

The textual tradition of the *Germanicus Aratea*

(This text was first written in 2011. For updated and corrected versions of this essay, with particular relevance to the *Germanicus* mss in Aberystwyth and in Boulogne-sur-Mer, see LIPPINCOTT 2019 and LIPPINCOTT 2024).

The Latin translation of the *Phaenomena* of Aratus attributed to Germanicus, adopted son of Tiberius Caesar, was probably written between 14 and 19 AD.¹ Far from being a servile translation from the Greek, it functions more as an ingenious adaptation, which manages to incorporate a number of changes to the text, including corrected astronomical data taken from Hipparchus's criticisms of Eudoxos and Aratus, new mythological details about the *personae* of the constellations and numerous small descriptive details about the dress, postures and attributes of the figures themselves.² As it is structurally based on the *Phaenomena*, the work has no stellar catalogue *per se*. This perceived lack was remedied sometime before the 4th century AD, when the first of a series of *scholia* became attached to the text.³ These *scholia*, of which more later, provide additional mythological information about each of the constellations and contain descriptions of the positions of the stars.

Manuscripts of the *Germanicus* translation illustrate a core set of 44 constellations. The entire corpus of illustrations that can be associated with the text, however, is much larger. Establishing which pictures might or should be considered as integral to the archetype is slightly difficult as none of the later manuscripts seem to preserve a complete set. Comparisons between manuscripts suggest that there may have been several maps (at least two sets of hemispheres

¹ The poem must have been written after 19 August 14 AD, the date the death of Augustus Caesar, since vv. 558-60 mention his catasterism. Also, as Le Boeuffle points out, the work is not a juvenile effort. Moreover, it is unlikely to have been written during the period of his military campaigns in Germany (11-16 AD). Germanicus died in Antioch on 10 October 19 AD. Le Boeuffle suggests that it was probably written between 16 and 17 AD, during Germanicus's sojourn in Rome. See LE BOUEFFLE 1975, pp. vii-x. Historically, there have been some doubts over the attribution of the poem to Germanicus. Firmicus Maternus credited the poem to Julius Caesar (*Matheseos Libri VIII*, ii, Prae. 2) and, in studies dating from the turn of the 19th century, a series of scholars attributed the poem to Domitian. See LE BOUEFFLE 1975, p. xi.

² If one studies the individual descriptions of the constellations, it is difficult to agree with Le Boeuffle's assertion that Germanicus ignored the corrections made by Hipparchus and that he probably never read him directly. See LE BOUEFFLE 1975, pp. xix-xx. The new mythological and iconographic details may have come from any number of sources, as this kind of material circulated more widely and freely than astronomical data.

³ At least the *scholia Basileensia* was known to Lactantius, who cites it several times in his *Divine Institutions*. As Martin has noted, Lactantius himself believed that Germanicus was the author of the *scholia*. All one can say with certainty, however, is that the *scholia* post-date Hyginus and pre-date Lactantius. See Martin 1956, pp. 40-41.

and a planisphere), as well as depictions of the five planet-gods, the four seasons, the Milky Way or 'Galaxia', images of the Sun (Sol-Apollo) in his *quadriga* and Luna in her *biga*, a zodiacal rota centred on images of Sol and Luna, and two extra pictures depicting the 'constellations' of the Pleiades and the mysterious 'Austronotus'.

The text of the *Aratea* of Germanicus with its various *scholia* remained a popular text throughout the Middle Ages and well into the Renaissance. The *editio princeps* was amongst the first *incunabula* printed in Italy, being published in Bologna in 1474.⁴ It was also published, together with the *editio princeps* of Cicero's translation of the poem, by Antonio de Strata in Venice in 1488.⁵ And it appeared as part of the great collection of astronomical writings published by the Aldine press in Venice in 1499.⁶ From that point on, editions of Germanicus's poem appeared with remarkable frequency, the most notable amongst these being the publications of the *Syntagma Arateorum* in 1600 by Hugo de Groot, or Grotius, which contained a series of engravings by Jacob de Gheyn after the illustrations that appear in the earliest manuscript version of the poem, the so-called 'Leiden *Aratea*';⁷ and, of course, the edition by Breysig, which, although having attracted rather severe criticism from philologists, still remains a tremendously valuable contribution to the literature - primarily because it was the first and only time the different *scholia* to the poem (and, admittedly, the non-*scholia*, as well) were brought together in one volume.⁸ Among the more recent studies, the editions by Gain and Le Boeuffle merit mention.⁹

The 'poem' itself falls into a number of sections. The first, and most straightforward, section is the paraphrase of the first part of Aratus's *Phaenomena* in 725 lines. This is then followed by a number of fragments, which, somewhat perversely, have been given different numbers by

⁴ *Manlii [sic] poetae clarissimi Astronomicon ad Caesarum Augustum liber primus (- quintus); Aratum Germanici ad Augustum ...*, Bologna: per Ugonem Rugierum et Dominum Bertochum, 1474.

⁵ *Avienus Fragmentum Arati Phaenomena; Fragmentum arati Phaenomena per germanicum in latinum conversi cum commento nuper in sicilia repertum...*, Venice: Antonius de Strata, 25 October 1488. For additional information, see *Cicéron*, ed. BUESCU 1966, esp. pp. 84 and 141-42. For a detailed account of this book, see *Rufi Festi Avieni Carmina*, ed. Holder 1965, pp. v-x.

⁶ In *Scriptores astronomici veteres*, Venice: Aldus Manutius, 17 October 1499. The title of the section is given as: *Arati Phaenomena Caesare Germanico interprete cum commentariis et imaginibus*.

⁷ *Hug. Grotii... Syntagma Arateorum: opus poeticae et astronomiae studiosus utilissimum ...*, Leiden 1600. For a modern study of this work, see BYVANCK 1949.

⁸ BREYSIG 1867. As Le Boeuffle recounts, Germanicus studies benefited greatly in the late 19th century from the long-running 'désaccord' between two of his editors, Alfred Breysig and Emil Baehrens. In his edition of the poem, Baehrens found fault with over 150 readings of Breysig's text. In his later *recensio* (BREYSIG 1899) Breysig changed more than 120 of his entries to parallel Baehrens's text more closely, but not without a certain degree of rancor. See LE BOEUFFLE 1975, pp. l-li.

⁹ *The Aratus ascribed to Germanicus Caesar*, ed. and English transl by D.B. Gain, London 1976 and LE BOEUFFLE 1975. Le Boeuffle provides a much fuller list of the numerous editions on pp. xlix-lv.

successive editors depending on whether or not they believed them to be authentic. The origin, authorship and pertinence of these fragments to Germanicus's own text remain somewhat unclear, but most recent studies suggest that they may have belonged to another poem that dealt with such diverse issues as astronomy, astrology and meteorology.¹⁰ The first amongst these appears only in one of the Germanicus manuscripts (London BL Arundel 268) and may have been the prologue to this poem. It runs:

*Astrorumque globos et sidera maximus Atlans – et circumpositos armaret in aequora fratres.*¹¹

The second fragment concerns the movement of the planets:

*Una via est Solis bis senis lucida signis. – festinare putes, nunc pigro sidere sumpto.*¹²

The third describe the effect of the zodiacal signs upon the weather and a few lines about the specific influences of the planets:

Grandine permixtas Aries niuibusque caducis – et rigor accedit ventis. Lentissimus ille
....¹³

The fourth fragment is clearly a continuation of the previous section and describes the meteorological influence of the planets of Jupiter, Mars, Venus and Mercury:

*Iuppiter est illo laetus magis. Hic ubi Solis – haec eadem tibi signa dabunt non irrita Pisces.*¹⁴

Finally, there is a short excerpt from Priscian:

*... quidi te divite lingua, / Graecia praecurram potuisque triangula diam?*¹⁵

¹⁰ The best attempt to reconstitute the original form of these fragments can be found in MONTARINI CALDINI 1973, pp. 137-204. See also LE BOEUFFLE 1975, pp. xxv- xxvii. Le Boeuffle suggests that these fragments represent Germanicus's attempt to versify a now-lost astronomical work in prose, perhaps picked up during his travels in Egypt.

