Pedro Nunes, Opera (Coimbra, 1573) — Editorial footnotes (draft)

Pedro Nunes / Petrus Nonius (1502–1578), Cosmógrafo-Mor of Portugal. 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.
- **Missing-source lacuna.** A point where source text is missing, damaged, or illegible. The note states what should stand at the gap and points to an alternate witness where one is known.

#	Anchor	Cat.	Item
1	batch_007 / printed p. 1	B	Nordeste printed where the symmetry of the argument requires Sueste.
2	batch_011 / printed p. 15, and passim	C	Citations of Euclid and Theodosius follow the medieval numbering, and several are additionally in error.
3	batch_012 / printed p. 17	B	Two entries in the mariners' table of direct intervals do not follow the rule that governs the rest of the column.
4	batch_015 / printed p. 26	lacuna	Printed p. 26 is wanting.

#	Anchor	Cat.	Item
5	batch_016 / printed p. 30	B	The year of Ptolemy's autumn-equinox observation is printed 152 where 132 is required.
6	batch_018 / printed p. 37	C	'The ninth and the tenth sphere' where the parallel passages say the eighth and the ninth.
7	batch_020 / printed p. 42	B	Two cells of the table of the Sun's declination are inconsistent with the table's own construction.
8	batch_022 / printed p. 48	B	The product of 105 by 1200 is printed 12600, a digit short.
9	batch_025 / printed p. 57	C	Agostino Ricci's lunar place, as reported, does not follow from the data credited to him.
10	batch_025 / printed p. 58	B	The sum of two mean motions is printed 359 degrees 39 minutes where 359 degrees 59 minutes is required.
11	batch_038 / printed pp. 96 and 98	B	Two consecutive versos of gathering N are numbered 56 and 58 for 96 and 98.
12	batch_043 / printed p. 110	C	The great table of the rhumbs is printed ruled but entirely empty, its values left for the reader to compute.
13	batch_047 / printed p. 122	C	The demonstration announces a conclusion about b K and d a but concludes about b K and b e.
14	batch_049 / printed p. 128	lacuna	Printed p. 128 is wanting, with the lettered figure on which the following pages depend.
15	batch_050 / printed pp. 132-133	lacuna	A whole leaf is wanting, carrying the enunciation and most of the proof of Proposition Two.
1	batch_051 / printed pp. 137-138	C	One woodcut block is printed

#	Anchor	Cat.	Item
6			twice, on both sides of the same leaf, so that the reader need not turn back.
17	batch_053 / printed p. 145	B	The half of the remainder is printed as a nine-figure number where the computation requires ten figures.
18	batch_055 / printed p. 151	C	The sequence of annotations restarts at 'the first' under each new rubric.
19	batch_068 / printed p. 189	B	The conclusion prints 'ascensions' where the demonstration has established equal descensions.
20	batch_073 / printed p. 2	C	Nunes numbers Fine's problems 'the first' and then 'the third', never numbering the second.
21	batch_078 / printed p. 17	B	The value of b K is printed twice, and each printing carries one distinct error, so the correct reading must be assembled from both.
22	batch_080 / printed p. 22	B	The middle square is twice named 'b g' where the chapter otherwise calls it 'b f'.
23	batch_082 / printed p. 27	B	A ratio term is printed 728 at all six of its occurrences where the argument requires 780.
24	batch_083 / printed p. 31	B	Three lettering slips in the verbatim quotation of Fine's quadrature, one of them destroying the sense.
25	batch_089 / printed p. 49	C	A product in Nunes's own recomputation (2456) disagrees with the operation he states.
2	batch_089 / printed p. 50	C	The divisor 980382038 is

