Coeli et siderum in eo errantium Observationes Hassiacae — Editorial footnotes (draft)

Willebrord Snellius (1580–1626), editor. Drafted editorial footnotes for review before publication. Each note is keyed to its anchor in the **manuscript-grade complete edition** — the collated output that retains the per-batch/page scaffolding the anchors reference (produced by `ms`). The reading in the main text is **preserved as printed/transcribed** and is not altered by these notes. The note text below is a **draft** — review and edit before publication.

The notes are classified as follows:

- **Category B — source compositor error.** A printing, compositor, or scribal error in the source itself (a wrong letter or digit, a dropped or doubled word, a non-resolving citation). The likely intended reading is noted, but the main text preserves exactly what is printed.
- **Category C — author/source anomaly.** An anomaly originating with the author or the source rather than the typesetting (a factual or geographic slip, a misattribution, an internal inconsistency, or a deliberate but unusual feature). Recorded as written.

#	Anchor	Cat.	Item
1	batch_011 / p. 21	C	Running head printed in three forms
2	batch_014 / p. 28	C	Improper fraction 2/1 printed, December 23
3	batch_018 / pp. 36–37	C	Eight-month gap with no heading between Feb 23 and Oct 14
4	batch_031 / p. 62	B	Date line July 21, 3h printed twice
5	batch_034 / pp. 68–69	C	Star name printed Perſecut. / Perſec. / Perſei.
6	batch_039 / pp. 77–78	C	Latitude of the Following Head of Gemini printed 6 49 and 6 39
7	batch_043 / p. 85	C	in pect. ligni: no constellation named
8	batch_044 / p. 87	C	Irregular page and leaf numbering
9	batch_050 / p. 99	C	Chair of Cassiopeia star does not give 51° 20′
10	batch_052 / pp. 104–106	C	Hispanus, Almeon, Elzuphi: persons not identified
11	batch_058 / p. 116	C	Difference of the two intervals does not close
12	batch_060 / pp. 119–120	C	Curled signs bracket the italic passage At si … transmittere
13	batch_064 / p. 127	C	Two degree figures out of run, August 1 and 6
14	batch_068 / p. 135	C	89350 out of the column's run
15	batch_072 / p. 144	B	vald. with ”clear” or with ”careful”
16	batch_072 / p. 144	C	49934 about 5000 above its neighbours
17	batch_073 / p. 145	C	Armillary reading 13153 in the chord column

#	Anchor	Cat.	Item
18	batch_079 / pp. 157–158	B	54813 printed as the sine of 68°; product tail 05472
19	batch_080 / p. 159	B	Three figures in the p. 159 working do not close
20	batch_083 / p. 166	B	594687 against 59487; ascensions do not combine
21	batch_085 / p. 171	C	ab hac recta linea has no antecedent
22	batch_093 / p. 185	B	Construal of dum Sol in altitudine … continebat
23	batch_095 / p. 189	B	altera media hora: second half-hour or an hour and a half
24	batch_101 / p. 202	C	4 hours and the seventh hour called an interval of two hours
25	batch_102 / p. 204	C	mane horis 8, post meridiem
26	batch_103 / p. 205	C	16 for the 29th against the relation stated in the same sentence
27	batch_107 / p. 214	B	quart. digitorum: four digits or a quarter of a digit
28	batch_107 / p. 214	C	Midheaven values on February 8 break their order
29	batch_110 / p. 219	C	Mars and Saturn positions in May do not run evenly
30	batch_111 / pp. 221–222	C	Catchword SIMV- not answered by the next page
31	batch_120 / p. 240	C	Prose cites letters the figure does not carry
32	batch_122 / pp. 242–243	C	Lettering of the meridian circle: text ABGD, figure G and C
33	batch_123 / p. 245	C	No L on the figure though the text cites O L and G L
34	batch_124 / pp. 248–249	C	Figure label G not cited in the text
35	batch_125 / pp. 249–250	C	Figure prints X for the text's N; the C label is uncertain
36	batch_130 / pp. 259–261	C	Text cites N; the figure carries none
37	batch_132 / p. 263	C	ejus in post ejus fata has no name beside it

1. batch_011 / p. 21 — *Category C — author/source anomaly*

The running head is not uniform. On pp. 21 and 87 both copies print OBSERVATIONES HASSICÆ, without the second A; p. 17 and p. 49 print HASSIÆ; most other heads read HASSIACÆ. Only pp. 21 and 87 have been checked on two copies, and the other heads have not been checked one by one. The variation belongs to the printing and has no bearing on the text.