¹¹ Named 'fragment V'. The authenticity of this fragment has been accepted by BAEHRENS, KROLL 1917, p. 462; HOUSMAN 1900, pp. 37 and 39; LE BOEUFFLE 1975, p. xxv; and GAIN 1976, pp. 51-52); but contested by BREYSIG 1876, p. xxviii; and WINTERFELD 1900, p. xviii ff. Reeve also advocates caution in accepting fragm. V. See REEVE 1980, p. 515.

¹² So-called 'fragment II' appears only in the 'Z family' of manuscripts. See pp. [redacted] below. Breysig calls this 'fragment I' and precedes it with 39 lines (*Haec via solis erit bis senis lucida signis. Nobilis hic aries aurato vellere quondam – oceani, tantum liquidum super aera lucet.*). See BREYSIG 1876, pp. 41-42.

¹³ So-called 'fragment III' also appears only in the 'Z family of manuscripts. See pp. [redacted] below. Breysig calls this 'fragment II' (BREYSIG 1876, pp. 43-44).

¹⁴ The so-called 'fragment IV' does not appear in the 'Z family', but does appear in the 'O family'. See pp. [redacted] below. Breysig calls this 'fragment III' (*Germanici Caesaris Aratea*, 1876, pp. 44-54).

¹⁵ This is usually referred to as 'fragment VI', but Breysig calls it 'fragment IV' (BREYSIG 1867, p. 54).

In the early years of the 19th century, the first proposals were made regarding a possible *stemma* for the different surviving Germanicus manuscripts.¹⁶ The manuscripts were divided into two families, which are still referred to with the initials first given to them by Baehrens: ‘Z’ and ‘O’.¹⁷ Over the past century, scholars have refined the details of the different branches of this *stemma*, but the early observations about how the different groups are defined remain largely intact.¹⁸

The ‘Z family’:

The so-called ‘Z family’ of Germanicus *Aratea* manuscripts conserves the largest portion of the text, with the losses being confined mostly to odd lines here and there. They also share the feature of omitting the so-called ‘fragment IV’.¹⁹ The illustrated manuscripts the ‘Z family’ consist of:

Leiden, Universiteitsbibliothek , Voss lat quarto 79
Lotharingia (Aachen), c. 816

Boulogne-sur-Mer, Bibliothèque municipale, Ms 188
Abby of St Bertin, probably 986-1008

Bern, Burgerbibliothek, Ms 88
Abby of St Bertin, first third of the 11th century (before 1029)

Even the most cursory glance at the illustrations in these three manuscripts reveal a common parent, but the exact relationship between the Leiden manuscript and the other two is problematic. The Leiden *Aratea* has received the lion’s share of scholarly attention from art historians and historians of the book as it can claim precedence not only by being the oldest of all the surviving illustrated constellation manuscripts, but also due to its illuminations preserving an extremely faithful stylistic and iconographic record of late antique constellation imagery.²⁰ The text that accompanies the full-page illustrations, however, is a curious mixture. Each painting is accompanied by a certain number of lines of verse from the Germanicus *Aratea*, written in brown *capitalis rustica*. At certain points in the text, the Germanicus text elides into passages taken from the 4th-century Latin translation of the *Aratea* by Rufus Festus Avienus. For example, in the text describing the Gemini on fol. 17r one finds in the upper section of the text:

¹⁶ ORELLI 1831.

¹⁷ See BAEHRENS 1879.

¹⁸ See, for example, MANITIUS 1897; pp. 305-32; BREYSIG 1867; MARTIN 1956, pp. 38-51; GAIN 1976, pp. 1-8 and, most valuable amongst the more recent studies: REEVE 1980, pp. 508-22, esp. pp. 511-18 and REEVE 1983, pp. 18-24.

¹⁹ As noted above, this is Breysig’s ‘fragment III’.

²⁰ For the extensive literature on the Leiden *Aratea*, see the catalogue entry.

AD CAPITIS SUBERUNT GEMINI PROLEMQUE TONANTIS
 A EGREGIAM ET PROPRIO POST REDDITA NUMINA CAELO
 NA[M] LACHEDEMONIIS CUM MARS CALUISSET APHIDNIS
 CASTOR ACECROPI TULIT INCREMENTIA BELLII.²¹

The opening of the line is verse 146 from the Germanicus poem and the cursive section is the end of verse 370 to verse 374 from Avienus. This sort of interweaving of the two texts occurs in three other places in the manuscript.²² On the same page, below each section of *capitalis rustica* text, the same lines from this ‘interwoven poem’ reappear - written in 13th-century black Gothic miniscule. This later text is not quite the same, however, and shows evidence of having been corrected against a superior manuscript. This superior manuscript must have contained this odd conflation of texts as both the readings from Germanicus and from Avienus have been improved. The lines cited above, for example, now read:

*Ad capiti suberunt Gemini prolemque tonantis
 A egregiam et proprio post reddita numina celo.
 Nam lachedemonijs cum mars caluisset aphidnis
 Castor acecropi tulit incrementia belli.*

Therefore, when the Leiden manuscript was produced sometime in the second quarter of the 9th century, then, it would have contained only the full-page miniatures and the *capitalis rustica* text. Four hundred years later, another hand added the improved version of the ‘interwoven poem’ to the bottom of each pertinent page.

A version of this ‘interwoven poem’ also appears in the two related manuscripts from the ‘Z family’, Boulogne 188 and Bern 88, thus tying the texts of these three manuscripts as closely together as the pictures seem to confirm. As mentioned above, the Boulogne manuscript appears to have been written in the Abby of St Bertinand has been associated with the abbacy of Odbert (986-1007), with several scholars proposing that the manuscript shows the hand of Odbert himself in the script and the illustrations.²³ The Paschal tables at the beginning of the manuscript also

²¹ See the reproduction of this page in KATZENSTEIN and SAVAGE SMITH 1988, p. 19.

²² For example, following the section cited above, the verses of Avienus continue (vv. 376-78). Then a line from Germanicus follows (v. 147), which is interrupted by an additional section of Avienus (vv. 388-90). Later, in the section on Lepus, in the vv. 341-44 of Germanicus, there is an odd mixing of lines with Avienus vv. 747-50. Finally, following the Germanicus fragm. II. 16, there are a series of disconnected lines taken from Avienus: 1741-62, 1769-70, 1773, 1870, 1877-78. For a description and discussion, see *Avienus*, ed. SOUBIRAN 1981. In one of his less inspired moments, Breysig suggested that this mixture of Germanicus with Avienus, written in uncials in a manuscript which could be dated from the 13th century, clearly showed that the Leiden manuscript was a fake and that it should be excised from the literature. See BREYSIG 1882, pp. 401-17, esp. p. 402.

²³ The attribution was first made by WILMART 1934. For a discussion of other commission by Odbert, see BOUTEMY 1950; LOWRY 1993; UGÉ 2005 and LAGRANGE 2023.

help to date its production to some time after 905.²⁴ The text of the manuscript was corrected and modified by a contemporary hand and then this corrected version served as the model for Bern 88, which is recorded as having been presented to the cathedral of St Mary's in Strasbourg by Bishop Werinhar I, probably in 1004, but certainly before 1028.²⁵ The Boulogne and Bern manuscripts do appear to be true mother/daughter manuscripts; but as the relative talents and specific interests of their of their scribes and/or illuminators could not have been not identical, so there are a number of minor, but intriguing, differences between the two manuscripts - showing the extent to which individual manuscripts remain unique productions even when one is a 'close copy' of another.²⁶

As mentioned, whereas the connection between the Boulogne and the Bern manuscripts is relatively straightforward, the precise relationship between the Leiden *Aratea* and the Boulogne manuscript remains the subject of scholarly controversy. The earliest scholars writing on the Boulogne manuscript all agreed that the textual and pictorial similarities between it and the Leiden *Aratea* proved that the former was a direct copy of the latter.²⁷ If true, it suggested that the Leiden *Aratea* must have spent some time in the Abbey of St. Bertin during the early years of the 11th century when its contents were copied into the pages of the Boulogne manuscript. Given the close connections between the Abbey and the Royal Court, such a likelihood seems highly plausible.

More recently, however, scholars have doubted this direct parentage, citing a number of lines that are missing from the Leiden manuscript, but that mysteriously appear in the Boulogne version.²⁸ For example, it has been noted that vv. 142 and 144-46 of the Germanicus poem are missing from the *capitalis rustica* text of the Leiden *Aratea*, but appear in both the Boulogne and Bern versions. As a result, they hypothesised a now-lost intermediary (λ), which served as the model for both the Leiden and Boulogne manuscripts.²⁹

²⁴ The dating for this manuscript has been based on the fact that the Easter tables cite the *praesens annus* as 905. This does not, however, mean that the manuscript is actually that early. For the bibliography on Boulogne 188, see the catalogue entry.

