too stays in the term of Mercury, which is the most fortunate of the Planets in our genesis.*

[Margin: Judgement concerning the mother.]

[Margin: Significators of the mother, 5.]

The doctrine concerning the father having been explained, the mother must now be dealt with as well. Signifying the mother are: 1 The tenth house. 2 Its lord. 3 The feminine Planets, ♀ in a diurnal, ☽ in a nocturnal nativity: but yet ☽ is more to be observed, because the Moon and ☉ are in geneses as it were father and mother. And experience testifies that diseases of the menses befall the female sex from the constitution of ☽ to the Sun. 4 Planets in the 10 house. And 5 the rulers of these places.

[Margin: General rules.]

For these significators, if either all or the greater part of them are happy, show the health and happiness of the mother after the native has been brought forth. On the

other hand, badly affected, they signify the mother afflicted, and subject to various diseases, illnesses and calamities, and unhappy. But some strong and some weak denote a middle condition; which, however, inclines to that side which the principal significator of the tenth house shows.

[Margin: Whether the state of the mother or of the father will be happier.]

The quality of the misfortune which is signified, moreover, is judged from the quality of the malefic injuring the Moon or Venus. For Mars brings Martial, ♄ Saturnine evils. The house is also considered, likewise the orientality and occidentality of ♀ and ☽: because orientals harm life more, occidentals fortune. Finally, from the comparison of the significators of the father and of the mother it is easily recognized the state of which parent will be happier. For the said significators of the mother, happier than the significators of the father, also signify the mother happier than the father, and conversely.

[Margin: Particulars about the tenth house.]

To this general doctrine, moreover, let these special rules be noted: 1 On the tenth house. If you find fortunate stars in the 10 house, and their lords in good places of heaven, angles or succedents, removed from the conjunction of the malefics or from bad rays, judge the mother honoured, and in a flourishing state of life and of fortunes. You will judge the contrary if both the stars in 10 are unfortunate, and their lords have occupied cadent houses, and are affected by the bad rays of the bad ones. 2 The Moon or ♀ in 10, if ♃ has aspected it beneficently, signifies dignity of the mother. 3 ♄ in 10 retrograde in ♊ conjoined to Mars kills the mother of the native by a collapse. 4 ☽ or ♀ conjoined to Saturn, Mars, and Mercury in 10, or 4, signifies the mother of the native about to die soon, Schöner [Schonerus] libr. 1 cap. 2 de nativ.

[Margin: On the Moon.]

Secondly, on the Moon, which presides over the night: 1 If the Moon is fortunate, which happens by domicile, triplicity and exaltation, in good places of heaven, an angle or a succedent house, and ♀ has helped it by conjunction, or by ✶ or △ ray, or ♃ too has aspected it well, the life of the mother will be prolonged: Schöner [Schon.] in the same place and Garcaeus [Garc.] cap. 16 de jud. genit. Gaurico [Gaur.] cap. 1 tract. Astrol.

2 ☽ with Venus in an abject place, either together or separately, so that one is in 12, the other in the 6 house, shows that the mother of the native was a maidservant. 3 The lord of the sign in which ☽ is, if it is in its fall, or in abject places, likewise argues that the mother of the native was a maidservant, Schöner [Schon]: 4 A malefic, either ♂ or ♄, aspecting the Moon hostilely by □ or ☍, and both diminished in course, and removed from the angles, cast the mother into diseases. Both ☽ and the malefic increased in course, and especially if ☽ or ♀ are in the Oriental angles or succedents, as the first, 10, 2 or 11, shorten the life for the mother. On the other hand, if ☽ or ♀ are in the occidental angles, 4, 7, or their succedents, 5 or 8, injured by the malefics, they cause poverty. 5 The Moon impeded in the seventh, the mother of the native will labour under want. 6 ☽ Oriental afflicted by Saturn signifies fevers, trembling

and death, because ♄ is cold, Gaurico [Gauric]: cap: 1 & Schöner [Schon]: But Occidental afflicted by Saturn signifies diseases, and death from abscesses in hidden places, the womb, the kidneys, etc.: 7 The Moon in opposition to Saturn signifies death for the mother, through adverse health of the belly. 8 ☽ conjoined to ♄, the mother of the native will be weakened by dryness or leanness. 9 ♄ ascending after the Moon condemns the power of the mother 10 ☽ running between two malefics at the natal hour, without the aspect of the benevolent ones, exposes the mother to danger of life, and shows that the native is not nursed. 11 ♂ in the house of ☽ signifies the death of the mother. 12 If ♂ has aspected the Moon hostilely, and either ☽ or ♂ is Oriental, sudden death or inseparable adverse health is announced to the mother. If Occidental, the death of the mother will be through fevers or weakness of sight, or loss of children, mutilation or burning. 13 ☽ with Mars in the ascendant, if it is in alien signs, denotes that the mother of the native was a maidservant. 14 ☽ impeded in the seventh shows the mother of the native about to labour under want.

15 If the lord of the first is in the eighth, there will be danger that the mother of the native may die from childbirth, and this happens most of all if it is impeded, Schöner [Schon]: 16 If ☽ is unfortunate through the bodily conjunction of ♄, and ♂ has aspected them from a place from which it does not receive the Moon, the mother of the native will die at the hour of the nativity by a bad death, Haly cap: 16 lib: 4 de jud: nat:

[Margin: On Venus.]

Thirdly, on Venus, which is set over the daytime, all those things which we said about the Moon are to be accepted and observed in the same way. For whether ♄ or ♂ has afflicted it, the same evil which we said will come about. And to this place let the following Rules be referred.

1 ♀ in 8 in ♉ or ♎, and ♂ with ☽ in the setting, in their own bounds or house, brings a violent death to the mother Schöner [Schon]: 2 ♀ in the fourth, and in the aspect of a malefic, signifies death for the mother before the father. 3 If ♂ has aspected Venus placed in the occident with a ♂ ray, the diseases of the mother will be fevers, injuries of the eyes, and of the face, Likewise pains of the teeth, through humours suddenly falling down. 4 If ♂ has aspected Venus and the Moon in the seventh malignantly, the mother will die by a sudden or violent death, and signifies for the native evil in the eyes, and finally a violent death: Schöner [Schon]: & Gaurico [Gaur]:

[Margin: On the childbirth of the mother]

For the rest, in the judgement on the condition of the mother, this too is to be attended to: whether the mother gives birth easily or with difficulty, and whether after the birth she can survive: on which matter let these Aphorisms be noted. 1 Signs of oblique ascensions, such as ♑, ♒, ♓, ♈, ♉ and ♊ in the horoscope, especially with a bad aspect of a malefic, or ♋, signify difficult births. But signs of right ascensions, in the same horoscope with a good aspect of a benefic, or ☊, denote easy births. 2 When the benefics help the Moon by aspect or ☌, or also ☉ or ☽ stand in a masculine sign of right ascension in the nativity

of a male —but in a feminine [sign] in the nativity of a female, a hastened and easy exit of the native from the mother's womb is understood: Albubater [Albubat] cap. 153. 3 When the malefics are in the 12 house, they signify a slow progression of the native, with heaviness of the mother. For the mother is weakened, and suffers pain in the belly, and also has from that progression evil, sadness and toil: Albubater ibid. 4 ☽ in aspect of the malefics signifies a slow exit from the womb, especially if it is in an oblique sign, with a Planet retrograde, or stationary, or of slow motion in the ascendant: Cardano [Card.] 6 Aph. 152. 5 When the lord of 10 is in the eighth, it will be feared that the mother may die from that birth: Almansor [Almans.] Aph. 71: 6 Cardano [Card.] Genit. 51 sets out the example of a native whose mother died at hour 4 after the birth For the Moon was in the opposite of ☉ and ☿, and in □ of ♃ and ♄, mutually opposed, and standing in □ of ☉ and ☿, and all cadent from the angles: And ♀ was with ♉ nearly in opposition of ♂. And since each significatrix of the mother, ☽ as well as ♀, was afflicted, they openly showed the death of the mother. 7 Giuntini [Iunctin.] also sets out, in the commentary on cap. 5. libr. 4 of the quadr. of Ptolemy [Ptol], from Garcæi cap. 20 libr. Genit., the example of a certain female who, born in the Year 1554, after completing year 15 of age and living in marriage for 30 weeks, was at last extinguished in the year 1569 in a miscarriage. For she had the oblique sign ♉ in the ascendant, and ☽ in the setting, opposed; Venus likewise, the lady of the horoscope., joined to ♄ in the opposition of Jupiter ℞; and five Planets were in cadent houses. ☉ indeed, ♂ and ☿ conjoined in 12 in ♈, and ☽ in its fall, with Jupiter, which is in its detriment, in the sixth. The chart of this, as also of the preceding example, you will find by turning three leaves.

[Margin: Example of a native whose mother died a little after the birth.]

[Margin: Example of a female who died from an untimely birth.]

In our first example *the sign of the 10 house, ♈, is judged neither fortunate nor unhappy. Yet because its Lord ♂ is very strong in the chart, and ☉ is exalted in the same, the mother of the noble native was of a noble and illustrious family; whose condition, however, after the native was brought forth, suffered detriment and loss, on account of the Moon, significatrix of the mother in a nocturnal nativity, placed in detriment, peregrine besides, and combust by the Sun in the 6 house; which, with the Sun, ♀ and ☿, strike the tenth with a □ ray, as also ♃ with the opposite. But best in this genesis is that the malefics ♂ and ♄ assail neither the 10 house itself nor the significators, the Moon, ☉ and ♀, with evil rays, and themselves agree among themselves by a △ aspect: otherwise the mother would have died from this birth, since the said significators stand in the abject sixth house. But more certain judgements about the parents are gathered from their own nativities, from which, as from roots, what is to be determined about the life and fortune of each is more manifestly established.*

[Margin: First example.]

In the other example, *the tenth house is indeed unhappy, because ♒, a Saturnine sign, holds the same; its lord, however, is strong, Oriental, and free from the Solar rays; ♀ also stands in its own house, but combust by the Sun, beholding the cusp of the 10*

house, and the Moon placed in 10, with a □ ray, which the Sun also does; ☿ has a trine to the same, and neither ♂ nor ♄ afflict the 10 house or Venus. Hence, since the significators ♄, ♀, ☽ and ☿, the 10 house and the Sun excepted, are all happy and strong, it is signified that the mother, after the native was brought forth, was moderately happy, fortunate, and of good health. For although the 10 house is the sign of a malefic, and marks a mother of abject condition, ♄, its lord, is nevertheless strong in the chart, in the sign of ♃ [?] and the exaltation of ♀, raising and illuminating the same. ♀ also, in an abject place of heaven, especially since it is also combust, signifies a base mother, and lies in wait for her health through obstructions: But because it is in its own house and triplicity, and moreover in the exaltation of ☽, her state is propped up, strengthened, and made more illustrious, and the evils afflicting the health are dissolved, so that it is confirmed and is well. Nor can the □ rays of ♀ and ☉ to the Moon harm anything, except that they have hinted at a more difficult birth, all being in signs of oblique ascensions; which birth, however, the swiftness of the motion of ♀ and ☽ assisted and made fortunate.

[Margin: The other example.]

Now, the general rules of the parents having been set out, we shall subjoin certain questions, from which the judgements that pertain to the 4 house will be determined more exactly. First, however, we shall show how the Arabic Astrologers seek out the parts of the father and the mother.

[Margin: The finding of the part of the father according to the Arabs.]

Haly part. 4 cap. 16. And Leupold part: 5 Introd. seek the part of the father in this way: In a diurnal nativity they subtract the place of ☉ from the place of ♄, and add the ascendant to the remainder. For ☉ is the significator of life, and ♄ of antiquity. But if ♄ is under the rays, ♃ is taken in place of Saturn, in the diurnal as well as the nocturnal genesis.

As in the other example, which is a diurnal genesis, ♄ is in 25° 30′ ♓; or its place is 11^{s} 25° 30′. The Sun, however, is in 12° 42′ ♉, and so its place 1^{s} 12° 42′. I therefore take the place of ☉ from the place of ♄; there remain 10^{s} 12° 48′; finally I add to this remainder the ascendant, 2^{s} 10° 15′: the part of the father, the whole circle being removed, falls in 23° 3′ ♈.

In a nocturnal nativity, however, they seek the part of the father by subtracting the place of ♄ from the place of the Sun, and adding the ascendant to the remainder.

As in the first example, which is a nocturnal genesis, ♄ is in 18° 58′ ♏ [?]. ☉ in 25° 7′ ♍: from which the difference is gathered, 2^{s} 6° 9′, and, the ascendant 4^{s} 3° 6′ being added, the part of the father falls after 6 signs in 9° 15′ ♎.

[Margin: The finding of the part of the mother.]

Thus they seek the part of the mother in a diurnal nativity, the place of ♀ being subtracted from the place of ☽, and the ascendant joined to the remainder.

In the later nativity ♀ is in 6° 11′ ♉: ☽ in 6° 25′ ♒: from which the difference emerges, 9^{s} 0° 14′; and, the ascendant 2^{s} 10° 15′ being joined, the part of the Mother is gathered in ♓ 10° 29′.

In a nocturnal nativity, however, they investigate the part of the mother, the place of ☽ being subtracted from the place of ♀, and the ascendant added to the remainder.

In the earlier nativity ☽ is in 28° 32′ ♐. ♀ in 9° 23′ ♐. Here, since the greater number is to be subtracted from the smaller, the whole circle is added to the smaller, and, the subtraction done, there remain 11ˢ 10° 51′; if the ascendant 4ˢ 3° 6′ is joined to these, the part of the mother falls in ♋ 13° 57′.

[Margin: How judgement is made from the parts of the father and the mother.]

The Arabs, moreover, hold that the part of the father and its lord signify the very state and nobility of the father; the house in which it is, however, the substance, actions, labours and fortune of the father. Hence if this part is fortunate in a happy house, it signifies a fortunate father. If unfortunate, the contrary. It is to be judged likewise concerning the mother.

Now, that we may come to the questions. It is asked first;

Whether the native is a legitimate son?

[Margin: Aphorisms on the quality of children: whether legitimate and natural together, or natural only.]

On this question let these Aphorisms be observed: First, the one I recalled above: When you see that the decrees of the father have not come to pass for him who nurtures the son as his own, you ought to be certain that he is adulterine: 3 Aph. 144. 2 The nativities of the spurious have the ascendant bound with the Moon, not with the significator of the father; and for the most part they have indications of great evils: And the lord of the fourth (which signifies the father) is little in concord with the lord of the second, (which second house signifies the means. For it is denoted that he himself will not have the means from the father, because a spurious one is not admitted to the succession of the paternal inheritance) And ☽ or ♀ come together with Mars or ☿: 3 Aph. 75 Cardano [Card.] 3 ☽ with ♉ for the most part signifies an adulterous mother, and the boy also adulterine and of bad manners, more often also unfortunate: 3 Aph. 173. 4 If ♂ has struck the Moon by night, or Venus by day, it for the most part signifies an unchaste mother. See therefore whether the significator of the father, that is, the Lord of the fourth, is of another quality than the father. For then you may know that he is not the son of the one whose he is believed to be, Cardano [Card] cap. 13 de jud. Genit. 5 ♀ in ♏ (because it falls there) and ☽ unfortunate signify the native conceived from incest. For the mothers of the spurious are necessarily unchaste, Genit. 54 Cardano [Card.] 6 In whatever diurnal nativity you find ♌ ascending, and the Sun in its fall, from house or exaltation, or ☽ by night in its fall, and Saturn in the house of ♂, signify that this native is not the son of that father, and that he is a bad man, and that his father was either a slave, or a captive, or a base man. So if the nativity is nocturnal, and the lord of the ascendant and ☽ have not aspected ♄, nor the part of the fathers by any aspect, signify that the father has been deceived in that native. For he is not his son: Haly part. 4. cap. 2. 7 ☽ conjoined with Mars

in ♏, in aspect of the other fortune from ♓ signifies a spurious one; Cardano [Card] 7 Aph. 129.

[Margin: First example.]

As in the first example, the lady of the fourth house, ♀, is in the same sign and domicile with the lord of the second, the Sun, and neither is ☽ bound to the ascendant, nor does ♂ behold the Moon. Although, therefore, ♀ and ♂ behold each other by ⚹, and are in mutual reception and exaltation, yet because it is a nocturnal nativity, and the lord of the ascendant, ☉, aspects Saturn from its domicile with a ⚹ ray, they denote that the native was a legitimate son.

[Margin: The other example.]

In the other example, *neither is there any other binding of the Moon in ♒ with the ascendant ♊ than through the platic △ ray, nor any agreement of ☽ or ♀ with Mars. Hence, since the remaining indications also show a chaste mother, we rightly pronounce the native to be genuine, not spurious.*

II It is asked whether there is concord and discord between father and mother?

[Margin: Whether the father and mother agree]

In the decision of this question let the significators be considered: by day the Sun and ♀, by night ♄ and ☽. But if these have received each other mutually from domiciles or exaltations, or have aspected each other with a good and friendly ray, or also have been conjoined, they signify the mutual love of the parents: And the more partile the aspect is, the greater the love will be. But if they are in separate signs, outside the dignities and mutual receptions, or have also aspected each other with no ray, they will be more estranged. But if they have entirely assailed each other with a □ or ☍ ray, especially from the angles, they will also be enemies and will perpetually be at variance.

[Margin: First.]

In our first example ♄ and ☽ behold each other by a platic ⚹:

[Margin: The other example.]

In the other ☉ *and* ♀ *are conjoined in ♉: hence the parents of the natives set out agree among themselves and live together in concord.*

[Margin: Whether the parents love the native.]

Thirdly it is asked: Whether the parents also embrace the native with love, and which of the parents loves the native more? *In the solution of this, the lord of the horoscope signifies the native or his person: ☉ however and ♀ the father and mother in a diurnal nativity, ♄ and ☽ the same in a nocturnal. In this way therefore the father or mother will be disposed towards the native as the significator of the mother or father is disposed towards the lord of the horoscope.*

Hence if these two significators of the father and mother have aspected the lord of the first or the horoscope with a benign aspect, there will be love and concord between the native and the parents: And whichever of them has aspected the lord of the first or the horoscope with a better and more partile ray, that one will love the native more. But if they have struck the same with a malign aspect, there will be discord between the parents and the native, or

even a love only feigned, not true. Judge the same if Mars by day, ♄ by night, from signs contrary to their nature, without the aspect of benevolent stars, have assailed the luminaries: And if the Sun is assailed, the father will be more estranged; if ☽, the mother. For if one is joined with the lord of the horoscope by a benign ray, the other by a malign one, the one parent will love the native, the other will pursue with hatred, or even will be more estranged.

[Margin: First example.]

As in our first example ♄ *beholds the horoscope with a* □*, but its lord, the Sun, with a more partile* ✶*: hence a mutual love between father and native is signified, which nevertheless has something feigned, because of the placing of* ♄ *in a Martial sign, and the hostile ray to the horoscope. So the Moon beholds the horoscope with an opposite ray, almost partile, but is joined in body to the Sun, lord of the first, and so denotes love between mother and native, not, however, constant and sincere, but such as is disturbed by a slight offence. Yet the* ✶ *of* ♂ *to the luminaries and the* △ *to* ♄ *designates a return into mutual favour.*

[Margin: The other example.]

In the other example ☉ *and* ♀*, the significators of father and mother, are wholly estranged from the horoscope and its lord: hence neither the native the parents, nor they the native, will embrace with true love. Yet the Moon, which is co-significatrix of the mother, beholds the lord of the horoscope,* ☿*, with a* △*, and excites a mutual love between them.*

[Margin: Whether the native will enjoy the goods of the parents.]

Fourthly it is asked Whether the native will enjoy the goods of the parents, or will squander them? *In this question the Sun joined to Jupiter or Venus by day, or* ♄ *and* ☽ *to the same Jupiter or* ♀ *by night, or beholding the same beneficently; especially from the second and fourth house; or if they have some dominion in the fourth house, signify to the native a patrimony and a prosperous and lasting use of the patrimony, with increase. But when Mars, as we have said, afflicts the Sun, Saturn or* ☽*, without the testimony of the benefics, a squandering of the paternal goods is noted. The same is indicated if the Moon by night, diminished in light, is badly placed with Mars or* ♄*; and the lord of the second is at the same time afflicted by the malefics, or if the fourth house and its lord are made unfortunate, and the malefics rule in the second.*

[Margin: First example.]

In our first example ♄ *beholds the Sun with a square, but the cusp of the second with a* ✶ *ray; hence an ample patrimony also, and its lasting use, retention and increase, is signified to the native.*

[Margin: The other example.]

But in the other example *the Sun, lord of the fourth, unfortunate, is indeed joined platically to Venus in 12, and has also a* △ *ray to Jupiter* ℞ *and weak, but very platic: But* ☽*, lady of the second, strikes the Sun, lord of the fourth, and Venus with a square. All of which shows that the native received a meagre patrimony from the parents, and turned little of it to his own uses.*

Caput XII. On children.

[Margin: Why children are treated before the precepts of marriage.]

Although the judgement on children follows, in the order of nature, the judgement on marriage, and depends on the nativity of both spouses, since they are causes essentially coupled for that effect: yet since the individual nativities supply judgements for their own, and the order of the domiciles requires the precepts on children, we shall now deal with them. And indeed this judgement on children is much more certain than that which we brought forward earlier on the brothers and sisters of the native. [Margin: Judgement can be made more certainly on children than on brothers and sisters.] *For although children too seem to exist outside the substance of the native, and not to pertain much to the actions of the native: yet the native has a greater kinship with children than with brothers, since they draw their origin from the substance of the native. And Cardano [Card.] 3 Aph. 139 rightly advises: The fifth sign from the ascendant (understand: in an equal figure of heaven) therefore signifies sons, because it is of the same nature as the sign of the ascendant, and if there are two signs in the ascendant, the born too will be of very different manners among themselves: The ninth house also signifies, for the same reason, the sons of the sons.*

[Margin: The physicians look to the temperament of the native in the judgement of children.]

Just as in this part of the judgement, speaking physically, one must look first of all to the temperament of the native, since also the cold, the dry and the moist, too much in excess, is less suited to procreating children, but the properly tempered, and not departing too far from the natural constitution, is apt for generation: So, proceeding astrologically, the natures of the signs occupying the 5, 11 and 1 houses must be diligently considered. [Margin: The astrologers look to the nature of the signs and planets occupying the 5, 11 and 1 house.] *Likewise the natures and properties of the planets which are in them. For a fruitful planet in a fruitful sign indicates that the native will certainly beget children, especially if it has occupied the 5 house; for the eleventh and the first house are not of that efficacy. A barren one in a barren sign certainly portends barrenness. A fruitful one in a barren sign denotes a middling fruitfulness, and the greater if it is placed in the fifth and is helped by the suffrages of the rest. By contrast, a barren one in a fruitful sign can do little towards fruitfulness, but rather indicates that the native will be barren. For the force of the planet is always greater than that of the sign in which it is placed,*

[Margin: The opinion of Ptolemy.]

Ptolemy [Ptol.] cap. 6 lib. 4 quadr. draws into consideration the tenth, indeed, and the eleventh houses, and those which are configured with these, the first and second, likewise the seventh and eighth, and finally the opposite ones, the fourth and fifth: all which houses, if they are occupied by fruitful signs and planets, signify children; if by barren ones, the contrary.

[Margin: How the testimonies for children are collected.]

But we embrace the doctrine of the more recent astrologers, better confirmed by experience. So, in delivering a judgement on the children of the native, the testimonies

of fruitfulness and barrenness are to be collected in order. 1 From the nature of the planets adhering in the places of heaven set out, 5, 11 and 1. 2 From the nature of the signs in which the same are found in these houses: And whichever testimonies win in number, according to them either a barren or a fruitful marriage is deservedly announced to the native. But when no planet is placed in these three places, let the lord of the fifth be looked at. There are those who bid to consider Venus and Jupiter (as being those from which chiefly, as also from ☊, a multitude of children is judged, just as fewness from ♄ ♂ ☉ and ☋: moderation from ☿, according to Ptolemy [Ptol.] lib. 4 cap. 6 quadr. and almost all the other astrologers) Likewise the part of sons and its lord, and the lords of the triplicity of Jupiter. For whichever of them has the greatest dominion must chiefly be examined.

[Margin: How the part of sons and of life is sought.]

Now the part of sons is sought, as also the part of life, according to Haly part 4 cap 10 & ult. and Schöner [Schon.] at the beginning of 1 lib. de jud. genit., in a diurnal nativity by subtracting ☽ from ♄ and adding the ascendant. *In the other nativity ☽ in 25° 57′ ♍, subtracted from ♄ in 25° 30′ ♓, leaves 5ˢ 29° 33′; the horoscope in ♊ 10° 11′, joined to this remainder, offers the part of sons after 8ˢ in 9° 48′ ♐.* In the nocturnal, by subtracting ♄ from Jupiter and adding the ascendant. *In the first nativity ♄ in 18° 58′ ♏, subtracted from Jupiter in 27° 33′ ♎, leaves 11ˢ 8° 35′; with the ascendant 4ˢ 3° 6′ joined, they make, 12ˢ being cast off, 3ˢ 11° 41′, so that the part of sons is in ♋ 11° 41′.*

[Margin: Whether the native will have children.]

Finally, these questions must be answered in order. 1 Whether the native will have children?

In its solution one must look to these 4 general Rules.

[Margin: General rules.]

1 Fruitful planets in the places named above give children. Barren ones deny.

2 A fruitful one in a fruitful sign, especially in the 5 house, strongly increases the signification of children. A barren one in a barren, diminishes strongly. A fruitful one in a barren gives moderation: A barren one in a fruitful is of little benefit.

3 The fifth house is preferred to the eleventh. And therefore it is pronounced rather according to the planet in the fifth than in the eleventh, if there is one in each. So a barren one in 5; a fruitful one in 11, threaten barrenness.

4 If there is no planet bodily in these three houses, it is pronounced according to the lord of the fifth.

[Margin: Special.]

To these let these special rules be added: 1 All planets in fruitful signs bestow a great abundance of children. 2 You will not doubt about children if there is some fortune in 5; above all if the lord of the fifth too is free from misfortunes and harms, and beholds the M. C. But if there is a malefic in the fifth house, and the lord of that house is cadent from the angles, and condemned by misfortunes, the native will have few sons, and if he has any, they will die quickly. Haly part. 4 cap. 17. 3 ♀ and ☽ in the fifth, especially in a fruitful sign, give many good and healthy children. 4 ☽ with Jupiter and ♀, especially in the angles, signifies many

children: Cardano [Card.] in com. super text 43, or c. 6 lib. 4 quadr. Ptolemy [Ptol.] 5 ♃ in △ ☽ gives sons and riches, but more in human signs, 3 Aph. 19. 6 ♀ in the ascendant and ♃ in the occident signify sons to the native, and joy from them, Albubater [Albub.] cap. 166. 7 If the sign of the fifth, the sign of the disposer of the fifth, and the sign of the ascendant are fruitful, the native will have many children, Schöner [Schon.] 8 ☿ oriental, having agreement with the benefics, since it puts on their nature, gives many children. But occidental, attacked by misfortunes, denies: Schöner [Schon.] lib. 1 c. 13 de jud. gen. 9 ☽ in the fifth gives sons, but if ♄ too is in the same house, they are bad to him, as 3 gen. Cardano [Card.] demonstrates. 10 ☽ and ☿ in the fifth, provided their lord is strong and free from every impediment and from the malefics, signify many sons to the native. Albubater [Albub.] in ratione quintæ domus. 11 The malefics hostile to the places of sons: if they are little weak, the native will have sons; if more, they will die; if most, he will be barren 7 Aph. 12. 12 ♀ in 1 or the seventh, conjoined with Saturn or opposed to him, or also in dignity exchanged with him, so that ♄ is in ♉, ♀ in ♍, signifies barrenness to men, abortion to women, or also that the infant brought forth into the light will die at once: Schöner [Schon.] 13 ♄ in the fifth, and ☉ in square to ♃, denies sons: Genit: 70 Cardano [Card.] 14 The luminaries impeded by the malefics impede both the means and the children: Schöner [Schon.] 15 If the givers of sons, ☽ ♃ and ♀, are alone, and particularly placed in the figure of heaven so that they are not in the places of sons, the fifth, 11, the ascendant, 10, 7 or 4, the native will live alone without sons. But if one of them is in the places already mentioned, it will give a son; which, if it is in a bicorporeal and indeed feminine sign, there will be two daughters, Schöner [Schon.] 16 ☉ and the malefics, if they have dominated the places already mentioned without the regard of the benefics, or when they have occupied the places of sons with none of the benefics present there, simply deny sons, especially if they are in barren signs: Schöner [Schon.] 17 When ☉ is in the same part with ♄, or when ♄ and ☿ in the 11 house behold the Moon, the native dies without children, or if they are born, they themselves perish: 6 Aph. 165. 18 ☿ opposed to Saturn from a cardine signifies barrenness, Schöner [Schon.] 19 The greatest impediment in giving sons is the significator of the fifth retrograde, or, what is worse, combust, and, what is worst, if it is a malefic: Schöner [Schon.] 20 ☉ beholding ⊕ promises many sons: Haly part. 4 cap. 18. 21 If ♄ is joined to the part of sons, and ♃ or ♀ does not behold them, few children are promised to the native, or he will even be barren: Haly part. 4 cap. 17. 22 If the part of sons and ♃ are in barren signs, the native will be barren: Haly ibidem. 23 When the part of sons and the lord of the house of sons, and ♃ are in the angles, and in strong places, and watery signs, judge many sons for the native. A greater signification of many children is if the lord of the ascendant applies to the lord of the house of sons from good and strong places: Haly ibidem. 24 Now if the part of sons is in the angles or succedents, it signifies many and good sons, who will live and flourish. But if it is in cadent places, and most of all in those which do not behold the ascendant, it signifies

few sons, and who will die quickly. 25 Now if also in the opposite of the part of sons or □ there is some fortune, it signifies that the native will have sons. But if it is a malefic, or is even corporally conjoined, it signifies that the native will not have sons, or if he has, they will die quickly. Haly ibidem.

[Margin: Genesis of the Emperor Ferdinand.]

We have outstanding examples of fruitfulness in two Roman Emperors, Ferdinand and Maximilian, father and son. For Ferdinand, grandfather of the most invincible Emperor Rudolf II, had ♀ *on the cusp of the fifth house, in the sign* ♓, *most fruitful, Jovial, her own exaltation:* ☿ *too was there, taking on the nature of Jupiter and* ♀*; likewise* ☉ *and* ☊. *Hence a most numerous offspring was signified to him. For he had by the most serene Princess Anna, sister of Louis, King of Hungary, 9 daughters and 6 sons. Among them Elisabeth, who married Sigismund, King of Poland, was the first daughter, born 1526 July 9 at* 4^h *before noon: And Maximilian, the first of the sons, born 1527 August 1 at* 11^h 45^m *P.M. The names and times of the rest can be sought from Garcæus's Astrologia and cap. 19; or from Giuntini [Iunct.] in com. ad 5 cap. lib. 4 quadr. Ptolemy [Ptol.]. But this Maximilian had two fruitful planets,* ♀ *and* ☽ *waxing, in the fifth, and moreover* ♃ *in* ✶ *to the fifth, in a sign also fruitful: hence, since also no malefic significators attack these, he had by Maria, daughter of Charles V, in a fruitful marriage, 4 daughters and 9 sons; Anna in the town of Cigala, 1549 November 1, at* 11^h *P.M. Ferdinand in the same place, 1551 March 27, half an hour after noon. The Emperor Rudolf at Vienna, 1552 July 18, at* 7^h 30^m *P.M. Ernest in the same place, 1553 June 15, at* 2^h *P.M. Elisabeth in the same place, 1554 June 5, at* 10^h 30^m *P.M. Maria in the same place, 1555 June 27, at* 3^h *before noon, who died at Linz after almost a full year. Matthias, also at Vienna, 1557 February 23, at* 11^h 30^m *P.M. Maximilian at Wiener Neustadt [Neostadium], 1558 October 12, at* 9^h *A.M. Albert in the same place, 1559 November 13, at* 9^h 30^m *A.M. Wenceslaus, also at Neostadium, 1561 March 9, at* 10^h 30^m *A.M. Frederick at Linz, 1562 June 21, half an hour before noon. Maria at Neostadium, 1564 February 19, at* 9^h 30^m *P.M. Charles, finally, at Vienna, 1565 September 27, at* 9^h 30^m *A.M.*

[Margin: Genesis of the second Emperor Maximilian.]

[Margin: Of Martin Benekendorf, I. D.]

Nor can we pass over in silence here the third example, of D. Martin Benekendorf, which we set out above on p. 550. *For since in the fifth house,* ♋, *a fruitful sign,* ☽ *has domicile, which Moon herself also views the cusp of 5 with a* □ *ray from the horoscope, and* ♀ *and* ♂ *send* △ *rays into house 5 from a sign also fruitful,* ♏: *therefore many long-lived children are signified to him, since the fruitful sign* ♓ *also holds the horoscope, and* ♃ *in 11 wonderfully increases the fruitfulness and fortune of children. For although it beholds house 5 by opposition, yet it views Venus and* ♂, *as also the cusp of the ascendant, with a* ✶ *ray. But more daughters than sons are signified to him, because all the significators except* ☽ *occupy feminine signs.*

Question 2 How many children the native will have?

[Margin: On the number of children.]

Although the learned do not define a certain number of children, who spare themselves and the art,

Diagram. Upper left of four square figures of heaven: an outer square, a central square carrying the caption, and the ring between them divided by rules into twelve compartments, with sign, planet and degree-and-minute labels set along the rules. Caption: Nativity of Ferdinand, Roman Emperor. Year 1503. March, day, hour: 10, 9 50 P.M. At Modina in the kingdom of Castile. Labels, by position:

- Top middle: ☽ 7; 25 ♍; ♌ [?] 24 48
- Upper left, upper compartment: ♉ 13 26; ♍ 27 21
- Upper left, left compartment: ♎ 22 13
- Left middle: ♏ 14 50
- Lower left, left compartment: ♐ 11 38
- Lower left, lower compartment: ♑ 15 7
- Bottom middle: ♒ 24 48; ♂ 24 48; ♀ 26 45
- Lower right, lower compartment: ♓ 27 21; ☉ 29 24; ☿ 29 52; ☊ 13 26
- Lower right, right compartment: ♈ 22 13; ⊕ 22 51
- Right middle: ♃ 5 50; ♉ 14 50
- Upper right, right compartment: ♊ 11 38; ♄ 28 38
- Upper right, upper compartment: ♋ 15 7

Diagram. Upper right figure, constructed as the first. Caption: Nativity of Maximilian II, Roman Emperor. Year 1527. August, day, hour: 1, 11 45 P.M. At Vienna. Labels, by position:

- Top middle: ♒ 14 51
- Upper left, upper compartment: ♓ 12 11
- Upper left, left compartment: ♉ 0 37; ♄ [numeral: ?] 2
- Left, upper part: ♊ 15 16; ♉ 21 35
- Left, lower part: ♋ 10 0; ♃ 13 7
- Lower left: ♋ 27 0; ☿ 14 30; ⊕ 7 16
- Bottom middle: ♌ 14 51; ☉ 17 50
- Lower right, lower compartment: ♍ 12 11; ♀ 23 22; ☽ 8 50; 2
- Lower right, right compartment: ♂ ♏ 0 37
- Right middle: ☊ 21 35; ♐ 15 16; 35; 4
- Upper right, right compartment: ♑ 10 0
- Upper right, upper compartment: ♑ 27 0

Diagram. Lower left figure, constructed as the first; most of its cusps carry degrees only. Caption: Born, a grandson of Antonio Leva, according to Cardano [Card.]. Year 1535, November, day 9, hour 9 after sunset (☉). Labels, by position:

- Upper left, left compartment: ♄ 24 44; [?] 22
- Upper left, upper compartment: ♂ 29 27; ♋ 22
- Top middle: ☊ 11 33; ♊ 22
- Upper right, upper compartment: ☽ 28 42; ♉ 22
- Upper right, right compartment: ♈ 22

- Right middle: ♓ 22
- Lower right, right compartment: ♃ 29 25; ♒ 22
- Lower right, lower compartment: ♍ 22
- Bottom middle: ♀ 10 [numeral: ?]0; ♉ 11 33; ♐ 22
- Lower left, lower compartment: ♏ 22; ☉ 26 56; ☿ 28 23
- Lower left, left compartment: ♎ 22
- Left middle: ♍ 22

Diagram. Lower right figure, constructed as the first. Caption: Born, a certain woman, Maria Scollen. Year 1554. March, day, hour: 22, 7 15 A.M. At Brandenburg. Labels, by position:

- Upper left, upper compartment: ☽ 21 48 ♓; ♀ 25 47; ♒ 17
- Top middle: ♍ 27
- Upper right, upper compartment: ♉ 16 53; ♍ 18
- Upper right, right compartment: ♐ 27
- Right middle: ♏ 28; ☽ 16 44
- Lower right, right compartment: ♃ 29 2; ♍ 28
- Bottom middle: ♋ 17; ♌ [?] 17
- Lower left, lower compartment: ♋ 12; ☊ 16 53
- Lower left, left compartment: ♊ 27
- Left middle: ♉ 28
- Upper left, left compartment: ♓ 28; ☿ 0 35; ♂ 1 56 [?]; ☉ 10 37

and keep themselves within the limits of the natural philosophers, and do not trust overmuch in the superstitious precepts of the Arabs, observing that heaven is not the sole and sufficient cause of these events, but that several other causes too are required. Hence these posit children in general only as either many or few, according to two rules which are handed down by Leovitius and Garcaeus [Garc.]

[Margin: Two rules.]

(1 The more planets or rays of planets there are in the signs which supply the signification of children, the more children they also signify: but the fewer, or even in barren signs, the fewer. 2 Significators in bicorporeal signs double; in fruitful, triple the number of children.) Yet Haly part. 4 cap. 17 advises that the two lords of the triplicity of Jupiter must be looked at, and whichever of them is stronger, and in a better place, its distance from the ascendant must be sought. For he will have as many sons as there are signs, yet giving two to a common sign. Nor does Cardano [Card] 6 Aph. 160 differ from this teaching, where he says: The number of sons is taken from the lord of the triplicity of Jupiter to the ascendant, as Albubater says. But it is had better through directions and revolutions, excepting those who do not survive. Albubater [Albubat.] also teaches, cap. 164: As many signs as there are between the part of sons and its lord, so many sons the native has, yet so that a common sign gives two. But these things are superstitious and unworthy of a Christian man and a philosopher.

Third Question. On the sex of the children.

[Margin: On the sex of the children.]

Masculine planets promise males: ♄, ♃, ♂, ☉; oriental from the Sun, in masculine signs, houses and degrees. Now we said above that the signs ♈ ♊ ♌ ♎ ♐ and ♒ are masculine, and the masculine houses, 4, 5, 6, 10, 11 and 12. On the degrees: what Albumasar [Albumas.] lib. 5 cap. 16 Introd., Alcabitius [Alcabit.] in his Isag. diff. 1, cap 15, and Giuntini [Iunct.] in com. super cap. 5 lib. 4 quadr. Ptolemy [Ptol.] bring forward, we rightly neglect as superstitious. For neither, as we grant certain foundations of this distinction to signs and houses, do we likewise concede the same to degrees. But feminine planets, ♀ and ☽, promise females in feminine signs and houses. Now the feminine signs are ♉, ♋, ♍, ♏, ♑ and ♓. And the feminine houses 1, 2, 3, 7, 8 and 9. Therefore the testimonies of males and females must be gathered from the planets, signs and aspects in the fifth, and it must be pronounced according to the prevailing number. Now if, as Haly part. 5 cap. 15 teaches, having considered house 5 and its lord, you find both the sign there masculine and its lord in a masculine sign, judge that the native will have more males. But if you find a feminine one, and its lord in a feminine sign, he will have more females. Yet if you find in that very place a masculine sign, and the lord in a feminine sign, or the reverse, he will have males and females. Cardano [Card.] too, gen. 59, from a masculine lord of the fifth, Mars in a masculine sign, and in ✶ of ♃ and ♀ conjoined in the eleventh, judges many male sons.

[Margin: Let the testimonies of males and of girls be gathered. And afterwards let it be pronounced.]

Fourth Question. Whether the children will be legitimate.

[Margin: Whether the children are legitimate.]

On this it must be known 1 that the lord of the ascendant, which signifies the native, if it applies to the lord of the seventh, which [signifies] the wife, indicates that the native will have legitimate children from his own wife. So if it applies to the lord of the sixth, he will have from servants and concubines, Schöner [Schon.] cap. 13. libr 1 Genit. 2 Now if also the lord of the fifth and ♃ are under the rays of ☉, the native will have hidden and concealed sons: 6 Aphor. 161. 3 When the significators of children are entirely removed from the luminaries, the native will have illegitimate sons: 7 Aphor. 14.

Fifth question When he will have children?

[Margin: On the time when the native will have children.]

The time of marriage is rightly brought to this question, since here we treat chiefly of legitimate sons. Now the time is judged, according to Haly c. 17 part. 4, principally from the disposer or significator of children, and Jupiter, the lord of fruitfulness.

For 1 the Almuten of sons, or ♃, or the lord of the house of sons, oriental from the Sun, give sons in youth; occidental, in old age. 2 The same significators in the chart of heaven, in the 11th or 10th house, give children in youth; in the third, eighth and ninth, in middle age. In the seventh, finally, and the fourth, in old age. 3 So the part of children, strong in the ascendant, in adolescence; in the midheaven, in youth; but in the occident and the fourth, it bestows children in old age.

Question VI. What fortune is to be expected from the children?

[Margin: General points on the fortune of the children]

In this question one must look to the power of the significators of children, as Leovitius [Leov.] and Garcaeus [Garc.] teach, or also to the fortunate or unfortunate rays of the good and evil planets, as Haly, Abrahamus Iudæus, Albubater and others hold. For the significators, all or the greater part, powerful and in the good rays of the good, or in conjunction, signify an excellent fortune of the children for life and success; that is, the sons born will be robust, long-lived, famous and fortunate in their actions. But weak and afflicted by the rays and presence of the evil, they designate an afflicted state for the children; that is, they will be feeble, sickly, inglorious and unfortunate in their actions. Now if some significators are strong and well affected, some weak and afflicted, a happier state and a milder fortune will also be signified for some of the children, for some a more unfortunate and less happy one. But to which a greater fortune, to which a lesser will come, can be detected from the comparison of the significators of each sex.

[Margin: Special rules.]

But let the special rules from Albubater cap. 166 be observed at this place. 1 When ♄ in a diurnal nativity has aspected Venus with a △ aspect with reception, the native will rejoice in his sons, and on their account will have good and fortune. 2 If ♃ has so aspected Venus, the same will turn out still more happily. 3 ♃ in the M. C. likewise signifies fortune from the children. 4 ♀ in the ascendant, and ♃ in the occident, denotes for the native sons of this kind, with whom he will rejoice, and will lead a happy life. 5 ♄ and ♃ opposed announce bitter torments of grief from the fall of the sons: Firmicus Maternus [Firmic.] cap. 17 lib. 6. 6 The part of sons in the ascendant, and its lord free from the malefics and fortunate, signifies for the native sons who will honour him, and on whose account he will attain fortune and dignities.

Question VII. On the love and concord of the children with the parents and among themselves.

[Margin: On the concord of the children with the parents and among themselves.]

These are judged from the relation of the lord of the fifth to the lord of the first, and the mutual comparison of the significators. For 1 if the lord of the nativity, or the lord of the first house, has aspected the lord of the fifth with a benign aspect; or also the lord of the nativity the fifth; and conversely the lord of the fifth has illuminated the first with good rays, there will be mutual love and mutual goodwill between the native and the children. The contrary must be laid down if they have aspected each other either with no rays or with evil ones. For then they will be estranged or at odds among themselves, which 7 Aph. 13 also teaches in these words — When the lord of the nativity is a malefic, and has not aspected the lord of the place of sons, or, not being a malefic, has aspected with a hostile ray, the native will be hostile to his sons. And 5 Aph. 124 says: If the lord of sons has approached the lord of the nativity in the father's nativity, the sons will obey the parents. But it will be best to compare the nativities of the sons and of the parents, and from the comparison to judge the affection of both. For from this it will become manifest that some obey the parents, others not; some love, others not; with these there is concord, with others not.

2 If the significators of children have aspected one another by ✶ or △, or all have been joined in one sign, and the lord of the part of sons has aspected them, the native will have many sons loving one another. But if they have aspected by □ or ☍, the sons born will be discordant, and will dishonour one another, or even kill one another. Haly part. 4 cap. 17. ♃ also, ℞ or peregrine, gives sons, but treating one another inhumanely, Schonerus.

Question VIII. On the death of the children.

[Margin: General points on the death of the children.]

The death of the children is gathered from the hostile rays of the malefics toward the significators, or also the weakness of the significators. For 1 ♃ struck by the □ or ☍ of Mars takes away the children by a violent death, especially if the same ♂ harms the lord of the fifth, or of the tenth: 6 Aph. 164. 2 ♃ elevated, and moderately unfortunate, destroys the sons, preserves wealth: descending and low but not unfortunate, preserves the sons, and does not bestow wealth: 6 Aph. 167. 3 When the ☉ is in the same part with ♄, or with it and ☿ in the heart of heaven, aspecting the Moon, the native will die without sons; as many as are even born will perish: 6 Aph 163.

[Margin: Special aphorisms.]

Let these aphorisms of Albubater also be noted, which are found in cap. 170, and are repeated by Iunctinus in com. super cap. 5 libr. 4 quadr. Ptolemy [Ptol.] 1 ♄ and ♂ in the house of sons, or aspecting it with an evil ray, signify death to the sons. 2 If the lord of 11 is in the fifth and the lord of ⊕ in 8, all the sons born will die. 3 The Sun joined to a malefic leaves not even one of the children. 4 ☉, ♄ and ☿ conjoined in the midheaven, and aspecting the Moon badly, kill the children. 5 Mars opposed to Jupiter either kills the children of the native, or signifies an evil death for them. 6 ♄ opposed to Jupiter takes away the greater part of the sons. 7 ☿ in the ascendant and ♄ in the occident denote children who will live but little. 8 The lord of the house of sons in the eighth signifies children who will die before the father. 9 ♂ and ☿ conjoined in the occident or M. C. signify the same. 10 ♃ in 4 or 7, combust in ☌ or evil aspect of a malefic, signifies the same. 11 The lord of the house of sons, conjoined to the malefics or to the lord of the eighth, or in an evil aspect of the malefics, kills the children. 12 The lord of the house of sons bound to the lord of the eighth denotes the death of the children. 13 The part of sons in the house of ♄, and malefics aspecting it, foretell death to the greatest part of the children of the native.

[Margin: First example.]

The first example we rightly do not touch in this judgment, since our nobleman has led a celibate life up to this time. *But neither would children have been signified to the native, although a fruitful sign, ♏, occupies the fifth house. For ♄, a sterile planet, holds its cusp. There is also ♃, the other lord of the fifth, in □ of ☉ and ☽: ♂ also, lord of the fifth, is joined to Jupiter by no association, in whose sign he himself stands. Thus neither ♂, nor ♄, nor ♃ is linked to the ascendant. Hence if anything is signified, it comes rather in an illegitimate way, because the part of children*

too falls in 12° ♋ in house 12, and its Almuten, the ☽, is combust in the sixth house, all of which impede or conceal the decree of children.

[Margin: Second example.]

In the second example, *we pronounce the native fruitful not only from the sanguine temperament, which we attributed to him above in cap. 5, with experience attesting, but also from the position of the stars. For Jupiter too, although very weak and ℞, occupies the fifth house together with the part of fortune: and in 11 is the other part of fortune, with Saturn opposed to Jupiter; the ☽ also holds the midheaven in a sign of few children, in △ of the first and △ of the fifth. Finally, ♀ is in its own house, □ ☽ and △ the fifth: all of which configurations incline toward the bestowal of children. But although sterile signs, ♌ and ♍, occupy the fifth house, ♒, of few children, and ♓, a most fruitful sign, the eleventh, and ♊, sterile, the first, which detract somewhat from fruitfulness: yet since the force of the planets is greater than that of the signs, a moderate number of children is promised to the native. For the Sun too, the first lord of the fifth, is free from the evil rays of the evil, aspects the M. C. with a □ ray, although in 12 it clings to an abject house of heaven; and ☿, the other lord of the fifth, and disposer of the place of Jupiter, is strong in the chart and fortunate, beholding the midheaven and the ☽ nearly by △; and the part of children stands nearly at the cusp of the seventh, in ✶ of the ☽. And since the rays of all the remaining planets fall into the fifth house, the △ of ♂ indeed onto the cusp itself, the □ of ☿, and the △ of ♀ and ☉; likewise the △ of ☿ and ☽ into the very half of the house. Therefore 12 children and more have been signified to the native; especially since the part of children too, with its significator Jupiter, stands in double signs, and the ☽, the stronger lady of the triplicity of Jupiter, is distant from the ascendant by 4 signs, among which two are common, ♓ and ♊. For if the 6 testimonies which are gathered from the distance of the Moon from the ascendant are multiplied by two, when both the part of children and ♃ are in double signs, 12 children and more, as said, are signified. Now they are for the most part males, since masculine signs occupy both the fifth house and the hinges of the tenth and first house, ♃ stands in the fifth, and the ☽ and the part of children are found in masculine signs. Nor is it to be doubted that all are legitimate. For both the ☉, first lord of the fifth, is in a platic △ of the Sun, lord of the seventh house, and the other lord of the fifth, ☿, is free from the rays of the ☉, in whose house and exaltation ♃ is placed, beholding the same almost by a △ ray. Now the native had these children of his partly in youth and middle age, since the four planets aspecting the fifth, ☽ ♄ ♂ and ♀, are oriental from the Sun; partly also at a more advanced age, since ☿ and ♃ are occidental, and the part of children stands at the beginning of the seventh. The native cannot expect remarkable fortune and joy from the children, because most significators are weak, some moderate, and because, most to be heeded in this nativity, ♄ is opposed to Jupiter. A greater agreement between the children and the parents than of the children among themselves is signified, because the lord of the first, ☿, has received Jupiter into its own house, and the Moon itself, ascending, irradiates by △; but the significators of the children themselves do not agree among themselves with friendly rays. Death is signified for some, especially those who were begotten in youth, because both the rays of the oriental significators are adverse, □ of ♀ and ☉ to the*

☽, *and the two malefics* ♄ *and* ♂ *are found between the rising and the M. C. To the rest a more vigorous life is promised, because they are signified by the part of children, fortunate in the angle of the seventh, by Mercury, the strong lord of the first, and by Jupiter, weak however and retrograde.*

Chapter XIII.

On diseases and ill health.

[Margin: Some diseases are of the whole, others of the parts of the body.]

With the significations of the first five domiciles examined, we are now at last led to the sixth, which contains the judgments of diseases. And since some diseases are universal, of the whole body, others particular, of certain members, we shall hunt out here the marks of both, taking in also the horoscope, which is the general significator of life and body; And first we shall see from which significators the judgment concerning health is sought. Afterwards whether the native will be of firm or infirm health. 3 Which are, and in which members, the diseases to come. 4 At what time: and 5 Whether curable.

[Margin: 5 questions are chiefly treated here.]

[Margin: 1 On the significators of health, nine,]

As for the first, there are significators which determine health: 1 namely the horoscope, which signifies the body and life, likewise the temperament. 2 the lord of the horoscope. 3 The luminaries. For the Moon governs the humours, the ☉ *the vital spirit; which, if they hold themselves rightly and are disposed in favourable places, signify good and firm health: if badly, sicknesses and diseases. 4 The sixth house, as the one that principally denotes diseases and lies in wait for life, since it is wholly disjoined from the horoscope, and has nothing familiar or friendly with it. 5 The lord of the sixth. 6 The planet or planets in the sixth house. 7 The seventh house, and its lord. For this seventh house, because it is opposed to the first, which determines health, has together with its lord a peculiar signification of diseases. Besides these there is to be called in 8 the lord of the nativity of Cyprianus, and 9 the temperament: since, if it deflects from its just measure, it brings a frequency of diseases: but standing in the mean, it indicates firm health and rarer diseases.*

[Margin: The significator and the author of disease differ.]

We distinguish, moreover, between the significators of disease and the authors of disease, as Leovitius too has noted in his doctrine of nativities, and Garcæus, chapter 33 of the book de jud. genit. For we call significators those which we have already reviewed. But we call authors the two malefics ♄ *and* ♂. *(For by their qualities they are adverse to the constitution of the body and of life, which consists in the hot and moist.) Likewise their unfortunate rays to the significators of diseases established earlier. Yet the malefics and their rays can be both significators and authors of diseases, namely when they have not only harmed others, but have also stood in the catalogue of significators above. As if one of them were lord of the horoscope or of the sixth, and at the same time infected another significator. Of the remaining planets, however, the same cannot be said; for those can be significators only, not also authors of diseases.*

[Margin: On the examination of the significators.]

[Margin: And the collection of the testimonies.]

That we may now judge skilfully, all the significators above are to be examined most diligently, in this way; that we ask 1 whether they are strong or weak in themselves. 2 Whether they have good or bad aspects. 3 Whether they are with fortunate or unfortunate fixed stars. 4 Whether the temperament is equal or unequal. Afterwards the testimonies of diseases are to be collected, by the same method by which we collected those of the temperaments.

For first let the significators named above be written in order, with all their aspects, as many times as they occur. Then let the good and fortunate aspects be placed separately, the bad likewise separately, the moderate also separately, so that three classes are made; the first for the fortunate: the second for the unfortunate and weak: the third for the moderate. Finally let the testimonies of the single classes be counted, and the numbers written beneath each, or else weighed in the mind.

[Margin: First example.]

As in our first example. *1 The horoscope is fortunate, by the sign ♌, and because ⊕ is there. 2 The lord of the horoscope, ☉, unfortunate, because weak. Moderate, because in □ ♃, ✶ ♄, ✶ ♂. 3 ☽ unfortunate. Moderate by □ ♃. 4 ☉ unfortunate in itself. Moderate, because in □ ♃, ✶ ♄, ✶ ♂. 5 The sixth house unfortunate, on account of the Saturnine sign, since the same ♄ is also lord of the eighth. But the same house is also moderate □ ♃, ✶ ♄, ✶ ♂. 6 The lord of the seventh, ♄, fortunate, because strong. Moderate in ✶ ♀, ✶ ☉, △ ♂. 7 the seventh house unfortunate indeed by the sign ♒; and fortunate by the lordship of ♄. 8 The planets in the sixth house indifferent, ☿ ♀ ☉ and ☽. 9 The lord of the nativity ♂ fortunate. 10 The temperament phlegmatic, exceeding in coldness and moisture, unequal, yet moderate.*

Significators	Fortunate	Unfortunate	Moderate
Horoscope	♌ / ⊕		
Lord of the horoscope		☉ weak	□ ♃ / ✶ ♄ / ✶ ♂
☽		☽ unfortunate	□ ♃
☉		☉ weak	□ ♃ / ✶ ♄ / ✶ ♂
VI House		♍	□ ♃ / ✶ ♄ / ✶ ♂
Lord of the sixth	♄ strong		✶ ♀ / ✶ ☉ / △ ♂
Lord 7	♄	♒	
Planets in the sixth			☿ ♀ / ☉ ☽
Lord of the Nativity	♂		
Temperament			Indifferent
Sum	5	5	18

It is evident, therefore, that the testimonies of moderation are 18. but those of good fortune and of ill fortune equal, 5 on each side, which cancel each other out.

[Margin: The other example.]

In the other example *the first significator, the horoscope in ♊, is fortunate in itself. Moderate △ ☽, □ ♃, ✶ ♂: Unfortunate □ ♄. The second significator, ☿, lord of the horoscope, is strong and fortunate in itself, and △ ♃: Moderate △ ☽. The third significator, ☽, is fortunate in the M. C. Moderate □ ♀, △ ☿: Unfortunate □ ☉. The*

fourth, ☉, is unfortunate in itself because weak, and because in □ ☽. The fifth, the sixth house, is fortunate on the part of the sign ♎ and ✶ ♃ at 26° ♏. But unfortunate ☍ ♂. Likewise on account of the sign ♏ and ☍ ☉. Indifferent on account of □ ☽ and ☍ ♀. The sixth is either ♀, moderate in itself, because in □ ☽); or ♂, holding itself moderately, because strong and in its own sign, yet in a cadent house. The seventh is the seventh house, fortunate on account of ♐, and its lord ♃ moderate. The eighth is ☿, lord of the nativity, which provides a testimony of good fortune. The ninth is the sanguine temperament, exceeding coldness and dryness by its qualities, heat and moisture: hence it is reckoned unequal and moderate.

Significators	Fortunate	Unfortunate	Moderate
Horoscope	♊	□ ♄	△ ☽ / □ ♃ / ✶ ♂
Lord of the horoscope	☿ / △ ♃		△ ☽
☽	in M.C.	□ ☉	□ ♀ / △ ☿
☉		☉ / □ ☽	
House VI	♎ / ✶ ♃	☍ ♂ / ♏ sign / ☍ ☉	□ ☽ / ☍ ♀
Lord of the sixth			♀ / □ ☽ / ♂
House VII	♐		♃ lord.
Lord of the Nativity	☿		
Temperament			Moderate
Sum	8	7	13

With the testimonies thus collected, it appears that the testimonies of moderation are 13, while those of debility[118] *are 8, of ill fortune 7.*

On the second, Whether the native's future health will be good or bad.

[Margin: What kind of health, whether good or bad, is signified.]

[Margin: Three general rules.]

This is judged rightly only when the threefold testimonies, of good fortune, of ill fortune, and of moderation, are at hand. For first, *if there are no testimonies of infirmity, or very few, and all the significators are strong, and free from the assault of the malefics, which are the authors of sicknesses, as said before; firm health is signified, and no diseases or very rare ones. But we find that the contrary happens if all are found badly placed: just as moderation too is judged if some are badly, some well constituted, or more testimonies of moderation are offered than either of strength or of debility.* Next, in general, *the horoscope is to be looked to, which if 1 it has the sign of a good planet, and is free from evil rays, 2 has a lord strong and fortunate, and likewise safe from the adverse aspects of the malefics. And 3 the Moon is strong in the chart and free from the assault of the malefics, good is to be hoped for the native's health. The contrary is to be pronounced if they are weak.* Thirdly, of the planets *placed also in 8, 12 or 7 this is to be judged, that, if they are unfortunate, they increase the signification of diseases wonderfully.*

[Margin: Special rules]

[118] so printed; the table of this example on the preceding page sets 8 under Fortunate and 7 under Unfortunate

[Margin: 1 On the horoscope.]

From these three general rules many special ones can be built, some of which we shall consider here. *And first indeed on the horoscope:* 1 The horoscope and 7, and their lords, unfortunate, or infected by the malefics, produce the sickly. 2 The lord of the horoscope in 6 or 12, unfortunate, or even moderate, produces valetudinarians: Haly part. 5 cap 4. 3 Whoever has the ascendant and all the planets in signs of one and the same trigon will be tormented with perpetual diseases from the predominant qualities of that trigon. In the watery, with phlegm: In the earthy, with melancholy: In the fiery, with frenzy and herpes. In the airy, with an abundance of blood. 4 The lord of the ascendant applying to the lord of the sixth makes the natives most neglectful of their health: Schöner [Schon.] c. 6 lib. 1.

[Margin: 2 on the luminaries.]

Second, on the luminaries 1 ☉ fortunate in an angle, especially in ♋, gives a vigorous life. 2 ☉ in 6 or 8, sometimes also in 7 or 12, signifies diseases, grief and a short life. 3 ☉ and ☽ conjoined regularly signify the badly coloured, the lean, and in old age valetudinarians, labouring under insanity of mind or sicknesses of this kind, which are cured with difficulty by physicians: Schöner [Schon.] ibid. 4 ☽ afflicted by Saturn with a □ ray, or ☍ [?], in an angle, especially in the first and second houses, entangles the whole life in diseases. 5 Saturnine fixed stars with the luminaries produce the sickly and the lean.

[Margin: 3 on the malefics,]

Third, on the malefics. 1 The native will be sick and weak when ♂ has been elevated above ♄. 2 ♄ in 6 or 12 signifies perpetual diseases in the members of the sign which it holds, or perpetual imprisonment. 3 ♂ in 6 causes sudden recurring diseases. In 12 it also weakens the body through some misfortune befalling it. 4 A morning malefic signifies a fall, an evening one a disease: Ptolemy [Ptolem.] sentent. 6 Centilloq. 5 ♂ in the ascendant inflicts wounds on the face. ♄ in midheaven hurls down from on high, or even casts down from honours.

[Margin: First example.]

As in our first example *the very many testimonies of moderation denote the native as of fairly good health, one who is also not easily afflicted by diseases; because the authors of diseases* ♄ *and* ♂ *no bad aspects have toward the horoscope, the luminaries, or even the sixth house, and because, as befits a well-born person, he has always taken careful care of his health in food and drink. And although the luminaries, weak and conjoined in a lowly place of the heaven, signified a shorter life for the native; especially since the Sun, lord of the horoscope, also sticks in the sixth: yet because the cusp of the horoscope is girded on both sides by fortune, and as it were enclosed, he has been preserved by the kindness of God up to this very time,*

[Margin: Second example.]

In the second example *the very many testimonies of moderation, show the native to be of moderate health, and to enjoy prosperous health for the most part, since the fortunate testimonies also exceed the unfortunate in number, and the lord of the*

horoscope ☿ is strong and fortunate. But since the horoscope itself by the □ of Saturn, the Moon by the □ of the Sun, and the sixth house not only by the opposite ☉ but also by ♄ is afflicted, certain grave diseases are signified for the native, about which a little later.

[Margin: With which members, and diseases of what kind, are decreed.]

On the third, With which diseases, and of which members, the native is afflicted.

Since individual members and diseases of the human body are assigned by the wise to the individual planets, signs and houses, from which judgment is passed on the kind of disease: Therefore we shall first teach how the members of the human body, from head to heel, have been attributed to the signs and houses themselves, according to the order of the signs and houses; afterwards we shall also show the members and diseases proper to the planets, and finally we shall demonstrate how judgment is to be formed.

[Margin: The signs of the zodiac, over which members they preside.]

First, then, according to Leovitius and Garcæus c. 33 de jud. Genit. ♈ presides over the head, the face and the parts of the head, the eyes, the ears, the teeth, and the affections of these parts; such as are pains of the eyes, and of the teeth, of deafness, and moles on the face. ♉ over the neck, the nape, the throat, the voice, and their diseases. ♊ over the shoulders, the arms the hands, the shoulder blades. ♋ over the lungs, the breast, the ribs, the breasts, the liver, the spleen. ♌ over the heart, the stomach, the back, the navel, the sides, the diaphragm. ♍ over the belly, the intestines, the diaphragm. ♎ over the loins, the navel, the kidneys, the thighs, the buttocks the bladder. ♏ over the private parts, the bladder, the anus. ♐ over the hips, the thighs. ♑ over the knees and the hollow of the knee. ♒ over the shins and the legs. ♓ over the feet and the ankles.

[Margin: Although the cause of this distribution is unknown: yet whatever it rests on is not to be credited to chance prediction.]

And it is worthy of wonder that the prognostics answer to the outcome, though the cause of this distribution is unknown, or is even given only by Pontano c. 4 lib. 4 de reb. cœl., that just as we begin the zodiac from ♈, the first sign, and from there proceed through ♉, ♊, ♋, etc. to ♓ as far as the first sign: so from the head, which holds the first and worthier place, we descend through the neck, the shoulders, the belly, down to the feet. Although this cause is insufficient, yet whatever we notice in this respect to agree with experience is not at once to be attributed to chance prediction. For the judgments rest on definite precepts, conceived and confirmed by long experience, nor is judgment made at random now from ♓ or ♒ about the head, from ♉ about the feet, from ♋ about the secret places, unless a comparison has been made with the planets: And many things happen in the nature of things whose causes we do not perceive because of the weakness of our intellect. But to say that these are to be credited to chance prediction is rashly to take away all certainty from Astrology.

[Margin: The celestial houses, over which parts of the body they preside.]

In the same way the 12 celestial houses are said to preside over definite parts of the body. *The first* house, for, signifies the head, the eyes the ears, the face, the polyp, the stench of the mouth: *The second* the neck, the throat, the glands: *The third* the shoulders, the arms, the hands: *The fourth* the breast, the lung the gullet and the spleen. *The fifth* the back and the shoulder blades, the stomach, the liver, the heart, the sinews and the sides. *The sixth* the lower belly with the intestines, the stomach, the liver and the kidneys. *The seventh* the thighs with the flanks, the bladder, the womb and the genital members. *The eighth* the spine of the back, the groin and the anus. *The ninth* the lower part of the hips: *The tenth* the knees and the hollows of the knees. *The eleventh* the legs and the shins. *The twelfth* the feet and the ankles, with gout.

[Margin: Over which members the planets rule.]

Next, certain members too, over which they preside and whose infirmities they show, are assigned to the planets by Leovitius and Garcæus. For *Saturn*, the significator and author of sicknesses, signifies the right ear, the spleen, and the melancholic humour, the bladder, the bones, the teeth; and the infirmities of these members. And since it is a cold planet, all cold diseases which arise from a flux of the humours, especially the melancholic ones, are signified through it; such as leprosy, scabies, cancer, paralysis, consumption, black jaundice, quartan fever, colic and iliac passion, dropsy, pernicious and phlegmatic catarrhs, flowing to the lungs and the breast, cough, hardness of hearing, pain of the teeth, gout, and similar Saturnine and melancholic diseases.

[Margin: ♄]

Jupiter signifies the lung, the ribs, the cartilage, the liver, the workshop of the blood, and the blood itself, the arteries, the pulse, and the seed begotten from spirit and blood. Likewise the affections of these members, such as peripneumonia, apoplexy, pleurisy, cardiac angina, spasm, inflammations of the liver; convulsion, stupor, passions of the spine of the back, pains of the head: besides, the diseases which arise from winds, stench, or putrefactions.

[Margin: ♃]

Mars signifies the heat which is in the blood and the veins, often beyond the natural, the left ear, the gall, the kidneys, the veins, the private parts: And the diseases of these that arise from inflammation, such as burning abscesses, plague, acute fevers, yellow jaundice, carbuncles, fistulas, epilepsy, dysentery, tertian and quotidian fever, and similar hot and dry sicknesses: Likewise wounds, especially on the face.

[Margin: ♂]

The Sun, significator of sicknesses, afflicts the brain, the heart, the spirit, the sinews, the sight, the right eye and the right side in men, the left in women: And brings roughly these diseases: syncope, the cardiaca, spasm, ophthalmia, flux of the eyes, catarrh, coldness of the liver and of the stomach, pustules of the womb, and of the lower parts.

[Margin: ☉]

Venus signifies the things which pertain to generation, the womb, the kidneys, the genitals, the breasts, the throat, the loins, the nostrils, the liver and σπέρμα [Greek: sperma, "seed"]: And the affections of these members; passions of the womb, suffocation, priapism, gonorrhoea, weakness of the liver and of the stomach, from a cold and moist cause, the French scab, and lientery.

[Margin: ☿] [?]

Mercury signifies the spirits of the brain and the sinews, the imagination, the memory, the tongue, the hands and the fingers, the gall, the bones and the legs: And the sicknesses of these members, such as mania, deprivation of the common sense, lethargy, deliria of every kind, stammering, and impediments of the tongue, hoarseness, the falling sickness, cough, abundance of spittle, obstruction of the gall, vomiting, catarrhs from an abundance of humours in the head, and all melancholic diseases.

[Margin: ☿]

The Moon rules and signifies the left eye in men, the right in women, the stomach, the ventricle, the animal spirit, the left side, the intestines, the bladder, the taste, the genital members, and the liver in a woman: And the sicknesses of these members, such as epilepsy, paralysis, colic, catarrhs, menses, phlegmatic abscesses, and sicknesses arising from obstruction of the veins.

[Margin: ☽]

And these are the diseases which are signified by each planet, whose analogical reasons anyone can see in Pontano libr. 4 de rebus cœlestibus.

It should be noted, however, that all these diseases are not caused at the same time in one and the same body, by one and the same significator, but that other circumstances too are to be considered, such as the nature of the signs, the place in the heaven, and the aspects both to the luminaries, and to the houses signifying diseases, and to the malefic planets.

[Margin: How the kind of disease is to be determined specifically.]

But so that you may know the kind of disease specifically, these 4 are to be attended to. 1 the significator unfortunate, or harmed by the malefics; 2 The sign which that significator holds; 3 the malefic which harms the significator; and 4 the sign which the malefic occupies. And as in general those members of the body are reckoned strong whose planets, which are the significators of those members, are strong; so those are judged weak whose significator planets are weak: Cardano [Card.] cap. 15 de jud. Genit. In the same way benefic planets having no dignity in the horoscope, if they are strong in the sixth, and are not afflicted by the malefics, bestow bodies almost always healthy, or liable to fewer diseases. Schonerus. Hence ♃ too, fortunate in 6, if it is not lord of the horoscope, gives good health. But if a benefic so placed has some dignity in the horoscope, it decrees the same indeed, but more weakly.

[Margin: From where the judgment of diseases is chiefly to be sought.]

But diseases come about most frequently from the lord of the sixth house, or from a planet existing in it, not only in the nativity, but also in the revolution, 6 Aph. 128. Thus planets existing above the earth in manifest places of the body; under the earth in hidden ones signify diseases, 6 Aph. 127. The lord of the

first too, weak in the sixth, and in a harmful sign or afflicted by the malefics, denotes a valetudinarian.

[Margin: On the diseases and defects of the eyes.]