2. batch_014 / p. 28 — *Category C — author/source anomaly*

In the December 23 observations, at the row marked tert. (the third observation), the minutes are printed 37 with a fraction whose numerator is 2 and whose denominator is 1. Both copies set the same improper fraction. No value has been substituted, and the reading in the text stays marked uncertain.

3. batch_018 / pp. 36–37 — *Category C — author/source anomaly*

The observations of February 23 end p. 36, and p. 37 opens with 14 October. No year line or heading stands between them, and the catchword at the foot of p. 36 (14 Octo-) answers the next page, so no leaf is missing. The gap of nearly eight months is in the book as printed.

4. batch_031 / p. 62 — *Category B — source compositor error*

The date line for July 21 at 3 hours is printed twice in succession (21. Iulij hor.3. and 21 Iulij hor.3.). Each line has its own rows of figures beneath it, so both are kept. This may be a second set of observations at the same hour, or a date line repeated in error where another date was meant; the page does not say which. Compare the repeated December 27 date line on pp. 59–60, which is noted in the text.

5. batch_034 / pp. 68–69 — *Category C — author/source anomaly*

For the same star, observed from Mars, p. 68 prints Perſecut. and Perſec., and p. 69 prints Perſei. Both copies agree. The translation reads Perseus here, marked uncertain on p. 68, because Perſecut. is not a star name, and the p. 69 form suggests that Perseus is meant.

6. batch_039 / pp. 77–78 — *Category C — author/source anomaly*

The latitude of the Head of the Following Twin is printed 6° 49′ (northern) on p. 77, and under the label Caput Gem. ſept. as 6° 39′ 10″ on p. 78. Both figures are clear. The page does not say that the two labels name the same star; if they do, the two latitudes differ by 10′.

7. batch_043 / p. 85 — *Category C — author/source anomaly*

The row is labelled in pect. ligni, with the first letter of the last word a clear l in the Zurich copy, and no constellation is named in the row. Which star is meant is not stated on the page and is left for identification.

8. batch_044 / p. 87 — *Category C — author/source anomaly*

The printed numbering has several irregularities, all in the print:

- p. 87 is numbered 79 where the series requires 75 (both copies).
- In the second sequence, the leaf numbers on pp. 137, 139 and 141 run 5, 9, 7.
- Leaf 33 stands on both p. 193 and p. 195.
- Leaf 43 stands on both p. 213 and p. 215.
- pp. 219, 221 and 223 run 46, 45, 48.

Citations by printed page or leaf number should be checked against the sequence.

9. batch_050 / p. 99 — *Category C — author/source anomaly*

The text says that the Breast of Cassiopeia and the star on the ascent of the Chair "both agree on the same figure" for the pole's altitude at Kassel, 51° 20′. The Breast does: half the sum of 87° 3′ and 15° 37′ is 51° 20′. But the Chair star's printed altitudes, 84° 26½′ and 19° 13½′, sum to 103° 40′, whose half is 51° 50′. Both copies print these figures. In the Munich copy an early reader has written 103° 40 and 51′ 50 in the margin, having made the same calculation. One of the printed altitudes is probably wrong by 1°.

10. batch_052 / pp. 104–106 — *Category C — author/source anomaly*

The names Hispanus (with Arzakel, pp. 104–106), Almeon (pp. 115, 119) and Elzuphi are clearly printed. The edition does not identify the persons meant. On p. 104 Hispanus is set off by commas as if it were a separate name; on p. 105 (Arzakel Hiſpanus) and p. 106 (Arzakel in Hiſpania) it reads as an epithet of al-Zarqālī.