#	Anchor	Cat.	Item
6			described as a product it is not.
27	batch_091 / printed p. 55	B	Nunes reports Fine as making a line the diameter of the horary equator where the argument requires the semidiameter.
28	batch_093 / preface leaf of *De crepusculis*	C	The preface heading prints the title in the singular, *de Crepusculo*, against the divisional title's *DE CREPVSCVLIS*.
29	batch_094 / printed pp. 3-4 (*De crepusculis*)	C	The pagination of *De crepusculis* puts the even numbers on the rectos, and runs on unbroken into the Alhazen appendix.
30	batch_100 / printed p. 21	B	The sexagesimal ordinals in a worked example are each one order too high.
31	batch_103 / printed p. 29	B	The right sine of 50° 50′ is printed 75531 for 77531; the page's own product confirms the wrong value, which propagates into the result for Sirius.
32	batch_103 / printed p. 29	B	A ten-figure product disagrees in its third digit with the factors printed immediately above it.
33	batch_103 / printed pp. 30-31	C	A point-letter in the repeated woodblock is cut in mirror image.
34	batch_104 / between printed pp. 32 and 34	lacuna	A page-side is wanting: the close of Proposition VIII and the enunciations of Propositions IX and X.
35	batch_104 / printed p. 36 (recte 34)	B	The number 36 recurs on two rectos of one gathering: the skeleton was not altered at reimposition.

#	Anchor	Cat.	Item
36	batch_106 / printed p. 39	B	A third proportional term is printed with nine figures where the stated multiplication requires ten.
37	batch_108 / printed p. 47	B	The same right sine of the arc of concealment is printed 27626 at one point and 27616 a few lines later.
38	batch_109 / printed p. 48	B	The twilight table prints an impossible minutes field of 81 at pole 48°, Scorpio and Pisces.
39	batch_109 / printed p. 48	B	A second cell of the twilight table (pole 36°, Sagittarius and Aquarius) breaks the progression of its column.
40	batch_109 / printed p. 50	B	The two triangles are printed 'A c x, A c x' where the second must be A e x.
41	batch_111 / printed p. 55	B	The distance of a mountain summit from the earth's centre is said to be composed of the diameter and the height, where the radius is meant.

1. batch_007 / printed p. 1 — *Category B — source compositor error*

In carrying the northern case over to the southern, the source reads that at 35 degrees of southern latitude, with the Sun at the beginning of Capricorn, the Sun 'ought likewise to rise at Nordeste with a quarter of Leste.' Both the parallel construction of the sentence and Martim Afonso de Sousa's observation, reported two sentences earlier, require Sueste. Preserved as printed; the reading is not among those corrected in the volume's own errata.

2. batch_011 / printed p. 15, and passim — *Category C — author/source anomaly*

Nunes cites the *Elements* and Theodosius's *Spherics* by the medieval Latin recension he had before him — for Euclid, the numbering of Campanus, which he

elsewhere names expressly — so that a number of references do not answer to the modern propositions. Thus at printed p. 154 the equality of angles in the same segment is supported by *Elements* III.19, which is III.21 in the modern numbering; and at printed p. 151 Theodosius, *Spherics* I is cited at propositions 30 and 40, beyond the twenty-three of the received Book I, as Book II is cited at propositions 28 and 29 on printed p. 37 of *De crepusculis*. These citations are mutually consistent where they recur, and are therefore the numbering of Nunes's text rather than slips of the press. Others do look like slips, whether the author's, his source's, or the compositor's: at printed p. 15 the mean-proportional step 'as e f is to e b, so is e b to e r' is credited to *Elements* VI.9, where the result follows from VI.8 (its porism) or from VI.13; at printed p. 31 of *De erratis* the step of alternation is credited to *Elements* V.18, where V.16 is the operative proposition, in a passage quoted word for word from Fine and so probably Fine's own citation carried over; at printed p. 43 of *De crepusculis* the finding of the pole of a given circle is referred to *Spherics* I.31, where the operation is I.21; at printed pp. 3-4 the step 'equal angles at the centre subtend equal arcs' is cited once as *Elements* III.25 and, when the same step recurs, correctly as III.26; and at printed p. 13 a citation reads either I.32 or I.52, of which only the former exists, Book I having forty-eight propositions. All are given as printed, without conversion to the modern numbering.

3. batch_012 / printed p. 17 — *Category B — source compositor error*

The table gives, for inclinations of one and of two compass quarter-points, direct intervals of 17 leagues and five eighths and 19 leagues and three eighths. Rows three to seven of the same column agree exactly with the figure of seventeen and a half leagues to the degree stated three lines above, divided by the cosine of the inclination; on that relation the first two rows should stand near 17 and seven eighths and near 19 scant. Both are preserved as printed.