²⁵ For the bibliography on Bern 88, see the catalogue entry.

²⁶ For additional comments on the differences in these two manuscripts, see pp. .

²⁷ See, for example, DAHMS 1869, p. 269 and THIELE 1898, p. 82.

²⁸ It is worth noting, however, that Soubiran's note that Leiden manuscript is missing Avienus vv. 373-74, but that both verses appear in the Boulogne and Bern manuscripts is incorrect. See SOUBIRAN 1981, p. 84, noting the omission in his «l» (= Leiden). I thank Adalberto Magnavacca for bringing this error to my attention.

²⁹ For example, see the *stemma* that appear in GAIN 1976, pp. 1 and 8 and SOUBIRAN 1981, p. 86. Le Boeuffle does not provide a *stemma*, but merely states that '*L (Leiden) et G (Boulogne) doivent descendre du même ancêtre*'. See LE BOEUFFLE 1975, pp. xlii – xliii and xlvi-xlvii, with the citation from p. xlvi. Le Boeuffle (citing von WINTERFELD 1900, p. 402) also suggests that the common parent of the Leiden and Boulogne manuscripts may have been a *Saxonicus miscellané, qui aurait aussi contenu les*

As Michael Reeve has pointed out, however, a careful examination of the Leiden manuscript reveals that there are still visible traces of these «missing» lines of *capitalis rustica* in the middle of fol. 15v.³⁰ He makes the reasonable suggestion that the four verses were probably erased by the 13th-century scribe so that he could fit his version of the text more neatly onto the double-page spread of fols. 15v-16r [figs. 8a and 8b]. And, indeed, the four «missing» lines have been included in the later version of the text, near the bottom of fol. 16r.³¹

Despite Reeve's findings, there are still some who question whether the Boulogne manuscript is a true copy of the Leiden *Aratea* or if the two might be «sister manuscripts» deriving from a common parent.³² The most recent studies of the «Z family» of manuscripts, however, have tended to accept that the Boulogne manuscripts is derived directly from the Leiden *Aratea*, which would have contained only the *capitalis rustica* version of the «interwoven poem» when it

Aratea d'Avienus et De Architectura de Vitruve. See LE BOEUFFLE 1975, p. xlvi. An overview of the various opinions appears in OBBEMA 1989, esp. pp. 12-13. See also the somewhat convoluted «art-historical» arguments for why the Boulogne manuscript cannot be derived directly from the Leiden *Aratea* summarised in VERKERK 1980, esp. pp. 272-75.

³⁰ See REEVE 1980, p. 518. In n. 60, Reeve notes that Breysig first noted the missing lines (BREYSIG 1899, p. xv), though his observation was ignored by several subsequent scholars, including DE MEYIER 1973-84, II (1975), p. 187. The traces are just about visible in the 1987-89 facsimile edition.

³¹ Martin and Gain merely note that vv. 142-46 are missing in the *capitalis rustica* text, but present in the 13th-century text (MARTIN 1956, p. 40 and GAIN 1976, p. 6). The significance of the 13th-century version of the poem was completely missed by Verkerk, who skipped over the text saying 'we shall not pay any further attention to this hand ... although it could be of further interest for the history of the manuscript before the sixteenth century'. See VERKERK 1980, esp. p. 260.

³² Such as VERKERK 1980, pp. 270-75. For a curious example where three differing views appear within a single volume, see Leiden *Aratea* 1987-89. In the opening essay, Obbema concludes that: *Man kann nur feststellen, daß da Problem des Zusammenhangs der beiden Handschriften, vom Text her gesehen, nicht endgültig geklärt ist* («One can only say that the problem of the connection between the two manuscripts, viewed from the text, has not been finally resolved».) Nevertheless, he refers the reader to MÜTHERICH's analysis of the illustrations, where she states that the similarity many of the iconographic details and the attempts by the illuminator of the Boulogne manuscript to mimic the style of the Leiden miniatures – though, as she notes, not always successfully – argues in favour of a direct reliance of the former on the latter. Finally, in the preface to the edition that appears in the same volume, Bernard Bischoff simply asserts that the Boulogne manuscript is a copy of the Leiden *Aratea*, without further explanation or prevarication. Klein includes a note concerning the visible *capitalis rustica* fragments, but does not explain their significance, nor does he cite Reeve's article. See OBBEMA 1989, p. 13; MÜTHERICH 1989, p. 33 and BISCHOFF/ KLEIN 1989, pp. 96 (Bischoff) and 104 (Klein). Finally, it is worth noting that the subtlety of Reeve's phrasing appears to have misled Jeudy and Riou, who seem to imply that Reeve has argued that Boulogne is not a direct copy from the Leiden *Aratea* (see JEUDY/RIOU 1989, p. 309). They also have missed that Reeve repeats his view that the Boulogne manuscript is a direct copy of the Leiden *Aratea* in REEVE 1983, p. 20 (where he refers the reader to his previous article from 1980).

was being copied during the early 11th century.³³ And, whereas questions remain as to the source used by the anonymous scribe who added the slightly improved readings to the Leiden *Aratea* in the 13th century, the mother/daughter/granddaughter relationship that is apparent in the texts of the Leiden, Boulogne and Bern manuscripts is also evident in the illustrations of the three – with an overwhelming consonance in the form of the figures, as well as a continuity in their iconographic details, the positioning of the stars and the use of colour throughout.³⁴

Whereas the text and the illustrations of the Leiden, Boulogne and Bern manuscripts share a predominance of features, there is one final aspect of the three manuscripts that bears mentioning: namely, that the format of the text and its illustrations is markedly different. The presentation in the Leiden manuscript – arguably derived directly from its late-Classical prototype – consists of each opening containing a full-page framed illustration of an individual constellation on the left of the bi-folio and the text on the right [fig. 9].

The Boulogne manuscript compresses this pairing into a double-column format, with the framed illustrations stacked in the left column and the text contained in the right column of each page.

The Bern manuscript preserves yet another variant, with each page divided roughly into three vertical columns. The text of the poem occupies the middle column of each page and runs uninterrupted by the section breaks that are evident in the Leiden and Boulogne manuscripts. The inner column of each page contains the pictures; and, in the outer column of each page, there are short paragraphs describing the relative positions of the stars in each constellation. This text of these *marginalia* was first published by Breysig, who mistakenly believed they were *scholia* to the text, naming them the ‘*scholia Bernensia*’.³⁵ As was soon noticed, these ‘*scholia*’ were actually slightly shortened and re-ordered versions of the texts of the ps-Bedan *De signis Caeli*.³⁶ Regardless of what one might call this kind of insertion, its existence does illustrate the extent to which – even at this early date – scribes of Germanicus’s *Aratea* felt the desire to add additional information concerning the myths of the constellations and the positions of the stars to the ‘bare bones’ of the Aratean poem.

On the one hand, the differences in page layout amongst the three ‘Z-family’ versions of Germanicus *Aratea* could be seen simply as a question of taste or an indication of the varied norms of the different scriptoria practice at the time each manuscript was produced. On the

³³ See, for example, BLUME/HAFFNER/ METZGER 2012, I, 1, p. 219 (*eine äußerst treue Kopie des Leidener Germanicus-Codex*); OROFINO 2013, p. 26 and MAGNAVACCA 2024.

³⁴ It is perhaps worth mentioning that Breysig, who was not aware of the Boulogne manuscript, creates a *stemma* in which the Bern, Einseideln and Leiden manuscripts are all independently derived from an intermediary (x2). See BREYSIG 1867, p. xxvi.

³⁵ BREYSIG 1867, pp. 233-38.

