

Astronomia Danica — Editorial footnotes (draft)

Christen Sørensen Longomontanus (1562–1647). 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_005 / p.19	C	Greek heading printed ΠΡΩΓΝΟΠΙΣΜΑΤΩΝ (Ω for O)
2	batch_006 / p.7 (margin)	B	Euclid margin citation cites "Book 17" of the Elements
3	batch_016, 036, 054, 074, 093, 111, 123, 125, 130 (Arabic running heads)	C	Chapter/book numbers set in Arabic against the book's prevailing Roman
4	batch_022 / p.87	B	Ascensions table: ♍Scorpio Asc. "267 64" (64' impossible) and Desc. "202 16" (breaks monotone column)
5	batch_022 / p.88	B	♊Pisces Descension: "362 45" (>360°) and "353 69" (69' impossible)

#	Anchor	Cat.	Item
6	batch_025 / pp.82, 84	B	Star-catalogue: out-of-sequence grade "16" and Cor Virginis/Cor Scorpionis Num. mismatch
7	batch_028 / p.112	B	Angle KTQ printed 137°27' in result line, 137°37' in the given-angles list
8	batch_029 / p.113	B	Angle HOL printed 36°11' then 36°12' in the same problem
9	batch_039 / p.138 (table)	B	Horizon-arc table: three monotone-breaking cells ("18 9", "46 10", "14 7" repeated)
10	batch_050 / p.200 (Table IV)	B	Mid-Leo meridian altitude printed "30 40 35" (column is ~50–51°)
11	batch_057 / p.228	B	Auriga "Lucida in dextro humero" longitude printed $\square 52$ 51 (>30° within a sign)
12	batch_057 / pp.227–228	lacuna	Four catalogue coordinate cells printed blank (Corona Borealis, Cygnus)
13	batch_058 / pp.229–232	lacuna	Four catalogue rows printed with blank coordinate pairs
14	batch_059 / p.233	lacuna	Two Hydra catalogue rows printed without numerals (one without its sign)
15	batch_060 / p.223	B	"Excessus obliquit." cell printed "5 88" (88" impossible); adjacent Grad type-slugs swapped
16	batch_065 / p.244	B	Eccentricity column row 29 printed "1189" (out of order, exceeds row 30)
17	batch_096 / p.383 (3 Sig.)	B	"Excess in Per." cell printed "40 30" breaking the monotone column
18	batch_098 / pp.~389–391	B	Several distance/eccentric/excess

#	Anchor	Cat.	Item
8			cells break their monotone columns
1 9	batch_099 / p.393 (2 Sig.)	B	Distance column arg 13 printed "104968" (digit transposition, breaks monotone)
2 0	batch_102 / p.407	B	Nodi Borei table, Jupiter year-80 cell printed "0 0 13 9" (breaks progression)
2 1	batch_104 / p.414 (4 Sig.)	B	Proportional-minutes arg 28 printed "31 58" (breaks monotone decline)
2 2	batch_104 / p.416	B	"Eodem anno 1591" contradicts the preceding Saturn example dated 1595
2 3	batch_110 / p.~432	B	Mercury-apogee epoch: degree digit not independently inked ("sig. 6 gr. 5")
2 4	batch_111 / p.444 (bissextile table)	B	April Mercury-eccentric sign printed "2" where progression requires "3"
2 5	batch_113 / p.452 (5 Sig.)	B	"Excess in perig." value column row G=16 printed "2 40 57" (breaks monotone decline)
2 6	batch_117 / p.452	B	Proportional column 8 row 19 printed "44" where facing page reads "58 54"
2 7	batch_118 / pp.454–455	B	Mercury declination table: "3 59" vs mirror "2 59"; "59 24" repeated row
2 8	batch_119 / p.457 (Tabula Reflexionis Mercurii)	B	Proportional-minutes col-4 cell printed "57 49" (breaks rise to the 60-limit)
2 9	batch_120 / p.477 (Appendix title page)	B	Appendix title-block prints "ASTROMIÆ" (N dropped from ASTRONOMIÆ)

#	Anchor	Cat.	Item
3 0	batch_128 / p.29 (Appendix)	B	Comet equator-crossing longitude printed "236 gr." (likely compositor error)
3 1	batch_040 / pp.~157–158 (worked examples)	C	Column headers swapped between Example I and Example II
3 2	Appendix dedication (per source/CLAUDE.md)	C	Appendix dedication dated 1621 (carried over from the 1622 first edition)

1. **batch_005 / p.19** — *Category C — author/source anomaly*

The source sets the Greek title-block on p.19 as "ΠΙΡΩΓΝΟΙΣΜΑΤΩΝ," with Ω where the standard form (and the p.18 catchword) reads "ΠΙΡΟΓΝΟΙΣΜΑΤΩΝ" with O. A compositor's idiosyncrasy of this edition. Transcribed as printed. (DRAFT)