4. batch_015 / printed p. 26 — *Missing-source lacuna*

A page is wanting here: the text runs from printed p. 25, on the leaf signed D, directly to printed p. 27, on the leaf signed D 2, and is manifestly discontinuous across the join — p. 25 breaks off at 'the segments of the meridians of the places b', while p. 27 opens a new topic. The missing verso almost certainly carried the numerical table announced at the foot of p. 25, on which the whole of pp. 27-28 depends.

5. batch_016 / printed p. 30 — *Category B — source compositor error*

The source dates Ptolemy's autumn equinox, observed in the seventeenth year of Hadrian, to 'the year 152 from the birth of Christ.' The same sentence puts the elapsed interval from the Christian epoch at 131 Roman years, 268 days and 2 hours, and twelve lines below the same column has the vernal equinox of 'the year 132 from Christ's birth'; the interval also follows from the two data given, 879 Egyptian years and 66 days from Nabonassar less 746 Roman years and 310 days to the Christian era. Sense requires 132. Preserved as printed, with the required figure supplied in brackets.

6. batch_018 / printed p. 37 — *Category C — author/source anomaly*

Restating Albert Pigge's assumptions, Nunes speaks of the meeting of the heads of Aries 'of the ninth and of the tenth sphere' in the year of the Incarnation, whereas the parallel argument on printed pp. 34-35 speaks throughout of the eighth and the ninth. The reading is kept as printed: Nunes is here reporting Pigge, who reckons the fixed ecliptic to the tenth sphere, so the shift may well be deliberate rather than a slip of the press.

7. batch_020 / printed p. 42 — *Category B — source compositor error*

In the Gemini and Sagittarius panel the entry at argument 18 reads 23 degrees 57 minutes, which exceeds the greatest declination of 23 degrees 30 minutes that the table's own banner assumes and is larger than any other value in the table; the neighbouring rows read 22 and 23 degrees. In the Taurus and Scorpius panel the degrees cell at argument 3 reads 13, where rows 2 and 4 read 12 and the column's progression requires 12. Both are preserved as printed.

8. batch_022 / printed p. 48 — *Category B — source compositor error*

In the worked example of Bernhard Walther's cross-staff observation the source multiplies 105 by 1200 and prints the product as 12600. The two divisions that immediately follow require 126000: divided by 807 it yields the 156 and 108/807 that the page itself prints twice. Preserved as printed; since the digits are individually clear, a final cipher dropped in the setting is the likeliest explanation.

9. batch_025 / printed p. 57 — *Category C — author/source anomaly*

Nunes reports Ricci as placing the Sun in 4 degrees 9 minutes of Pisces and the Moon, 'given the said distance from the Sun', in 6 degrees 26 minutes of Gemini. That distance, 92 degrees 7 minutes 30 seconds, would give 6 degrees 16 minutes of Gemini; the figure printed is instead Nunes's own result for the Moon, 5 degrees 20 minutes of Gemini, increased by the 1 degree 6 minutes that Ricci

claims — as is Ricci's place for Regulus. The inconsistency belongs to the argument reported, not to the printing, and is left standing.

10. batch_025 / printed p. 58 — *Category B — source compositor error*

The sum of the two solar mean motions is printed 359 degrees 39 minutes. The addends set a few lines above are 211 degrees 29 minutes and 148 degrees 30 minutes, whose sum is 359 degrees 59 minutes, and the clause immediately following states that one minute alone is wanting to complete the revolutions. Preserved as printed.

11. batch_038 / printed pp. 96 and 98 — *Category B — source compositor error*

The leaf standing between printed 95 and 97 is numbered 56, and the leaf standing between 97 and 99 is numbered 58. In both places the text runs on without a break from the preceding page to the following one, so the sequence is not in doubt, and the rectos of the same gathering carry a well-formed 9; 96 and 98 are required. The numbers are given here as printed.

12. batch_043 / printed p. 110 — *Category C — author/source anomaly*

The leaf carries only the frame of the table: seven columns for the seven quarter-points, each ruled into three spaces (arc of the meridian, travelling length, difference of longitude), with nineteen numbered segment-lines down the side margin, and not a single figure inked in any of the twenty-one spaces. This is deliberate. The closing notice of Cap. 23 states that the numbers are left for diligent young men to work out for themselves from the preceding demonstrations, and to extend as far as they please; the blank grid stands here as it stands in the book.