³⁶ For additional information on the text, see the section on the *De signis caeli* manuscripts in *The Saxl Project*.

other hand, it could be taken as a reflection of three very distinct sets of cultural concerns that lay behind the commissioning and manufacture of each manuscript. Fundamentally, the Leiden *Aratea* is a luxury object created for the extremely sophisticated courtly setting. It is a self-consciously constructed copy of a late-Classical manuscript; and, arguably, its greatest ‘value’ lies in the role it plays as part of the renaissance (or renaissance) of Classical learning and culture at the Carolingian Imperial court of Louis the Pious. The Boulogne manuscript also provides valuable insights into how texts and images could change and develop as successive copies were made from post-Classical prototype. Its primary function at the time it was made, however, was not as a reminder of past ages and lost glories, but as a functional tool for calendar reckoning within a monastic setting. The astronomical sections of the manuscript containing the Germanicus *Aratea* and its two celestial diagrams offer a basic introduction to the science of the stars and their apparent movements. As such – arguably – they were included to provide the reader with a means towards a better understanding of the mechanics of the heavens upon which the intricacies of the monastic calendar were based. With the Bern manuscript, one sees yet another change of purpose. With the subtle changes of its format and the inclusion of a «gloss» lifted from an early medieval descriptive text on the relative positions of the stars in each constellation, it moves from being a curious example of a classical poem on astronomy that operates as an adjunct to a series of computistical texts and tables, into more inclusive didactic text intended for the general education of the community of monks for which it was created. The fact that the Bern manuscript was originally bound with a copy of Boethius’s *De consolatioe philosophia* ³⁷ further demonstrates how the perception of the «usefulness» of the *Aratea* appears to have changed from generation to generation.

The ‘O- family’:

As the second family of Germanicus manuscripts has more members and spans a longer period of time, it is proportionately more complicated. These manuscripts, known collectively as the ‘O family’ all share the characteristic of curtailing the poem, so it contains only vv. 1-583.³⁸ Also, none of them contains fragments II and III, but some do include fragment IV.³⁹ Moreover, the ‘O family’ is plagued by missing lines. If one searches for a possible reason for these *lacunae*, it soon becomes clear that, hypothetically, all of them can be related to the placement of the illustrations within the text. A closer examination of the ‘missing lines in the ‘O family’ appears on pp. [redacted] of this essay. In short, however, it seems as though two or three lines of the poem have been cut just before or after several of the pictures, especially in the second half of the manuscript.⁴⁰

³⁷ Now Bern, Burgerbibliothek, Ms 87. See STEVENS 1997, p. 434 and DEKKER 2013, pp. 233-35.

³⁸ Aberystwyth NLW 735C ends at v. 582.

³⁹ For a description of these fragments and the problems regarding their numbering, see pp. [redacted] above).

⁴⁰ See Le Boueffle, *Germanicus*, 1975, p. xxxv.

The dropping of lines in manuscripts of the ‘O family’ is a feature that runs with little alteration for more than 500 years. The earliest evidence appears in the 9th-century manuscript in Basle, but one sees *lacunae* in both branches of the family well into the third quarter of the 15th century, such as in several of the so-called ‘Sicilian’ Germanicus manuscripts. Even when the positions of some of the pictures have been changed, the *lacunae* live on. To those of the modern age, who are familiar with the full text of the poem, the fact that the scribes and readers of previous centuries continued to copy-out an incomplete poem seems curious. And, it is not until one realises that almost every *lacuna* represents a self-contained sentence or phrase and sees that it is nearly possible to read the remaining contiguous fragments with a certain degree of fluidity that the oddity of the persistent holes seems less marked.

There are two distinct branches to the ‘O family’. The first is often called ‘v’ or, sometimes, ‘O’, and there are two surviving illustrated manuscripts from this branch:

Basle, Öffentliche Bibliothek der Universität, AN. IV. 18
 Germanicus *Aratea* with *scholia Basileensia*
 Fulda, early 9th century

Aberystwyth, National Library, 735 C
 Germanicus, *Aratea* with *scholia Basileensia*
 Limoges, early 11th century

Another now-lost member of this branch (‘π’) is the parent for two other manuscripts, which do have illustrated constellation catalogues, but the pictures accompany other texts and not the Germanicus *Aratea*. Berlin PKB lat 130 (Phill. 1832) has an illustrated text of the *De ordine ac positione stellarum in signis* and Paris BN lat 5239 has an illustrated ps-Bede, *De signis coeli*.⁴¹ Whereas it is not unusual for manuscripts to contain a number of astronomical texts - with one or more being illustrated - the particular confluence of this sub-set of manuscripts helps to explain some of the iconographic anomalies evident in the constellation pictures of the Aberystwyth Germanicus manuscript.⁴²

As mentioned, the verse in all the manuscripts of the ‘v’ branch of Germanicus manuscripts is regularly broken by passages from the lengthy *scholia*, known as the *scholia Basileensia* after the

⁴¹ For descriptions of both these manuscripts, see the relevant sections.

⁴² McGurk has argued that the Germanicus text of the Aberystwyth manuscript is a hybrid, and shares a number of idiosyncratic readings with a member of the other branch of the ‘O family’, Madrid 19. See McGURK 1973, esp. p. 197 and nn. 9-10. Reeve disagrees with this interpretation and places the manuscript firmly within the ‘v’ branch of the ‘O family’. REEVE 1983, esp. p. 21, n. 20. For a discussion of the iconography of the pictures in the Aberystwyth manuscript, see pp. .

eldest manuscript in the group, Basle AN IV 18.⁴³ The *scholia* provides a Latin and Greek fragment of a commentary on the first verses of the *Phaenomena* of Aratus and a series of explanations of the catasterismic myths of each of the constellations and the positions of the stars within each configuration. There are similar explanations offered for the five planets and the Milky Way.

The second branch of the 'O family' is referred to as 'μ' or 'Oⁱⁱ'. The now-lost archetype for this branch, 'μ', seems to have appeared in Montecassino sometime around 800. Between the 12th and 14th centuries, it spawned a number of distinct copies, many of which were illustrated. One identifying trait of these manuscripts is that the text of Germanicus's poem only runs as far as verse 582. As with all the other members of the 'O family', fragments II and II are omitted. Moreover, all of the manuscripts share a particular set of '*scholia*', which, due to the perversity of fate, is known as the *scholia Stroziana*, after a relatively late version of the manuscript that was once owned by the great Florentine humanist, Coluccio Salutati, and is now housed in the Biblioteca Laurenziana in Florence as Strozzii XLVI.⁴⁴ Soon after the *scholia Stroziana* were published by Breysig in 1867,⁴⁵ Robert pointed out that they were not really *scholia* at all, but were, in fact, nothing more than a conflation between the *scholia Basileensia* and the *scholia* found in the unillustrated Germanicus section of the 9th-century manuscript, Paris BN 12957, which was then known as the '*Sangermanensia*' after the name of an earlier owner.⁴⁶ This justified observation, however, has misled a number of scholars into referring to the *scholia* that accompany the manuscripts of the 'μ' branch as the '*scholia Sangermanensia*'. Or, as is the case with Martin, to dismiss these texts altogether, since they fall outside the bounds of philological interest.⁴⁷ Be that as it may, when one is attempting to understand more about the history of this particular group of manuscripts, it is important to realize that they do not contain the *scholia Sangermanensia*, which was also published in full by Breysig, but contain a very different set of descriptions about the constellations.⁴⁸ In their very difference, they can be useful to help

⁴³ The *scholia* was first published by EYSENHARDT 1866, and formed part of the edition of the different *scholia* (and non-*scholia*) published by BREYSIG 1867, pp. 55-104. For a more recent edition, see dell'ERA 1979.

⁴⁴ This manuscript was then copied by Salutati himself, sometime around 1385. The copy, Vat lat 3110, does have illustrations, but these accompany the section containing Books III and IV of Hyginus's *De astronomia*. The Germanicus section of the manuscript is not illustrated. For additional information, see ULLMANN 1963, pp. 168, 188-89 and pl. VII, 2; de la MARE 1973, I, p. 41; REEVE pp. 511-12 and the Hyginus catalogue.

⁴⁵ BREYSIG 1867, pp. 105-220.

⁴⁶ See ROBERT 1878, pp. 220 ff.

⁴⁷ As he claims: '*... en toute cas cette série de texte ne présente pas pour nous d'intérêt philologique*'. See MARTIN 1956, p. 40. Martin also seems to think that Salutati's manuscript, Florence Laurenziana Strozzii XLVI, is the same as a late 15th-century Florentine version of the Germanicus poem, Florence Laurenziana, plut 89 sup 43. It is not. See MARTIN 1956, p. 39.