11. batch_058 / p. 116 — *Category C — author/source anomaly*
The page gives the two seasonal intervals as 93 days 4 hours 24 minutes and 93 days 14 hours 6 minutes, and their difference as 9 hours 18 minutes. By subtraction the difference is 9 hours 42 minutes. The figures are printed so in both copies. No total of the two intervals is printed.

12. batch_060 / pp. 119–120 — *Category C — author/source anomaly*
Two mirror-image curled signs stand on the page, one before At and one after mittere, enclosing the italic passage At ſi … tranſmittere. They are printed marks and are not reproduced in the translation.

13. batch_064 / p. 127 — *Category C — author/source anomaly*
In the second table, the degree figure on August 1 is printed 56 (56° 57′ 30″), between 58° 12′ 40″ on July 31 and 56° 55′ 0″ on August 5; the August 6 figure is printed 58 (58° 38′ 10″), between 56° 55′ 0″ and 56° 21′ 30″ on August 7. Both are clear in both copies and stand as printed. Neither fits the smooth run of its neighbours.

14. batch_068 / p. 135 — *Category C — author/source anomaly*
In the right-hand block, the value for the 8th (October) is printed 89350, between 97820 and 107510 in a column that otherwise rises. It is printed so and stands.

15. batch_072 / p. 144 — *Category B — source compositor error*
The remarks are printed cla.vald.dilig. and clar.vald.di-lig. in both copies. The translation takes vald. (valde, "very") with the word before it, "very clear, careful", as on p. 139. It could equally go with the word after it: "clear, very careful". The abbreviation does not settle it.

16. batch_072 / p. 144 — *Category C — author/source anomaly*
The first value of the left-hand block, for the 9th, is printed 49934, about 5000 above both its neighbours (44988 at the foot of p. 143 and 44900 for the 10th), while adjacent values otherwise differ by less than 100. The figure is clear and stands as printed; a misprinted second figure (49934 for 44934) would fit the run.

17. batch_073 / p. 145 — *Category C — author/source anomaly*
The row Itē per Armillas ("likewise by the armillary rings") prints 13153 in the column of chords, between 92200 and 95688, about 80000 below both. The page does not say whether this figure is a chord at all or a reading of another kind. It stands as printed.

18. batch_079 / pp. 157–158 — *Category B — source compositor error*
The figure 54813 is printed four times, consistently, as the sine of the complement 68° 0′. On a radius of 60000 the sine of 68° is about 55631; 54813 answers an arc of about 66°. On p. 157 the product of the printed factors 150519 and 46446 is 6991005474, and the page prints its discarded last five figures as 05472. Both are printed so. Whether these are slips of the press or of the calculation is not settled here.

19. batch_080 / p. 159 — *Category B — source compositor error*
In the working on p. 159:

- The rule of three 54813 : 60000 :: 38518 : ? prints the product 2311080000. Divided by 54813, that gives about 42163; the page prints 42153.
- A six-figure value, 178137, stands where the working needs a five-figure sine. 60000 less 42153 is 17847.
- The arc turned through from the star's meridian is labelled 267° 13′. The next line uses 287° 18′ (360° less 72° 42′), and the sum beneath it is consistent with 287° 18′.

All are clear on the page and stand as printed.

20. batch_083 / p. 166 — *Category B — source compositor error*

At the foot of the left column the sine of the complement is printed with six figures, 594687, and at the head of the right column with five, 59487, on a radius of 60000; the five-figure form is the one that fits. In the right column the star's right ascension 20° 35′, the Sun's right ascension 179° 3′ and their stated difference 201° 32′ do not give one another by addition or subtraction as printed. A value printed 480 has no separator between degrees and minutes. All stand as printed.

21. batch_085 / p. 171 — *Category C — author/source anomaly*

The phrase ab hac recta linea ("from this straight line") refers to a line that the page has not named: no in linea recta stands between verſus leonem and apparebat. The translation follows the print.

22. batch_093 / p. 185 — *Category B — source compositor error*

The words are clearly printed, but the construal of the clause dum Sol in altitudine … continebat is uncertain, and the translation marks it so. The doubt is about how the clause relates to its sentence, not about any letter on the page.