13. batch_047 / printed p. 122 — *Category C — author/source anomaly*

The text undertakes to show that b K is smaller than d a, yet the demonstration that follows concludes that b K is smaller than b e. The argument is nonetheless sound, since d a and b e are the equal joining lines of the congruent triangles of the construction and are interchangeable at this step. The change of name is the author's or his compositor's; preserved as printed.

14. batch_049 / printed p. 128 — *Missing-source lacuna*

A page is wanting here: printed p. 127 is followed directly by p. 129, and the catchword at the foot of p. 127 is not taken up by the opening words of p. 129, so a page of text is genuinely missing rather than merely misnumbered. The lost page carried the lettered diagram that pp. 129 and 130 both call 'the figure drawn

above' (points a, c, e, f, k, l, m, n, g, h, p, q, i, r); the demonstrations of those two pages must therefore be followed from their text alone.

15. batch_050 / printed pp. 132-133 — *Missing-source lacuna*

A leaf is wanting here: printed p. 131 is followed directly by p. 134. The lost leaf carried the enunciation of the second proposition of the second annotation and the greater part of its demonstration, and the text resumes in mid-sentence inside the concluding reduction to absurdity of that proof. That is why the argument on p. 134 opens without its premisses.

16. batch_051 / printed pp. 137-138 — *Category C — author/source anomaly*

The same figure is impressed twice, at the foot of printed p. 137 and again in the right-hand column of p. 138 — two pulls of a single block on the two sides of one leaf, so that the proof of the third annotation can be followed on either side without turning back. The two impressions are separately inked and differ only in weight. The printer uses the device again later in the volume, at printed pp. 188-189 and again in *De crepusculis*.

17. batch_053 / printed p. 145 — *Category B — source compositor error*

The source prints 456881475 for the half of the remainder. The computation the text itself then performs — dividing that half by 100,000 to obtain the quotient 45688, on the stated values e f = 20765 and e c = 100,000 — requires the ten-figure 4568814775, so the printed figure is short by one digit. Preserved as printed.

18. batch_055 / printed p. 151 — *Category C — author/source anomaly*

The annotations on the Moon run as far as the twelfth, and the count then begins again at 'Annotation One' under the new rubric On Mars, Jupiter and Saturn. Nunes numbers his annotations within each subject-heading rather than continuously through the treatise, and the same restart recurs later, most conspicuously where the series on the eighth sphere opens after the tenth annotation on planetary latitude. The numbering is the book's own and has not been regularized.

19. batch_068 / printed p. 189 — *Category B — source compositor error*

The conclusion of the proof reads 'they are equal arcs of the ecliptic, and they have equal ascensions', although the whole demonstration has concerned the descents b g and b s, established equal a few lines earlier from Theodosius, *Spherics* III.14. Sense requires descensions. Whether the slip is the compositor's

or the author's own loose usage cannot be settled from the page; preserved as printed.

20. batch_073 / printed p. 2 — *Category C — author/source anomaly*

In surveying the five problems Fine claims to have solved, Nunes writes 'the first is' of the duplication of the cube, and then 'the third and most difficult problem is' of the quadrature of the circle, before going on to 'in the fourth problem.' The second is the finding of two mean proportionals, into which he has just said the first devolves, but he nowhere numbers it explicitly. The sequence is the author's own and has not been supplied.

21. batch_078 / printed p. 17 — *Category B — source compositor error*

The surd expression for b K is set twice on this page, once in the prose of the left-hand column and once in the ruled computation panel at the right, and the two settings do not agree. The prose reads the root of 20977 157/484 plus the root of 58 53/484 (less the root of 2614 449/484, less 21 13/22); the panel reads the root of 20977 257/484 plus the root of 57 53/484. Neither is right by itself: the quantities from which b K is formed, set out on the same page, require 257/484 in the first radicand and 58 as the whole number of the second, so that the true reading joins the panel's first term to the prose's second, and a third setting of the same quantity on printed p. 18 gives exactly that combination. Both settings on this page are reproduced as they stand, without harmonization.

22. batch_080 / printed p. 22 — *Category B — source compositor error*

In the alternative demonstration Nunes offers in Fine's place, the square on the mean line is twice named b g. Everywhere else in this chapter — including eight lines later, in the reduction to absurdity on this same page — the middle square is b f, and that is what the construction requires. The printed letter is unambiguous and has been kept.