2. **batch_006 / p.7 (margin)** — *Category B — source compositor error*

The marginal citation for the Golden-Rule foundation reads "pr. 16 lib. 6, & 19 li. 17 Elem." — i.e. Elements VI.16 and "17.19." Euclid's Elements has only 13 (extended 15) books, so "Book 17" cannot be right; the intended reference is almost certainly Elements V.19 (the compounded-proportion theorem), the "17" being a compositor error or garbled "li." Preserved as printed. (DRAFT)

3. **batch_016, 036, 054, 074, 093, 111, 123, 125, 130 (Arabic running heads)** — *Category C — author/source anomaly*

At several points the source prints chapter (and one book) numbers in Arabic numerals where the surrounding work uses Roman — e.g. running heads "Cap. 5. 6." against body rubrics "CAPVT V./VI." (p.64), "Cap. 11." for Roman "CAPVT XI." (Liber II Cap. 11, pp.357–360), "Cap. 3" for "CAPVT IV" (p.216), "Cap.io."/"Cap. lo."/"Cap. ii." old-style ligature heads (pp.369–372), Cap. 8 and Cap. 21 in Arabic running heads (b.074, b.111), "Cap.10." in the Appendix (p.520), and "Antonium Flaminium in 11 lib. Phys. Aristotelis" (Book 11 in Arabic, b.123). A known mixed-numeral compositor convention of this edition; the body rubrics govern, and the Arabic forms are preserved verbatim, not normalized. (DRAFT)

4. **batch_022 / p.87** — *Category B — source compositor error*

In the ascensions canon the ☾ Scorpio Ascension cell at row 28 prints "267 64"; 64 minutes exceeds 60 and is impossible — the smooth progression (266 25 / [267 64] / 269 23) suggests an intended value near 267 44 / 268 24. The ☾ Scorpio Descension cell at row 27 prints "202 16," which breaks the otherwise strictly increasing column (row 26 = 202 22, row 28 = 203 31); intended ~202 56. Both preserved as printed. (DRAFT)

5. batch_022 / p.88 — Category B — source compositor error

In the ☾ Pisces Descension column, row 8 prints "362 45," exceeding 360° (intended ~326 45), and row 26 prints "353 69," with 69 minutes impossible (intended ~353 9). A third entry, row 6 = "343 42," also breaks the monotone column (row 5 = 322 10, row 7 = 325 13; intended ~323 41). All read sharply at native resolution and are genuine compositor errors. Preserved as printed. (DRAFT)

6. batch_025 / pp.82, 84 — Category B — source compositor error

On p.82 the entry "Sequens cauda Capricorni" prints grade "16" where the column otherwise ascends 17→18→19 before dropping to 16 then jumping to 24 — an out-of-sequence value (printed "16 16"), possibly a compositor error for a value near 20. On p.84, "Cor Virginis" carries Num. 64, but Num. 64 in the mid-heaven table is "Cor Scorpionis" — a source cross-reference inconsistency (a compositor's slip of star-name or reference number). Both preserved as printed. (DRAFT)

7. batch_028 / p.112 — Category B — source compositor error

The angle KTQ is printed "gr. 137 min. 27" in the result line ("Ergo datur ang. quaesitus K T Q gr. 137 min. 27") but "gr. 137 mi. 37" in the immediately following list of given angles — a 1' internal inconsistency for the same angle. Both readings verified at native resolution; one is a compositor error. Both preserved as printed. (DRAFT)

8. batch_029 / p.113 — Category B — source compositor error

In triangle HLO the angle HOL is printed "gr. 36 mi. 11" in the first block ("Ergo datur HOL gr. 36 mi. 11") and "36° 12'" in the second block (the side-HO data list) — a 1' source/compositor inconsistency for the same angle. Both preserved as printed. (DRAFT)

9. batch_039 / p.138 (table) — Category B — source compositor error

In the horizon-arc table three values break their columns' smooth progressions: Hor.10/2 at pole-elevation 37 prints "18 9" (between 18 45 at 36 and 19 34 at 38;

the degrees should run ~19); Hor.9/3 at pole-elevation 47 prints "46 10" where the column climbs through ~35–36° ("46" appears to be a compositor error for "36"); and Hor.11/1 prints "14 7" at both rows 69 and 70 (after 13 57 at 68), the repeat breaking the progression so at least one is a compositor error. Preserved as printed. (DRAFT)

10. batch_050 / p.200 (Table IV) — *Category B — source compositor error*

In Table IV (mid-Leo), the row-1 "Alt. Solis Merid." cell prints "30 40 35," where the four other mid-Leo meridian altitudes are all $\approx 50\text{--}51^\circ$; the leading "3" is almost certainly a compositor misprint for "5" (intended ~50 40 35). The tile shows a clear "30," so this is a source error, not a misread. Preserved as printed. (DRAFT)