In particular these aphorisms indicate the defects of the eyes and the weakness of sight:

1 The luminaries impeded by the malefics in the nativity by □ or ☍ harm the eyes, so much so that those born under such a position cannot avoid a grave danger or loss of them: Schöner [Schon.] and Almansor [Almans.] sent. 15. 2 Whoever has the Sun or the Moon in the Milky Way, which in the northern part from 21° ♊ into the first of ♋: In the southern from 7° ♐ to 17; and again from 22° ♐ to 5° ♑ extends, or with a nebulous star, of which kind are the Pleiades in the back of ♉, the Manger in ♋, Coma Berenicis, the Tail of ♌, the Eye of ♐, and certain ones in the water of ♒, he will not see death before he suffers a defect in the eyes: And that defect is inseparable if the luminary so placed occupies the angles: Cardano [Card.] cap. 19 suppl. Almana [?], 3 The luminaries, either both, or one of them, placed in the Milky Way, or with nebulous fixed stars, in such a way that at the same time the malefics afflict them by conjunction □ or ☍, portend blindness if each luminary is so placed: but the loss of the right eye if the Sun alone is so disposed, of the left, if the Moon; and if ♄ afflicts, the evil will be from suffusion or catarrh, if ♂ from a blow and violence: Giuntini [Iunctin.] in com. super cap 11 lib 3 quadr. Ptolemy [Ptol.] Aph. 28. 4 The luminary of the condition, that is ☉ in a diurnal, and ☽ in a nocturnal, joined bodily to a malefic, or if any of the malefics has followed the same one of the luminaries, or even preceded, so that by reason of the first mobile either the luminary into the place infected by the malefic, or the malefic by the same motion into the place of the luminary is carried, threatens danger of blindness or at least a grave defect in that eye over which the luminary so placed presides. For the malefic advancing in this way out of that place which the luminary had previously held, or the luminary advancing into the place of the malefic, at once infects it by its presence, and stirs up natural causes, by which a defect is brought upon the eye of that native: Giuntini [Iunct.] ibid. Aph. 29. who also adduces from Gauricus's tract 6 nativit. the nativity of Fantinus Cornelius [Fantini Cornel.] the Venetian, in which the Sun, the luminary of the time, afflicted from the opposite of Saturn, succeeded by the common motion into the place infected by Mars; which constitution

[Margin: The genesis of Fantinus Cornelius the Venetian.]

dulled the keenness of his right eye. 5 He too will be taken with a defect of sight for whom the Moon, opposite the Sun, is joined to nebulous stars, 3 Aph. 114. 6 Thus the Sun joined to Mars in the eighth house signifies blindness and infirmity of the body if Saturn is joined in the opposite of the ☽ in a human sign; Firmicus Maternus [Maretn.] lib. 6 cap. 31. The same is signified if they are in the tropical signs. 7 The Moon with the Sun and nebulous, so that the new moon takes place at nebulous stars in one of the angles, takes away the left eye 4 Aph. 67. 8 When the Moon is with the belt of Orion under the rays

of the Sun, the native will be blinded in at least one eye: 6 Aphor. 10. But if one luminary is very unfortunate, from the disease of one eye he will lose both, because of its affinity with the other, 6 Aph 102. 9 When the Sun and the ☽ are opposed from the angles, then if they are free of the malefics, or if even some aspect of the benefics intervenes, they decree the one-eyed or squinters Giuntini [Iunct.] ibid. Aph. 30. 10 Both luminaries, being with nebulous stars or in the milky way, outside the rays of the malefics but nevertheless afflicting each other, signify the one-eyed or squinters, Giuntini [Iunct.] ibidem Aph. 31. 11 Both luminaries, or only one of them, besieged or afflicted by the malefic rays of the malefics, but outside the milky way or the nebulous stars, denotes danger of blindness or a grave disease of the eyes, unless a benefic planet has intervened either by body or by ray; which, when it happens, produces for the most part the dim-sighted or the one-eyed or squinters. The same, in the same place, Aph. 32. *To this may be referred the genesis of the daughter of a certain gardener near Görlitz [Gorlicium], which M. Abrahamus Zenckfrey, a preacher most devoted to astrology, kindly shared with me. For this has the Moon, the luminary of the condition, slow in motion and peregrine, hidden under the rays of the ☉, which is itself also peregrine, and wretchedly afflicted by the □ ray of ♂ from its own exaltation and the house of ♄, joined to the same Saturn; and since it is not cherished by the rays of the benefics, it brought her blindness.* [Margin: Of the blind daughter of Christophorus Kotzen, gardener.] 12 The Moon diminished in light and afflicted by the malefics denotes the loss of the left eye If at the same time it is then in the milky way or with a nebulous star, or has had dominion in the sixth, it will be so much the worse. But if it has been harmed by Mars, especially from the angles, the defect is brought on either by iron, or by fire or by a blow, or by some external force. But if the same ♂ has afflicted the Moon by a quadrangle or ☍ ray and Mercury at the same time, the defect is to be expected from gymnastic and wrestling contests and games. The same, Aph. 35.

[Margin: On the defects of hearing.]

On the defects of hearing. *The two malefics decree defects of hearing, especially ♄, if in its houses or terms there is ☿, which presides over the moving of airy affections, above all in the sixth or eighth house of the chart.*

Hence 1 if ☿, lord of the sixth house, is in an evil place ascending, and ♄ has aspected it with either a □ or a ☍ ray, or has even sought the sixth house by opposition, the native will be deaf: Albubater cap. 60 & Haly part. cap. 1. 2 The lord of the sixth, if it is either a weak ☽ or one of the malefics impeded by the other malefic, signifies difficulty of hearing. Of this kind was the position of a certain physician, most successful in practice, who suffered from difficulty of hearing, since in his nativity the Moon, lady of the sixth, was in ♍ with Mars, but ♄ nearly in the opposite of them in ♋ Giuntini [Iunctin.] in com. super cap. 11 libr. 3 quadr. Ptolemy [Ptol.] the first Aphor. on difficulty of hearing. [Margin: The genesis of a certain physician.] 3 ☿ being lord of the sixth or 12, placed in the sixth unfortunate, denotes the native either injured in the ears or entirely deaf, Haly part. 5 cap. 4. 4 ☿ being unfortunate in a house

of Saturn, if it is in the 10 place of heaven, and the malefics have aspected it, the native will lack all hearing, especially if the benefics too are peregrine from it, Albubater [Albub.] cap. 60.

Diagram. Four square figures of the heaven in one ruled frame, two above and two below. Each has a central box carrying the title and date of the nativity, and twelve compartments set around it: a triangle on each side of the box, and each corner divided by a diagonal into two triangles. In the compartments, sign and planet sorts are set along the rules with figures beside them. No house numbers are printed. The labels are listed below by position on the page, each run in the order set; within a corner, the triangle next to the top or bottom triangle is named first.

Upper left figure. Centre box: *Nascitur Fantinus Cornelius Venetus Anno 1490 Iulij Die* (then a virgule /) *5 15 P.M. Elevatio poli 45 gr.* That is: Fantinus Cornelius the Venetian is born, in the year 1490, July, day (a virgule), 5 15 P.M.; elevation of the pole 45°.

- Top triangle: ♎ 17 10
- Upper left corner, triangle next to the top: ♏ 10 24
- Upper left corner, triangle next to the left side: ♏ 29 30; ☊ 18 30
- Left triangle: ♐ 21 12; ♄ 23 16
- Lower left corner, triangle next to the left side: ♍ 24 0
- Lower left corner, triangle next to the bottom: ♓ 10 19; ⊕ 10 40; ☽ 13 30
- Bottom triangle: ♈ 17 10
- Lower right corner, triangle next to the bottom: ♉ 10 24; ♉ 29 30
- Lower right corner, triangle next to the right side: ♅ 18 30; ♂ 15 6; ♃ 29 47
- Right triangle: ♊ 21 12; ♋ 24 0
- Upper right corner, triangle next to the right side: ♌ with the figures 27 and 17 set one above the other beside it; ☿ with 7; ♀ with 4; ☉ 24 37
- Upper right corner, triangle next to the top: ♍ 10 19

Upper right figure. Centre box: *Nasc. Christoph. Kotzen hortulano filia cæca Anno 1578 Mart. Die Hor.* (then a virgule /) *9 9 56 P.M. Elevatio poli 51 grad.* That is: A blind daughter is born to Christoph. Kotzen, gardener, in the year 1578, March, day, hour (a virgule), 9 9 56 P.M.; elevation of the pole 51°.

- Top triangle: ♌ 27 0
- Upper left corner, triangle next to the top: ♍ 29 20; ♅ 2 51; ♃ 8 8
- Upper left corner, triangle next to the left side: ♎ 21 42
- Left triangle: ♏ 11 46
- Lower left corner, triangle next to the left side: ♐ 6 17; ⊕ 26 6; ♃ set at the junction of these two runs with no figure of its own
- Lower left corner, triangle next to the bottom: ♍ 31 1; ♂ 19 20; ♄ 22 8
- Bottom triangle: ♒ 27 0; ♀ 13 22; ☉ 29 13
- Lower right corner, triangle next to the bottom: ♓ 29 20; ☊ 2 51; ☿ 9 16; ☽ 13 33
- Lower right corner, triangle next to the right side: ♈ 21 42

- Right triangle: ♉ 11 46
- Upper right corner, triangle next to the right side: ♊ 6 17
- Upper right corner, triangle next to the top: ♋ 13 1

Lower left figure. Centre box: *Nascitur Medicus quidam Anno 1533 Febr. Die Hor. 18 18 P.M.* That is: A certain physician is born, in the year 1533, February, day, hour, 18 18 P.M. No elevation of the pole is set in this box.

- Top triangle: ♃ 24 14; ♁ 23 10; ♐ 12 5[numeral: ?]
- Upper left corner, triangle next to the top: ♍ 11 12; ♐ 25 10
- Upper left corner, triangle next to the left side: ☽ 16 53; ♂ 26 52; ♀ 0 32
- Left triangle: ♒ 16 54; ♄ 4 14 ♓; ☉ 10 37; ☿ 19, with 48 set on the line below
- Lower left corner, triangle next to the left side: ♈ 24 38
- Lower left corner, triangle next to the bottom: ♉ 13 55
- Bottom triangle: ♊ 12 53
- Lower right corner, triangle next to the bottom: ♊ 25 10; ♄ 6 28 ℞
- Lower right corner, triangle next to the right side: ♋ 11 12
- Right triangle: ☊ 4 14 ♍; ♌ 16 54
- Upper right corner, triangle next to the right side: ♎ 24 48
- Upper right corner, triangle next to the top: ♊ 13 55

Lower right figure. Centre box: *Nascit. puella surda & muta prope Lignitium Anno 1572 Dec. Die Hor.* (then a virgule /) *6 11 30 A.M.* That is: A girl, deaf and mute, is born near Legnica [Lignitium], in the year 1572, December, day, hour (a virgule), 6 11 30 A.M. No elevation of the pole is set in this box.

- Top triangle: ♐ 18 45; ☉ 24 54
- Upper left corner, triangle next to the top: ♄ 14 29; ☽ 7 4; ♍ 2 1
- Upper left corner, triangle next to the left side: ♈ 20 35; ♂ 8 10 ♒
- Left triangle: ♓ 2 19; ♁ 14 29; ♃ [?] 21, then a sort [?] and ♈
- Lower left corner, triangle next to the left side: ♉ 4 20
- Lower left corner, triangle next to the bottom: ♊ 3 24
- Bottom triangle: ♊ 18 45
- Lower right corner, triangle next to the bottom: ♋ 2 1; ☊ 14 29
- Lower right corner, triangle next to the right side: ♋ 20 35
- Right triangle: ♍ 2 19
- Upper right corner, triangle next to the right side: ♏ 4 20; ♀ 7 40; ♄ 22 14
- Upper right corner, triangle next to the top: ☿ 11 15; ♃ 3 24

[Margin: From which celestial causes impediments of the tongue are judged.]

Mercury, together with Saturn, chiefly marks impediments of the tongue. Those, therefore, for whom Mercury is unfortunately placed, especially retrograde, and partilely harmed by Saturn: likewise those for whom the ascendant, its lord, ☿, or even all the planets are in the mute signs ♋ ♏ and ♓, have impediments of the tongue, or are entirely mute.

But let these aphorisms be noted: 1 If ♄ with Mercury and the Sun, yet occidental from it, are in an angle, with Mars not aspecting nor Jupiter, the

tongue will be impeded 4 Aph. 70. 2 If ☿ under the rays of the ☉ and in aspect of the ☽ existing in one of the mute signs is, the native will be mute: Albubater [Albub.] cap. 62. 3 ☿ combust by the Sun, especially in the angle of the east, signifies either a mute or one speaking with difficulty. 4 ☿, lord of the sixth, if it is unfortunate in the ascendant, the native will speak with difficulty. The same will happen if, in the house and term of ♄, it has travelled through either the first or the 8 house. The same. 5 ☿ in ♏, if it is in the term and face of Mars, namely especially at 6° ♏, and the ☽ has aspected it from the opposite, the native will be a stammerer and impeded in speech. The same. 6 ☿, lord of the sixth, if it is in a mute sign, and a malefic has sought it by opposition, the native will be mute: The same. 7 The greatest signification of a mute and of the taking away of the voice is if the lord of the ascendant and the lord of its exaltation, and the lord of the triplicity ☿, and the ☽ itself, or all, are in mute signs: Haly part. 5. cap. 1. To this may be referred the genesis of the deaf and mute girl of a certain gardener, who not only had ♓, a mute sign, in the ascendant, and its lady of exaltation, Venus, likewise in ♏, a mute sign, with Saturn: But also Mercury peregrine and culminating in detriment. [Margin: The genesis of a deaf and mute girl.] Likewise the ☽, lady of the sixth, with ♉ in ♍, its detriment: And Saturn, disposer of the ☽, in 8, in ♏ and the term of ☿: which constitution produced her both mute and deaf. 8 ☿ weak, if it is in the hostile rays of a malefic or of the ☽, and either a malefic or ☿ is in the sixth, or having dominion in it, signifies the native entirely mute or of impeded tongue. Such was the nativity of a girl, as Giuntini [Iunct.] notes in com. super cap. 11. lib. 3. quad. Ptolemy [Ptol.]. For ☿, combust in ♐ and harmed by the □ of ♂ from ♓, a mute sign, signified her deaf and mute from her first birth: Likewise the ☽, lady of the horoscope, impeded also by the □ ray from Saturn, from ♋, a mute sign.

[Margin: On pains of the teeth.]

On pains of the teeth.

1 Whoever has Saturn and ♂ in the ascendant in ♏, all his large teeth fall out, and especially the upper ones: Gaurico [Gauric.] cap. 3 tract. Astr. 2 ♄ combust by the Sun in a watery sign, as ♋ ♏ or ♓, decrees the loss of the teeth with most grievous pains, especially so placed in the horoscope, or having dominion in 6. But combust in this way in other signs, it rather decrees pain from a frequent flow of phlegm to the gum: Garcaeus [Garc] cap. 33 and Giuntini [Iunct.] in the place cited before; where they also add the example of Fazio Cardano [Facius Cardanus], father of Girolamo Cardano [Hieron. Cardanus], who lost all his teeth in the 58th year of his age. [Margin: The genesis of Fazio Cardano, father of Girolamo Cardano.] For ♄ was in ♋, combust by the Sun, in the horoscope.

[Margin: On wounds of the head.]

On wounds and injuries of the head.

These are judged from the conjunction or the evil rays of the malefics.

For first, the malefics afflicting each other by □ or ☍ from the setting or the rising, especially if they have also harmed one luminary, above all the luminary of the condition, with the luminary or the other malefic existing in some human sign and having dignity in the horoscope, decree wounds and injuries of the head: Garcaeus [Garc.] c. 33. and Giuntini [Iunct.] in com. super cap. 13 lib. 3 quadr. Aph. 2. As an example we have the genesis of a certain Neapolitan, to whom the malefics, opposed from the angles of the east and the west in human signs, signified many wounds in the head, face and shoulders, especially since both ♂ beholds the Moon, and ♄ the Sun, by △. [Margin: The genesis of a certain Neapolitan.] 2 The Moon and ♂ joined or opposed in the angles, if both or either is in a human sign, especially in the sign ♊, airy and human, signify wounds and injury of the body. If they are in the houses or exaltations of the malefics, they portend murderers. The same, Aphor 3. 3 The malefics striking each other by conjunction, opposition or □, and afflicting one luminary or both, in the signs of the fiery trigon having the form of brutes, as ♈

Diagram. Nativity of a certain girl, deaf and mute. Year 1561. November, day 16, 5^{h} 48^{m} P.M.

- Top-left corner, upper triangle: ☽ 6 42; ⊕ 4 6 ♈; ♓ 28 19
- Top-left corner, left triangle: ♉ 21 45; ♃ 24 33 ℞
- Top centre: ♂ 13 46; ♒ 26 45
- Top-right corner, upper triangle: ☊ 11 19; ♒ 7 45
- Top-right corner, right triangle: ♒ 22 45
- Left centre: ♋ 1 46; ♄ [numeral: ?] 27 ℞
- Right centre: ♍ 1 46
- Bottom-left corner, left triangle: ♋ 22 45
- Bottom-left corner, lower triangle: ♌ 7 45; ♅ 11 19
- Bottom centre: ♌ 26 45
- Bottom-right corner, lower triangle: ♍ 28 19; ♀ 22 22 ♎
- Bottom-right corner, right triangle: ☿ [?] 10 53; ☉ 4 3 ♐; ♏ 21 45

Diagram. Nativity of Fazio Cardano [Facius Cardanus]. Year 1445. July, day 16, 3^{h} 19^{m} A.M.

- Top-left corner, upper triangle: ♈ 29
- Top-left corner, left triangle: ♊ 12; ☊ 18 30; ♂ 4 39
- Top centre: ♓ 21
- Top-right corner, upper triangle: ♒ 26
- Top-right corner, right triangle: ♒ 5
- Left centre: ♋ 13; ♀ 21 7; ♄ 22 38; ☉ 13 [numeral: ?]
- Right centre: ♍ 13
- Bottom-left corner, left triangle: ♌ 5; ♃ 8 30
- Bottom-left corner, lower triangle: ♌ 26; ☿ 26 46
- Bottom centre: ♍ 21
- Bottom-right corner, lower triangle: ♎ 28; ⊕ 4 26
- Bottom-right corner, right triangle: ☽ 23 2; ☊ 18 30; ♐ 12

Diagram. Nativity of a certain Neapolitan. Year 1488. August, day 11, 11^{h} 50^{m} P.M.

- Top-left corner, upper triangle: ♓ 26
- Top-left corner, left triangle: ♉ 8
- Top centre: ♃ 21 32; ♒ 24
- Top-right corner, upper triangle: ♒ 3
- Top-right corner, right triangle: ☊ 25 19; ♍ 12
- Left centre: ♊ 21; ♂ 22 37
- Right centre: ♄ 27 [numeral: ?]; ♐ 21
- Bottom-left corner, left triangle: ♋ 12; ♑ 22 19
- Bottom-left corner, lower triangle: ♌ 3; ♀ 9 14
- Bottom centre: ♌ 24; ☉ 27 52; ☿ 10 3
- Bottom-right corner, lower triangle: ♍ 26; ☽ 22 58 ♎
- Bottom-right corner, right triangle: ♏ 8

Diagram. Nativity of Ioachimus Schmidt. Year 1559. February, day 7, 17^{h} 30^{m} P.M. Elevation of the pole 50° 20′.

- Top-left corner, upper triangle: ♐ 11 11
- Top-left corner, left triangle: ♐ 27 17; ♍ 23 59
- Top centre: ♏ 26 0; ♂ 26 34
- Top-right corner, upper triangle: ♏ 3 41
- Top-right corner, right triangle: ♑ 11 54 ♎; ♍ 17 33
- Left centre: [?] 22 27; ♃ 25 32 [numeral: ?]; ☉ 28 36; ☿ 16 39; ☽ 7 0; ✶
- Right centre: ♋ 23 59
- Bottom-left corner, left triangle: ♓ 17 33; ☊ 11 54 ♈
- Bottom-left corner, lower triangle: ♉ 3 41; ♄ 16 6
- Bottom centre: ♉ 26 0
- Bottom-right corner, lower triangle: ♊ 11 11
- Bottom-right corner, right triangle: ♊ 27 1[numeral: ?]

♌ and the latter part of ♐, portend great dangers and injuries from horses and other animals. 4 Whoever has Mars ascending will certainly have a scar on his face: Prol sent. 74 Centil. Almansor holds almost the same, sent. 14, where he says: Anyone who has the malefics in the ascendant will suffer a foul mark on the face. And sent. 1[numeral: ?]6: Turn your eyes away from a figure in which ♂ is in an angle, especially when ♏ is ascending. 5 When ♂ is in the heart of heaven in ♈ and has aspected Jupiter in ♍, lord of the ascendant, with a □ ray, the native will be wounded. In the same way if Mars occupies the M. C. in ♍, while ♒ ascends and ♄ strikes both from Leo: 3 Aphor. 12. 6 ♃, lord of the first, in the sixth, by

Mars afflicted, decrees an inflammation of the liver or redness of the face, or pustules on it. But Jupiter, harmed in this way by ♄, portends pains of the head and afflictions of the backbone. 7 If the Moon, diminished in light and motion, is in the 8 house, and the lord of the twelfth, being peregrine, feral and a malefic, has aspected her with an evil aspect, the native will incur pains, blows and wounds: Albubater [Albubat.] cap. 145.

On the falling or epileptic disease, and on insanity.

[Margin: On the epileptic disease and insanity.] Epilepsy, which is contracted from perverse, badly affected and contaminated humours, which vitiate the brain either by superfluous quantity or by pernicious quality, so that those seized by this disease suddenly collapse and foam at the mouth, and after some time has passed, returning to themselves with their senses roused again, raise themselves from the ground, is recognized principally from these 4 astrological causes, as 3 Aph. 60 Cardano [Card.] teaches, and likewise Albubater cap. 66. 1 When ☿ and ☽ do not aspect each other. 2 They are in ♒ or ♓, places less suited to the Moon and ☿: likewise in the 6, 8 and 12 houses, so that neither beholds the horoscope. 3 When ♄ or ♂, the latter in a nocturnal, the former in a diurnal nativity, being strong, attacks both ☿ and ☽ together from an angle. 4 When ♄ by day and ♂ by night are the rulers of Mercury and the Moon: for these causes, concurring, generally make the native epileptic. Nor are the causes that bring fatuity or insanity dissimilar. Next, that person is subject to the falling disease in whose nativity the Moon, holding the horoscope, has Mercury and ♄ in opposition. 3 The same disease afflicts one in whose nativity ♂ and ♄ oppose each other from opposite places, one in the rising, the other in the setting; or one in the M., the other in the lowest part of heaven. 4 The Moon joined partilely to the Sun and Mars at the culmination of heaven signifies the same disease: and if ♄ also joins them, either by body or by a □ ray, the mind will at the same time be disturbed. 5 ☉ and ♀ in the ascendant, if they have ♄ opposite, also make epileptics. Albubater [Albub.] cap. 66. 6 The Moon in the 7 place makes people subject to the comitial disease more than elsewhere, and after that in the ascendant, but there rather fatuous people, if she is badly placed: 3 Aph. 56. 7 The ☽ full of light with Mars gives an impression of foolishness: but empty, with Saturn, she makes true fools, 3 Aph. 48. 8 When ♀ is with Saturn, and ♂ and ☿ in the place of the ☽, the native will be a fool, thinking himself a philosopher, 6 Aphor. 113. 9 When the ☽ is under the rays of the ☉ with Mercury, or ☿ under the rays of the ☉, with the Moon diminished in light, the native will be a fool, but not entirely, 6 Aph. 114. 10 ☉ in ♋, with the Moon diminished in light: the native will be like an ass. 6 Aph. 115.

[Margin: On demoniacs.] *On demoniacs. Astrologers also seek the causes of the melancholic disease, with which evil spirits are accustomed to mingle. For melancholy is the devil's bath, and such people usually become demoniacs.*

This evil is recognized from these five causes, of which Haly reports four, part. 5 cap. 1. The first is when ☿ and ☽ do not aspect each other. 2 When neither aspects the horoscope. 3 When there is present to one of them, in a diurnal nativity ♄, in a nocturnal one ♂, and one of them is in the angles: or also when in a nocturnal nativity ♄ is the stronger, in a diurnal one ♂, especially if strong significators also are in ♋, ♍ or ♓. 4 When, in the ☌ or ☍ of the luminaries preceding the nativity, in ♐ or ♓, the malefics rule the Moon; in the conjunction ♄, in the opposition ♂. Cardano [Card.] adds a fifth cause, 3 Aph. 61 & 62: that the Moon at the time of the nativity must be opposite the Sun:

For if the Moon is then vexed by Mars in the opposite of the Sun, demoniacs are made. Thus demoniacs are made when ☉ and ♂ rule the places of the impediments of the ☽ and ☿, namely the places that afflict these two planets, the governors of reason.

[Margin: On the stone.]

On stones.

Speaking physically, that person is judged to suffer from stone of the bladder who has the mouth and channel of the bladder very narrow. For from this, whatever earthy humour is gathered cannot easily be excreted, but gradually hardens, and, dried out, is roasted by the heat and passes into the form of a stone. But because ♄ presides over the bladder and the earthy humour, therefore, speaking astrologically, the defect of the stone is derived from Saturn. It, therefore, with Mercury in the eighth, in a diurnal nativity, denotes the stone; and a defect of the bladder. Placed also in cadent domiciles, it gathers pernicious humours and retains them for roasting, especially if ♂ also extends its powers to it. In general, ♄ and ♂, placed together in any sign whatever, [cause] hidden pains, and infest both the nerves and the stomach and intestines. The evil is increased if the conjunction takes place in the 6 or 12 houses.

[Margin: On dysentery and gripings of the belly.]

On dysentery and gripings of the belly.

1 The Moon, governor of the intestines, if she is placed in house 7 and so threatens the horoscope with an opposite ray, but follows Saturn in the first motion, with Mercury placed in the sixth, denotes gripings of the belly and dysentery 2 The Moon, lady of the first, in the sixth, afflicted by Saturn, which in a certain peculiar way condemns the intestines and the bladder, as sinewy, as Cardano [Card.] advises, cap. 15 in jud. Genit; generally decrees colic passions, gripings of the belly and pains of the intestines, especially in ♍ or ♎. 3 ☉ and ♄ joined or opposed in a watery sign decree either gout or colic passion: Iunct ad cap. 11 libr. 3 quad. Ptolemy [Ptol.] 4 ♂ in the ascendant in ♏, without the aspect of a benefic, or by day with ♃ in the fourth or 7; or ♄ with ♃ in the seventh, indicates dysentery and pain of the intestines from windiness. Schöner [Schon.] cap. 6 lib. 1.

[Margin: On fevers.]

On fevers.

Fevers, as they are of various kinds, so are indicated by various significators. But principally they are signified from Jupiter as far as Mercury, 6 Aph. 129. For all share in heat. But the heat of the Moon is overwhelmed by moisture, and Saturn is assisted by the others. Saturn, however, in the fiery [signs], because of dryness, if the Sun is weak, makes hectic [fevers] : ♃ sanguine without putrefaction, but if ♂ is present, putrid. ♂ burning, of every kind: ♀ ephemeral. But if ♂ is mixed in, putrid from phlegm; ☿ mixed. But if the Moon herself is likewise in them, she makes phlegmatic from thick putrefying humour. But if ♄, being so placed, is mixed with Mars, melancholic fevers are made. But if ♂ under the Sun is in the sixth or 12 place, in the fiery, or, being so placed in

another house, has struck the significator of life or the lord of the ascendant in a revolution, or if the lord of the ascendant or the significator of life has come by direction to its rays, it being so placed at that time; it produces sweltering, burning and pernicious fevers, and ones like the poisonous, 5 Aph. 101.

[Margin: On consumption.]

On consumption or phthisis.

1 ♄ in diurnal nativities, if it has Mercury joined with itself in the 10 house (in which place indeed, for rousing the harmful humours which ☿, having been turned into the maleficent nature of Saturn, —sharpens, is by far the most suitable because of the more direct rays) and itself has adhered to the outermost horn of the waning ☽, (which increases the malice of the humour, and corrupts the brain itself, from which continual distillations are roused) but has had Mars, hostile to itself, from the opposite or the quadrangle, (which excites heat and inflames the blood) such a constitution makes the natives phthisic: Garcæus & Giuntini [Iunct.] 2 ♄ joined with Mars in the sixth house, or striking Mars placed in the sixth house with a ☍ or □ ray, signifies the phthisic and the dysenteric. 3 The lord of the first in the sixth house in ♏, combust by the Sun, also denotes the phthisic. 4 ♄ and ♂ opposed to each other provoke bloody vomiting, ♄ indeed because of a bad habit of the stomach; ♂ however because of the boiling blood.

[Margin: On defects concerning the private parts.]

On defects concerning the private parts. These defects are judged, for the most part, from a bad constitution of Venus.

Hence 1 ♀ in the ascendant, peregrine, if ♄ has aspected her, signifies pain of the genitals: Albubater cap. 74. 2 ♀ ☽ and ♂, joined in the same place, also signify disease of the same, if ♄ has aspected them without the aspect of Jupiter. The same. 3 If ♄ from the middle of the heaven has aspected with a □ Venus placed in the setting or 7 house, it makes males as well as females cold and estranged from generation. 4 ♀ ♄ ☊ and ☿, placed in the same parts in the setting or the lowest part of heaven, render males cold and women sterile. 5 Hermaphrodites are those for whom ♀ in the house and term of ☿, Mercury conversely in the house and term of ♀, the Moon in earthy signs or ♌, the other, masculine, planets however clinging in feminine signs, are placed. 6 ☽ in sterile signs and the term of ☿, joined with Saturn, striking Venus, being in the bounds of Saturn, with any radiation whatever without the testimony of Jupiter, takes the virile power away from the native; for the ☽ in a constitution of this kind becomes sterile, because of the coldness of Saturn and the quality of the sign: And ♀ in the bounds of ♄ grows torpid. 7 ♀ in the rising or the setting, joined partilely with ♄, or afflicted by it with □ or ☍ in a mutual permutation of the domiciles, injures the genital power. The evil is increased if the ☽ looks upon the same with a □ or ☍ aspect from a feminine sign. 8 ♀ placed in the house of Mars in the rising or the middle of the heaven, if ♂ and ♄, joined partilely, have injured the same with an opposite ray, signifies spadoes.

[Margin: On Hernia.]

On Hernia or Enterocele.

1 ♄ in the setting, looking upon the Moon placed in an angle with either a □ or a ☍ ray, threatens cutting of the genitals or of the hidden parts of the body. 2 ♄ joined partilely to Mars in the ascendant, or the summit of the heaven, in a feminine sign, with Venus and Mercury being in feminine signs, threatens excision of the genitals. But if the nativity is of a woman, it will overthrow chastity: Garcæus c. 33. 3 ♀ joined with Mercury under the rays of ☉ signifies castration: Haly part. 5 c. 4.

[Margin: On the badly smelling.]

On the fetid and the badly smelling.

♀, badly placed in ♍, above all makes badly smelling, as Garcæus holds and with him Giuntini [Iunctin.], above all if she is infected by the opposite of Saturn. 2 If ♀ is retrograde in the house of Saturn, and the native born in its evil aspect, he will have fetid sweat and breath. 3 ♀, lady of the sixth, retrograde in the house of ☽, if she is attacked by an evil aspect of Saturn, designates the native's mouth fetid and armpits badly smelling. 4 ♀ in the house of Jupiter, combust, and ♄ aspecting her badly without the aspect of Jupiter, denotes the native wholly stinking.

On Baldness.

[Margin: On baldness.]

Aristotle [Aristot.] in probl. says that eunuchs spadoes and boys do not grow bald, for this reason, that they do not use Venus. Those, therefore, who apply themselves more readily to Venus, for them the brain is chilled from intemperance; from which, because of the dissolution of the heat, the nourishment of the hair must fail, just as we observe the same to happen in the foliage of trees. Hence for those for whom Venus culminates hostilely in her own domicile, or also the ☽, lady of the humours, placed in some cardine, transits those parts of the sign which are bald and smooth in the animal, above all ♐, and the malefic stars are carried through the tropical or solid signs of the sixth house, for them baldness is portended: Pontano [Pont.] cap. 19 lib. 11 de reb. cœlest.

[Margin: On grey hair.]

On Grey Hair.

Old age itself indeed brings grey hair with it. But since we find that some young men also are seized by grey hair before their time, the celestial cause seems to be in Saturn, which, surrounded by the Sun and Moon as if by enemies in the same sign, so far, that it stands between the two luminaries, so corrupts the excrement carried to the skin, that from what is putrefied the hair and the hairs must whiten before their time. Pontano [Pont.] cap. 20 lib. 11. But if the Moon too, lady of the humours, is coupled with one of the malefics, the same is signified.

[Margin: On the gouty.]

On the Gouty.

Pain of the joints is established to arise from the luminaries afflicted by conjunction or opposition of the malefics, in the signs of infirmities ♈, ♉, ♋, ♏, ♍, ♒ and ♓, so that either luminary, or either of the malefics, has house or exaltation in the first or the sixth. For this constellation decrees not only the sickly from boyhood, but also the arthritic after the settled age: Garcaeus [Garc.] cap. 33 de jud. Genit. ♂, ♀ and ☽, cardinal in nocturnal nativities, and provoking one another with adverse rays, also signify the same disease, Saturn however looking upon them from ♌ ♉ ♐ or ♓, Pontano [Pont.] cap. 13 lib. II.

[Margin: The genesis of Ioachimi Schmidii.]

Refer to this the genesis of Ioachimi Schmidii, originating from the Joachim valley [Joachimsthal], Secretary of Glatz, whom, although he was a man strong in judgement and disposition, yet gout, an evil partly hereditary, received from the blood of a gouty mother, partly as if pointed out by the stars with a finger, so oppressed, that, fixed to the bed for five years, at last as the 42 year of age was beginning, namely in the year 1600, on February [numeral: ?]7, he ended life by an epileptic motion. For he had the malefics opposed to each other in the middle and the lowest part of heaven; in the signs of infirmities ♏ and ♉, and the remaining five planets ♀ ♃ ☉ ☽ and ☿ in the angle of the ascendant in ♒ and ♓ in the quadrate aspect of the malefics: which position, with the ☽ and ☿ also placed in ♓, the triplicity of ♂, at last extinguished him by a convulsive motion. In the same way almost all the erratic ones, with the ascendant in watery signs, Mars being in the fourth place and imbued with the rays of Saturn and Mercury, brought to Brother Cornelius

[Margin: Of Brother Cornelius]

so great a vehemence of gout or rather of arthritis, that all his limbs were dislodged by tophi, and like a stone he was wholly immobile except for the tongue, Cardano [Card.] genit 20 See the chart above, c. 8 memb. of this.

[Margin: On precipitation and falls.]

On precipitation and falls.

Falls from a height are signified by the malefics, as the authors of all adversities. 1 For if ♄ is elevated above the other planets in the middle of the heaven, and afflicts the other luminary with ☌ ☍ or □, and has the lord in the first or the eighth, it threatens great dangers from falls from a height.

Refer to this the genesis of a certain unhappy boy, born at Glatz in the year 1597, who in the year 1604, the 7 of age completed, on September 14, having fallen from a window of the court-house through carelessness at the wedding of the maternal aunt, died after three days, the skull broken. For he had ♄ in the royal cusp, culminating above all the other planets, in the quadrate of ♂, and the Sun joined with ♉ Saturn in the 9 house: but the Moon in 7 with Mars in the opposite of the horoscope, the benefics languishing between the luminaries and the malefics; Venus indeed in ♍, her own fall, and Jupiter in ♊, his own detriment.

[Margin: Genesis of a boy killed by a fall from a window.]

Almost similar also is the constitution of a certain boy born at Nuremberg in the year 1512, whom Garcæus mentions: cap. 33 de jud. genit. For he perished by a fall from a height, because he had Saturn in ♎, its exaltation, and M C, culminating, in the platic □ of the ☉, the luminary of the condition; the Moon likewise in the 8 house, of death, and the Sun in 7, opposite to Mars horoscoping, which looks upon ♂ and, with a partile ✶, ♄, which ✶, however, in signs of long ascensions is reckoned as a quadrate. See the charts a few pages later, joined with two others, in the doctrine of marriage. 2 The lord of the M. C., if it is malefic, and in its detriment or fall, or peregrine, or retrograde, has afflicted the other luminary, and one of the malefics has dominion in the first or 8, decrees great dangers from a fall from a height. But if the lord of the M. C. is not malefic, but placed in a sign of a malefic, and afflicted partilely by one of the malefics, it decrees the same, provided it rules in the said places. But both luminaries, or one of them, must be afflicted: Garcaeus [Garc.] 3 The luminaries culminating partilely, with Saturn holding the lowest part of heaven and the opposite ray, but Mars placed in the east, show the native about to throw himself headlong from a height from a defect of mind: Pontano [Pont.] cap. 16 lib. 11 de reb cœlest.

[Margin: Another, of a certain boy of Nuremberg.]

In the place of a coronis let there be noted here Aph Cardano [Card.] 1 Aph. 93. ♄ makes long diseases, ♀ moderate, ☿ various, ☽ recurring, such as vertigos, comitial, gouts: ♃ short, then the ☉, ♂ the shortest And when the principal and the cutting-off places are both strong or weak, the disease will be long, short when, the one being strong, the remaining one is weak.

[Margin: First example.]

In our first example *the principal significators of the ailments are the luminaries and ♄, lord of the sixth, to which ☿ and ♀ accede, as being planets in the sixth house. But because these are made unfortunate by no rays of the evil ones, they signify inclinations and a propensity to diseases, and thoughts of the native about them, when they are offended in a melancholic and Saturnine sign, and ♄ itself is in the domicile of Mars looking upon the same with △, rather than the diseases themselves. The luminaries, joined outside the rays of the malefics, the milky way and the nebulous stars, cannot bring evident affections of the eyes; yet deservedly they are carefully guarded against, and diligent care is spent on the sight, since a conjunction of the luminaries, especially in the sixth house, when one of them, the ☉, also rules in the first, usually harms the eyes. The native inclines to epilepsy, either because ☿ and ☽ do not look upon each other, are in ♍, a Saturnine sign, in the sixth house, and do not look upon the horoscope: But [this] freed the native from this evil and rendered secure up to the 65 year of age, when he became hemiplegic in the direction of Saturn to the Sun, first that neither ♄ nor ♂ mix themselves with any evil ray, 2 that the malefics themselves also aspect themselves with △, and the Moon and Mercury with ✶. The melancholy which the constitution of the malefics in watery signs and of the luminaries in ♍ increased in the native, the same ✶ ray of the malefics to the luminaries and ☿ soothed again.*

[Margin: The other example.]

In the other nativity *the principal significators of the ailments are the Sun ♄ ☽ and ♂. For these strike with quadrate and ☍ rays either the horoscope, or the Moon or the sixth house. [?] accedes ♀, as one who is mistress of the sixth house, and with a □ ray seeks the Moon, but with the opposite, the sixth. But although no diseases in the eyes are signified by the luminaries, because they are found also outside the milky way and the nebulous stars, likewise outside the evil rays of the evil ones: yet burning fevers are decreed for the native, from the □ ray of the luminaries in the signs of infirmities ♉ and ♒, especially since ♂ too is with the Sun in the 12 house. Thus the Sun, unhappy by its own nature in ♉, afflicting the Moon not only with a quadrate but also the sixth with an opposite, especially since it also hides and burns Venus, mistress of the sixth, there under its rays, affects the head and throat, and produces frequent pains of the head, likewise strong obstructions of the gullet, an evil which ♂ in ♈, rousing inflammations there, increases. ♄ in the watery sign ♓, in the fall of Mercury, and ☿ in the cadent 12 house, opposite to the sixth, brings about obstructions and the generation of the stone. But arthritic and gouty pains the same ♄ causes, having exaltation in the sixth house, opposite to Jupiter Retrograde, especially since ♀ and ☽ also afflict each other with a partile □. Finally ♄, lord of the M. C., peregrine, being in ♓, because it is at the same time lord of the eighth, and the Moon culminates partilely in the M. C., denotes a fall from a height, in which he broke the left arm.*

[Margin: The time of diseases is judged either in general, from the situation of the Planet signifying infirmity.]

[Margin: Or in particular, from five aids.]

On the fourth, namely on the time of diseases. *The time of diseases can be judged in two ways: First in general, where this Aphor. of Haly is to be noted, which stands at part. 5 cap. 1. If the Planet signifying infirmity is in the ascendant, and, Schöner [Schon.] adds, in infirming signs; or also the luminaries are there with the malefics, infirmity will be signified at the beginning of life. If they are in the middle of heaven, in the middle of life. If in the west, in old age. Finally in the angle of the earth, around death and the end of life. Then in particular from these 5 aids. First from the directions, which mostly show the year for diseases. 2 from the revolutions, which confirm or deny the same. For when an evil revolution has come to an evil direction, so much worse will the evil be. If the revolution is good, it will be milder. 3 from the profection. 4 from the transit. 5 from the Alfridaries and Chronocrators, of which we shall treat more copiously in the last member.*

[Margin: First example.]

In our first example, *the first and middle age is for the most part free from diseases, because almost all the significators are in the setting and the sixth house. The diseases, therefore, which are portended for the native will befall the same around the end of life, and will also at last close the same, which will be more fully known from the special judgment.*

[Margin: The other example.]

In the other *very many diseases are signified for the native in youth and middle age, because the principal significators are between the rising and the middle of heaven,*

and the Moon itself clings to the cusp of the middle of heaven. The remaining and fewer are reserved to the end of life by reason of the sixth, since certain significators have opposite rays to the same, and the Moon a quadrate.

[Margin: Whether diseases are curable, how it is known.]

On the fifth, the Cure of diseases. *Three Planets signify cures, as Cardano [Card.] teaches, 3 Aph. 63:* ♃ *through money and good counsel,* ☿ *through medicine,* ♀ *through magic, divine help, dreams and chance.*

In general, therefore, where these Planets, especially ♃ *and* ♀*, which are otherwise benefic, and blunt the malice of the malefics, have agreement through body or beneficent ray with the significators of the ailments, or, the significators of the ailments being occidental, they themselves are oriental, or else are exalted above the angle of the ascendant, infirmities are signified which can be cured. It happens otherwise, and the infirmities do not admit a remedy, where the malefics are in the angle of the ascendant, and the benefics in the angle of the west: Haly part. 5 cap. 1 Hence when the significator or author of the disease has been left entirely in its own felicity, the disease is noted as incurable; but when it is illuminated by the beneficent ray of a good Planet, the disease is signified as curable: and the cure will be easier if the aspect is partile; more difficult, if platic: Leovitius [Leovit.] and Garcaeus [Garc.]*

He also for whom the Moon is in the sixth in the evil aspect of a malefic, will suffer an incurable disease, and all the more if she is mistress in the ascendant, 7 Aph. 2. Above all, a robust significator of life helps very much in natural diseases, whereas in falls it works little or nothing, 3 Aph. 4. But if also, the diseases arising, the Moon has come to Planets contrary to the disease, but most of all to the benefics, the disease is changed for the better, 1 Aph. 52. But if at the beginning of some disease both luminaries are with the malefics, or their opposite, the sick man will hardly escape from it: 4 Aph. 83. In general also a disease which began when the Moon was in that sign which some malefic held in the nativity, or in its quadrangle or diameter, is going to be most grave. If however a malefic regards, dangerous. But if in a place where a benefic was at the time of the nativity, it will be without danger. Ptolemy [Ptol.] sent. 42 Centil.

[Margin: First example.]

In our first example *the native is freed from diseases by provident care in diet and counsel more than by many medicaments. For* ♃ *is best placed in the house of* ♀*. And since the malefics do not harm the significators with evil rays, and signify a rarity of diseases: but Jupiter aspects the luminaries with a* □ *ray from the house of* ♀ *and exaltation of* ♄*, placed in the house of* ♄*, which ray, on account of the agreement of the signs and Planets, is not adverse, there is no reason why the native should be much anxious also about the cure.*

[Margin: The other example.]

In the other example, *among the three Planets advancing the cure of diseases, the strongest is* ☿*. For it is direct and swift in course, free from the Solar rays, in its own house, and lord of the horoscope in* △ *nearly* ☽*, and of the middle of heaven. The remaining two,* ♃ *indeed is retrograde in detriment and peregrine. But Venus, although she is in her own house and triplicity, swift in motion, is nevertheless combust and*

Oriental: hence cures through artificial medicaments proceed better than through other means, especially since ♄ too is in the house of Mercury, and looks upon Mercury with nearly △.

Caput XIV. On the Household and Beasts.

[Margin: Significators of the household, 4.]

Since Cardano [Card.] rightly advises, 3 Aph. 77, that the first significator of the sixth, diseases; the Second, servants; the Third signifies animals: Therefore, after it has been dealt with concerning diseases, now, to complete the things signified of the sixth house, we deservedly speak of the household and beasts. Now the significators of the household are: 1 The sixth house 2 Its lord 3 Mercury, *who is always the general significator of servants:* and 4 a Planet, either one or more, in the sixth.

The sixth house indeed is examined when the goodness and malice are weighed.

[Margin: How the examination of the significators of the household is to be set up.]

Likewise the lord of the sixth ☿, and the Planets placed in 6, when, according to the examination of Planets, their strength or debility, likewise the place in the chart, is attended to. Always [?] *the Planets in a house govern the thing signified of the house. First, therefore, in passing judgment let there be considered the nature of the significators, which either benefic or malefic, strong or infirm, or also is middling. Afterwards let it be pronounced according to the prevailing number. For if all or the greater part of the significators are benefic and strong, they signify a numerous household, and useful to the native. They denote the contrary, if they are weak and malefic. But if a benefic is at the same time strong, it doubles the good; if only one of the two is found, namely that it is benefic but not strong, or strong indeed but malefic, it gives mediocrity. Lastly the feminine significators, prevailing, signify rather women, maidservants. Masculine, males, servants.*

[Margin: Special rules.]

From these general rules these special ones arise, of which some are handed down by Albubater, some by Schöner.

[Margin: On the lord of the sixth.]

1 *On the lord of the sixth.* 1 The lord of the sixth, fortunate, signifies many servants, Unfortunate and badly breathed upon by the Sun, few. 2 When the lord of the sixth is fortunate in any of the angles, it signifies usefulness from servants, especially if that lord is ♀ 3 The lord of the sixth in 10, signifies the lord about to promote his servants to honours. 4 The lord of the sixth in 5, will use the sons of servants or the servants of sons, or sons and disciples for servants; who also will willingly serve him. 5 The lord of the sixth in 7 or 8 or also under the earth, unfortunate, signifies the death of servants. 6 When the lord of 12 is a malefic and superior to the lord of the first, the native will serve strangers with loss: 2 Aph. 99 Cardano [Card.]

[Margin: On Mercury.]

2 *On Mercury.* 1 ☿ fortunate in 1, 10, 6 or 12, applying to Jupiter in a common or movable sign with the aspect of the other fortune, signifies many and useful servants. On the contrary, unfortunate, it signifies the contrary. For retrograde or combust, applying to the malefics in a fixed sign, it makes servants thieves, faithless, traitors. But if at the same time it is with an evil aspect of Mars, it denotes murderers, poisoners. 2 ☿ joined with the benefics or applying to them, and free from the malefics, signifies for the native usefulness and gain from servants and maidservants: But cadent and unfortunate without the aspect of a benefic, it notes evil, sadnesses and labours: Haly part. 5 cap. 3.

[Margin: On the Planets in the sixth.]

3 *On the Planets in the sixth.* A fortune in 6 or 12, happy, signifies many servants, and good from them. But a malefic in these places denotes few and evil servants, and evil from them. ♂ indeed in the sixth signifies loss from servants, and perhaps there will befall the native a burning by fire, a striking, or the bite of a dog: But ♄ and ♅ in the sixth portend sadness, pain and loss from servants.

[Margin: The concord of servant and lord is judged from the principal significator.]

We judge the concord of servant and Lord from the principal significator. For if it is bound together by body or by a friendly ray with the lord of the ascendant, it signifies concord. On the contrary, if it is not bound together, or also has aspected the lord of the ascendant with an evil ray, it denotes the contrary. Thus in the comparison of nativities, when the ascendant of the servant is the sixth sign from the ascendant in the nativity of the lord, lord and servant will agree well, 2 Aphor. 177. But if also the middle of heaven of the nativity of the lord, is the ascendant in the nativity of the servant, or the rulers of those places configured by a benevolent radiation, the servant will minister to his lord with the highest observance, Schöner [Schon.] cap. 6 lib. 1 de genit.

[Margin: First example.]

In our first example the sixth house, ♍ *a Saturnine sign, is unfortunate. But the lord of the sixth* ♄ *is strong, yet peregrine:* ☿ *is retrograde in the cusp of the sixth and weak: There are also in the sixth* ♀ ☉ *and* ☽*, all weak: moreover* ♄ *and* ♂ *have a* ✶ *ray to the sixth house, and* ♃ *a quadrate ray to* ☉ *and* ☽*: hence since there are many significators, a household quite ample indeed is signified for the native, which however for the greatest part will be dissenting, nor will faithfully dispatch the affairs committed, on account of the debility of most of the significators: But most of them will agree among themselves to the disadvantage of the native, because the malefics aspect both the sixth with a* ✶ *ray, and themselves with a* △ *ray. But those alone, who, established in honorific offices, serve the native, will promote the good of the native, because the Solar sign holds the horoscope.*

[Margin: The other.]

In the other example, *first the sixth house is indeed fortunate by* ♎*, the sign of Venus, but again unfortunate by the Martial sign* ♏*, which follows. 2* ♀*, the principal lady of the sixth, is moderately strong, but* ♂*, the other lord, is stronger than Venus;*

both, however, in house 12. 3 ☿ is very strong and fortunate, but also in the 12 house: Finally no Planets are in the sixth, but all the significators have an opposite ray to the sixth. From which it is gathered, since the significators are both few and most of them weak, that the household which serves this native is not copious, and that the part which serves performs its duty for the greatest part with counterfeit faith; because ♀ is combust by the Sun, and the rest are weakened by reason of the house: yet the servants will be more faithful than the maidservants, because ♂ and ☿ in masculine signs are stronger than Venus, although he is honoured more by the servants, on account of the agreement of ♎ with ♊ in the airy trigon.

[Margin: On the judgment of beasts or animals which serve men for use.]

The same significators are established for beasts or brutes as for servants, *for the reason that they serve the native equally, as servants. Yet the sixth house signifies rather small, and 12 large, animals. Hence the sixth house and ☿, happy, signify happiness with small animals, bees, doves, cocks, geese, sheep, and pigs: Likewise with delicate dogs, hares, rabbits, and brings delight from the song of birds. The twelfth house signifies great beasts, as also ♂, because with them there must always be fighting, and to be tamed by a certain force.*

Mars therefore and house 12, happy, signify happiness from great beasts, beasts of burden, horses, oxen, from hunting, horsemanship, wars, carriage, milk, cheese, butter, and the things which are akin to these. Conversely, unhappy ♂ and 12 signify the contrary. For Haly part. 5 cap. 2 hands down this in particular about Mars: That if it is Oriental in the fiery signs ♈ ♌ or ♐, especially in the ascendant, M. C, or house 11, and ♃ or ☉ have aspected it amicably, they signify that the native will have large animals and an abundance of them, especially if ♂ also has dignity in the place in which it is. But if ♂ is with ⊕, the native will be a lover of horses and of hunting, especially if the Moon is with it, or if ♂ is lord of the ascendant, or lord of the house of the ♂ or ☍ preceding the nativity. But if also the sign of the twelfth is four-footed, and a benefic joined with it, or has aspected it, the native will have usefulness from cattle.

[Margin: First example.]

In our first example the disposition of the sixth house is middling, as regards the sign ♍ and the Planets established there; Those would also promise an abundance and a happy yield of the lesser animals, unless the debility and retrogradation of Mercury, and the celibate and solitary life which the native lives, stood in the way. But the signification of the greater beasts is not so good and fortunate, because the Moon, dispositrix of the twelfth, is weak, and with an opposite ray, together with the Sun, Venus and Mercury, assails the twelfth. Yet the trigon of ♂ to 12 assigns certain of the greater beasts to the native for labours, in which he experiences middling happiness.

[Margin: The other example.]

In the other example, *the sixth house is fortunate by the sign ♎, unfortunate by the sign ♏, to which however ♃ has a sextile ray, ♂ ♀ and ☉ an opposite, ☽ □, ♄ △. ☿ is most happy and most fortunate: from which, on account of ☿, the ✶ of ♃, and the △ of ♄, a notable happiness from the lesser animals is promised to the native, which*

however the native seems to shun, or rather not to attend to; perhaps because the rays of the remaining Planets are adverse to the sixth house. If the native bore the care of the greater animals, he would also be most happy, since 12 house contains the signs of four-footed animals, and they are there in their own signs, ♂ in ♈, ♀ in ♉: But because the constellation of Mercury, prevailing otherwise, has consecrated the native to letters, he cares for them rather than animals.

CAPUT XV. ON MARRIAGE.

[Margin: The significators of marriage: Primary, Secondary.]

[Margin: What is chiefly to be considered in them.]

Since marriage consists in the lawful conjunction of male and female, and the male has some significators, the female others: we, in order to pursue the individual points in order, will treat first of the marriage of men, afterwards of that of women. The primary significators of marriage, therefore, in the nativity of a man are the feminine Planets: the Moon as mother of the household, and Venus as lady of loves. The secondary ones are the seventh house, and the things which pertain to it, as its lord and a Planet in it. In these significators, especially the secondary ones, let these three things be considered: 1 Whether they are sterile, fruitful, or in a double sign. 2 Whether they are benefic or malefic. 3 Whether they are strong or feeble, or harmed by the malefics, especially Saturn. For ♄ is the enemy of marriage and of the female sex.

From these let judgment be brought to these questions.

1. Whether the native will take a wife, or rather will remain celibate?

And indeed these constellations signify the inclination of males toward females, and marriage, according to Haly part. 5 cap. 5, if both the sign of the seventh house is fruitful, or middling, and its lord strong and fortunate, and the Planets existing in 7 are of a benefic nature, but above all ☽ and ♀ exist in fruitful signs, and in auspicious houses of the figure, namely angles or succedents. But if also the lord of the ascendant has applied to the lord of the seventh, and there is equal reception between them, the native will love women, and it will follow that he seeks them.

[Margin: Which constellations deny marriage.]

But the following constellations deny marriage: 1 The Moon and ♀ together in the sterile signs ♍ ♌ or ♊, and in cadent places of the figure, as 3, 6, 9, 12. Likewise in house 8, especially if the secondary significators also are sterile and in cadent houses of the nativity.

2 The Moon or ♀ alone conjoined with a powerful Saturn without the company of other Planets, provided one of them is in a sterile sign or a bad place, or otherwise notably afflicted. But it is necessary 1 that Saturn be powerful, but the Moon or ♀ which is joined to Saturn, weak. For ☽ or ♀, more powerful than Saturn, overcome the malice of ♄. Next it is necessary that the Moon be conjoined with Saturn: for the □ and ☍ ray do not hinder. But not only the ☌ of Venus with Saturn, but also the □ and ☍ ray deny marriage, especially if the Moon at the same time exists in a sterile sign and a bad house 3 ♄ elevated above the Moon and Venus together, with no other Planet intervening, signifies the same. For ♄ makes a monastic life, and the native a stranger to married life.

Leovitius [Leovit.] & Garcaeus [Garc.] cap. 18. ♄ also in M. C., if it has aspected Venus from □ or ☌, signifies that the native will shrink from marriage. Schöner [Schon.] c. 12 lib. 1 de genit. 4 But if also ☽ in ♏, has stood in □ of Saturn in ♌, or in opposition in ♉, by degree, the native will lack a wife and sons. But with Saturn existing in ♒ the native will also shrink from women Cardano [Card.] 2 Aph. 77. 5 A cause of celibacy in men, that they do not take wives, is also the combustion of the Moon with Saturn, or great impediment of ☽ from Saturn, and again the agreement of the nativity with the celestial principles of priests and Hermits, 6 Aph. 67: Likewise the constitution of heaven of Venus in the sixth or house 12, which Schöner [Schon.] c. 12 lib. 1 notes. For these, if they concur at once, certainly deny marriage. 6 The Moon combust by the Sun, if it has participated with Saturn in the figure, or has been in ♑ ♒ or ♎, signifies that the native will never enter upon marriage. 7 If the testimonies of the remaining secondary significators have been added to the significations of sterility of the Moon and of Venus, so that they themselves are in a sterile sign and a bad house, or are weak and conjoined to Saturn, the Astrologer is rendered so much the more certain in the judgment about sterility: And where celibacy is established, there is no need of a further question. 8 Concubines, mistresses, and secret marriages are decreed by Saturn, Mars and Venus, if they are without the testimony of the luminaries 6 Aph 68. This also is to be noted, that ♃ ☉ and ☿ are authors of chastity and modesty, ♀ and ♂ of shamelessness and lust: but the Moon and ♄ behave in a varied manner, 6 Aph. 74.

Next, if it has been established that marriage is decreed for the native, which is evident from this, if the significators set out so far, above all ♀ and ☽, have been in fruitful signs, and auspicious houses of the figure, progress is made to the second question, in which it is asked:

[Margin: From which it is judged whether the native will obtain a bride easily or with difficulty.]

Whether the native will obtain a bride easily or with difficulty?

This question is judged from the quality of the significators, which either are joined to ☽ or to Venus, and aspect her, or preside over the seventh house and its lord.

For if the significators, benefics, are strong, they signify ease. But weak benefics signify difficulty, and so much the greater, the more of them are weak. If all are weak, he will often fall from his hope, especially if the Moon also and ♀ are feeble: yet they do not altogether deny, if they are benefic. But if the significators are malefic, even if they are strong, yet they do not grant anything without difficulty. But the difficulty is lessened, when they are joined with benefics. The difficulty will be greater, if they are feeble. And Cardano [Cardan] 5 Aph. 165: Whoever has ♀ not well placed in the rays of unfortunate Mars, to him huge inconveniences must befall because of love. For even if ♀ produces a certain modesty, it is nevertheless light, and adds grace rather to venereal things, than that it draws back from intercourse: 5 Apc. 176. Hence where it is both too powerful in the nativity, and in the places of the

malefics, there many inconveniences are to be expected from foul loves: 5 Aph. 1[numeral: ?]5.

[Margin: On the time of marriage.]

The third question is, about the time when the native is to take a wife.

[Margin: It is judged either in particular.]

The special time indeed is best judged from the directions of the degree, or also of the lord of the seventh house: Likewise of ☽ and of Venus to the degree or lord of the ascendant, and vice versa. For if several directions have fallen into happy aspects of ☽, ♀, or of the lord of the seventh; and especially in the Climacteric years, 18, 21, 27, 28, 35, 36, etc. they signify marriage, as we shall advise below in the doctrine of directions. It is likewise judged from the revolutions: for Haly parte 5 cap. 6 says: When in the revolution of any year the application of the ascendant of the radix has reached the sign 7 of the radix, and it has happened, that the ascendant of the revolution is that very sign of the seventh of the radix, it signifies that the native will take a wife in that year. But the general time is judged from these three

[Margin: Or in general, from the orientality and motion of the significators.]

circumstances. The first: whether the significators are Oriental from the Sun, or indeed Occidental. 2 In which quarters of heaven they are situated. 3 what proper motion they have.

For first, significators Oriental from the Sun (which in the Moon Schöner [Schon.] cap. 12 lib. 1 de genit. and Cardano [Card.] 6 Aph. 62 interpret as from ♂ to ♂; but in the remaining Planets according to the common manner, if they precede the Sun in apparent motion) and in the Oriental houses, 10, 11, 12, 4, 5, 6: likewise direct and swift, signify a quick marriage, but with this condition, that he takes a wife either as a youth himself, or a very young girl. But Occidentals from the Sun, and in the occidental houses, 9, 8, 12 [recte: 7], 1, 2, 3, Likewise slow, ℞, Stationary, signify marriage either at a more advanced age, or with a woman of more advanced age: to which old women, widows, etc. are to be referred. 2 where diversity occurs among the said significators, it is pronounced chiefly according to the Moon. Then also according to Venus, as they have been Oriental, occidental, swift or slow. 3 ☉ or in the east from the first to the tenth, but the Moon in the west, a Young man will marry an old woman; 6 Aph. 61. 4 ☽ or ♀ in 7, always give a wife late; because they stand in the west: Haly part. 5 c. 5. 5 ♀ retrograde, signifies slowness of betrothal Schöner [Schon.] 6 ♀ in an angle or succedent direct, fortunate, not impeded, and the Lords of its triplicity Oriental, in good places of heaven, not impeded, signify marriage in youth, and he will be fortunate with his wives. But if ♀ is thus well placed, but the lords of the triplicity in bad places of heaven, ♀ indeed signifies a good marriage, but the lords of the triplicity denote impediment and loss by reason of women. But if ♀ has been cadent and combust, and the lords of its triplicity in bad places of heaven, and in the aspect of the evil, he will be coupled late, and will have losses through women: Haly part 5 c. 6.

The fourth question is: How many wives are to be taken?

[Margin: On the number of wives.]

[Margin: Rules of Cyprianus.]

[Margin: Rules of Ptolem.]

In this question let these two general Rules be considered first, of which the first is Cyprianus Leovitius's, the other Ptolemy's. Leovitius's, which Garcæus also sets down, is as follows: All the significators, or the greater part of them in fruitful or double signs, signify for the most part several wives or lusts. On the contrary the sterile signify fewness. Yet it is to be noted what Cardano [Card.] 7 Aph. 8 warns: Among us Christians, where it is permitted to marry only one, the multitude of wives is not to be hunted from fruitful or common signs alone, but at the same time it must be attended to circumspectly, whether with this position the rays of ☽ also, or its body, have applied to the Planets in the robust ages, and the signs of the deaths of wives are present. For if those have not concurred – it must be judged cautiously about the multitude. But the rule of Ptolemy is this c. 5 lib. 4 quad. The Moon in a sign of one figure, applied to one Planet, shows that he is content with one marriage. But if in a bicorporeal or multiform sign it has applied to several stars (whether they are Planets or royal fixed stars), he will repeat marriage more often.

[Margin: Special rules on the number of wives.]

Afterwards let the special rules be considered, of which we read that some were handed down by Schöner [Schonero], others by Leovitius [Leovitio] and Garcæus [Garcæo]. 1 ♃ in 7 signifies three wives, two virgins, and one widow; and they will be illustrious, and the native will have joy and fortune from them. But before it is pronounced from the sentence of this Aphorism, let the circumstances be diligently considered, whether it is in a fruitful or double sign, and exists fortunate, and whether the remaining significators, about which it will be said afterwards, also agree: Likewise whether he will begin marriage at once in youth, or only at a more advanced age. For it can happen, that, these circumstances not agreeing, the native is compelled to be content with one wife. 2 ♀ in double or Tropical signs, and the lords of the place of ♀ likewise in doubles, signify several wives. 3 ♄ joined to Venus in the same sign, signifies only one wife, if ♄ has more parts: as if, with Venus being in 2°, ♄ is placed in 5, 6 or 7. But if Venus has possessed more parts, say that the native will also have more wives. For then ♀ goes out from the malice of Saturn. 4 ☉ in 10 in △ ☽ with the testimony of other stars, signifies only one wife. 5 ☽ in house 7, on account of fruitfulness almost always decrees several wives, unless she is notably impeded by Saturn and the rays of ☉. 6 With as many Planets as the Moon is joined in body in the same sign, so that the Moon approaches them, not they the Moon, so many wives are signified, the Sun excluded 7 If she is joined in body to none, see how many strong Planets in the same sign aspect her partilely: For so many wives are likewise designated for the native. Weak Planets however signify female friends, of whom there is hope of marriage, rather than marriage itself. *But you will note concerning this Aphorism: 1 that Planets are called strong in this place which are direct, free from the rays of ☉, and not in detriment or fall. 2 That if the same Planet, whose aspect it is, has been in a fruitful or bicorporeal sign, it triples the number of wives. 3 The Moon applying to*

a Planet, which is in a common or bicorporeal sign, signifies two marriages. 4 The number is also indicated from the number of royal fixed stars, with which the Moon is conjoined in the same sign and degree, and in the same latitude.

8 If nothing of this kind occurs, where neither is a Planet conjoined with the Moon, nor is there an aspect to the Moon, the native will have as many wives, as there have been strong Planets between the M. C. and Venus, proceeding toward the rising. But here the ℞ and the combust are also counted among the strong, if they have been in essential dignities, house, exaltation, triplicity, or reception from the same dignity. 9 If you find not even this, he will have as many wives, as the Planets that aspect the lord of the seventh partilely, of whatever kind those may be: Haly cap. 6 lib, 5.

[Margin: On the place where the native is to take a wife.]

The fifth question. From where, or where, or in what place he is to marry, whether in the homeland or elsewhere?

Let these Aphorisms be noted on this question:

[Margin: Aphorisms]

1 Significators in the places of journeys 9 or 3, or themselves peregrine, having no essential dignities, signify that the native will marry a peregrine wife, not born in the homeland. 2 The Lord of the seventh in 9, or conversely, signifies that the native will marry [a woman] peregrine and foreign, but nevertheless good, religious and rich: especially if it is benefic and strong: Haly part. 5 cap. 8. 3 ♀ mistress of the ninth in house 1 or 10, gives the native a wife in an alien land: Schöner [Schon.] 4 ☉ and ♀ conjoined in 7, or aspecting the seventh, signify a wife also peregrine: The same. 5 ⊕ in the third decrees foreign wives.

[Margin: On the form of the wife's body.]

The sixth question: On the form of the body: Namely, what kind of wife is decreed for the native, beautiful or deformed?

Although this question is too subtle and superstitious; yet the things are to be considered, which the practitioners have handed down on this matter, which are of this kind.

[Margin: It is judged from house 7 and the places of the significators of marriage.]

[Margin: Saturn the chief significator of deformity.]

1 The form of the wife is had from house 7, and the places of the other significators of marriage. For if either all, or the greater part of them have been in beautiful signs, they decree a beautiful wife. In the deformed, a deformed one. But the beautiful signs are, ♊, ♍, ♎ and ♐ the prior part: The middling, ♏, ♒, and ♓: The Deformed ♈, ♉, ♋, ♌, the posterior part ♐ and ♑. Consider therefore the sign of the seventh house, and the chief Planet, which signifies the wife, and, according to the doctrine above of the sixth cap., pronounce on the form of the body, not otherwise, than as if that very sign and the Planets were in the natal horoscope of the wife to be taken. 2 And since the chief significator of deformity is ♄: and therefore ♄ afflicting the significators with an evil ray, makes deformed. So also the combust by the Sun, deform the colour. 3 When

♀ has been with Saturn in the term of ♄, Or ♄ has aspected Venus herself, the native will obtain a wife old and deformed. 4 ♄ lord of marriage in the seventh, signifies an aged wife: ♄ and ♂ in 7 signify the same. 5 ♀ ♃ and ☽ happily configured among themselves, or to the lord of the seventh, signify a beautiful wife – Jupiter however with the Moon in 7, without other circumstances, does not give a beautiful wife simply.

[Margin: On the manners of the wife.]

The seventh question. On the mind and manners of the wife: Whether the native is to marry [a wife] upright and modest, or wicked, endowed with bad manners, a harlot, or otherwise infamous?

[Margin: They are judged from the nature of the Planet decreeing the wife and from ☽ and ♀.]

In this question, although the nature of the Planet signifying the wife, and chiefly joined to the Moon, or beholding her with a ray, is attended to most of all, according to the αξίωμα *[Greek: axiōma, "axiom"]. Such as the nature of the Planet is, which signifies the wife, such also are the manners of the wife: yet the state of ♀ and ☽ is by no means to be neglected, since wives too are usually for the most part such as ☽ and ♀ is. It is, however, according to Ptolemy [Ptol.] lib. 4 text. 23 quadr. Cardano [Card.] 6 Aph. 63; and Leovitius [Cypr.] explaining Ptolemy [Ptol.] more fully, whom Garcæus also follows, with this nature of the Planets aspecting the Moon through conjunction, or another ray.*

[Margin: Nature of the Planets]

[Margin: ♄]

[Margin: ♃]

[Margin: ♂]

[Margin: ♀]

[Margin: ☿]

♄ if it is well affected, promises a taciturn, grave, prudent, frugal, industrious [wife]. Ill affected, gloomy, morose, suspicious, depraved, fierce, obstinate, envious, of bad condition and nature. ♃ happily constituted in the application of the Moon, signifies one pious, gentle, chaste, noble, honourable and Economical. Unhappily placed it promises the same virtues indeed, but counterfeit, imperfect, and joined with some blemish. ♂ well affected, sensible, spirited, impatient of servitude and of injuries, desirous of vengeance and of dominion, irascible, etc. Ill affected, it denotes one quarrelsome, contumacious, untamed, violent, extravagant, and infamous. ♀ happily constituted, charming, sweet, affable and honourable. Unhappily placed, it decrees the same indeed but more imperfectly and something simulated. ☿ well affected, clever, circumspect, eloquent, shrewd, and fit for procuring a livelihood. Ill affected, it denotes one crafty, cunning, lying, hiding one thing in the heart, bringing forth another with the mouth, unstable, malicious.

Although the ☉ is for the most part excluded: yet according to Cardano [Card.] 6 Aph. 63 sometimes, but more rarely, ☽ [?] combined and well affected, a modest, chaste, continent one; but ill affected, it signifies an ambitious, proud

and intractable one. *In brief: strong benefics decree honourable, upright wives, rich, from a distinguished family. Weak ones, the same qualities but more remiss. Strong malefics signify honourable ones indeed, and upright, but inconstant, avaricious. Weak ones, dishonourable, ignoble, infamous, wicked ones.*

[Margin: How it is judged from the state of Venus concerning the manners of the wife.]

From the state of Venus too it is judged of wives in this way, according to Haly part. 5 cap 5 & 6: & Schöner [Schon.] cap. 12 lib. 1. 1 ♀ oriental in her dignities signifies a wife who will command the native, most of all if ♃ has aspected her. But occidental, it signifies that the native shuns women and marriage, especially if it has not been in some aspect of Jupiter. 2 If ♀ has stood in the second, the native will marry a wife for her riches. 3 ♀ in 6 gives disobedient, ignoble and servile wives. 4 ♀ in the 4th house, in bad aspect of ☽ in ♒, signifies a harlot; in ♋ it also signifies fornication of the native with maidservants. 5 ♀ in 7 makes fornicators, and therefore men marrying late. 6 ♀ in 11 signifies union with a woman having sons, with whom he will live well and pleasantly: the lord of the seventh in 11, or the reverse, signifies the same. 7 ♀ in 10 in aspect of the benefics signifies a noble wife. 8 ♀ in the first joined to Saturn, especially if it is the house of ♄, or even, as Haly would have it, the house of ♀, gives a harlot, an old woman, a maidservant or a base woman, Schonerus. 9 ♀ joined to Mercury in the fourth, or even in the house of Mercury, with Saturn standing in 10, gives an old woman or a sordid maidservant. In bad aspect of Mars, also a bad and evil-working one; in ♍ and ♋ a harlot. 10 ☽ in 4, and ♀ with ♄ in 10, give a barren one or an old woman. 11 ♀ and both malefics joined in 6 give the native harlots as wives. 12 ♀ and ♄ joined in 7 signify barrenness in men. 13 ♂ ♃ and ♀ joined in 10 give a harlot. 14 ♄ ♃ ♀ and ☿ in 12 give ignoble ones and maidservants. 15 ♀ with ♄ ♃ and ☿ gives industrious and Economical wives, most loving of their husbands. 16 ♂ with ♀ denotes spirited, unstable wives, neglectful of the household estate, and prodigal, and an adulterous husband. 17 ♀ in ♍ and ♃ in opposition decree for the native a chaste wife, and of good governance, and fairly beautiful, 2 Aph. 142. 18 In place of a coronis let the rule of Cardano [Card.] 6 Aph. 27 be observed: ♄ in Venereal matters increases foulness, dread, baseness, shamelessness and infamy. ♃ beauty, grace, neatness and pleasure without infamy: ☿ exposes, and brings about manifold vices, and often recalls to the acts.

[Margin: Consideration of the signs.]