23. batch_082 / printed p. 27 — *Category B — source compositor error*

The second term of the ratio '5924¾ to 728' is printed 728 at each of its six occurrences on the page. The sentence's own claim that this term stands to 240 in the ratio of three and a quarter requires 780, since 3¼ × 240 = 780; 780 is also the value assigned to g c earlier in the chapter, and on it the ratio 5924¾ to 780 is the same as 1823 to 240. Preserved as printed at every occurrence; that all six agree tells against a single slipped sort.

24. batch_083 / printed p. 31 — *Category B — source compositor error*

Three lettering faults stand in the passage quoted word for word from Fine. The circumscribed square, lettered b g d throughout the chapter, is set d b g; the circle b c d is once set a b c; and, most damagingly, the intermediate square is named e f in the clause 'derived from the square b g d, and from the circle b c d, and from e f, the square which is the mean proportional between e f and b g d' — as printed, e f is made the mean proportional between itself and b g d, where the argument requires h l m. All three are given as printed; the last cannot be repaired without deciding which of the two occurrences was corrupted.

25. batch_089 / printed p. 49 — *Category C — author/source anomaly*

Nunes directs that 1176881110 be multiplied by 20612 and ten figures thrown away; that operation yields 2425, but the page prints 2456. The printed figure is the one the argument then uses, 99389 − 2456 = 96933, the right sine of 75 degrees 46 minutes, so the discrepancy lies between the stated operation and its stated result and not in the subtraction that follows. Both figures are given as printed.

26. batch_089 / printed p. 50 — *Category C — author/source anomaly*

The divisor 980382038 is said to arise 'from the multiplication of the right sine of the greatest declination into the right sine of the star's declination.' One factor is indeed 39874, the right sine of 23 degrees 30 minutes; but the co-factor the printed product implies is 24587, since 39874 × 24587 = 980382038, and 24587 is the right sine of 14 degrees 14 minutes — the complement of the star's declination, the value given three lines earlier. The description rather than the number appears to be at fault; both are given as printed.

27. batch_091 / printed p. 55 — *Category B — source compositor error*

In reporting the seventh proposition of Fine's first book on dials, the source makes a f the *dimetiens* — the diameter — of the horary equator of the first climate. Both the surrounding argument and Nunes's own rebuttal on the following page treat that line as a semidiameter. The word is legible and has been kept as it stands; whether the slip is Nunes's, his compositor's, or Fine's own cannot be settled from this page.

28. batch_093 / preface leaf of *De crepusculis* — *Category C — author/source anomaly*

The heading of the dedicatory preface reads 'in opus de Crepusculo', in the singular, where the divisional title-leaf prints DE CREPVSCVLIS and the work is cited in the plural throughout the volume. Both forms are clearly inked on their

respective leaves, so this is a variant in the setting of the title rather than a defect of impression.

29. batch_094 / printed pp. 3-4 (*De crepusculis*) — *Category C — author/source anomaly*

Throughout *De crepusculis* the printed numbers fall with the even figures on the rectos and the odd on the versos: the signed leaves consistently carry even numbers, and the compositor sets even numbers in the right half of the head-line and odd numbers in the left. The count simply begins on a verso, offsetting the usual arrangement by one page. The same sequence runs on without restarting across the divisional title of the appended Alhazen *Liber de crepusculis*, as does the series of signatures.

30. batch_100 / printed p. 21 — *Category B — source compositor error*

In the worked reduction of a reading to degrees, the text announces the step 'for collecting the second minutes' and then reports its result as 'four third minutes', followed by 'eight fourth minutes.' The arithmetic itself is sound and clearly printed: 360 divided by 87 gives 4 with 12 remaining, and 720 divided by 87 gives 8 with 24 remaining. Only the ordinals disagree with the sequence they belong to, each naming one sexagesimal order too high; preserved as printed.

31. batch_103 / printed p. 29 — *Category B — source compositor error*

In the worked example for the Greater Dog the right sine of 50 degrees 50 minutes is given as 75531, where the tables of right sines to radius 100000 have 77531. The error is not the compositor's: the product printed on the same page, 3011723094, is exactly 75531 × 39874, so the wrong sine was already in the computation Nunes was performing or in the table he was copying from. It carries through the whole chain that follows — 2442507429234, then 244, then 27248 — and so into the declination of 15 degrees 49 minutes that the page assigns to the star. Every figure in the chain is preserved as printed.