11. batch_057 / p.228 — *Category B — source compositor error*

The bright star on the right shoulder of Auriga (Erichthonius) prints its longitude as $\square 52 51$; a degree value of 52 exceeds the 30° maximum within a single zodiac sign and is impossible. Neighbouring entries are $\square 23\text{--}24$, so the intended value is likely $\square \sim 22\text{--}24$. The cell reads "52 51" unambiguously at native resolution — a source print error. Preserved as printed. (DRAFT)

12. batch_057 / pp.227–228 — *Missing-source lacuna*

Four catalogue rows (two in Corona Borealis, two in Cygnus) are printed with the zodiac sign-symbol and N/S marker but with the longitude and/or latitude value-pairs left blank. Confirmed blank in the source at native resolution (genuine omitted data, not abrasion). Row structure preserved with [?] placeholders. (DRAFT)

13. batch_058 / pp.229–232 — *Missing-source lacuna*

Four catalogue rows are printed with the zodiac sign and the latitude marker but with one or both coordinate value-pairs (and, in one case, the magnitude) left blank: Ophiuchus "On the right elbow" and "On the right shin" (p.229); Triangulum "Middle" (p.231); Eridanus "The one preceding it" (p.232). These are genuine gaps in the printed source (missing data, not abrasion). Row structure preserved with [?] placeholders. (DRAFT)

14. batch_059 / p.233 — *Missing-source lacuna*

Two consecutive Hydra rows print incomplete coordinate data: "Praecedens ex duabus contiguis supra hanc" (mag. 5) prints no sign and no numerals (only the A flag and magnitude), and "Sequens earundem" (mag. 4) prints a lone $\square$ sign with the longitude and latitude figures absent. Confirmed at native resolution as a

genuine source feature (no ink), not a degradation. The empty cells are preserved with [?] placeholders. (DRAFT)

15. batch_060 / p.223 — Category B — source compositor error

In the Excessus obliquit. column (fig.4 block), the Grad-2 cell prints "5 88"; 88 seconds exceeds 60 and is impossible — the smooth column (row 1 = 5' 17", row 3 = 4' 5") implies an intended value near 5' 8" / 4' 58". Separately, in the fig.3 block the left Grad type-slugs for two adjacent rows are set in swapped order (slug "17" above slug "16") while the data stay in correct descending-value order; by the sum rule (L+R=30) and column smoothness the upper physical row is Grad 16 and the lower Grad 17. The value cell is preserved as printed; the relabelling restores the correct Grad to each physical row without moving any data. (DRAFT)

16. batch_065 / p.244 — Category B — source compositor error

In the Eccentricitas column, row 29 prints "1189," which breaks the smooth monotone progression (row 28 = 1052, row 30 = 1125) and exceeds the row-30 value; the interpolated expectation is ≈ 1089 . Likely a compositor digit error (1089→1189). Preserved as printed. (DRAFT)

17. batch_096 / p.383 (3 Sig.) — Category B — source compositor error

In the "Excess in Per." column, row 22 of the 3 Sig. table prints "40 30," where the smooth descent of neighbouring rows (41 53 → 41 49 → 41 44 → 41 38) would lead to a value near 41 33; the ~ 1 -minute drop breaks the column's gradient (likely a compositor digit error, 40 for 41). Preserved as printed. (DRAFT)

18. batch_098 / pp.~389–391 — Category B — source compositor error

Several cells, read confidently at native resolution but breaking their columns' smooth progressions, are likely compositor slips: Eccentri prosth. row 4 "2 39 43" (between 2 34 58 and 2 24 26; intended ~ 2 29 43); Excessus in Perig. row 7 "0 16 26" (intended ~ 0 36 26) and row 19 "0 18 55"; the distance column rows 6 "111672" (intended ~ 110672), 9 "111009," and 19 "108267" (the difference column implies ~ 108217). Preserved as printed. (DRAFT)

19. batch_099 / p.393 (2 Sig.) — Category B — source compositor error

In the sign-2 Distance column, the arg-13 cell prints "104968," which breaks the monotone decrease (104933 at row 12, 104601 at row 14) — almost certainly a compositor digit-transposition for $\sim 104768/104868$. The tile clearly shows "104968," so this is a source error, not a misread. Preserved as printed. (DRAFT)

20. batch_102 / p.407 — Category B — source compositor error

In the "Tabula medii motus nodi Borei," Jupiter column, the year-80 row prints "0 0 13 9," breaking the column's smooth progression (year-60 = 0 0 13 36, year-100 = 0 0 22 41, so year-80 should be ~0 0 18 22); the seconds field "13" looks like a compositor error for "18." Preserved as printed. (DRAFT)