⁴⁸ See BREYSIG 1867, pp. 105-232

identify and bind together a very specific family of texts that are historically, if not philologically, extremely important. As such, the moniker of '*scholia Stroziana*' should be respected and maintained.⁴⁹

The oldest and, in many ways, most intriguing of the manuscripts of the 'μ' branch' is:

Madrid, Biblioteca Nacional, Ms 19 (16)
 Germanicus, *Aratea* with *scholia Stroziana*
 (near Montecassino ?) 12th century

Despite the vast literature on the Madrid manuscript, there are still great uncertainties regarding its provenance.⁵⁰ Attributions to the *scriptoria* of Montecassino or of Santa Maria in Ripoll in Catalonia have recently been severely questioned, leaving the scholar no current alternative but cite southern Italy or, perhaps, Sicily as a possible home.⁵¹ As also has been pointed out repeatedly by scholars, one interesting feature of the history of this manuscript is the fact that it, or a close relative, seems to have played an important role in the development of the illustrations that accompany the *Liber Introductorius* of Michael Scot, astrologer at the court of Frederick II at Palermo from around 1227 to 1237.⁵²

Limiting ourselves to the illustrated manuscripts of the 'μ' branch, the second set of manuscripts can be identified on account on an additional set of losses. At some point, the parent of this group lost an additional 67 lines from the poem (vv. 515-82) and the first 50 lines from fragment IV. This version of the text is uniquely preserved in

Vatican, Biblioteca Apostolica, Barb lat 76
 Germanicus, *Aratea* with *scholia Stroziana*

The rest of the manuscripts in this group reflect a further loss of an additional 71 lines (vv. 433-514). As with Vatican Barb lat 76, all of these are Italian and can be dated to the second half of the 15th century:

⁴⁹ The text of the *scholia Stroziana* has been republished relatively recently by dell'ERA 1979, pp. 147-256. As he notes, the *scholia Stroziana* was actually first published in the 1488 *editio princeps* and in the 1499 Aldine edition of the *Aratea* (p. 149).

⁵⁰ For a fuller discussion of the uncertainties regarding this manuscript, see the catalogue.

⁵¹ See the arguments presented in MEYVAERT 1966, pp. 349-77, esp. pp. 350-56 and REEVE 1983, p. 21.

⁵² For more about the relationship between Madrid 19 and the Scot illustrations, see the section on the Michael Scot manuscripts.

Cologne, Biblioteca Bodmeriana, Cod lat 7
 (formerly Malvern, Dyson Perrins collection, Ms 84)
 Germanicus, *Aratea* with the *scholia Stroziana*
 Naples (written by G.M. Cinico), before 1468-69

Florence, Biblioteca Laurenziana, Plut 89, sup 43
 Germanicus, *Aratea* with the *scholia Stroziana* and Hyginus, *Astronomica*
 Florence, 1470s

London, British Library, Add. Ms 15819
 Germanicus, *Aratea* with the *scholia Stroziana*
 Florence (annotated by Bartolomeo Fonzo), ca. 1465-75

London, British Library, Egerton 1050
 Germanicus, *Aratea* with the *scholia Stroziana*
 Rome (written by Michael Laurentii), ca. 1470

Madrid, Biblioteca Nacional, Ms 8282
 Germanicus, *Aratea* with the *scholia Stroziana*
 Florence, ca. 1470

Naples, Biblioteca Nazionale, Ms XIV.D 37
 Germanicus, *Aratea* with the *scholia Stroziana*
 Florence (in the hand of G.A. Vespucci?), ca. 1475

New York, Pierpont Morgan Library, Ms M. 389
 Germanicus, *Aratea* with the *scholia Stroziana*
 Naples, 1469

Vatican, Biblioteca Apostolica, Barb lat 76
 Germanicus *Aratea* with the *scholia Stroziana*
 Naples, after 1469

Vatican, Biblioteca Apostolica, Barb. lat. 77
 Germanicus, *Aratea* with the *scholia Stroziana*
 Florence, ca. 1470

Vatican, Biblioteca Apostolica, Urb. lat. 1358
 Germanicus, *Aratea* with the *scholia Stroziana* and Hyginus, *Astronomica*
 Florence, 1470s

Each of these manuscripts has been connected to an incomplete version of the Germanicus manuscript reportedly discovered in Sicily by Poggio Bracciolini sometime before January 1429.⁵³ For this reason, they have all of been grouped together under the rubric of the '*fragmentum Arati*' or, sometimes, the 'Siciliensis' Germanicus, referring to the original location of Poggio's manuscript.⁵⁴ This classification includes the slightly longer version of the text found in Vatican Barb lat 76 as it seems to have been copied from at least one and possibly both of the other Neapolitan manuscripts, and then corrected against a longer manuscript - perhaps Poggio's manuscript itself.⁵⁵

The contents of these manuscripts are nearly identical. They run as follows:⁵⁶

1. *Aratus. quidem fuit Anthinodori patris filius – repperimus autem illum et super.*
(= 'Aratus genus' section (V) from the *Revised Aratus latinus*, cf. MAASS 1898, pp. 146-50)
2. *Caelum circulis quinque distinguitur – Connexio vero piscium comunem habet stellam.* (= excerpts from the *scholia Stroziana*, cf. BREYSIG 1867, pp. 105-09)
3. *Ab love principium magno – vocali rostro corvus forat omnia lucent (...)*
(= Germanici Caesaris *Aratea*, vv. 1-430 with the *scholia Stroziana*).
4. *Etherium venit Taurus super – dabunt non irrita pisces.* (= Fragment IV (a.k.a. Breysig fragm. III), vv. 52-163; cf. BREYSIG 1867, pp. 47-54).
5. *Solem per se ipsum constat moveri – quarto namque his certissimus auctor.*
(= excerpt from *scholia Stroziana*, cf. BREYSIG 1867, pp. 193-202)
6. *A Bruma in favonium cesari nobilia – XLV die ab equinoctio dicimus fieri.*
(= excerpt from Pliny, *NH*, XVIII; cf. BREYSIG 1867, pp. 203-09)
7. *Ante omnia autem duo esse nomina – in media segete non esse noxias tempestates.* (= excerpt from Pliny, *NH*, XVIII; cf. BREYSIG 1867, pp. 210-15)

⁵³ See REEVE 1980, pp. 508-22, esp. pp. 511-17. Poggio refers to the manuscript in a letter of January 1429: 'De Frontino, et frammento Arati, quod scribis, illi apud me sunt ... Romae VI kal. Ianuarii 1429'. See Poggii, *Epistolae*, IV, 4 (ed. by T. de Tonellis), Florence 1832, I, p. 304. See also, SABBADINI 1899, pp. 116-18 and SABBADINI 1914, II, pp. 85 and 203.

⁵⁴ As Reeve points out, there is no evidence that Poggio himself never travelled farther south than Montecassino. See REEVE 1980, p. 511, citing RESTA 1965, p. 401. This information, however, should not be used to discredit his description of the earlier home of the manuscript. Although 'Latin texts seldom turn up in Sicily' (Reeve, as cited, p. 511), the aforementioned connection between Madrid 19 and the work of Michel Scot shows that there must have been an illustrated Germanicus manuscript in Sicily during the early years of the 13th century. The jump from that to Poggio's 'discovery' is not insurmountable.

⁵⁵ The relationship between Vat Barb lat 76 and the two other Neapolitan manuscripts is also made clear by the illustrations. See below.

⁵⁶ See MCGURK, *IV*, pp. xviii-xix and REEVE 1980, pp. 514-15. For differences in the individual manuscripts, see the catalogue entries.