Moreover the Astrologers also consider the signs in which ☽, ♀, the seventh, and its lord are. For ♊ ♐ ♍ ♎ and ♒ have reason and are of moderate dispositions. ♈ ♉ ♌ ♍ and ♓ are lustful and brutish. ♋ and ♏ are middling.

[Margin: On the dowry of the wife.]

IIX. On the dowry of the wife: whether the native is to marry a rich or a poor wife?

[Margin: General rules.]

On this question let these two general rules be noted: 1 The significator which promises a wife, if it has been a benefic, strong, and happy by reason of its essential dignities and of place, signifies either a rich or a noble wife. 2 The significators of wives, if they have been malefics and weak, signify either poor ones, or base and despised ones.

[Margin: Special rules.]

From these general rules these special ones are built up in Garcæus, Schöner [Schon.] and Haly.

[Margin: On good fortune.]

[Margin: The nativity of a certain man.]

On good fortune. 1 Benign Planets powerful in 7 signify rich and noble wives. But if ♄ has been in its fall, it signifies middling ones. 2 ♀ in the house of Jupiter gives marriage with a noble woman; joined to Jupiter, or even in good aspect, it signifies a good marriage, Schöner [Schon.] 3 ♀ and ♄ joined, if they have been in the angle 7, and the Moon has aspected them from a superior place, as the tenth house, or from her dignity: if moreover the Head of the Dragon has been either with them, or with Mercury; the native will have very great riches from the wife, Cardano [Card.] 3 Aph 28: where he also adds such an example, of a certain man born in the year 1501 on August 22, who without skill, without magistracy, and without any wealth received from the wife revenues and estates of eight hundred crowns. For he had Venus joined to Jupiter in the seventh place, and the Moon in her own house in the M. C. beholding Venus by partile square: moreover the Head of the Dragon joined to Mercury in the 8th house, in the sign of ♀, in platic ⚹ of ☽ and ♂. But the Sun in partile ⚹. Finally the Moon herself in △ of ♂, and Mars in reception of Jupiter from domicile. 4 A happy aspect of Jupiter to Venus or ☽, with reception from the same dignity, promises great prosperity, and marriage with a noble woman, Schöner [Schon.] 5 The lord of the second in 7, or the reverse the lord of 7 in the second house, strong and well affected, signifies a rich or wealthy wife, especially if the Planet has been beneficent. 6 The lord of the seventh in 10, or the reverse the lord of 10 in 7, strong and well affected, decrees a wife either noble or otherwise sprung from a distinguished family. 7 The lord of the seventh in 7 gives an honourable and simple one. 8 The lord of the seventh in 8 or the reverse, if it has been beneficent and strong, signifies a wife rich and furnished with an ample inheritance. 9 Royal fixed stars of the first magn., set in the cardinal point of the west not far from the cusp of the seventh house, if the seventh cusp has at the same time been fortunate, decree a wife noble and rich, and endowed with exceptional beauty, especially if another of the benefics also adheres in the same place, or a benefic is configured with the royal fixed star by a propitious ray.

2 *On bad fortune.*

[Margin: On bad fortune]

1 Malefics strong in the seventh signify riches, but joined with a stain: ἐχθρῶν γ(ὰρ) δῶρα ἄδωρα [Greek: echthrōn gar dōra adōra, "for the gifts of enemies

are no gifts"]. 2 Malefics feeble in the seventh signify poor and ignoble ones. 3 The lord of the seventh in 12 or 6, or the reverse the lord of 12 or 6 in 7, signifies an ignoble, servile, poor one. 4 It is not good for the native, says Haly part. 5 cap. 5, that ♄ or ♂ be in 7, most of all if the benefics have not aspected there, and they have been cadent from it. For ♄ sadness and toil in the matter of marriage, and misfortune: ♂ signifies the death and destruction of wives. 5 ♀ in □ or ☍ of ☽ signifies losses from marriage. 6 ♀ in 2 in bad aspect of the evil ones signifies detriments on account of the wife. 7 The Moon, lady of the seventh, in the 8th house, diminished in light, denies the happiness of marriage: Schöner [Schon.]

[Margin: On the agreement and love of spouses,]

The ninth question is on the concord or mutual love of spouses.

[Margin: It is judged best if the natal charts of the man and of the woman are compared.]

On this question the most certain judgement of all is indeed made from the genesis of each person. For Garcæus cap. 18 genit., from the opinion of Haly part. 2 cap. 16, and Cardano [Card.] 6 Aph. 64 and 65, rightly advises: that the luminaries in each genesis in places exchanged, set so that the one in the one genesis, the other's in the other, occupies the places; or even beholding each other with good aspects; signify concord: striking each other with a □ or ☍ ray, they denote discord and continual quarrels. Likewise if the aspects of the significators of marriage, through their applications, have been either sextiles or △, they signify that there will be love between the spouses. But if they have been opposite or □, they signify quarrels and contentions: especially if there is no reception between them. Yet opposite rays harm more, and perpetual quarrels: quadrate ones denote interrupted ones. The sign of the seventh house also in the nativity of the woman, if it is the ascendant in the nativity of the man, signifies a tranquil conjunction of the man and the woman, according to Schöner [Schon.]. So ⊕ in the same place in both births signifies concord and love.

[Margin: How it is recognized from the husband's alone.]

But since both geneses can rarely be at hand, from these rules the same concord and discord that we are treating is judged in some way.

[Margin: General rules.]

1 Benefic Planets beholding the Moon or the lord of the seventh with a benefic ray signify concord. 2 If the aspect of the benefics has been bad, they will agree indeed, but so that sometimes a storm arises in the most serene summer. 3 The good ray of Mercury too is a friend of concord: but the bad one an author of feuds. 4 Malefics never furnish a safe concord. Their bad ray often breaks out into open enmities. 5 Of concord or discord it can also be judged from the Planets set between the M.C. and Venus. For when benefics intervene, they signify concord; when malefics, discord. 6 Haly, in the place cited before, says: Look at the M. C of the beginning of the marriage, and if you have found a malefic in it, contention and quarrel between the spouses will be signified. But if a benefic, concord will be denoted. The same can be judged from the lowest part of heaven or the fourth house.

[Margin: Special rules.]

Special ones can be added to these general rules from Schöner [Schon.] cap. 12. lib. 1 genit.

1 ♀ if it has participated with Saturn and at the same time aspected Mars, there will be jealousy between husband and wife 2 ♀ in 12 marks bad marriages; and if Jupiter has been with her, it signifies scarcity of substance. 3 ☉ in 7[numeral: ?] threatens detriments from women. 4 ♀ if it has participated with the malefics and the luminaries, there will be dissension of the man and the woman on account of fornication and some bewitchment. 5 The significators of marriage in movable signs do not give happy marriages, but varied and changeable ones. 6 ♀ in a movable sign signifies instability with women, and he will scarcely be content with one, especially in ♋ or ♎. But in a common sign it signifies a good betrothal. 7 But if the lord of the ascendant has also been in a common sign, and ♀ unfortunate, the native will not be content with one. 8 The Moon, if she has aspected the Sun well, and both have been in agreeing signs, and a benefic has also sent a benefic ray to the luminaries, there will be friendship between husband and wife. But if they have disagreed, or the malefics have aspected them, they will be in hatred. 9 ☽ diminished in light, joined to Mars in a movable sign, the wife of the native will never love him with true love, but always another. 10 ☽ also, diminished in light, lady of the seventh, if she has been in the eighth house, signifies no happiness at all in marriage for the native.

[Margin: On the death of spouses.]

The tenth question is on death: Which of the spouses will die first?

In this question the significators of the wife, or the lords of the seventh house, are to be regarded; which, if they are harmed by the malefics, or in bad places of heaven, the eighth above all or 2, which is opposed to the eighth, and is as far distant from the rising as the eighth from the setting, signify infirmity or death of the wife. But above all let these special Aphorisms be noted on the Moon, most of which are Albubater [Albub.]'s cap. 180.

Diagram. The upper-left of four square nativity figures: an outer square with a central square box holding the title, and twelve triangular compartments around it. The compartments carry sign and planet sorts with numbers, as set:

- Centre box: A son is born to a certain deacon of Glatz [Glac.], in the year 1597. September. Day 3, 1^{h} 6^{m} P.M. Elevation of the pole 50° 24′.
- Top centre: ♍ 28 0
- Top-left corner, upper: ♎ 24 18
- Top-left corner, lower: ♏ 13 29
- Left centre: ♐ 3 13
- Bottom-left corner, left: ♑ 1 22
- Bottom-left corner, lower: ♒ 15 45; ☊ 16 27
- Bottom centre: ♓ 28 0
- Bottom-right corner, lower: ♈ 24 18
- Bottom-right corner, right: ♉ 13 29
- Right centre, in rows: ♂ 18 6; ♃ 15 8; ☽ 9 4; ♊ 3 13
- Top-right corner, right: ♌ 15 45; ♋ 1 22

- Top-right corner, upper: ♄ 24 6; ♀ 22 17; ☊ 16 27; ☉ 10 35; ☿ with 25 and 46; ♌

Diagram. The upper-right figure, of the same construction:

- Centre box: A certain man is born at Nuremberg, in the year 1512. June. Day 17, 7^{h} 11^{m} P.M. Elevation of the pole 49° 26′.
- Top centre: ♎ 25; ♄ 25 15 R
- Top-left corner, upper: ♏ 16
- Top-left corner, lower: ♐ 4; ♂ 22 3[numeral: ?] R
- Left centre: ♐ 25
- Bottom-left corner, left: ♒ 0
- Bottom-left corner, lower: ♓ 20; ♃ 3 14
- Bottom centre: ♈ 25
- Bottom-right corner, lower: ♉ 16
- Bottom-right corner, right: ♀; ♊; 5; 3; 4
- Right centre, in rows: ☉ 5 20 ♋; ♊ 25
- Top-right corner, right: ☽ 25 2; ☿ 0 30; ♌ 0
- Top-right corner, upper: ☊ 14 5; ♍ 20

Diagram. The lower-left figure, of the same construction:

- Centre box: A certain man is born in the year 1501. August. Day 22, 21^{h} 45^{m} of the whole clock, reckoned from the setting of the ☉. Heart of heaven ♎ 19 degrees.
- Top centre: ♋ 15
- Top-left corner, upper: ♌ 15
- Top-left corner, lower: ♍ 15
- Left centre: ♎ 15
- Bottom-left corner, left: ♏ 15; ♅ 19 49
- Bottom-left corner, lower: ♐ 15
- Bottom centre: ♑ 15
- Bottom-right corner, lower: ♒ 15; ♂ 10 28
- Bottom-right corner, right: ♓ 15; ♀ 10 1
- Right centre, in rows: ☉ 11 33; ♃ 19 20; ♈ 15
- Top-right corner, right, in rows: [sign: ?] 6 31; ☿ 20 53; ☊ 19 49; ♉ 15
- Top-right corner, upper: ☽ 10 3; ♊ 15

Diagram. The lower-right figure, of the same construction:

- Centre box: Heinricus Staupitius, captain of soldiers, is born in the year 1525. April. Day 5, 2^{h} 30^{m} P.M.
- Top centre: ♊ 2 45
- Top-left corner, upper: ♅ 6 33; ♋ 13 45
- Top-left corner, lower: ♌ 16 0
- Left centre: ♍ 9 0; ☽ 23 8
- Bottom-left corner, left: ♎ 0 45; ♂ 10 3 R
- Bottom-left corner, lower: ♎ 26 45
- Bottom centre: ♐ 2 45
- Bottom-right corner, lower: ♑ 13 45; ⊗ 26 56; ☊ 6 33

- Bottom-right corner, right: ♒ 16 0
- Right centre, in rows: ♈ 0 45; ♄ 29 16; ♀ 24 37; ♓ 9 0
- Top-right corner, right: ☉ 25 12; ♃ 23 14; ☿ 3 18
- Top-right corner, upper: ♈ 26 45

[Margin: Rules on the Moon.]

1 The Moon joined to only one Planet, and so signifying only one marriage: if the Moon is more powerful, the wife will die first. If the Planet is more powerful than the Moon, the husband will die before the wife, Cyprianus Leovitius [Cypr. Leov.] 2 ☽ in the fourth: the native's wives will die, and he will be grieving from this. (For it stands as it were in the grave) 3 When ☽, separated from Mars, has applied to Venus in the west, the native will have many wives: yet they all will die before him. 4 ☽ and ♀ joined to Saturn in 7 signify an impediment of marriage, and the death of the wife.

[Margin: On Venus.]

So also let these rules be observed concerning Venus: 1 ♀ in the angle of the earth, in a bad aspect of ♄ or ♂, signifies that the native's wife will die. And if in addition it has been in a movable sign, many wives will die before the native. 2 ♀ in 7, in the aspect of the malefics, without an aspect of Jupiter or ♀, signifies that the native will see the death of the wife. 3 ♀ Occidental, peregrine, conjoined to the bad ones or to their bad aspect, signifies the swiftness of the wife's death. 4 ♀ and ♂ conjoined in 12 signify that the native will kill, or also mistreat, his wife. Albubater in the place cited before.

[Margin: On the seventh house.]

[Margin: The genesis of Henricus Staupitius.]

On the seventh house too, these rules are found in the same author: 1 one of the malefics in the fourth or 7th house, the native will see the death of the wife. 2 Peregrine malefics in the 7th place, ruling the ascendant, announce the deaths of wives or of enemies. 6 Aphor. 172. 3 The lord of the seventh house combust or cadent, the native's wives will die before him. 4 The lord of 7 in the eighth, the native's wives will die before him, and he will remain alone. The genesis of Henricus Staupitius, captain of soldiers, can be referred here, who had two wives, of whom he lost the first soon after childbirth, because the Moon was opposite ♀ and ♄: and applied itself with an opposite ray first to Venus, afterwards to Saturn. And although he had the second long enough, yet he lost her too, when the lord of the seventh also was in 8, and indeed combust, and the malefic ♄ occupied the seventh.

[Margin: Our first example]

In our first example there is no need that we run through all the questions. For they deny marriage to the native: First the seventh house, in which ♒ is found, a less fruitful sign, which ♄ rules, having a □ ray to it. Next ☽ and ☉ conjoined in ♑, an almost barren sign, and the sixth house, and ♀ peregrine in the same sign, and cast down in the same house, especially since ♄ too is powerful, ♀ and ☽ are weak, and no Planets exist in the seventh, nor does any of the Planets except Saturn regard the seventh.

[Margin: The other example.]

In the other example the primary significators of marriage are: 1 ♀ in ♉, its own and moderately fruitful sign, on account of the exaltation also of ☽, yet in house 12, under the rays of ☉ and □ ☽. 2 The Moon in ♒, the domicile of ♄, and a less fruitful sign, on the cusp of the M. C. The secondary are: 1 the seventh house in ♐, a bicorporeal and moderately fruitful sign. 2 The lord of the seventh, ♃, in ♍, a Mercurial and barren sign, and the fifth house.

[Margin: 1]
[Margin: 3]
[Margin: 2][119]
[Margin: 4]
[Margin: 5]
[Margin: 6]

First, therefore, the native did not lead a celibate life, since a fruitful sign also holds the seventh house, whose beginning the ✶ of ☽ irradiates, and ♀ is in its own domicile, fruitful, and the exaltation of ☽. And although the lord of the seventh, ♃, is weak and Retrograde, in the house of ☿, the lord of the first: yet it is fostered by the △ ray of the same, and it roused the native in youth to enter into marriage, since both ♀ and ☽ stand between the horoscope and the M. C.; and Venus above all is Oriental from the Sun, and swift in motion. Nor did he obtain a bride with difficulty. For although ♃ is weak, it is nevertheless helped by the △ of ☿; and because it has a □ to the seventh house in signs of short descensions, which is equivalent to a ✶: So although ♀ is coupled to the Sun, and clings under its rays: it is nevertheless raised up by the □ of ☽, and because it is moderately strong. But at the least two wives are decreed for the native, since both the seventh and the lord of the seventh, ♃, hold double signs. Nor does the Moon dissent, even though she is joined bodily to none of the Planets: for she aspects Venus with a partile □, and Mars with a ✶ before the exit of the sign. There are also, between the M. C., in which the Moon clings, and Venus, two Planets, ♄ and ♂: ♄ with an opposite ray and ☿ with a △ ray also behold the lord of the seventh. Further, since ♃, the lord of the seventh, is peregrine, and ☽ is peregrine in the house of ♄, which itself too peregrinates in ♓, wives outside the homeland are promised to the native, who will be moderate in beauty, on account of ♐, the sign of the seventh, and its lord ♃. But since ♄ too

[Margin: 7]
[Margin: 8]
[Margin: 9]
[Margin: 10]

mixes itself with Jupiter by an opposite ray, and the Moon is in a Saturnine sign, ♀ under the rays of ☉, the form will be somewhat sad, Saturnine in some way, not Venereal inviting to wantonness. The manners also of the mind of the first spouse, whom we established to be signified by Jupiter, were rather simple,

[119] the margin sets 3 before 2

honest, gentle, suited to household management. The other's, who is signified by the Moon coupled to Venus by a quadrate, are varied, of the nature of ♄ and ♀. For sometimes she is found taciturn, sparing, laborious, sometimes affable and easy-going. Both bring a dowry not to be despised, because ♃, lord of the seventh, is the author of riches: yet it will take much away from it, because it is peregrine, slow in motion, and ℞. So too ☽ in the M. C. bestows both dignity and riches with the wife; but in □ ♀ it brings detriments, especially since ♀ too is in 12 under the rays. Greater concord is signified in the first marriage, because a benefic Planet rules the seventh, and because the Moon has a ✶ ray to the same, although ♄ strikes Jupiter with an opposite. For the △ of Mercury to Jupiter tempers the malignity of Saturn. Less in the other, because the significators ♀ and ☽ harm each other mutually by □, Venus and the Sun are conjoined in the 12 house, and the luminaries themselves afflict each other by a quadrate. ♄, lord of the eighth, harming Jupiter, the lord of the seventh, with an opposite ray, signified the death of the first spouse. But ♄, the disposer of ☽, more powerful in the genesis than the Moon and Venus themselves, denotes the life of the latter, whom we said to be signified by the Moon and Venus.

On the marriage of women.

[Margin: Significators of the marriage of women]

[Margin: How they are to be examined.]

The primary significators of the marriage of women are ☉ and ♂. For the Sun takes the place of the Moon, and Mars of Venus: The secondary are, the 7 house, and what pertains to it, as its lord and the Planets in it. But in the examination of these it must likewise be considered, as before, whether these significators are barren or fruitful, in double signs or of few children; Or whether benefic or malefic, strong or weak. For from this a judgment can be made about the following questions.

[Margin: Whether a woman is going to marry a man.]

1 Whether they will marry?

This question is judged from the significators, which, if they have been fruitful, strong, in fortunate places, and aided by the benefics with a good ray, promise marriage. But barren, weak, and set in unhappy places, they deny marriage, especially if in addition they are afflicted by the malefics. 2 Venus too, vespertine in 7, and ♄ in 4 in a woman's nativity, make her abhor Venereal acts. 3 ☉ and ☽, if they are found in masculine signs, or in the same masculine quarter, or even in one and the same masculine sign, denote a virago, who spurns men, and if she has married, will be refractory, and will not revere the husband: Schöner [Schon.] cap. 12 lib. 1 genit.

[Margin: Whether easy]

2 Whether the future nuptials will be easy or difficult?

Here again, as above, the significators are to be looked to, which, if they have helped the Sun, Mars, and the lord of the seventh with fortunate rays or presence, promote the nuptials: But the malefics, resisting, signify many difficulties.

[Margin: At what time.]

3 When will they marry?

The special time indeed in the nativities of women is taken principally from the direction of ☉ and of the middle of heaven. But the general one Ptolemy [Ptol.] lib. 4 c. 5, or text. according to Cardano [Card.] 24, indicates thus. In the nativities of women (he says) it is necessary to look at the Sun. It, found in the Oriental quadrants, signifies that they are given in marriage either in first adolescence, either to a young man or to an old one: or that after the settled age they contract a marriage with a youth. But in the occidental ones it signifies those marrying late, or early, but with an old man.

[Margin: How many in number]

4 Going to marry how many husbands?

[Margin: General rules.]

[Margin: 1]

[Margin: 2]

[Margin: 3]

In this question let these general Aphorisms first be noted: 1 Ptolemy [Ptol.] in the text cited earlier: ☉ in a sign of one form, or found with one matutine Planet, signifies those marrying only once; in a multiform [sign], or configured with several matutine [Planets], those repeating marriage often. 2 Cardano [Card] gen. 59: The seventh place, and its lord, likewise ☉ in a bicorporeal sign, signify two husbands for a woman. 3 Schöner [Schon.] cap. 12 lib. 1. Since the Sun and ♂ signify men: Therefore if in the nativity of a female one of them is in a double sign, she will have two husbands. Venus too in double or even tropical signs, and the lords of the place of Venus likewise in double signs, denote more husbands for a woman. But if ♀ is not in these signs, and aspects only the Moon, it will give the woman only one husband.

[Margin: Special.]

Afterwards let the special Aphorisms on this question also be observed, which, as in the nativity of men they were taken from the Moon and Venus, so here are taken from the Sun and Mars. First, namely, with as many Planets as ☉ is joined by body, the Moon excluded, whether partilely or platically, yet before the exit from the sign in which it is at the time of the woman's nativity, so many husbands it signifies.

2 But if it is joined by body to none, see how many strong Planets in the same sign aspect it partilely, so that the Sun approaches them. For so many husbands you will adjudge to the woman. But which Planets are strong, we said above in the marriage of men. 3 If nothing of this kind occurs, she will have so many husbands according to Dorotheus of Sidon [Dorothius], as there are strong Planets between the M. C & Mars, proceeding toward the rising And Albubater c. 181 adds. If ♂ itself is in the M. C., let the computation be made from Mars to Jupiter. 4 If you do not find this either, recourse must be had to the lord of the seventh, as in the nativity of men. For as many Planets as aspect the lord of the seventh partilely, so many husbands are decreed.

[Margin: Going to marry from where][120]

[120]the margin prints Vade for Unde

V Going to marry from where?

In this question likewise the significators are to be considered, which, if they are in the places of journeys or peregrine, signify a peregrine husband. ⊕ too in the third in the nativity of a woman signifies a peregrine bridegroom.

[Margin: Of what form, of what manners.]

VI On the form of the body and the manners of the mind.

Just as above, for the mind and manners of wives, we considered the Moon configured with the other Planets: So rightly here in the nativities of women, for husbands, we attend to the Sun configured with the other Planets, by the prescription of Ptolemy [Ptol.] text. 24 libr. 4 quadr.: ♄ therefore, configured with the Sun so as to be in its dignities, signifies composed husbands, agreeable and industrious. ♃ venerable and magnanimous: ♂ unruly, cruel, vigorous, estranged from children and wife. ♀ pleasant and handsome: ☿ provident for livelihood and agile. ♀ with ♄ sluggish, and weary in venereal matters. ♀ with Jupiter good, just and modest. ♀ with Mars crafty, lustful, adulterous. ♀ with ☿ loving of children.

[Margin: Of what fortune]

VII On fortune.

It is judged from the condition of the significators. For 1 the significators decreeing husbands, happily placed, signify fortune. Unhappily set, misfortune. 2 ☉ in a good state in the nativity of a female signifies a good spouse, in a bad [state] a bad [spouse]: Schöner [Schon.] 3 ♀ mistress of the ascendant with Regulus, and ☽ joined to the head of the Dragon in ⚹ or △ ♂ not impeded, denotes a beautiful woman, who will marry a powerful man, and will attain great riches: 6 Aph. 112. 4 ♀ in 6 signifies great difficulties for women, and dangers in childbirth or miscarriages, if some more benign ray has not shone from the M. C. Schöner [Schon.]

[Margin: How she will agree with him.]

VIII. On concord.

To this must be referred those things, which we said above on the marriage of men. The nature of the significators is namely to be considered here too; whether they are benefic, malefic, or middling, and the quality of the aspect. by which they are coupled with the Sun, the principal significator of the spouse. For they will be concordant, when these significators have been benefic, and have aspected each other with a benefic ray. Discordant, when they have been malefic, and have struck each other with hostile rays.

Chapter XVI.

On the religion of the native.

The decrees of the 7 prior houses being completed, the eighth house, which pronounces on death, and on those things which follow death, would indeed now have to be spoken of. But because death is the last line of things or the end of things to be done, we shall give notice of it in the last place: But now we shall treat of religion.

[Margin: About religion it can scarcely be judged from the stars.]

And although, as Cardano [Card.] piously warns 3 Aph. [numeral: ?]18, we would seek in vain from the stars the holy, the blessed, and the truly pleasing to GOD, since to be pleasing to GOD is greater than the promises of heaven can pledge: yet, lest we seem to have neglected anything in Astrological doctrine,

we shall note at least some things pertaining here, both from Cardano himself, and from Haly, and others; especially since it is established by the examples of very many nativities, that it can in some way be judged about piety and impiety from the third and the ninth.

[Margin: Significators of religion.]

[Margin: Significators of sects.]

But they signify religion: 1 A Planet or Planets in the ninth house, and dwelling in the third opposite to it: where, however, the ninth is preferred to the third. 2 The Sign of the ninth house, and the Planet which rules in the sign of the ninth. 3 ♃ *consignificator of the ninth house. For these significators, if they are placed happily, denote the religious: Unhappily placed, they signify the* ἄθεον *[Greek: atheon, "godless"] and a disputer against the accustomed religion, or a suspect of heresy. But if also the sign of the ninth house has been fixed, and its lord benefic and strong, it designates a religious man and persevering in piety. But if it has been mobile or common, and its lord a malefic Planet, weak and* ℞*; it denotes the contrary, namely the impious and inconstant in religion. For always a common sign of the ninth, and its lord in a common sign, signifies the inconstant, Schöner [Schon.] cap. 15 lib. 1. But separately* ♍ *and* ♎ *denote the Christian religion without a significator. Likewise* ♃ *to which* ♀ *is joined as partner, likewise* ☊. ♄ ♂ *and* ♉ *likewise* ♈ *and* ♏ *signify a depraved religion.*

[Margin: Aphorisms inclining the judgment toward piety.]

But in particular these Rules on piety are usually handed down: 1 ♃ ♀ and ☊ in 9 or 3, or even with Spica ♍, signify the religious and the lover of the true GOD and of the pious: Garcaeus [Garc.] cap. 14. 2 ☉ ♃ and ♀ conjoined in the same degree or in cazimi make q. a Prophet.

[Margin: The Nativity of the Elector of Brandenburg Ioannes Georgius, of most praiseworthy memory.]

Almansor [Almans] Aph. 136 and Cardano [Card.] 5 Aph. 93. 3 ☉ ☽ ☿ and ⊕ in 9 or 3, make these middling, yet good, which are increased with a happy ray of ♃ or ♀; they are diminished when a malefic ray afflicts the same in the said places: Garcaeus [Garc.] in the same place. By way of example there can be for us the Nativity of the Most Illustrious Prince Johann Georg [Ioannes Georgius], Elector of Brandenburg, whose piety, devotion, and zeal for religion and Justice are everywhere most well known, and are recalled with grateful memory by his subjects and others. For he had ☉ ☿ and ⊕ in the 9 house, the sign ♍ most suited to religion, in △ ♃. 4 ☉ in 9 happy signifies piety, commonly also bestows religious dignities, and makes celebrated preachers.

Diagram. A square figure of heaven.

Centre: Ioannes Georgius Elector of Brandenburg is born In the Year 1525 Sept. Day 11 Hour 0^{h} 44^{m} P.M. Elevation of the pole 52° 36′.

- Top compartment: ♎ 9° 41′
- Upper left, upper part: ♏ 2° 31′
- Upper left, left part: ♏ 19° 47′; ♂ 6° 0′
- Left compartment: ♐ 8° 38′

- Lower left, upper part: ♍ 8° 34′; ☊ 28° 7′
- Lower left, lower part: ♒ 28° 38′; ♄ 2° 31′ ℞
- Bottom compartment: ♈ 9° 41′
- Lower right, lower part: ♉ 2° 31′; ♃ 15° 49′ ℞
- Lower right, right part: ♉ 19° 47′
- Right compartment: ♊ 8° 38′
- Upper right, right part: ♋ 8° 34′; ☽ 15° 6′; ♆ 28° 7′
- Upper right, upper part: ♌ 28° 38′; ⊕ 26° 3′; ☉ 27° 41′; ☿ 29° 17′; ♀ 8° 34′

5 ♄ if it is in 9, in some one of its dignities, signifies religion, chastity and faith. But if the lord of the ninth has been separated from the Lord of the ascendant, he will not think about religion nor care for it: Haly part 5 cap. 9. 6 The lord of the ninth, a benefic indeed, but badly disposed in comparison to the lord of the ascendant, signifies the native going to believe rightly indeed, but little, 2 Aph. 58. 7 ♄ or ♂ direct in 9 or 3, and irradiated by the benefics with a friendly aspect, and occupying a fixed sign, signify praised piety, and love and reverence toward GOD, yet what they signify is not to be esteemed wholly so firm and sincere, as if benefics were in those places. Weak, those Planets signify the contrary. 8 When ☉ and ♃ have presided over the ninth. and have had dignity in the places of ☿ ☽ and of the ascendant, the one aspecting the other, that man will bring forth oracles, 5 Aph. 20. 9 ☉ and ☿ aspecting each other by △ in suitable places, make a man of singular prudence and learning, and a priest of great dignity: And the Moon together in the ascendant, the Sun, however, with the body of ♀ in the same degree, make a Cardinal, 3 Aph. 50. 10 Several Planets in 9 or 3 signify a mixture of piety. 11 If none is in 9 or 3, let ♃ be considered. For it, well placed in house, exaltation, reception with Venus, the Sun, ☽, ☿, or in conjunction of Venus, △, or partile ⚹, in an angle, makes[121] religious: Garcæus. According to Cardano, ♃ with ♍ in the second also makes[122] religious.

[Margin: Aphorisms of Impiety.]

On Impiety let these Rules be observed: 1 ♄ ♂ ♆ in 9 or 3 in mobile signs, with Jove peregrine, or in detriment, and in a cadent, condemned by the malefics, signifies the native not going to remain in one religion. 2 The Lords of the ninth place, unhappy and in the angles, make despisers of the gods, more so, however, if in the ninth place itself they are retrograde and badly affected. 3 They also make despisers of the gods for whom the malefics are in the ascendant or the angles: more so, however, if they are in the ninth place itself. Mars above all makes[123] openly assailing GOD with insults: ♄ a heretic, 5 Aph. 38. 4 ♄ with ♀ and the spica of ♍ makes Theologians indeed, but who are held for heretics. 5 ♄ in 9 ℞ and in a common sign signifies no faith, and only the appearance of religion. Cardano [Card.] in gen. ad 7 Aph. 129. 6 ♂ in 9 unfortunate mostly

[121] one
[122] one
[123] one

makes liars and despisers of the gods, 5, Aph. 169. 7 If anyone survives with the Moon standing among the malefics, he will not believe GOD, 5 Aph. 182. 8 If ☽ and ☿ and the lord of the ascendant are in bicorporeal signs, the native will become a partaker of heresy or of a foreign religion, 5 Aph. 183.

9 ♀ or ☽ in 9 or 3, especially in a mobile or bicorporeal sign, make[124] varied and inconstant in religion, lovers of divinations. 10 ☽, mistress of the ninth place, in the first, shows a despiser of religion and, with ♉, a deceiver, Genit. 44 Cardano [Cardan.] 11 ☿ in 9 converts the native from one religion to another.

[Margin: Our first example.]

In our first example ♂ *stands in the 9 house; but the sign of the ninth is Jovial, whose trigonocrator is* ♂. *Mistress* υψώσε(ως) [Greek: hypsōseōs, "of the exaltation"] ♀*:* ☿ *rules the third house:* ♃ *also is strong in the chart with Mars. Hence, although* ♂ *makes the native little concerned about religion, especially since both* ♄ *to the ninth and* ♂ *has a trine ray: yet* ♃*, the presider of the ninth, in the house of* ♀*, who herself also favours the cusp of the ninth with a* ⚹*, arouses in the native a certain care for religion and piety, and does not permit him to be estranged from religion.*

[Margin: The other example.]

In the other example *none of the Planets indeed occupies the ninth, as neither the third house: yet the lord of the ninth is* ♄ *in* ♓*, strong in a Jovial sign, which also beholds the ninth with a* ⚹*. Hence this constellation indicates the native concerned about piety and true religion: yet somewhat doubtful and inconstant, because of the mobile sign of the ninth house, and the Moon ruling the third. And since* ♄ *beholds the first itself with a square, and so is not separated from the first, the native will think anxiously about the truth and constancy of religion; to which matter Jupiter, irradiating the ninth and Mercury, the lord of the first, with a trine, grants prudence and circumspection.*

Caput XVII.

On journeys and travel abroad.

[Margin: Significators of journeys.]

In judging journeys, attention must be paid chiefly to these significators: 1 To the ninth house, which marks long journeys; and the third, which the shorter. For although Ptolemy [Ptol.] cap. 9 libr. 4 quadrip., in considering journeys, especially the houses cadent, such as are 3, 6, 9 and 12, advises to be looked at; because in them the man is designated not firm, but most mobile, indeed as it were falling from his seat: yet, the sixth and and 12 being neglected[125], because the sixth signifies rather diseases and death, 12 other hardships, which accompany the native brought forth into the light; only the ninth and the third are taken up, the ninth especially; since the third, under the earth, cannot move the mind to travel abroad as much as the ninth. 2 To their lords. 3 To the Planets in the ninth or 3. And 4 to the luminaries, the Sun, ☽, and ☿; as being the messenger of the gods according to the Poets. For ☽ and ☿, since they are unstable, and wander most among the Planets, have a peculiar signification concerning journeys. Ptolemy

[124] people

[125] the word and is set twice, at a line end and at the head of the next line

[Ptol.], in the place cited before, adds the consideration of Mars, on account of the labour of journeys, and because it presides over the impulse of the mind. Hence also Cardano [Card.] 3 Aph. 84 says: Mars ☉ and ☽ signify journeys, and the ninth and the third house, if their significators have come together with the luminaries, especially[126] of the time.

From these, then, a pronouncement is made on the following circumstances. 1 Whether the native is going to undertake any journeys, or rather is going to remain at home perpetually. And if he is going to undertake journeys, whether he is going to travel abroad to foreigners frequently and continually, or rather more rarely and only sometimes?

For some are found who so delight in travel abroad that they spend the greatest part of their life outside the fatherland. Others, on the contrary, are found so loving of the fatherland that through the whole of life they very rarely or even never dare to change their native soil and go out beyond the paternal bounds. Therefore let this general Rule be observed first:

[Margin: A general Rule decreeing journeys.]

If the significators said before, but most of all the Moon and ☿, are conjoined with each other or in mutual reception; or conjoined with or received by the lord of the first or of the ninth house, so that the lord of the third or of the ninth is in the domicile or exaltation of ☽ or ☿; and in turn the Moon or ☿ is in the domicile or exaltation of the lord of the ninth or of the third, or finally they have occupied either the ninth or the third, or the first, or have had dominion in them, they altogether decree journeys. Leovitius [Cypr.] and Garcaeus [Garc.] cap. 32.

[Margin: Special aphorisms of journeys.]

Then let these special[127] be noted. 1 The Lord of the ninth in the first, or of the first in 9, or these joined together or received by each other, signify journeys. 2 Very many Planets in 9 or 3 signify a man going to travel abroad and not going to remain in the place of his birth. 3 If the lord of the journey has applied to the lord of the ascendant, journeys will befall the native which he has not thought of: but if a benefic is present or the lord of the ascendant has received it, he will have in those journeys advantage, honour, and gain. But if a malefic is present, and the lord of the ascendant has not received it, he will have loss, forfeiture, and labour in journeys. Haly part. 5 cap. 8. 4 ♂ in the ninth makes very many long and laborious journeys, from which little advantage redounds to the native. For he cannot have anything good, says Haly in the place cited before, for whom ♄ or ♂ stand in the house of the journey. This constitution also denotes a man of uncertain religion. For love is not certain in guests; it wanders, as they themselves. 5 ⊕ in 9 or 3 signifies a lasting residence outside the fatherland for the sake of riches.

6 Very many Planets not in their own house, but peregrine, especially the lord of the horoscope and of the nativity, signify travellers abroad. 7 ♃ ♀ and

[126] the luminary
[127] rules

☿, peregrine next to the heart of heaven, signify renown of learning, most of all outside the fatherland. Genit: 96 Cardano [Card.]

8 Planets in the west, above all ☽ and ♂, signify men either of short life, or travelling abroad, and staying in a foreign land: Cardano [Card.] in com. ad 58 text. libr. 4 quad. Ptolemy [Ptol.] 9 As the mobile signs are very suited to journeys, and indicate speed and return, but the fixed the worst, 5 Aph. 65: So very many Planets in mobile signs signify a wandering man, loving journeys. 10 Whoever have ♄ in the opposite of Jove never rest, 2 Aph. 3. 11 ☿ and ☽ conjoined or received by each other, or ☿ in the house of ☽ and the Moon in the house of ☿, signify many journeys. ☿ and ☽ in 9, 3, the first, or ruling these, denote the same, if, namely, their signs are in those houses. But if also ☿ or ☽, or both together, is joined to the Sun, or is received by it, or the Sun is in their house, it also signifies journeys. 12 Many travels abroad are decreed for the native, if very many significators are occidental, above all ☽, ♂, ☿, the lord of the nativity and of the ascendant Or also if they are peregrine, without essential dignities, removed from the angles, in the 9 house especially and 3, and in mobile signs.

13 Haly part. 5 cap 9 also hands down these precepts on the lord of the ninth: If the lord of the ninth is in the ascendant, the native will be a good statesman, and a traveller, going to have gain from it. In the second he will have gain from journeys. In the third he will dwell with foreign women, and will migrate from his place. In the fourth the parents will have a hidden infirmity, and he himself will die on journeys. In the fifth he will have sons outside his region and will rejoice in them. In the sixth he will profit from servants and beasts of burden, and will fall ill on a journey. But if he is healthy on journeys, he will have loss from servants. In 7 he will have a good and compliant wife, and will be obedient to her. In 8 he will have a very great desire of amassing substance, and therefore will make journeys. In 9 he will be of few journeys, occupied in giving and receiving, and a keeper of his law.

Let the testimonies of journeys be gathered from these rules: if none of them occurs, they signify a man going to remain idle in the fatherland. If few, he is going to travel abroad sometimes. If many, it is signified that the native is either going to travel abroad perpetually, or to remain outside the fatherland.

[Margin: Into what part of the world the native is going to make a journey.]

Second question: Into what quarter of the world he is going to make a journey.

A judgement on this circumstance is made 1 from the Planets, the significators of journeys: 2 from the signs in which the significators stand.

For if the significators of journeys are Oriental, and in Oriental signs, toward the rising; If occidental; toward the setting they signify the journeys of the native from the paternal place.

[Margin: Planets and signs: which Oriental, which Occidental, which Southern, which Northern.]

Now the Oriental Planets are ☉ and ♄, the Occidental ♂ and ☽, the Southern is ♀, the Northern ☊. Mercury is indifferent and assumes the nature of the one to which it is either conjoined, or also in whose essential dignity it is found. Thus the signs of the fiery trigon, ♈ ♌ ♐ Oriental, of the Earthy ♉ ♍ ♑ Southern. Of the Airy ♊ ♎ ♒ occidental: And of the Watery ♋ ♏ ♓ Northern are commonly held.

[Margin: How the testimonies are to be gathered and at length judgement given.]

The testimonies, therefore, are to be gathered in the same way as we did above in the doctrine on temperament. For the parts or regions of the world are to be written down in order, and its own testimonies placed under each, and pronouncement is to be made according to the prevailing number.

For the native will make a journey into that quarter of the world whose indications the significators give. But if indications of all the quarters are present, the native will travel abroad into all 4 quarters: yet more frequently into the one which has more testimonies.

[Margin: The doctrine of Ptolemy.]

Ptolemy [Ptol.] text. 62 lib. 4 quadrip. determines the quarter of the world principally from the place of the luminaries. For he says, if the luminaries are found in the oriental quadrants, journeys are undertaken toward the rising and the south: In the occidental quadrants, however, toward the North and the west. And although Haly Abenrodan [ʿAlī ibn Riḍwān], as Schöner notes cap. 15 lib. 1, understands by the oriental quadrants those two from the fourth house through the rising up to the tenth: By the occidental, the two remaining from the middle of heaven or 10 house through the setting up to the fourth: yet according to Ptolemy [Ptol.], Cardano [Cardan.] and the doctrine repeated several times, the Oriental are reckoned from the horoscope to the M. C. and from the setting to the angle of the lowest part of heaven. The Occidental from the angle of the lowest part of heaven to the beginning of the horoscope, and from the beginning of the middle of heaven to the setting. Cardano [Card.] in com. on the cited text of Ptolemy [Ptol.] also wants the latitude of the Planets signifying a journey to be considered, especially ☽ & ♂. For if they have Northern latitude, they will signify a journey toward the North. If Southern, toward the south. And 3 Aph. 92 says: That from the 10 house to the first the south, from the first to the fourth the east, from the seventh to the fourth the North, from 7 to 10 the west is noted. But these are usually observed principally in the luminaries.

Third: Whether he is going to make a journey by waters or land?

[Margin: Whether he is going to make a journey by land or sea.]

On this question the authors have noted that the trigons of the signs signify the quality of the journey by water or land. For the fiery & earthy signs, if the significators are in them, signify journeys by land. The watery, by waters. The airy, mixed, now

by lands now by waters. Thus significators in the four-footed[128] *signify a journey with horses or carriage. In the human*[129] *on foot, Schöner [Schon.]*

IV What causes drive the native to a journey?

[Margin: On the causes of journeys.]

Although the cause of journeys, according to Cardano [Card.] 3 Aph. 93, is shown in general through the lords of the significators: yet so that we may understand it more distinctly, first the nature of the Planets which signify journeys is to be regarded. 2 The signification of the houses in which the significators of journeys dwell.

[Margin: Judgement is taken either from the Planets]

[Margin: or the houses.]

For ♄, the significator of journeys, either itself, or joined to the significator, signifies travels abroad, either by reason of the dead, of inheritances, of conditions left by the dead, of mines, metallic, of architecture, &c. or of Saturnine persons: such as are old men, misers, farmers. ♃ for the sake of religion, of honour, of juridical practice, of judgements & Ecclesiastical benefices, or of judges, prelates, nobles, &c. about which we treated more copiously above cap. 9 in the place on riches. Thus the *first house* signifies a natural love of travelling abroad. The *Second* on account of contracts, purchase, sale & gain: The *Third* for the sake of brothers & kinsmen: The *Fourth* for the sake of parents, patrimony, fields, &c.

♃ combust in the ninth house, or in its fall, signifies to the native a journey for a hidden cause or exile. ☽ also, if it has not aspected the lord of its house, signifies that the native will be a seeker of his living outside his fatherland.

V With what success will he undertake journeys?

[Margin: On the success of journeys.]

[Margin: General rules.]

Here in general if the significators benefic by nature, strong, & happily coupled with benefics are, or in their houses, they signify happy & profitable journeys. But if the significators are unfortunate, weak, & in an unhappy aspect of the evil ones, or stand in their houses, they denote various dangers with loss of substance. Middling significators signify mediocrity.

[Margin: Special]

In particular let these rules also be noted, which Haly recites part. 5 cap. 8. 1 If the lord of the ninth house is unfortunate, or there are malefics in the 9 house applying to the lord of the ascendant, or the lord of the ascendant applies to them, bad journeys are signified to the native, & evil befalling, losses & wants, & that he will be of bad faith. 2 If the lord of the ascendant is contrary to the ascendant, & the lord of the house of the Moon contrary to ☽, the native will indeed be of many movements & journeys, but yet so that if fortune is present, he may have gain in his journeys. If malefic, the contrary may happen. 3 · If ♃ is lord of the ninth house, & is in the ascendant or M. C., the native will have in his journeys a good name & fame. 4 If ☉ is lord of the ninth house, & is in the

[128] signs
[129] signs

ascendant or M. C, the native will have in his journeys dominion & honour. 5 If ♂ is lord of the ninth, & is in the ascendant or M. C. & Jupiter has aspected it, the native will gain much in journeys from famous men & lords of soldiers. 6 ♂ in the third house or the ninth, signifies the native of many journeys, & sickly in them.

VI Question With what danger will he travel abroad?

[Margin: On the dangers of journeys.]

[Margin: 1 from Saturn & Mars.]

In this question the malefic is chiefly to be considered, which above the rest harms the significator or all the significators of the journey. Now ♄ & ♂ harm; 1 by ray, 2 by body, 3 by dominion & 4 by elevation over the significators. For ♄ afflicting the significator of the journey with some hostile ray, or itself being the significator weak, & harmed by the other malefic, or also being lord of that sign in which the significator is placed, brings difficulties & dangers to the native, through Saturnine things & persons, as through waters, voyages, solitary places, captivities, prisons, debt: Likewise through sailors, farmers, Hermits, Jews, Monks. Mars marks detriments through Martial things & persons: As from fire, robbers, soldiers, from wild animals & beasts, &c.

[Margin: 2 from the houses.]

Danger is also judged from the sign & house, in which the malefic & harming ones stand, about which we have already advised some things before.

For the *watery* signs signify troubles of journeys from moisture, a fall into water, danger of shipwreck, rain, solitude, &c. The *Fixed* except ♏, signify troubles from a fall, a headlong plunge, or a tempest of winds. The *Mobile* from lack of provisions, change of air, foul smell, a pestilent constitution, and other impediments. The *Human* from robberies, plunderings, ambushes. The *Feral* as ♌ ♍ the latter half of ♐, lacerations from beasts & wild animals· The *Domestic*, as ♈ ♉ from horses throwing the rider, or harming in another way, from the bite of domestic animals, or of a rabid dog. The *Venomous* as ♏, from the bite of serpents, scorpions, &c. And ♉ by property signifies a precipice 3 Aph. 91.

But if the significators of journeys are in watery signs, and the malefics raised above them, or the benefics stand hostile to the significators, he will be overwhelmed by tempests on the journey 3 Aph. 88. If ♄ is with the lord of the ninth in the 12 house, the native will be killed, & will die in the sea or a river according to the sign of the watery triplicity. And if ♂ is there in place of Saturn, robbers will enter his house, & will plunder it. Haly part. 5. cap. 9. If the Moon at the time of the beginning of the journey is in the combust way [via combusta], the peregrine will fall sick in in [recte: in] his travel abroad, or will suffer other grave troubles. Hermes Centil. 54.

VII What region is fortunate for the life of the native.

[Margin: On the regions suited to the native.]

Astrologers are accustomed not only to foreknow in general the good or bad fortune of the native in journeys: but also to show in particular which particular places, regions of the earth, cities & towns suit the native, so that he may make a journey through them, or live in them. To which matter it contributes much to know which regions,

and which cities are subject to the individual signs, about which we advised above cap. 1 of the second member of this part in the general judgement of tempests. Here only this is to be noted:

1 That regions subject to the signs of happy houses are reckoned fortunate, especially 1,10,11,2, if those houses are not harmed by the evil rays of the evil ones, but rather are fostered by the benefics, either by presence, or by benign rays. For if they are harmed, they signify only mediocrity. 2 Places subject to the signs which are occupied by the happy benefics Jupiter ♀, ☊, & ⊕ are also reckoned fortunate, above all if they lack the hostile rays of the malefics. For hindered by the malefics, they signify mediocrity. The signs of the third house 5 & 9 also promise mediocrity, if they are free from the harms of the malefics. For harmed they threaten adversities. But regions & cities subject to unhappy houses are adverse to the native, especially the sixth, eighth, ninth, fourth & seventh, above all if they are deprived of the auspicious rays of the benefics, & are afflicted by the malefics in any way. Likewise those in which ♄ ♂ ♉ are, especially if they are in 4,7,12. For those which are extremely inauspicious, because they are opposed to the actions & contracts of the native, are rightly avoided by the same, so that he neither makes a journey through them, nor dwells in the same place nor carries on contracts. And indeed if anyone has the chart of the city and the proper one of his nativity, and compares these with each other, the best election of a place of dwelling for health is if the ascendant of the city is also the ascendant of the native; but for dignity if the ascendant of the city is the heart of heaven or the place of the Sun of the native, &c. 2 Aph. 172.

[Margin: Our first example.]

In our first example the significators are, 1. ♓ *the sign of the ninth, Jovial, &* ♍ *the sign of the third, Mercurial, both common or bicorporeal: Next the lords of the ninth & third,* ♃ *&* ☿*, of which the former in the fourth house, in* □ *of the luminaries, strong & direct: The latter is in the sixth, weak & retrograde. 3* ♂ *in the ninth in its own triplicity strong; & 4 the two luminaries* ☉ *weak,* ☽ *unfortunate and peregrine &* ☿ *likewise weak & Retrograde, all in the sixth house.* And since several Planets ☉ ☽ ♀ ☿ *&* ♃ *are in mobile signs, and moreover* ♄ ♀ *&* ☽ *are peregrine, it befell the native indeed to live for the most part outside his native land: yet he did not often give himself to longer journeys, because most Planets are in the sixth house, of adverse health. But he moved himself much, & completed very many shorter journeys since as said, very many Planets hold mobile signs. Mars in the ninth also designated for him longer & laborious journeys, & indeed military ones, which also because the luminaries are in the exaltation of Mars* would have raised him to the highest honours, had the luminaries not languished in the sixth. [Illegible: one sort in the margin, heavily inked] Most journeys, moreover, were *toward the south, because of* ♍*, the sign of the third, &* ♐*, in which very many Planets are, & because* ☿*, the governor of short journeys, is joined to Venus there. Some also toward the east, since 4 Planets,* ♃ ♄ ☿ *&* ♀*, are Oriental from the Sun: Some were toward the west, likewise the north, because of* ♂ *in* ♓ *& Jupiter, the lord of the ninth.* [Margin: 3] By land, however,

by journey, & either by carriage, or on horseback, most were accomplished, since very many significators are in ♑, an earthy & four-footed sign. Yet the native also used a ship on the longer ones because of ♓, in which ♂ is found in the ninth. [Margin: 4] ♄ *in 4, ☿ & the luminaries in the sixth & ♂ in the ninth show* the causes of the journeys. *Mars indeed by reason of military exercises, the luminaries & ☿ by reason of inheritances & of the dead: for ♄ in the fourth is the disposer both of the luminaries & of Mercury in the sixth, & also of the eighth house itself. Jupiter by reason of the judgements, which he conducted with noblemen partly about his own goods, partly about an inheritance.* [Margin: 5] The successes in journeys *were for the most part good & happy, some also unhappy, because ♂ & ♄ are strong, nor are the significators afflicted by the evil rays of the evil ones. ☿, however, & ☽ are pressed by a certain debility in the sixth:* [Margin: 6] *unhappiness, however, if any befell in journeys, could not greatly afflict the native, because it arises not from the malefics harming, but only from the debility of the significators. For ♄ & ♂ have △ to each other, & ✶ rays to the luminaries & ☿.* [Margin: 7] Regions, *& places happier for the native, beyond those which are subject to ♌ & ♎, cannot be given. For to ♈ in 10 the luminaries □ from the sixth, & Jupiter has an opposite ray. To Taurus ♄, & the virgin is opposed to Mars. ♂ strikes* Gemini *& ♄ with a □ ray: The luminaries are opposed to Cancer: & Jupiter assails it with a □ ray. ⊕ favours* Leo *in the first, & ♄ Libra by its presence, nor can the □ of the luminaries harm much, although ♏ is not altogether unhappy either, the sign to which our city Frankfurt on the Oder is subject. For ♄, strong, is in □ of Mars the disposer in the same, & the same fosters the luminaries with a ✶ ray.*

[Margin: The other example.]

In the other example *the sign of the ninth is ♑, Saturnine: but of the third ♋, lunar, both mobile & suited to travel abroad.* And since the significators *of them are in peregrine places, in no essential dignities, removed from the angles, & each beholds ☿, the lord of the first. The Moon indeed △, ♄ ✶: the Sun also is peregrine in □ ☽, moreover ♄ is in the opposite of Jupiter. Therefore various journeys are signified for the native, & life outside the native land, & then also many shorter journeys befall the native, because of the Moon, mistress of the third, in M. C., raised above the remaining significators.* [Margin: 2] The journeys, however, are directed *into different regions of the world, the longer mostly toward the east & the North, because of Saturn, the lord of the ninth, in ✶, opposed to Jupiter: some also toward the south & the west, because of ♑, the sign of the ninth, the Sun conjoined to Venus in ♉ & □ ☽ and ♀. The shorter & more frequent toward the west because of △ ☽ & ☿ in airy ones, which nevertheless also incline toward the south because of the Moon. Some also are toward the North because of ♋, the sign of the third.* [Margin: 3] Some, however, *were accomplished by journey on foot, since the Moon & Mercury, which behold each other by partile △, are in the human ♒ & ♊: Fewer by ship, because of ♋, the sign of the third, & ♄ in ♓: the rest by carriage because of ♑, the sign of the ninth, & the Sun and ♀ in ♉; Likewise Mars in ♈.* [Margin: 4] Further, *♄, lord of the ninth, in 11 signifies certain longer journeys for the sake of friends & of inheritance, to which ♄ nevertheless is adverse by opposition: ☽ & ☿ the causes of learning & of honour. Most, & indeed pleasant ones, are undertaken on account of agnates &*

children, since ♄ too, in a Jovial sign, opposed to Jupiter, holds 11, Jupiter the fifth, and the ray of ♄ to Mercury is ✶: although here too some present themselves for the sake of practice. [Margin: 5] Success *in journeys is promised moderate, because the significators of journeys ♄ & ☽, likewise ☿, are strong, nor are they harassed by the evil rays of the evil ones:* [Margin: 6] Laborious, *however, toilsome & not lacking in dangers are some, by reason of house 12, in which certain significators such as ☿ & the Sun, weak, cling: Jupiter too, retrograde in the opposite of Saturn, certain losses in journeys* brings, which however do not greatly harm the native, since Jupiter by his nature is otherwise beneficent. [Margin: 7] Happiness for the native *is signified as greatest in regions & places subject to ♊ & ♒. For those signs hold the happy houses, the first & 10, & ☽ with ☿ in them is fostered by partile △, although with the fishes ♉ could not be altogether neglected either, provided ☉ in ♉ did not combust Venus, the mistress.*

CHAPTER XVIII. ON DREAMS.

[Margin: The significators of dreams.]

When it is a matter of dreams, this above all is asked: whether the native is to have ὀνείρατα [Greek: oneirata, "dreams"] μαντικὰ [Greek: mantika, "prophetic"] *or* σημαντικὰ [Greek: sēmantika, "significant"]*, that is, such dreams as signify or presage some future occurrence, joyful or adverse? Or rather* ἀσήμαντα [Greek: asēmanta, "insignificant"] καὶ [Greek: kai, "and"] ἐνυπνιώδη [Greek: enypniōdē, "dreamlike"]*, devoid of signification, vain, & such as nature stirs up, to which no outcomes correspond? Both are known 1 from the Planet or Planets occupying the ninth house. 2 From the nature of the sign beginning the ninth house, or also intercepted. 3 From the nature of the Planet which is the lord of the ninth.*

[Margin: Rules of judgement.]

For first, some one of the benefics, ♃ or ♀, in the ninth. strong, & free from the hostile rays of the malefics, produces μαντικά [Greek: mantika, "prophetic"] dreams, to which for the most part some outcomes correspond. A benefic, however, afflicted by the malefics, or weak in itself, begets ambiguous dreams, to which outcomes sometimes correspond, sometimes do not correspond. A malefic in the ninth, such as ♄ or ♂, weak. brings empty & deceitful dreams, to which outcomes never correspond. A strong malefic. not ℞, & happily irradiated by the benefics, signifies ambiguous dreams, with which outcomes rarely agree: ♄, however, truer ones, ♂ falser ones. 2 Middling Planets in 9, such as ☉ ☽ & [?], signify ambiguous dreams, with which outcomes rarely accord. If, however, they are happily configured with the benefics, & are strong in themselves in a fixed sign, more often true dreams & not lacking an outcome. If, however, they are afflicted by the malefics, or are weak in a mobile sign, they produce for the most part uncertain & deceitful dreams. 3 When no Planet is placed in 9, look first at the sign 9: and if it is fixed & safe, it bestows true dreams, if mobile, false, if common, partly true partly false. Then look also at its lord, and judge from the two preceding Rules according to its constitution. 4 But if several Planets, & of different nature, are placed in the ninth, the more

powerful of them will always be the significator of the dreams. 5 ☉ with Saturn presiding over the ninth house will give true & bad dreams ☉ & ♃ or ♀ true and good, ♄ & ♀ mixed and true. ♄ & ☽ or ♄ and ♂, or ♄ and [?], or ♂ & ☿ false and bad: ☽ & ☿ sometimes true. Venus alone, weak, or ♃, pleasant & mostly false, 3 Aph. 74.

[Margin: On the quality of dreams, let the Planets be seen.]

What kind of dreams the native will have, however, that Planet shows which is constituted significator of dreams according to one of the rules already handed down.

[Margin: ♄]

For if ♄ is the significator, the native will have dreams about Saturnine things & persons about agriculture, about metal mines, about the finding of hidden treasures, about underground caves, solitary, dark places, ways through deserts, about tombs, dead specters, Demons, sad things, things striking fear & dread, lamentations & the like. [Margin: ♃] ♃, significator of dreams, signifies joyful dreams, about Jovial things & persons, about honours, about conversations about kings, princes, famous men, orations Churches, &c. [Margin: ♂] ♂ gives dreams of contentions, quarrels, fights, wars, hatreds, discords fires, tumults, Horses, dogs, hunts. [Margin: ☉] ☉, significator, stirs up dreams almost similar to the Jovial ones. about persons, namely, honourable, kings, princes, the Magistracy.

♀, significatrix of dreams, he dreams of banquets, dances, pleasures, joy, [Margin: ♀] conversations with women, maidens, precious garments, various ornaments of the body, gifts, beautiful & artful pictures, aromatic materials of excellent odour, &c. [Margin: ☿] ☿ excites dreams about schools, studies, journeys, contracts, business dealings, conversations with learned men, clever artisans, embassies, numbers & coins, &c. [Margin: ☽] ☽ brings dreams corresponding to the phlegmatic temperament, about voyages, fishing, journeys by sea, dangers at sea, about baths, women, flight through the air. And if ♄ is with ♉ in the ninth, he will see horrible things in dreams. Schöner [Schon.] cap. 15 libr. 1.

[Margin: Our first example.]

In our first example ♂ *is found in the ninth: but the sign of the ninth is of the fishes, common, over which* ♃ *presides, very strong in the chart.* ♀ ☉ ☽ *also have* ✶ *rays to the ninth, &* ♄ △*: from which dreams for the most part vain are signified for the native. For although by reason of the common sign some true things are mixed with vain ones,* ♃ *too strives to verify them: yet because* ♃ *does not behold the ninth, dreams mostly mock the native, which he has about Martial things & persons, as quarrels, fights, wars, hatreds, fire, Chemists, Horses, soldiers, Surgeons, dogs, hunts, sometimes also but more rarely about Jovial things & persons, as conversations with kings, princes, famous men, honours, &c.*

[Margin: The other example.]

In the other, none of the Planets is in the ninth in body: yet they have rays to it, Jupiter indeed △, ♄ ✶, *&* ♂ □. *Then* ♍, *a mobile sign, occupies the ninth: and* ♄, *governor of the ninth, is moderately strong. From these we attribute to the native*

mostly deceitful dreams, whose outcomes deceive the native. For although △ ♃ & ♄ ✶ try to excite truthful dreams; yet those aspects effect little, since both a mobile sign holds the ninth, & the □ ray of Mars renders them vain. The dreams of the native, moreover, will be of the nature of ♄, as Saturnine things & persons, agriculture, metal mines, solitary things, dead persons, & sad things, &c.

CHAPTER XIX. ON THE MAGISTERY, OR THE KIND OF LIFE, OF THE NATIVE.

[Margin: The judgement about the kind of life is difficult.]

This question about the magistery, by which we understand the pursuit, art, kind of life & profession or activity of the native, by which he seeks a living, seems to be the most difficult of all Cardano [Card.] cap. 16 lib de iud. genit. as one that is grasped by conjecture, not by certain reasoning. And 6 Aph. 43 says: To know an art exactly is altogether impossible. For besides the immense multitude of arts, of region, of place of the family of the father, of religion, & of wealth, the same art is often decreed by different significators, & different arts by the same: And it is certain that it is governed for the most part by the condition of the parents, the custom of the nation, & the counsel of the nurses. When, therefore, in Astrological matters the kind of life is inquired into, it is not so much the thing itself that is determined by the artisans, because of the diverse circumstances, as a certain inclination, & a certain natural leading, toward certain labours, that is shown in general.

For we see some fitted & suited by nature more to Theological & Philosophical studies and so to the office of teaching, others to the government of Republics, to prefectures & functions in the courts of Princes & in Republics, others to the Mathematical arts, Architectonics, & the things that are exercised by hand. Before the Astrologer judges about these kinds of life or studies, he must be attentive to the significators of the art, so that it may be known from there.

I Whether the native will practise an art, or will lead an idle life without any exercise or craft?

[Margin: Whether the native will practise an art?]

[Margin: The significators of the art.]

The significators of the art, moreover, are, according to Julius Firmicus Maternus [Iulium Matern] lib. 4 cap. 15, Albubater [Albubat], cap. 90. Cyprianus Leovitius [Cypr. Leovit.] & Garcaeus [Garc.] cap. 27, first these three Planets ♀ ♂ & ☿. For Mercury wisdom of mind, subtlety, judgement, understanding & writing: Mars strength & labour of the body. ♀ signifies pleasure. Next, the houses suited to the magistery are these three; 10, 1 & 7. For the Tenth signifies power, the First learning; the Seventh contention. Or the first signifies the mind, 10 honour, 7 adversaries.

[Margin: Rules of judgement.]

From these, according to the following rules, let judgement be made about the exercise or art of the native. For those are idle & slothful whose nativities do not fall under any of the following rules. 1 If, in the consideration of the art or exercise of the native, either one of the three significators ☿ ♂ & ♀, or even several, are found placed in the places suited to the Magistery, 10, 1 or 7, in their

essential dignities, outside combustion & the rays of ☉, that one or those, so placed, will hold the signification of the Magistery & of the art. 2 If none of these is so placed, let it be considered whether any of these three is lord of the sign of the M. C. & placed in its dignity: For a Planet peregrine, or being in fall or detriment, is plainly unfit for this office. 3 But if the judgement of the profession does not proceed according to the two prescribed rules, the Moon will have to be considered: For her configuration to the stars, as Ptolemy [Ptol.] Aph. 23. centil. teaches, makes the native very active. If these are powerful, they indicate an effective, if weak, an inert impulse to acting. Hence that one of the Planets will have to be taken which has aspected the Moon partilely: And if several aspect, the more fortunate & more partile aspect among these is preferred: Likewise the sinister to the dexter. 4 If not even this succeeds, let it be seen which one the Moon has aspected with the half of her orb, or with a stronger, or with a better ray. For that one will be lord of the craft, if it has not been infected by the malefics. If the Moon aspects several with the half of her orb, that one is preferred which she has irradiated with the more partile ray. 5 If this too is sought in vain, let that one be taken which, preceding the Sun by the motion of the prime mobile, comes out from its rays, which Ptolemy [Ptol.] c. 4 lib. 4 quad. & Cardano [Card.] hold to be of the greatest authority. For so Cardano [Card.] 6 Aph. 28 advises: In the exercise or art of the native, we shall consider the Planet which, being oriental, first comes out from the Solar rays. But if with this one another is in the M C. & aspects the Moon, we shall take that one as partner.

But if none is near the heart of heaven, we shall consider the lord of the M. C., and the places in which ♂ is & ♀ and ☿. It is to be noted, however, that the native for whom several Planets are so placed in the nativity that they themselves designate the exercise practises a variety of pursuits of arts & crafts, of which, nevertheless, those are more frequent & more lasting for the native which are signified by the stronger Planet. On the contrary, however, he who, according to the proposed rules, especially the first two, does not have a lord of the Profession in his genesis, either practises an obscure art, or that too negligently, which Ptolemy [Ptol.] also seems to hint at in the place cited before, speaking in roughly this manner: One who has had neither a Planet in the 10 house allied to the Moon, nor appearing first in the morning before the Sun, but the craft is decreed only from the lord of the tenth, that one is for the most part born idle.

[Margin: On the quality of the art which the native will practise.]

II Question What kind will the art be?

The quality of the art is judged chiefly from these three circumstances: 1 From the nature &

[Margin: And first on the Planets.]

property of the Planet decreeing the craft: 2 From the sign which it occupies: 3 From the partile aspect of another Planet to the significator of the art. Besides these

three circumstances, others too are usually considered, such as the houses of heaven, & the extraordinary significators, about which we shall treat later.

[Margin: Rules of judgement.]

Hence, first, if the significator of the art is solitary, it gives a skill according to its nature either Mercurial, or Venereal, or Martial. 2 But if it is, with another strong significator of the art, joined partilely by ray or body, it shares the thing signified with that same one. And in this way, if ☿ is lord of the art in a strong & good ray of ♂, Mercury leaves its own art, & will profess the art of Mars, who otherwise signified nothing. In the same way judgement is to be made about the others. 3 The remaining Planets, just as also the signs & the houses, increase & diminish the things signified. For ♃ benefits, ♄ harms, ☉ adds authority with the magistracy, the Moon with the common people. But although ♃ is rather lord of religion, of prayer, & of simplicity, ♄ lord of sloth, avarice, heaviness, misery, sadness, so that these two have little authority in decreeing the craft of the native, which Albubater notes cap. 90: yet ♃ the solitary lord of the art, makes the native love the disciplines, 2 Aph. 65. And when ♄ has strongly disposed the art the son will hardly escape succeeding to some art of farmers, sailors, burden-carriers, corpse-bearers & flock-keepers, 6 Aph. 34. But so that we may judge more accurately, we shall consider the individual significators in order, both by themselves, and mixed with the others.

1. On Mercury the lord of the art.

[Margin: Mercury solitary lord of the art.]

☿ *signifies the spirit of the brain, & the things that are carried on by it. Therefore it gives a skill which is accomplished by the diligence of reason & the work of speech rather than by the strength of the body, according to that: He is strong in counsel to whom nature has denied strength. Skills of this kind are letters, numbers, writing, teaching, eloquence, Arithmetic, Astrology, speculative Philosophy, Commerce, Poetics, the fabrication of artful things. It therefore makes Grammarians, Chief scribes, Arithmeticians, Geometers, Philosophers, seers, traders, those given to commerce, & those intent on discipline, 6 Aph. 33. In all these, however, if* ☿ *is not fostered by some ray of Jupiter, the native has no fortune, Haly part. 5. cap. 10.*

[Margin: Mercury mixed with the others.]

On Mercury mixed with the others. 1 ☿ mixed with Saturn in body or ray, *(although a benign ray is better: For the body* □ *&* ☍ *ray harm the tongue, & are hostile to* ☿*)* makes servile administrators of other people's affairs, or who lead a wretched life in temples, either by reckoning or by supplicating. But mixed with the same with the testimony of ♂, farmers, sailors, shepherds, tanners, cobblers, sculptors, interpreters of dreams, enchanters, the superstitious, the morose, concealers, Pontano [Pont.] cap. 3 lib. 7 de cœl. & Ptolemy [Ptol.] text. 15. lib. 4 quad. 2 ☿ joined with Jupiter in body or ray, produces honoured orators, upright in judging, just & circumspect in rendering law, moderate in restraining, friends of the powerful, Theologians, Jurists, Rhetoricians, judges, bankers: 6 Aph. 35. 3 ☿ with the Sun, if it is not ℞ & at the same time combust,

but either in cazimi of ☉, or in some dignity, assists conversation with the Magistracy & powerful men, makes scribes, quaestors, prefects over royal and public accounts, Counsellors, Praetors, & those making beautiful golden works. But if Mars's testimony has been added, it inclines to the same things which will be said below about Mars, & makes chemists, artisans of counterfeit coin, especially if ♄ too is mixed in: 6 Aph. 37.

4 ☿ with the Moon or her rays, especially the good, increases disposition, & makes those inclined to the arts of divining, above all if ☽ has approached ☿ or its rays, in ♉ ♋ ♍. In ♍ & ♏ it makes Astrologers, bewitchers, poisoners. In ♈ ♌ ♎ those divining spontaneously & without art. In ♐ & ♓ magi, either by hope or by pretence, 6 Aph. 38. ☿ with ♀ inclines to those things about which it will be said below, most of all to variety of manners & to eloquence.

2 On Venus.

[Margin: Venus solitary mistress of the art.]

♀ *signifies pleasure, delight, softness, adornment, banquets, guests, & the things that please all the senses: But it is much opposed to the disciplines & to learning, and is not overcome except by Saturn. Therefore the learned are for the most part of bad manners: 4 Aph. 102. Therefore, having alone obtained the dominion of the magistery, it makes Apothecaries, Spice-dealers, Perfumers, Wine-sellers, Innkeepers, Painters, Clothiers, Jewellers, those given to the women's quarters, Musicians too if it is aspected by its lord, or even if itself the mistress of the M. C. is placed in the horoscope sign of Jupiter: Placed fortunately in a nocturnal nativity, it makes those honoured, & favoured, to whom from actions great means and riches, likewise great glory, accrues: Pontano [Pont.] cap. 2 lib. 7.*

[Margin: Venus mixed with the others.]

On Venus mixed with the others.

1 ♀ with Saturn placed fortunately, makes merchants of things that make for pleasure: but with both or one of them badly affected it makes buffoons, deceivers, innkeepers, magi, enchanters, despised painters, whom the Germans call [German, in Fraktur: Leimklecker, glue-daubers, a name for such painters], or artisans of paint, 6 Aph. 31. 2 With Jupiter it makes an Athletic & stout constitution of body, honours & riches on account of women & of religion. It also makes Physicians & Theologians. 3 With the Sun, if ♀ is combust, it does not signify an art. But in the heart of ☉, it bestows enormous riches: 3. Aph. 49. ♀ also in some dignity of the Sun, adds to the art excellence, fame & usefulness, also makes prefects in the name of women, or those dispensing with authority these things which ♀ signifies: 4 ♀ with ☽ in ♎ near the apex of the sixth house, the Moon moreover applying to the ✶ or △ ray of Saturn, makes a weaver of cheap cloths of varied colour, who also washes the same: 6 Aph. 32.

3 On Mars.

[Margin: Mars solitary lord of the art]

Mars signifies laborious things, which require both great strength of body & effort. Therefore it chiefly rules manual offices, the toilsome, & separately those which are exercised with iron; If the ray of the Sun has been added, also with fire: 6 Aph. 30. Also in a nocturnal nativity, in which it chiefly rejoices, or if otherwise ♂ is strong & fortunate, it decrees military service & glory, and honour from warlike affairs: Pontano [Pont.] cap. 1 lib. 7 de reb. cæl. Thus, placed in the best way, it makes soldiers, horsemen, captains, leaders of armies, & hunters: Placed moderately, boxers, bronze-smiths, iron-smiths, gunners, founders, those who apply cauteries, farmers, Surgical Physicians, stonecutters, architects. Weak, cooks, woodworkers, tanners, diggers, pirates, robbers.