21. batch_104 / p.414 (4 Sig.) — Category B — source compositor error

In the proportional-minutes column, argument 28 prints "31 58," breaking the column's monotone decline (arg 27 = 31 50; arg 29 = 31 5); almost certainly a compositor transposition (intended ~31 0 / 30 58). Preserved as printed. (DRAFT)

22. batch_104 / p.416 — Category B — source compositor error

The Jupiter worked example is introduced "Eodem anno 1591, Aprilis d.14, h.11" ("In the same year 1591..."), but the immediately preceding Saturn example is dated 1595, so "in the same year" contradicts the printed 1591. Either a year is a compositor error or "eodem" is loose. Both dates preserved as printed. (DRAFT)

23. batch_110 / p.~432 — Category B — source compositor error

For the ancient-epoch Mercury apogee, the source prints "sig. 6 gr. 5 mi." — only a single "6" appears before "gr.," so the degree digit is not independently inked, possibly a dropped compositor digit. The value is reconstructed from context (the stated 1850-year motion of $54^{\circ}7'$). Preserved as printed. (DRAFT)

24. batch_111 / p.444 (bissextile table) — Category B — source compositor error

In the bissextile-months table, the April (Aprilis) Mercury-eccentric entry prints "2 29 15 11" with sign-digit 2, breaking the column's sign progression (Feb = 1, Mar = 2, expected Apr = 3, paralleling the Venus-eccentric column's "3 29 15 20"). Sign "2" appears to be a compositor error for "3." The neighbouring year-4 and year-15 eccentric entries also break the steady descent of their columns, consistent with compositor transposition. All read cleanly at native resolution. Preserved as printed. (DRAFT)

25. batch_113 / p.452 (5 Sig.) — Category B — source compositor error

In the 5 Sig. "Excess in perig." value column, row G=16 prints "2 40 57," which exceeds the preceding value "2 40 34" (G=15) where the column should be declining past its maximum (~2 46 49 at G=12), breaking the monotone decline (expected ~2 33). The adjacent difference-column entries at G=12 ("0 7") and G=15

("1 46") likewise sit out of sequence. Suspected compositor errors. Preserved as printed. (DRAFT)

26. batch_117 / p.452 — *Category B — source compositor error*

On the mirror page (p.452), the Prop. 8 seconds cell at row 19 prints "44," breaking the otherwise smooth column (...58 41 / 58 54 / 59 5...); the corresponding cell on p.450 reads "58 54." A likely compositor error. Preserved as printed. (DRAFT)

27. batch_118 / pp.454–455 — *Category B — source compositor error*

In the Mercury declination table, the row G.desc.6 northern-declination orbital-anomaly column-5 cell prints "3 59," breaking the column's progression (...2 53, 2 56, [here], 3 0, 3 3...) and contradicting the mirror entry "2 59" on the facing page (p.455) — a compositor error for 2 59. Separately, the row G.desc.22 proportional column-2 cell prints "59 24," a verbatim repeat of the row-21 value where ~59 30 is expected by progression. Both preserved as printed. (DRAFT)

28. batch_119 / p.457 (Tabula Reflexionis Mercurii) — *Category B — source compositor error*

In the Mercury reflexion table, the row "desc. 30 / asc. 0" proportional-minutes column-4 cell prints "57 49," breaking the column's smooth rise toward the 60-limit (...50 16, 50 48, 51 19, then [57 49]); likely a compositor's "57" for "52." Preserved as printed. (DRAFT)

29. batch_120 / p.477 (Appendix title page) — *Category B — source compositor error*

The Appendix title block reads "ASTROMIÆ DANICÆ APPENDIX..."; the N of ASTRONOMIÆ is dropped — a compositor/engraver error in the set title. Preserved verbatim as printed. (DRAFT)

30. batch_128 / p.29 (Appendix) — *Category B — source compositor error*

The note that the comet crossed the equator on 29 September gives its place as "236 gr.," a value that does not fit the surrounding ephemeris; it is a likely compositor error (an editorial conjecture of $23\frac{2}{3}^{\circ}$ in Scorpio is flagged inline as not on the page). Preserved verbatim as printed. (DRAFT)

31. batch_040 / pp.~157–158 (worked examples) — *Category C — author/source anomaly*

The two worked examples head their columns inconsistently: Example I gives "Latitudo. | Longitudo." while Example II gives "Longitudo. | Latitudo." (order swapped). The values are correctly paired with their labels in each case; the inconsistency is in the heading order only. Preserved as printed. (DRAFT)

32. Appendix dedication (per source/CLAUDE.md) — Category C —
author/source anomaly

The Appendix dedication is dated 1621, preserved unchanged from the 1622 first edition rather than updated to the 1640 Blaeu printing. Not an error of this edition; recorded for the reader. (DRAFT)