23. batch_095 / p. 189 — *Category B — source compositor error*

The phrase altera media hora is plain in both copies. It can mean "the second half-hour" or, on the analogy of sesquihora, "an hour and a half". The context does not decide between them, and the translation marks the sense as uncertain.

24. batch_101 / p. 202 — *Category C — author/source anomaly*

The February 14 entry gives the hours as hor. 4 and hor. ſeptima ("the seventh hour") and calls the interval in duabus horis, "in two hours". As printed the hours are three apart. The translation renders all three as printed; how they relate is not clear from the page.

25. batch_102 / p. 204 — *Category C — author/source anomaly*

The page prints mane horis 8, poſt meridiem: "in the morning at 8 hours, after noon". The 8 and the comma are clear. The two cannot both hold; the translation renders what is printed.

26. batch_103 / p. 205 — *Category C — author/source anomaly*

The page prints 16 for the 29th, clearly, against the relation (8, quatuor, 16) that the same sentence states. Whether the relation was meant to hold is not a question the page settles. The figure stands as printed.

27. batch_107 / p. 214 — *Category B — source compositor error*

Both copies print ad modum quart. digitorum. The abbreviation quart. may stand for quatuor ("about four digits") or quartæ ("about a quarter of a digit"). The translation marks the number as uncertain.

28. batch_107 / p. 214 — *Category C — author/source anomaly*

On February 8 the midheaven is printed as 9°, 5° and 11° of Gemini for the observations of Mars, Jupiter and Saturn, where in every other entry on pp. 213–214 the three values rise in that order. The figures are clear on the page and stand as printed.

29. batch_110 / p. 219 — *Category C — author/source anomaly*

Mars in Leo is printed at 8° 31′ (May 9), 15° 28′ (May 18), 16° 5′ (May 23), 19° 5′ (May 29) and 20° 0′ (May 30). That is an advance of only 37′ in the five days to May 23, against nearly 7° in the nine days before and 3° in the six days after. Saturn in Cancer is printed 16° 2′ on May 22 and 16° 0′ on May 23 and 24, in a series otherwise rising. All are printed so.

30. batch_111 / pp. 221–222 — *Category C — author/source anomaly*

The catchword at the foot of p. 221 is SIMV-, but p. 222 opens with the heading DEFORMATIO REGVLÆ PTOLEMAICÆ. The sense runs on without a gap, and nothing appears to be lost.

31. batch_120 / p. 240 — *Category C — author/source anomaly*

The prose on p. 240 cites the points q s, l, z l r, h l and a b c d, but the figure shows no Q-shaped letter and no plain roman L. The lettering of the figure and of the text do not fully correspond.

32. batch_122 / pp. 242–243 — *Category C — author/source anomaly*

The last line of p. 242 names the meridian circle a b g d, with a clear g. The figure on p. 243 has G in its interior and C on the circle at lower right, and the prose of p. 243 names the equator a b c. The letters of the text and those of the figure disagree, in the print.

33. batch_123 / p. 245 — *Category C — author/source anomaly*

The text cites the lines O L and G L, but no L stands on the figure. G Z M is printed twice, with a raised mark like an apostrophe after the first.

34. batch_124 / pp. 248–249 — *Category C — author/source anomaly*

The figure on p. 248 carries a label G on the outer arc between Z and O. Neither the prose of p. 248 nor the rest of Problem Seven on p. 249 cites it.

35. batch_125 / pp. 249–250 — *Category C — author/source anomaly*

The text names a point N (the quadrant ZN), but both copies print a swash italic X at that place on the figure. The point the text calls C is printed as a swash letter that the two copies show differently: in one a closed bowl with a descending stem, in the other a G-like form with a descender. The labels are given as printed, and the text's letters are kept.

36. batch_130 / pp. 259–261 — *Category C — author/source anomaly*

The text cites a point N, but the figure carries no N.

37. batch_132 / p. 263 — *Category C — author/source anomaly*

In poſt ejus fata ("after his death") no name stands beside ejus. The nearest names are Regiomontanus (printed Regimantanus) and Schöner (Schonerum),

and the page does not show which is meant. Of the book cited, the page gives only the words de Regulis & inſtrumentis inſcripſit.