On Mars mixed with the others.

[Margin: Mars mixed with the others.]

1 Mars with Saturn or its unfortunate ray, loses the signification of the magistery altogether, especially if ☿ or ♀ are better placed, & ♂ itself is at the same time retrograde, or at least it takes away the military & Equestrian signification, because ♄ breaks the spirit of Mars, & makes more timid ones. Hence through such a configuration only diggers, gardeners, crossbowmen, chest-makers, & tanners are signified: Placed in a low place they denote cobblers, stokers, chimney-sweeps, bath-keepers, millers, sewer-cleaners, & placed somewhat better, Surgeons. 2 ♂ placed fortunately with Jupiter, makes court prefects, & those most fortunate in military service. Unfortunately, common soldiers, publicans, doorkeepers, & innkeepers. 3 ♂ with the Sun gives less than ♃. Yet placed fortunately it raises to magistracies. Unfortunately it makes those working in fire, goldsmiths, & those digging gold, silver & other precious metals out of the earth, minters. 4 ♂ with the Moon makes butchers: 6 Aphor. 38, & with the testimony of Saturn added diggers, who lead streams, & fishermen, magi, poisoners: 6 Aph. 39.

4 On Venus & Mercury.

[Margin: Venus & Mercury lords of the art.]

☿ & ♀ either conjoined, or receiving each other fortunately, if they are lords of the art, decree a clever art, & make[130] talkative, light, cheerful, pleasure-loving. They also make Musicians, especially in a sign of Venus, Poets, Orators, dancers, rope-walkers, painters, who also make images out of wax, & seek praise by jesting speeches & witticisms: yet so that the speech savours somewhat of lust & baseness, unless the ray of Jupiter helps. They also make[131] write beautifully. For the virtue of Mercury is of writing, & of ♀ of figuring & painting, & of having hands of subtlety & of magistery. And these significators concur most of all in the nativities of students, pedagogues, schoolmasters & organists.

[Margin: Venus & Mercury mixed with other significators.]

The same with the fellowship of others.

[130] the native
[131] the native

1 If ♄ has aspected both or either, it makes out of a lighter one a somewhat more severe one. But if the aspect was not fortunate enough, it makes either makers or sellers of women's ornaments. For Saturn is the author of cheapness. 2 If Jupiter with its ray has agreed with ♀ & ☿, it makes pedagogues, most of all in 5, 11 & 3: Preachers, Syndics in 9: In 12 rather Advocates, prefects over public offices or over the common people. It also signifies a certain command, with a reputation for piety & learning. In general the combination of Jupiter ♀ ☿ & ☽ brings the greatest sweetness of speech. 3. Aph. 125. For excellent Poets ☊ [?] is for the most part joined together with Jupiter, especially if the testimony of Mercury or ♀ has been added, Cardano [Card.] Gen. 16. 3 If ♂ fortunately supports Venus & Mercury, it makes Poetic & Medical dispositions. He also turns out a good singer, for whom ☿ retrograde is coupled with Venus in the same sign: Almansor [Almans.] near 28. 4 If the Sun with its support illuminates Mercury & ♀, it makes the renown of the art & of the craftsman, & commends him to the magistrate. 5 If the Moon assents to Venus & Mercury, it gives an excellent disposition, & aids the arts of reasoning, it also wins the favour of the common people.

V On Mercury with Mars.

[Margin: Mercury & Mars significators of the art.]

♂ & ☿ having together obtained command of the art, & rightly disposed, make those most acute in disposition, irascible, Physicians, Surgeons, makers of arms & statues, boxers. Chemists, sculptors: Sometimes Notaries, Architects & printers of books, 6 Aph: 36. Badly placed, gamblers, forgers, informers, whoremongers too.

The same with the fellowship of others.

[Margin: The same mingled with other significators,]

1 ♄ associated with Mercury & Mars, makes fabricators of counterfeit coin, thieves, robbers, assassins, makers of poisons, authors of false dice, deceivers & sycophants: 6 Aph. 37. 2 If ♃ assents in place of Saturn, it denotes the industrious, agile, vehement, Jurists, advocates. If the ray of Jupiter is bad, it will make Thrasos, pettifoggers, misers. 3 ☉ or ☽ aspecting Mercury with Mars fortunately, increase felicity. Unfortunately, infelicity. ♂ also & ☿ joined with the Moon and badly disposed, make robbers & thieves. But if ♄ has aspected them, & has been in the seventh place, they will pay penalties for crimes. Also the bad radiation alone of ♄ & ♂ from an angle, can do this: 6 Aph. 118.

VI On Mars & Venus.

[Margin: Mars & Venus significators of the art.]

This configuration mixes Martial things with things of Venus, laborious with pleasant, boldness with flatteries. It makes cooks, sausage-makers, preparers of breakfasts, also outstanding Physicians; if ♂ is either conjoined with Venus, or opposed; or even if they are in mutual reception by domicile, as in ♈ ♉ ♎ & ♏: Likewise Surgeons, barbers, apothecaries, farmers, gardeners, dyers, &

those who skilfully cast metals, silver & gold: 6. Aph. 30. ♂ & ♀ not rightly disposed, signify pandering. Rightly disposed, fabricators of games of arms & of painted garments, Phrygians (who paint with the needle) & ciniflones (that is, parasites, who heat curling-irons in ashes, with which matrons curl their hair) it denotes: 6 Aph. 35. But if it has exchanged place with Mars, it makes an adulterer, and all the more so if it has aspected him, or if it is with a royal one of his nature, 6 Aph. 119.

[Margin: The same mingled with other significators.]

With the fellowship of others.

♂ & ♀ with the fellowship of Saturn, makes those who care for the dead by oration, song, Epitaph, burial, such as are corpse-bearers. The same makes farmers. Nor is this configuration without lust. 2 With the support of Jupiter it makes the most religious, & those devoted to pleasant things, of ecclesiastical duty, writing Epithalamia, diligent fathers of families, rash, and pleasure-loving with danger. 3 Jupiter configured with Mercury & ☽, leads regularly to the courts, & provides actions useful to human society. And let it suffice to have said this much about the nature of the Planets.

Secondly on the nature of the signs.

[Margin: 2 On the nature of the signs.]

In the judgement of the Magistery the signs also must be considered, in which the significator of the art is found. [Margin: Mobile] *For 1 the mobile signs, as* ♈, ♋, ♎, *&* ♑ *conduce to arts, which are occupied in the contemplation of disposition. As to Geometry, Medicine, interpretations, agriculture.* [Margin: Fixed.] *The fixed however also grant learning: Cardano [Card] 2 Aphor, 20, except* ♏. [Margin: Human.] *2 The human signs* ♊, ♍, ♎ *&* ♒, *as human affections, so signify arts proper to man, such as are the liberal, & those which otherwise have the greatest use in life, & are taught with authority.* [Margin: Watery.] [Margin: Earthy] *3 The watery & earthy, as* ♋, ♏, ♓, ♉ *&* ♑, *are occupied about waters & earth, about crops, herbs, medicine, ships, salted foods, funeral matters.* [Margin: Four-footed.] *4 The four-footed, as* ♈, ♌, ♐, *signify mechanical things, butchers, shepherds, builders, tanners, wool-workers, artisans of stones, diggers of metals, 6 Aph. 40.*

[Margin: The doctrine of Albubater.]

Albubater cap. 90 distributes the signs thus: *The fiery* signify the fiery magisteries of iron-smiths, goldsmiths, bakers, glassmakers & the like. *The earthy* signify, the things which come about through the earth or out of the earth; as of potters, masons, diggers, also of surveyors of the earth, above all if ☿ is present. *The airy* signify singers, javelin-throwers, fowlers, millers by wind. *The watery* signify fishermen, washerwomen, fullers. *The wild* signify magisteries of wild beasts concerning Lions, bears, apes. *The human* the more humane arts.

The same author also in the same chapter distributes the things signified concerning the art according to the lords of the sign in this way. The significator of the art, he says, in the house of Saturn without the aspect of a fortunate one,

signifies a bad magistery, wretched, cheap. In the house of Jupiter fortunate, a good, splendid & glorious one. In the house of ♂ fortunate, with disposition & artifice, in which joy & gladness adheres. In the house of ☉ fortunate, it portends a magistery in the affairs of lords and princes with honour. In the house of ☽, a foreign magistery, which a man will make by his cunning & disposition.

[Margin: Other aphorisms to be noted in the judgement of the magistery.]

It is, moreover, to be observed in particular, from the reading of authors & own experience, what the significators have effected in the individual signs, according to the condition of the region & of the families, & it is to be compared with the following Aphorisms. 1 ♄ in ♉, inclines the native to the cultivation of the earth: Albubater [Albubat.] cap. 108. 2 ♄ in ♍ striking the Moon placed in ♋ with an opposite ray, marks a merchant of herbs: The same, cap. 107. 3 ♃ in ♋ removed from the ascendant, but not impeded by any, signifies a native rational indeed, & very skilled in knowledge, but loving a solitary life, and not having praise from his knowledge. Hermes [Herm.] prop. 52. Centil. 4 ♃ in ♍ ☽ in ♓, makes Poets, 3 Aph. 125. 5 ♂ in ♋ occidental, and not aspecting Saturn Jupiter ♀ or ☉, signifies a phlebotomist. Thus ♂ in ♍, a corrupter of men & a lover of the shedding of blood: Hermes 43 prop. Centil. 6 ♂ in ♋, makes those who draw blood from the willing; in ♍, from the unwilling; 2 Aph. 57. 7 ♂ in ♈ ♌ or ♏, makes hunters: It signifies the same when, being strong, it has aspected the lord of the magistery: Leovitius [Cypr.] [Margin: The nativity of Maximilian I the Emperor.] *By way of example there can serve for us the Nativities 1 of Maximiliani I [Maximilian I] the Emperor who had ♂ in ♌ in △ of ☿ the lord of the Heart of heaven.* [Margin: Of Johann Georg Elector of Brandenburg.] *2 Of Johann Georg [Ioannis Georgii] Elector of Brandenburg. who had Mars in ♐ the horoscoping sign, & ✶ ♀ placed in the M. C. in its own sign ♎. For we have learned that they were greatly delighted with hunting. 8 This too it is fitting to notice, that ♂ in ♋ in 12, has some signification with doctrine & learning, & weakens enemies: Cardano [Card] genit. 3. 9 ☿ in the house of ♂, assumes its nature, & if it has been configured with it falling, the native will be a lover of hunting. But if ♂ has not fallen, the native will be a spirited soldier: Hermes 64 prop. Centil. 10 ☿ in ♐ in its own terms and in the ascendant swift in motion, signifies an eloquent & learned one: The same, prop. 46 Centil.*

Thirdly on the houses.

[Margin: 3 On the houses]

It must also be seen, in which house the significator of the art is. For commonly, according to the things signified of the houses in 3 & 9, it inclines more to religion & pilgrimage. In 5 & 11, to pedagogies: In 6 to Medicine. In 10 to political government. In 7 to controversies. In 1 to ostentation. In the second to gain.

[Margin: The things signified by the Planets signifying the art in domiciles:]

In particular. 1 ♄ in the ascendant aspecting Mars placed in the angle of the west, signifies the native a hunter or fisherman: Albubater [Albubat.] cap. 102. ☽ with ☿ in watery signs signifies the same. 2 ☽ in the ascendant, makes one

desirous of divining & knowing future things, most of all in common & mobile signs, 3 Aph 163. 3 ♀ in house 4 unfortunate, signifies a shoemaker: Albubater [Albubat.] cap. 92. 4 ♀ ☿ ♂ in 67 give a physician. Thus those who have Jupiter in the sixth, for the most part become physicians, because it gives riches from the sick.

Fourthly on the extraordinary significators.

[Margin: 4 On the extraordinary significators.]

Where the matter is serious, the whole nativity is to be considered at the same time. For just as it is uncivil for Jurisconsults to pronounce unless the whole law has been inspected: so it is rash to judge concerning the art & profession of the native, before all the questions of the nativity have been examined. For many things are immediately coupled with the art & profession, without which it cannot exist, or exists unhappily. Concerning those, therefore, we shall note a few things here.

[Margin: Rules most worthy of observation]

1 Whoever's life does not reach Youth, will not profess an art: 2 Whoever lacks disposition, will not practise a clever art, wholly or in part. 3 Whoever will scrape together the greatest riches, will practise happily a lucrative art, trade, Juridical, Medical practice, &c. From honoured families also the religious profession is rich. 4 The theoretical arts, as are Mathesis, Logic, Theology, also the clever works of artisans, as of painters, goldsmiths, & those who make clocks artfully, for the most part have poverty as a companion; because ☿ overcomes the other constellations, & ♃ is for the most part unhappily placed, which call dispositions away from the care of the body & of bodily things, & make men intent only on their own art. 5 Those greatly honoured & born of honoured parents, are rarely solidly learned, but rather study eloquence, politics & Jurisprudence, or arms; nor do they handle sordid handicrafts. 6 Illustrious nativities of the poor, raise them from the dung by a divine gift: And this for the most part on account of wisdom; as Ben Sira [Syracides] says cap. 11 vers. 1 The wisdom of the humble man, exalts his head, & makes him sit in the midst of the great. For such, therefore, an excellent craft is to be predicted, & if there is an outstanding significator, learning, or political wisdom. 7 In the nativities of nobles & princes, weakness of the constellation makes learning: Excellence, inclines more to honours & wars. 8 Whoever is to be idle at home, will rarely practise fruitful trade, soldiering, studies. For peregrinations & studies are always joined: And therefore also the learned are for the most part peregrine.

III Question With what success he is to practise the art?

[Margin: On the success of the art.]

In explaining this question regard must be had to the significator of the art.

For 1 if it has been powerful & fortunate, it makes celebrated & happy artisans. Moreover it is understood as fortunate 1 by reason of the essential dignities, above all of house & exaltation. 2 free from the partile & platic evil ray of the

malefics. 3 In the angles, above all in the M. C. or the first. 4 Oriental from the Sun.

2 But an unfortunate significator makes ignoble & imperfect ones in their own art. Moreover it is unfortunate 1 Occidental from the Sun 2 Cadent from the angles 3 injured in a hostile way by the malefics.

3 If the significator has been strong by itself in the essential dignities but yet injured by the malefics, it marks fortune with many adversities & difficulties. From Saturn on account of Saturnine things & persons: Likewise despair, weakness, fear & cowardice. From Mars on account of rashness & infamy, or some manifest violence, through fire & burning. 4 But if both malefics the lord of the magistery have injured, the greatest & manifold adversities are signified, which the native by his own diligence & industry either scarcely or not at all can overcome; Garcaeus [Garc.] cap. 27 libr. de jud. genit. 5 But if also the significator of the art has been in every respect fortunate & happy, & moreover some illustrious fixed star is joined to the Sun or to Jupiter, it is signified that the native will at length leave the art on account of happy success & abundance of wealth. But the significator falling from its dignity or also combust, or solitary, ☿ excepted, signifies that the native will lack an art, or will not use the art which he learned. 7 But if, with the significator of the magistery combust or Retrograde, & being in an abject house 6 or 12, also no Planet aspects the Moon, the native will be a beggar.

[Margin: Our first example]

In our first example *none indeed of the Planets is placed in places suited to the Magistery. But ♂ lord of the M. C. is in the ninth house & in the sign ♓ its own triplicity. Hence we can attribute some signification to it; And although ♃ from the lowest part of heaven regards the Moon combust under the Sun in the sixth house with a □ ray: yet since the Planet is not signifying a craft, & moreover aspects Mars the significator with no ray; it is deservedly excluded from the signification. ♄ finally regarding Mars, strives also to take the signification away from the same. Hence since otherwise well-born families rarely handle crafts, we cannot attribute a definite art to this native of ours; except that ♂ inclines him to the exercises of war, in which he would also have been fortunate, if he had studied them diligently. The ray ✶ of Mars also to Venus & Mercury placed in the sixth house, made him inclined to medicine & the herbal matter, & instilled the care of the sick, in which he experienced happy & prosperous outcomes, on account of Mars strong, placed in the exaltation of Venus, & the house of Jupiter, & irradiating Venus with a happy ray ✶.*

[Margin: The other example.]

[Margin: 1]

In the other example in the first question: Whether the native is to handle an art, the first two rules indeed have no place: For neither ☿ nor ♀ nor ♂ is placed in places suited to the magistery, but they all occupy the 12 house, nor is any of them lord of the M. C. But according to the third & fourth Rules, not only ☿ [?] which regards the Moon placed in the M C with a partile □, but also ☿ the lord of the first, irradiating the Moon with a happy △, are rightly constituted lords of the Magistery; especially

since also none of the malefics infects them. [Margin: 2] *But in the other question in which the quality of the art is to be determined, we look principally to Mercury, because it is lord of the horoscope & of the Nativity, strong, free from the rays of* ☉*, & is aspected by the Moon with a happier* △ *ray, than Venus, which also is combust, although not so partilely. Yet we deservedly join Venus in this judgement, since it is both irradiated by the Moon with a partile ray, & precedes the Sun in the first motion. Hence to the native from the nature of* ☿*, which in its own domicile* ♊ *is mingled with the Moon, to the native we deservedly adjudge an outstanding disposition, & an art which is administered by reason & speech not by hands; such as Philosophy, Oratory, Poetics, &c to which* ♀ *in* ♉*, likewise in its own house, adds elegance, charm, & delight, by which he rejoices not to cling in the shade, but to come forth into public, to please others, & to converse amicably with others.* [Margin: 3] *Finally he would handle these studies of his with greater happiness & success, on account of the significators free from the rays of the malefics, & placed in their own domiciles; unless both were in a cadent, & indeed the 12 house of labours, troubles, & hardships. Yet the rays of Mercury & Venus to the Moon, culminating in the M. C. direct all the studies of the native to common utility.*

Chapter XX.

On the status & honours of the native.

[Margin: The honour of the native depends on the preceding & subsequent things.]

Honours & status, their signification, because it carries many other goods with it, & in Genethlialogical judgements is most beautiful & most useful, demands diligent consideration. Moreover it is compounded Cardano [Card.] 6 Aph. 52 from the preceding & subsequent. The preceding *are family, in-laws, parents, law, which does not allow to be transferred, great conjunctions, & kingship.* The subsequent, *riches, manners, strength, friends and other things of this kind. And for obtaining kingship two of three are always necessary: The conjunction of the family with the succession. Some huge good in the nativity. And its agreement with kingship, 6 Aph. 22. It is easy therefore to understand, why it is lost more easily & more frequently by succession, than what is acquired by one's own powers: 6 Aph. 23.* [Margin: Three questions of dignities.] *We in this place shall treat of three things.* 1 Whether the native will attain honours, or rather will pass his whole life in an obscure & neglected place & condition. 2 We shall consider the quality kind & origin or cause of the honours: And 3 we shall speak of the duration of the honours. Namely whether the native will preserve the status of the honours through the whole life, or rather will lose the honours, & on account of what cause? [Margin: They are dug out & unravelled from five significators.] *But according to Leovitius [Cypr.] & Garcaeus [Garc.] c. 26 & others, these five chief significators are usually employed for deciding these questions: 1 The Luminaries, above all* ☉*. 2 Planets joined to the luminaries, or with the half of their orbs or a happy aspect, surrounding the luminaries, first of all the Sun. 3 The lord of the M. C. For the Middle of heaven is the ordinary place of honours. 4 Planets in the M. C. itself however many*

they may be. Yet stronger is the thing signified of that one, which has been nearer to the cusp. 5 Royal fixed stars of the first or second magnitude not far from the Ecliptic, & in the angle either of the first or of the 10 house, or with the remaining significators. But so that the judgement may be right, the strengths & debilities of the significators must be diligently collected, according to the following table.

[Margin: Table of the strength & debility of the significators of dignity & honours.]

Significators

Are strong		Are considered weak	
In its own house testimonies	4	*Peregrine*	5
Exaltation	5	*In detriment*	5
Reception from domicile	4	*Cadent*	4
Reception from exaltation	6		
Triplicity	3		
Term	2		
Face	1		
♃ or ♀		Malefic	
Strong in the tenth or first	5	*In the tenth unhappy*	9
Significator in 10 or 1	5	*In the eighth*	4
In the fourth or seventh	4	*In 12*	9
Lord of the tenth in the first	2	*In 6*	4
Lord of the first in 10	2	*Without fixed stars*	3
Significator with a fixed star	3	*No fixed stars in the angles*	2
A fixed star alone in an angle fortunate	4		

[Margin: Collection of the testimonies.]

And when the significators have been examined according to this table, the strengths will have to be added separately, & the debilities likewise separately, & according to the winning number it is to be pronounced concerning the first question.

General rules pertaining to the first question.

[Margin: General rules of judgement.] [?]

1 If there are no strong significators of dignity, there is no doubt that the man will be most obscure, such as are the Charcoal-burners, or those who live in woods & fields, rustics, bondservants: And such men attain neither outstanding art, nor wealth. 2 But significators strong in the essential dignities, signify public offices, ample dignities, singular authority in civil society, & the favour of the magistrate. These are signified above all, if they are in the house, exaltation, or reception from the house & exaltation. But in triplicity terms or faces, they make everything middling. Peregrine ones in detriments or fall, promise slight or no dignities 3 Significators in the angles, also increase dignities, especially in 10, after that 7, then 1, lastly 4. For Cardano [Card.] 6 Aph. 50 sets down this order of the domiciles: In the succedents 2, 5 & 11. Likewise 3 & 9 promise mediocrity. In 8 & the remaining cadents 6 & 12 they bestow nothing. But if both happen at once, so that the significator is in its own domicile & in an angle

with the testimony doubled the effect will be more evident. In the same way it can happen that according to both debilities it is weak and unfortunate, and then it displays a twin testimony of no dignities. 4 The Bebenian stars or royal fixed stars, within a distance of 5° with the significators of honours, signify the greatest & most splendid honours Haly part. 4 cap. 11 & Stadius [Stad.] cap. 9 tabul. Berg. But these are counted as the royal fixed stars: Regulus in [numeral: ?]4° 30′ ♌, the Eye of ♉ in 4° 30′ ♊. Hercules or the following head of ♊ in 18° ♋. Spica ♍ in 18° 30′ ♎. The bright one of the Southern scale in 9° 45′ ♏: And the heart of ♏ in 4° 30′ ♐. 5 Those for whom vertical stars culminate, they raise to honours by popular favour. 6 Benefics in 10, decree exceptional dignities. Malefics especially afflicted, deny even middling ones. 7 The lord of the first in 10, or of the tenth in the first, confers great dignities. 8 All the Planets above the earth, unless they are notably afflicted, make the native known to all mortals in life & deeds: 4 Aph. 145.

Special rules. *I On the luminaries*

[Margin: Special rules]

[Margin: 1 On the luminaries.]

1 Each luminary in the same degree of its exaltation, free from the malefics, makes a Monarch, whose seed will hold the lands by inheritance for a very long time: Almansor Aph. 71. 2 The luminary of the time, ☉ in a diurnal, the Moon in a nocturnal nativity, in its exaltation & the middle of heaven, if the ascending sign is royal, & the lord of the sign of the luminary or of the ascendant also stands in the ascendant or M. C., designates kingship for the native, if he is of royal lineage; or if he is not of royal lineage, he will nevertheless be like a king, or a leader & author in the councils of kings: Schöner [Schon.] c. 10 lib. 1 from Haly part 4 c. 11. 3 If the luminary of the time, ☉ in a diurnal, ☽ in a nocturnal nativity, is at the apex of an angle with a royal star, & the superior Planets are oriental from it, the inferior ones occidental, the native even if he is a slave, will ascend to royal dignity: And this will happen the more, if they are in ♈, ♌ & ♐. next in the airy ones: 6 Aph. 50. 4 When the luminary of the time is at the apex of the angle of the royal house surrounded by the Planets as is proper, the native will be an administrator of the kingdom: 6 Aph. 53. 5 But when it is at the apex of an angle without a configuration of Planets, the native will be either among the first with the king without administration, or with administration next to the first: 6 Aph. 54. 6 The fourth status is, when the luminary of the time is not at the apex of an angle, yet the Planets have surrounded it, as is proper: or if at the apex of an angle, the luminary not of the time, is without the Planets' or even with the Planets' testimony: 6 Aph. 55. 7 But if the luminaries in the angles are not themselves surrounded by the Planets either, his status will be similar to the parents: 6 Aphor. 56. 8 But if the luminaries & Planets fall from the angles, he will be wretched & cast down, & perhaps will dwell in villages & towns: 6 Aphor. 57. 9 Those for whom neither luminary at all is found in the cardines nor in a masculine sign, nor are they attended by the benefics, extremely abject & unhappy they are born: 6 Aph. 58. 10 When the lords of the place of ☉ & ☽ & of the ascendant are Oriental from the

Sun and powerful, the native will raise himself to a great status, provided the Moon has not stood in the way: 5 Aph. 79.

[Margin: On the Sun in particular for royal dignity.]

Second on the Sun for royal nativities from 19 cap. lib. de judic. Genit. Cardano [Card.]

The following constellations decree royal dignity: *1 ☉ in the heart of heaven in a fiery sign, & either with ♀ in ♐, with Jupiter meanwhile being in ♌, & Mars in ♈: or with the Sun with ♀ in ♌, Jupiter meanwhile placed in ♐, & Mars in ♈ in the same degrees. 2 If the Sun is disposed with Venus as before, but the Moon instead of Jupiter stands in the same place ♌ or ♐: for Venus in cazimi bestows huge dignities: 3 Aph. 49. 3 Or with the Sun, Jupiter & Mars thus placed in fiery signs, let ♀ aspect Mars & Jupiter with a □ ray from the same degree; above all if the Sun or Jupiter stands with some one of the Bebenian or royal fixed stars. 4 Or if ☉ in ♌ or ♈, ♃ & ♂ in ♌, ♈, or ♐ are in the same degrees, but not with the Sun. 5 ☉, ♂ & ♀ conjoined in the same degree, in the dignities of Venus in ♉ or ♎, near the Pleiades, or other more notable stars, make the native a most powerful king, whom all will listen to of their own accord, but he will be shaken by bad diseases: 5 Aph. 94.*

Third certain things on the Sun, which also promise kingship but less.

[Margin: More on the Sun for illustrious dignity.]

Also bringing royal dignities according to Cardano in 19 c. lib. de jud. gen. are: *1 ☉ ♃ & ☽ aspecting one another by a partile △ from the same degrees. 2 ☉ in the middle of heaven in ♐, & ♃ in ♌ or ♈, with ♀ or a powerful royal fixed star. 3 ☉ in ♋, ☽ in ♏, ♃ in ♏ or ♓.* They provide still less, but nevertheless bestow illustrious dignity: *1 ☉ in its own trigon in the heart of heaven in aspect of ☽ 5 Aph. 78. ☉ in a fiery sign, & the Moon in ♉ promises something greater: Almanf. Sent. 102. 2 ♃ ♀ & ☽ conjoined either in body, or by a good ray partilely. 3 ♃ & ♀ happily conjoined in happy places, namely the middle of heaven, or the first house. 4 ☊ & ♃. Likewise ☊ & ☽ in ♈, ☊ ♐ ♋ ♓ in the heart of heaven in the same degree.*

4 Other things on the Sun pertaining here.

1 Whoever is born at noon of the vernal equinox, even by this alone will turn out great: 5 Aph. 10. 2 ☉ in the first, 10 or 9, signifies natives just & persevering in glory and dignity. 3 When ☉ is in the first with a royal or great fixed star of the nature of fortune in a masculine sign, & ♃ or ♀ in 2, then when ♀ or ♃ has arrived at the Sun by direction, with the Alfridaria consenting: it is impossible that the native not obtain great fortune & dignity for his condition: These same things are signified, if with the Sun standing in the same way in 10, ♃ or ♀ is in the 11 place; Cardano [Card.] c. 19 cited before. 4 When ♀ is in 11, ☿ in 12; ☉ in 1, ♃ in 2, ♄ in 6, ☽ in the 9 house, so many & such great goods will befall the native, that his life may seem prodigious, 6 Aph. 149. 5 ☉ in 10 happy, signifies great power even in youth. 6 If ☉ or ♃ & ♂ or ♄ are in the fiery trigon, & in sublime places, or have aspected one another with mobile fixed stars, the native will be of great name by reason of power, & if ☉ with Jupiter & ☿ in the airy ones in the same way, he will be by reason of industry: 3 Aph. 135. 7 ☉ in the heart of heaven peregrine, in □ ☽ from the 7 house, designates the native the greatest among his own, who nevertheless will die suddenly or by a sudden death:

6 Aph. 138. 8 ☉ in 4, denotes perpetual glory especially with a royal star. 9 ☉ on the cusp of the seventh brings dignity Cardano [Card.] gen. 68, & after the end of life renown of name. 10 ☉ in 6 is adverse to honours, unless it is in △ of the heart of heaven. 11 When ☉ is from the 8 house to the 6, & the three superior Planets from the first to the second, the native will always rise with the greatest impediments, and will be in perpetual increase of fortune. But if ☉ is in 8 & the three superior ones likewise in 8 or 7, the native rejoicing from the beginning in great happinesses will decline with the passing of time, until he becomes wretched 5 Aph. 107. 12 ☉ & ♃ in 2 make splendid: 5 Aph. [numeral: ?]4. 13 ☉ & ♄ conjoined in a masculine sign, in the same degree, in the heart of heaven, make the native of the greatest authority, and of the greatest vigour: Almanſ. ſent. 138, & Cardano [Card.] 5 Aph. 95. 14 ☉ in ♎ & the 7 house joined to Saturn, denies honours. For ☉ falls there, ♄ the author of baseness is exalted. 15 ☉ & ♅ joined, bring detriments in life, & draw the native back from honours, Cardano [Card] genit: 92.

On the Moon.

[Margin: Special things on the Moon.]

1 He cannot experience bad fortune, for whom the Moon is in the ascendant: Cardano [Card.] in genit. 7 of the Emperor Charles V. 2 The Moon in the horoscope by night, found in the signs, in which it rejoices, above all if it is full, decrees great increases of fortune, and gives preference over brothers, in age & merit: Julius Firmicus Maternus [Iulius Maternus] cap. 15 lib. 3. 3 The Moon in the first opposed to the Sun in 7, in the □ of Jupiter, from the fourth, bestows power & riches from magistracy, embassies, &c. 4 ☽ in the ascendant, & the Sun partilely joined to Venus, make a Cardinal: Aph. 50 in genit. tertia, the Cardinal of Prato [Cardin. de Prato]. 5 ☽ in the fourth, signifies a long-lasting, but varied memory of the man. 6 ☽ in ♉ in the ascending line, with the Sun staying in ♌, gives great honours: Almanſ. ſent. 59. 7 If the Moon is with the heart of ♌, but ♃ in the tenth place in △ of Mars and powerful, ☉ with ☊, even if he is the son of a rustic, he will be exalted: 3 Aph. 89. 8 ☽ opposed to the Sun in a nocturnal nativity, makes famous: For then ☽ is above the horizon, & scatters its rays most efficaciously above the earth. 9 ☽ placed with Jupiter in ♋ in the M. C. or ascendant, designates the native of good fortune, & of favour with the king, in whom the king places his trust: Albubater cap. 130. 10 Famous or distinguished men are those, in whose nativities the Moon is illuminated by the rays of many Planets, or is also joined to a powerful royal fixed star: 5 Aph. 17. 11 ☽ ♃ & ♀ conjoined in the heart of heaven, adorn the man with graces. 12 When ☽ & the lord of the ascendant ascend to the apsis of the Eccentric, and do not fall by any chance, & the benefics aspect one another, the native comes to be of renowned name, 5 Aph. 72. 13 The Moon after separation from its conjunction, applying to some Planet being in exaltation or M. C., denotes kingship. 14 Those who have a nativity unhappy for riches & honours, but the Moon with an outstanding fixed star, he, as he sometimes unexpectedly becomes powerful, so in turn is made wretched. 15 ☽ in ♒ or ♓ makes by no means welcome to princes: 5 Aph. 57.

VI On the middle of heaven.

[Margin: Rules on the middle of heaven.] [?]

1 When the M. C. is in the power of the Malefics, so that they dominate, the native will have a middling but perpetual exaltation. If it is in the power of the benefics, he will indeed be exalted much, but will fall at some time: 5 Aph. 106. 2 If the degree of the M. C. is the exaltation either of the Sun or of Jupiter, the name of the native will be spread through the whole world: Schöner [Schon.] cap. 10 lib. 1. 3 ♄ *by day in the 10 house, &* ☉ *placed in the horoscope, make natives leaders, prefects, praetors, & holders of some dignities in their city, according to the condition of the native: and this above all if* ♂ *has joined itself by no radiation. But found by night in the tenth house or in any other cardines, it decrees the greatest evils, especially if it is also found either in the sign or place or bounds of a malign star. And if so placed it is with the Moon waning in a feminine sign he will be so worn down by the burden of poverty, that he scarcely has even the sustenance of daily life. But being with the Moon with the light waxing, it decrees for the native an inequality of life, so that in him who has had Saturn so there is not a like course of one life, but it always turns itself about with changeable diversity: Julius Firmicus Maternus [Iulius Mater.] cap. 3 lib. 3. 4* ♃ *found in the 10 house by day, makes chief decurions of public affairs, & those on whom the greatest honours are conferred by the people, famous ones also, who put themselves forward for the sake of display, & employ luxury in life, above all if no malevolent star has resisted it. But if a malevolent star has attacked Jupiter in 10, he will lose in later life, or even overturn, whatever of dignity, honour, & riches he had in the first age, unless he is fortified by the omen of some benevolent star from the seventh house: The same cap. 4 lib. 3. 5* ♂ *in the 10 house by night in a masculine sign, & either in its own house, or Jupiter's, makes dangerous & often deceived in various kinds, but nevertheless governors, leaders, lords of life and death, and tribunes terrible in provinces & cities. But in the same configuration joined to the Moon, with Jupiter possessing another cardo of the nativity, it makes powerful leaders, and lords of the world. But if the star of Jupiter has deserted the one so placed, nor has joined itself to it by any radiation, it will nevertheless make armed, tribunes, commanders, holding in a lesser dignity nevertheless the power of the sword & of life and death. By day in a feminine sign it makes men ineffective, to whom in all actions various hindrances, damages, & loss of patrimony befall: It also makes prescriptions & condemnations. The same cap. 5 lib. 3. 6 The Sun in the 10 house, or in its own exaltation, or in the house of* ♃*, makes kings, to whom the empire is handed down by the father, or leaders, on whom this much of honour is conferred in a similar way, the paternal honours having been administered, or also administrators, Consuls, proconsuls, on whom these honours are bestowed by merit. But if, with the Sun so placed,* ♂ *has possessed another cardo of the nativity, they will obtain kingdoms, dukedoms, administrations, consulships, through dangers, battles, and through envy. Indeed, if* ♂ *in the setting regards the Moon placed in the horoscope, it makes him who has been so born, whether he has been king, or leader, Consul or administrator, an exile & captive: The same cap. 6 lib. 3. 7* ♀ *in 10 makes famous & crowned, & those on whom great glory & the greatest fortune is conferred: but with Saturn or Mars joining itself, it makes infamous: The same c. 7 lib. 3. 8* ☿ *in 10, matutine, renders admirable & great in their actions. And if either* ♀ *by* ⚹*, or* ♃ *by* ⚹ *or* △ *has aspected it so placed, they will be great, powerful, handling the*

affairs of the greatest cities or of emperors, faithful, benevolent, wise, & serious. But if ♂ by □ or by diameter has sought out Mercury so placed, the promotions coming will be repelled from such by a varied kind of offences, and they will frequently be exiles, or bearing the burdens of some condemnation. But ☿ vespertine signifies travels abroad, & continual changes of places: The same lib. 3 c. 8. 9 The Moon in 10, found by night in the signs in which it rejoices or is exalted, increasing in light, if ♄ has protected it with opportune radiations; it makes the greatest Emperors, or powerful administrators, to whom the power of life & death is entrusted in an easy way, & gives ordinary consulships. But if it closely precedes or follows the part of the M. C., it produces leaders, tribunes, and administrators. The same c. 15 lib. 3. 10 But if the lord of the M. C. has applied to the lord of the ascendant, so that both are Oriental in their exaltations, the native will be great & honoured in the kingdom, & dear to kings. 11 If the lord of the M. C. has been separated from the lord of the first, the native will be unfortunate with kings: Schöner [Schon.] cap. 10 lib. 1.

VII On the ascendant.

[Margin: Rules on the ascendant.]

1 A conjunction of the Planets in the first gives wisdom, in the M. C. kingship, in 7 a famous death, or praiseworthy calamities, in 4 glory after death: 5 Aph. 39. 2 The lord of the ascendant, if it is in the ascendant, the native will be honoured among the nations, & his own progeny: Abenragel [Ibn Abī al-Rijāl] part. 4 c. 9. 3 The lord of the ascendant, if it has applied to a Planet being in its exaltation, & is in an angle, he himself will attain nobility by himself. But if it is in a succedent, his status will be lesser. The same, in the same place. 4 When the lord of the ascendant has aspected the Sun with a benign aspect, or is Oriental, nearest to the Sun, or joined to the lord of the heart of heaven, the native will be loved by kings. But you will have the cause from the nature of the lord of the ascendant itself, and from the place of that one: 5 Aph. 90. 5 ♂ the lord of the ascendant, if it is in the heart of heaven, the native will have cruel power, because he will use badly: 4. Aph. 99.

VIII On the fixed stars.

[Margin: Rules on the fixed stars.]

1 The fixed stars give great gifts, & raise out of poverty to sublimity, which the seven Planets do not do: Almanſ. prop. 27. 2 The fixed stars in the angles bring wonderful happinesses, which, however, they mostly mark with calamities, unless the Planets also agree for happiness: Ptolemy [Ptol.] ſent. 29 Centil. 3 Bright fixed stars bestow great honours: as the two Dog Stars, Sirius & Procyon, standing around the rising Sun, or culminating with the same, furnish distinguished honours, royal power, & the greatest authority with great pomp: Stadius [Stad.] cap. 9 tabul. Berg. & in the Prognosticon from the fixed stars, appended to the Ephemerides: From which we have also derived the following Aphorisms. 4 Regulus, Arcturus, likewise the right shoulder of Orion, or the left of the Charioteer, culminating with the Sun, Jupiter or ☽, signify ample fortune, an accession of means, & excellence of dignity. 5 The Pleiades & hyades culminating or rising with the Moon or the Sun make military leaders, Emperors, tribunes, & masters of the horse. 6 The Head of Medusa culminating with the Sun, Jupiter, or the Moon, gives power of life & death over others. 7 The Eye

of ♉ & the Heart of ♏ [?] with the Sun or ☽, likewise culminating or ascending, open for themselves a rank & access to honours by violence & ferocity, but full of hazards. 8 Spica ♍ is of more benefit toward Ecclesiastical dignities. 9 The last of ♒, Fomahand [Fomalhaut], & the neighbouring ones rising with 12 degrees of ♊, furnish immortality of name. 10 Saturnine Stars attending the Sun entangle in various miseries, & press more heavily. 11 Jovial & Venereal, Likewise Mercurial & Venereal ones in the ascendant, or the heart of heaven, with the Sun or the Moon, accumulate dignities & means: 4 Aph. 120. 12. Stars of the nature of Mercury, ♂ & ☽ with the Sun, confer dignity & glory on the native.

On the second question, namely on the quality & origin of the dignities to come!

[Margin: On the quality of honours.]

It is judged from these two 1 From the nature of the Planet which among the attendants of the luminaries is more powerful, and therefore is the most principal significator of honours, whether it is benign, or malign. Next from the nature & signification of the house in which that one stays.

[Margin: Which is the principal significator.]

But we establish the principal significator according to these 4 rules: 1 If any Planet either is joined in body to the luminaries, or also regards them, above all the Sun, with a partile ray, it is the principal significator of honours. 2 If several Planets are joined to the luminaries, or regard them with any aspect whatever, whether benign or malign, the principal significator is the one which among them is strongest by reason of the essential dignities, & above all regards either luminary with a partile ray. 3 When no Planet is joined to the luminaries, or regards them; the Planet placed in the tenth is taken for the principal significator of honours, or if several stay in the same place, the stronger of these, and according to its nature, quality & cause, the dignities to come are judged. 4 When none is placed in 10, the lord of the tenth house is established as significator of honours, & according to its nature & that of the house in which it stays, judgement is made of the origin of the dignities to come. Cardano [Card.] 6 Aph. 60 says that the disposer of the place of the luminary of the condition shows the cause of power and honour. For the luminaries themselves are not usually considered by themselves.

[Margin: What dignities the individual Planets confer on the native.]

Now that the principal significator of dignities has been drawn out according to some one of these rules: First let it be considered what things & persons it signifies by itself, & from the property of those things & persons let a conjecture be gathered about the quality, causes & origin of the honours which are decreed for the native.

[Margin: ♄]

As, if ♄ is the principal significator of honours; the native will acquire dignity through Saturnine things & persons, as through building, cultivation of the land, inheritances, ample possessions of immovable goods, through success in working metal mines: He will also be promoted to dignities through such men as old, sparing, avaricious, farmers, solitary, serious, &c. [Margin: ♃] ♃ as

Principal significator most often confers Ecclesiastical dignities, through commendations made by famous men, through benefits, through virtue, honesty, probity, Justice, gravity. Likewise through Jovial persons, such as famous men, nobles, kings, ministers of kings, those strong in authority, who will be eager to promote the native to the administrations of public offices, from which he will acquire splendour & esteem. [Margin: ♂] ♂ brings political dignities, from the administration of some office in a well-constituted Republic, or at the court of some king, or prince, or on account of things gloriously accomplished in wars, on account of some office which is discharged through fire: Likewise through such persons, captains, leaders of armies, soldiers, courtiers. [Margin: ♀] ♀ on account of Music, on account of excellence in the art of weaving, on account of charm, refinement, courtesy, through a dowry, through promotions made by friends, procures dignities for the native: And also through such persons, as Musicians, elegant, gentle, humane, weavers, sculptors. [Margin: ☿] ☿ principal significator, promises the native honours on account of the endowments of disposition, on account of excellent learning, prudence, knowledge of many things: Likewise on account of contracts, trade, industry, the invention of some new art: Likewise through similar persons, learned men, Philosophers, clever, merchants, &c. who will be eager to promote the native to offices, from whose administration he can procure authority & esteem for himself.

[Margin: What kind of dignities the houses of heaven signify.]

Next let it be weighed in which station or house of heaven that principal significator of honours adheres, and let its nature & signification be carefully mixed with the nature of the Planet itself.

As when the principal significator is placed in the first house, it shows that the native will obtain honours through his own industry, through diligence, & carefulness in accomplishing the business & actions of his office, especially if ♍ & ♓ hold the cusp of the first: In the second on account of riches: In the third because of brothers & kinsmen, who raise him to dignities & honours; & so on concerning the rest.

On the third question: On the duration of honours.

[Margin: On the duration of honours.]

This is judged from the nature & configuration of the principal significator. For by the rules already handed down, let the principal significator of honours first be established, which is the Planet either joined to one of the luminaries, above all to the Sun; or also striking them with a partile ray; or if several aspect the luminaries at once, the most powerful of these, or if none aspects them, the Planet placed in the M. C., or the 10 house: Or finally if none is placed in 10, the lord of the tenth house. [Margin: It is judged from the nature & strength of the principal significator.] *Next let its nature be diligently considered, whether it is beneficent, maleficent or middling, & let its configuration be weighed, whether it is strong in the proposed chart, or weak.*

[Margin: General rules.]

For firstly a beneficent significator, and strong by reason of the essential dignities, indicates that the state of honours will not only last with a certain ease

through the whole life of the native, but will also from time to time increase. The beneficent moderately affected by reason of the essential dignities denotes honours that will indeed last through the whole life of the native, but with a certain difficulty. Finally the weak beneficent signifies dignities that will indeed last, but without increase & for a time. For they will decrease gradually & will be weakened; but yet in such a way that they never vanish altogether. 2 The maleficent significator of honours, if it is strong & powerful, by reason of the essential dignities, shows that the honours will last through the whole life of the native, but without increase, & indeed with various difficulties, which will sometimes threaten the danger of their loss. But if it has been moderately affected, the honours will indeed last, but with a continual decrease & diminution of the same, yet never the same entirely the native will lose. Finally if the maleficent is weak, it signifies a sudden loss of honours. 3 When ♀[?] is the principal significator of honours, & is happily and well placed, in the beginning the honours will last with remarkable happiness, & will also receive increase: But toward the end of life various difficulties in them will be put before the native, yet they will never altogether vanish. ☿ moderately placed will indeed quite often threaten ruin to the state of the native's honours: nevertheless they will not fall. A weak ☿ shows that the honours will last only for a time, with an unhappy outcome.

These special things too are to be noted.

[Margin: Special rules.] 1 That king will administer the kingdom firmly, whose nativity agrees with the beginning of the kingdom: 3 Aph. 119. 2 When ☉ is in ♎ or ♒ with the good & the bad, or solitary with some fixed star, and a bad direction of ☉ has come together with a bad revolution, the native will fall prodigiously from a perpetual dignity. But if only one of them occurs, that is, either the direction or the revolution only, the native will indeed fall from dignity, but that fall is not lasting: 3 Aph. 54. 3 When ☽ is in the M. C. in ♍, & ♄ or ♂ in the lowest, the native will be infamous. But if ♂ is in ♉, & ☽ in ♏, in the same way, this will be worse & firmer, & there will be misfortunes through the whole time of the native's life: 4 Aphor. 5. 4 Fixed stars in the angles, especially the hyades, Hercules, the Heart of Scorpio. the Southern Scale, in a bad aspect of the maleficent ones, finally cast down again from dignity those whom they have raised out of the dung: Stadius [Stad.] in tab. Berg. cap 8 & 9.

[Margin: Our first example] In our first example *the luminaries are very languid, not only on account of the situation in the sixth but also because they are supported by no essential dignities, except that* ☉ *is placed in its own face: which however can confer little dignity on the native from this. Next* ♃ *indeed looks upon the luminaries with a* □ *sufficiently partile: but because that ray is not benign, the dexter* ✶ *of* ♄ *& the sinister* ✶ *of Mars are preferred, however much those may be platic. But above all we make Mars the lord of honours, because he is both lord of the M. C. & the strongest of the Planets, & alone stands above the horizon; who also signifies Martial honours to him. But when obscure testimonies of dignities are assigned to the native for this reason, that* ♂ *is found in none of his essential dignities other than*

triplicity, there is no reason for us to labour much over the determination of either of the latter questions.

[Margin: The other example.] But in the other example *1 the luminaries are affected in this way, that both have no essential dignities, but are peregrine, the Moon however in the cusp of the M. C. & the Sun in the 12 house: Next* ♀ *is conjoined to the Sun, & the Moon looks upon the same with a partile* □ *ray: the Moon herself however also aspects Mercury with a platic* △. *3 The lord of the M. C. is* ♄, *who in the eleventh house also lacks essential dignities, & is peregrine: And finally no other Planets besides the Moon occupy the M. C. But although the luminaries grant little dignity to the native: Venus however in her own house, triplicity & term, and conjoined to the Sun in the exaltation of the Moon, moreover illuminated by the partile* □ *ray of the Moon, and also* ☿ *lord of the horoscope irradiating the Moon with a* ✶, *promise a certain dignity, which the native acquires on account of the chief significator Mercury, by reason of studies and exercises, concerning which we treated in the preceding chap.; which he handles with industry, skilfully, and not without charm & pleasantness, and attains that dignity, through men gentle, humane, learned, &c. The conferred honours will also last right up to the end of life, on account of the strength of Mercury &* ♀, *although the position of the significators in the 12 house seems to detract something.*

Chapter XXI.

On Friends.

[Margin: Who the significators of friends are.] *In judging about Friends, whom anyone is going to have in life, regard must first be had to the eleventh house; which is assigned to friendships & familiarities, and either the one or the two signs falling in it are to be weighed. Secondly to the Planets, which either are in the 11 house, or also aspect that house with any ray whatever. Thirdly to the Planets in the first house: And fourthly to the lord of the 11, & the other Planets existing with that lord, or looking upon the same with some ray.*

Haly part. 5 cap. 13 joins Venus, as the one who presides over gladness, pleasantness & conversation, & the part of friends, which both by day and by night is taken from the Moon to Mercury, & is projected from the ascendant, as Schöner [Schon.] teaches in the doctrine of the projection of the parts: [Margin: How the part of friends is sought.] Namely the Place of ☽ is subtracted from the place of Mercury, & the ascendant is added to the remainder. *In the first example, when* ☽ *in 28° 32′* ♍ *has been subtracted from Mercury in 6° 40′ of the same sign, there remain 11^{s} 8° 8′: when the ascendant 4^{s} 3° 6′ has been added, the part of friends comes out 3^{s} 11° 14′. It falls, namely, in* ♋ *11° 14′ & the 12 house. In the other example, when the Moon in 6° 25′* ♒ *has been subtracted from Mercury in 0° 14′* ♊ *there remain 3^{s} 23° 49′: & when the ascendant has been added the part of friends falls in* ♎ *4° 4′. the fifth house, namely.*

For from this the following questions can be answered. 1 Whether the native is going to have friends: 2 Of what kind, & 3 how disposed toward the native, whether trustworthy & constant, or indeed inconstant & counterfeit.

On the first question; Whether the native is going to have few friends, many or none?

[Margin: Whether the native is going to have friends.] *In deciding this question, the nature & strength of the significators in the 11 & 1 houses is to be considered.* [Margin: General rules.] *For 1 beneficent ones like ♃ & ♀ well affected, and strong in the said places, signify an abundance of good & useful friends. ☊ in ♊, ♓, ♋, ♉, ♎, & ♌ decrees the same. But weak or badly affected ones signify mediocrity, many indeed but unequal, partly trustworthy or sincere, partly untrustworthy or counterfeit, some useful, others useless: ☊ in ♐, ♍, ♒, ♏, ♈ & ♒ decrees the same. There are those who join ⊕ to weak beneficent ones. 2 Maleficent ones like ♄ & ♂ strong & well affected signify many friends indeed, but for the greater part suspect & counterfeit. Weak ones, to which ☋ also is assimilated, denote few & untrustworthy friends. 3 Middling ones, like ☉, ☽, ☿ & ⊕ well affected, give many middling friends, yet more faithful: Badly affected, few & unfaithful. 4 If several significators of a different nature are placed in those domiciles 11 & first, they signify a mixture & diversity of friends, yet in the diverse signification of many, the signification of the most powerful is to be preferred. 5 But if no Planet is in 11 or 1, let the lord of 11 be considered, whether it is beneficent, maleficent, strong or weak, & according to its nature let it be judged similarly as said.*

[Margin: Special rules.] To these, these special rules can be joined 1 Those abound in friends for whom the benefics are in the 11, 5, 10, 7, 1 & 9 house: But in enemies those for whom in the 12 house, or even in the angles are the malefics. Cardano [Card.] cap. 17 lib. de jud. genit. 2 The one to whom ♋ ascends, he anxiously seeks friends: 2 Aph. 92. 3 ☽ in ♒ & ♓ makes unwelcome to princes: 5 Aphor. 57. 4 If the lord of 11 has been separated from the lord of the ascendant, the native will have few friends, & his companions & friends will abhor him, and he them: Haly part 5 cap. 13. 5 When the Lord of the heart of heaven is separated by retrograde motion from the lord of the ascendant, the prince is hostile to the native: But if the lord of the ascendant by going back leaves the lord of the heart of heaven, the native will hold the prince in hatred: 5 Aphor. 7[numeral: ?]. 6 When the lord of the heart of heaven by retrograding applies to the lord of the ascendant, the native will be very necessary to the prince: 5 Aph. 84. 7 ♄ in 21[132] gives untrustworthy & sluggish friends 8 ♃ in 11, breaks the harms of enemies. 9 ♂ in 11, promises friends not altogether trustworthy. 10 ☉ in 11, bestows friends trustworthy & either powerful themselves, or known to powerful men. 11 ♀ procures friends for the sake of women. 12 ☿ signifies an abundance of friends. 13 ☽ in 11, makes known to many, not a friend. Sometimes also it bestows many friends but few trustworthy. 14 The part of friends in a good state & fortunate, & its lord, likewise also the lord of the ascendant, signify that the native will have happiness in friends, especially if they are angular, & in fixed signs: Schöner [Schon.] cap. 14 lib. 1.

[132]so printed; the houses run from 1 to 12

On the second question: What kind of friends is the native going to have?

[Margin: On the quality of friends.] *This question is judged from the quality or nature of the Planets, which are in 11 or the first, & from the lord of the eleventh.*

[Margin: This is judged from the nature of the significators.] Hence ♄ signifies old men, farmers, sailors, architects, miners, stonecutters, those handling sordid crafts, cobblers, potters, the avaricious, the taciturn, the solitary, usurers & servants. ♃ Ecclesiastical men, prelates, Jurists, nobles, the rich, the powerful, governors of provinces, those holding lordships. ♂ Captains, military men, the bold, the quarrelsome, the combative, Surgeons, smiths, Alchemists, proud craftsmen labouring in fire. ☉ Kings, Princes, counsellors of Magnates, those excelling in authority, those bearing Magistracy. ♀ Musicians, Poets, Apothecaries, lovers, gamesters, urbane men, the cheerful, the effeminate, painters, weavers, sculptors, &c. ☿ the clever, the learned, the wise, excellent artisans, Chancellors, Mathematicians, Merchants. ☽ Widows, noble Matrons, envoys, messengers, sailors, fishermen, bath-keepers, inconstant men, & those eager for new things, &c.

Haly part 5 cap. 13 advises, that the best state in the matter of friends is, if the lord of the ascendant is received by the Lord of 11, the same lord of the 11 house being a Fortune, & in a good place from the ascendant, or in a good state. For if it is so through reception, he will have love & agreement with companions & friends, & profit from them & they from him. But if the Planet has not had power, nor fortune, it will not be able to give, nor to bring in any profit.

On the third question: On the constancy or inconstancy of friends.

[Margin: On the constancy of friends.] *This question is judged from these three 1 From the sign of the 11 house: 2 from the nature of the signs in which the significators themselves are: 3 from the consent of the lords of the 11 house with the eleventh house itself. For as a fixed sign denotes fixed friendships, a mobile one mobile ones, a common one middling ones. So if the lord of 11 has not aspected 11, nor ♀ the lord of her house, nor* the lord of the part of friends has fostered the part itself with any ray, he will not have joy with friends, but will desire to be alone Haly part. 5 cap. 13.

[Margin: Whether there can be consent & friendship between two.] To this place are to be referred the questions by which it is asked: Whether a Young man is going to have a harmonious marriage with a girl? Likewise concerning a Prince, a minister, a Colleague, whether there is going to be consent & love between them? For the explanation of these questions the nativities of both are to be compared, & it is to be seen, whether there is consent or dissent between them. For consent in temperament & manners produces mutual goodwill: Dissent, discord & contention. And since the horoscope, & the Planet placed in the horoscope, preside over temperaments, disposition, & manners: Therefore in this judgement there are to be looked at: 1 the horoscope of each person: 2 the Planets in the horoscope; And 3 the lords of each horoscope; and the friendship of the two horoscopes is to be considered; whether they have the same sign, whether they receive the same Planet, whether a friend, whether

one received from dignity, whether one connected by a good ray. For 1 one & the same Planet in the horoscope of each makes the same manners & the same love: For likeness is the mother of love. 2 If it is not one & the same, but a particular Planet for each, see whether they are friends or enemies. For if they have been friends, they signify friendship, goodwill & consent: if enemies, discords, estrangement of minds, & hatred.

[Margin: Which Planets are friends among themselves, which enemies.] [?] Now friends to Saturn are ♃, ☉, ☽ but foes ♀ & ♂ Yet more ♀ than ♂.

For although ♀ agrees with Saturn in coldness & consent, which it has in ♎, which is the house of ♀, & the exaltation of ♄: Yet it disagrees in manners, since ♄ is the parent of sadness, Venus the mother of joy.

Jupiter has Mars alone as a foe.

Mars Venus alone as a friend. Yet ♀ abhors him, because of the contrariety of nature, which is hot & dry, since ♀ is cold & moist. But it diminishes his evil & misfortune through gentleness, & good words. All the remaining Planets hate Mars, especially ♃ & ☉.

The Sun has only Jupiter & Venus as friends: All the rest as enemies.

Venus has Saturn alone as a foe: All the rest as friends.

Mercury has as friends ♄ ♃ & ♀: The rest as enemies.

The Moon has as friends ♄ ♃ & ♀: The rest also as enemies.

☊ has as friends ♃ & ♀. But ☋ has as friends ♄ & ♂.

3 Let the Lord of the horoscope be looked at, which also unites the minds of two with each other under these 4 conditions. 1 When it is the same Planet. 2 when it is received by the other from house or exaltation. 3 when it is conjoined to the lord of the horoscope of the other. 4 when it stands in △ or ✶ of the other. But those whose births do not agree according to one of these rules rarely foster lasting friendships. [Margin: Rules of Cardano.] Here too rules can be observed, which Cardano [Card] cap. 17 lib. de jud genit. hands down. 1 When in the nativity of two, the places of the benefics or of the luminaries are exchanged with the benefics, so that one has Venus, where the other the Moon, then the fellowship is sure & trustworthy. 2 But if ☉ and the Moon, or ☿ and ☽, or ☉ and ☿ exchange places, the goodwill will be less complete. 3 If ♄ & ♃, or ♀ & ♂ are exchanged, there will be hatreds mixed also with friendship. And ♃ indeed mixed with Saturn joins some for the sake of avarice. ♂ with Venus, of shameful vice. 4 If ☉ or ♂, are opposed to the Sun Mercury or ☽ of the other nativity, the one will bring harms to the other.

But he over whom the Malefics rule is worse in mind. But hatred is in equal measure, where ♄ is opposed to the Mars of the other nativity. 5 When the places of the benefics in the different nativities are opposed to each other, they will fight with mutual gain, like advocates, Merchants, & Physicians. 6 If the Malefics have come together in the different nativities, they will be friends to each other in an evil work, & for the most part untrustworthy. 7 ☉ exchange makes friendship on account of honour, seemliness & glory. ♃ for utility. ♀ for pleasure, ☽ for agreement of nature: 3 Aph 83. 8 The best & firmest friendship

between two is, if the Sun ☽ ⊕ or the lord of the ascendant of the one, is in the same sign, in which it is in the birth of the other. And if it happens, that two or three of these significators agree in signs, the love will be firmer: Haly part. 5 cap. 13.

[Margin: Which of the friends is more sincere.] Lastly, whose love is going to be more sincere is known from these three rules: 1 He loves more, whose lord of the horoscope is a benign Planet, or also a more benign Planet in the horoscope; or whose lord of the horoscope has a sinister △ or ✶ to the lord of the other's horoscope. 2 He hates more, who has the more malign lord of the horoscope, or Planet in the horoscope. 3 They never agree, in whose figures, the sign which ascends for the one, is for the other in the 12. or 6, or 8 abject houses.

[Margin: Our first example.] In our first example ♉ a Venerean sign holds the cusp of the 11 house, the remainder the Mercurial ♊. And although none of the Planets is in 11, yet into it fall the sinister △ of Jupiter, & the dexter of ☉ and ☽, likewise the □ of Mars. ♌ a Solar sign occupies the first house, & the part of friends falls into ♋ the 12 house, the opposition of the Sun & ☽. Hence we ascribe to the native a certain variety of friends, especially since ♀ & ☿ lords of the eleventh are in the same sign with the Sun lord of the ascendant. Of all of these the Jovial & Solar most favour the native, such as Jurisconsults, Princes, nobles, Ecclesiastical men endowed with authority, & those living in magistracy. The quarrelsome & the bold are hostile to the native because of the □ of ♂ to the sign ♊, nor are those who are admitted into familiarity found faithful, which is to be understood the same of Surgeons, Alchemists, Physicians, who are angry with the native on account of certain artful things, but it is supported by the △ of Jupiter, which falling from ♎ into the sign ♊, favours Mercurial works. Venus also, mistress of 11, arouses the friendship of Poets, Apothecaries, painters, sculptors & urbane men, and of women, in which however the native can trust little, because it is peregrine; in a mobile sign, & in the sixth house, although its fixed sign ♉ holds the cusp of 11.

[Margin: The other example.] In the other example the cusp indeed of the 11 house ♒ a Saturnine sign. But the remainder of that house occupies not only ♓ a Jovial sign & the exaltation of ♀, but also a certain extreme part of ♈. Next, ♄ is bodily in 11, & into the same house ♀ indeed & ☉ have ✶, ☿ □, & ♃ an opposite ray. Third, ♊ a Mercurial sign holds the first house, in whose beginning ☿ itself stands. Lastly ♃ has a partile opposite to Saturn placed in 11, & the part of friends falls into the sign ♎ the fifth house. Hence since the variety of significators is great, we also adjudge to the native a variety of friends, of whom some are faithful, others unfaithful. And although by reason of Saturn he associates with old men, farmers, taciturn men, the solitary & the avaricious; by reason of Venus with Poets gamesters & urbane men; by reason of Jupiter & ☉ with Jurists, Counsellors, Ecclesiastical men, & those bearing magistracy: by reason of ♂ with Captains, Surgeons, Physicians, &c. & lastly by reason of Mercury with the learned, the wise, & Mathematicians: yet since ♄ & ☿ are

most strong in the nativity, the principal signification is rightly attributed to them, and he spends the greatest part of life in the friendship of the Mercurial & the Saturnine. Further, a more constant love is expected from the Mercurial, because ☿ is supported by the △ rays of ☽ & ♃, is stronger and in the first house, whereas ♄ is peregrine, and less strong, & is afflicted by the opposite of Jupiter, & otherwise in 11 denotes untrustworthy friends. Yet both are in common signs, & promise moderation.

Chapter XXII.

ON ENEMIES.

[Margin: Four significators of enemies.] *When judgement is to be given about enemies, then these 4 significators are chiefly to be considered. 1 The 12 House, and its lord. For it signifies covert & hidden enemies, that is, those who indeed are not openly hostile to the native, but by face, words, and outward gestures display a certain goodwill; yet secretly lay snares, and obstruct the native's interests. 2 The seventh House, and its lord. For this, because it is opposed to the first, which concerns the life & state of the native, signifies open enemies, who are publicly hostile to the native, and manifestly declare themselves to be his enemies. 3 A Planet, one or more, placed in the 12 & 7 house: And 4 Planets looking at the Sun & the Moon with a ☍ ray. To these some not badly add Saturn, as being the chief significator of hatreds among men. For from the consideration of these significators, answer is made to these following questions.*

I Whether the native is going to have many enemies, few or none?

[Margin: Whether the native is going to have enemies.] *This question is decided from the multitude or fewness of the Planets in these places.*

For 1 many Planets placed in the said two domiciles, or also the luminaries looking with an opposite ray, signify many adversaries; few, few; & none, none. Yet ☊ & ☋ are made equal to the Planets. 2 But if also no Planets cling in these two places, & none are opposed to the luminaries, judgement is to be taken from the houses of these places, and then few enemies are denoted. 3 The Almuten of the first in 12, or 12 in the first: Likewise the lord of the seventh in 1, or of the first in 7, signify many enemies, even if neither are any Planets placed in 12 or the first, nor any opposed to the luminaries. 4 The same Planet also lord of the twelfth & of the first, increases enemies. 5 But if the lord of the twelfth has not aspected the lord of the ascendant, fewness of enemies is signified: Schöner [Schon.] cap. 14 lib. 1: & Haly part. 5 cap. 14.

II Question of what kind of enemies the native is going to have, whether open or hidden, & of what state & condition?

[Margin: Of what kind the future enemies are.] [Margin: This is known from the nature of the houses.] *This is known: 1 from the very condition of the domiciles. For the twelfth house hidden. The seventh exhibits open enemies. Thus Planets opposed to the luminaries, especially to the Sun, denote open enemies: And ♂ by itself also open: But ♄ & ☿ designate hidden enemies.* [Margin: And of the Planets.] *2 From the Planets which are placed either in the 12 or 7 houses: For ♄ in the 12 house or its Almuten decrees for the native old, envious, vile enemies from the*

crowd: ♄ the wise, Jurisconsults, nobles & clerics: ♂ Captains, soldiers: ☉ Magnates, parents: ♀ the womanish, gamesters: ☿ the lettered, scribes: ☽ common men, etc.: Haly part. 5 cap. 14. [Margin: And by the position of the same.] *3 From the position of the Planet. For the signification of a Planet follows the nature of that house in which it is bodily, more than that of which it is lord. Hence if it happens, that one and the same Planet signifies friends & enemies: as when the lord of 11 is placed bodily in the 12 or seventh house, then friends more ill-disposed than well-disposed to the native are signified: On the contrary, however, if a Planet which is bodily in 11, is lord of 7 or 12, enemies more inclined than adverse to the native are signified. Also the lord of 7 or 12 in the first signifies more friends than enemies, & the lord of the first in 7 or 12, more enemies than friends.*

[Margin: On the power of enemies.] III Question: On the strengths or power of enemies, whether it will be none, great, or weak?

We reason out this very thing 1 From the nature of the Planets which decree enemies? Which, if they are benign, signify powerful enemies; if malign, vile & obscure ones. 2 From the place of the celestial figure in which they are placed. Hence if they are in the angles, benign as well as malign, they signify powerful enemies: In the succedents middling ones: In the cadents vile ones. 3 From their strength by reason of the essential dignities. Hence placed in the chief essential dignities, as house & exaltation, powerful enemies: In triplicity, terms, & faces middling ones. But peregrines in detriment, or fall, signify obscure & vile ones.

[Margin: On victory.] IV Question: On victory, whether the native will conquer his enemies, or will be conquered by them?

The native conquers his enemies, nor can he be overwhelmed by them, when the significators are placed in this manner, as the following Rules taken from Cyprianus & Garcæus show:

[Margin: Rules of Cypr.] 1 The lord of the house or of the exaltation of the seventh, if he is placed in the 10 house, or the lord of 10 in the seventh: Likewise 12 in [numeral: ?], or of the tenth in 12, provided he is not in the house of a malefic, promises the native manifest victory. For the tenth house & its lords signify victory. [Margin: Nativity of Maurice, Elector of Saxony.] Such is the Nativity of *Maurice, Elector of Saxony*. For ☽, mistress of the exaltation ♉, which occupies the seventh house, is placed in the 10 house in ♍. 2 The lord of the twelfth, weak by retrogradation, fall, detriment, or placed in the sixth, signifies weak foes. [Margin: Of Maximilian I, Emperor.] As in the nativity of *Maximilian I, Emp.* ☿, lord of 12 in ♈, the essential dignity of Mars & exaltation of ☉, platically conjoined to the Sun & retrograde, signified many brilliant victories. 3 The luminary of the condition in the essential dignity of ♂, & with him in exchanged signs, that is, received, yet outside the 8 house, decrees manifest victory. Such a reception of Mars & ☉ is in the nativity of *Maximilian the first*. For Mars in ♌, ☉ in ♈ look at each other with a partile △. 4 ♂, strongest among the Planets, surrounding one luminary, signifies the same. 5 Also the lord of the ascendant & his helpers, if they are firm, the native will be happy, & victor over his enemies. But if the lords of the 12 house & 7

are powerful, the enemies of the native will be strengthened against the native, & will conquer him: Haly part. 1 cap. 14.

To these rules let others be added from Schöner [Schon.] cap. 14 lib. 1.

[Margin: Rules of Schon.] 1 ♄ or ♂ strong in the 12 house denote that the native will see the ruin of foes, but if there they are unfortunate through debility, they signify the contrary, & debility of the limbs. 2 One of the malefics in 12, the other in 6, signify that the native will be killed by enemies, or else be afflicted with perpetual ill-health or prison. 3 ♃ or ♀ lords of 12 signify that enemies cannot harm the native, but he will escape happily. 4 Those for whom ♊, ♐ or ♒ ascend, they themselves provoke their enemies. 5 ♌ or ♐ in 12, & a Planet unfortunate in the same, signifies that the native will fall from a horse, or a beast, & so die.

[Margin: Whose company is to be shunned.] In place of a coronis it is also to be noted here: 1 that the company of that man is to be shunned, whose lord of the ascendant is a Malefic, with the node or an evil fixed star, and whose nativity is not in harmony with yours. For he will offend you against his will: 2 Aph. 146. 2 That if the luminaries of one Nativity afflict the luminaries of the other from □ or ☍, cruel enemies & perpetually estranged are signified Garcaeus [Garc.] cap 30. [Margin: Which of foes conquers.] 3 That of two foes that one conquers, who has more & more evident significators of victory & of fortune. Garcaeus [Garc.] ibid. [Margin: Comparison of the Nativities of Charles V, Emp. & of Johann Friedrich, Elector.] The nativities of Charles V, Emp. & of Johann Friedrich, Elector of Saxony, of which we shall set out the former in the following chapter, but had the latter at pag. 609, he compares in this manner. In both there are testimonies of victory that are quite notable indeed, but in the former more manifest, in the latter more obscure. For 1 Charles had the Moon, the luminary of the condition, received by Mars, from the height: Johann Friedrich, however, the lord of the 12 house in his detriment & in the seventh house. Next the configuration of the Planets in the nativity of Charles is happier than in the chart of the Elector. For Charles V had one luminary received from the height, & the Sun in ♓, conjoined to the benefic Planets, each of which was in its essential dignities, & in a watery sign, which by reason of the △ of that one, which then flourished, was most effective. Thirdly the Elector had the three superior Planets in their detriments, & the Sun wholly peregrine, and very many Planets falling into the seventh house of open foes. Hence since the Nativity of Charles V is much more powerful than the other, he easily came out victor.

[Margin: Our first example.] In our first example, *the significators of enemies are the Moon, mistress of the twelfth, & ♄ almuten of the seventh But there are no Planets in 12 & 7, nor are any opposed to the luminaries. Also the mistress of the twelfth ☽ does not look at the Sun, lord of the horoscope, but is conjoined to him: hence either no or very few enemies are signified for the native: And these indeed Lunar or Saturnine, vile, of no worth: because the Moon is in detriment, & ♄ peregrine*

in the fifth succedent house. Hence since the enemies of the native are not powerful, we judge that there is no need to advise anything about victory as well.