8. *Vertices extremos circa quos celi spera – sed a navigantibus observavatur.*
(= excerpt from *scholia Stroziana*; cf. BREYSIG 1867, pp. 111- 12).
9. *Primum a sole capiemus presagia – impleat lumine. Si quis non si trova più.*
(= Pliny, *NH*, XVIII, 341-42)

Similarly, the illustrations that appear in the manuscripts are also extremely close, with only one notably deviating from the norm.⁵⁷

Despite Reeve's very close study of these 'Sicilian' manuscripts, there still are a number of questions about the exact relationships between them.⁵⁸ To a certain extent, this should not surprise us since the group of Italian humanists and booksellers commissioning these manuscripts was a very close-knit group. The manuscripts themselves are limited to three centres of production: Naples, Florence and Rome; and there is good reason to believe that the parent manuscript for all of the Florentine manuscripts was imported from Naples by the Florentine bookseller, Agnolo Manetti, during his travels to Naples in 1466-68. The happy coincidence of two recorded payments to a scribe named '*Ermanno Tedesco*' for copying an '*Arato*' manuscript, one apparently related payment to an illuminator and a third note confirming the shipment of an '*Arato in quinterni di membrana*' to Florence on 8 March 1468 certainly supports the idea that Manetti's manuscript helped to renew the interest in the Germanicus translation.⁵⁹ As the text of the manuscript was already known in Florence since the end of the previous century via Salutati's two un-illustrated versions of the text,⁶⁰ one senses that it may have been the addition of the illustrations that particularly appealed to the patrons and connoisseurs of late 15th-century Florence, for whom the desire to acquire authentic classical texts was being replaced by an heightened interest in pretty and precious objects.

Starting at the broadest level, one obvious difference is the place of manufacture. Two of the Neapolitan manuscripts - Cologne 7 and New York Morgan M389 - are mother/daughter manuscripts. This dependence of the New York copy on the Cologne one is supported by a closer examination of its illustrations.⁶¹ Although Vat Barb lat 76 appears anomalous to this group in the fact that it has managed to retain vv. 433-514, the pictures in the manuscript show that the artist working on this manuscript was influenced by both Cologne 7 and New York Morgan M 389.

⁵⁷ For a further discussion of the illustrations of these manuscripts, see below.

⁵⁸ See Reeve 1980, pp. 511-17.

⁵⁹ See HAFFNER 1997, pp. 110-111 and 113-14. The documents have been cited from BANTI 1939, pp. 382-94, esp. pp. 383 and 394.

⁶⁰ See above, pp. [redacted]. As mentioned neither of the Germanicus sections of these manuscripts (Florence, Laurenziana Strozzi 46 and Vat lat 3110) is illustrated, but there are illustrations to the Hyginus section of Vat lat 3110. These images, however, reflect a very different pictorial tradition from the ones found in the Germanicus manuscripts.

⁶¹ For a closer study of the pictures in these manuscripts, see below.

The impression gleaned from the pictures, then, support Reeve's proposals that the Cologne and New York manuscripts are very closely related (as he notes, de la Mare identified that both were written by the hand of G.M. Cinico in Naples) and that Vat Barb lat 76 is a hybrid, which melds together readings from a now-lost manuscript (Poggio's 'Siciliensis') and something resembling the Cologne and New York manuscripts.⁶²

Pushing further, Haffner has suggested that the Cologne manuscript may have been made for Giovanni Brancati, the librarian of King Ferrante of Naples, sometime before 1469.⁶³ The New York manuscript was certainly commissioned by Antonio Petrucci, secretary and prime minister to King Ferrante of Naples between 1458 and 1486 and a close friend of Brancati's.⁶⁴ Haffner argues that it was copied directly from the Cologne manuscript in 1469. As for the Vatican manuscript, Vat Barb lat 76, Haffner posits that it predates the other two, saying that it was a royal commission, dating to sometime around 1467. She bases her argument on the stylistic closeness between the miniatures in Vat Barb lat 76 and other manuscripts executed for the King during the period.⁶⁵ Whereas the earlier part of her argument concerning the Cologne and New York manuscripts is compelling, the early dating of Vat Barb lat 76 cannot be sustained either textually or iconographically. Both the text and the pictures betray a manuscript that has benefited from more than one source. At best, Vat Barb lat 76 should not predate 1469. A more likely scenario is that it post-dates the other two Neapolitan manuscripts, but not by much.

Reeve also suggested that the Roman manuscript, London BL Egerton 1050 was related to this group of Neapolitan manuscripts.⁶⁶ In this case, unfortunately, the illustrations are not very useful to confirm or deny this hypothesis, since most of the pictures in the Roman manuscript appear to be *sui generis* creations of its artist. In almost every instance, they diverge from the norm. There is one teasing detail, however, in that only the Cologne, NY Morgan M 389 and

⁶² See REEVE 1980, pp. 511-13. Reeve refers to the Cologne manuscript as Dyson Perrins 84, after its former home in the Dyson Perrins Collection.

⁶³ HAFFNER 1997 pp. 111-12. She bases her attribution on the stemma of three 'branches' on fol. 1r (see fig. 95), though admits that there is not a positive identification between the Brancati family and this device. At some point, the manuscripts were collated against another Germanicus *Aratea*, similar to London BL Arundel 268, in hand that closely resembles those of Panormita and Pontano. See REEVE 1980, p. 512. Panormita died in January 1471 and Pontano in 1503, thus providing clues as to a *terminus ante quem* for the additional notes, but one takes slight exception to Haffner's assertion that this proves that the Cologne manuscripts was in Naples after 1469. It would seem that the pictorial evidence of that dated manuscript, NY Morgan M 389, provides much firmer support for this claim.

⁶⁴ See HARRSEN and BOYCE 1953, p. 50, no. 80, who note that the colophon names the owner as 'Antonello Petruciano'. They also cite that the manuscript was owned by Francesco Catalano in Naples in 1469. See also, HAFFNER 1997, pp. 109-112.

⁶⁵ See HAFFNER 1997, p. 112.

⁶⁶ REEVE 1980, p. 511-13. The manuscript was copied in Rome around 1470 by Michael Laurentii, probably for Fabio Mazzatosti.

London BL Egerton 1050 manuscripts depict Aquarius and Capricorn on different pages; all the others present these two constellations as part of the same composition. In this detail, perhaps, one has additional evidence that the parent of London BL Egerton 1050 came from the Neapolitan side of the family, rather than from the Florentine branch.

All the surviving Florentine versions of the illustrated Germanicus *Aratea*, seem to post-date 1468. Of these, two can be separated slightly from the rest: London BL Add 15819 and Naples XIV D 37. Both bear the opening description of being ‘... *fragmentum cum comento noviter repertum in Sicilia*’.⁶⁷ All in all, the illustrations in these manuscripts are not tremendously close, stylistically or iconographically, but they do each preserve two idiosyncratic pictorial details that support the thesis that these two manuscripts have some deeper connection to each other than to the rest. Also, a number of the pictorial details found within their planispheric maps are very close.⁶⁸ As mentioned, both of these Florentine manuscripts date to sometime in the early 1470s. London BL Add 15819 was part of the library of the Medicean banker, Francesco Sassetti, having been annotated by his librarian, Bartolomeo Fonzio.⁶⁹ The scribe of Naples XIV D 37 has been identified as the Florentine, Giorgio Antonio Vespucci.⁷⁰ As Reeve notes, textual corrections made by the hand of Bartolomeo Fonzio in the London manuscript, reappear in the Naples one.⁷¹ The London manuscript, then, must have been amongst the models for the Naples one, though there are a sufficient number of differences between the illustrations found in each to argue against any suggestion that the London manuscript was the sole pictorial source.

Despite the recent attempts by art historians to connect these two manuscripts more closely with another one of these Florentine versions of the *Aratea*, the attribution of either the text or the illustrations of Vat Urb lat 1358 to Bartolomeo Fonzio cannot be sustained.⁷² In fact, as Reeve has pointed out, it represents another branch of the ‘*Siciliensis*’ family.⁷³ The manuscript itself dates to around 1470 and may have been commissioned by, but was certainly later sold to Duke

⁶⁷ London BL Add 15819, fol. 1r and Naples XIV D 37, fol. 1r. As Reeve notes, this testament to Poggio’s ‘Sicilian discovery’ occurs only rarely amongst the manuscripts described by scholars somewhat loosely as ‘*Siciliensis*’. For example, in the group discussed here, the phrase appears only in the two listed above and in Madrid 8282 (fol. _____). Vat. Urb. Lat 1358 has a variant: ‘Arati Sicionis in Sicilia noviter repertus...’ (fol. 2r). But the origins of Vat Barb lat 77’s incipit (‘Arati cum comento’, fol. 1r) or that in London BL Egerton 1050 (‘Germ. Caes. Aratus Romanus cum expositione’, fol. 1r) are less clear.

⁶⁸ For a detailed discussion of the similarities in the planispheres, see the section on planispheres.