32. batch_103 / printed p. 29 — *Category B — source compositor error*

The second proportional term of this example is printed 3942578474. The two factors set immediately before it, 98901 and 39874, give 3943578474; the printed form differs in the third digit. Preserved as printed.

33. batch_103 / printed pp. 30-31 — *Category C — author/source anomaly*

One block serves both sides of this leaf, and in both impressions the letter standing in the lower left quadrant of the figure is reversed, its bowl to the left of

a stem set on the right. Since the reversal appears identically on both pulls it belongs to the block rather than to the printing, and is most likely a cutter's slip: a letter drawn the right way round on the wood prints backwards. The label is left as it stands rather than silently turned round to the letter the demonstration would want.

34. batch_104 / between printed pp. 32 and 34 — *Missing-source lacuna*

A page-side is wanting here. The text breaks off at the foot of printed p. 32 in mid-phrase, with a catchword that is not taken up: the next page begins inside the demonstration of a different proposition, and Proposition XI follows in its second column. The missing page-side carried the close of Proposition VIII and the enunciations of Propositions IX and X, both of which are cited later in the treatise but nowhere set out.

35. batch_104 / printed p. 36 (recte 34) — *Category B — source compositor error*

This recto is numbered 36, and so is the recto two leaves later, which carries the signature E ij; the intervening and following leaves are numbered 35, 37 and 38. Two rectos of a single gathering cannot both be 36, and the sequence requires 34 here — the head-line was simply not altered when the skeleton forme was reimposed. The number is given as printed.

36. batch_106 / printed p. 39 — *Category B — source compositor error*

The third term of this proportion is printed 765217468, nine figures, where the multiplication the text prescribes — 97992 by 78079 — requires ten. The product used in the next line, 382560873400000, being that term multiplied by 50000, implies a printed term of 7651217468, while the strict product of the two factors is 7651117368; the printed figure agrees with neither. It is given as it stands.

37. batch_108 / printed p. 47 — *Category B — source compositor error*

The right sine of the arc of the Sun's concealment is given as 27626 at the head of this working and as 27616 a few lines below, in the division by 27806. The two cannot both stand, and the earlier value is the one used elsewhere in the treatise. Both are given as printed.

38. batch_109 / printed p. 48 — *Category B — source compositor error*

In the table of twilight arcs the entry for a pole elevation of 48 degrees under Scorpio and Pisces is printed 24 degrees 81 minutes; minutes cannot exceed 59. The figure is genuinely inked and has been retained as printed. The rows above

and below in the same column read 23 degrees 0 minutes at 45 degrees and 25 degrees 54 minutes at 51 degrees, which bracket the intended value.

39. batch_109 / printed p. 48 — *Category B — source compositor error*

In the same table the entry for a pole elevation of 36 degrees under Sagittarius and Aquarius reads 20 degrees 42 minutes, which does not fit the progression of its column: the column runs 19 degrees 35 minutes, 20 degrees 15 minutes, 20 degrees 42 minutes, 21 degrees 58 minutes — an increment of 27 minutes standing between increments of 40 and 76 — where the neighbouring columns step evenly. The figures are cleanly printed, so a single-cell fault in the setting is the likeliest explanation; the value is retained.

40. batch_109 / printed p. 50 — *Category B — source compositor error*

The source reads 'let the two triangles A c x, A c x be understood', naming the same triangle twice. The geometry, and the sentence immediately following, which pairs the triangles e l x and c l x about the point x, require A e x for the second. Both the faulty and the correct forms are plain on the page, so the correction has been made in the text and marked; the same line also sets *tilangula* for *triangula*.

41. batch_111 / printed p. 55 — *Category B — source compositor error*

The rule states that the distance of the summit from the earth's centre is made up 'of the diameter and the height.' Every worked figure on this and the following page uses the radius: 3818 + 8 = 3826 miles, and 39773 + 457 = 40230 stadia. The printed word stands as it is; the loss of *semi-* from *semidiametro* is the likeliest explanation.