[Margin: The other example.] In the other example, *the lords of the twelfth house are ♂ on account of ♈, & ♀ on account of ♉, both of which signs hold the twelfth house, then the lord of the seventh house is ♄. But although thirdly & 4 no Planets are opposed to the luminaries, nor is anyone found in the seventh; yet four occupy the twelfth house, namely ♂, ♀, ☉, & ☿. Saturn too is opposed to Jupiter in 11: hence more hidden enemies are signified for the native, who indeed do not openly set themselves against the native; yet secretly they themselves lay ambushes, and harm his interests, especially since the lord of the seventh, Jupiter, also looks at Mercury, of the first, with a platic △. But it is best that the lords of the twelfth ♂ & ♀ do not aspect Mercury, lord of the ascendant: otherwise the number would be increased beyond measure, especially since both ♂ & ♀ cling in their own domiciles in 11.*

But the enemies are for the most part Martial, Venereal, few Solar & Jovial. And the Martial ones indeed, who handle either arms or fire, as soldiers, founders, cooks, Chymists, &c. showed open enmities in the first years, which they sometimes betray even now, since ♂ is very near to the cusp of 12. But the Venereal ones, as women, painters, gamesters, although they are hostile to the native & try to hurt: yet they are weak because of Venus placed under the rays, and those of them who have some strength from the essential dignity of Venus, they indeed press the native for a while, yet do not overwhelm, because of Mercury, lord of the first, strong & fortunate. The Solar & Jovial, as Magnates, Counsellors, Jurists, & Ecclesiastical persons, if any are hostile, harm the native little, since the Sun & ♄ are weak & peregrine, & ♄ also besides retrograde. Moreover the Martial enemies have some power & dignity, because ♂ is the strongest among the Planets after Mercury. There is less dignity in the Venereal, because ♀ [?] lies hidden under the rays.

But the Jovial & Solar are wholly vile & of no esteem, because in the chart ☉ & ♄ are extremely weak. Finally ☿, lord of the first, provides the most certain signs of victory, who after GOD so fortifies & protects the native against the assaults of enemies, that, since there are no hostile rays to him & to the luminaries, the enemies are by no means able to pour out their bitterness, and to insult the native.

Chapter XXIII.

On the captivity & hardships of the native.

Judgements of prison are usually sought among other Genethlialogical ones, so that it may be known: Whether the native is going to suffer prisons & chains, or will lead a life free & safe from prisons?

For he who is wise prepares the mind for every fortune, And can lighten by art an evil foreseen.

[Margin: Which the significators of prison are.] *But the significators of prison are: 1 The luminaries ☉ & ☽. For although by themselves they are not significators of prison, yet, afflicted by others, they show them. 2 The malefics ♄ & ♂. 3 The Houses 12 & 7, & the Planets occupying those houses.*

Cardano [Card.] cap 22 suppl. Alman. teaches the same with us. ♄, he says, & the house 12, signifies prisons, labours, & hidden foes. ♂ & 7 contention,

quarrels & open foes. And 6 Aph. 141: consider the house 12 & 4, & their lords, & the Planets existing in them, for prisons, & ♄ is their proper significator.

[Margin: Rules on the luminaries.] [?] *That we may deal with the individual significators in order, at the start we shall hand down rules on the luminaries from Cyprianus & Garcaeus [Garc.] cap. 34.*

1 One luminary in some angle, hurt by one of the malefics ♄ or ♂ by conjunction □ or ☍, signifies prison; especially, if either both or one luminary are placed in the houses of the malefics, ♈, ♏, ♎, ♒, or ♓, or also in signs having violent stars, as ♉, ♊, & ♐, but the other malefic in the houses of the luminaries ♋ or ♌. Yet care must be taken in this rule, that the luminaries & the malefics are not found in their principal dignities, and are not with the benefics in exchanged signs. For if they are placed in this way, only dangers of captivity threaten. Of this position there are countless examples, even in the nativities of the greatest princes. [Margin: Nativity of Maximilian I, Emperor.] *For to Maximilian the first, Emperor, ☉ in the angle of the west, hurt by the □ of Saturn from the lowest part of heaven, with both luminaries in the houses of ♂, & besides with Mars placed in ♌, signified captivity, which befell him, newly elected to the empire, at Bruges among the Belgians, from his subjects through a sedition, in the Year of Christ 1487, of age 28, when the horoscope reached the opposite of Mercury, lord of the twelfth house. Afterwards however he was freed by the father Frederick, Emperor, with the help of the Empire.* 2 One or other luminary in 12, conjoined with one of the malefics, if besides it is feeble, and has no dignity, signifies prison, as if ☉ & ♂ are conjoined in ♋, they denote prisons: because there the Sun has no dignity. But the Moon & ♂ in ♋ cannot signify prisons, because the Moon has in ♋ the dignity of house. [Margin: Of Christian, King of Denmark.] *To this rule belongs the nativity of Christian, King of Denmark, which we set out above cap. 2. For he had the Sun in ♋ conjoined to Mars in the house 12. Therefore he was captured & stripped of the kingdom by Christian, Prince of Holstein & the maritime cities of Saxony, & died in prison in the year of age 78.* 3 ♂ in 7 or in the houses of the malefics or of the luminaries, or of those having violent stars, of which kind are ♈ ♏ ♎ ♒ ♉ ♋ & ♌, one luminary being hurt at the same time by him or by Saturn partilely or platically, threatens prison.

Diagram. Nativity figure, upper left of the plate.

- Central box: Charles V, Emperor, is born at Ghent in Flanders. Year 1500. February; day 23, $16^{h}\ 49^{m}$ P.M. Elevation of the pole 51° 26′.
- Top compartment: ♏ 16° 54′
- Upper-left corner, upper triangle: ♑ 12° 18′; ♐ 2° 20′
- Upper-left corner, left triangle: ♐ 17° 30′; ☽ 6° 50′
- Left compartment: ♀ [?] 10° 25′; ♒ 28° 38′
- Lower-left corner, left triangle: ♃ 7° 30′; ☉ 14° 32′; ☿ 19° 56′ ♓; ♀ 26° 51′
- Lower-left corner, bottom triangle: ♈ 21° 37′
- Bottom compartment: ♉ 16° 54′; ♄ 17° 40′; ♂ 24° 41′
- Lower-right corner, bottom triangle: ♊ 2° 20′; ☊ 12° 18′
- Lower-right corner, right triangle: ♊ 17° 30′

- Right compartment: ♋ 10° 25′
- Upper-right corner, right triangle: ♌ 28° 38′
- Upper-right corner, upper triangle: ♎ 21° 37′

Diagram. Nativity figure, upper right of the plate.

- Central box: Born: Albrecht Alcibiades [Albertus], Margrave, son of Casimir. Year 1522. March; day 28, 4^{h} 54^{m} P.M. Elevation of the pole 49° 25′.
- Top compartment: ♊ 29° 26′
- Upper-left corner, upper triangle: ♌ 8° 5′
- Upper-left corner, left triangle: ♍ 6° 52′
- Left compartment: ♍ 29° 33′; ♉ 4° 59′; ♉ 9° 32′
- Lower-left corner, left triangle: ♑ 22° 13′
- Lower-left corner, bottom triangle: ♏ 20° 52′
- Bottom compartment: ♐ 29° 26′; ♃ 24° 14′ ♈ [?]
- Lower-right corner, bottom triangle: ♒ 8° 5′; ♄ 24° 32′
- Lower-right corner, right triangle: ♓ 29° 33′; ♓ 6° 52′
- Right compartment: ☉ 17° 15′; ☊ 4° 59′; ♂ 4° 12′; ♀ [?] 2° 3′
- Upper-right corner, right triangle: ☽ 27° 14′; ☿ 24° 44′; ♈ 22° 13′
- Upper-right corner, upper triangle: ♉ 20° 52′

Diagram. Nativity figure, lower left of the plate.

- Central box: Born: Caspar Peucer [Casparus Peucerus], Doctor of Medicine. Year 1525. January; day 5, 12^{h} 0^{m} P.M. At Bautzen.
- Top compartment: ♋ 25° 45′; ♉ 11° 17′ ♌
- Upper-left corner, upper triangle: ♍ 3°
- Upper-left corner, left triangle: ♍ 28°; ♂ 13° 25′ ♎
- Left compartment: ♎ 19° 39′
- Lower-left corner, left triangle: ♏ 13°; ♀ 9° 13′
- Lower-left corner, bottom triangle: ♃ 14°; ☿ 6° 52′
- Bottom compartment: ♑ 25° 45′; ☉ 25° 45′; ☊ 11° 17′ ♒
- Lower-right corner, bottom triangle: ♓ 3°; ⊗ 5° 44′; ♄ 18° 31′
- Lower-right corner, right triangle: ♃ 16° 47′; ♓ 28°
- Right compartment: ♈ 19° 3[numeral: ?]′
- Upper-right corner, right triangle: ☽ 11° 50′; ⊗ 3° 34′; ♉ 13°
- Upper-right corner, upper triangle: ♊ 14°

Diagram. Nativity figure, lower right of the plate.

- Central box: Born: Wilhelm [Guilhelmus], Duke of Jülich. Year 1516. July; day 28, 4^{h} P.M.
- Top compartment: ♑ 8° 18′
- Upper-left corner, upper triangle: ♏ 9° 28′
- Upper-left corner, left triangle: ♏ 26° 53′; ⊗ 5° 19′; ♄ 10° 59′
- Left compartment: ♐ 18° 38′; ☊ 24° 33′ ♑
- Lower-left corner, left triangle: ♒ 0° 18′
- Lower-left corner, bottom triangle: ♓ 3° 12′
- Bottom compartment: ♈ 8° 18′; ♂ 7° 42′

- Lower-right corner, bottom triangle: ♉ 9° 28′
- Lower-right corner, right triangle: ♉ 26° 53′
- Right compartment: ♊ 18° 38′; ☊ 24° 33′ ♋
- Upper-right corner, right triangle: ☉ 14° 22′; ☽ 4° 3′; ♃ 3° 47′; ♌ 0° 18′
- Upper-right corner, upper triangle: ♍ 3° 12′

[Margin: Of Albrecht, Margrave of Brandenburg, son of Casimir.] *Refer to this the nativity of the Most Illustrious Prince Albrecht, Margrave of Brandenburg, son of Casimir. For* ♂ *in* ♈ *in the seventh is joined platically to the Sun, &* ☽ *in 8 is afflicted from the fifth house by the sinister* ⚹ *of* ♄*, which in signs of long descensions is equated to a quadrate.* He was therefore captured *in the Year of the Lord 1547, on the 2nd day of March, by Johann Friedrich, Duke & Elector of Saxony, at Rochlitz, a town of Meissen.* [Margin: Of Caspar Peucer.] Likewise the Nativity of Caspar Peucer. *For* ♂ *in* ♎*, the exaltation of* ♄ *& his own detriment, from the 12th house afflicts with a sinister* □ *the Sun placed in the lowest part of heaven in* ♑*, & Saturn from 5 the Moon clinging in the eighth with a like* □ *ray: hence he was held in captivity for almost 12 years, from which however he was freed by the help of the Most Illustrious Prince of Anhalt, Joachim Ernst, with the partile* ⚹ *of* ♀ *to Mars, & the* ☍ *of* ♃ *to the same in the* △ *of* ♀*, indicating that very liberation.*

4 ☉ & ☽ conjoined in the 8 house in any sign whatever, yet outside ♋ & ♌, mostly signify prison, unless they are propped up by some notable irradiation of the benefics. The luminaries conjoined even in proper domiciles, & hurt by the malefics, threaten the same. [Margin: Of Wilhelm, Duke of Jülich.] *In this way the luminaries were conjoined for the Most Illustrious Prince Wilhelm, Duke of Jülich & Cleves, in the eighth house, in* ♌ *the proper domicile of* ☉*, with Mars striking the luminaries with a* □ *ray from* ♏*, & Saturn with a* △ *from* ♐*. He was therefore captured in the Year 1543 in war by Charles V, & Gelderland was snatched from him.* 5 ☉ in 12, signifies prison, sadness & enemies. 6 The Moon mistress of the ascendant peregrine in 12, in the △ of ♄ from the eighth, threatens prisons: Genit. 76 Cardano [Card.]

Afterwards let these rules on the malefics be observed.

[Margin: 2 Rules on the malefics.] 1 ♄ or ♂ conjoined with each other, or beholding each other with a □ or ☍ ray, outside the domicile, exaltation, or reception of the benefics, or of the luminaries, if both or one is direct, & claims dominion for itself in the 7 or 1[numeral: ?] house, threaten prison. 2 They threaten the same, if opposed from their dignities. or in exchanged signs, one of them occupies the first or second house, the other the seventh or 8, with one ruling the sign of the twelfth. 3 The Malefics on high & cadent, signify prisons & sudden death, yet not violent: Cardano [Card.] gen. 31. [Margin: Nativity of Cornelius Agrippa.] 4 The Malefics in the angles, & ♂ especially in M. C. signified prison to *Cornelius Agrippa*. He was therefore captured as a heretic, because of ♉ in the ascendant & remained in prisons for more than a year: Cardano [Card.] genit. 67. 5 ♄ in 12, signifies prisons, hidden foes & great dangers. It also threatens gout: And in the sixth house a perpetual disease or everlasting prisons: 5 Aph. III. 6 If ♄ or ☿ are impeded in the sixth, 12, or even

8 place, they thrust the native into prison. But if evil fixed stars are with these or with the impeding Planets, or ☉ with them without the help of the benefics, the native will be punished with death: 4 Aph. 128 7 It also usually happens, that if ☿ is impeded in 6, the native dies in prison. *So* ♄ in 12 threatens prisons, & if ♀ is in 8, a headlong fall: Hermes prop. 95 Cent. 8 ♂ in 12, signifies infamy, faithless servants, & prisons. 9 ♂ joined to Venus in 8, in the ✶ of Saturn, from house 6, condemns the native to perpetual prisons: Cardano [Card.] gen. 81. 10 ♂ lord of 12 & ☿ unfortunate in 7 or 4, And ♃ with them in the same sign, & in his own term, signifies that the native will be fortunate after miseries & prisons: Albubater [Albub.] cap. 145. 11 ♂ unfortunate in the ascendant, & beholding the Moon with an evil aspect, signifies prisons to the native: Idem ibidem. 12 ♄ ♂ & ☿ combust in the west, & the unfortunate lord of the twelfth striking them with an evil aspect, signifies to the native many evils on the occasion of the wife and sons, indeed even prisons because of them: Albubater [Albub.] ibidem. 13 When ♀ mistress of the sixth is found existing in the twelfth place, & is coupled to retrograde Mars by an unhappy ray, then many evils befall the native, & he is imprisoned on the occasion of women, Idem. 14 ♄ ☽ & ♂ conjoined in the fourth house, or one hurting the others with an evil aspect, signifies prisons & sadness and fear. 15 ♄ & ♂ conjoined in one sign in 12 unfortunate, signify grave evils & prisons.

Third, on house 12 & 7.

[Margin: 3 Rules on house 12 & 7.] 1 The lord of the twelfth in essential dignity ♂, in 7 partilely condemned by the malefics, threatens captivity. 2 The lord of 12 in detriment or fall, condemned by the malefics either partilely or platically, portends prison. 3 ☽ & ♄ unfortunate & conjoined, & bound from an evil place to Mars, lord of the twelfth, peregrine & retrograde, in the 6 house, threaten many evils & prison: Albubater [Albub.] cap. 145. 4 If the lord of the ninth is combust in one of the angles, it will signify that the native is captured on a journey: Albubater ibidem. 5 The lord of the twelfth if he is joined to the lord of the ascendant, & both are in house 4, or 6 or 8, or 12, & the lord of the ascendant is unfortunate, the native will be thrown into prison. Johannes Hispalensis [Hispal.] cap. 18. 6 In a like way if the lord of the ascendant is retrograde, or under the light or rays, & in some angle in the aspect □ or ☍ of the lord of the 12 house, it portends captivity: Hispal. ibidem. 7 ☉ ♄ ♂ ☽ & ♀ conjoined in 12, signify prison, & such are mostly raving. 8 ♃ ♄ & ♂ conjoined in one sign in 12, & unfortunate, signify grave evils & prisons. 9 ♀ mistress of the 6 house conjoined to Mars, & ♃ in 12, signifies that the native will suffer prisons for the sake of women. 10 ☉ ♂ & ☿ conjoined in 7, so that ♂ & ☿ are combust, & the lord of the seventh is in 12 unfortunate, hurting them with an evil aspect, threatens prisons because of the wife & children.

Fourth. On the *extraordinary significators.*

[Margin: 4 Rules on the extraordinary significators.] 1 The lord of the nativity under the rays of ☉ in the 10 house, outside ♌ & ♈, signifies that the native will serve kings, and that they will imprison the native: But if a malefic

has looked on, that they will even kill: Albubater [Albub.] cap. 145. 2 The lord of the nativity existing in 6 or 12, signifies that the native will be captured by enemies. Idem. 3 Those who are born from 16° ♎ to 19° ♐ in our regions, they are prone to prisons & chains. For Andromeda is in the setting; 5 Aph. 126. 4 They have an unhappy fortune as their lot, for whom the part of heaven from 23° to 27 ♉ rises. For the Dolphin occupies the heart of heaven 5 Aph. 127.

[Margin: Qualities & causes of prison.] Next it is also asked about the quality & causes of prison.

Although nothing can be said specifically about these, since it is too superstitious to want to inquire into them precisely: yet for the most part it is judged, from the nature of the houses, Planets, & signs, in which the significators of prison are, especially from the signs & places of those, which hurt the luminaries. For Human *signs signify prisons because of robberies.* Martial *ones because of violence, cruelty.* Saturnine *ones because of fraud, foxlike cunning & deceits.* Mercurial *ones because of disposition & learning.* [Margin: Quantity & duration of prison.] So the quantity & duration of prison *is judged from the vigour and strength of the maleficent stars, attacking the twelfth house. For if the maleficent ones are strong, and are not illuminated by the beneficent ones, they signify long-lasting & long prisons. Short ones, if they are mitigated by the happy rays of the beneficent ones.*

[Margin: On security from prisons.] Third it is also usually asked about security from prison.

This is judged from the following rules:

1 Those whose nativities do not fall under these rules, are secure from prison. [numeral: ?] The beneficent Planets in 12 in body, or their happy rays without the presence of the evil ones & an evil aspect, denote the same. 3 The lord of 12 strong & fortunate, & lighting up both the twelfth and the first with a friendly ray, promises the same. 4 The first house also, the lord of the nativity, & the luminaries free from the ray of the evil ones, pledge security.

[Margin: Our first example.] In our first example *the luminaries are indeed conjoined, but not in the eighth, but in the sixth house: The luminaries are also free from the rays of the maleficent ones, nor is any of the Planets found in the 12 or 7 houses: None of the maleficent ones also attacks the same houses: Hence, since none of the rules announces prisons, there is also no reason that the native should fear prisons.*

[Margin: The other example.] In the later example ♂, *lord of the twelfth house, is indeed in* ♈, *the exaltation of* ☉, *present in the same 12, &* ☉ *also there, in* ♉, *the exaltation of the Moon: But the luminaries* ☉ *&* ☽ *are safe, nor are they badly affected by the maleficent ones.* ♄ *also, governor of the seventh, is so disposed that it has, into the twelfth house, a* △ *ray, into the seventh a square ray of short descensions, which is equated to* ✶. *Hence, although* ♂ *in 12 may have a certain signification of prisons, & of an unfaithful household,* ☉ *also in 12 may bring sadness & prisons: yet it did not bring them to effect, for this reason, that none of the principal rules has place, and that* ☿, *lord of the nativity, is strong & fortunate, & the luminaries wholly free from the rays of the maleficent ones, all of which furnish security from prisons.*

[Margin: On the hardships of the native in general.] To this are to be referred the things which are usually handed down by the Astrologers on the hardships of the native in general:

For although this question pertains to the place on general fortune, which we treated above in cap. 9: yet since prison is often not signified in particular, but rather exiles or other calamities, which have no small kinship with prison; we shall note some things on that matter, which, compared with what was handed down above, inform the judgement more fully. [Margin: The significators of hardships are] *The signification, however, is sought chiefly from the luminaries, the maleficent ones and the fixed stars of the nature of the maleficent ones.*

[Margin: 1 The luminaries.] Rules on the luminaries: 1 A malefic joined to the unfortunate Sun or Moon in the same degree threatens the native, even if he is a king, with great inconvenience: 2 Aph. 32. 2 The Sun with both malefics in ♒ signifies for the native many violent mishaps, in which he is endangered in life, fortunes, & honour. Gen. 96 Cardano [Card], 3 The Sun with the head of ☋, or with another Saturnine star, or ♄ with Spica & Bootes, brings forth great troubles: Cardano [Card.] cap. 3 de jud. Genit. 4 The Moon in the 6 or 7 houses always brings grave calamities, makes men wretched, calamitous, toiling, servile & harassed by countless perils as well as troubles. Idem cap. 1. 5 The Moon in 12 threatens sadness, grief, & a short life: Ibidem. 6 ☽ conjoined to the Sun or under the rays generally decrees an unhappy end: 3 Aphor. 55. 7 ☽ in □ ☉, & Jupiter in opposition to Saturn signifies huge perils, & enemies: Cardano [Card.] genit. 73. 8 ☽ joined to Saturn in an angle will reduce the native, even if he is a king, to want: 6 Aph. 144. 9 ☽ struck by the rays of a maleficent one in the 7 house with a royal star, the native will suffer great plots & losses: [?] Aph. 73. 10 He for whom ☽ & ♃ are greatly unfortunate, even if the rest are arranged at will, the native will be most unhappy: 3 Aph. 11.

[Margin: 2 The maleficent ones.] *Rules on the maleficent ones.* 1 He for whom the malefics are at the apex of the seventh will be afflicted with great calamities: 1 Aph. 51. 2 Worse impediments befall him for whom a malefic is in the ascendant, & the benefics in the setting, than if it were the reverse: 3 Aph. 59. 3 When two malefics are in the degree or cusp of the fourth, the native will be unfortunate, & very wretched: Almansor prop. 121. 4 A movable sign ascending, & two malefics in the angles, make the life of the native wretched. 5 ♄ & ♂ aspecting each other unhappily, with the luminaries existing in 6.8,12, the native will lead a wretched life from an incurable disease, & will live sad: 6 Aph. 2. 6 ♂ conjoined to Saturn in the same part of the zodiac brings great misfortunes to life: 2 Aph. 6.

7 When the lord of the 12 house is a malefic, & superior to the lord of the first, the native will serve strangers with loss: 2 Aph. 99. 8 When the Lord of the 12 place has oppressed the lord of the first, that man, although he is excellent, yet will be hindered by many through the hatred of powerful enemies: But this more so when the Planet is constant, that is, stationary & a malefic, nor has any power in the ascendant: 3 Aph. 123. 9 When ♃ with Mars, or ♄ with

Venus, or ☉ with the Moon, or some malefic or an evil royal one with one of the luminaries are peregrine in the same part, expect a huge evil for the native: 6 Aph. 19. 10 But if also the greatest part of the Planets in the nativity are peregrine, some huge evil is portended for the native.

[Margin: Special rules on Saturn & Mars.] Particulars on Saturn & Mars. *1 ♄ in the M. C. always exposes a man to perils. 2 ♄ in 10 or the first heaps up hardships & labours, & the nearer it is to the apex, the more gravely it afflicts: Cardano [Card.] cap. 1 lib. de genit. 3 ♄ in the setting either impedes or delays everything: 3 Aph. 58.* [Margin: The nativity of Erasmus of Rotterdam] *4 ♄ in the seventh in ♈ signified no small perils, and very many plots of enemies, for* Erasmus of Rotterdam*, Cardano [Card.] gen. 12.* [Margin: Of Ludovico Sforza.] *5 ♄, lord of the Nativity, with Venus & the wing of Virgo in 8, decreed very many evils of* Ludovico Sforza [Ludovici Sfortiæ]*, although it was in ♎, For the mixture of Saturn & ♀ is incongruous especially in the eighth place Cardano [Card.] gen. 9. 6 ♄ in the bow of ♐ decrees great misfortunes, especially joined to ☽. 7 ♄ with Spica ♍ & Arcturus signifies a great misfortune with respect to the house in which it is, if in the first, in the life of the native, in the second in riches, &c. Cardano [Cardan.] cap. 13 lib. de jud. Genitur. 8 ♄ with Spica ♍ signifies beggary: Stadius [Stad.] cap. 9 tabul. Bergen. 9 Mars in the ascendant exposes the native to many perils, & that he at last contracts a mark on the face from a blow: Cardano [Cardan.] cap. 1 de genit.* [Margin: Urbanus Landrianus.] *10 Mars placed on high in ♌, in □ ☉, with the Ass of the nature of ♂ & ☉, signified many hardships for* Urbano Landriano *Genit. 78 Cardano [Card.]*

[Margin: And for the other Planets.] Particulars on the remaining Planets. *1 All the Planets in ♍, ♏ & ♍ show that many evils will press the native: 2 Aph. 21. 2 ♀ in 10 signifies for most a wretched old age. 3 ♀ not well placed in the rays of ♂ decrees huge troubles from love: 5 Aph. 165. 4 ☿ in 6 signifies men who are toiling & bent on base things. In 7, however, it designates wives who are corrupted, & who suffer many losses from the cunning of enemies:* Cardano [Cardan.] cap. 1 lib. de Genit. *5 ☿ & ☽ conjoined in the sixth, struck by the □ of Saturn from the middle of heaven, signifies huge & perpetual troubles:* Cardano [Card.] genit. 86.

Rules on the fixed stars that signify perils.

[Margin: 3 The fixed stars.] 1 For him to whom ♈ ascends, occasions of sadness will come of their own accord; he to whom ♉, because of excessive labours, will prepare sickness for himself: 2 Aph. 92. 2 This too is the nature of the signs *Human ones* signify troubles from robbers: *Movable ones* plots & various impediments. *Quadrupedal ones* losses of animals, ♉ a headlong fall. The Hyades, Hercules, the Heart of Scorpio the Southern Claw, possessing the principal angles, raise poor natives outstandingly, but unless they are supported by the beneficent ones, at last they cast down wretchedly. Stadius [Stad.] cap. 9 tabul. Bergens.

[Margin: Our first example.] In our first example, *a certain unhappiness is decreed for the native, because the luminaries are conjoined, & indeed in the sixth house, that the Planets 4 in ♍, ♄ in ♏, and that three peregrine, none exists in its*

own house. The evil, however, is softened, because the luminaries free from the evil rays of the maleficent ones, & the maleficent ones do not occupy the angular houses.

[Margin: The other example.] In the later example *the luminaries are free from the evil rays of the maleficent ones, nor do the malefics occupy the angles, there are also three Planets ♂, ♀ & ☿ in their own domiciles: Hence to the native happiness rather than misfortune is promised: But since those very ones exist with the Sun in the 12 house: the Moon also has a* [sign: ?] *platic to the Sun, & 4 Planets ♄ ♃ ☉ & ☽ are peregrine, some misfortunes press the native: especially since ♀ too clings under the rays of ☉, & ♃ is ℞, which are recognised from the directions, profections, transits & revolutions.*

Chapter XXIV. On Violent Death.

[Margin: Why this doctrine must be considered diligently.] *There remains now the last part of the general Genethlialogical judgement,* on death, *which is taken from the eighth house, & the Planets occupying it at the time of the nativity. This must be unravelled by us all the more diligently for this reason, that it is a matter of a most difficult but principal art to pronounce clearly from the nativity whether the native is to perish by a natural or a violent death, and that nothing sadder than a violent death, especially one which is joined with disgrace, can befall a man. So that we may therefore explain everything distinctly, first we shall speak of violent death. of which almost the same are the significators as of prison. For prison & violent death often concur And when the signs of grave crimes appear, it must be seen whether the malefics exist strong. For if they are, and press the Sun or the Moon, or the lord of the ascendant, or if the lord of the ascendant is combust, or hostile to the Sun, the native will without doubt pay public penalties: 6 Aph. 122.*

[Margin: Significators of violent death] *For this judgement, however, there are usually employed first the luminaries ☉ & ☽. 2 The maleficent ones ♄ & ♂, and their signs, which are called violent, such as ♈, ♏, ♍, ♒, ♎, in which the maleficent ones are either lords, or have exaltation: although ♄ is more powerful for death, ♂ for the kind of violent death: 3 Aph. 94 3 The eighth house, and its lord. 4 The lord of the horoscope: And 5 the fixed stars of the nature of the maleficent ones ♄ & ♂, of which the chief are: 1 the Head of Medusa, which is also called the Head Algol, of the nature of ♄ in 21° ♉. 2 The Eye of ♉ of the nature of ♂ in 4° ♊. 3 Hercules of the nature of ♂ in 18° ♋. 4 The right shoulder of Orion, Martial, in 23° 30′ ♊. 5 The Heart of Scorpio in 4° ♐. And 6 the Southern Claw, Martial, in 9° 30′ ♏. Of all of which we shall treat one by one.*

[Margin: On the luminaries] *On the luminaries let these Aphorisms from Cyprianus [Cypriano] & Johannes Garcaeus [Garcæo] be noted.*

1 both luminaries in different violent signs not contiguous portend a violent death. It is not valid, therefore. if the Moon is in ♎, & ☉ in ♏. Nor if the Moon in ♒, & ☉ is in ♍ For they are contiguous signs: But it is valid if ☽ ♈ & ☉ in ♎, or ☽ in ♏ ☉ in ♍ or the reverse exists.

[Margin: The nativity of Girolamo Savonarola.] *We have an example in the nativity of* Girolamo Savonarola [Hieronymi Savonarolæ]*, who at Florence, on account of religion, by order of Pope Alexander VI was first strangled with a noose, afterwards burned, in the year 1498 May 23. For he had both luminaries in violent signs, the Sun in ♎, & ☽ in ♍ joined to Mars in the 10 house, which ♂ in the equal configuration of the houses exists as lord not only of the ascendant, but also of the eighth house: See genit. 64 Cardano [Card.]*

2 both luminaries with violent fixed stars within a distance of 5° threatens a violent death. In this way ☽ near the Heart of Scorpio, the Sun near the Eye of ♉ denotes a violent death with certainty. And these two rules are valid then especially, when also

Diagram. Upper left of the four nativity figures on this leaf: a square figure of heaven with a central box and twelve triangular compartments; each compartment carries a sign sort with a figure beside it, and some carry planet sorts and further figures. Centre box: Girolamo Savonarola [Hieronym. Savonarola] is born, in the year 1452, September, day 21, hour 5, minute 44 P.M.; the heart of heaven 3 degrees ♍; at Ferrara in Italy. Labels by compartment, as set:

- Top (the triangle standing on the box's upper side): ☽, ♂, ♍; figures 19, 13, 5
- Upper left corner, the triangle against the top edge: ♒ 5
- Upper left corner, the triangle against the left edge: ♓ 5; ♃ 26
- Left (the triangle standing on the box's left side): ♈ 5
- Lower left corner, the triangle against the left edge: ♉ 5
- Lower left corner, the triangle against the bottom edge: ♊ 5; ♅ 29 30
- Bottom (the triangle under the box): ♋ 5
- Lower right corner, the triangle against the bottom edge: ♌ 5
- Lower right corner, the triangle against the right edge: ♎ 5; ♍ 5
- Right (the triangle standing on the box's right side): ♀, ♄, ♃ [?], ☉; figures 22, 19, 8, 8
- Upper right corner, the triangle against the right edge: ♏ 5
- Upper right corner, the triangle against the top edge: ☊ 19 20; ♐ 5

Diagram. Upper right figure, of the same construction. Centre box: Louis II [Ludovic.] King of Bohemia & Hungary is born, in the year 1506, June, day 30, hour 23, minute 30 P.M. Labels by compartment, as set:

- Top: an unsettled sort [?] 14 39; ♅ 9 25; ☿ 19; ♃; ☉ [?] 17 58; ♀ [?] 26; an ink-filled sort [?]; a small hooked form [numeral: ?]
- Upper left corner, the triangle against the top edge: ♃ 12 3; ♌ 19
- Upper left corner, the triangle against the left edge: ♍; ♂; figures 17, 21, 34
- Left: ♎ 10
- Lower left corner, the triangle against the left edge: ♏ 3
- Lower left corner, the triangle against the bottom edge: ♐ 3; ☽ 3 4
- Bottom: ♍ 12; ☊ [?] 9 2

- Lower right corner, the triangle against the bottom edge: ⊗; figures 9, 25, 15
- Lower right corner, the triangle against the right edge: ♓ 17
- Right: ♈ [?] 10
- Upper right corner, the triangle against the right edge: ♉ 3
- Upper right corner, the triangle against the top edge: ♋ 12; ♊ 3

Diagram. Lower left figure, of the same construction. Centre box: Galeazzo Maria Sforza [Galeatus Sfortia], Duke of Milan, is born, in the year 1444, January, day 14, hour 15, minute 15 P.M. Labels by compartment, as set:

- Top: ♌ 21
- Upper left corner, the triangle against the top edge: ♍ 21
- Upper left corner, the triangle against the left edge: ♎ 21
- Left: ♏ 21; ☽ 6 36; ♉ [?] 17 14
- Lower left corner, the triangle against the left edge: ♐ 21; ♃ [?] 11
- Lower left corner, the triangle against the bottom edge: ♑ 21; ♀ 0 52; ☉ 3 4[numeral: ?]
- Bottom: ♒ 21
- Lower right corner, the triangle against the bottom edge: [sign: ?] 21
- Lower right corner, the triangle against the right edge: ♃ 11 48; ♈ [?] 21
- Right: ☊ 17 14; 21; ♀
- Upper right corner, the triangle against the right edge: ♄ 7 15; ♊ 21
- Upper right corner, the triangle against the top edge: ♂ 13 30; ♋ 21

Diagram. Lower right figure, of the same construction. Centre box: Muzio Colonna [Mutius Columna] is born, in the year 1478, August, day 19, hour 17, minute 6 P.M. Labels by compartment, as set:

- Top: ♉ 26; 3; along the box's upper side 4, a small open ring [?], 5, ♊
- Upper left corner, the triangle against the top edge: ♀ 20 0; ♋ 4 56
- Upper left corner, the triangle against the left edge: ♌ 6 37; ☊ [?], an ink-filled sort [?], 21; ♀ [?] 20 4
- Left: ♍ 1 40; ☉ 5 21; ♄ 8 45
- Lower left corner, the triangle against the left edge: ♍ [?] 24 52
- Lower left corner, the triangle against the bottom edge: ♎ [?] 21 25; ♂ 23 24
- Bottom: ♏ 26 3
- Lower right corner, the triangle against the bottom edge: ♀ [?] 4 56
- Lower right corner, the triangle against the right edge: ♉ [?] 8 21; ♒ 6 37
- Right: ♓ 1 40
- Upper right corner, the triangle against the right edge: ♈ [?] 24 52 [numeral: ?]
- Upper right corner, the triangle against the top edge: ☽ 21 25; ♌ [?] 21 25

—the lord of the horoscope or of the eighth house is joined in body to one of the luminaries, or also one of the maleficent ones at the same time infests the other luminary or the lord of the eighth.

[Margin: Of Louis, King of Hungary.] *As in the nativity of* Louis II [Ludovici], King of Hungary & Bohemia, ☉ *is with Hercules &* ☽ *with the Heart of Scorpio,* ♀*, finally, mistress of the eighth & first, is joined to the Sun: And* ♂ *is in 12, with stars of the nature of* ♄ *&* ♃ *of the ship Argo. Hence, when in the year 1526, on the day of the Beheading of John the Baptist, August 29, in the 20th year of his age, he was engaging unhappily in battle with Suleiman I [Solemane], Emperor of the Turks, at the town of Mohács [Mohatz], seeking safety for himself in flight, thrown headlong by the Horse into a muddy marsh & suffocated, he perished, and Silesia & Bohemia themselves passed to King Ferdinand [Ferdinand I].*

3 One luminary in violent signs, the other with a violent fixed star, likewise signifies a violent death. In this case, however, it is necessary that one of the maleficent ones infest either luminary, or the lord of the eighth.

[Margin: Of Galeazzo Sforza.] *Such was the nativity of* Galeazzo Maria Sforza [Galeati Sfortiæ], Duke of Milan. *For he had the Sun in* ♒*, a violent sign, &* ♂ *opposed platically; & the Moon with the Heart of Scorpio &* ♉*, not entirely free from the opposition of Saturn: hence in the current 33 year of his age, when the ascendant to the square of Mars, but the Moon, Mercury, by direction to the* △ *of* ♂*, are applied, pierced with thirteen wounds by three conspiring citizens, he perished. Cardano [Card.] gen. 44.*

4 Both luminaries hurt by each maleficent one, so that either luminary & either of the maleficent ones is either in a violent sign, or with a violent fixed star, also signify a violent death.

[Margin: Of Muzio Colonna.] *Of this kind was the configuration of* Muzio Colonna [Mutii Columnæ], *who, shot through by a cannon ball, perished. For he had each luminary hurt by the maleficent ones,* ☉ *indeed by the conjunction of Saturn, & the Moon by the opposition of Mars, so that one of the maleficent ones,* ♂*, was placed in* ♏*, a violent sign, & the other luminary,* ☽*, with the Head Algol, a violent fixed star.*

[Margin: Of the Marquis de Manzolis of Bologna.] 5 Both luminaries impeded by a single maleficent one only, the other of the maleficent ones being hurt, or dwelling in a violent sign, and claiming dominion for itself in the eighth house, also announces a violent death. *Such was the configuration of* the Marquis de Manzolis of Bologna, *who, pierced with many wounds, perished. For he had both luminaries conjoined in* ♋*, & hurt by the opposition of Saturn, but Mars, which claims dominion for itself in 8, in* ♎*, a violent sign or the exaltation of Saturn.*

6 The Moon in the seventh in signs which have violent stars, such as ♉, ♊, ♋ & ♐, hurt by a hostile ray of the Sun, or with a malign Planet occupying the eighth house at the same time, or at least claiming for itself the dominion of the eighth house, so that at the same time it occupies a violent sign, likewise offers an indication of a violent death.

[Margin: Of Giovanni Battista Cardano.] *A position of this kind had* Giovanni Battista Cardano [Ioannes Baptista Cardanus], son of Girolamo Cardano [Hieron. Card.], *who, on account of poison given to his wife, was beheaded at Milan, in the year 1560, aged 26. For the Moon was for him in* ♊*, which have the Bull's Eye,*

a violent star, and the Sun itself between the Head Algol & the Bull's Eye, with both maleficent ones being at the same time in the 8 house.

[Margin: Of Giovanni Maria Visconti, Duke of Milan.] 7 The Moon under the rays of ☉ generally decrees an unhappy end: 3 Aphor. 55. 8 Those for whom the luminaries are unfortunate in the angles must perish violently: 2 Aph. 1. 9 ☉, lord of the ascendant, in an angle, with ♄ & ☿; And ☽ with the brighter of the Scale, a most violent star, decrees a violent death: Genit. 33. 10 ☉ & ♂ opposed from the angle M.C. & the Moon with ♉ & the Heart of Scorpio in the ascendant killed Giovanni Maria Visconti [Ioannem Moriam], Duke of Milan, when the Moon in the ascendant had come to the □ of ☉. See Garcaeus [Garc.] pag. 369 de Genit. 11 The Sun in 7, with Mars lord of the horoscope, Saturn being in the M.C., signifies a violent death. 12 Always ☽ placed in the 7 house brings sudden & unexpected death or in any case grave unhappinesses, which you will see confirmed in several nativities: Cardano [Card.] genit. 18. 13 The Moon in 7 in ♈ with ♉, the Sun, moreover, joined to Saturn, & all these in □ of Mars, declare without doubt a violent death: Gen. 22. 14 The Moon condemned shows an indication of a violent & sudden death, with malefics being in the first & 7 Genit. 29. 15 The Moon in 8 makes [one] die suddenly, which is common to it with the seventh. The native is often submerged by waters, if ☽ stands in 8.

Diagram. Upper left of the four nativity figures on this leaf, of the same construction as those on p. 853. Centre box: the Marquis de Manzolis of Bologna is born, in the year 1461, July, day 7, hour 19, minute 26 P.M. Labels by compartment, as set:

- Top: ♉ 20 21; ♋ 0 23
- Upper left corner, the triangle against the top edge: ☽ 28 45; ☉ 24 11; ♀ 13 5; ☊ 9 25
- Upper left corner, the triangle against the left edge: a small ring with a tail [?], a crescent-like form [?], 4; ☿ 5 0
- Left: ♊ 28 9; ⊗ 2 43
- Lower left corner, the triangle against the left edge: ♍ 21; ♂ 14 55
- Lower left corner, the triangle against the bottom edge: ♎ 17; ♃ 19 40
- Bottom: ♏ 20 21
- Lower right corner, the triangle against the bottom edge: ♀ 0 2[numeral: ?]; ♉ 9 2[numeral: ?]; ♄ 28 42
- Lower right corner, the triangle against the right edge: ♒ 4
- Right: ♒ 28 9
- Upper right corner, the triangle against the right edge: ♓ 21
- Upper right corner, the triangle against the top edge: ♈ 17

Diagram. Upper right figure. Centre box: Giovanni Battista Cardano [Ioannes Baptista Cardanus] is born, in the year 1534, May, day 14, hour 8, minute 30. Labels by compartment, as set:

- Top: ♎ 9
- Upper left corner, the triangle against the top edge: ♏ [?] 4

- Upper left corner, the triangle against the left edge: ♏ [?] 23
- Left: ♐ 15; ⊗ 3; 6
- Lower left corner, the triangle against the left edge: ♉ 16; ♃ 1 34 ℞; ♄ 10 27
- Lower left corner, the triangle against the bottom edge: ♓ 1
- Bottom: ♈ [?] 9
- Lower right corner, the triangle against the bottom edge: ♈ [?] 4
- Lower right corner, the triangle against the right edge: ♀; ☉; ♉; figures 13, 2, 2, 50, 23
- Right: ♃ [?] 26 46; ☽ 20 56; ♊ 15
- Upper right corner, the triangle against the right edge: ♌; ☊ 10 27; ♂ 28 47; ♄ 23 42; ♋ 1[numeral: ?]
- Upper right corner, the triangle against the top edge: ♍ 1

Diagram. Lower left figure. Centre box: Giovanni Maria Visconti [Ioan. Moria], Duke of Milan, is born, in the year 1388, September, day 7, hour 11, minute 50 A.M. Labels by compartment, as set:

- Top: ♃ 9 4; ☿ 6 57; ☉ 230; ♍ 20
- Upper left corner, the triangle against the top edge: ♀ 8 33; ♎ 19
- Upper left corner, the triangle against the left edge: ♏ 10
- Left: ♃ 1; ☽ 1 10; ♄ 8 6
- Lower left corner, the triangle against the left edge: ♐ 29
- Lower left corner, the triangle against the bottom edge: ♒ 10; ♂ 17 42
- Bottom: ♓ 20
- Lower right corner, the triangle against the bottom edge: ♈ 19
- Lower right corner, the triangle against the right edge: ♉ 10
- Right: ☊ 8 9; ♊ 1
- Upper right corner, the triangle against the right edge: ♊ 29
- Upper right corner, the triangle against the top edge: ♄ 21 57; ♌ 10

Diagram. Lower right figure. Centre box: Charles III, Duke of Bourbon [Carolus Barbonius], a leader in war, is born, in the year 1489, February, day 16, hour 14, minute 24; in France. Labels by compartment, as set:

- Top: ☽ 24; ♍ 22
- Upper left corner, the triangle against the top edge: ♎ 22
- Upper left corner, the triangle against the left edge: ♏ 22
- Left: ♃; 22; ♄ 12 [numeral: ?]4; ♄ [?] 15 29
- Lower left corner, the triangle against the left edge: [sign: ?] 22; ♀ [?] 11 3
- Lower left corner, the triangle against the bottom edge: ♒ 22; along the lower edge ☉ 8 8 ♓
- Bottom: ♓ 22; ♃ 29 56; ☿ 6 2
- Lower right corner, the triangle against the bottom edge: ♌ [?] 22
- Lower right corner, the triangle against the right edge: ♉ 22
- Right: ♂ 15 55; ☊ 15 29; ♊ 22
- Upper right corner, the triangle against the right edge: ♋ 22

• Upper right corner, the triangle against the top edge: ♌ [?] 22

16 ☽ in 7 in ♉ portends a bloody and violent death. 17 The Moon in 7 in any sign whatever, in ☍ of Saturn or ♂, or □ or conjunction of the same, signifies the same. But if it is distant from the maleficent ones by several degrees, it shows dangers of a violent death. 18 ☽ in 7 in ♍ with a star of the nature of Mars kills the native: Cardano [Card.] cap. 20 lib. de genit. 19 ☽, if it has been placed partilely in the M.C., & ♂ placed partilely in the horoscope, but Saturn placed in the anaphora of ☽, designates a violent death. Firmicus Maternus [Matern.] c. 27. lib. 7. 20 ☽ with Mercury in the eighth, & ♂ with ♄ in the fifth, or 12 house brings a violent death: The same. 21 ☽ with Mars in 8 house, & ☉ in 7, ♄ in the M.C. or in any other cardine whatever, signifies a violent death: The same, in the same place.

Rules concerning the maleficent ones, from Cyprianus.

[Margin: On the maleficent ones.] 1 ♄ & ♂ conjoined in an angle, above all the M.C., in a violent sign, or assailing one or the other luminary, threaten a violent death They bring about the same when conjoined, or striking each other with a □ or ☍ ray, in signs other than violent, yet from the angles; one of them being either in the eighth house, or claiming the dominion of the eighth for itself. Cardano [Card] 3 Aph. 103 sets out this rule thus. The Malefics in the angles, decree public deaths, & indeed swiftly; for this reason also a public death is rarely in old age. 2 A maleficent one in 8 house of death & the lord of 8 injured by a maleficent one, or maleficent by nature, in a violent sign, with both luminaries or one of them injured, or placed in a violent sign, signifies a violent death. 3 Whoever has had Malefics either opposed in 7 & 1, or joined in the seventh place, will perish by a violent death, even if he has been a king and most holy: Genit. 28 Cardano [Cardan.] [Margin: Nativity of Carolus Borbonius, leader in war.] *in which he sets out the nativity of Duke Borbonius [Charles III, Duke of Bourbon], who had the maleficent ones opposed, Saturn in 1 with ☊, & Mars in 7 with ♑, and Saturn indeed in the violent sign ♈. Mars with the violent star Hercules. Therefore at the siege of Rome in the year 1527 he died by the stroke of a cannon ball.*

4 When the Malefics have presided, & indeed strong, the death will be violent from the beginning to the end. If middling, the beginning will be violent; yet he will die from disease. But if weak, the death will indeed be bitter, but by no means violent 3 Aph. 105. 5 A violent death is also decreed: 1 when each of the Malefics rules the place of death: 2 or if the one aspects, the other rules: 3 or with both aspecting: 4 or when both are elevated above the lord of death: 5 or when one of them presides over the two first significators of life: 6 or when the lord of death has been impeded, above all under the rays of ☉, & a Malefic wholly, rules the place of death: 7 or a Malefic claims for itself all power in the place of death, as in the first degrees of ♏: 3 Aph. 102.

6 ♂ in 8 makes griefs & a bitter end of life 7 Those who have Mars in the M.C., they in youth are harassed by innumerable dangers and labours, and rarely reach old age, & very often suffer a violent death. 8 When ♂ is in the

very part of the heart of heaven, not having power in the ascendant, the native, if he has lived, will by all means be killed. 7 Aph. 157. 9 ♄ ♂ & ☊ in the fourth announce a sudden death: 6 Aph. 173. 10 ♂ & ☿ mixed incline most powerfully to every kind of violent death: 3 Aph. 10.

[Margin: On the lords of the eighth & the first.] *Rules concerning the lord of 8 & 1 who are the lords of life & death.*

1 If the lords of the eighth & first house have been disposers of both luminaries, & one of them has been in detriment or fall, the other maleficent by nature, & has condemned either luminary placed in a violent sign, an outcome of violent death is portended for the native.

[Margin: Nativity of Maurice, Elector of Saxony.] *By way of example there can be for us* the Nativity of Maurice, Elector of Saxony. *For he had Mars, maleficent by nature, the lord of the first house, disposer of ☉, & it was itself in ♋, its fall, afflicting the Sun with a platic □. Also the lord of the eighth house was ☿, in its detriment & fall in ♓, disposer of ☽, which is placed in ♍: from which a violent death was signified for this Prince, which befell him in the year 1553 on the ninth day of July, in the battle with Albertus, Margrave of Brandenburg [Albrecht Alcibiades, Margrave of Brandenburg-Kulmbach].*

2 The lord of the eighth in the first, in its detriment or fall, or in a violent sign, or with a violent star, with one of the luminaries assailed by the maleficent ones, signifies those who will perish by a violent death. 3 The lord of the eighth decrees the same in its detriment or fall, injured by one of the maleficent ones, with one of the luminaries, or one of the maleficent ones placed in a violent sign.

[Margin: Of Ludovicus Bredenrodius.] *Such was the* nativity of Ludovicus Bredenrodius, prefect of the Duke of Savoy, *as Stadius reports in Ephem: who was killed in battle against the French at Quintini fanum [Saint-Quentin] in the year 1557. For he had ♄, the lord of 8 house, in ♋, its detriment, the Sun, the luminary of the condition, placed in ♈, afflicting with a square ray, & Mercury, the lord of the ascendant, in ♓, its detriment & fall.* [Margin: Of Caspar Fidler.] *Likewise of Caspar Fidler, son of a piper of Glatz, who in the year 1601, July 15, mortally wounded in the right arm at Glatz, shortly after, July 17, expired. For he had Jupiter, the lord of 8,* ♃ *in its detriment, with the violent star the Bull's Eye, injured by Mars with a □ ray, & the Moon conjoined to Mars in the sixth, the Sun moreover in a violent sign, on the very cusp of the west: Violent signs also occupy the principal cusps of the ascendant & the M.C.*

4 The lord of the first in a violent sign, or with a violent fixed star, assailed by the maleficent ones, & the disposer of the luminary of the condition likewise either in a violent sign, or afflicted by the maleficent ones, signifies a violent death. But in this case it is necessary that either the lord of the first, or the lord of the luminary labours under both disadvantages. For if the two are not both maleficent, but one beneficent the other maleficent, & the maleficent labours under only one disadvantage, the beneficent must be affected by a double disadvantage, that is in a violent sign, with a violent fixed star, & at the

same time be afflicted by the maleficent ones, otherwise what is signified does not follow. [Margin: Of Petrus Aloysius Farnesius.] The nativity of Pier Luigi Farnese [Petrus Aloysius Farnesius], Duke of Placentia [Piacenza] & son of the Pontiff Paul the third, *furnishes an example of this rule, who, pierced with many wounds, died in the year 1547. He had Mars, lord of the horoscope, joined to Saturn in the fourth, & Jupiter, disposer of the luminaries, coupled to the violent star Hercules, & to each maleficent one ♄ & Mars.*

5 The lord of the horoscope in the eighth, maleficent by nature & condemned, or afflicting either luminary, signifies a native who will perish by a violent death. But if it is not maleficent, yet has been in a violent sign & condemned by a hostile aspect of the maleficent ones, it signifies the same. [Margin: Of Ioannes Regiomontanus.] *To this fits the chart of* Ioannes Regiomontanus, *who, summoned to Rome by the Pontiff Sixtus IV [Sixtus], while he too freely censured the version by George of Trebizond [Trapezontius] of the μεγάλης συντάξε(ως) [Greek: megalēs syntaxeōs, "of the great composition"] of Ptolemy [Ptol.], was removed by poison administered by the sons of Trapezontius. For he had Mars, maleficent by nature, lord of the horoscope, together with the luminaries in 8 house, which themselves also are afflicted by Saturn from the fourth with a □ ray.*

6 For whomsoever the lord of the ascendant is unfortunate with ♉, if a Malefic has been in an angle, it is necessary that a violent death befall them: 3 Aph. 1. 7 For whom the Moon, or the lord of the ascendant is placed with violent fixed stars, to them a violent death is proclaimed.

Rules concerning the fixed stars.

[Margin: On the fixed stars.] 1 The Bull's Eye in the apex of the ascendant, makes assassins, and those dying violently: In the setting much more: 2 Aph. 183. 2 ♀ & ☿ placed with the Head Algol in □ ♂, declare the dangers of a violent death? Genit. 16 Cardano [Card.] 3 The Heart of Scorpio with the luminaries, signifies a bloody death or an abrupt one from poison. Ptolemy [Ptol.] cap. 10 lib. 4 quad. hands down a rule of this kind: they depart by a violent and conspicuous death, in whose nativities 1 either each maleficent one rules the killing place or eighth house 2 or afflicts the same place by congress or by quadrangular or opposed rays 3 or one or the other of them or both affect the Sun or the Moon or each luminary with maleficence.

Diagram. Upper left of the four nativity figures on this leaf: an outer square, a central box, and triangular compartments between them. Centre box: Ludov. Bredenrodius, Lord in Havenrincvort, prefect of the light troops of the Duke of Savoy, is born, in the year 1533, March, day 21, hour 19, minute 47 P.M.; under latitude 52°. Labels by compartment, as set:

- Top: ♒ 26 44; ♂ 18 46; ♒ 4 25
- Upper left corner, the triangle against the top edge: ☿ 14 40; ☉ 10 53 ♈; ♀ 8 16; ☽ 3 25; ☊ 2 32 ♓
- Upper left corner, the triangle against the left edge: ♈ 14 6; ⊗ 1 58 ♉
- Left: ♊ 9 26; ♄ 4 24
- Lower left corner, the triangle against the left edge: ♋ 5 1

- Lower left corner, the triangle against the bottom edge: ♋ 20 1
- Bottom: ♌ 4 25
- Lower right corner, the triangle against the bottom edge: ♌ 26 44; ☊ 2 32 ♍
- Lower right corner, the triangle against the right edge: ♎ 14 6
- Right: ♃ 28 22; ♐ 9 26
- Upper right corner, the triangle against the right edge: ♈ 5 1
- Upper right corner, the triangle against the top edge: ♈ 20 2

Diagram. Upper right figure. Centre box: Caspar Fidler, son of a piper of Glatz, is born, in the year 1573, September, day 23, hour 5, minute 40 P.M.; under latitude 50° 24′. Labels by compartment, as set:

- Top: ♈ 4 51
- Upper left corner, the triangle against the top edge: ♈ 19 8
- Upper left corner, the triangle against the left edge: ♒ 14 8; ⊗ 1554 ♓
- Left: ♈ 11 27
- Lower left corner, the triangle against the left edge: [sign: ?] 0 49; ♃ 5 38 ℞
- Lower left corner, the triangle against the bottom edge: ♊ 21 23; ☊ 29 3
- Bottom: ♋ 4 51
- Lower right corner, the triangle against the bottom edge: ♋ 19 8; ♌ 14 8
- Lower right corner, the triangle against the right edge: ♎ 11 27; ☉ 10 4; ☽ 14 11; ♂ 2 38
- Right: [sign: ?] 24 32 ♏; [sign: ?] 27 33; [sign: ?] 27 2
- Upper right corner, the triangle against the right edge: ♐ 0 49
- Upper right corner, the triangle against the top edge: ☊ 0 49; ♐ 21 23

Diagram. Lower left figure. Centre box: Petrus Aloysius is born, in the year 1503, November, day 19, hour 2, minute 12, second 55 P.M. Labels by compartment, as set:

- Top: ♀ 21 0; ♈ 7 6
- Upper left corner, the triangle against the top edge: ♈ 25 53
- Upper left corner, the triangle against the left edge: ♒ 24 48; ☊ 29 59 ♓
- Left: ♈ 13 42
- Lower left corner, the triangle against the left edge: ♉ 26 0
- Lower left corner, the triangle against the bottom edge: ♊ 19 36; ♋ 7 6
- Bottom: ♃ 13 42; ♄ 18 16 ℞; ♂ 21 4
- Lower right corner, the triangle against the bottom edge: ♋ 25 53
- Lower right corner, the triangle against the right edge: ♅ 29 59 ♍; ♌ 24 48
- Right: ♎ 13 42
- Upper right corner, the triangle against the right edge: ☽ 14 0; ☉ 6 24; ♏ 26 0
- Upper right corner, the triangle against the top edge: ☿ 23 50; ♐ 19 36

Diagram. Lower right figure. Centre box: Ioann. Regiomontanus, the little eye of mathematics, is born, in the year 1556[133], June, day 6, hour 4, minute 40 P.M.; under latitude 50° 16′. Labels by compartment, as set:

- Top: ♍ 1 0
- Upper left corner, the triangle against the top edge: ♎ 3
- Upper left corner, the triangle against the left edge: ♎ 26; ♃ 10 21; ☊ 14 37
- Left: ♏ 16 4
- Lower left corner, the triangle against the left edge: ♐ 12
- Lower left corner, the triangle against the bottom edge: ♑ 17
- Bottom: ♄ 26 0; ♓ 1 0
- Lower right corner, the triangle against the bottom edge: ♈ 3
- Lower right corner, the triangle against the right edge: ♉ 26
- Right: ☿ 6 1; ♉ 16 4
- Upper right corner, the triangle against the right edge: ☉ 24 16; ♂ 21 16; ☽ 18 54; ♊ 12
- Upper right corner, the triangle against the top edge: ♀ 25 1; ♋ 17

[Margin: On the kind of violent death.] *Moreover, when it is now established for us, from the rules set out and similar ones, concerning a violent death, one must proceed further & determine to which kind of violent death the native inclines.* [Margin: 1] *So that we may determine this without error, it must first be seen whether someone will die by a public death. For the luminaries mixed with the significators make illustrious & public deaths, which are celebrated in the gatherings of men, as* Cardano [Cardan.] *says* in com. ad text. 70 libr. 4 quadrip. Ptolemy [Ptolem.] [Margin: 2] *Secondly there are to be considered the disposition & manners of the native, whether the native will be a thief, a murderer, or a heretic. For where crimes appear in the nativities, there through the significators of violent death public punishments also are signified: 6 Aph. 122.* [Margin: 3] *Third, the place of death. For among different peoples different punishments are customary, so that it can scarcely be pronounced concerning the kind.* [Margin: 4] *4 The condition of men. For princes, unless they are slain by the sword or struck with the axe, are rarely punished by the noose, the wheel or the stake: These are the punishments of the wretched, & they are often attributed to fortune rather than to crime. But if you look to the crimes, there are many among the Magnates for whom, if the matter were conducted by equal law, often not a thousand stakes or wheels or fires would suffice, & yet they are scarcely punished even with a simple death.* Cardano [Card.] in com. ad 69 text. lib. 4 quadr. Ptolemy [Ptol.] [Margin: 5] *Lastly the fates of families are also to be considered. For some lose their males frequently in wars, or by some other violent death, some not. And a prudent & cautious Astrologer predicts the dangers of violent death rather than that he should determine its quality exactly. We shall nevertheless still consider the significators of the quality, which* Ptolemy [Ptol.] *describes thus in the place cited before: The kind of death, he says, you will recognise from the regard of the remaining stars besides the*

[133] another copy of this printing (BSB 10501686) reads 1536 and resets the last line of this caption

luminaries, & from the signs which are occupied by the malefics. For the signification of the quality of death is to be sought first from the nature of the malefic. Then from the sign. And 3 from the house in which that malefic is, which injures the significators of death & of life, namely the luminaries & the lords of the first and of the eighth. Nor are the fixed stars joined to the luminaries & to the killers to be neglected.

[Margin: General rule concerning Saturn.] *First therefore let this be observed concerning Saturn in general; That he, joined to the significators, or infesting them with a □ or ☍ ray, signifies a Saturnine death, from a collapse, submersion, or shipwreck & poisons, according to Leovitius [Leovit.]*

[Margin: Special ones concerning the same.] 2 In particular let these 11 rules be noted, which Cardano [Cardan.] reviews in com. super text. 71 libr. 4 quad. Ptolemy [Ptol.], to which we shall add those which he hands down in the Aph.: 1 Saturn joined to the Sun, or regarding the same with a □ or ☍ ray, in fixed signs, signifies stoning or suffocation by fire or water, & sometimes the cutting off of the head, the blow of an engine by a missile or a ball, likewise death through the strangulation of a hard thing with a rope, or the native would be overwhelmed by a collapse or by stones. 2 Aph. 104. 2 ♄ joined to the Sun in the feral ones, or striking the same with a □ or ☍ ray, signifies being torn apart by wild beasts, or being killed by the bite of a rabid dog or of a wolf, and of other beasts 2 Aph. 105. 3 ♄ coupling the Sun to itself in the former manner, with Jupiter commanding the Anæreta & aspecting Saturn with a □ ray, signifies being publicly exposed to wild beasts, being lacerated by 4 Horses, being placed on the wheel, being fixed on a stake. 4 ♄ coupled to the Sun or to Mars through a ☌ or □ or ☍ ray, signifies being crushed by a collapse, or by the blow of an engine or by the fall of a tree. 5 ♄ joined to the Sun or to Mars in the Tropics ♋ or ♑, or opposed, or coupled by a □ ray, signifies, in low places, (as house 4, 3 & 5,) being crushed by a collapse: But in the M. C., likewise in the 9 or 11 house, being thrown down from a height: Likewise a Fall into a pit from a Horse, a chariot, &c. 2 Aph. 106. 6 ♄ joined to Mercury, or regarding the same with a ☍ or □ ray, in an earthy △, signifies harm from serpents & from the stroke of venomous ones, likewise being pricked with a needle, & being wounded by a sword steeped in poison. 7 ♄ coupled to Mercury as said, & meeting with Venus, signifies death from poisoning & from the tricks of women & from love-potions. 8 ♄ setting & following the Moon, signifies being suffocated by fire or water, falling into a well or a pit, being buried in mud.

9 ♄ joined to the Moon in watery signs & ♏, or in the □ or opposite ray of these, signifies being suffocated by waters: Likewise from an abundance of wine drunk: 2 Aph. 113. 10 ♄ configured to the Moon in the ship Argo, which agrees with ♋ ☽ & ♏, denotes being sunk by shipwreck or storm 2 Aph. 107. 11 ♄ in the west, opposed to the Sun or the Moon, announces death in prisons. It also signifies the native being killed by filth & squalor, or by a precipice, or by poison, or by starvation, or in the bottom of a tower, or by tortures, or by fear: Likewise being proscribed into exile, being banished to deserted islands, or into solitude.

[Margin: Other special rules concerning Saturn.] *To these eleven Aphorisms these also can be joined: 1 When ♄ holds the middle of heaven, and the luminary of the condition is opposed to him, and an earthy sign is in the lowest, he who is born will perish by the collapse of buildings. But if it is a moist sign, he will be suffocated by waters. But if human, he will be strangled by men, or will perish by the noose and by scourges. But if a benefic is in the eighth place, these things will be milder, nor will the native die from it:* Ptolemy [Ptol.] sent. 76 Centil. *2 ♄ with ♉ in the seventh place unfortunate, signifies hanging:* Cardano [Card.] *in genit. Francisci Marsilij ad finem suorum Aphor. 3 ♄ in 8 in ♐ unfortunate, throws the native down from a Horse, Schöner [Schon.] cap. ultimo lib. 1 de genit. 4 ♄ in poisonous and tortuous signs, infests the life of the native with poison: 2 Aph. 108. 5 ♄ with ♂, & the Sun with ♀ in venomous signs, signifies the native about to drink poison. 6 ♄ & ♂ in 12 unfortunate, signify harm from beasts: Schöner [Schon.] cap. ultimo lib. 1, 7 ♄ & ♂ in 7, in double signs, threaten collapse & a precipice: & this much more, if the Moon is opposed to them in the ascendant: Ibidem.*

[Margin: Rules concerning Mars.] *Next, concerning Mars in general let this be observed from Leovitio: that he brings a violent death from iron, fire, lightning, a cannon ball, the laceration of beasts, & the dragging or the blow of horses, & that both ♂ and ♄ signify a fall from a height.*

But in particular let 9 Aphorisms be noted, which Cardano [Cardan.] proposes ad 72 text. lib. 4 Quadrip. Ptolemy [Ptol.]: 1 ♂ configured to the Sun or the Moon by a □ or ☍ ray, in human signs, kills by sedition or war or by one's own hand. 2 ♂ configured to either of the luminaries as before, in human signs, with the testimony of Venus, signifies being killed for the sake of women. 3 ♂ configured as before with the testimony of ☿ in human ones, decrees a violent death from robbers or pirates, or malefactors. 4 ♂ as before in mutilated or cut-off & imperfect signs, as are the Head of Medusa, ♉, or Andromeda bound: 2 Aph. 110, signifies being mutilated or beheaded. In the 9, 10 or 11 place, or in the lowest part of heaven, also being hanged: 2 Aph. 112. 5 ♂ as above in ♏, or ♐, designates death by burnings, cuttings, or the revulsions of physicians. 6 ♂ as above in the M. or the lowest C, marks being fixed to crosses, especially around Cepheus & Andromeda. The same signifies hanging, the punishment of the wheels, & those who are tortured out of the sack. 7 ♂ as above in the setting, in fiery signs, signifies being burned alive: 2 Aphor. 113. 8 ♂ in the setting in quadrupeds or in lofty places, marks being pulled apart or crushed by a collapse, or being shattered by falling from quadrupeds: 2 Aph. 114. 9 ♂ as above configured to the Sun or the Moon, if an ill-disposed ♃ testifies to him, announces the native about to perish by an illustrious kind of death, because of the anger of a prince or king, or by the judgement of the Magistrate: 2 Aph. 115.

[Margin: Other rules concerning Mars.] Let others be joined to these nine: *1 ♂ the author of death, if he is in ♉ or ♏, signifies the native about to perish by torture or burning: 2 Aphor. 111. 2 ♂ the author of death in human ones, in □ ☉ or ☽, shows that the native is to be killed. But learn the cause of death from the place.*

For if he is with the power of Venus, on account of women. If in the second house, on account of substance. But if ☿ rules the sign, in which ♂ is, he will be killed by robbers, or by the command of the Prince: since ☿ has the human signs, which signify death from a man: 2 Aph. 109. 3 ♂ in 8 with ☊, indicates the native to be hanged: But Mercury with ♅ in 8, indicates death to the native from a poison or on account of necromancy. The Moon with ♅ in 8 also signifies the same. Haly part. 5 cap. 7. 4 ♂ in 8 condemning the lord of the eighth, announces the death of the native by iron: Schöner [Schon.] 5 The detriment in Mars is from the luminaries, in a violent death: But in Saturn from the Sun & Mars: 2 Aph. 116. 6 ♊ ♐ & ♓ signify a manifold kind of death, as also ♄ and ♂ when they rule together: 2 Aph. 117. 7 ♂ in his fall, signifies a fall from a horse or the bite of a dog. And if he is the almuten of death & cadent, he signifies death from a fall: Schöner [Schon.] 8 For very many of those to whom a violent death happens, ♂ or ♀ rules the ascendant or the place of the ☽, or they aspect them, to the former indeed on account of contention, to the latter on account of love: 5 Aph. 161. 9 When, besides the signs of violent death, the lords of the fourth also have presided as malefics, the body of the dead man will lie unburied, especially if the luminaries meet with those Planets which decree a violent death: 2 Aph. 119. And with the marks of submersion assisting, the corpse will be devoured by fishes. But of the gallows by birds of laceration by quadrupeds, & these especially if they are in the signs of birds or of quadrupeds or of fishes, 2 Aph. 120.

[Margin: Rules concerning the lords of the eighth & of the horoscope.] *Third, concerning the lords of the eighth & of the horoscope let these Rules be noted.*

1 If the lord of the eighth or also the lord of the ascendant is in the opposite of the ascendant, the native will perish by a precipice. 2 If the lord of 7 or 8 is unfortunate in the ninth or 3 in an earthy sign, the native will die from a fall from a height: Schöner [Schon.] cap. ult. lib. 1 de Genit. 3 When ☉ is conjoined to the lord of the ascendant in ♌, nor has ♂ any prerogative in the ascendant, nor is a benefic in the eighth place, the native is burned up: Ptolemy [Ptol.] sent. 75. Cent. 4 When the lord of death is joined bodily to the significator of life or to the lord of the ascendant, the native kills himself: Cardano [Card.] ad 7 Aph. 129 in exemplo adjuncto. 5 When ☉ is joined to the lord of the ascendant or to the ☽ in ♌ or ♐, with Mars aspecting, or a star of his nature, the native is cremated, But if ♄ is present in the place of Mars, he is suffocated by smoke: 2 Aph. 159. 6 If the lord of the horoscope is unfortunate by the Sun & Mars, and one of them has turned out to be the lord of death, the native will be burned: Schöner [Schon.]

[Margin: The nature of the signs too is to be weighed above all.] *Fourth, the nature of the signs & of the houses in which the significators of death stand is to be attended to, about which it has been treated several times in what precedes.*

The *fiery signs* signify death from fire, lightning, a bombard. *The airy ones* from a fall from a height, & strangulation; *The watery ones* from submersion: *The earthy ones* from collapse. Thus the *human signs* signify death from a man, through arms and violence. *The venomous ones* from poison.

[Margin: Likewise of the houses.] In the same way the tenth house, signifies death from magistrates & by their command. The 12 house, from Horses or secret enemies. The 7 from open ones. The 3 from relations by marriage & blood relations. The 6 from servants or neighbours, &c. But if the nature of the sign & of the Planet agree in respect of the qualities, as the configuration of Mars in a fiery sign, the kind of death from fire is declared clearly enough. But if they disagree, the signs of the remaining significators are to be considered together & their agreement in the same decree will have to be sought diligently. For so great a variety cannot be set out by Rules, but most things must be left to the acuteness and skill of the one judging.