⁶⁹ See de la MARE 1976, pp. 160-201 (and on London, BL Add 15819, see esp. p. 185, no. 65). She dates the manuscripts tentatively to ‘c. 1465-75?’.

⁷⁰ REEVE 1980, p. 512, n. 21. For more on Vespucci, see the section by de la MARE 1985, I, p. 447 and 498 and de la MARE 1973, I, pp. 111 and pls. XXIII-IV.

⁷¹ REEVE 1980, p. 512, n. 21.

⁷² For more information on this attribution, see pp. _____.

⁷³ REEVE 1980, p. 512. Haffner connects this to Fonzio, but bases her information on Garzelli, which is probably wrong.

Federico da Montefeltro of Urbino (1422-82), as it bears his coat of arms on fol. 2r.⁷⁴ Reeve has also suggested that the Medicean manuscript, Florence Laur 89 sup 43, is a ‘twin’ to Vat Urb lat 1358, citing that they also both seem to be written by the same hand.⁷⁵ From an art historical point of view this is slightly problematic as the pictures betray numerous, major differences. The only way to square this circle is to suggest that both manuscripts were written by the same scribe after a particular model and then were ‘farmed out’ to different artists, who either relied on another manuscript or employed their imagination when it came to filling in the pictures. As there are no works attributed to Aratus or Germanicus in the inventories of Piero de’Medici’s library (1456 and 1464/65), the Laurenziana most likely post-dates 1465.⁷⁶

It difficult to corral the two remaining Florentine manuscripts, Madrid 8282 and Vat Barb lat 77, into any of these existing groups, save the fact that they and the ‘twins’, Vat Urb lat 1368 and Florence Laur 89 sup 43, all share a comment at the end of the second Pliny fragment (*‘Primum a sole capiemus...’*), noting the fact that the text of the poem ends incompletely with *‘si quis...’*. Intriguingly, one of these has been entered in Latin, while the other three are in Italian.⁷⁷

In some ways, the contrast between the kinds of problems raised by the earlier illustrated Germanicus manuscripts and those surrounding the later ones could not be more different. Much of this has to do with the fact that our understanding of medieval *scriptoria* and their manuscripts relies on such fragmentary evidence. There are only four illustrated versions of the Germanican *Aratea* predating the 15th century; and the kinds of leaps one has to make are necessarily more intuitive and hypothetical. At the same time, however, the questions one asks of these manuscripts tend to be much larger in scope: where do the pictures come from? How are the manuscripts put together? How is information transmitted from centre to centre? And to what extent does what has managed to survive provide a true indication of what might have once existed? From the late 1460s onwards, there is an explosion of interest and productivity, which has left one scholar complaining of *‘la quantité pour ainsi dire industrielle’*.⁷⁸ At least ten manuscripts have survived from a period of fewer than 20 years. In several instances, one can name the scribes and identify the owners. The high level of uniformity within the manuscripts allows one to focus on the *minutiae*; but, to a certain extent, the answer to a number of

⁷⁴ On folio 2r. See SAXL, *I*, p. 103.

⁷⁵ See REEVE 1980, p. 512, n. 21.

⁷⁶ See HAFFNER 1997 p. 113, citing AMES-LEWIS 1984. Haffner also notes (p. 113) that the miniatures in the Laurentian manuscript are stylistically closer to those produced under the patronage of Lorenzo and Giuliano de’ Medici, citing the exhibition catalogue, *All’ ombra del lauro* 1992, esp. pp. 71, 150, 154 and 158.

⁷⁷ Florence Laur 89 sup 43 (fol. 70r: *‘non so trova più’*), Madrid 8282 (fol. 61v: *‘non sene trova più’*), Vat Barb lat 77 (fol. 59v: *‘non so trova più’*) and Vat Urb lat 1358 (fol. 54v: *‘non plus invenitur’*). Reeve characterizes this feature as being ‘the most tenuous evidence’ for grouping these four manuscripts together. See REEVE 1980, p. 512, n. 21.

⁷⁸ BUESCU 1966, p. 78.

fundamental questions still remain somewhat illusive: where *do* the pictures come from and how *has* this information been transmitted from one centre to another? The main change one can see with this large corpus of 15th-century manuscripts is that the material that has survived probably does reflect a fairly reliable image of what once existed.

The pictorial tradition of the illustrated Germanicus manuscripts

Any attempt to establish the definitive corpus of illustrations associated with the Germanicus translation of the *Phaenomena* is hampered by two factors. The first is that most of the earliest manuscripts are incomplete. This has meant that scholars have had to rely on later witnesses to reconstruct what might have been included in the earlier examples. This seemingly easy task has been complicated by the fact that these later witnesses are often themselves part of larger compilations, which regularly bear traces of having been ‘derived’ rather than ‘descended’ from an original prototype. The second challenge is that each of the two major families of Germanicus manuscripts - the ‘Z family’ and the ‘O family’ - has a noticeably different pictorial tradition attached to it. Deciding which set of pictures (if either) can claim precedence is fraught with complications and equivocations.

The three illustrated manuscripts of the ‘Z family’ share a common pictorial tradition. Although art historians have repeatedly cited the clear evidence of a stylistic debt, at least, to a classical prototype in these manuscripts,⁷⁹ the issue of the iconographic heritage of the pictures has not really been addressed since the groundbreaking work by Georg Thiele in the 1890s.⁸⁰ As each of the members of the ‘Z family’ seems to have an incomplete set of illustrations, the temptation is to form a composite from what has survived across the three manuscripts in order to get a clearer picture about what the prototype of the ‘Z family’ might have contained. A comparison of the three, however, raises certain questions regarding the advisability of following this urge:

	<u>Leiden</u>	<u>Boulogne</u>	<u>Bern</u>
[a] Planisphere	-	20r	(see below)
[b] Zeus on seated on his eagle	-	20v	1v
1. Draco inter arctos	3v	20v	1v
2. Hercules	6v	21r	2r
3. Corona Borealis	8v	21r	2r
4. Ophiuchus with Scorpio	10v	21v	2v
5. Bootes	12v	21v	2v

⁷⁹ The generally accepted view is that the illuminations in the oldest of these manuscripts, Leiden Voss lat 4^o 79, is a Carolingian copy of a 4th-century manuscript whose illustrations were derived ultimately from a Hellenistic model. A convenient overview of the different opinions concerning the antiquity of the model for the Leiden *Aratea* can be found in VERKERK1980. For more recent literature, see *Aratea. Kommentar zum Aratus* 1989.

⁸⁰ Thiele 1898, esp. pp. 77-142.

6.	Virgo	-	22r	3r
7.	Gemini	16v	22r	3r
8.	Cancer	18v	22v	3v
9.	Leo	20v	22v	3v
10.	Auriga	22v	23r	-
11.	Taurus	24v	23r	-
12.	Cepheus	26v	23v	-
13.	Cassiopeia	28v	23v	-
14.	Andromeda	30v	24r	-
15.	Pegasus	32v	24r	-
16.	Aries	34v	24v	-
17.	Triangulum	36v	24v	-
18.	Pisces	38v	25r	4r
19.	Perseus	40v	25r	4r
[c]	Pleiades	42v	25v	4v
20.	Lyra	44v	25v	4v
21.	Cygnus	46v	26r	5r
22.	Aquarius	48v	26r	5r
23.	Capricorn	50v	26v	5v
24.	Sagittarius	52v	26v	5v
25.	Aquila with Sagitta	54v	27r	6r
26.	Delphinus	56v	27r	6r
27.	Orion with Lepus	58v	27v	6v
28.	Canis Maior	60v	27v	6v
29.	Lepus	62v	-	-
30.	Navis	64v	28r	7r
31.	Cetus	66v	28r	7r
32.	Eridanus	68v	28v	7v
33.	Piscis	70v	28v	7v
34.	Ara	72v	29r	-
35.	Centaurus with CrA	-	29r	-

		<u>Leiden</u>	<u>Boulogne</u>	<u>Bern</u>
36.	Hydra, Crater, Corvus	76v	29v	-
37.	Canis Minor	78v	29v	-
[d]	Five Planets	80v	29v	-
[e]	Four Seasons	82v	-	-
[f]	Planetarium	93v	30r	-
[g]	Sol	-	-	10v
[h]	Luna	-	-	10v
[a]	Planisphere	-	(see above)	11v

First, some of the missing images (indicated by a ‘-’) are clearly the result of the loss of a folio or quire. This would be the case for the missing image of Virgo in the Leiden *Aratea* and for the large gap in the middle and the end of the Bern manuscript.⁸¹ The missing Lepus in the Boulogne and Bern manuscripts, however, is not the result of loss. Whereas the Leiden manuscript devotes a full folio to the illustration of each constellation grouping, the two later manuscripts are constructed in a different fashion. Each has a two-column format, with the text occupying one column and the illustrations, stacked vertically, occupying the other.⁸² In both manuscripts, the pairing of Orion and Canis Maior on the verso of a folio is immediately followed by Navis and Cetus on the subsequent recto. The scribe who compiled the model on which the Boulogne and Bern manuscripts were based, was either missing the second depiction of Lepus or believed that, since Lepus appears as part of the illustration of Orion, a second depiction was unnecessary.