[Margin: On the fixed stars.] *Fifth, let rules of the fixed stars also be noted, since the significators of the place of death, standing with bright fixed stars, cause death to be foreknown, 7 Aphor. 167.*

1 If the Sun is found with the head of the Gorgon, if it is neither aspected by a benefic star, nor does a benefic preside over the eighth place, and the lord of the luminary of the condition is opposed to Mars, or when it strikes from a quadrangle, the native's head is cut off. But if the luminary culminates, the body of one still living is wounded or torn. But if the conjunction [copulatio] of ♂ or of the lord of death takes place in ♊ or ♓, his hands and feet are amputated: Ptolemy [Ptol.] sent. 73 Centil. & Cardano [Card.] 2 Aph. 198. 2 ☽ with the bow of ♐ usually kills with a dart. 3 The stars which are in Hydra, & which are in the tail of Scorpio, & the head of Serpentarius, & those which are of the nature of ♄ & ♀, as the tail of ♏, & the meetings [congressus] of Saturn with Venus, & those which are of the nature of ☽ & ♄, of which there is no example, & the meetings of ♄ & ☽, & of ♀ & ☿ & again of ♄ & ♂ & stars of their nature. Likewise the stars of Mercury & ♄, & their meetings (namely of the two Planets), & certain pure ones of Mars, & certain ones of the nature of ☉ & ♂, & again the ☍ of the luminaries & each node, especially ☋, signify poison, 4 Aph. 5. 4 He for whom ♉ ascends, usually dies by iron or by poison, on account of ♏ in the seventh. 5 When ♂ is with Hercules, & the Moon with Arcturus, Mars moreover is in the 7, 9, 10 or 11 place or in the ascendant, the native is killed by men. We shall say the same of ♄: 6 Aph. 75. Stadius [Stad.] cap. 10 tab. Berg. says: Hercules with Mars kills by the violence of robbers; with ♄, by a missile or a cannon ball. 6 But if in the said places 7, 9, 10 11 or the first ♂ is with Arcturus, & ☽ with Hercules, the native will be suffocated, & this as long as Hercules is in ♋. But when it is in ♏, it will happen from wild beasts or a precipice: 6 Aphor. 76. 7 When malefics are in the 7, 4, 11, 9 or 12 house, with the Bull's Eye, & ☽ with the Heart of Scorpio, the native will die by a collapse or by a dart: 6 Aph. 78. 8 When in the places mentioned before, the turn exchanged, ♄ with the Heart of Scorpio, ☽ with the Bull's Eye is, the native will be hanged, or will be killed by the blow of a missile. The same will have to be said of Mars: 6 Aph. 79. 9 But the things which happen with the stars so placed, those also befall, if the Moon has been joined with the malefics in the same part, and in the same places with the same star: 6 Aph. 81. 10 To whomever a

malefic is with the head of the Gorgon; but the Moon with the shining one of ♒, to them a violent death will happen by the command of a prince, and with the neck injured or cut off they will die, 6 Aph. 82. 11 But if, the malefic so placed, the Moon is with the bright one of Hydra, he will perish in waters or by poison. But in all these the malefic must be in a high place, otherwise it does not prevail: 6 Aph. 83.. But the high places are: the 1, 10, 11, 7, 9 and 12 houses: To which some attach the 4 & 8: 6 Aphor. 90. 12 But if a malefic is with the bright one of Hydra, but the Moon with the shining one of ♒, he will be drowned in waters: 6 Aph 84. 13 But if a malefic is with the shining one of ♒, but the Moon with the head of the Gorgon, he will be strangled: 6 Aph. 85. 14 But if, the malefic so placed, the Moon has advanced with the shining one of Hydra, he will drink poison: 6 Aph. 86. The bright one of Hydra with the anaereta [Anæreta] signifies the same for Johannes Stadius [Stadio] cap. 10 tab. Berg. 15 But if a malefic is with the bright one of Hydra: but the Moon with the head of the Gorgon, & ☉ with the shining one of ♒, even if he is a king he will be punished capitally. But if he is of a humbler condition, the body will also be torn by the sword: 6 Aph 87. 16 If ☉ & ♂ are with the Falling Vulture on high, but the Moon with the burning one of the Dog Star, the native will die by the bite of a rabid dog: 6 Aph. 88. 17 But if the Planets are disposed in the contrary way, he will drink poison, or will be killed by the command of a magistrate: 6 Aph. 89. 18 A malefic with the navel of Pegasus, the Moon with the burning dog, the native will die from a fiery dart, or by a bite from wild beasts: 6 Aph. 91. 19 When a malefic is with the navel of Pegasus, but the Moon with the shining one of the Lyre, the native by some violent death will perish: 6 Aph. 92. 20 When a malefic is with the back of Pegasus, but the Moon with the Belt of Orion, the native will be overwhelmed by waters: 6 Aph 93. 21 But when the Planets are disposed in the contrary way, he will be killed by the hands of men: 6 Aph. 94. 22 When the Moon is among the Pleiades, & a malefic with the Heart of Leo, the native's eyes will be dug out, or one of them: 6 Aph. 95. 23 When ♂ is among the Pleiades, & a malefic with the Heart of Leo, the native will be killed by a multitude. 6 Aph 96. For Stadio ☽ with the Pleiades signifies the same, if it is afflicted by Mars; Stadius [Stad.] c. 10 tab. Berg. 24 If the Moon is with either of the Dog Stars, or with the point of ♐[?], & either there or in the ☍ or □ ray ☉ also is with a malefic, above all Mars, the native will be cremated by fire: 6 Aph. 97. 25 When at the beginning or end of ♐ at this time ☿ is in the same part with the Sun, but the ascendant ♊ or ♍, the native will be burned. But if a benefic helps, he will be able to escape the danger of life. But if ♂ aspects the place there is no hope of safety: 2 Aph. 53.

In our former example *certain signs of a violent death indeed seem to be present, since both the luminaries are joined in ♑, a violent sign, & the violent sign of the eighth house is ♒, whose lord ♄ is likewise found in ♏, a violent sign; finally the cusp of the first is in the term & face of ♄, who is the disposer of the eighth house. But because that position agrees precisely with none of the rules proposed: And the luminaries are*

outside the violent fixed stars, & outside the evil rays of the malefics, likewise outside the angles, in the sixth house, next the two malefics, are neither conjoined, nor afflict one another with an evil ray: The Sun too, lord of the first, is free from the affliction of the malefics. Therefore for the native not indeed a violent death, but dangers of a violent or rather a sudden death from suffocating catarrhs, by which either the ventricles of the brain are suddenly obstructed, as happens in apoplexy, or the breathing in & the motion of the lower parts is intercepted, are decreed, which dangers indeed are made manifest from the special judgment, the revolutions, the directions & the profections.

In the other example *no indications of a violent death are found. For 1 the luminaries are free from the evil rays of the malefics, nor do they attend violent fixed stars: And although ☽ is in ♒, a violent sign, yet its disposer ♄ holds neither a violent sign, nor an angle, nor afflicts it with any ray. The Sun too is in the benefic sign of Venus & the exaltation of the Moon. Next the malefics are outside the angles & detriment and fall, nor do they mix any rays between themselves, since they are in contiguous signs ♄ in ♓. ♂ in ♈. Third, the eighth house is occupied indeed by ♍, a violent sign & the house of the malefic ♄, but it is harmed by no ray, neither by it nor by Mars. Fourth, the lord of the first ☿ is in his own proper sign, & the strongest in the chart, nor is he condemned either by the luminaries or by the malefics. Finally the violent fixed stars are joined neither to the luminaries, nor to the malefics, nor to the lord of the first. From which security from a violent death is promised to the native.*

Caput XXV.

On natural & sudden death.

[Margin: From what natural death is judged.] *Natural death, which comes about when the native colour has been extinguished & the radical moisture consumed, is judged from these rules: 1 If the natal chart falls into none of the rules which we have handed down about violent death, the native will die a natural death. 2 If one of the benefics ♃ or ♀ is in the first, it is impossible for the native to perish by a violent death, even if very many rules threaten it. 3 He to whom malefics are in 8 dies by an evil death, if benefics, he departs from life happily in his own bed: Almansor prop. 19.*

4 By a gentle kind of dying they depart from life, whose authors of death are found in their own or domestic places agreeing with their nature, separated by none which could render the outcome more malignant and more conspicuous. Ptolemy [Ptol.] cap. 10 libr. 4 quad. 5 A natural death is also signified: 1 If good Planets have either held, or governed, or aspected the eighth house; & those indeed are strong, in some of their dignities. 2 If at the same time the ascendant is occupied, or disposed, or aspected by the good ones. 3 and the lord of the nativity is strong & a good Planet: And finally all these have cohered among themselves by good rays.

[Margin: How the quality of natural death is to be gathered.] *But the quality of death is judged from the significators of death, & their signs: Likewise from the temperament of the native. And first indeed when a Planet is in the 8 house, death is judged from its nature; likewise from the sign which it occupies, & finally from the lord of the eighth. But if several Planets are placed in the eighth, the judgment of the quality of death is taken from the Planet strongest among them.*

[Margin: ♄] Hence according to Ptolemy [Ptol.] cap. 10 lib. 4 quad. ♄, set over death, brings about deaths after long-lasting diseases, consumption, Rheumatisms, & fevers with shivering: Likewise through affections of the spleen; dropsical, Colic, or uterine affections, & all that consist of an abundance of cold. Cardano [Card.] 6 Aph. 17 also teaches; that ♄, when it does not signify a violent death in 7 or 8, or otherwise being dominator, announces death from sadness of mind. [Margin: ♃] ♃ from quinsy, pneumonia, apoplexy, convulsions of the head, & pains of the stomach, & all that arise from a disordered constitution of the lungs. [Margin: ♂] ♂ from continual & tertian fevers, sudden blows, affections of the kidneys, excretions & fluxes of blood, miscarriage & childbirth, the sacred fire, pestilent diseases, and those which happen through inflammation & burning heat. [Margin: ♀] ♀ through affections of the stomach & liver, impetigo & dysentery: likewise through ulcers, pustules, fistulas & drugs administered, and finally the things which occur from a superfluity of the moist & a corrupting force. [Margin: ☿] ☿ through madness & mindlessness, & falls arising from an abundance of black bile, through epileptic diseases, & coughs, & frequent spittings, & all that consist of a copious & corrupt dryness.

[Margin: Ptolemy's opinion.] *Next Ptolemy considers the killing place, that is the anaereta, which, when it is directed either by body or by ray to the hylech or the horoscope, kills.* [Margin: Who the killer is.] *But who are to be established as killers, we have set out above in cap. 2 in the general judgment of life, where we said that the anaereta is: either 1 the one which clings in 8: 2 or the one which is lord of 8: 3 the one which is joined to the lord of the eighth: 4 the almuten of a Planet being in the 8 house: 5 the almuten of the lord of 8.*

[Margin: What is to be attended to in the killer's place.] Moreover in the killer's place there is considered: 1 The nature of the Planet. 2 The nature of the sign into which the evil direction falls. 3 The nature of the term & of the fixed stars: And 4 the nature of the rays or of the Planets, which coincide at the same time or follow most closely. But it is, in the opinion of Cardano [Card.] 3 Aph. 108, most difficult to know the place of the killer, from which both the time of death, & the place & the kind are had. There is also the greatest ambiguity, when the fortunate rays of the luminaries or of the fortunes have fallen upon the killing place, to consider whether the native can be saved or not. For frequently some are saved beyond hope, others in turn perish beyond hope. 3 Aph. 113.

These Aphorisms, however, are to be noted here above all: 1 When the significator is weak & alone, & a Planet of contrary nature is in a strong place, it or its rays without the help of a benefic kill beyond doubt: 3 Aph. 109. 2 If the significator of death is in an angle, if oriental, if swift in course, if in its dignities, if near its nodes, if at the top of the small circle, it alone cuts off a moderate significator of life: 3 Aphor. 110. 3 If a violent kind of death is signified, it cuts off more promptly & more frequently: 3 Aph. 111. 4 If the force of the killing Planet is doubled, through another or the rays of another, or some star; but the significator of life is strong, it will kill altogether, when the killer is powerful

in itself, 3 Aph. 112. 5 When the tail has affected the lord of the ascendant with misfortune, & in the revolution the Moon has fallen with it, & the lord of death has aspected it, & that one is in the place of the malefic from the nativity, in that year the native will die, 3 Aphor. 5. 6 When the disposer of the place of death is cadent from an angle, but most of all in the 9 place & at a great distance from the Ecliptic & peregrine, the native will die outside the fatherland: 2 Aph. 134.

[Margin: The temperament shows the quality of death.] *Third, the temperament is also to be considered in this place. For as all temperaments have their own peculiar diseases: So from that too natural death is mostly recognised. For when the temperament degenerates, life is endangered. And the* Choleric *mostly perish of consumption: the* Phlegmatic *of dropsy: the* Melancholic *of black jaundice: the* Sanguine *of intemperance, apoplexy.*

[Margin: On sudden death.] *But sudden death, which is as it were a kind of middle between natural & violent, yet nearer to violent; is understood to be signified, when the configurations, which signify violent death, are imperfect. As when according to the 4 Rule handed down in the preceding cap. on the luminaries, both luminaries are indeed harmed by each malefic, but either none of them, or only one of them is placed in a violent sign: or when according to the seventh, both luminaries are indeed conjoined, or the Moon under the rays of ☉ in a violent sign, but they are assailed by none of the malefics with an evil ray. These configurations of violent death, because they are imperfect, therefore signify rather an abrupt or sudden death.*

[Margin: The nativity of Count Gajazius.] *An example of such a sudden death stands in* Cardano [Card.] Genit. 27. *For Count Gajazius, a vigorous man, in the year of life 32, in the Month of May, when he had dined somewhat too sumptuously, was suddenly extinguished within the fourth hour of the night. He had the malefics, according to the first Rule handed down on the malefics, in □ radiation indeed but platic, and Saturn in the angle of the tenth house with ☊, the Sun in the first, & Mercury and Mars conjoined in the second house condemning with a □ ray, Mercury also & Mars afflicting the Sun, the lord of the ascendant. But because neither luminary was in violent signs, nor were both malefics angular, none of the malefics also had kinship with the eighth house, & ♃, moreover lord of the eighth, fortuned the eighth by its presence, this configuration was imperfect for a violent death: Yet in that year, in which the ascendant came to Mercury, the disposer of ☉, combust under the rays of ☉, he fell by a sudden death.*

[Margin: The time of death is to be determined cautiously.] *For the rest, concerning the time when someone is going to die, this is to be noted: It does not befit a Christian Astrologer, that he be too bold in the determination of death, & define the time of death with certainty. It is best, that he either indicate only the dangers of death,*

Diagram. A square figure of heaven: an outer square, an inner square, the diagonals from the outer corners to the inner corners, and lines from the midpoints of the outer sides to the inner corners, making twelve triangular compartments around the central square. The central square carries the caption, set out in the Centre entry below. The compartments carry these labels (a sign

with its figure, and planets and a node with their degrees and minutes), each listed by the compartment it stands in:

- Left compartment (apex at the midpoint of the left side): ♌ 21; ☉ 7 53; ☿ 11 53
- Upper-left compartment next to it (between the left side and the upper-left diagonal): ♋ 26; ☽ 7 37
- Upper-left compartment next to the top (between the upper-left diagonal and the top): ♊ 21
- Top compartment (apex at the midpoint of the top side): ♉ 11; ♄ 6 57; ☊ 2 48
- Upper-right compartment next to the top (between the top and the upper-right diagonal): ♈ 7
- Upper-right compartment next to the right side (between the upper-right diagonal and the right side): ♓ 13; ♃ 26 12 ℞ (retrograde)
- Right compartment (apex at the midpoint of the right side): ♒ 21
- Lower-right compartment next to the right side (between the right side and the lower-right diagonal): ♑ 26
- Lower-right compartment next to the bottom (between the lower-right diagonal and the bottom): ♐ 21
- Bottom compartment (apex at the midpoint of the bottom side): ♏ 11; ☋ 2 48
- Lower-left compartment next to the bottom (between the bottom and the lower-left diagonal): ♎ 7; ♀ 22 41
- Lower-left compartment next to the left side (between the lower-left diagonal and the left side): ♍ 13; ♂ 15 43
- Centre: Count Gajazius is born / in the Year 1500 / in the month of August / Day, Hours, minute mark / 21, 16, 0 P. M.

especially those, which are more certain by several testimonies; or also add a restriction, if it has so seemed good to God. For neither are the parents, nor the natives themselves to be terrified, nor is God to be deprived of his mercy & power. For he is accustomed often to preserve, through & against second causes, those invoking his name: Just as David also, against the Prophecy of Nathan, prayed for the little one born to him of Bathsheba [Bethsabea], 2 Reg. 12: And in vers. 20 David says to his servants: While the infant was still living I fasted & wept: For I said, who knows whether Jehovah may have mercy on me & the infant may live.

[Margin: By what method the dangers of death become known.] But to the judging of the dangers of death there pertain: 1 The consideration of the Climacteric years proceeding from the septenary or novenary number, and of those nearest to them, if the lethal direction of the horoscope, ☉, ☽, falls into them, or in converse direction the direction of the occident. 2 The consideration of the directions and their quality, whether it is strong in the term of the significator of death, and destitute of the help of all the benefics. 3 The profections are also to be seen, whether they come to the rays of □ or ☍, Likewise into the house 6, 8, 12. 4 The revolutions are to be considered,

which however avail little without directions: But what singly does not hurt, many harm. 5 Let the Alfridaria also be seen, which distinguish the Climacteric years. For those Climacteric years are dangerous, over which the lord of death presides, or a Planet which otherwise is placed unhappily in the nativity.

[Margin: On esteem after death.] *Finally, concerning the esteem or honour of the native after death, the things which* Cardano [Cardan.] cap. 11 lib. de genit. *hands down are also to be noted, where he warns that the fixed stars 1[?] existing in the cardines M. & I. C. are to be considered. For as these extol the dignity of a man in life, so they preserve his esteem & glory after death through monuments of works & of letters, which one has built up in his office; especially if they are coupled there with the luminaries & Planets. Next those which are in the place of ☉ & ☽. For these above all, which are with the Sun, extend the glory of a man the longest. Nor are those to be neglected, which are conjoined with the other Planets. Yet the middle of heaven possesses the second place from the Sun, with the Moon; Saturn and the remaining Planets [come] after the lowest part of heaven. And the Sun indeed grants fame from power, magistracy & honours: the Moon from good fortune: ♄ from industry or labours: ♃ from riches, justice & probity: ♂ from brave deeds: ♀ from form: ☿ from disposition & memory.*

Therefore according as each one has had decrees of some eminent vice, or virtue, or happiness, or goods of the body, so also will he obtain fame in proportion to the magnitude of the thing.

But this is to be noted above all, that the one for whom noble Planets have presided in the eighth place, his funeral & tomb will be honoured. And those for whom the malefics have been in the eighth house with evil fixed stars, or have aspected the opposite place of the significator, his corpse will be mocked, & his disgrace will last very long. But those for whom the benefics have been in the eighth with illustrious stars, their bodies will be venerated as the saints'.

Also the one for whom, at the hour of death, the Sun has been in the middle of heaven, his illustrious glory will persevere long after death: 2 Aph. 124.

[Margin: The first example.] In our former example, *little will be lacking but that a sudden death happens to the native. For ♄, the significator of death, & the Sun, lord of the horoscope, are in violent signs. ♃ also, lord of the triplicity, agrees with Saturn, since it exists in his exaltation: yet ☊ in 8 mitigates somewhat, which is assimilated to the benefic Planets. Hence a beginning leading to death, sudden & as it were violent, is indeed signified: which however in the course of time will turn out into a long-lasting disease, on account of most Planets placed in the sixth; until at last death follows from a flux or also a suffocating catarrh on account of ♏, a watery sign, in which kind of sign ♂ also, the disposer of ♄, exists, & indeed at that time, when ♄ arrives by direction at the body of ☉: An honourable esteem & memory of the native after death is to be expected, because ☊ clings in the eighth, & the △ ray of Jupiter falls upon the same.*

[Margin: The other example.] In the other example *natural death is therefore adjudged to the native, because the situation of the luminaries & malefics agrees exactly with none of the rules of violent death, because ☿, lord of the nativity, is strong &*

a moderate Planet, & has a ✶ ray not only to the Moon, but also to Jupiter, and because ♄, the author of death, is in the sign of Jupiter, the benefic Planet, although Jupiter from his detriment afflicts him with an opposite ray: for the ✶ of Mercury to Saturn softens much evil. But the quality of death is determined by ♄, through sadness of mind, to which the Saturnine gouty diseases, quartan fever, & consumption come running. Yet nothing is to be feared before the direction of Saturn to Mercury or the horoscope. For the significator of life ☿ is strong enough, nor is it overcome by any other ray than by the bodily encounter of Saturn by direction. The Swan's tail culminating with the Moon chiefly governs the esteem after death, which, because it is a star of the nature of ♀ & ☿, preserves the honour & fame of the native among men very long, because the native was devoted to courtesy & humanity, curbed affections & impulses, & benefited others by disposition and studies.

FOURTH MEMBER.

On the special Genethlialogical judgment.

PROEM.

On the continuation & necessity of this special judgment to the preceding general, & on its parts or members.

[Margin: The reason for the continuation.] *With that doctrine of Genethlialogical judgment set out, which taught in general, from the configuration of heaven & of the stars, namely the position of the signs & of the stars, both wandering and fixed, in the various domiciles; the lords of the signs; and the syzygies & irradiations of the stars, both mutual and toward the cusps of the domiciles; to foreknow & foretell whatever future accidents of a man, life, temperament, manners, stature, health, riches, brothers, blood-relations, parents, marriage, children, journeys, honours, mastership, friends, enemies, prisons, death & the like, whether joyful or adverse; & was a certain* παρασκευὴ [Greek: paraskeuē, "preparation"], *for the determination of the years & months in which now these, now those happen in life.* [Margin: To the general judgment the special is rightly annexed.] *Now, as the order of the doctrine so demands, we approach that part which is called special, & prescribes some modes by which, through certain forms of operating, the times & moments of the events foreseen in the general judgment are investigated and detected.* [Margin: What the special judgment treats.] *For the prior, general doctrine, which taught to foresee future accidents in general, is imperfect & defective without this special; which determines the times of the same accidents, & forewarns the native in what year of age above all, month or even day, he ought to hope for a favourable accident foreseen in the preceding judgment, or to fear an unfavourable, and by some industry either to avoid, or at least to soften. Again also there seems to be no use of this special judgment without the preceding general: since also in vain is the time of that accident sought through this special doctrine, concerning which we have been taught in the preceding that it will not happen to the native. Rightly therefore are these two parts joined, but yet in such a way that the general judgment precedes, the special follows.*

As if a question were set up concerning the time of marriage, first of all it would be inquired through the preceding general judgment whether the stars would grant marriage to the native, or rather would show that he would lead a celibate life. And if the preceding precepts showed that he would contract matrimony itself, then also the time of marriage would be investigated through directions. But if they indicated that he would pass his life in celibacy, no direction also would be set up for the time of marriage. The same is to be judged concerning the rest.

[Margin: There are four chiefly, by which the particular times of events are known.] *But although the particular times of the events & chances which, according to the position & significations of the natal chart, happen to the native in life, are investigated in several modes: yet this is accomplished chiefly in four modes:* 1 through directions, *concerning which, what they are, & how they are set up, we have sufficiently advised in the last chapter of the preceding second part.* 2 through profections. 3 through revolutions, & 4 through transits. *We shall declare each of those modes in single chapters, and thus we shall summarily embrace the special judgment in 4 chapters; the rest we shall commit to the diligence & study of those practising this art.*

Chapter I.

On the judgment of directions.

Although this is the nature of directions, that they do not always exert their force in that year into which they fall, but defer to some one of the following, namely that one in which they are helped, and stimulated, by agreeing, similar profections, revolutions, & transits. [Margin: Directions last through several years.] *For some directions last through several years, & mostly extend their strength to as great a space of time as intervenes between that very one & the next; or until the mobile significator arrives at another promissor:* [Margin: Often also they operate at that moment of time in which they fall.] *yet we often also see it happen that they operate at that very moment of time which the calculation of the direction, set out above in the last chapter of part 2, shows. For the virtue of a direction is strong in the beginning, & therefore the effect also more evident, since in the subsequent years it is rendered more languid by degrees.* [Margin: Directions rarely operate alone.] *Hence directions ought never to be considered alone, but to be joined with profections, revolutions, & transits. For when a similar profection, revolution, or transit coincides with a direction, then indeed it is not to be doubted of the event which is signified that it will certainly follow. But when a direction alone falls in some year without a profection, revolution or transit noting a similar event in any part, then it defers its effect so long, until it is provoked by a similar profection, revolution, or transit: Indeed when it is also not stirred at all, or is also impeded by a contrary profection or revolution, it can happen that the effect of the direction vanishes entirely.*

[Margin: 1 Direction, one favourable, another unfavourable] *But that we may know more fully the nature & effects of directions, it must be known* first *that one direction is favourable & good, another unfavourable or bad. Directions are good, in which the benefic planets, as* ♃ *&* ♀*, meet the significator either with the body, or*

with their benign rays ✶ or △: On the contrary they are bad, in which the bodies of the malefics, as of Saturn or Mars, or the hostile rays □ & ☌, present themselves to the significators. And a good or happy direction indeed confers happiness & good fortune on the native: but a bad or unhappy threatens misfortune & unhappiness.

[Margin: 2 Directions are judged from their significators, namely houses & Planets.] *Secondly, that the significates of directions depend on the significators of the same, which are either Planets or places of the Zodiac, which are directed to their promissors. And as places of the zodiac employed as significators simply signify certain things, as health, riches, brothers, &c., concerning which it has been sufficiently treated in the significates of the individual houses, in chapter 5 of member 1 of this part: So the Planets also, as significators, denote certain things either per se, or per accidens. But what things each signifies per se, in chapter 9 of the preceding member of this third part; & for which they are usually directed principally, in the last chapter of part 2, we have briefly shown. But per accidens any Planet takes up other significations from the nature of the house in which it is placed, & also of that which it rules in the chart or Radix. As the Sun per se signifies life, health, and dignities. But when it is placed in 7, or is lord of the sign of the seventh house, it also takes up the signification of marriage.*

[Margin: 3 The cause of the significate is shown by the promissor.] *Thirdly, that the promissor, which is either a Planet or a ray to which the significator is directed, shows the cause of the significate, & indeed likewise either per se, or per accidens. Per se indeed, when the significate is produced through things or persons which the Planet denotes from its own nature. But per accidens, when things & deeds concur, which are signified through the house of the Radix in which the concourse of the direction happens, & give cause to the effect.*

As in a fortunate direction, the promissor shows the cause of happiness, both from its own nature, and of that house to which the direction reaches. So in an unfavourable direction, the promissor shows the cause of unhappiness. For [?] *evil arises from things & persons which the promissor represents both per se, & by reason of the place of the chart into which the direction falls.*

Cardano [Card.] 3 Aph. 26 says that in directions the place of the significator furnishes the matter, but the significator the form: So the promissor the efficient. But the aspecting Planets announce helps or hindrances of the future thing.

[Margin: Five hylegial places are usually directed principally.] *But since, by Ptolemy [Ptol.] sent. 77 centil. & c. 12 lib. 3 quadr., the principal significators or Aphetic places, which proceed to their promissors, are established, five. The Horoscope, M.C. ☉, ☽, & ⊕. We shall propose concerning each certain things pertaining here from the primum mobile of Luca Gaurico [Gauricus], from which Francesco Giuntini [Iunct.] into his speculum, & tractat. de jud. Natit. & Heinrich Rantzau [Ranzov.] in part. 4 Astr. tract: transferred most things.*

[Margin: The direction of the Horoscope, for what it is usually directed.] *The direction of the Horoscope therefore, because it signifies life, the affections of the mind, & peregrinations, if it has fallen into the benefic rays of the benefic Planets, or their very encounters, will grant a good event; If to the evil rays of the evil, it brings*

nothing but evil & destruction. But if it has been brought down to the benefic[134] *of the evil, or the hostile*[135] *of the benefic, it will signify milder diseases and lesser evils:*

[Margin: The direction of the horoscope to Saturn.] And in particular the direction of the horoscope to the conjunction of ♄ announces dangers of death to the native, unless the benefics have aspected the place of the direction with a ✶ or △ ray, or have been present by bodily presence. For then there is hope of escaping. But this direction always assails the body of the native with cold diseases, of which kind are pains of the spleen, quartan fevers, colic gripings, and the native will be anxious, sad & will be entangled in the greatest cares; but let him beware of dark places, subterranean caves, lest in them he undergo danger of life. And with Saturn existing in a fiery sign, it indicates a bad dyscrasia of the body from hot & cold.

In an earthy[136], melancholy & melancholic apostemes, cancers, Anthraces [carbuncles]. In an airy, windinesses distending & tormenting the body: In watery ones, phlegmatic humours, cold diseases, apoplexy, dropsy, gout, arthritis.

[Margin: △ or ✶ ♄] The direction of the Horoscope to the trine or ✶ of ♄ promises the native moderate health & tranquillity of mind, the native will associate with older men, Saturnine, & will carry on with the more powerful a commerce more honourable than lucrative, he will be happy in the beginning of works, especially earthly ones; of which kind are digging wells, conducting waters, cultivating farmland & vineyards, laying the foundations of buildings: △ however is happier than ✶.

[Margin: □ or ☍ ♄][137] of the Horoscope to the □ or ☍ of ♄, is formidable to the native concerning death, & the dangers of death, it also brings cold & dry sicknesses, quartan fevers, lethargy, vertigos, & troublesome and anxious perturbations of the mind.

[Margin: To the Term of ♄] *But to the term of ♄, it renders the native sluggish, slow, taciturn, yet of lofty mind, malicious, whose counsels have either slow or no effects.*

[Margin: The Horoscope to Jupiter.] The direction of the Horoscope to the body of Jupiter decrees for the native the best health of body, and unimpaired strength: And the native will be glad, affable, courteous, witty, who will grow in riches & honours by the patronage and largesses of Jovials, and who begins & accomplishes all things happily, and if his age allows, either enters into marriage, or treats concerning it.

[Margin: △ or ✶ ♃] To the △ or ✶ of Jupiter, it brings great glory of happiness in life & actions, & increases of patrimony and of friendships, it grants health of body & tranquillity of mind, and brings it about that the native is pleasing to Princes & Ecclesiastics, & is employed on honoured embassies and

[134] rays
[135] rays
[136] sign
[137] The direction

journeys; that he be also an author of substance, yet munificent, liberal, devoted to eloquence.

[Margin: ☍ or □ ♃] To the ☍ or □ of ♃ it designates some inequalities indeed in the body: It also brings hatreds, enmities, feuds, especially with Jovials, Jurists and religious men, who under the pretext of friendship will assail the native with tricks & snares, so that he suffers losses, but these evils will not be able to harm much.

[Margin: To the term of ♃] *To the term of Jupiter it adorns the native with the testimony of probity, of justice and of religion, & contributes to the native honour, increases of means, health of body & joys.*

[Margin: The Horoscope to Mars. And □ or ☍ ♂] The direction of the Horoscope to the body, □ or ☍ ray of Mars, exposes the native to various kinds of diseases, arising from a redundance of choler & from a vehement ebullition of burnt choleric blood, and of dangers and misfortunes; it also announces imminent death, unless the benefics have mitigated the evil. It also threatens dangers of the body, a fall from on high, wounds, burnings by iron & losses not moderate. And as it stirs up enemies for the native, especially in the opposite ray, accusations, moves wrath too, kindles violent and rash impulses in the native: So at the same time it warns, that for the whole time of the direction he flee warlike conflicts, & places, in which artillery engines are discharged, lest by sudden death he be taken away from the number of the living: But especially with Mars placed in a fiery sign, heatings & inflammations of the body are signified, which are the cause of acute diseases, such as burning fever, pleurisy, likewise tertian fever, phthisis & peripneumonia, & of hot apostemes, such as phlegmons & Erysipelases. In an earthy[138] lethal falls & desiccations of the humours: In an airy heats & inflammations of bodies. In a watery dyscrasias of the active & passive qualities are portended.

[Margin: △ or ✶ ♂] To the △ or ✶ of ♂, it decrees Martial exercises, horsemanship, sword-fights, tournaments, & that he will be loved & praised by other soldiers: He will be pleasing to princes on account of the inventions of stratagems, & how enemies are to be conquered skilfully, & he will receive from them emoluments & insignia of honours.

[Margin: To the term of Mars.] *To the term of ♂, it makes the native choleric, rash, & entangling himself in various kinds of crimes & shameful deeds, labouring also under an acute* [?] *dyscrasia of the body.*

[Margin: The Horoscope to the Sun.] The direction of the Horoscope to the body of ☉ indicates for the native a dignity or some glorious office from princes, and makes him pleasing & acceptable, yet not without various thoughts & anxieties of mind, or without the publication of all the secrets of life: for the Sun lays open all things. It also brings a dyscrasia of the body, pain of the head, & danger to the eyes, especially the right, loss of substance, & discord with some one of the brothers or sisters.

[138] sign

[Margin: To △ ✶ ☉] To the △ or ✶ of ☉ it denotes health of body, tranquillity of mind, & manifest increases of means. It also decrees new & splendid friends, & increases of dignity, and honoured journeys: And the native will be happy in actions.

[Margin: □ or ☍ ☉] To the ☍ to the □ of ☉, it inflicts very many defects on the body by reason of heat: It rouses the hatred of the prince, or the indignation of the nobles. It also indicates danger or loss of life for the father, unless he is freed by the help of the fortunate stars. It also brings very many losses, tricks, frauds, with loss of fortunes, & he will be tormented by pain of the eyes, and by other choleric sicknesses: Yet these are established to be milder in the square than in the opposite ray.

[Margin: The Horoscope to Venus.] The direction of the Horoscope to the body of ♀ decrees for the native all prosperous things with the best health of body, joy of mind [mentis] and tranquillity of spirit [animi]: He will be pleasing & acceptable to women, & either he will be captured by a new love, or the traces of an old flame will revive; and if age & the condition of life have permitted, he will celebrate a wedding, or will make many words about renewing a marriage, he will also be delighted by odoriferous things, & by golden and jewelled ornaments.

[Margin: △ or ✶ ♀] To the △ or ✶ of ♀ it indicates a healthful, glad, useful and prosperous time, in which the native will incline to jests, games, dances, banquets & Venus, & will marry a wife honourable and beautiful, on account of the benign ray; from which he will beget comely offspring. But if nevertheless he has devoted himself to the monastic life, & abhors marriages, he will obtain benefices in place of them; from which he will increase wealth & hereditary property.

[Margin: □ or ☍ ♀.] To the □ or ☍ of ♀ it signifies for the native a defect of the body, by which he will fall sick either from excessive crapulence & too frequent coition, so that for some time he can scarcely have intercourse: Meanwhile he will nevertheless indulge in desires, & will give himself to committing fornications and adulteries, and for that cause he will be marked with infamy: With women also, as with a wife or a lover, he will have dissensions, & contentious contests of quarrels.

[Margin: Term of ♀] *To the term of ♀ it shows the native in good health, robust, benign, inclined to sumptuous banquets & Music, and procures for him happy successes in life & actions, and pleasing fellowship with maidens & youths.*

[Margin: The Horoscope to ☿] The direction of the Horoscope to the body of ☿ not only rouses the native to writings & to studies of letters, poetics & Mathematics; but also offers profit & advantage from it, by which he may increase his property from labours; he will obtain an office useful & glorious, & either he will be enriched from the revenues of his office, Or he will be made fortunate in exchanging wares.

[Margin: △ or ✶ ☿] To the △ or ✶ of ☿ it confers sharpness of disposition & skill for taking up the disciplines, and makes the native more inclined to the

studies of letters & more eloquent than usual. Hence it also promises happiness in actions, excellent progress in studies, & profit from commerce; he will also make an honoured journey for the sake of an embassy.

[Margin: □ or ☌ ☿] To the □ or ☌ of ☿ it marks losses in the studies of letters, and a mind estranged from studies, it rouses dormant causes of hatreds & feuds, deceives by simulated contracts and feigned speeches, & involves the native in lawsuits, it also threatens robberies of servants and pillagings, and brings on the charge of adulterated money.

[Margin: To the Term of ☿] To the term of ☿ it makes the native faithful, formed by right judgement, suited to public accounts, & apt for exchanging wares, forming writings, & exercising studies.

[Margin: The direction of the Horoscope to the Moon.] The direction of the Horoscope to the body of the Moon, especially if ☽ is weak & afflicted, threatens some dangers both of body and of mind: And care must be taken by the native, lest near waters or marshy places he incur danger of life. It also disturbs the life of the man with great variety, as the Moon itself is various in light & motion; & it presses riches with the straits of poverty, again it relieves straits with sudden riches. But with the Moon fortunate it pledges to the native prosperity & joys, health of body, and happy success in business to be transacted, to be completed, & in peregrinations.

[Margin: To △ or ✶ ☽] To the △ or ✶ of ☽ it promises the native the dispatch of various businesses with increase of honour & of gains, and a healthful quiet of mind & body, it takes away the fear of dangers, & makes the native fit for any business: it also intimates the prosperity of the mother & of kinswomen, the trine especially, and makes the native pleasing to them & to other women and maidens; from which, if age has permitted, it also decrees a wedding for him.

[Margin: To ☌ or □ ☽] To the ☌ or □ of ☽, it rouses quarrels & controversies with the mother [genitrice] or wife, or even a lover, from jealousy; and the native will have contests with plebeian men & vile women, with disgrace & loss of honours, he will also feel sicknesses from vicious humours & danger of life in waters, finally in the eyes, especially the left, pains or damage.

[Margin: To ☊] The direction of the Horoscope to ☊ also, *according to the opinion of the Arabs, announces that the native will enjoy flourishing health of body & tranquillity of mind, & will have with Jovials, such as Cardinals of the Church & Prelates, a commerce useful & glorious, and also that he will obtain the accession of an extraneous inheritance.*

[Margin: To ☊] But to ♅, *it rouses in the native unhealthiness, some malignant & pestilential fever, flux of the belly, the colic passion, hernia, gonorrhoea, & many other evils of the body. Let the native also beware, lest he drink poisoned cups, or go to contagious places, & lest he fall into ignominy, disgrace, and loss of substance.*

[Margin: To ⊕] The direction of the horoscope to the part of fortune, *signifies for the native, unexpectedly or even from labour, notable increases of movable goods. And if ♄ has bedewed that place, this will happen by the patronage of Jovials:*

if the Sun, by the munificence of a king or prince: If ♀ of women: If ☿, by the help of Mercurials, or on account of the disposition & skill of the native.

[Margin: The direction of the horoscope to the fixed stars.] The direction of the horoscope to the royal fixed stars also usually brings either happiness & advantages, or unhappiness & the greatest detriments: hence, so that the doctrine of directions may be fuller, we shall bring here from the primum mobile of Luca Gaurico [Gauricus] & the treatise of Francesco Giuntini [Junctinus] on the fixed stars certain things, which Heinrich Rantzau [Ranzovius] also recites.

[Margin: Canopus] [Margin: The spear-shaft of Boötes] [Margin: Arcturus] [Margin: The tail of Leo] The direction of the horoscope to Canopus or the spear-shaft of Boötes, *which are Saturnian & Jovian stars*; Or to Arcturus, *Martian & Jovian*; or the tail of ♌, *Saturnian & Venereal, decrees for the native fortune & renown, which he will enjoy with joy & gladness in this world, likewise abundant resources of gains. But he will nevertheless be entangled in various occupations, lawsuits and terrors.*

[Margin: The bright one in the shield of the ship Argo.] To the bright star in the middle of the shield of the ship Argo, which is called Markeb, *of Saturnian and Jovian complexion, it suggests to the native honoured*[139] *& lucrative journeys, which, full of gladness & ornament or dignity, weighty in prudence, yet patient of injuries, he will enter upon in company with Saturnines & Jovials.*

[Margin: The Belt of Orion.] To the Belt of Orion, of the nature of ♃ & ♄, *it promises profit from the dead, or an excellent portion of an inheritance, or even gains from the largesses of Jovials, gravity also & severity, the allurements of loves, & some light alteration from excessive intercourse after drunkenness.*

[Margin: The Heart of Leo.] To the Heart of ♌, of the nature of ♃ & ♂, *it contributes to the native most abundant riches & most ample honours, also the highest esteem with kings & princes; but the overthrow & destruction of adversaries: yet for a short time he will suffer an acute or choleric alteration.*

[Margin: The Lesser Dog] To Algomeysa or the Lesser Dog, of the nature of ☿ & ♂, *it indicates to the native wrath, by which he will be entangled in Martial acts, yet he will seem to love wisdom, although, shrewd, sly, crafty, cunning, he keeps a vapid fox beneath his breast: he will also make many losses on account of lust, and some ignominy will be cast at him; from wares he will feel forfeit rather than advantage, in writings & the studies of letters he will be made unfortunate, & from thefts of servants or of Martials he will suffer detriments.*

[Margin: The bottom of the vessel] [Margin: Spica.] To the bottom of the vessel, of the nature of ♀ & ☿; or to Spica ♍, of the nature of ♀ & ♂; *it promises the highest rank in religion or the Church, with huge praise, & great esteem with riches, on account of the sagacity of disposition: With Venereals also & Mercurials all things will succeed for the native according to the wish of the mind.*

[Margin: The fixed one above the knee of Leo.] To the fixed one placed above the knee of ♌, of the nature of ♃ & ♂, *it furnishes the native a lucrative*

[139] printed honerata; onerata, laden, is also possible

commerce with Jovial & Martial men, and he will obtain dignity, so that he becomes an illustrious governor either of a city & town, or of soldiers, having power of life & death: and he will be praised, honoured in actions.

[Margin: The neck of Leo.] To the neck of ♌, of the second magnitude, of the nature of ♄ & ♂, *it denotes that the native will undergo not moderate inconveniences and dangers of goods, of honour & of life. Let him therefore take heed cautiously, lest he be thrown down from a height, or be slaughtered by Martials; let him also observe moderation in diet & actions, lest he fall into pernicious sicknesses.*

[Margin: The bright one of Hydra.] To the bright one of Hydra, of the nature of ♄ & ♀, *the native will be occupied about possessions & buildings, he will also experience labours, troubles, losses & forfeit in hereditary matters, & on account of fornications will suffer damages & disgrace.*

[Margin: The Manger in Cancer] [Margin: The Pleiades] To the Manger or the Pleiades, of the nature of ♂ & ☽, *it designates that the native will suffer diseases from red bile & choleric humours, and also wounds in the face, will lack the sight of the left eye, and will experience prisons or the inconveniences of exile, likewise torments of the arms. But if the manners & life of the native are adverse to the laws, this direction also condemns the native to the triremes, or he will be punished capitally, or will be afflicted with other kinds of punishments.*

[Margin: The two Asses.] To the two Asses, which Luca Gaurico [Gauricus] & Francesco Giuntini [Junctinus] establish as of the nature of ♂ & ☽, *it affects the native with an acute sickness, and harms the sight of the eyes, especially of the left: Let the native also see to it that he is not killed by kicking horses, horned bulls, or bears, or falls headlong from a height: let him flee brawls, lest he suffer inconveniences. But he will more easily avoid these evils, if the annual conversion has not been evil, and salutary stars aspect the place of the Moon with salutary rays △ or ✶.*

[Margin: The direction of the horoscope to house 2] The direction of the horoscope also *to the cusp of the second house* offers the native increases of movable goods, such as precious furniture & an affluence of money; especially if the second house in the radix & in the annual revolution, and their Lords, are not defiled, & ♃ has aspected that place happily. Otherwise, if they have assailed one another with hostile rays, losses of movable goods will be present. [Margin: House 3.] *To the third house* it decrees frequent journeys, for the sake of religion or of fulfilling a vow, or so that he may visit brothers & sisters. And if a watery sign has been in the third, there will be peregrinations by waters: If an earthy one, by lands. [Margin: House 4.] *To the fourth house*, which however rarely happens, it will be a lethal direction & as it were to the house of burial.

[Margin: Directions of the middle of heaven.] *The direction of the middle of heaven, however, since it signifies honours & the favour of the great, and the affection of the common people and the actions of the native, marks, if it is good, lucrative offices, friendship & a convenient dispatch of affairs; if bad, damages, impediments, and controversies.*

[Margin: To Saturn.] And specifically the direction of the middle of heaven to the body of ♄ proclaims the greatest indignations, & the hatreds of princes

or of the great; With a varied kind of evils it also overturns dignities, offices, honours and favours; it makes the native accomplish businesses with slowness, but rouses heinous crimes, & sometimes portends death, by a judge's sentence passed.

[Margin: To △ or ✶ ♄] To the △ or ✶ of ♄, it signifies fortune from men Saturnine or advanced in age, with whom he will also contract a friendship more useful than honoured, and the native will keep a certain gravity and severity, & will be venerated more than usual and will be commended: He will also have substance from Monks, Hermits or religious: Finally he will be much occupied in cultivating fields, gardens, vineyards, & in planting trees, especially if ♄ clings in an earthy sign ♉ or ♍.

[Margin: To ☍ or □ ♄] To the ☍ or □ of ♄, it decrees laborious evils & misfortunes for the native, it despoils the same of dignities, honours, and offices, through Saturnine men, such as rustics, farmers, cobblers, who will as it were conspire & agree to his ruin: And as to common men beggary & a certain infamy: so to nobles it foretells damages, losses through thefts, accusations & betrayals.

[Margin: To the term of ♄.] *To the term of ♄ it provokes Saturnines against the native, who may deprive him of dignity & honours.*

[Margin: The direction of the middle of heaven to Jupiter] The direction of the middle of heaven to the body of Jupiter brings the native a healthful useful & glorious year, in which he is carried up to dignities & honours, & by the patronage of some Ecclesiastical prince arrives at a prelacy with an affluence of revenues, or is enriched with the most ample gifts.

[Margin: △ or ✶ ♃] To the △ or ✶ of Jupiter, it furnishes the same as the conjunction: More, however, to the △. For this direction lifts the pauper out of the dung, & places him with princes, & brings with it the highest goods, and ineffable accessions of happiness.

[Margin: □ or ☍ ♃] To the □ or ☍ of Jupiter, many grievances are signified for the native on account of laws, judgements, and sentences. He will have judges & Jurisconsults little fair, who from envy will strive to harm the native, and to strip him of dignities & offices, but partly in vain. He will also feel troubles from the spiritual, and on their account will be compelled to lose something of his substance.

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hostile assaults, & unless he takes prudent care of himself, by order of a Mars-born prince, & through the hatred and accusations of Mercurials, he will suffer the inconveniences of prison or of exile, with torture of the arms & ignominy, infamy on account of false writings, or even counterfeit monies.

[Margin: The left foot of Orion] To Rigel, of magnitude 1, in the left foot of Orion, of the nature of ♃ & ♄, *it suggests that the native, by order of a great Jovian prince now growing old, will be the leader of an army, or of certain soldiers,*

[140] In this copy the leaf printed 742–743 is bound out of order, after page 745; its text is given below, after page 745. This page continues the sentence that page 743 breaks off.

harsh, irascible, intrepid, imperious, magnanimous: or that the native will attain a lucrative Ecclesiastical dignity, yet he will be much shaken by labours & anxieties.

[Margin: Canopus] [Margin: The tail of ♍] To Canopus or the tail of ♍, stars of the nature of ♄ & ♃, *it denotes for the native, by the patronage of an Ecclesiastical prelate now growing old, an ample dignity, with huge esteem, glory, & abundance of riches, which both the mother [genitrix], & the son, if there is any, will enjoy with a glad lot.*

[Margin: The Heart of Leo] [Margin: The Greater Dog] [Margin: Arcturus] To the Heart of ♌, the Greater Dog & Arcturus, stars of the nature of ♃ & ♂, *by order of a great prince a fiscal dignity, & dominion over peoples will be entrusted to the native, or he will be made governor of a town or of a city; moreover he will undertake the burdens of directing rivers & aqueducts or of constructing buildings, in all of which he will be commended & will increase property. It also makes the native inclined & apt for military governorships, & he will conduct the business of the more powerful with great honour.*

[Margin: Spica ♍] To Spica ♍, of the nature of ♀ & ♂, *it confers on the native honours above the condition of his own stock: For he will have power of life & death over peoples:* And it has been found *from many nativities, that those sprung from ignoble lineage, who have had Spica ♍ or the Heart of ♌ in the M. C. or the horoscope, have arrived at the highest summits of affairs & of honour, & have been raised to the pontifical dignity. For these stars never,*

Diagram. A square nativity figure. An outer square encloses a square set corner-upward whose corners touch the midpoints of the outer sides; a smaller central square stands with its corners at the midpoints of that square's sides; and four diagonals run from the outer corners to the corners of the central square, so that the figure is divided into twelve compartments around the central square. No house numbers are printed. The labels are set at angles along the lines of each compartment. The central square carries the inscription: Born, Julius II, Pontiff, in the year of Christ 1445, on the 22nd day of June, at 3^{h} 24^{m} P.M., in the latitude of the place 43° 20′.

- Central square: Nascit. Julius II Pontifex / Anno Christi / 1445 / Die 22 Iunij / Hor. / 3 24 P. M. / In Latit. loci / 43 grad. 20 /.
- Upper left corner, compartment against the top side: Spicam ♍ 16 ♎; along its inner line, ♍ 28
- Upper left corner, compartment against the left side: ♎ 22
- Top centre compartment: ♌ 26 16
- Upper right corner, compartment against the top side: Reg. 22; ♃ 28 45; ☿ 23 40; ♄ 20 20; ♋ 16, followed by a solid round dot [?]
- Upper right corner, compartment against the right side: ☉ 9 15; ♀ 22 35; ⊕ 20 55; ♂ 10 14
- Right centre compartment: ♊ 10; ☊ 20 50; ♉ 15 5
- Lower right corner, compartment against the right side: ♈ 22
- Lower right corner, compartment against the bottom side: ♓ 28
- Bottom centre compartment: ♒ 26 16

- Lower left corner, compartment against the bottom side: ☽ 15 5; ♍ 16
- Lower left corner, compartment against the left side: ♐ 10
- Left centre compartment: ♏ 15 5

[Margin: The nativity of Julius II, Pontiff.] *as regards the goods of this life, obtain a bad outcome; as may be seen from the nativity of Julius II, Pontiff, called Iulianus de Ruvere [Giuliano della Rovere] before the Pontificate, born in the Year 1445, as Francesco Giuntini [Iunctin.] has it on chapter 1 of book 4 of Ptolemy [Ptol.] quad. [Ptolemy, Quadripartitum], at 3^h 24^m after midday, and not, as Ioan. Garcæus [Johannes Garcaeus] writes, 0^h 54^m P. M. For in this nativity, besides other things signifying riches & the increase of property and of honours; as that the part of fortune in the eighth house with Venus had ☿ & ♄ as disposers, which were happily conjoined to Jupiter in the ninth, & that ♃ was the lord of the second house; this also was added, that Regulus was almost on the cusp of the M. C., & that the direction of the M. C. came to Spica ♍ around the 46th year of age: This configuration brought him, a little after, in the Year of Christ 1503, the Pontifical dignity and great riches; some of them, however, he squandered in the wars, very great ones, which he waged against the Venetians & the French, because of the nearness of Mars to the part of fortune.*

[Margin: The Pleiades] To the Pleiades, of the nature of ♂ & ☽, *it portends turbulent & pernicious business, lawsuits, quarrels, & controversies on account of women, from which one so born will experience anxieties, losses & disgrace, & will either be thrust into the hands of enemies or of pirates, or will feel the inconveniences of prison or of exile. And although this direction sometimes decrees honours at the beginning, yet it finally brings a bad end, & one joined with disgrace, especially in bad & unhappy nativities.*

[Margin: The Head Algol] To the Head Algol, of the nature of ♄ & ♃, *it announces some great danger to life on account of homicides, of which, accused as either the author or the helper or the accomplice, he comes into danger of the head; or if it inclines to good, it promises a magistracy of the kind that has power of life over others, & orders many to be punished capitally.*

[Margin: The direction of the Middle of heaven to the following houses.] *The direction of the Middle of heaven also to the 11th house* wins for the native new & not obscure friends, Jovian ones, if ♃ has been there, or has aspected that place happily; Venerean ones if ♀; nobles & magnates if the Sun, &c. & if the native has demanded anything from them, he will obtain it easily. *To the 12th house,* let the native beware for himself of the plots of hidden enemies & of the wrath of the prince, lest he be forced to experience prisons, or the inconveniences of exile, & lest he receive damages from quadrupeds, from kicking Horses or Bulls. *To the horoscope* it decrees illustrious honours & praise, although he rarely attains to it.

[Margin: On the directions of the Sun.] *The directions of the Sun are instituted chiefly for this reason, that, because the Sun is the author & significator of the vital power, and has the highest preeminence among the stars, judgement may be sought from them concerning the health of the native, prosperous & adverse, dignities & public offices, the favour of magnates, & the state and esteem of the father. But in particular:*

[Margin: To Saturn.] The direction of the Sun to the conjunction or body of ♄ announces to the native, at that time of his age, great difficulties and illnesses of the body. For it signifies weakness both of the belly & of the heart, melancholic alterations, quartan fever, chronic diseases, & an overflow of black bile, and colic pains, & for the father of the native pains of the head: Likewise for the native himself defects of the eyes, of the right above all. It will also provoke the indignation of a Saturnine prince & of nobles against the native, who will envy him, & will detract from his goods and honours: from which sadness & anxieties will also accompany the native. On journeys both by land and by water he will experience dangers.

[Margin: The term of ♃] *To the term of Jupiter, it promises healthiness of body & happiness in life & actions.*

[Margin: The direction of the Middle of heaven to ♂.] The direction of the Middle of heaven to the body of ♂ throws the native into the greatest dangers of life & of fortunes. For it stirs up the angers of the more powerful, especially of Martials, & threatens the native with flight, exile, and prisons; it also causes fires & burnings & wretched dissipations of the patrimony.

[Margin: ✶ or △ of ♂] To the ✶ or △ of ♂, it denotes that the native will involve himself in jousts, arms & other military exercises: from which he will also be decorated by the Magistrate with Martial offices, & will be pleasing & acceptable to the leaders of soldiers.

[Margin: □ or ☍ of ♂] To the □ or ☍ of ♂, it announces many evils, thefts, robberies, hatreds, contentions, which will come about both from the native, and from others against the native; It also signifies a maker of counterfeit money, & one deceived by makers of this kind; from which a public death also is to be feared.

[Margin: The term of ♂] *To the term of ♂, it stirs up Martial men against the native, and announces for the mother & for one of the sons of the native adverse health & an unjust lot.*

[Margin: The direction of the Middle of heaven to the Sun] The direction of the M. of heaven to the body of ☉ raises the native to honours & dignities, and makes him known, pleasing & acceptable to kings, princes & illustrious persons; whose business also he will dispatch with great fidelity & skill, so that he may earn a name & favour. This direction is also advantageous & happy for the parents, to whom it promises prosperity.

[Margin: To the ✶ or △ of ☉] To the ✶ or △ of ☉, it promises the native public offices & honours, and from a king or a great prince gifts & grace, and favour: from which he will also so order his affairs, that he is held magnanimous, munificent, thinking nothing base, & either presides over the Commonwealth with praise or is judged by all to preside.

[Margin: To the □ or ☍ of ☉] To the □ or ☍ of ☉, it exposes the native to various dangers. For it despoils the native of the grace & favour of princes and of great men, deprives him of dignities & offices, and changes & overturns all his fortune, so much so that he is forced to suffer prisons, exiles, sometimes

even death by order of the prince. This direction also harms the parents, and brings damages by fire on the means of them, as also of the native himself.

[Margin: The direction of the Middle of heaven to ♀.] The direction of the M. C. to the body of ♀ indicates for the native cheerfulness of mind & gladness, likewise banquets & revels, also pleasing company with young people & noble women, & if the time allows, decrees nuptials.

[Margin: To the ✶ or △ of ♀] To the ✶ or △ of ♀, it excites the loves of women towards the native, & confers on the native new houses, buildings, and new clothes, & singular gladness & joy; it bestows the goodwill of the common people & the favour of men; finally it promises a fortune not mediocre, likewise prosperous health to the mother of the native, & to his agnates & to women joined by blood.

[Margin: To the □ or ☍ of ♀] To the □ or ☍ of ♀, it is damaging & infamous for the native; for it stirs up hatreds, lawsuits & contentions, detracts from reputation & honour on account of women, and lays snares for the native with poisons & the dangers of love: It also hints at the death of the wife or of the mother & divorces, and he will suffer the loss of beautiful things, especially the opposition, since the □ ray is of lesser strength.

[Margin: To the Term of ♀] *To the term of ♀ it promises the native joy & gladness and pleasant conversation with women, and he will become master of those things which he had as wishes.*

[Margin: The direction of the M. C. to ☿] The direction of the M. C. to the body of ☿ makes the native fortunate in dispatching business, confers honours & dignities on account of writings, of numbers, & of letters, and makes him pleasing to men on account of industry & wisdom; from which he will also feel no small accession of substance.

[Margin: To the △ or ✶ of ☿] To the △ or ✶ of ☿, it pledges happy successes in the studies of letters, in business, commerce & offices, & promises useful & pleasant conversation with Mercurials, likewise on journeys fortune & a convenient dispatch, and an honoured office of embassy.

[Margin: To the □ or ☍ of ☿] To the □ or ☍ of ☿, it portends a heavy & difficult time for the native. For he is pressed with envy & hatred by clever & Mercurial men, who will exercise & disturb the mind of the native with various anxieties, and his actions with various interruptions. He will also be entangled in criminal business, which will strive to deprive him of honour & offices.

[Margin: To the term of Mercury.] *To the term of ☿, it rouses the disposition of the native to studies, and makes him fortunate in them, & in dispatching literary business.*

[Margin: The direction of the M. C. to the Moon.] The direction of the M. C. to the body of the Moon announces for the native a varied, unstable & restless time, in which he will be agitated in body & mind for various reasons, nor will fortune stand still in one place, but it will be noticed now glad now adverse, and the condition of riches will be altogether changeable.

[Margin: ✶ or △ of ☽] To the ✶ or △ of ☽, it bestows fortune, & promises honours greater than usual from the people, likewise gifts from some renowned woman; he will prosper moderately in his offices & business, & will join to himself in wedlock a wife either sickly, or tainted with some defect of body.

[Margin: □ or ☍ of ☽] To the □ or ☍ of ☽, it portends hatreds of the people, brawls & contentions on account of women, likewise loss of dignities & offices; the native will suffer heavy losses on account of lust from vile women, who will also lay snares for the native with poisons. It also threatens the mother or the wife of the native with sickness or death.

[Margin: To ☊] The direction of the M. C. to ☊ *designates happiness in matters of trade, & one fortunate in all actions, and pledges honours from Jovial & Venerean persons.*

[Margin: To ☋] To ☋, *it portends difficulties & unhappiness: And it is bad & ignominious for the native & his actions; it also provokes Saturnines & Martials against the native, & signifies infirmity of the eyes.*

[Margin: To ⊕] To ⊕ *it makes the native not only intent on heaping up wealth, but also fortunate. Hence he will also lend at interest more than usual, since price is now in price, the census gives honours.*

[Margin: The direction of the M. C. to Capella.] [Margin: The Heart of Scorpio] The direction of the M. C. to the Goat or Capella, a star of magnitude 1, & the Heart of ♏, *of magnitude 2, of the nature of ♂ & a little of ♃, grants the native a companionship more honourable than lucrative with Martials & Jovials: for he will incur many losses, and will be more inclined to military exercises; from which also some military dominion will be entrusted to him by Jovials, or in maritime business power over sailors will be given, most of whom, however, will pursue with hatred out of envy. Also by an unexpected chance, danger of death from iron, fire, boiling water, or grave sickness is portended for the mother [genetrix], or for a son if the native has one at that time.*

[Margin: The right shoulder of Orion] To the right shoulder of Orion, of the nature of ♂ & ☿, *it denotes that the native is occupied in Martial business, with such art, skill & dexterity of disposition, that he both devises stratagems, & will from there attain dignity & the insignia of honour among soldiers & Mercurial men, that is, clever men.*

[Margin: The Bull's Eye] To the Bull's Eye, of the nature of ♂ & ♀, *it changes the adverse fortune of the native into a better one, it also contributes insignia of honour & increases of riches from the patronage of Martials & Venereans.*

[Margin: The left shoulder of Orion] To the left shoulder of Orion or Bellatrix, a star of the second magnitude, of the nature of ♂ & ☿, *it denotes for the native brawls & many calamities. For he will fall into hatreds feuds &*

[Margin: To the △ or ✶ of ♄] To the △ or ✶ of ♄, it decrees insignia of honours from a Saturnine prince, & from an aged magistrate. For he will also be set over others, & will govern them prosperously, and will attain fame, glory & riches, so much so that his name is celebrated even in more remote regions:

The native will also be at this time severe, grave, & gains greater than usual will flow to him from agriculture, architecture, & an inheritance that arrives.

[Margin: To the □ or ☍ of ♄] To the □ or ☍ of ♄, it proclaims a grave & bitter danger to health, an evil to the right eye, & a violent fall either from a horse or from a building: It also entangles the native in losses of substance & of goods, which come from the robberies & pillagings of servants and of peasants: it also signifies the overthrow of honours, & losses & shipwrecks in maritime merchandise. Finally it separates the parents, & brings to the native the inconveniences of bereavement.

[Margin: The term of Saturn.] *To the term of ♄ it wins for the native sadness, the hatred of men, & envy, & brings on illnesses from a cold cause, it also declares the loss of substance & of honours.*

[Margin: Directions of the Sun to the body of Jupiter.] The direction of ☉ to the body of Jupiter blesses the native with health of body, tranquillity of mind, & other goods of life and of fortunes. For it brings increases of honours & of substance, & a certain public eminence or an Ecclesiastical benefice, which the native will obtain from the highest prelate or from a king: He will be in favour with princes, & will enter into honourable covenants of friendship with the rich & with Jurists.

[Margin: ✶ or △ ♃] To the △ or ✶ of ♃, it confers on the native astuteness, skill, & elevation to honours: from which he will be made either the chief president of a king or of a great man, and he will be as it were a king in his own household, & will be loved everywhere by the more powerful. It also promises an Ecclesiastical benefice, with no mean affluence of riches, & his substance will be increased in a wonderful way.

[Margin: □ or ☍ ♃] To the □ or ☍ of ♃, it stirs up against the native certain Jovian men devoted to religion, or jurists, who will afflict him with anxiety & worry, and will bring loss to his substance, which however he will recover, & he will overcome the wickedness of the adversaries, provided the nativity is not altogether unfortunate & bad.

[Margin: The term of Jupiter.] *To the term of ♃ it increases the native in honour dignity & the goods of fortune, he will be loved everywhere, & will overcome his enemies: He will also enjoy health of body & tranquillity of mind.*

[Margin: Direction of the Sun to Mars.] The direction of ☉ to the body of ♂ afflicts the health of the native with a boiling of the bile, with acute fevers, with most severe pains of the head, and the sharpness of the eyes with dullness, or with other evils, it disfigures the face with wounds, & harms the rest of the body with iron, fire, or boiling water: and it designates the native as inconstant & changeable, in counsels, thoughts & actions, to whom labours & difficulties will befall on account of misdeeds. His enemies will exalt themselves over him, & he will fall into the hatred of kings & of great men: he will also feel grievances on account of the parents, & let him beware lest he be hurt by the bite of a Dog, of a Horse, or of another animal.

[Margin: △ or ✶ ♂] To the △ or ✶ of ♂, it promises the friendship of Martials, as of soldiers & of nobles, makes[141] more inclined than usual to arms, horses, jousts & sword-fights, and confers boldness & magnanimity: Besides, through the patronage of a king or of a leader it grants insignia of honours, & pledges praise and glory in military matters.

[Margin: □ or ☍ ♂] To the □ or ☍ of ♂, it announces to the native an acute disease, and a defect of the eyes, bleariness or blindness, it inflicts bloody wounds, & threatens dangers to life from fire, iron, or the shot of an artillery engine. It also makes the counsels of actions void, & announces almost all kinds of misfortunes. Let the native therefore abstain from beginning arduous things, & let him know that he is hindered in almost all his acts.

[Margin: The term of ♂] *To the term of ♂, it brings the native inconvenience in life, counsels & actions, it threatens acute diseases, adverse outcomes of counsels & of actions.*

[Margin: Direction of the Sun to Venus.] The direction of the Sun to the body of ♀ rouses the native to music, jests, games, joys, banquets, dances & Venereal pleasures; he will be captured by a new love, or the traces of an old flame will revive; he will have pleasing & voluptuous dealings with a beautiful & noble girl, & either he will marry a rich & charming wife, or he will pour out many words about marriage: Finally it promises healthiness of body, tranquillity of mind, & the love of the parents, whom he himself will also cherish & revere.

[Margin: ✶ or △ ♀] To the ✶ or △ of ♀, it decrees to the native a great name, and a wonderful expectation, & the highest honours: from which he will also acquire great means, & will be cherished by all the people, especially by Venereans, & all the more so if the condition of the family or of the lineage has given testimony to the native: For from this he will also more easily fulfil his desires, on whatever condition this may also come about.

[Margin: □ or ☍ ♀] To the □ or ☍ of ♀, it designates a sterile time, in which the native cannot beget offspring, & in which difficulties present themselves in marriage, so that, both given to impure & base desires, and occupied with servile pursuits & acts, he incurs no mean infamy.

[Margin: The term of Venus.] *To the term of ♀ it makes the native prone to pleasures, revels, & sumptuous banquets, by which he also loves the parents more than usual, and in turn is loved by them, & by which he is devoted above all to the love of girls, and of beautiful & fragrant things.*

[Margin: Direction of the Sun to Mercury.] The direction of the Sun to the body of ☿ entangles the native in various businesses. For he will be inclined both to exchanging merchandise, & to the studies of letters, & from there he will feel an accession of substance & in turn a loss, & as he will be magnified by many on account of the gifts of disposition, so he will be employed in lawsuits & contentious disputes, or he will undertake the duties of an embassy, & perhaps

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he will be deceived by false witnesses, so that he also suffers some loss of his patrimony.

[Margin: ✶ or △ ☿] To the ✶ or △ of ☿, it designates the native as restless, who will indeed be employed in many businesses, yet with small profit & gain. In journeys also, writings, & the remaining businesses he will not be happy in all things, but will feel some damage in them.

[Margin: □ or ☍ ☿] To the □ or ☍ of ☿, it exposes the native to various accusations & charges, of which kind are[142] of false writings, of counterfeit money, of those denying things entrusted, and from there he incurs a bad name & infamy. For he will also show himself with bad manners, he will be torn apart by grave perturbations, & will be thrown down from his Mercurial offices.

[Margin: The term of ☿] *To the term of ☿ it makes the native apt for the studies of letters & for carrying on trade, from which he will also acquire a name, & will be loved & revered more than usual.*

[Margin: Direction of the Sun to the Moon.] The direction of the Sun to the body of the Moon afflicts the health, brings a phlegmatic alteration not without pains of the head & of the stomach, also the sharpness of the eyes dulls, & makes the native purblind; otherwise it designates the native as criminal, who on account of robbery or theft will feel inconveniences in body & in goods, & will be troubled in various journeys.

[Margin: ✶ or △ ☽] To the ✶ or △ of ☽, it wins for the native the acquaintance & favour of Emperors and of Kings. For he will dispatch their businesses with honour & gain, & will undertake profitable journeys, he will also marry a wealthy wife, or will often speak about marriage, & will increase the number of friends.

[Margin: □ or ☍ ☽] To the □ or ☍ of ☽, it provokes many powerful men against the native, who will also trouble him in various ways. In travels abroad he will suffer misfortune, & he will be tossed about variously in the goods of fortune, so that now he abounds in goods, now he is forced to seek the supports of life from door to door. This direction also separates the marriages of the parents, & disfigures the body and the mind of the native with many vices, above all it stirs up fearful illnesses of the eyes, it basely divulges hidden things, & promotes quarrels & contentions with women towards jealousy or on account of lust.

[Margin: Direction of the Sun to ☊] The direction of ☉ to ☊, *makes the native acceptable & pleasing to princes, by whose help & effort he will be promoted to dignities & public offices.*

[Margin: to ☋] To ☋, *it opposes the honours of the native, and threatens loss of fortune & an evil in the eyes, especially the right, likewise a fever either phlegmatic or melancholic.*

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[Margin: to ⊕] To the part of fortune, *it decrees to the native joyful, useful & honoured things, & from a prince largesses & gifts, and an abundant supply of movable things.*

[Margin: Direction of the Sun to the fixed stars. Rigel] [?] The direction of the Sun to Rigel or the left foot of Orion, *of the nature of ♃ & ♄, denotes for the native boldness, insolence & a desire of shedding blood, by which he will both stir up factions, & will foster the factious, he will provoke powerful enemies, & will be afflicted with certain misfortunes. But let him see to it that he flees the plots of Saturnines, which, with prudence as a guide, since ♃ also mitigates the imminent dangers, the native can easily accomplish.*

[Margin: The Heart of Scorpio] To the Heart of Scorpio, *it decrees illustrious honours, provided the native acts cautiously, lest he be deceived by Martials, & suffer some evil in the right eye.*

[Margin: The Lesser Dog] To the Lesser Dog, *it promises military dignity after various contentions, expenses, & threatens the hatreds & bitter indignations of a certain more powerful Mercurial, as of a Chancellor, and of one born of Mars, as of a Captain.*

[Margin: The Heart of Leo.] To the Heart of Leo, *it adorns the native with a certain royal majesty & dignity, so that his fame is spread through many regions: And this direction is honourable, useful & most happy for the native, for his father & for almost all the blood relations, but it brings an acute illness to the native & to the father, yet not a deadly one.*

[Margin: The Head of Hercules] To the Head of Hercules or Rasalgeti, *a star of the nature of ♂ & ☿, it contributes to the native great dignity indeed by reason of the sagacity of disposition: but on account of counterfeit moneys, or on account of usury & merchandise, he will suffer the loss of goods & of honour, indeed he will experience the inconveniences of prison or of exile.*

[Margin: The Bull's Eye] To the Bull's Eye, *it gives indeed the beginning of a happy fortune, since he will cling to powerful Martials, who will confer on the native insignia of honours & the protections of gains, but the outcome will be tragic, with the loss of honours & of fortunes, & with the inconveniences of exile or of prison.*

[Margin: The Claws of Scorp.] To the Claws of Scorpio, *it detracts from the honours of the native, & harms the health of the body, and it threatens not only the native, but also the sire, to whom it announces acute & poisonous fevers: In waters also great shipwreck & danger of life it portends to the native; yet it promises the expectation of honours & of glory among Martials, since this time of the direction is partly good, partly bad.*

[Margin: Spica ♍] To Spica ♍, *it confers on the native, on the parents, & on the children, if he has any, eminent dignity with an affluence of riches, so that both he himself and others also wonder at so sudden an elevation & increase of honours & of wealth. But if Spica ♍ also stands in the culmination of heaven, & the Sun is directed to it, the greatest happinesses are decreed to the native, to the father & to the children,* & in Ecclesiastical matters *the highest dignities. Let the one so born therefore live joyful, & modestly await a dignity & happiness of this kind. For this most brilliant*

star, of the nature of ♀ *&* ☿*, slightly also of Jupiter, has never been accustomed to announce an evil outcome.*

[Margin: Southern horn ♉] To the Southern horn of ♉, *of the nature of* ♂ *&* ☿*, it shows that the native is occupied at this time with military businesses, & devises very many stratagems, experiences also the ambushes of enemies & the dangers of life. But let him beware lest he come into the hands of enemies.*

[Margin: Pleiades] To the Pleiades, *it announces honour with an evil outcome, weakens the sharpness of the eyes, & brings some stain of ignominy, to the father also, if he is then living, it decrees destruction.*

[Margin: The two Asses] To the two Asses, *it marks an unhealthy time with a most acute fever, or some conflagration, with danger of life and loss of fortunes & of honour: he will experience the wraths & hatreds of Martial enemies with the utmost disgrace, & unless he prudently takes care for himself, he will undergo a capital sentence; & he will either be condemned to perpetual prisons, or be publicly hanged by the executioner. But if nevertheless salutary & beneficent stars have occupied the place, or have illuminated it with happy rays, he will be able, with prudence as a guide, to escape these pernicious threats of the heavens & to turn them aside elsewhere.*

[Margin: Manger] To the Manger in the breast of ♋, *it denotes an illness from a flux; & the native will be more inclined than usual to brawls, contentions & destructions of men, & perhaps he will either perpetrate a homicide, or will be made privy to it. But let him beware, lest he be killed by iron or fire, or by the blow of a stone, or by a cannon, or lest the sharpness of the eyes be gouged out by some bruise. Entangled in Martial businesses, let him flee places in which cannons are fired, lest the head be severed from the neck: He may also, unless he acts prudently, have the head cut off on account of the wrath of the prince, be punished with exile or prisons, experience tortures of the arms, be assigned perpetually to the galleys, or be torn apart by pirates.*

[Margin: Direction of the Sun to the domiciles] Finally, the direction of the Sun to the individual domiciles of heaven signifies these things. [Margin: 1] To the horoscope, *the hidden enemies of the native will seek reconciliation & friendship for themselves, servants will become more obedient than usual & the native will delight in the care & increase of domestic quadrupeds. But let him beware of the wild & untamed.*

[Margin: 2] To 2, *it will give honourable expenses, and if happy stars have been there, it also promises accessions of the household property & copious protections of gains.*

[Margin: 3] To 3, *the native will make certain short journeys for the sake of religion or of fulfilling a vow, or of visiting brothers, sisters & blood relations, and if testimonies of beneficent stars have been added, they will be auspicious, but if of maleficent ones, inauspicious.*

[Margin: 4] To 4, *it reveals hidden treasures, above all if beneficent* Planets *concur: & the native will be more inclined than usual to the construction of fields & of buildings, but the evil ray of Saturn to the fourth denotes losses from rustics, from*

fire, from enemies, & the native & the father of the native, or the one he holds in his place, will be tormented by a hot & acute illness, or be harmed by iron or fire.

[Margin: 5] To 5, *it promises to the children a joyful lot, & joys from them. The native will also be inclined to venereal things & sumptuous banquets. But if the radiations of maleficent* Planets *have received that station of heaven, the children will be afflicted with illnesses.*

[Margin: 6] To 6, *it promises to servants & maidservants indeed a comfortable state, & gain from the smaller animals, but it threatens the native & the sire with a sickness not to be despised.*

[Margin: 7] To 7, *it announces to the native a grave illness, yet he will conquer & ruin public enemies, he will either himself celebrate, or procure for others, a marriage.*

[Margin: 8] To 8, *the native will be anxious about the dowry & hereditary things, & for the most part pensive about death; or mourning on account of the demise of the sire.*

[Margin: 9] To 9, *the native will undertake a long journey, either from zeal for seeing the world, or for the sake of an honourable, & lucrative embassy. But if the sign of the ninth house is watery; & wounded by maleficent stars, the journeys over waters will be dangerous from shipwreck & the plunderings of pirates. But with the ninth irradiated by beneficent stars, the travels abroad will be fortunate.*

[Margin: 10] To 10, *it designates for the native the most ample honours from the king or the magistrate above the condition of the stock. But if nevertheless the tenth were unfortunate by the presence of maleficent stars or by evil rays, prisons or the inconveniences of exile will befall the native on account of the wrath of the king.*

[Margin: 11] To 11, *it designates for the native very many illustrious friends, & he will be venerated by the ministers of a great king, and he will feel copious gains.*

[Margin: 12] To 12, *it provokes many hostile enemies against the native, and many will rise up, who, stirred by the goads of envy, will secretly speak ill of the native, and will detract from his reputation, either he himself, or someone of his own, will also experience the inconveniences of prison or of exile: Yet* in *large quadrupeds he will have gain.*

[Margin: On the directions of the Moon.] *The directions of the Moon are made to this end, that we may understand the state of the body and of the mind, when the Moon is the governess of the natural power in man: Likewise that we may see the condition of the mother, of the sisters, of the wives, & of the daughters, and may know the reckoning of journeys, of fame, of reputation, & of the goods of fortune. For in particular:*

[Margin: ☽ to ♄] The direction of the Moon to the body of ♄ brings the native cold & moist sicknesses; apoplexy, paralysis, dropsy, gout, arthritic pain, & melancholic and phlegmatic fevers, and decrees for him contentions & lawsuits with kings, princes or dukes, on account of lies & falsehoods, he will also feel many grievances from servants & maidservants, herds & domestic animals will die for him, and he will lose part of the substance: from which he will live in straits & sadness.

[Margin: △ or ✶ ♄] To the △ or ✶ of ♄, it makes the native known to powerful men by a prosperous & happy commendation, decrees also great acts of glory & of honour, & gifts from old women, and from plebeian men honours with the compliance of services. The native will also be prone to erecting buildings, & to dispatching those things which pertain to the cultivation of fields, to digging out wells, & to irrigating gardens: with ageing farmers he will have a useful partnership, & gain from quadrupeds.

[Margin: □ or ☍ ♄] To the □ or ☍ of ♄, it fills the body of the native with evil humours, & either produces a phlegmatic fever, or renders the native sluggish, inert, slow, sad & melancholic for all actions, who will also experience losses from rustics, from servants thefts, robberies, & the plundering of the maternal substance: finally it so exasperates the mind of the wife against the native, that he is forced to live daily in bitter dissensions, disturbances and brawls: And perhaps in that year either he himself will die, or his mother.

[Margin: Term ♄] *To the term of ♄; it brings the native grief, mourning, sad thoughts, heavy cares, & assails the body of the native with melancholic or phlegmatic fevers.*

[Margin: Direction of the Moon to Jupiter.] The direction of the Moon to the body of ♃ decrees for the native firm health, & distinguished honours with increase of substance: But to the adversaries of the native it portends loss: The native will also make happy & prosperous journeys, or will live in joy & quiet.

[Margin: ✶ or △ ♃] To the △ or ✶ of Jupiter, it augments the native with sublime dignities & honours, & raises from a low and humble place to the highest, and renders him famous, adorned with the acquaintance of the highest men.

[Margin: □ or ☍ ♃] To the □ or ☍ of ♃, it threatens the native with certain difficulties in dignities, and entangles his mind in arduous businesses But although he will feel Lawyers & religious men hostile to himself, who will rashly lie in wait for the advantages of the native, he himself nevertheless, by his constancy & probity, with the attacks of the envious spurned, will obtain some Ecclesiastical dignity not without a certain difficulty, & those who were hostile to the native, will at last of their own accord demand his friendship, & will become friends.

[Margin: Term ♃] *To the term of ♃ it contributes to the native soundness & the best complexion of the body, cheerfulness & serenity of mind, it also produces increments of riches without labour, & one who strives to please great women by gesture, speech, gait, & in all ways.*

[Margin: Direction of the Moon to Mars.] The direction of the Moon to the body of Mars threatens the native with prisons, and many other difficulties & anxieties, and solicitudes, he will lose something from his goods, & his enemies will be stirred up against him: He will feel an acute sickness with debility of the body & danger of life, his sight will be weakened, & in the more secret parts of the body he will have defects, he will be ulcerous, scabby, & from iron or fire

or a gun he will receive wounds in the head, he will also experience blows or bites from animals.

[Margin: △ or ✶ ♂] To the △ or ✶ of ♂, it designates the native spirited, bold, strong, imperious, & in Martial actions sagacious, industrious, who exercises himself with arms, horses, & warlike things and hunts, and in actions feels advantage with praise & increase of his substance: yet on account of women, he will experience certain expenses, & losses from horses.

[Margin: □ or ☍ ♂] To the □ or ☍ of ♂, it denotes the native lunatic, phrenetic & afflicted with demoniac acts, it also proclaims thefts, & an evil wife, who will not only provoke the husband with proud haughtiness, but also will dissipate the whole substance of the household property: It also entirely averts the love of women, so that poisoned eatables mixed into broths are to be feared by him: But if he has a placid & benevolent wife, she will die under such a direction: It also signifies injury from quadrupeds, & blindness in the left eye, & let him beware of wounds in the face.

[Margin: Term ♂] *To the term of ♂, it signifies for the native acute illnesses, likewise discords, litigations, quarrels & contentious contests.*

[Margin: Direction of the Moon to the Sun.] The direction of the Moon to the body of ☉ indicates conflagrations, scorchings, sicknesses, & burning fevers, the secrets of the native are published, which have long stood hidden; & the state of the native is changeable, now raising him on high; now depressing, the mind of the native is also disturbed by various solicitudes, & an impediment is noticed in the eyes.

[Margin: △ or ✶ ☉] To the △ or ✶ of ☉, it designates for the native a useful & honourable partnership with noble & powerful women, whose friendship & favour with great advantage he will experience: He will also be venerated by the people more than usual, & will acquire a useful & honoured function or office, on account of prudence & an excellent nature. He will also accomplish travels according to wish, & in them he will be venerated.

[Margin: □ or ☍ ☉] To the □ or ☍ of ☉, it brings great hazards of body & mind, frequently provokes the native to anger, & turns the goodwill of some noble woman into hatred. Let him also beware of popular seditions & the feuds of magnates, which threaten expenses of the household property & disgrace.

[Margin: Direction of the Moon to Venus.] The direction of the Moon to the body of Venus indicates a glad & useful time: For the native will be of sound body & sound mind, given to jests, games, joy, music, banquets, & Venereal pleasures, the traces of the old flame will revive in him. Gains also will come to him without labour by the support of a renowned woman, and he will become of much & great expectation & fame, who will not only be cherished by the people, but he himself also will pursue virgins & women with a wonderful affection of love.

[Margin: △ or ✶ ♀] To the △ or ✶ of ♀, it decrees for the native the highest happiness in life, & glory in actions: His marriage then flourishes with uncorrupted chastity, the children love the native intensely, the brothers also

retain a faithful affection toward the native: And he is glad, cheerful, & in favour with all, a lover of neatness & splendour, who will strive to adorn himself with precious gems, rings and golden chains.

[Margin: □ or ☍ ♀] To the □ or ☍ of ♀, it makes the native inclined to alien couplings: from which he will also be affected with various expenses & disgrace; since he, on account of fornication, & base couplings, will be marked with some infamy, & with Venereans also he will have brawls, litigations & feuds: and if the native enters marriage at this time, he will be unhappy in it, & will have a wife little compliant, and whom he himself will not much cherish.

[Margin: Term of Venus.] *To the term of ♀ it holds the native by gladness, joy & the Venereal enticements of pleasures, with a fairly suitable soundness.*

[Margin: Direction of the Moon to Mercury.] The direction of the Moon to the body of Mercury entangles the native in many altercations & lawsuits, makes him shrewd for lies, frauds & falsities, eloquent, & prone to theft, he will also suffer theft & a certain loss of substance, & changes his counsels this way & that with vain thinking, he will be eager for evil manners & works, & will write counterfeit & false letters.

[Margin: △ or ✶ ☿] To the △ or ✶ of ☿, it promises the native happiness in accomplishing affairs and business, grants fluency. eloquence & love of musical instruments, makes more inclined than usual to journeys, promises from peoples & a certain well-born woman copious supports of gains, and honours greater than usual.

[Margin: □ or ☍ ☿] To the □ or ☍ of ☿, it calls the native away from the studies of good letters & the fellowship of learned men, & joins him to the criminal: Hence by his instability of mind and of counsels he incurs the hatred of the common people, & stirs up popular seditions against himself: He is also compelled to undergo hazards to be feared on account of crimes, from false writings, depraved contracts, counterfeit moneys, since either he will be thrown into chains, or by the execution of a public sentence he will be driven into exile.

[Margin: Term ☿] *To the term of ☿, it bestows on the native disposition for studies, fluency, lies, frauds, falsities, & the like, makes him inconstant, bent now toward this, now toward those.*

[Margin: ☽ to ☊] The direction of the Moon to ☊, promises the native increments of means & insignia of honours, from Jovials & Venereans, or a well-born woman, likewise tranquillity of mind, joy & soundness of body.

[Margin: ♅] To ♅, it casts the native into vehement motions of the mind, stirs up anger & contentions with Saturnines & Martials, and brings a melancholic or phlegmatic sickness, and some evil to the left eye.

[Margin: to ⊕] To the part of fortune, it contributes to the native increments of riches, precious furniture, & insignia of honours.

[Margin: Direction of the Moon to the fixed stars.] [Margin: Rigel.] The direction of the Moon also to Rigel or the left foot of Orion, threatens the native with various impediments of life in foreign regions, & incites Saturnines

against him, it also portends dangers of death to the mother, or to the one whom he has in her place, & to the wife.

[Margin: Spica of the Virgin.] To Spica ♍, it contributes most abundant wealth & most ample honours, & on account of the endowments of disposition promises praise, honours & increments of riches from Venerean, Mercurial & Jovial prelates.

[Margin: The bright star of Hydra.] To the bright star of Hydra, it indicates the native more disposed than usual to lust, preposterous Venery, & the coupling of harlots: He will also at that time be busied in vain, in acquiring an inheritance and dignity: & this direction brings, if the mother of the native, & the wife, are then living, to these same a hazard of life.

[Margin: The Swan's tail] To the Swan's tail, it likewise turns the native toward lust, & Venereal enticements, who will be delighted in a wonderful manner by luxurious acts, pleasures, sumptuous banquets, jests, scurrilous talk, & wantonness, will also be troubled by excessive ambition, & will feel in the left eye something sinister, or a clouding.

[Margin: The left shoulder of Orion.] To the left shoulder of Orion, it arouses in the native luxury & an affection for honour, who nevertheless will suffer a loss of means, & an acute sickness either he himself, or the genetrix, or the wife.

[Margin: The neck of the Serpent.] To the neck of the Serpent of the nature of ♄ & ♂, it indicates the native given to poisonings, & subject to the bites of serpents, or poisoned potions, he will also struggle with a chronic sickness, & one of the women of the native will perish on him.

[Margin: The star of Serpentarius.] To the star of Serpentarius of the third magnitude of the nature of ♄ & ♀, it signifies the native liable to incantations & poisonings, & from wicked Venereal acts denotes justice, losses & a bad reputation of the man.

[Margin: The left shoulder of Bootes.] To the star in the left shoulder of Bootes of the third magnitude. it indeed decrees some dignity for the native, but finally inflicts a shameful brand on the name: For he will be accused of evil works, & will undergo the hazard of prison: But on account of the dead he will obtain a certain small portion of an inheritance, & one of his women will fall into hazard of death.

[Margin: The Falling Vulture.] To the Falling Vulture, it contributes to the native most abundant wealth & honours beyond the condition of the stock, or promises a useful office from the more powerful & great ornaments of happiness, so that he shines forth in a certain way with royal dignity: He will also procure a wedding, or will receive very handsome offspring.

[Margin: The nebulous star in the eye of Sagittarius.] To the nebulous star in the eye of ♐, it threatens some loss in the eyes of the native, or wounds or a contusion in the head: Let the native also flee the ambushes of enemies, the darts of ballistas, guns, the horns of bulls, bears & the incursions of wolves.

[Margin: The bright star of the Northern Crown.] To the bright star of the Northern Crown, at the same time it adorns the native with public honours, and his name will be celebrated among the crowd & the nobles, & will be honoured more than usual by Venereans & Mercurials.

[Margin: The Heart of Scorpio] To the Heart of ♏, it assigns to the native some dignity, which at last something of evil with enmity and fear joined brings. Let him also beware for himself of the ambushes of enemies, lest from large quadrupeds, especially kicking horses, & from a fall from a height, he suffer hazard of life & loss, it also brings to the mother or the wife death or a pernicious illness.

[Margin: The star of Hercules.] To the fixed star of Hercules of the third magnitude, it notes the native as going to be at that time proud, bold, terrible, imperious, powerful: And this time will be unhealthy, harmful & pernicious for the women of the native, especially for the mother or the wife, if she is living. But if the salutary star ♃ or ♀ has happily aspected the place of the direction, these kinds of misfortunes will grow mild, or even by the divine power will languish entirely.

[Margin: Direction of the Moon to the 12 houses of heaven.] Finally the direction of the Moon to the twelve houses of heaven, offers these significations according to Gauricum: [Margin: To 1] To the degree of the horoscope, it is unhealthy & mostly deadly: since, as Abenragele & Schöner [Schoner.] report, lib. 3 cap. 6 de jud. genit., it kills like ♂, especially if in the same part of the horoscope unhealthy stars or their rays are present: For the Moon is hostile to the horoscope, as the Genethlialogists establish.

[Margin: 2] To 2, if she is well affected to ♃ or ♀, it contributes to the native copious supports of gains & precious furniture without labour. But ill affected, peregrine or diminished in light, & wounded by the malefics, it designates a loss of movable goods.

[Margin: 3] To 3, it decrees short journeys for the sake of religion or of fulfilling a vow, or by order of one more powerful, or of visiting brothers, sisters, & kinsmen. And all these will be fortunate, if the Moon also is healthfully affected. Ill-omened, if wounded by the malefics.

[Margin: 4] To 4, it arouses the zeal of the native for agriculture, buildings, the digging of wells, or the finding of hidden treasures. But if nevertheless the hostile rays of the malefic Planets fall on the same place of heaven, to which the direction is made, & the Moon is apheta, a pernicious sickness will be to be feared, & also the death of the native, of the genetrix or of the wife.

[Margin: 5] To 5, it decrees joys for the native from a son, & gifts from plebeians & a noble woman, and the native will be more disposed to banquets, & will indulge the genius.

[Margin: 6] To 6, it signifies thefts & pillagings by male servants & maidservants, and losses from small quadrupeds, and the native will have at that time a dyscrasia of the body by no means to be despised, or bitter pains in the belly, gripings, the colic passion or dysentery.

[Margin: 7] To 7, it provokes many adversaries openly hostile, & quarrels with the spouse or concubine [?]. The native also will lie sick gravely with danger of life, if in the same western cardine there are unhealthy rays of malign stars, or the bounds of ♄ or ♂.

[Margin: 8] To 8, it notes anxiety for the native about hereditary matters or those of the deceased, or from the death or dowry of the wife many litigations & expenses will spring up, and the native will be solicitous & trembling about his own violent death & that of the mother.

[Margin: 9] To 9, it intimates long journeys: And if the Moon has been ill affected, they will be, as much on land as on the waters, full of various hazards of dangers, with the greatest expenses, and the native will have horrific dreams. But if she has been well affected, he will travel abroad at the command of the more powerful, & will undergo gain-bearing and honour-bearing functions of an embassy, and will have delightful dreams.

[Margin: 10] To 10, the native will be allotted insignia of honour by a king & a renowned woman, & will be honoured more than usual by the common people: He will be occupied about waters, & from his mastery will obtain praise & gain. The mother also & the wife, if the native has them, will enjoy a glad lot.

[Margin: 11] To 11, it wins new & not obscure friends & faithful companions. It also promises joy from children & good news, and he will become possessed of almost all wishes, if this house is bedewed with the rays of the benefics.

[Margin: 12] To 12, especially stained with the evil rays of the evil ones, it signifies hidden enemies, who out of envy will wickedly slander the native. The native also will suffer losses from large beasts, & will be fearful of prisons or exile, or relatives by marriage, sons or friends will be held in captivity. But if the twelfth house is rightly disposed, & is propped up by benefic rays, many gains will flow to him from large quadrupeds.

[Margin: Directions of the part of fortune.] Finally ⊕, since it both signifies something by itself, & according to the nature of the Planet disposing it, is directed for the state of riches & resources, & for the advantages & disadvantages of the household estate, likewise for the happy & unhappy dispatch of actions. For in particular;

[Margin: To the body □ or ☍ ♄] The directions of the part of fortune to the body of ♄, or to the □ or ☍ ray, note for the native a squandering of goods both movable and immovable and losses of the household estate through robberies, thefts, pillagings by the Saturnines, or a game of dice & small dice with Saturnines.

[Margin: ✶ or △ ♄] To the ✶ or △ of ♄, it promises some occasion of increasing the household estate from agriculture, immovable hereditary things, as buildings, from seafaring; it also guarantees advantage from the patronage of some Saturnine prince.

[Margin: ⊕ direction to the body ✶ or △ ♃.] To the body or the ✶ or △ of Jupiter, it decrees for the native gifts through the patronage of a great Jovial

prince, & increases of riches, or a useful & honoured Ecclesiastical benefice; from which no small growth of riches will come. It also makes the native fortunate, happy & honoured in actions & in administering the business of the more powerful.

[Margin: □ or ☍ ♃] But to the □ or ☍ of ♃ it signifies losses of fortunes on account of Jovials, or from litigations against Jovials; yet in the end this direction too compensates the costs by an accession of happiness from Ecclesiastical matters, but not without sweat, difficulty & melancholic cares.

[Margin: ⊕ direction to the body □ or ☍ ♂] To the body □ or ☍ of ♂, it decrees for the native forfeiture of the household estate from robberies by servants, or pillagings by soldiers & brigands, or the burning of the house: Likewise from games of dice & small dice.

[Margin: ✶ or △ ♂] To the ✶ or △ of ♂, it pledges growth of resources, under the auspices of Martial persons, or from the management of the household estate, as by buying, selling of arms, of horses and of the things that pertain to military service.

[Margin: ⊕ direction to the Sun.] The direction of the part of fortune to the body of ☉, decrees honoured costs, for the sake of honour or of a great prince, or so that he may seem liberal & munificent to others.

[Margin: ✶ or △ ☉] To the ✶ or △ of the Sun it shows a time suitable for the honour & advantage of the native, & contributes honours and gains through the patronage of a more powerful king or prince.

[Margin: □ or ☍ ☉.] To the □ or ☍ of ☉, it threatens losses from litigations, and forfeiture of the goods of the patrimony from the hatred or anger of the more powerful & on account of criminal accusations costs and disadvantages.

[Margin: ⊕ direction to the body ✶ or △ ♀] To the body ✶ or △ of ♀ it pledges from Venereal friends or by the support & largesses of a woman, by the dowry of the wife, increases of riches & gainful supports; yet the native will also voluntarily & of his own accord incur many costs.

[Margin: □ or ☍ ♀] To the □ or ☍ of ♀, it denotes litigations, quarrels, controversies with women or Venereals, conceived partly from excessive love, partly from the ticklings of jealousy, The native therefore, captured by love, will be more disposed to sumptuous banquets, & will incur costs of the household estate on account of harlots, even with forfeiture of honours, & with a certain infamy.

[Margin: Direction of the part of fortune to the body ✶ or △ ☿] To the body or the ✶ or △ of ☿, it pledges to the native favourable fortune from merchandise, writings, computations & the endowments of a sagacious disposition and skill, or even from an outside inheritance: In travels also he will be fortunate & goods will flow to him,

[Margin: □ or ☍ ☿] To the □ or ☍ of ☿, it stirs up brawls & contentious contests with Mercurials, & in merchandise, false writings, counterfeit money, it designates losses with infamy.

[Margin: to the body ✶ or △ ☽] To the body or the ✶ or △ of ☽, it promises an augmentation of riches from the largesses or patronage of noble women, and gives gains from plebeians without sweat.

[Margin: □ or ☍ ☽] But to the □ or ☍ of ☽, it threatens losses from merchandise & from litigation with a noble woman, & pillagings of fortunes through the common people.

[Margin: To ☊] To ☊, it increases the fortune & riches of the native under the auspices of Jovials & Venereals.

[Margin: To ☋] To ☋, it threatens many forfeitures & costs. For it scatters the property through Saturnines, Martials & through burning & robberies by soldiers.

[Margin: ⊕ to the heart ♌] The part of fortune also to the heart of ♌, decrees under the auspices of a king or a great prince an abundance of riches, copious supports of gains, & from there dignity & honour.

[Margin: Spica of the Virgin.] To spica ♍, it promises ample wealth beyond the condition of the lineage, eminent dignity & power, & decrees a pleasurable time for the native.

[Margin: The bright one of the Southern Scale.] To the bright one of the Southern Scale of the nature of ♄ & ♂ of the second magn. it threatens forfeiture of fortune from fire, burning, or robberies by soldiers & servants.

[Margin: The part of fortune to the domiciles.] Finally ⊕ to the horoscope, signifies for the native an abundance of gains & of substance.

To 2, growth of movable things & of elegant furniture.

To 3, it pledges gains in short journeys, & joy & gladness to brothers and sisters.

To 4, from immovable things, as fields, farms, gain, & to the father good health & growth of substance.

To 5, gifts & embassies with honour, to the sons also joy & fortune.

To 6, good to the servants, & gain from small animals.

To 7, from litigations & expenses, on account of the wife, forfeiture of fortune & of goods.

To 8, gain from hereditary things or the dowry of the spouse.

To 9, an accession of honours from Ecclesiastical matters or long journeys.

To 10, honours & riches from the munificence of some great prince.

To 11, gain from the largesses & presents of friends.

To 12, profit from large animals.

[Margin: 4 The quantity & magnitude of the effects is to be weighed.] Fourthly this too is to be known, although the things signified, which are announced by the significators & promissors, have for the most part already been sketched, that the effects themselves are nevertheless often somewhat dissimilar, at times more vehement, at times more remiss. From which, so that we may judge rightly the quantity & magnitude of the future event, the condition of each, that is, of the significator & of the promissor, which they hold in the radix, is to be looked to. For when both, significator & promissor,

are strong in the chart, by reason of essential dignities, and occupy the angular houses of the figure, then indeed an evident and notable effect of the direction is expected, & its causes too are vehement and grave. But when one of them is strong, the other weak, the effect is judged moderate: And then it is to be seen whether the significator, or the promissor is stronger or weaker. If the significator has been stronger, the effect will indeed appear, but as if by chance, & without grave causes. If the promissor has been more powerful than the significator, the effect will appear, but not answering to the magnitude of the cause, which seemed about to bring forth a more evident and more notable effect. If finally each is weak in the radix, the effect of the direction will be obscure and light, its causes also obscure and light; And the weaker the significator has been, the more obscure the effect will appear: But the weaker the promissor has been, the lighter will appear the causes & origin of that accident. When each is altogether weak, it can happen that the decrees of the directions altogether vanish, & in place of these scarcely a shadow & appearance of fortune or misfortune, not the ratified effect itself, presents itself to the native.

[Margin: Necessary precautions] Yet these precautions are to be observed: [Margin: 1] 1 When the malefics in the radix of the nativity are significators, and through directions to their promissors announce malefics & adverse happenings to the native, they always bring lighter evils, when they are strong in the radix, But they bring forth more notable & more evident malefics, when they are weak & unfortunate. For the debility of the malefic Planets increases the malice, strength diminishes the same. The contrary happens in the benefics. For if they announce some good & happy effect to the native through a direction, they always show it more glad & happier, when they are strong in the radix, than when they are depressed by some debility; since a more evident fortune & a more splendid good is shown by the strong, but a lesser & quickly vanishing good by the weak benefics.

[Margin: 2] 2 When directions fighting among themselves in quality, that is good & bad at once, fall into the same year, if the significators are different, & signify different goods or evils, each can exercise its forces in that year, without mutual hindrance. As when in some year a malign promissor of health meets the significator, but a benign promissor of riches the significator; it will be possible that in that year the native lies gravely sick, & yet is notably increased in riches. For we have examples of those who died suddenly at their own weddings. And Matthias Hunniades [Matthias Corvinus], in the very prison which the square ray of Saturn to Mars & the Sun conjoined; and the opposition of Saturn himself to the cusp of the twelfth house from the sixth house; finally the quadrature of Mars to the same from the second house signified, was raised to the royal dignity, which the Sun himself & Venus in mutual reception from exaltation, & ⊕ conjoined with the Sun, likewise ♄ & ☿ receiving one another mutually by domiciles in the airy trigon, finally the configuration of the Sun in ✶ of Jupiter pledged, whose chart I set out in the preceding member cap. 9.

[Margin: 3] 3 But when significators signifying contrary events, hold a certain agreement among themselves, so that they signify the same thing, but in a contrary way one good the other evil, it can happen that the force of one direction represses & hinders the virtue of the other. Just as the middle of heaven signifies honours similarly also the Sun. If therefore a well-omened direction of the M. C., but an ill-omened one of the Sun, were to fall into the same year, it could happen that neither would have its effect, unless this too should happen, that one of the significators, namely either the M. C. or ☉ were much stronger, the other much weaker; or that the times of the directions were separated from each other by a sufficiently long interval. For then each could have its effect, the other not hindering, yet at different times, as the following caution warns.

4 When directions of one and the same significator fall into some year, fighting among themselves in quality, that is, one well-omened & the other ill-omened and threatening, when such different directions of one significator are distant from each other are distant from each other[143] by some interval of time, each will be able to produce its effect, but at different times of the same year.

[Margin: When bad directions anticipate the year.] Further, bad directions often anticipate their year. 1 Indeed when the native is situated in a bad term. 2 When a septenary or novenary Climacteric coincides. 3 When an epidemic evil rages, as plague, war: because a universal cause overcomes a particular one. And 4 when a bad revolution precedes. But the effect of a bad direction lasts until other good ones intervene: Thus good directions do not bestow a good event, as long as bad planets are situated in a term adverse or opposed to its good significator. The directions of ☽ & ♂ also, as also of ☿, are often ambiguous, because the motion of these Planets has not yet been explored: Yet according to Tycho Brahe [Tychonem] the motion of the ☽ holds quite accurately, if the calculation is derived from there.

[Margin: Our first example.] Now, so that what has been proposed may be better understood, we shall illustrate the doctrine of directions by the two examples which we have taken up, yet with the tables of directions of the first example set out first, which we built with the aid of the calculation of the last chap. of the preceding second part, in the same way as for the second example.

At the time when the Well-born [Generosus] was born, there was

The middle of heaven under the term of ♀ in the □ of the same, namely in ♈ at 9° 23′. And its Right Ascension 8° 37′.

Longitude of the promissors	Right asc.	Direction
Term of ☿ 14° 0′ ♈	12° 53′	4° 16′
Term of ♂ 21° 0′	19° 24′	10° 47′
□ ☉ sinister 25° 7′	23° 16′	14° 39′

[143]the words à se invicem distant are printed twice

Longitude of the promissors	Right asc.	Direction
Term of ♄ 26° 0′	24° 6′	15° 29′
☍ ♃ 27° 33′	25° 34′	16° 57′
□ ☽ sinister 28° 32′	26° 30′	17° 53′
Term of ♀ 6° 40′ ♉[144]	27° 54′	19° 17′
△ ☿ sinister 27° 33′ [recte: 6° 40′]	34° 20′	25° 43′
Term of ☿ 8° 0′	35° 38′	27° 1′
△ ♀ sinister 9° 23′	36° 59′	28° 22′
✶ ♂ sinister 14° 23′	41° 55′	33° 18′
Term of ♃ 15° 0′	42° 32′	33° 55′
☍ ♄ 18° 58′	45° 30′	36° 53′
Term of ♄ 22° 0′	49° 35′	40° 58′
To the cusp of the 11th house 23° 0′	50° 36′	41° 59′
△ ☉ sinister 25° 7′	52° 46′	44° 9′
Term of ♂ 26° 0′	53° 40′	45° 3′
△ ☽ sinister 28° 32′	56° 17′	47° 40′
Term of ☿ 0° 0′ ♊	57° 49′	49° 12′
To the palilicium [Aldebaran] 3° 30′	61° 28′	52° 51′
Term of ♃ 7° 0′	65° 10′	56° 33′
Term of ♀ 14° 0′	72° 38′	64° 1′
□ ♂ sinister 14° 23′	73° 3′	64° 26′
Term of ♄ 21° 0′	80° 12′	71° 35′

The horoscope under the term of ♄ in ♌ 3° 6′. And in the latitude of its place 51° 50′. Oblique ascension 98° 37′.

Longitude of the promissors	Oblique asc.	Direction
Term of ☿ 6° 0′ ♌	102° 44′	4° 7′
⊕ 6° 31′	103° 26′	4° 49′
Term of ♀ 13° 0′	112° 41′	14° 4′
□ ♄ dexter 18° 58′	121° 14′	22° 37′
Term of ♃ 19° 0′	121° 17′	22° 40′
To ♉ 23° 0′	127° 3′	28° 26′
Heart of ♌ 23° 20′	127° 32′	28° 55′
Term of ♂ 25° 0′	129° 55′	30° 18′ [recte: 31° 18′]
✶ ♃ dexter 27° 33′	133° 35′	34° 58′
Term of ☿ 0° 0′ ♍	137° 7′	38° 30′
△ ☿ dexter 6° 40′	146° 42′	48° 5′
Term of ♀ 7° 0′	142° 11′ [recte: 147° 11′]	48° 34′
△ ♀ dexter 9° 23′	150° 36′	51° 59′
Term of ♃ 13° 0′	155° 46′	57° 9′
☍ ♂ 14° 23′	157° 44′	59° 7′
Tail of ♌ 15° 20′	159° 6′	60° 29′
Term of ♄ 18° 0′	162° 54′	64° 17′

[144]so printed; the right ascension beside it places this term before the trine of ☿ at 6° 40′ ♉ in the next row, so the printed longitude cannot be right; the page does not give the correct value

Longitude of the promissors	Oblique asc.	Direction
✶ ♄ dexter 18° 58′	164° 31′	65° 54′
Term of ♂ 24° 0′	171° 32′	72° 55′

The native Well-born could not attain the last terms in his life.

But the Sun was in 25° 7′ ♌ under the term of ♄. Its right ascension also was 297° 4′.

Its direction to the promissors set s.s.s. The right ascension of the middle of heaven is 8° 37′. But the distance from the M.C. 71° 33′. And the diurnal horary times 10° 5′.

Longitude of the promissors	Right asc.	Dist. from the MC	Horary times	Direction
□ ♃ sinister 27° 33′ ♌	299° 38′	68° 59′	10° 12′	3° 21′
☌ ☽ 28° 32′	300° 40′	67° 57′	10° 15′	4° 42′
To the cusp of the 7th house 3° 6′ ♒	305° 24′	63° 13′	10° 32′	11° 2′
Term of ☿ 6° 0′	308° 23′	60° 14′	10° 45′	15° 3′
Term of ♀ 12° 0′	314° 28′	54° 9′	11° 7′	22° 26′
□ ♄ sinister 18° 58′	321° 24′	47° 13′	11° 37′	30° 24′
Term of ♃ 20° 0′	322° 25′	46° 12′	11° 31′[145]	31° 40′
To the cusp of the 8th house 22° 0′	324° 22′	44° 15′	11° 50′	33° 50′
Term of ♂ 25° 0′	327° 17′	41° 20′	12° 5′	37° 4′
△ ♃ sinister 27° 33′	329° 45′	38° 52′	12° 19′	39° 44′
Term of ♀ 0° 0′ ♓	332° 6′	36° 31′	12° 31′	42° 8′
✶ ☿ sinister 6° 40′	338° 25′	30° 12′	13° 2′	48° 11′
Term of ♃ 8° 0′	339° 40′	28° 57′	13° 7′	49° 18′
✶ ♀ sinister 9° 23′	340° 58′	27° 39′	13° 15′	50° 31′
To the cusp of the 9th house 11° 0′	342° 28′	26° 9′	13° 23′	51° 31′
Term of ☿ 14° 0′	345° 16′	23° 21′	13° 35′	54° 11′
☌ ♂ 14° 23′	345° 37′	23° 0′	13° 38′	54° 36′
△ ♄ sinister 18° 58′	349° 51′	18° 46′	14° 5′	58° 7′
Term of ♂ 20° 0′	350° 49′	17° 48′	14° 10′	58° 53′
Term of ♄ 26° 0′	356° 20′	12° 17′	14° 46′	63° 10′
✶ ☽ sinister 28° 32′	358° 39′	9° 58′	14° 43′[146]	64° 48′
Term of ♃ 0° 0′ ♈	0° 0′	8° 37′	15° 0′	65° 46′

Its direction to the promissors disposed contrary to s.s. The right ascension of the lowest part of heaven is 188° 37′. The distance from the lowest part of heaven 108° 27′. The nocturnal horary times 19° 55′.

Longitude of the promissors	Right asc.	Dist. from the IC	Horary times	Direction
Term of ♂ 25° 0′ ♌	296° 57′	108° 20′	19° 55′	0° 7′
Term of ♃ 19° 0′	290° 34′	101° 57′	20° 12′	8° 3′
✶ ♄ sinister 18° 58′	290° 32′	101° 55′	20° 12′	8° 5′

[145]so printed; out of order in its column, which requires a value between 11° 37′ and 11° 50′
[146]so printed; out of order in its column, which requires a value between 14° 46′ and 15° 0′

Longitude of the promissors	Right asc.	Dist. from the IC	Horary times	Direction
✶ ♂ dexter 14° 23′	285° 37′	97° 0′	20° 22′	13° 54′
Term of ☿ 12° 0′	283° 3′	94° 26′	20° 25′	16° 44′
♂ ♀ 9° 23′	280° 13′	91° 36′	20° 30′	20° 2′
♂ ☿ 6° 40′	277° 16′	88° 39′	20° 32′	23° 10′
Term of ♀ 6° 0′	276° 32′	87° 55′	20° 33′	23° 59′
Term of ♂ 30° 0′ ♐	270° 0′	81° 23′	20° 35′	30° 42′
✶ ♃ sinister 27° 33′	267° 20′	78° 43′	20° 34′	33° 16′
Term of ♄ 25° 0′	264° 33′	75° 56′	20° 33′	35° 58′
Term of ☿ 19° 0′	258° 2′	69° 25′	20° 27′	41° 56′
□ ♂ dexter 14° 23′	253° 3′	64° 26′	20° 20′	46° 17′
Term of ♀ 14° 0′	252° 38′	64° 1′	20° 19′	46° 37′
Term of ♃ 8° 0′	246° 14′	57° 37′	20° 5′	51° 45′
To the Heart of ♏ 3° 0′	240° 57′	52° 20′	19° 47′	55° 24′
Term of ♄ 30° 0′ ♏	237° 49′	49° 12′	19° 40′	57° 54′
✶ ☽ dexter 28° 32′	236° 17′	47° 40′	19° 28′	58° 21′
Term of ☿ 27° 0′	234° 42′	46° 5′	19° 23′	59° 29′
To the 4th house 23° 0′	230° 36′	41° 59′	19° 12′	62° 35′
Term of ♀ 21° 0′	228° 34′	39° 57′	19° 5′	63° 59′
♂ ♄ 18° 58′	226° 30′	37° 53′	18° 58′	65° 24′

We have deliberately omitted the directions of the Moon & of ⊕, since they are not distant much beyond four years & a half from the directions of the Sun & of the horoscope, and either precede or follow them, & it is enough to have proposed some things in place of an example to show the use of this doctrine. For neither are all the acts of a man to be brought out in public, but it is enough that we have shown some things in this conjectural discipline, & have led the way for others who will judge more copiously & privately.

It is established therefore in the first example, from the directions of the horoscope & of the M. C. and of the ☉, since our Well-born was born under the term of ♄ ascending, the term of which Planet ☉ & ☽ also occupied in ♍, that terms of this kind, the temperament of the native, which we showed to be phlegmatic in chap 5 of the prec. member, towards melancholy turned aside, and made the native heavy in actions, slow, and not hurrying his affairs, indeed & concealing counsels; only a certain vehemence & Martial impetus, and some adversities, which often accompanied him, the term of Mars, to which the Sun came by converse direction after a full month & 13 days, impressed on the same: The sinister □ of Jupiter also, which the Sun reached by direct progression in the 4th year of age, stirred up Jovial men against the parents, such as Jurists & religious men, who raised grave controversies among the agnates concerning their substance & goods, which were soon settled, on account of the strength of the benefic Jupiter, & its convenient situation in the fourth house. In the fifth year of age the direction not only of the horoscope to the term of ☿ on the 15th day of February, and in the same year at the end of October to the part of fortune, but also of the M. C. to the term of ☿ about 11 April. arrived, and at once in boyhood contributed to the native a right & lofty judgement, by which

he seemed to be wise beyond years, and he was dear & acceptable to all, on account of the highest expectation: But concerning his less lasting life, which however no diseases afflicted at that time, various judgements were passed; since those who are wise early, & moreover were born with the Moon hot, rarely attain to the ἀκμ…[?] [Greek: akm…[?]]. He was fortunate in pursuing studies at this & the following time, and would have progressed much in them, if he had both been applied to them seriously, & been entrusted to suitable teachers, who understood studies rightly, and had not been overwhelmed by a multitude of precepts, & deterred by a perverse method of instructing, which the configuration of ☿ weak in the 6th abundantly indicates, which opinion the direction of the infirm Sun to the Moon, which throws in various impediments, also confirms. In the ninth year of age, of CHRIST 1551, the Sun by converse direction reached at once in January the term of ♃, & at the beginning of February the sinister ✶ of ♄, which won love for the native, and by his act brought forth dignity & favour, not only among religious & Jovial men, but also among Saturnine men, namely old men, & those who live in middle age.

In the 11th year of age the M.C. reached the term of ♂, in which he applied himself to the exercises of riding, yet not without the hatred & envy of some, who, opposing the native in these things, tried to bring him into danger of life. For ♂ is in a watery sign & a Mercurial term: But this term of ♂, in a fiery & Martial sign: But they could do no harm, because ♂ was strong in its own watery triplicity. The direction of ☉ to the cusp of the 7th house, which falls in the beginning of the 12th year, also stirred up certain adversaries against the native, with whom he was forced to contend openly, but he manfully overcame the same by his own virtue: As the 14th year of age was running to the end, namely at the beginning of Decemb. of the Year of Christ 1556, the converse direction of the Sun was brought down to the dexter ✶ of ♂, and stirred the native to arms, horses, jousts & sword-fights, in which he also diligently exercised himself with his peers. In the following 15th year the horoscope reached the term of Venus, under which the native was given to games, Music & dances, and pursued pleasures, and if age & the consent of parents and relatives had allowed, he would have entered into marriage, from which, drawn back in the first years, in which desire burns most, in the later ones, which follow the 30th year of age, he became more estranged, also by the same natural instinct, & by the disposition of the Planets and signs, as we noted in chap. 15 of the preceding member. In the same year also, a little later, the M.C. hastened to the sinister □ of ☉, by which the native fell from the favour & grace of some, & the parent of the native suffered a grave illness: Meanwhile about the beginning of the 16th year of age, ☉ came to the term of ☿, & stirred up in the native a singular affection for studies, from which he might govern his own affairs & the subjects' better & more rightly: But the M. C., reaching the term of ♄ in the same year, opposing him through old men & other Saturnine men, extinguished the love of studies again, since he was also deprived of suitable instructors. In the 17th year of age in turn a desire for

studies came upon our Well-born, the Sun proceeding by converse direction to the term of ☿: But because both the Sun & Mercury were weak in the nativity, & the M. C. to the opposite of Jupiter proceeded about the end of the same 17th year, this desire for studies too was taken away. For this direction of the M. C. to the ☍ of ♃ presented the native with troubles from spiritual men, and alienated him from studies. He also experienced, as the following 18th year was running to its end, in which the mother lay ill from a disease, the hatreds of the people, & some women were opposed to him, who were in counsel & service to the well-born mother, on account of the direction of the M. C. to the sinister □ of the ☽.

In the 20th year of age the Middle of heaven reached ♉ & the term of ♀ in the month of April, which direction stirred up new flames of love in the native, which the converse direction of the Sun to the opposition of Venus fostered at the beginning of the 21st year. Hence, captured by love of a beautiful & noble girl, he indulged the genius more liberally, and was delighted by banquets dances & similar pleasures. Nor in the 22nd & 23rd year of age did he give up anything of that kind of life, since the direction of the M. C. also reached the term of ♀, & confirmed the same further. But in the month of August of the year of the Lord 1565, which was the 23rd of age, the dexter □ of ♄, meeting the horoscope, threw the same into a grave fever, with which he struggled for some time and at length recovered from it, the term of Jupiter occurring, to which the direction of the same horoscope came about the beginning of September. From there, enjoying firm health, with the mind strengthened by the direction of the Sun to the body of ☿, & increased in the strength of the body, when the annual profection of the M. C. was brought down to Mars placed in the 9th house, he set out for Hungary against the Turk to serve as a soldier, and took part in that war in which the Turk stormed Szigetvár [Sigetum], but Ours Veszprém [Vesprinum] and Tata [Dotis]. And at that very time the converse direction of the Sun passed both the ☌ of ☿, under which he spent no contemptible portion of his substance on that war; and the term of ♀, while which was in force the native, affairs in Hungary having been settled through a truce made with the Turk, returned home by a longer journey, was most welcome to the mother, & gave himself in turn to recreation & pleasant conversation. In the 26th year, which coincides with the year of Christ 1568, he was occupied in caring for the goods which had already before come to him from the paternal inheritance, in which office, on account of the direction of the M. C. to the sinister △ of ☿, he experienced happy successes for some time, and useful conversation with Mercurial men; and the direction of the M. C. to the term of ☿, which fell at the beginning of the 28th year of age, confirmed this happiness; nor did the sinister △ of ♀, which the direction of the M. C. approached in the 29th year of age about the beginning of May, fail the native, but it won for the same the love of the people, a great name & a wonderful expectation. But as nothing in this life is perpetual & durable, so, the state of affairs suddenly changed in the same 29th year of age, which

coincides with the year of CHRIST 1571, the direction of the horoscope having been brought down to ☿ about the end of May, he experienced various losses from the prefects of his affairs & dominions. Plots were also laid for him with poisons, which he avoided by a certain prudence. In the same year also about the beginning of December the direction of the horoscope came to the Heart of Leo, which gave him vengeance & victory over the treacherous, and bestowed a certain recovery of substance. But in the 31st year of age about the end of April the direction of the horoscope approached the term of Mars, and subjected the native to bilious & choleric affections, under which he boldly undertook many things, yet did not carry them through happily. In the same year there came also directions of the Sun, the direct one to the sinister □ of ♄ about the end of May, & the converse one in the month of December to the term of ♂, which both afflicted the health of the native with a strong dyscrasia, & affected the substance & goods with various losses, through robberies and the pilferings of servants and peasants: Hence there followed both fear in looking after & conducting affairs, & anxiety and sadness tormented the native. All these things moved and at length also compelled the native, so that, weary of civil life & of the administration of the paternal goods without a companion of life, he ceded those goods & his dominion to the maternal uncles on certain conditions, and himself, having changed his place, chose a private life: Under whose beginnings he fared better for some time, when the direct direction of ☉ to the term of ♃ in the 32nd year in the month of Sept.

approached: The converse one also in the 34th year in the month of April to the sinister ✶ of ♃, and in the same month the M. C. to the sinister ✶ of ♂, and about the end of the year the same M. C. to the term of ♃. For these directions all designate soundness of body, and tranquillity of mind, the friendship & favour both of Jovial and of Martial men; and promise greater happiness & an increase of esteem. The direction of the horoscope to the dexter ✶ of ♃ also confirmed this fortune, as the 35th year was running to its end, which signified firm health with an increase of goods, & the accession of new friends. But in the 36th year of age, & of Christ 1579 almost completed, the converse direction of ☉ reached not only the term of ♄, but also, in the following 37th year, the direction of the M. C. the ☍ of ♄, which proved to be the authors of new disturbances, and pressed the native with various melancholic affections, diseases & cares, which the direction of ☉ to the term of ♂ in the 38th year armed with a certain bile. In the 39th year of age, or in the year of Christ 1581, about the beginning of July, the direction of the horoscope came to the term of ☿. This term was salutary, and conferred on the native rectitude of judgement with aptitude for conducting affairs. The direction of the Sun to the sinister △ of ♃, which fell in the 40th year of age, & at the end of Septemb., also increased the health, honour & esteem of the well-born native, & bestowed singular happiness in dispatching business.

In the 41st year, or of Christ 1583, slipping to its end, the direction of the middle of heaven was brought down to the term of ♄, which involved the native

in new calamities & cares, which he chiefly turned over with himself: And in the following year, likewise hastening to its end, in the month of December, the Sun by converse direction reached the term of ☿, which made the native anxious about exercises of studies with which he might beguile the time. It came about therefore that he thought of transferring the domicile to Frankfurt an der Oder, a place which abounds, as in pleasantness, so in things necessary for living & an excellent yield of wine; so that in it he might confer with learned men both about his causes, consisting in law, and about medical matters, in which he himself was most delighted, and might use their help, when necessity demanded. While he is occupied with these thoughts, & about the end of the same 42nd year, the middle of heaven approaching the cusp of the 11th house, consults with friends & those joined by blood, and seeks the familiarity of certain others, in the meantime the plague rages at Frankfurt, & the Sun in the nativity is brought down to the term of ♀. But when the plague ceased, under the said term of ♀ he betakes himself to Frankfurt, and there began to lead a quiet, pleasant life, & one removed from cares and the administration of affairs: In which, then commended to the Most Illustrious Prince and Lord, Johann Georg [D. Ioanni Georgio], most powerful Elector of Brandenburg, he earned the favour of the same, under the direction of the M. C. to the △ of ☉, in the 45th year of age running: He was also at that time happy enough in dispatching his business. In the 46th year of age, of Christ 1588, the middle of heaven at once in January reached the term of ♂, under which Martial men raised controversies against him, and after he had contended with them for some time, he felt a certain hot dyscrasia in the body from the agitation: And although, using the help of physicians, he tried in good time to calm it, which he also achieved in some part; yet the roots of the fever were propagated into the following 47th year, and in that year, in the month of April, the dexter □ of ♂ meeting the converse direction of ☉, they afflicted the native: but they were dispersed by the use of suitable medicines, & by the term of ♀ encountering the same direction of the Sun a little later, & strengthening the forces.

In the 48th year the middle of heaven reached the sinister △ of the ☽, under which, as he strove of his own accord to deserve well of others, and experienced a particular happiness in this, so he was everywhere treated with honours & celebrated by the people. Hence also in the 49th year of age, when the direction of the horoscope was carried through about the beginning of the year to the △ of ☿, he began to pursue studies, & to inquire into the rarer & more abstruse matter of medicines, which is prepared by distillations & extractions, to which investigation the direct direction of ☉ to the ✶ of ☿, which followed about the beginning of spring, also drove him; likewise the direction of the horoscope to the term of ♀, which brought him health of body, gladness of mind & happy successes. In the 50th year of age or of Christ 1592 the middle of heaven reached the term of ☿ in the month of March, and confirmed the mind of the native in pursuing undertakings; to which end the direct direction of ☉ to the term of ♃ in the month of April bestowed soundness & strength of body and

tranquillity of mind. A similar direction of the Sun also to the ✶ of ♀ in the following year 51 satisfied his desire, & added to the actions not only happiness, but also name & fame. In the 52nd year of age the Sun was brought down by converse direction to the term of ♃ at the beginning of the month of October, under which the native enjoyed moderate health & was increased with goods of fortune. The direction of the horoscope to the dexter △ of ♀, which fell at the end of the year, signified similar things & brought forth a singular gladness of mind, and cheered the native. The direction of the middle of heaven also to the Bull's Eye in the 53rd year confirmed the same significations, & brought increases of riches. And this happiness accompanied the native up to the 55th year, in which the Sun also came by its own direct direction to the term of ☿ in the month of March. But in the same year, which was of Christ 1597, a similar direction of ☉ to the ☌ of ♂ changed the fortune of the native in the month of August. For it both afflicted the health from an effervescence of bile, & disturbed the actions of the native in a wonderful manner, through the fraud of Martial men: a state of which kind the converse direction of the Sun to the Heart of Scorpio also signified, which fell in the following 56th year at the end of May. And although the arrival of the middle of heaven at the term of ♃ in the 57th year in the month of July, & of the horoscope at a similar term of ♃ in the following year in the month of February, brought the native healthiness of body & happiness in actions, by which he also carried off victory over those who opposed the native, with their disgrace; yet about the end of the 58th year the converse direction of ☉ to the term of ♄ pressed the native with sadness, because he thought he had incurred the envy and hatred of men: From this he was at once freed in the following 59th year, under the sinister △ of ♄, which the direct direction of ☉ reached in the month of Feb. The converse direction of the Sun to the ✶ of the ☽ in the month of May also made fortunate the actions of the native, & brought him into the favour of the Magnates. About the end of the 59th year in the month of Novemb. the Sun reached the term of ♂ by direct progression, & in the following year 60, of Christ 1602, the horoscope the ☍ of ♂: These directions signified to the native inconvenience in life counsels & actions. For in this year, on account of the seeds of plague scattered here at Frankfurt, he moved his domicile, fleeing the contagion, to the neighbouring town of Fürstenberg [Furstenberga], where in the following year 61, of Christ 1603, a conflagration that broke out consumed with fire most of the things dearest to him; which evil we also said above, in chap. 9 of the preceding member, was signified by the ♉ placed in the 2nd house of substance. Meanwhile the middle of heaven passed into the term of ☿, & the Sun by direction into a similar term of ☿; the horoscope also reached the Tail of ☋, but there signified nothing beyond dread, fear & lawsuits. At length in the 63rd year of age, which was of Christ 1605, the converse direction of the Sun having been brought down about the beginning of August to the lowest part of heaven, where the anaereta ♄ has its seat in the Radix, the native began seriously to take up thoughts of death, which the direct direction of ☉

to the term of ♄ in the 64th year also increased. Hence, sadder than usual & fearful, he was very little roused to joy & cheerfulness of mind by the converse direction of ☉ to the term of ♀, which falls at the end of the 64th year: The direction of the middle of heaven to a similar term of ♀ at the entry of the 65th year had more force, which made him gladder, & moved so much, that he even thought & deliberated about undertaking a journey, for the sake of the mind, into neighbouring Silesia: But soon in Spring, the direction of the horoscope landing at the term of ♄, the opinion having been changed, he stayed quietly at Frankfurt. For both ♄, a slow Planet, provides significations less suited to making journeys, & with summer impending the direction of the M. C. to the sinister □ of ♂ willed the native to guard himself against evil men lying in wait for him. Finally the direction of the Sun against s. s. to the body of ♄, or also of ♄, as the anaereta, to the Sun, lord of the horoscope, s. s. s (For both fall into the same time) which occurred in the month of May of the 66th year of age, of Christ 1608, was lethal to the native. For on the 21st day of May in the morning he was affected with hemiplegia in the right side, unexpectedly, the ventricles of the brain having been obstructed; so that he lacked both sense & motion for some time in that part: but, somewhat restored by the singular providence of GOD & the diligent care of the physicians, the injured part meanwhile being in some measure numb, life for him prolonged into the following 67th year of age, & the month of March —was; when ♄ also, the significator of death, draws the same out longer & defers it, nor accelerates in a manner similar to ♂. At length he died on the 8th day of March of the Julian year, at the 8th hour of the evening; in which time meanwhile the direct direction of ☉ to the term of ♃ preserved the native up to the point at which he was able abundantly to show & testify his piety toward GOD & neighbour.

[Margin: The other example.] In the other example, of a friend of mine, I shall touch on only certain more notable things. And first indeed in the 7th year of age, when the teeth of childhood fall out for most without tormenting pain, the direction of ☉ to the term of ♄ in ♉ brought the native the greatest pains of the teeth, disturbed by which, all rest was taken away, nor did the eyes admit sleep; especially since a little before the direction of the middle of heaven also reached the sinister □ of ☉, which signified to him a fall also from a height, in an airy Saturnine sign. For at the same time, by chance holding a tablet in the left hand, he fell down from a bench, & received a grave wound near the left ear, in the temple: See above p. 381. Then in the 11th year of age, not only did the horoscope approach the term of ♄, which is lord of the M. C., at which time the mother died to him: But the Sun also came to the ☌ of ☿, lord of the ascendant, & to its term existing in the same place, at which the parent of the native, called by the Most Illustrious Duke of Saxony Johann Friedrich [Ioanne Friderico] to the Reinhardsbrunn & Tenneberg [Reinhardsbrunensem & Tennenbergensem] prefecture, presided for some time over its administration. But in the year 16, in which the direction of the horoscope came to the ✶ of ♂, which is lord of the exaltation of the ninth house, the parent sent the native to

Frankfurt an der Oder, where, devoting diligent effort to letters for some years, about the end of the 21st year of age he was adorned with the highest degree in Philosophy, which the bringing down of the M. C. to the ✶ of ♂ signified to him. Decorated with this very thing as with the insignia of some military service, set a little later over others to be instructed, he experienced favouring fortune, the middle of heaven approaching the term of ♀ in the year 24, & the Sun a similar term in the year 25 of age. For, the Imperial insignia of the Notariate having been received, he was made both Notary of the Academy of Frankfurt soon after, in the year of Christ 1578, & after two years had elapsed, in the 27th year of age, the horoscope having been brought down to the term of ♃ and the M. C. to ⊕, but the part of fortune to the △ of ♀, Professor and husband. But after a few years, namely in the 32nd year of age, the Sun reaching the term of ♄, in which the sinister □ ray of ♄ also was fixed, he fell into a most grievous fever, & lost the paternal uncle. But freed from there, he enjoyed firmer health for some time, yet not without various adversities, which the directions of the Sun to the sinister □ of ♄, & the dexter □ of ♃ designated for him. Further, as the direction of the middle of heaven to the ✶ of ☉ raised the native to the dignity of the Rectorate in the 36th year of age: so ☉ to the term of ♃ repeated the same, in the 48th year of age. In the intervening time, in the year 42, the first wife having died, he married another in the following year 43, of Christ 1596: Although the directions do not show these events, yet the horoscope was brought down a little later to the term of ♀, There came also ♀ by its own profection to the 7th house in ♐, & ☽ to the 5th in ♍, double & bicorporeal signs. If a pronouncement were to be made about the term of life from the directions, surely ♄, lord of the eighth, applied to the horoscope, could show it. Now the right ascension of the M. C. is 308° 34′: And of ♄ 356° 30′: from which the distance of ♄ from the M. C. comes out 47° 56′. And the diurnal horary times of ♄ 14° 20′. But the A. R. of the rising sign & place is 71° 43′: from which the distance of the horizon from the M. C. is gathered, 123° 9′. And the diurnal horary times 19° 57′. Hence, the distance of ♄ having been divided by the horary times of the same, & the quotient 3^{h} 20^{m} 39^{s} having been multiplied by the horary times of the horoscope, 66° 43′ come out, which having been subtracted from the distance of the horizon, 56° 26′ remain: so that thus the fatal time is signified from this direction. In the 57th year of age, of Christ 1610, about the end of Sept. But God, who is the length of our days, will prolong this term much in life, when the horoscope also will reach the dexter ✶ of ♀, and a little later the M. C. the ✶ of ☽ & the term of ♀. And let these things be said about the directions.

Chapter I I.

On annual profections.

[Margin: What annual profections are.] The doctrine of the directions having been completed, from which the year can be gathered nearly true, in which some event, good or bad, is to be expected for the native, we shall now treat of the annual profections; which are nothing other than the equal

progressions, under the zodiac, of any places whatever of the nativity, by which they complete a sign in any Solar year, & an entire revolution in the space of 12 years. For the places of the zodiac, which either themselves have some signification, or contain Aphetas & other significators of whatever name & office, do not remain perpetually fixed, as they are found to have been disposed at the first rising of the man, but are thought to go forward equably from time to time with their Aphetis & significators s. s. s., [Margin: In an annual profection a significator completes 30 degrees.] so that by this equable progression any significator completes 30 degrees of the zodiac, whether they are of one or of two signs, in any year whatever, & when 12 years are completed is revolved, through the 12 signs of the zodiac completed, to the point which it held in the Radix. But such progressions of the significators in the order of the signs [in consequentia], by which they are thought to complete single signs in single years, are called annual profections.

[Margin: Monthly profections advance the significators by 30 degrees in the space of a month.] There are besides both monthly & daily profections, by which the significators are set to make a passage into one sign of the zodiac after another through single months and every two days: but, those having been omitted, we shall speak only about the annual profections.

[Margin: To which profection is attributed.] This manner of going forward is attributed to all the Planets & the remaining significators which come into consideration, & signify some certain event; so that not only the year of some event past or future, but a time more special still, namely the month & the day, is known through the profections.

[Margin: The rule for seeking the profection of any significator.] When therefore you wish to know which sign the horoscope or another significator walks through by this progression, in any current year of age of the native, take the completed years of the native, & divide them by 12, to the remainder add the number of that sign in which the significator is placed in the Radix, the aggregate will show the number of the sign to which the significator proceeds in the given number of years.

As in our first example the horoscope is in 3° 6′ ♌, or 3° 6′ of the fifth sign. If now I desire to know to which place the horoscope has come by its own profection in the current 67th year of age of the Well-born [generosi] native, in which he died, I divide the completed years of age, as 66, by 12, & to the remainder 6, I add the number of that sign, namely 5, 11 are collected. Therefore by its own profection the horoscope comes into ♒.

In the same way I seek the profection of ♄ of the same year. Now ♄ is in 18° 58′ ♏, or sign 8, 18° 58′. But if I add the remainder of the given years divided by 12, namely 6, to 8, 22 [recte: 12] having been cast away, 2 signs remain: from which the profection of ♄ is judged to have come to the sign ♉.

[Margin: A short way of inquiry through the general table of annual profections.] More compendiously, with this general table present (in which the years of age are held toward the left, the signs toward the right, corresponding

to their own years, under a certain sign, in which, at the time of the Radix, the significator which we are considering stands,) the same is accomplished: For let the given year be sought at the front of the table, under the current years; & there will be found —the sign to which the profection comes, within the same transverse lines in which the current year is contained, under the sign in which the significator whose profection is sought is.

As the horoscope, in ♌ at the time of the Radix, is found in ♒ in the given year 67; And ♄, in ♏ in the radical chart, is found in ♉ in the year 67.

[Margin: On special tables of profections.] There are those who make special tables of profections, & indeed to this end, that, since the use of the annual profections is notable in foreknowing the particular moments of future events, they may have ready at hand the profections of the principal significators, which they can apply at one glance to the single years of age of the native; since the composition of these is easy, & open to anyone, there is no need for it to be declared more copiously here: Let it suffice that we have set out the special tables of profections of our two examples.

General table of profections

Current years							♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
1	13	25	37	49	61	73	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
2	14	26	38	50	62	74	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈
3	15	27	39	51	63	75	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉
4	16	28	40	52	64	76	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊
5	17	29	41	53	65	77	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋
6	18	30	42	54	66	78	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌
7	19	31	43	55	67	79	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍
8	20	32	44	56	68	80	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎
9	21	33	45	57	69	81	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏
10	22	34	46	58	70	82	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐
11	23	35	47	59	71	83	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑
12	24	36	48	60	72	84	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒

Special table of profections of the Well-born [Nati generosi] Native.

1543	1555	1567	1579	1591	1603	Horo-scope 3° 6′	M. C. 9° 23′	I. C. 9° 23′	Set-ting 3° 6′	☉ ☽ ♀ ☿	♄ 18° 58′	♃ 27°	♂ 33′	14°	23′ ⊕	☊ 23° 9′
1	13	25	37	49	61	♌	♈	♎	♒	♑	♏	♎	♓	♌	♌	
2	14	26	38	50	62	♍	♉	♏	♓	♒	♐	♏	♈	♍	♍	
3	15	27	39	51	63	♎	♊	♐	♈	♓	♑	♐	♉	♎	♎	
4	16	28	40	52	64	♏	♋	♑	♉	♈	♒	♑	♊	♏	♏	
5	17	29	41	53	65	♐	♌	♒	♊	♉	♓	♒	♋	♐	♐	
6	18	30	42	54	66	♑	♍	♓	♋	♊	♈	♓	♌	♑	♑	
7	19	31	43	55	67	♒	♎	♈	♌	♋	♉	♈	♍	♒	♒	
8	20	32	44	56		♓	♏	♉	♍	♌	♊	♉	♎	♓	♓	

1543	1555	1567	1579	1591	1603	Horo-scope 3° 6′	M. C. 9° 23′	I. C. 9° 23′	Set-ting 3° 6′	☉ ☽ ♀ ☿	♄ 18°	♃ 58′	♂ 27°	33′	14°	23′ ⊕	☊ 23° 9′
9	21	33	45	57		♈	♐	♊	♎	♍	♋	♊	♏	♈		♈	♈
10	22	34	46	58		♉	♑	♋	♏	♎	♌	♋	♐	♉		♉	♉
11	23	35	47	59		♊	♒	♌	♐	♏	♍	♌	♑	♊		♊	♊
12	24	36	48	60		♋	♓	♍	♑	♐	♎	♍	♒	♋		♋	♋

[Margin: The manner of knowing the profections of any] Further, the degree & minute having been known, to which the annual profection of some proposed significator is brought down in the given number of years, deservedly with it, first, the very [chart]

Special table of profections of the other nativity.

1554	1566	1578	1590	1602	Horo-scope 10° 15′	M. C. & ☽	I. C. 6° 10′	Set-ting 10° 15′	☉ ♀ 12° 6′	♄ 25°	♃ 30′	25°	♂ 57′	27°	☿ 12′	0°	⊕ 14′	16°	☊ 28′	14°	39′
1	13	25	37	49	♊	♒	♌	♐	♉	♓	♍		♈		♊		♍		♋		
2	14	26	38	50	♋	♓	♍	♑	♊	♈	♎		♉		♋		♎		♌		
3	15	27	39	51	♌	♈	♎	♒	♋	♉	♏		♊		♌		♏		♍		
4	16	28	40	52	♍	♉	♏	♓	♌	♊	♐		♋		♍		♐		♎		
5	17	29	41	53	♎	♊	♐	♈	♍	♋	♑		♌		♎		♑		♏		
6	18	30	42	54	♏	♋	♑	♉	♎	♌	♒		♍		♏		♒		♐		
7	19	31	43	55	♐	♌	♒	♊	♏	♍	♓		♎		♐		♓		♑		
8	20	32	44	56	♑	♍	♓	♋	♐	♎	♈		♏		♑		♈		♒		
9	21	33	45	57	♒	♎	♈	♌	♑	♏	♉		♐		♒		♉		♓		
10	22	34	46	58	♓	♏	♉	♍	♒	♐	♊		♑		♓		♊		♈		
11	23	35	47	59	♈	♐	♊	♎	♓	♑	♋		♒		♈		♋		♉		
12	24	36	48	60	♉	♑	♋	♏	♈	♒	♌		♓		♉		♌		♊		

[Margin: significator through the whole year.] —afterwards also the table of aspects is consulted, so that it may appear into which house of the Radix the profection falls, & which promissors, both in that very place to which it comes at the beginning of the proposed year, and if it is carried further from this *in consequentiam*, occur to the significator in that year. For thus the particular events through the whole year will be able to be drawn out for almost each of the months.

[Margin: Example of the nativity of the Well-born.] As in our first example of the Well-born [Generosi] native, the profection of the horoscope reaches, at the beginning of the year of age 66, to 3° 6′ ♑. Now if I wish to know first into which house this profection falls, I find that it falls into the end of house 5. Next, which promissors occur to this significator as it proceeds; I observe that these occur:

1	the cusp of the sixth house	in	6° 0′ ♍
2	the body of ☿	in	6° 40′
3	the body of ♀	in	9° 23′
4	✶ ♂ dexter	in	14° 23′
5	✶ ♄ sinister	in	18° 58′ ♍
6	the body of ☉	in	25° 7′
7	□ ♃ sinister	in	27° 33′
8	the body of ☽	in	28° 32′

[Margin: Example of my friend.] In a similar manner, in the other Nativity, the profection of the horoscope at the beginning of the year 56 of the age of the native falls in ♍ at 10° 15′, and so into the eighth house of the Radix: But to the same there occur:

1	△ ☉ dexter	in	12° 42′ ♍
2	♉	in	14° 39′
3	the cusp of the ninth	in	20° 59′
4	✶ ♄ dexter	in	25° 30′ ♍
5	△ ♃ sinister	in	25° 57′
6	□ ♂ dexter	in	27° 12′
7	△ ☿ dexter	in	0° 14′ ♒
8	M C.	in	6° 10′ ♒
9	□ ♀ dexter	in	6° 11′
10	the body of ☽	in	6° 52′ ♒

[Margin: The method of inquiring into the months & days on which the profection falls.] But the month and day of the profection, on which any promissor is going to occur to its significator are investigated in this way. 1 Subtract the place of the significator, whose profection has been set up, from the place of the promissor, 30 degrees having been adjoined, if the subtraction cannot otherwise be made; & the remainder will be the distance of the promissor from the significator, in degrees of the zodiac. 2 Multiply this distance by 12 days & 10 min. of a day: Or by 12^{d} 4^{h}: And the product will show the time, between the beginning of this current year, & the moment, at which the promissor is going to apply to the significator, intervening counted in days & minutes of days or hours. 3 Count these days from the day of the nativity, & you will find the month and day, in which the proposed profection will be terminated.

[Margin: Example.] For example, in the year 66 of the first nativity the profection of the horoscope falls in the fifth place into ✶ ♄ sinister: I wish to

know, on what day of the year the horoscope will attain this aspect. I therefore seek 1 the difference between the significator & the promissor in this manner:

The place of the promissor is in	18° 58′ ♍	
But the place of the significator in	3° 6′	
The subtraction of the lower from the upper having been made, there remain	15° 52′	the distance of the promissor from the significator.

		15	52	
Afterwards I multiply this distance either by days		12	10	in this way
		2	8	40″
			30	
	3	10	24	
		0		
There arise first sixties of days	3	13	2	40
The sixties having been multiplied by	60	there come out with the days joined 13		
Days in all	193	with 2′ 40″		

But 2′ of days 40″, make $1^h\ 4^m$ by this proportion:

60′	give 24 Hours	what 2′ 40″.

Or also the distance found 15° 52′, or min. 952; I multiply by Days 12 Hours 4 or hours in all 292

	292
	1904
	8568
	1904
The operation having been completed there come out minutes of hours	277984

These divided by 60 make Hours 4633, with a remainder of 4 minutes, the Hours having been resolved into days by 24, there result as before $193^d\ 1^h\ 4^m$.

Third I count these days from the day of the nativity January 5 being current, & I find that this profection falls on 1608 July 16, about Hour 6 of the evening.

[Margin: Another example] In a similar manner let the profection of the horoscope be given to ✶ ♂ sinister, which falls in 14° 23′ —♍, & let it be sought

on what day it falls. First therefore I likewise seek the difference between the promissor & the significator:

The Promissor ✶ ♂ is in	14° 23′ ♍
The significator horoscope in	3° 6′
The difference is	11° 17′

Next I multiply this difference by days		12	10	in this way
		1	2	50″
			50	
	2	3	24	
		12		
There are produced sixties of days	2	17 D.	16′	50″

or days 137, 16′, 50″, which minutes make 6^h 44^m.

Finally I count these days from the day of the nativity namely January 5 being current, I discover that the proposed profection of the horoscope falls on May 21, on which hemiplegia affected the native, in the signs of slow descensions.

[Margin: The method of seeking the same from tables accommodated to this inquiry.] More compendiously & without tedious calculation from the tables of profections set out above on p. 382, of which the prior resolves degrees into days, hours, & minutes of hours, the posterior in a similar manner minutes, in place of which we have adjoined this more accurate one; the same is gathered. For let the prior table be consulted first with the degrees of the difference; and let the days, hours and minutes which correspond, be taken out. Afterwards let the posterior table be consulted likewise with the minutes, & these having been joined the days of the profection are produced, to be counted as before from the Radix.

Another posterior table of profections applying to the minutes of degrees, days, hours & minutes of hours.

′	Days	Hours	m
1	0	4	52
2	0	9	44
3	0	14	37
4	0	19	29
5	1	0	21
6	1	5	13
7	1	10	5
8	1	14	58
9	1	19	50
10	2	0	42

′	Days	Hours	m
11	2	5	34
12	2	10	26
13	2	15	18
14	2	20	11
15	3	1	3
20	4	1	24
30	6	2	6
40	8	2	48
50	10	3	30
60	12	4	12

[Margin: Example.] As let the difference be given 15° 52′, as in the first example, & there correspond

To Degrees	15	Days	182	Hours	14	54^{m}
Min.	50		10		3	30
	2				9	44
There are made in all		Days	193	Hours	4	8

[Margin: The method of seeking the arc of progression at some given time.] But if anyone conversely from the time or days, how great a progression some place of heaven has made at some given time, wishes to gather, he will be able to apply another table of profections, also set out above on p. 382, in which to the single days are ascribed the corresponding degrees & minutes, which are completed by the annual profection. For let the said table be consulted first with the given time, & let it be sought, how great an arc corresponds to the Radix brought down from the beginning of the year. Next how great also corresponds to the given time. Afterwards let the prior arc be subtracted from the posterior, & there arises a difference, which agrees with the time intermediate between the Radix & the given: This difference, if it is joined to the last profection counted to the Radix, the arc is gathered, which the profection has completed at the proposed time. [Margin: Example.] As let there be given in the first example the day 1609 March 8, & let it be sought how far the profection of ♄ has reached on that day. But since the proposed year is of the age of the native 67, & ♄ at its beginning namely on the day January 5 has reached to ♉ 18° 58′, I seek first how great an arc agrees from the beginning of the year to the Radix. But there have elapsed only 4 days & 5 hours nearly which grant 20′. Afterwards to the day March 8 there are 67 days. But 60 days grant 4° 55′ 42″: & 7 days exhibit 34′ 30″. From which if from the aggregate 5° 30′ 12″, I subtract 20′, there remain 5° 10′, which joined to the Radix, show the profection to have reached 24° 8′ ♉. Nor is the way dissimilar in other examples.

[Margin: The profections show happy years] But as regards the use of this doctrine, it is manifold & widely extending. For 1 the profections of the principal cusps of the 1st & 10th house, show, which years are happy, which unhappy. For the years which light upon the ✶ or △ rays of the horoscope or M. C., especially if also the force of those domiciles is great in the chart, & they are illuminated by the happy rays of happy planets, are judged happy & fortunate. [Margin: And unhappy.] But unhappy, those which fall into □ or ☍ aspects, especially if they are also harassed by the inauspicious rays of maleficent planets. Thus the fourth & seventh years of first & tender age, because they bring the sign of the horoscope down into the 4th & 7th house, are held more unhappy. For the 4th is opposed to the tenth, & the 7th to the first. Thus the 4th regards the first by □, & the 7th likewise the tenth by □. Those also are reckoned unhappy, which fall into unhappy houses, as the sixth, which is of diseases, & the 12th which is of prison, of which kind are the novenary Climacteric years, 9, 18, 27, 36, 45, 54. 63, 72, 81.

[Margin: Which the Climacteric years are, & why they bring changes to men.] For those years are called Climacteric, by the Latins called scalar & decretory, not only which by reason of the numbers, the novenary (as that which is the square of the first odd & sacred number the ternary; & at the same time oddly odd, since it is composed of three triads) & the septenary (as that which arises from the first odd, & the first evenly even the quaternary) are most unhappy in human life, in which a man is in danger of life & of actions, & very often is taken out of life; by a reason plainly contrary to the one in the mother's womb, where an infant perfected in the seventh month can be born perfectly & live, but regularly is brought into the light only in the ninth: [Margin: The cause of the septenaries] [Margin: The cause of the novenaries.] But also those in which either the rule of the lords of each septennium is brought down to the maleficent Planets, or ♄ has arrived at the □ of the place of the Radix, as in the septenaries; or the principal cusps of the horoscope & M.C. reach the inauspicious houses, the sixth of adverse health, & the 12th of prison & hardships.

[Margin: The deduction of the novenaries.] Hence the years 18, 42 & 54 are dangerous, because the horoscope by its profection comes in them to the 6th house; as in the ninth, 45 & 81 the M. C. to the same. But the horoscope arrives in the twelfth house in the year 36, which is lethal to men, since it also arises from the square of the perfect senary number, which is composed of the doubled ternary, & 72 and 84 which are lethal to old men. Likewise in the year 27 & 63 the middle of heaven to the twelfth. [Margin: The year 56 the Heroic Climacteric.] Thus the year 56, in which the horoscope lights upon the 8th house, which is the house of death, & the Moon, mistress of the septennium, is brought down to a maleficent Planet, is called the Heroic Climacteric, because many eminent men have died in it, & still die. For that year is composed of the first Cube of the binary 8, & the septenary number multiplied by each other.

[Margin: The profections of the lords of the septennium also show auspicious & inauspicious years.] Next the profections of the lords of the septennium

likewise indicate which years are auspicious & inauspicious. For those are reckoned auspicious which light upon good Planets, especially if those too are strong, & are helped by the happy rays of the happy Planets.

But inauspicious, those which meet the maleficent Planets, especially if they themselves also are weak, & are infected by the evil rays of the evil Planets. Hence as the seventh number regards the first with an opposite ray, & the first the seventh conversely; so because it lies at the same time under the rule of a maleficent Planet, every seventh year is judged unhappy & unfortunate, Censorino [Censorinus] also being witness, dist: 14 *de die natali*. [Margin: The septenary Climacteric years.] Therefore 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84 as septenary Climacterics are held unfortunate, especially 49, which is the square of the septenary. For square numbers are most potent, as the square of the novenary 81 is also indicated to be most efficacious: For indeed it is rarely passed through without the greatest danger of life or of fortunes. And in this year 81 they report that Platonem [Plato], Diogenes [Diogenem] the Cynic, Dionysium [Dionysius] of Heraclea, Eratosthenes [Eratosthenem] the distinguished Geometer, & Xenocrates [Xenocratem] the Platonist died. [Margin: The year 63 most dangerous.] Thus the year 63 is held the most potent & most dangerous of all, which prescribes as it were a certain law of dying to men; since it is composed of 7 & 9 multiplied into each other, as Galeotto Marzio da Narni [Galeottus Narniensis] writes in lib. 2 *de homine*: The Climacter is nothing other than a certain law of dying, which is called declining, containing three & sixty years. For this time is most dangerous, since anyone rarely passes that very thing without a change of life or of affairs. For he too who is seized by some more serious disease in a Climacteric year, especially 63, he for the most part exchanges life for death, & bids farewell to human things. And indeed the twenty-first increases the malice of this year 63, which, since it is itself also Climacteric, & produced from three times seven, has been numbered among the difficult ones; for those which the hebdomads of the earth complete are most difficult, Censorinus wrote, as 21, 42, 63 & 84, in which Staseas fixed the term of life. For this reason Augustus Cæsar congratulates himself that he passed through the year 63 without danger of life or other harm, writing in this way to the grandson Gaius Caesar [Cajum]: I hope that you have celebrated my fourth & sixtieth birthday happy & in good health: For as you see we have escaped the third & sixtieth Climacter common to all older men, etc.

[Margin: The lords of the septennium are also called Alfridarias,] Moreover so that it may be clear which are the lords of the septennium, whom the common run of Astrologers calls Alfridarias, it has seemed good to add this little table:

Little table of the Lords of the Septennium or of the Alfridarias.

Di	☽	☿	♀	☉	♂	♃	♄	☽	☿	♀	☉	♂	No
☉	1	8	15	22	29	36	43	50	57	64	71	78	☽
♀	2	9	16	23	30	37	44	51	58	65	72	79	☿
☿	3	10	17	24	31	38	45	52	59	66	73	80	♀
☽	4	11	18	25	32	39	46	53	60	67	74	81	☉
♄	5	12	19	26	33	40	47	54	61	68	75	82	♂
♃	6	13	20	27	34	41	48	55	62	69	76	83	♃
♂	7	14	21	28	35	42	49	56	63	70	77	84	♄

[Margin: The principal Alfridarias.] From which we see, first, which are the Lords of the individual septennia. For in any nativity in the first septennium the Moon presides, in the second Mercury, in the third ♀, in the fourth ☉, & so onward, as the rest follow in the head of the table. [Margin: The sharing Alfridarias.] 2 which are the sharers, & how the alternations of the Planets in the governance of life are disposed. For the syllable Di on the left side signifies those, who are born by day, to have the Sun as governor in the first year, Venus in the second, & so in succession. But the syllable No on the right side signifies those, who are born by night, to have the Moon as governor of the first year, Mercury of the second, & so onward, that dominion being repeated in the single septennia, so that the eighth year is equal to the first, as is clear from Genitura 36 & 38 Girolamo Cardano [Cardani]: from which this too is established, that in a nocturnal nativity one proceeds from the Moon ascending upward, so that the end is in Saturn; In a diurnal one from the Sun descending downward, so that the end is in Mars.

[Margin: Why the septenary years are dangerous.] 3 We also notice from there, why the septenary Climacteric years are for the most part dangerous: namely because they light upon the dominions of the evil Planets. But they are dangerous, when the malefic & the killer concur, & then from a slight direction that planet kills in the Climacteric. They are not dangerous, when that malefic is friendly to the luminaries or to the ascendant, or even presides over them.

4 We can also disjoin & separate by the help of the table the chief lords of the Alfridarias from those, who are sharers of the dominion. For we call chief those, which are placed in the uppermost part of the table. But sharers those which are marked at its sides.

[Margin: Cardanus on the Alfridarias.] And Cardano [Card.] Genit. 34 speaks of the principal ones in this way: [Margin: ☽ ☿ ♀ ☉ ♂ ♃ ♄] *The Alfridaria has been found thus by us by sure experience & reason: the first seven years are of the Moon, then the boy is most liable to convulsion, although Avicenna says only up to the fifth year, and then he learns to walk & to speak. Seven others are of Mercury, & he becomes capable of reason & agile. Seven others of Venus, then he has the flower of beauty, & is capable of Venus, & rejoices in it, nor after that time is the body increased: For the dryness of the Sun follows. Seven others of the Sun, then he has the greatest strength of life, & takes care of honour. Seven others of Mars, at which time he reaches labours & the state of strength and boldness. Seven others of Jupiter, then*

he is strong in counsel, & wisdom and care of affairs arrives. From 42 to the year 49 ♄ *rules, & afterwards a return is made to the same order. From which apoplectics are made most of all from 42 to the year 56, the Moon & Saturn ruling. Therefore the happy Alfridaria of a happy wanderer in the nativity, makes the year happy. But the last years of any Alfridaria are dangerous, as the last parts of the signs are generally reckoned evil.* [Margin: Alfridarias of sons. Of riches Of pleasure. Of labours. Of honour. Of disposition. Of counsel.] But in Genitura 39 he writes these things: *I return to the Alfridarias: The Alfridaria of sons is from 28 to the year 42, since* ♂ *&* ♃ *rule: And Plato understood this in lib. de generationis tempore in obscure words. The Alfridaria of riches from 35 to the year 49; because* ♃ *&* ♄ *rule. The Alfridaria of pleasure from 14 to 21, because* ♀ *rules. The Alfridaria of labours from 21 to the year 35; for* ☉ *&* ♂ *rule. The Alfridaria of honour from 21 to the year 28, since even then because of honours they forget life because of the dominion of* ☉*. The Alfridaria of disposition from 7 to 14 & from 21 to the year 28, on account of* ☿ *& the Sun. The middle ones are intercepted by pleasures. The Alfridaria of counsel & cunning from 42 to 49. For then* ♄ *rules. All the Alfridarias after the year 49 retain something of childish folly. For from 49 to 56 a man begins to fear & to think too much about himself. From 56 to the year 63 he becomes too anxious in his affairs. From 63 to 70 he neglects his actions too much, & would wish to imitate a youthful life. From 70 to 77 he begins vainly to trust in length of life: From 77 to 84 he begins to dote on account of* ♂*. These things* Cardanus.

[Margin: Years are dangerous in which the profection of the horoscope falls on the evil planets.] *Thirdly the profections also show this, that if malefic Planets are in the 8 house, always the years 8, 20, 32, 44, 56, 68, 80 bring destruction or death. For in the years now set out the ascendant is perpetually carried down into the eighth house by its profection. But where only the eighth house is afflicted, nor is it infected by the presence of malefic Planets, there it denotes illnesses, & the hardships of journeys and of the body. Those to whom nothing of danger happens in these years, they have benefics in the eighth or second, or in that year have a happy direction of the ascendant & of the Moon. For the most part also the years 7, 19, 31, 43, 55, 67, 79 bring some change of life, because in them the horoscope arrives at its opposite, or the seventh house.*

[Margin: Profections show the lords or governors of the year.] *Fourthly the profections display the lords, kings, or governors of the year; who are nothing other than the lords of that sign, to which the horoscope comes by its profection. For because in single years the profection of the horoscope traverses 30°, as said, it comes about that in nativities, in which the beginning of some sign horoscopes, the lord of that sign also alone sustains the dominion through the whole year. But if the middle or the end of the sign holds the horoscope, then two lords of the year are to be taken, the first indeed who presides over that sign, to which the profection comes at the beginning of the year of age of the native; but the other who rules the following sign: and the force of the prior lord lasts up to that point, until the profection of the horoscope arrives in the following sign, according to the measure of degrees & times set out a little before.*

[Margin: Certain precepts on the lords of the year.] But concerning the lords of the year Hermes [Hermes Trismegistus] cap. 4, 5, 6, & sequentib. lib. 2. Abenragel [ʿAlī ibn Abī l-Rijāl] cap. 3 part. 6. Johannes Schöner [Schoner.] libr. 3 cap. 7, & from him Heinrich Rantzau [Ranzovius] in the fifth part of the Astrology hand down roughly these things. [Margin: On ♄] 1 ♄ if it is the lord of the year & Oriental and strong in the radix & the revolution, in good places of heaven, as the 1, 2, 5, 10 & 11 house, designates the management of useful things, & fortune from the care of fields, of farms, of buildings; he will be happy in the acquisition of immovable goods, & in the diversions of waters, and the plantings of trees, he will acquire inheritances, & if he gives effort to the business of metals, he will be made fortunate in it, he will also associate with friends, & will conclude contracts with them. For kings & princes it marks the building of cities, of palaces, & of splendid gardens, from which honours & dignities will come forth with an increase of riches. The same is signified if the horoscope is led to the ✶ or △ ray of a happy ♄ in the nativity. But ♄ unhappy, Occidental & in evil places of heaven as 6, 7, 8, 12, threatens cold illnesses, as the troublesomeness of black bile in the earthy, an abundance of phlegm in the watery signs, likewise dysuria from thick matter, & obstructing the passages of urine, he will then begin almost nothing usefully, but he will feel impediments & an unhappy outcome of all his actions, in fields, waters, & every substance, movable as well as immovable, he will experience adversities; he will have princes hostile, and others established in dignity, & he will be much saddened in that year. The same is signified if the profection of the horoscope arrives at the ☌♂ or □ ray of Saturn.

[Margin: On ♃] ♃ lord of the year, if it is of good condition both in the nativity and in the revolution, & has fallen into a happy house, designates nothing but good things flowing in abundantly. For it pledges happy outcomes of all those things, which the native begins, and promises to him an abundance of means, & of those things which pertain to the sustenance and increase of the household: He will grow in fame & fortunes, he will be pleasing & acceptable to kings & princes, he will have joy from children, & will receive a son in that year, especially if the profection falls into the 5 or 11 house, or is joined to Venus or her happy rays, he will also acquire riches from gifts, & will easily obtain what he will desire from the more powerful. In trials he will be fortunate, & will happily settle his affairs pending at law: He will also acquire the highest dignities, particularly if the assent of the Sun has been added. The profection of the horoscope to the body of Jupiter, or to its ✶ & △ rays, denotes similar things. But ♃ unfortunate, Occidental, under the rays, in the house of a malevolent, or falling from the angles, in the 6, 8 or 12 house, diminishes the happiness & glory of the native; it marks a multitude of expenses & a troublesome voluntary outpouring of riches. Let the native also beware for himself in this year of the Jovials, from whom he will suffer loss through feigned kindness & faith: It also threatens sadness from the death of children & of kinsmen. The profection of the horoscope to the □ or ☍ ray of Jupiter designates similar things.

[Margin: On ♂] ♂ lord of the year fortunate, free & swift in course, in good & fitting places of heaven, arouses strength & fortitude of mind, by which he shuns all sloth & idleness, & he is skilful, prudent, and ready for works & the handling of affairs, & he enters into great favour with the magnates, and easily obtains what he asks of others; from foreigners, however, if it is in a foreign sign, from his own & friends, if it is in its own, from waters, if it is in a watery sign, &c. Especially he will be dear to kings, & will acquire profit & honours from them, if it is illuminated by the ✶ or △ ray of ♃ or ☉. The profection of the horoscope to the ✶ or △ of ♂ happily placed signifies almost the same. But ♂ unfortunate, retrograde under the rays, or combust, in adverse places of heaven, the 6, 7, 8, or 12 house, signifies irascibility, restlessness of thoughts, & disturbance of mind. Let him therefore beware then of the handling of arms, of lawsuits, quarrels, and journeys. For he will suffer injuries of the body, frauds, detriments and losses, through robbers in the human, through wild beasts in the bestial & reptilian, through fire, heat & seething blood in the fiery signs, &c. He will also be affected with hot illnesses from the boiling of the blood. The profection of the horoscope to the body □ or ☍ ray of ♂ marks the same.

[Margin: On ☉] ☉ lord of the year, although it is judged chiefly from the sign, in which it is at the time of the nativity; yet if it is considered by itself, & is fortunate in some happy house of heaven, signifies association with princes, & public offices from the same, as prefectures, more illustrious ranks, dignities, & an increase of glory & of riches. The native will also be strong & roused in acting in that year, grave in speech, & will have a singular strength of mind. But the Sun impeded & in an adverse house of heaven, 6, 7, 8, or 12, or even in the ☍ and □ ray of the radix, designates detriment from kings & princes, whom at that time he will experience as hostile & ill-disposed to him. Let him therefore beware for himself of association with them and with their prefects, if he desires to escape disgrace, losses & sadness of mind: He will also feel seething & hot illnesses, especially if the profection arrives at the 6 or 7 house, [Margin: On ♀] ♀ mistress of the year, if in the nativity & the revolution it is of good condition, free in course, & in a suitable & happy place of heaven, signifies pleasantness, games, dances, banquets & the love of women, to bind whose goodwill more closely to himself the native will be eager in that year for scents, elegance & ornaments, he will be delighted by songs and Musical instruments, & will indulge genius more lavishly, especially since such a configuration also promises strength & health of life. The profection of the horoscope to the body or the ✶ or △ ray of ♀ marks the same. But if ♀ is of evil condition both in the nativity and revolution, impeded in course, in a sign of heaven foreign to the temperament of ♀, & in the 6, 8 or 12 house, he will suffer evils & losses from women, & in venereal acts, food, drink, medicines & ornaments, he will feel detriments, he will also be afflicted on account of them with sadness & grief. The profection of the horoscope to the ☍ or □ of ♀ indicates the same.

[Margin: On ☿] ☿ lord of the year fortunate, as said of the other Planets, promises to the native an increase of substance, & glory and praise, from disposition & sharpness of mind; he will be happy in trade, journeys, in persuading by speech, & in the exercise of those arts, with which the nature of the house of lodging of the profection has agreed. The profection of the horoscope to the ♂ ✶ or △ ray holds out the same. But ☿ unfortunate in the abject houses, 6, 8, 12, threatens diverse hardships, on the occasion of servants & of vile persons, losses likewise from Mercurials, scribes, notaries & merchants. The native will also suffer snares on account of letters, of speeches, & lawsuits and quarrels will be stirred up against him. The profection of the horoscope to the □ & ☍ of ☿ portends the same.

[Margin: On ☽] ☽ mistress of the year happy, denotes prosperity, & gain in journeys, also good health, & largesses from princes & women. But unhappy it signifies the contrary. From this, dealings will have to be avoided with men making a journey or travelling abroad, & who take care of fishponds or waters, also the company of women, & the native is not to indulge genius in food & drink, since from a slight cause adverse health is to be feared from there.

But in general from all these things which have been said, good or evil things are to be determined according to the nature of the house into which the profections fall. And always the lord of the year fortunate in the angles decrees a greater good. But unfortunate in any one of the angles without any reception, it has a greater force for harming, and signifies greater anxieties, labours, penalties, & forfeitures or deprivations of things & of honours, than if it is removed from the angles.

Also the lord of the year unfortunate, the lord of the radix retrograde or combust, & the Moon likewise unfortunate without reception, signify that either the native will destroy himself, or will commit a deed, on account of which he will be killed, or on account of which he will receive great loss & trouble, most of all if the benefics are remote, & fall from it.

[Margin: Profections indeed are worth less than directions, yet they greatly increase the force of those.] *For the rest, in forming a judgment this is to be noted, that the profections, although by themselves they do not have as much force as the directions; yet they greatly increase the virtue of those, & bring into act. For always when* [?] *the lords of the Aphridarias, or the lords of the year fall upon directions agreeing in goodness or malice, they bring more evident outcomes. And in general the profections show, whether —truly in that year, into which the well-omened or ill-omened directions fall, they are going to exert their effect, or indeed are going to defer into the following year.*

[Margin: Rules of judgment] [Margin: 1] Consider therefore first the quality of the direction, whether it is good or evil, & of which Planets it is, that is, which is the promissor, which the significator. [Margin: 2] Next consider also the profections of that year into which the direction falls, but especially those of the Planets or significators whose direction has been made, whether in that year they reach to the bodies or malignant rays of the maleficent Planets, or the

benign ones of the beneficent, according to the precepts handed down a little before. [Margin: 3] 3 If the annual profections of the principal significators in the chart, but especially of those whose direction has been instituted, have agreed in quality with the directions of that year; that is, if well-omened profections have come in that year to a well-omened direction, ill-omened profections to an ill-omened; the effect of that direction will certainly put itself forth in that year. [Margin: 4] 4 But if the annual profections have not agreed with the direction of their year, the force of the direction will either be blunted, and the effect will appear more remiss and more obscure, or it will be removed altogether, & will be deferred into some one of the following years, namely that into which similar profections of the same or of similar significators have fallen. For the force of the directions, as has already often been said, can last several years, until, that is, another promissor meets the significator. Yet the effect of any direction whatever is always greater & more evident at the beginning: But afterwards it little by little loses its strength & is rendered more languid, or even vanishes altogether, when it is not aided or stirred up by a similar profection.

[Margin: Example.] *As was shown in the preceding chapter in the first example, Saturn is directed to the body of the Sun in the year of age 66 of the well-born native, in the month of May. If now I desire to know whether it is going to have its effect in the same year & month, I see where the profections of* ☉ *&* ♄ *arrive, & I find that the Sun is brought in* ♋ *to the beginning of house 12, Saturn to the end of* ♈ *in the M. C., the horoscope moreover into the 6 house. Therefore from these evil profections I conclude that the signified, which I mentioned before, had its effect in the profection of the* ✶ ♂ *in the same year & month.*

[Margin: How the well-omened & ill-omened days are to be known.] But in order that now the well-omened or ill-omened days may further be established according to the quality of the direction, Consider 1 as before whether the direction is good or evil: Who likewise is the significator & promissor of the same. 2 collect similar profections, that is, if the direction is good, good ones; but if it is evil, evil ones; especially, however, those of the significators and promissors whose direction has been made. And finally, these having been found, seek by the preceding doctrine the days of the year into which the profections collected in this way, agreeing in quality with the direction, fall. For on these days most of all the effect of the direction will bring itself forth, and especially on those into which the profections of those significators and promissors whose directions have been made are terminated.

[Margin: How the effect is to be determined.] Lastly, concerning the effect of the profections, it is to be judged in the same way as in the directions, from the nature of the significator & promissor. For the significator announces to the native some occurrence or accident, glad or adverse, according as the profection is good or evil, in those things which it signifies by itself & by accident. The promissor of that event or accident likewise shows beforehand the cause and origin from the things & persons which it signifies by itself & by accident. But which things & persons each signifies by itself & by accident has been

shown above. Thus the Sun by itself is considered for the state of life and health, likewise of honours —& of the father: But by accident, for the significations of those houses of heaven in which the Sun either is present in body, or absent exercises its dominion, & so of the rest.

When therefore a good direction of the ☉ falls into any one of the years, & good and well-omened profections also come, the native will enjoy in that year good & prosperous health, he will be raised to honours, But if at the same time the Sun has occupied the ninth house of the Radix, it will by accident also decree happy travels abroad to the native in that year. In the same way, concerning the effects of the remaining Planets, which they stir up in the directions & annual profections, it is to be judged principally from the nature of the Planets which are directed, and whose profections are instituted, less principally from that place of the chart which they govern, present or absent.

[Margin: First example.] *For example, in the first nativity of the well-born native these three directions, which we set forth in the preceding chapter, fall into the year of age of the native 66, & of Christ 1608. The first, ♄ to the Sun, at the end of May. The second, of the Sun to the term of ♃, at the beginning of October. And 3, of the horoscope to the right ✶ of ♄, at the end of November. I now ask whether all these directions had their effect in the proposed year? Here I first see whether all are of the same quality, & I find that they are most diverse. For the first is pernicious & lethal, but the latter two good & salutary. From this the remaining succeeding ones soften in some way the evil which is signified by the first. Next I investigate the profections of the ☉ which pertain to this year, & I notice that the Sun by its profection arrived at the beginning of the year of age 66 at 25° 7′ ♊, which is the term of ♂, and remained in it up to 6° ♋, through about 11°, which the profection of the ☉ completes in about 134 days, up to May 17 of the Year 1608. But when on February 24 it came to the △ of ♃ in 27° 33′ ♊. Thus, the term of ♂ having been completed, the Sun was brought by its profection into the 12 house, & into the term of ♃ in 6° ♋ on May 17.*

2	*☍ ☿*	*in*	*6° 40′ ♋*	*May 25*
3	*☍ ♀*	*in*	*9° 23′*	*June 4*
4	*term. ☿*	*in*	*13° 0′*	*August 10*
5	*△ ♂*	*in*	*14° 23′*	*August 26*
6	*△ ♄*	*in*	*18° 58′*	*October 21*
7	*term ♀*	*in*	*20° 0′*	*November 3*

[Margin: Second example.] Similarly I seek the profections of ♄ looking to this year. *Saturn, however, came at the beginning of the year 66, to 18° 58′ ♈, under the term of ☿. And from there it proceeded*

1	*to term ♂*	*in*	*21° 0′ ♈*	*January 28*
2	*to □ ☉*	*in*	*25° 7′*	*March 20*

3	*term* ♄	*in*	*26° 0′*	*March 31*
4	*to* ☌ ♃	*in*	*27° 33′*	*April 18*
5	*to* □ ☽	*in*	*28° 32′*	*April 30*
6	*to* △ ☿	*in*	*6° 40′* ♉	*August 7*
7	*to term* ☿	*in*	*8° 0′*	*August 24*
8	*to* △ ♀	*in*	*9° 23′*	*September 9*
9	*to* ✶ ♂	*in*	*14° 23′*	*November 9*
10	*to term* ♃	*in*	*15° 0′*	*November 17*

It is established therefore from these things, that at the beginning of the year in the month of January & February, under the profection of the ☉ *in the terms of* ♂*, & of Saturn in the terms of* ☿ *&* ♂*, our Well-born enjoyed health indeed middling, because* ♂ *was happy & fortunate in the nativity, & in a place of heaven fairly suitable: but not without anxiety & cares on account of Mercury weak & badly placed in the sixth. But* ♄ *having been brought to the* □ *of the* ☉*, and from there to its own term, the health began to be somewhat afflicted, sadness also & greater anxiety pressed the native, with more vehement disturbances of the mind through the month of March. In April the profection of* ♄ *to the* ☌ *of* ♃ *followed, when he pondered plans about disposing his affairs, but in vain, on account of the impediments which the adverse & opposite ray brought in. For the* ☌ ♄ ♃ *signifies void plans & adversities in them. Towards the end of April* ♄ *came to the* □ *of the* ☽*, which profection increased melancholic affections in the native, and filled his body with depraved humours: When he strove in the month of May to evacuate these, and to preserve himself by the help of medicines from greater dangers to life, the direction of* ♄ *to the body of the* ☉ *being imminent, whose effect the profection of the Sun to the* ☌ *of* ☿ *stirred up, on May 21 he became hemiplectic. And at that time the profection of Saturn also proceeded from* ♈ *into* ♉*, namely from the term of Saturn into the term of* ♀*, but the Sun to the* ☌ *of* ♀*. The following times were better under the terms of* ♀ ☿ *&* ♃*, to which both the Sun and Saturn applied by their profection. For under them the* ☉ *to the* △ *of* ♂ *& the* △ *of* ♄*: but* ♄ *itself came to the* △ *of* ☿*, the* △ *of* ♀ *& the* ✶ *of* ♂*, & the directions of the* ☉ *to the term of* ♃*, & of the horoscope to the right* ✶ *of* ♄*, were brought into act, by which the native indeed in some way, as far as could be done, recollected the strength of body & of mind, and accomplished the things which had to be dispatched & disposed.*

Caput III.

On the Revolutions of Nativities.

[Margin: What Revolutions are in general.] Revolutions, *which are also called annual conversions, by the Greeks* ἐναλλαγαὶ ἐνιαύσιοι [Greek: enallagai eniausioi, "annual alternations"], are in general nothing other than the returns of the Sun to those places of the zodiac in which this great luminary stood at the beginning of some thing. *From this, as the Astrologers, (who establish that the world was founded at the beginning of Spring, the Sun entering the first minute of the first Northern sign* ♈*) call the revolution of the world or of the year in general the return of the* ☉*, by which the Sun, all the signs of the zodiac having been gone*

through, returns to the beginning of ♈ *or the points of the vernal equinox in the zodiac: or the chart or position of heaven which is constructed at the return of the* ☉ *into the first minute of* ♈. [Margin: What the revolution of the nativity is] So the Genethlialogical call the revolution of the nativity either that very moment of time at which the Sun returns to the same point of the zodiac, or also the configuration of a new chart of heaven for the hour & minute at which the Sun, the space of either one or several Solar years having been completed, is revolved to the same point of the zodiac which it held at the moment of the nativity.

[Margin: Methods by which the Revolutions are sought.] *But although several methods are handed down here and there, by which the moments of the revolutions are usually inquired into. For Erasmus Reinhold [Reinholdus] in precept 23 of the Prutenic Tables sets forth two methods, of which the latter is indeed the most certain & most exact of all, but it cannot be understood without knowledge of the preceding precepts, & in this place, be briefly dispatched; & others show other precepts. We, however, all those having been omitted, will set forth here a certain brief & easy reckoning, by which from the Ephemerides both —the time is elicited, at which the Sun passes through the same point of the Zodiac, which it occupied at the moment of the nativity, & the chart is set up for the same time.*

[Margin: Precepts for seeking the Revolutions.] First, for the proposed year, whose revolution you desire to know, seek from the Ephemerides the place of the ☉ at noon of the birthday of that year, into which the revolution falls, & if that place found for noon of the day, agrees precisely in degrees & minutes with the place of the ☉ in the Radix, the very moment of noon will be the moment also of the revolution sought. But if, which happens more frequently, that place does not agree with the ☉ in the Radix, seek the difference of those places, of the given one, & of the one found for noon of the day, by subtraction of the smaller from the larger. Put this in the third place in the rule of proportions. But let the minutes of the daily motion of the ☉ of that day, which contains the given place of the ☉, hold the first place: These are easily found, either the motion of the ☉ of the preceding day being subtracted from the motion of the proposed day, if the given motion of the ☉ in the Radix is smaller than that, which is found at noon of the proposed day; or also that of the proposed day itself from the following day, if the given motion of the ☉ is greater, than is that of the proposed day: And the middle, the 24 hours of the civil day resolved into 1440 minutes: The operation having been made, you will produce the time in hours & minutes of hours, by which the moment of the revolution is distant from noon of the assumed day. 2 But if the motion of the ☉ in the Radix is greater than the motion found at noon, that time counted after noon will end in the very moment of the revolution. But if the motion of the ☉ in the Radix is smaller than the motion found at noon of the assumed day, that time subtracted from 24 hours, will leave the true moment of the revolution, to be derived from noon of the preceding day. 3 The true time of the revolution having been found in this way, let the true motions of the

individual Planets be computed for it according to the doctrine handed down in the second part on the motions. And 4 Let the time, whether of noon or any other whatever, be accommodated to the time of the place, in which the nativity was made, a reduction being instituted, if a meridian other than that for which the Ephemerides were constructed is given, according to the precepts set forth in the first part; And by the equation let that time be changed into the apparent, & either let the right ascension of the place of the ☉ be sought, to which, the ascension of the time elapsed after noon being joined, not only of the tenth house, but also, a continuous & indeed fivefold addition of 30 degrees being made, the beginnings of the remaining five western domiciles will come forth in degrees & minutes of the equator, for which, if at the end the corresponding parts of the Ecliptic are sought out from the tables of ascensions suited to the elevation of the pole of each house, which elevations it is necessary to investigate specially: or also more compendiously by the benefit of the tables of the celestial houses, the place of the ☉ being known & it being sought under the 10th house in the competent latitude, and the ascribed part of the time being extracted, and the time elapsed from noon being joined to it, let the beginnings of the six houses suited to the aggregate of the time be sought: and finally let the opposite Western domiciles be made from the opposite signs & degrees, the chart will have been built, which will be named the revolution's, into which let the computed places of the Planets be correctly inserted. But the part of fortune is sought in the last place thus: Let the place of the ☉ in the Radix be taken away from the place of the Moon in the Radix, & to the remainder let the degrees & minutes of the ascendant of the revolution be added, and let the signs discovered be counted from the sign ascending in the revolution, & the number of signs being completed, let the part of fortune be placed immediately in the next, with the degrees & minutes, which adhere to the signs found.

[Margin: Example of the revolution of the year 56 of age of the second nativity.] *For instance, so that we may set forth an example for the sake of better light, we shall inquire into the revolution 55 of our second nativity, which is of the year of age of the native 56. It falls in the year of Christ 1609 the Day April 23. And the ☉ at the time of the nativity was in 12° 42′ ♉. Now if I consult the Ephemerides, I find the Sun at noon of the day April 23 to be in 12° 30′ 30″ ♉. This place is distant from the given one for the time of the nativity by 11′ 30″, or 690″. The daily motion of the ☉ is also 58′ 7″, or 3487″. Hence, 690 having been multiplied by 1440 & the product 993600 divided by 3487 there result 285^m or 4^h 45^m which are the equated time of the place of the ☉ in the meridian of the Ephemerides. For this time the Moon is discovered in 10° 39′ ♉, ♄ in 12° 10′ ♒, ♃ in 24° 6′ ♉, ♂ in 21° 47′ ♊, ♀ in 27° 23′ ♊, ☿ in 23° 7′ ♈ ℞, ☊ in 0° 36′ ♌. But if now from the time discovered I subtract 20^m, which are the differences between Isenacum or Ferraria in Thuringia [Ferrariam Thuringiæ] & Frankfurt an der Oder [Francfurtum], & add the equation of time 10^m 35^s, the apparent time comes out 4^h 35^m 35^s. But to the place of the ☉, to the 12° indeed of ♉, correspond 2^h 38^m 13^s: And to the 42′ adhering, under 3^m 57^s, in the proportional table of the equation of the 10 house, 2^m 46^s are to be added, so that the*

corrected time is 2^h 40^m 59^s. Therefore by the joining of the time elapsed from noon 4^h 34^m 35^s the time 7^h 14^m 35^s is gathered, to which corresponds for the 10 house 17° 12′ ♋, for the 11, 25° ♌, for the 12, 21° ♌, for the 1, 13° 13′ ♎, for the 2, 6° ♏, for the 3, 6° ♐. The Western domiciles now being established from the opposite signs & degrees, & the places of the Planets being inserted, for the inquiry of the ⊕ the place of the ☉ of the Radix in 12° 42′ ♉ is taken away, from the place of the ☽ of the same in 6° 25′ ♒. And with 13° 13′ of the ascendant joined to the remainder 8^s 23° 43′ there come forth 9^s 6° 56′, which counted from ♎ produce the place of the part of fortune in 6° 56′ ♋. The chart of the revolution therefore is such:

Diagram. A square figure of heaven: an outer square divided by its two diagonals and by a diamond joining the midpoints of its sides, around a central square panel carrying the title. Twelve compartments stand around the central panel: four triangles pointing inward at the middles of the sides and two triangles in each corner. Labels as printed, compartment by compartment, reading clockwise from the top centre:

- Central panel: Revolution 55 of the Year of age of the native 56 / In the Year of Christ / 1609 / Day 23 of April / Hour: 4^h 35^m 35^s / Latitude of the place / 51°.
- Top centre triangle: ♋ 17 12; ☊ 0 36.
- Upper right corner, triangle against the top side: ♊ 6; ⊕ 6 56; ♀ 27 23; ♂ 21 47.
- Upper right corner, triangle against the right side: ♉ 6; ♃ 24 6; ☉ 2 42; ☽ 10 39.
- Right centre triangle: ♈ 13 13; ☿ 23 7 ℞.
- Lower right corner, triangle against the right side: ♓ 21.
- Lower right corner, triangle against the bottom side: ♒ 25.
- Bottom centre triangle: ♑ 17 12; ♅ 0 36; ♄ 12 10 ♒.
- Lower left corner, triangle against the bottom side: ♐ 6.
- Lower left corner, triangle against the left side: ♏ 6.
- Left centre triangle: ♎ 13 13.
- Upper left corner, triangle against the left side: ♍ 21.
- Upper left corner, triangle against the top side: ♌ 25.

[Margin: Five general rules of judgment for revolutions.] *Further, being about to judge from the revolution, let him compare the chart of the Radix with the figure of the revolution, and let him see, how the cusps, and their lords & the significators of things are disposed. For from there the judgment of the revolutions chiefly depends.* [Margin: 1] *And first indeed if the ascendant of the revolution agrees, or is the same with the ascendant of the Radix, good is signified, namely good health, actions succeeding prosperously, & increase of substance, especially if also the lord of the ascendant is well disposed. For the lord of the ascendant combust, signifies grave detriments to the native, & this as Johannes Schöner [Schonero] defines cap. 11 lib 3 de gen. according to the nature of the Planet, which will have been lord of the year, account also being taken of the Sun. If however the Moon is powerful, either in her own house, or in some one of her dignities, especially in a nocturnal nativity, the evil*

will be diminished: It will be exasperated, if she is weak & unfortunate. [Margin: 2] *2 But if the ascendant of the revolution is in the opposite or* □ *ray of the ascendant of the Radix, or also arrives at the signs of the houses signifying evil events in the Radix, losses & bonds are portended in that year, according to the nature of that house, which the ascendant of the revolution held in the Radix. From this if the sign of the sixth, 12 or 7 house of the Radix, is the sign of the ascendant of the revolution, in that year the native will experience diseases & weakness of body, or also other evils, especially if those houses were unfortunate in the Radix. Thus the sign of the 7 house, of the Radix being the ascendant of the revolution, signifies many lawsuits & quarrels in that year, & for a native apt for matrimony, denotes a wife.* [Margin: 3] *3 Since also the significators of the Radix are thought to put forth their effects in single years, through the things signified by those houses, in which at the time of the revolution they are established, it follows, that in whatever house of the revolution the lord of the second house, the* ⊕ *&* ♃ *have been discovered, through the things signified by that house the native in that year will have an increase of the household property, & so of the rest.* [Margin: 4] *4 When the ascendant of the revolution arrives at the evil rays, or at the places of the malefics, & naturally hostile to itself, whether of the Radix or of the revolution, great danger is portended in that year, and this will be then, when the lord of the year has come to the same Planet, which signifies misfortune.* [Margin: 5] *5 In every revolution, in which the Planets are disposed in a manner contrary to the state of the nativity, even if they are disposed well, huge danger is signified. As if for someone in the nativity all are under the earth, but in the revolution above the earth: or for whom in the nativity all were cadent from the houses, & all in the revolution in their own domiciles.*

[Margin: Special rules of the judgment of revolutions.] Let there also be noted these special rules of Schöner [Schoneri] collected here and there from cap. 11 lib. 3 de Genituris: The first: When the lord of the ascendant of the Radix in the revolution is aspected by the evil ones, it signifies evil to the native, according to the nature of the Planet which aspects: as if ♂ aspects □ or ☍, beware the anger of Mars. But if the lord of the ascendant of the Radix is well aspected in the revolution, it signifies good & health. 2 If the ascendant of the revolution comes to the place of the Moon of the Radix, or is in the same place of the revolution, in which it was in the Radix, or aspects that place well, and is safe from the evil ones, prosperous health of body is signified to the native, & welfare of mind & body, and the native will have of things increments and joy, and gladness from a woman. 3 A Malefic in the ascendant of the revolution, or in signs aspecting the ascendant, signifies impediment & sorrows of the nature of the malefic itself, & of the sign in which it is. 4 The part of fortune in a good place of the figure, that is where fortunating stars were in the Radix, or their good aspects, decrees to the native increase & gain of substance. 5 The lord of the second house of the revolution if it is in the ascendant of the revolution, signifies that some substance will come to the native without his own labour. 6 A peregrine Planet if it was in 2 in the Radix, & is in the ascendant in the revolution, signifies some gain from a side from which he

had not hoped. But if it is in the third or ninth, that gain will be in a foreign land, or on account of brothers & relatives by marriage : In the fourth from the parents, or through inheritances : In the fifth through sons : & so of the others according to the things signified by the houses; And note that in this matter we do not consider aspects nor applications. 7 If the ascendant of the revolution has come to the place of Jupiter of the Radix, & it itself is conjoined to the ascendant by body or good aspect, the native will be honoured in that year, & will easily acquire riches and a son. But if it sees the ascendant with an evil aspect, all these things will indeed happen, but with difficulty. But if some malefic is with it, it will damage the things signified by Jupiter. 8 When the lord of the house of substance applies in the revolution to the lord of the ascendant, the native will have substance easily without labour. And if the lord of the ascendant has applied to the lord of the house of substance, he will labour for substance, & will acquire it. But if the lord of the house of substance is separated from the lord of the ascendant, he will not gain; And if the lord of the ascendant is separated from the lord of the house of substance, he will not be anxious about acquiring substance.

9 A Malefic in the second of the revolution, signifies that the native will incur many expenses according to the nature of the malefic. As if ♂ has been found there, it threatens expenses on account of Martial men and things. 10 ♄ lord of the third in the ascendant of the revolution without aspect, signifies a certain disturbance & melancholy on account of the deeds of the brother. 11 ♂ in the revolution in the place of ☿ of the Radix, signifies that he will expose himself to dangers of harming or of losing a brother, or someone of his own, whom he loves as a brother.

12 Many Planets in the third or ninth of the revolution, signify frequent journeys in that year. 13 The lord of the third of the Radix, if in some year it is in the twelfth signifies danger of life to the brother. But if also the lord of the third of the Radix is in 10 in some revolution, the brother of the native will die in that year : Haly part. 4 cap. 13. 14 ♄ Retrograde in the 4 house of the revolution, makes the native anxious about hereditary things, or some one of the parents will not fare rightly. The lord of the tenth in the eighth signifies the same. 15 If in the revolution the luminaries are in the seventh or 4 house, then either the father or the mother of the native will die, especially if those places were unfortunate in the Radix. But you will give the Sun to the father, & the Moon to the mother. 16 If the ascendant of the revolution is rolled round to the sign of Jupiter of the Radix or of ♀, or ♃ or ♀ have approached the sign of the ascendant, the native will have a son.

17 The Moon in the fifth house of the revolution, grants beautiful offspring, & safety in embassies, & a happy lot among the young. 18 ♄ in the revolution in the house of sons, in the sign in which it was in the Radix, if such a sign was in the fourth house in the Radix, & the year arrives at that sign, signifies loss in the patrimony of the native & the death of a son. 19 The lord of the ascendant of the revolution in the eighth retrograde without the help of a benefic, threatens

infirmity. 20 ♂ of the revolution if it stains the place of ♀ of the Radix, signifies that from excessive eating or intercourse the native incurs sickness. 21 The lord of the sixth of the revolution with the tail, signifies, that some one of his servants or of the maidservants will undergo peril of life. 22 When the Moon is coupled with Saturn in the revolution, & it itself aspects the lord of the ascendant with a quadrate radiation, in that year a disease of the mind will harm the body, 7 Aph.148 Cardano [Card], 23 The lord of the ascendant of the Radix of the nativity if it is a malefic, & in the revolution has arrived at the sign of the ascendant, and the same Planet is lord & significator of that year, & has aspected that sign of application in the revolution from □ or ☍, signifies in that year infirmities, pains & sorrows of the nature of that sign, & of the nature of that Planet & of the sign, in which it is, from which it aspects its sign. 24 The ascendant of the revolution rolled round to the place of Saturn of the Radix, or to its evil aspect, signifies fevers with trembling : But if it is angular or in the succedents, it signifies quartans, & if ♂ has aspected it, the native will fall from one fever into another : but if the benefics have seen it, he will be freed by medicines. 25 The ascendant of the revolution rolled round to the place of Mars of the Radix, or also Mars regarding the ascendant badly, signifies fear, lawsuits, wounds or acute fevers, especially if it is in the angles or succedents, & perhaps he will travel abroad with great fear. 26 The lord of the ascendant of the revolution in the seventh, illuminated by no ray at all, signifies marriage, & in the ninth a journey. In 6, 8, or 12 bad states of health, or the straits of prison, or evil from enemies. In 11 good hope. In 5 a son, &c. 27 When ♃ in the revolution aspects the Moon or ♀ in full age, or stands in an angle in the place of the Radix, it inclines the man to marriage, 5 Aph. 34 Cardano [Card.]

28 When in full age the revolution has had Venus in ✶ ☿, which was joined to it in the nativity in the same place, the native will be vexed in a wondrous manner by venereal imaginings. But if it is conjoined where it was before in ✶, in that year he will fulfil his desire with the beloved, 6 Aph, 25 Cardano [Card.] 29 When the profection of the ascendant comes to the 7 of the Radix, or the ascendant of the revolution becomes the 7 of the Radix, or the direction of ☽ reaches the fixed stars, then the times are suitable for entering into marriage. 30 ♀ occidental from the ☉, if in the revolution of the year it is conjoined to malefic stars, or in their evil aspect, signifies the death of a woman in that year. 31 ☉ in the revolution in 7, signifies controversies against nobles & the powerful and lawsuits. 32 ☽ being fortunate, if it has aspected ♀ well disposed by trine in the revolution, promises gladness from a woman, & increase in intercourse and in venereal things. 33 When the degree of the ascendant is significator of life, & its profection comes to the place of the Eclipse, death is signified. The same is signified, whether the hyleg or ⊕ significatrix of life has applied to the degree of the Eclipse. 34 An Eclipse of the ☉ in whatever place where the tail was in the Radix, if it is in the same degree, in that year that native will die. But if it is only near that degree, he will come into danger of death. 35 An Eclipse in some angle of the Radix, & especially in the ascendant in the very same degree,

threatens danger of death. 36 When a benefic is mistress of the place of death of the Radix, & in the revolution of the year has gone to the significator of life, or the significator to it, it will cut off like a malefic star.

37 The lord of the ascendant of the revolution with the tail, shows cups of poison to be avoided. 38 ♄ in the revolution of the year in 8 diurnal, makes the father and the native anxious on account of the dead. 39 When the tail has affected the lord of the ascendant with misfortune, & in the revolution the Moon has fallen with it, & the lord of death has aspected her, & it is in the place of a malefic from the nativity, in that year the native will die, 3 Aphor. 5. Cardano [Cardan.]

40 When in the revolution of that one, whose only significator of life is already weakened, the good Planets combust, are in another place than in the ascendant, & the malefics being above the earth have aspected the Sun, and the ascendant & the Moon, or the Moon is under the earth; without any evil direction, beyond doubt in that year he will die, 6 Aph. 1 Cardano [Card.] 41 The Sun ♃ or ☊ in the ninth, signifies honoured journeys, or a journey to the king. But ⊕ in the ninth denotes gain from journeys. 42 The lord of the ninth in 12, portends small profit in long journeys. 43 A peregrine Planet in the ascendant of the Radix, if it is in the third or ninth of the revolution, signifies to the native a journey in that year according to the nature of the house in which it is. 44 The Moon unfortunate in the revolution, signifies evil to the mother of the native, & to the native himself sickness of mind & body, above all if the revolution is nocturnal, & ♄ has aspected the Moon. 45 When the ascendant of the revolution comes to the sign of the tenth of the Radix, the native renews his magistracy. 46 ☿ in the revolution in the place in which ♃ was in the Radix, signifies dignity & honour, which he will receive from another greater than himself. 47 ♂ & ♄ in 10, threaten death to the mother. 48 The lord of the M. C. of the Radix in the ascendant of the revolution, denotes to the native an honourable year. The ascendant of the Radix signifies the same if it is in the middle of heaven of the revolution. 49 The Sun in the revolution arriving at the □ or ☍ of the ascendant of the Radix or of its lord, signifies labours & difficulties from the side of the king or from the father. And you will note that the place of the Sun in the revolution, particularly a diurnal one, is to be weighed carefully. For no one will be able to obtain honour in that year, in which the Sun has laboured under some misfortune. 50 ♂ in the 10 house of the revolution, threatens a fall from a height or from a kicking horse. 51 ♂ lord of the ascendant of the revolution, if it has irradiated the fifth & eleventh with a good aspect, signifies cheerfulness & pleasures with friends, & good patrons, & with those in whom the native trusts. ♀ mistress of the eleventh, fortunate in both figures, of the Radix & of the revolution, denotes the same. 52 The Sun in the 12 house unfortunate, signifies that hidden enemies will contrive many difficulties for the native. ♄ of the revolution signifies the same if it is in □ of the Radix. 53 Happy stars if in some year they are in the twelfth house, signify that the enemies of the native will prevail against him. But if unhappy ones

are in the twelfth, say the contrary. 54 Capricorn in 12, & ♒ in the ascendant of the revolution, signifies, that some hidden foes, will unprompted seek the friendship of the native. 55 When the lord of the ascendant or ☽ are in ☍ or □ of the malefics in the revolution, the native will suffer great detriments. But if they are with them, he will carry out evils & will inflict detriments. But if with this the malefics rule in hostile places, he will perpetrate & suffer, 7 Aph.169 Cardano [Card.]

[Margin: What the lords of the ascendant in the revolution signify.] These rules having been considered, let it be seen further, what the lords of the signs of the ascendant in the revolution, and the ascending signs themselves work; On these matters Cardano [Card.] cap. 11 libr. 4 de revolut. advises thus.

When the lord of the ascendant is ♄, the native will be timid & avaricious.

If ♃ he will be inclined to religion, honours & good morals.

If ♂ to cruelty & rapacity.

If ☉ to severity & sorrow.

If ♀ to wantonness.

If ☿ to wisdom.

If ☽ to journeys & he will be of changeable opinion.

[Margin: What the ascending signs denote.] If ♈ ascends, he will be in fear of a violent death. If ♉, he will fall sick from lust. If ♊, [Margin: What Planets approaching their own or other Planets' places portend.] [Margin: On Saturn.] he will be made anxious in searching out secrets. If ♋, he will be a lover of commonwealths, & studious or laborious. If ♌, sad & proud. If ♍, he will be a lover of honours. If ♎, he will be in danger of life by reason of gluttony. If ♏, he will be infirm by reason of thought & obstinate. If ♐, he will be made anxious about buildings. If ♑, he will be anxious for money & movable goods. If ♒, he will be abusive & wicked. If ♓, he will be very proud. The same of the virgin, but not so much. And all these things are verified also in nativities. Both c. 12 lib. 3 de gen. Johannes Schöner [Schoner.] and part. 5 tractat. Astrol. Heinrich Rantzau [Ranzovius], hand down certain precepts on the returns of the Planets in the revolutions to their own places, & on the approach of the same to the places of other Planets, which they held at the time of the nativity or of the Radix, which, because they are usefully applied in judgment, are by no means to be neglected here. And 1 on Saturn. ♄ in the revolution in the sign in which it was in the Radix, & indeed well placed, promotes the native from one dignity to another, above all if it comes at the same time to some one of the angles, as the M. C. where it signifies kingdom & dominion: In 7 good from women. But judgment is always to be formed in the remaining houses according to its strengths & debilities. ♄ in the revolution in the place of Jupiter of the Radix, if it is in the Radix or the revolution lord of the ascendant, or lord of ⊕, or lord of the place of ☉ in a diurnal nativity, of the place of ☽ in a nocturnal nativity, signifies a good state of the native, & happiness in all things, and he will have gains from lands & revenues, he will do good to brothers, friends & acquaintances. But if it is

badly placed, and has obtained nothing of the foregoing, it notes loss in the substance, lands & inheritances of the native, and there will be quarrels between him & friends and kinsmen. ♄ in the revolution in the place of Mars of the Radix, if it has had the preceding testimonies, signifies journeys to the native, & pleasant conversation with brothers & friends, but he will dispatch his counsels & affairs with difficulty. But if it has had none of the foregoing testimonies in the Radix or the revolution, anxieties, & punishments will befall the native, he will be saddened on account of brothers & friends. ♄ in the revolution joined to the Sun, having in the Radix or the revolution dominion in the horoscope, or the place of ⊕, signifies to the native hindrances & anxieties on account of kings, also quarrels & disputes with women, & on account of them sorrow: He will also be pressed by hot affections. ♄ in the revolution in the place of ♀ of the Radix, signifies to the native journeys & a diminution of lust, and he will seem to be disturbed in mind. ♄ in the revolution in the place of ☿ of the Radix, diminishes the intellect of the native, brings sorrow concerning children, and exposes the native to dangers to be feared, and if the native is old, he will be vexed by melancholy. ♄ in the revolution in the place of ☽ of the Radix, signifies loss from women, & he will scarcely escape danger from a fall, suffocation or a cold disease.

[Margin: On Jupiter.] 2 On Jupiter. ♃ in the place in which ♄ was in the Radix, denotes an avaricious or tenacious native, who will be fortunate in his actions & petitions, & will have good from friends, enemies also will seek the reconciliation & friendship of the native. ♃ in the revolution returning to its own place of the Radix, renews & perfects the goods signified in the Radix. The native therefore will have gains & substance from a side from which he had not hoped. ♃ in the revolution in the place of ♂ of the Radix, notes a certain profusion of substance, & gainful journeys, he will have fortune with kings, & those who bear arms, brothers also or those whom he has in the place of brothers will experience good. ♃ in the revolution coming to the place of ☉ of the Radix, or if it has been combust, the native will be in danger of death, until it passes the combustion. ♃ in the revolution in the place of ♀ of the Radix, designates joy & pleasures, and the native will have many friends loving him, and he will be of good fame. ♃ in the revolution in the place of ☿ of the Radix, sharpens the intellect for the native, he will be wiser than usual, shrewd in affairs, & he will be made much of by all. ♃ in the revolution in the place of ☽ of the Radix, denotes a happy & fortunate state of the native, who being well in body, will experience increases in substance, goods, & children.

[Margin: On Mars.] 3 On Mars. ♂ in the revolution in the place of ♄ of the Radix, hinders the affairs of the native, and notes him slow & weak. In the place of ♃ of the Radix, it designates fortunate & fruitful journeys, & gain from beasts & animals. In its own place of the Radix, if the same place is one of the angles, & it has had some testimony in the revolution, and has signified good in the Radix, it designates that the native will enjoy good health in that year, & will increase his substance from battles. In the place of ☉ or joined to

the Sun, it threatens sorrow, labours, and hot infirmities. And he will either kill, or be killed, if it is in a violent or common sign, or he will labour even to death. In the place of ♀ of the Radix, the native will be engaged in lusts with women & some labour will befall him on account of them, or he will feel infirmity from excessive use of Venus, & of food and drink. In the place of ☿ he will play willingly, and he will be a deceiver & liar, & in danger of losing either himself, or someone of his younger brothers, or him whom he has in the place of a brother. In the place of ☽ if she herself is strong, & has had testimony in the year, it signifies that the native will have dominion & a son. If ♂ has had that testimony, he will make many small journeys & will be entangled in very many affairs.

[Margin: On the Sun.] 4 On the Sun. ☉ in the revolution in its own sign ♌, in some one of the angles, in a good state, & free from the malefics, signifies health of body, profit, & gain. But unfortunate in its own house, it notes pains. Removed from the angles & above the earth, it signifies those things lighter. ☉ in ♍ above the earth, if it has aspected the ascendant, & has also had some testimony in the revolution, signifies health, with the benefics fortune, with the malefics, misfortune & that he will not be able to accomplish, what he wishes. ☉ in ♎ in the revolution above the earth, notes journeys, & the good that will come is to be recognised from the state of ☉, & of the Planets, which have had commixture with it. In ♏, in some one of the angles in a good state especially in the M.C. having also testimony in the revolution, it establishes the native in worth with the king, and promises to the same good, gain & increase of inheritance. In ♐ in a good state, and some one of the angles, it decrees for the native good, gladness & offspring in that year. But the Sun unfortunate, portends sorrow to the native & the death of children, if he has any. In ♑ having power and testimony, it designates infirmities, pains, sorrow & obscurity of name. In ♒ safe from the malefics, it signifies for the native marriage in that year, & increase of companions & friends. But unfortunate it announces infirmity to the companions of the native, and that he himself will have adversaries. In ♓, it decrees for the native sorrow & a bad state. In ♈ free from the malefics, it signifies fortune in substance & good journeys, he will have dominion from kings, and will adhere to them with his own gain & advantage. But unfortunate, it brings sorrows & labours. ☉ in ♉ with testimony & power in the revolution, beholding the ascendant, signifies for the native affairs with kings, & from there profit and gain. But unfortunate, it designates punishments, sorrows and labours, above all if it stands in some one of the angles. ☉ in ♊ having testimony in the year, & free from the malefics & above the earth, aspecting the ascendant, increase & good in partnership & perhaps offspring: But unfortunate it signifies grievances & grief from these. ☉ in ♋ having testimony in the revolution, & power in the year, signifies offence from enemies. The evil is exasperated, if the Moon also has aspected it.

[Margin: On Venus.] 5 On Venus. ♀ in the revolution arriving at the place of ♄ in the Radix, produces a great desire of coitus, by which also in this year he

will defile himself & will be at leisure for delights. But he will use it in a lawful manner, if ♀ is apparent, free from the malefics. In an unlawful manner, from which he will also have a stain, if it is unfortunate. Secretly & in hiding, if it is under the earth. ♀ in the revolution brought to the place of Jupiter of the Radix, decrees journeys by reason of law & religion, he will rejoice in his substance, and will increase it from the goods of the dead. Reaching the place of Mars in the Radix, if it has had testimony in the year, it denotes a salacious one, who will cling to women with desire, & whatever he has sought of gladness, games, he will obtain from women. Returning to its own place in the Radix, if it has had dominion in the year, it will lead the native too to dominion, so that he may be in price & worth, the things too which it signified in the Radix will be renewed, he will grow in partnership, nourishment, clothing & riches. At the place of ☿ of the Radix, he will be delighted in praying, reasoning & learning. But if the testimony of ♀ is added, he will be associated with singers, jesters. If both are unfortunate, or one of them, grievances & labours will befall him in his cases & accounts. At the place of ☽ of the Radix, if ☽ too is safe from the malefics, it makes the state of the native fortunate, he will be delighted with journeys, women, dealings, he will be engaged with kings, & he will have brothers obedient to him.

[Margin: On Mercury.] 6 On Mercury. ☿ arriving at the place of Saturn, which it had in the Radix, if ☿ has testimony in the year, and is free from the malefics, excites in the native a zeal for building, he will also make journeys, in which his state & goods will grow, and he will perhaps have a son in that year. But if ♄ has testimony in the place of Mercury, the sons of the native will be destroyed, he will fall sick, & his counsels and thoughts will be disturbed. In the place of Jupiter of the Radix, it promises dignity & honour to the native, likewise increase of goods, of learning, & of judgment; & if he is of that age & condition, he will perhaps take a wife. In the place of Mars of the Radix, if both have testimonies in the year, it confers lies & falsehoods on the native, he will be a deceiver, & will speak of things, which never were nor happened, [German: wird groſſe Streiche außgeben, "will hand out great strokes", that is, he will tell tall tales], as the Germans say, he will also be most devoted to hunting. But if one of them is retrograde, it signifies thefts: And with Mars condemned there will be danger, that the native may die. With Mars also entering the rays of the Sun, there will be danger, that the native may be killed, or expelled from his land. ☿ in the place of ☉ of the Radix, & in some one of the angles in a good state, he will have the honour & dignity of the king, especially if they are in the M. C. But removed from the angles, they signify those things lesser. But if ☉ has had testimony in place of ☿, the native will experience advantages from his pupils or servants, or from men, who are ruled by him, who will be good & faithful to him.

In the place of ♀ of the Radix, he will be anxious for women & useless things, he will love stories, rhymes, songs, & sports, and he will desire to be in places of play & recreation. But if ♀ has had testimony in the year, he will acquire

a certain lofty dignity, & will labour so that he may appear adorned to all. ☿ in its own place having testimony in the year, & standing in some one of the angles, signifies for the native a good & venerable name, & gain of substance, if it has signification of substance; for brothers good, if it has signification of brothers. And thus it is to be judged through all the remaining houses. But if nevertheless it is condemned & unfortunate, it signifies evil according to the manner of the thing, in which the signification is. In the place of the Moon, where the Moon has testimony in the year, it signifies journeys, & cases with enemies & adversaries. But if however the testimony is in place of the Moon, he will have good from friends, and he will gain more friends, and finally all things, which he has undertaken, he will accomplish prosperously. And if it is unfortunate, grievances will befall him in the foregoing.

[Margin: On the Moon.] 7 On the Moon. The Moon in the revolution of the year arriving at the place, in which ♄ was in the Radix, if it itself has had testimony in the year, the native will take an old wife, or will have dealings with her. And if with this it is unfortunate, it signifies a laborious life & various impediments. But if ♄ has had testimony, bad news will come to him from distant lands by which he will be affected & will grieve. Carried to the place of Jupiter in the Radix, if it is in a good state free from the malefics, it denotes for the native journeys by waters, and he will have gain in them: It also signifies riches & honours, & the favour of the powerful. But unfortunate, it denotes grievances & infirmities. At the place of Mars of the Radix in a good state, having testimony in the year, it decrees dominion for the native, in which he will be feared by others. He will nevertheless be disposed to plunder, journeys, endurance of labours, & dangers to be borne, and hot & moist infirmities are to be feared by him, which are aggravated, if the Moon is in a bad state or unfortunate, so that dangers of death too are to be feared. At the place of the Sun or joined to the Sun in the revolution, it makes one intent on hidden things, and if it has had testimony in the year, grievances will befall the native, & losses from the king & his superiors, such as lords & parents. But if the Sun has had testimony in the year, the native will have dominion & good, but the mother will be in danger, & women similar to her. And these significations will be more efficacious, if ☽ enters combustion, than if it goes out of combustion. At the place of ♀ of the Radix, safe from the malefics, it signifies a disturbance of the journeys, which he had resolved to make in that year: for he will stay at home, & will transact business with women, with whom as with other friends too he will rejoice, living a life not without blemish glad, pleasant. Unfortunate, it denotes sadness & grievances in the foregoing. But if Venus too has had testimony, it promises dominion, praise & honour. At the place of ☿ of the Radix, having testimony in the year, it signifies journeys to dangerous places, in which he will suffer evil from enemies, or on account of them. And if ☿ has had testimony, his state & business will be made fortunate, & he will gain substance & friends, and he will have a good reputation. But returning to its own place, if it itself is in some one of the angles in a good state, safe from

the malefics, it signifies health of body, honour, a good name, & distinguished dignity.

[Margin: Example.] *Thus in the revolution 55 of our second example, set out at the beginning of this chapter, the ascendant of the revolution 13° ♎, is nearly in △ of the ascendant of the Radix 10° ♊, & would signify a good & healthful state for the native, unless the same sign had been of the sixth house in the Radix, to which the four Planets ♂, ♀, ☉ & ☿ had an opposite ray. From which this revolution is not so good & fitting for the native, but threatens certain hot diseases & adversities in life from Martial men. And ☽ copulated almost partilely with the Sun in 8, & ♀ mistress of the ascendant joined to Mars in 9, in ♊ the sign of the ascendant of the Radix confirm these things signified. Nevertheless he will expect an increase of the family estate this year, because ⊕ in the revolution falls in 7° of Cancer, the cusp of house 2 of the Radix, & indeed, as ☽ mistress of the sign with Jupiter in 8 notes, from the inheritance of some woman perhaps a mother-in-law, when ♄ too in house 4 at 12° ♒ of the revolution nearly opposite ☽ of the Radix in 10, beholds the luminaries with a square, & designates a lethal disease for the mother or for her who is as a mother. ♃ too, standing in ♉ in the revolution in nearly partile △ of the Radix, signifies an accession of goods. For it was in ♍ in the Radix. Certain journeys too are signified for the native, because ♀ mistress of the ascendant is in 9 with ♂. But let him beware of too much food & drink this year, since the hot diseases, which impend over the native this year, seem to draw origin from abundance of food & drink, on account of ♎ ascending & Venus mistress of the horoscope conjoined to Mars. He will also walk cautiously, & will flee precipices, lest when ♄ in the revolution stands in the place of ☽ of the Radix, & ☽ the summit of heaven in the Radix, but ♄ occupies the lowest in the revolution, he be thrown headlong from a height or fall; especially since the force of harming of ♄ too in its own house ♒, having testimony of exaltation in the sign ♎ of the horoscope of the revolution, is strengthened.*

Caput IV.

On the transit of the Planets.

[Margin: What a transit is.] [Margin: The single planets have their own peculiar times of transits.] Among the things, which are necessary for the special judgement, the transits too are usually considered, by which the Planets by their own true motions completing the course in the zodiac, go to one place after another of the natal chart, and bring about notable changes in them. *This course is completed in all the Planets not in one and the same time, but in the higher more slowly, in the lower more quickly. For ☽ in single months, ☉ ♀ & ☿ in the space of a year, ♂ in two years, ♃ in 12, & ♄ in 30 years traverse nearly all the places of the nativity.*

[Margin: The principal places are 72, in which transits are considered.] *And it is best in this business to consult the Ephemerides, in which the places of the Planets are held computed for single days, and to compare them with the places of the natal figure, of which 72 are commonly established by the Astrologers: First indeed 56, of*

the planets 7, of which each has 8, ♂, ✶ □ △ sinister, ☍ [?] & △ □ ✶ dexter. Next ☊ ☋ & ⊕ of both, cast both from the Sun to ☽, and from ☽ to the Sun, in place of which some assume the degree of the preceding ♂ or ☍ of the luminaries: Finally of the 12 houses of heaven: Or also with these six principal ones only, as are the horoscope, the Sun, ☽, ⊕, M. C. & the Planet ruling the horoscope.

[Margin: Good transit. Bad. Middling.] *If therefore a beneficent Planet such as ♃ or ♀ transits some place, then that transit is good; if a maleficent one such as ♄ or ♂, bad; if a middling one, as the Sun ☿ & ☽, it is called middling.*

[Margin: The general use of transits.] *These transits, moreover, are applied in the judgement of nativities, just as the profections, in two ways: First indeed generally together with the profections & revolutions to the directions, so that they may show, whether these will have their effects in that year, into which they fall. When therefore a direction either happy or adverse falls into some year, let the transits of the Planets through the places of the principal significators & promissors also be considered together with the profections, but especially of those, of which the directions & profections have been made, & let them be seen, whether the transits in that year agree in quality with the directions & profections. For if in some year well-omened transits come to well-omened directions & profections, the effects of the directions will without doubt show themselves in that year. In the same way if an ill-omened direction threatens some adversity, & ill-omened transits of the Planets proceed through the places of the significators & promissors, but especially of those, of which the directions have been made, danger from the effect of that evil direction will impend over the native in that year. But if the transits do not agree in quality with the directions, that is, bad transits come to a good direction or the reverse, the effect of such a direction will be more obscure & weaker. In this way therefore the transits, just as the profections, by themselves indeed effect little, but coming to similar or dissimilar directions & profections, they notably excite & increase their force, or inhibit & weaken.*

[Margin: The special use of transits.] *Secondly the Transits are also considered in particular, so that through these the well-omened or bad days of the year and months may be recognized. For a good direction exerts its force most of all on those days of the year, on which it is aided and excited by similar transits. So also a bad one brings forth its effect most of all on those days of the year, into which it falls, on which malign Planets pass through the places of the significators either with bodies or with malign rays.*

[Margin: How transits are to be sought from the Ephemerides and transferred to use.] When therefore well-omened or ill-omened directions fall into some year, let the proper motions of the single Planets, but especially of those, of which the directions have been made, be inspected in order in the Ephemerides through the single months & days of that year, and let these be compared with the places of the principal significators in the figure. For if in this way benign Planets are found to pass through the principal places of the figure with their bodies or with benign rays, they will transfer the effect of the ill-omened direction into another month and day. If malign Planets have beset these places of the figure with bodies or with their malign rays, in that month and day the

ill-omened direction will stir up its effect. Moreover it is judged concerning the effect of transits in the same way as in directions and profections. For the significator, that is that point, through which malign or benign Planets pass, designates some accident of its own nature prosperous or adverse, whose origin & cause the promissor reveals, that is the Planet or the ray of a Planet passing through the place of the significator, and either rendering it fortunate or afflicting and injuring, where again the significations of the planets which they hold by themselves and by accident ought to be known. Thus ♀ may run through the ascendant of the Radix, & it is judged at that time in which ♀ walks through the ascendant, that the native will be of sound body, ready in accomplishing actions. For the signification of the body & of actions is from the nature of the place, namely of the ascendant; but the goodness depends on Venus. So if ♂ has passed through the ascendant, the body of the native will be badly disposed, according to the nature of ♂ intensely hot & bilious, & the mind headlong & irascible. Nearly the same judgement is passed if the lord of the ascendant has run through good or bad places. So the native is judged happy in acquiring riches at that time in which ♃ has passed through the second house or ⊕. But it is to be noted that according to the opinion of Johannes Schöner [Schon.] lib. 3 cap. 14 de jud. nativ. the transit of the Moon operates for 3 hours before & after, but of the other planets for one day before, & for one day after. [Margin: Example.] *For example in our second example, if I examine the transit of ☽ through the horoscope of the Radix for the year of the age of the native 56 of Christ 1609, I find that the Moon in the Radix is in △ of the ascendant. For the Moon is in 6° ♒, while the ascendant is in 10° ♊. From which the transits of the Moon through the ascendant signify good health for the native & a prosperous state at those times, at which they occur; namely April 25 at 6^h in the afternoon, May 23 at 3^h in the morning, June 19 at the hour of midday, & so on in sequence when the Moon traverses the same place of the zodiac, provided that it is not infested by the presence of a bad Planet or by a bad ray. In a similar way if I consider the transits of ☽ through its own place, since it itself in the Radix stands in the middle of heaven & [numeral: ?]° ♒, there is signified by that transit a happy dispatch of actions & fortune and honour from women, on May 14 at midday itself. June 10 at 6^h in the afternoon, July 7 at hour 10 or 11 after midday, &c. So the transit of ♃ through the horoscope on the day June 14 signifies happiness in life & actions, yet only middling, since in the Radix it is ℞ & in its detriment in 26° ♍. And let it suffice to have set out these things about the special judgement.*

Johann Eichorn [Joannes Eichorn] printed at the author's expense at Frankfurt an der Oder.

In the year 1609 [M. DC. IX.]

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