As early as 1867, philologists recognized that the Leiden *Aratea* could not be the direct parent of the Boulogne and Bern manuscripts as the two later manuscripts contain sections of text that do not appear in the earlier version.⁸³ Art historians have been slower to accept this judgement as the pictures in each of the three manuscripts bear such an uncanny resemblance to each other that it is difficult to think of any other relationship beyond direct, first-hand inheritance. As the Leiden *Aratea* has evolved into such a landmark monument within the literature, the desire to connect it more intimately with the later Boulogne and Bern manuscripts has been hard to overcome. Nevertheless, the evidence of the deleted Lepus from the set of pictures in the Boulogne and Bern manuscripts proves not only that they have derived from a separate source,

⁸¹ Between Auriga and Triangulum in the middle section of the manuscript and between Ara and Canis Minor, at least, at the end.

⁸² The Boulogne manuscript has its pictures in the outer margin and the Bern one has them in the inner margin. The Bern manuscript, of course, also has the addition of the ‘*scholia*’, which appears in the outer margin.

⁸³ For additional information, see pp. .

but that their parent manuscript may have contained a slightly different programme of pictures as well. This possibility becomes a matter for concern when trying to address the rest of the missing pictures. Most of these losses have been sustained from the beginnings and ends of the Germanicus text - amongst those outer folii, which tend to suffer the highest levels of loss and damage over the years. The lack of a depiction of Jupiter from the beginning of the Leiden *Aratea*, or the fact that there is no image of Sol or Luna at its end could easily lead one to think that these images must have once existed because they can be found in the Boulogne and Bern manuscripts. Suggestions that the Leiden *Aratea* originally contained a depiction of Jupiter are slightly undermined by the fact that the opening lines of the poem (*Ab love principium magno deduxit Aratus...*) have survived.⁸⁴ In both the Boulogne and Bern manuscripts, these are the verses that are flanked by the picture of Jupiter.⁸⁵ If the picture was included in the Leiden cycle of pictures (presumably as the first verso within the manuscript), what was the text that accompanied it? Might the image have flanked a title page with something like the 'CLAUDII CAESARIS ARATI PHOENOMENA' that appears as the opening lines on fol. 1r of the Bern manuscript? Or is possible that the Leiden manuscript missing a much larger section at the beginning - perhaps an additional quire - which contained a version of the *Aratus genus* from the *Revised Aratus latinus* as Madrid 19, a member of the 'O-family' of manuscripts, does. If so, it raises the question of whether the Leiden *Aratea* not only contained a picture of Jupiter riding his eagle, but also had a frontispiece of Aratus and his muse - as Madrid 19 does.⁸⁶ But none of the other members of the 'O family' contain an illustration of Aratus and Urania, even though at least one of them, Basle AN IV 33, has whole sections of the *Revised Aratus latinus* preceding the Germanicus sections of the manuscripts.⁸⁷

This seemingly simple question of whether or not the Leiden *Aratea* contained an image of Jupiter and his eagle points to one of the main areas of confusion when it comes to addressing the issue a 'Germanican corpus of illustrations'. In an attempt to reconstruct what might have existed in some now-lost 'ur-manuscript', scholars (and art historians in particular) are often led towards suppositions that come perilously close to contradicting the *prima facie* evidence contained within the manuscripts themselves. If the Leiden *Aratea* did have an image of Zeus or, even, a picture of Aratus and his muse, then it must have been a very different manuscript from what now exists. One can only travel so far down the path of conjecture before suggestions and suppositions become divorced from reality.

⁸⁴ Leiden, fol. 2r. See the transcription of the text edited by BISCHOFF and translated into German by KLEIN in *Aratea. Kommentar zum Aratus* 1989, pp. 89-157, esp. p. 94.

⁸⁵ In Boulogne 188, the incipit is on fol. 20r and the image of Jupiter begins the column of illustrations on fol. 20v. In Bern 88, the incipit is on fol. 1r and the picture begins the column on fol. 1v.

⁸⁶ In Madrid 19, the *Aratus genus* appears on ff. 55r-55v, with the Germanicus *Aratea* beginning with verse 18 on fol. 55v. Both of the images of Aratus and his muse, Urania, and Jupiter and his eagle appear on fol. 55r.

⁸⁷ For example, in Basle AN IV, the Germanicus section is preceded by numerous extracts from the *Revised Aratus latinus*.

In the other major case of ‘missing’ images in the Leiden *Aratea*, similar issues arise. Near the end of both the Boulogne and Bern manuscripts, a set of somewhat anomalous verses from the *Prognosticorum* of Avienus have been inserted into fragment II of the text of the *Aratea*.⁸⁸ This section is illustrated with an image of Sol-Apollo in his *quadriga* and Luna in her oxen-drawn *biga*.⁸⁹ The contents of the verses in fragment II concern the path of the Sun and the Moon through the twelve signs of the zodiac; and the Avienus verses are mainly meteorological, describing the effects of the weather on different birds, as well as portents of storms and drought. In terms of content, then, it would seem that the pictures of Sol-Apollo and Luna accompany the verses from fragment II. In the Leiden *Aratea*, however, the same odd jumble of verses appear, but the images of Sol-Apollo and Luna are not included.⁹⁰ Most art historians have argued that these two pictures must have once existed and have either been cut out⁹¹ or lost from what was once a much larger quire at the end of the manuscript.⁹²

As these two manuscripts derive from a different parent, it is quite possible that the series of images in each was exclusive to that parent. It seems probable, but by no means certain, for example, that the parent of the Boulogne and Bern manuscripts did not contain a depiction of the Four Seasons. The image that appears in the Leiden *Aratea* is placed directly after the section on the Five Planets, following the information contained in the flanking verses.⁹³ In the Boulogne manuscript, the text continues in the same manner as the Leiden *Aratea*, but the illustrations end with the images of the Five Planets, a planetary diagram and the depiction of

⁸⁸ For additional information about the insertion of these lines into the poem and fragments of the *Aratea*, see the catalogue entries for Boulogne and Bern. See also the apparatus at the bottom of the pages in BREYSIG 1867, p. 42 and GAIN 1976, p. 45. For the actual verses, see *Rufi Festi Avieni Carmina* (ed. HOLDER) 1965, pp. 77-82 and *Avienus* (ed. SOUBIRAN) 1981, pp. 167-73.

⁸⁹ In Boulogne 188, both images appear on fol. 32v and in Bern 88, both are on fol. 10v. For additional information about the insertion of these lines into the poem and fragments of the *Aratea*, see the apparatus at the bottom of the pages in BREYSIG 1867, p. 42 and Gain 1976, p. 45. For the actual verses, see *Rufi Festi Avieni Carmin* (ed. HOLDER) 1965, pp. 77-82.

⁹⁰ Leiden, Voss lat 4^o 79, ff. 95r- 96v. See BISCHOFF and KLEIN in *Aratea. Kommentar zum Aratus* 1989, pp. 154-57.

⁹¹ THIELE 1898, p. 79; BYVANCK 1931, p. 166; KÖHLER and MÜTTERLICH 1971, p. 109 and de MEYIER 1975, p. 186.

⁹² VERKERK 1980, pp. 253-58. The description and table are somewhat confusing due to his use of nomenclature derived from Breysig’s edition of the *Aratea*. Verkerk’s so-called ‘*Prognostica* verses of Germanicus Book 1’ (p. 253) seems refer to Breysig’s ‘*Prognosticorum reliquiae* I’ (pp. 41-44). Most other authors refer to the second part of this text (vv. 40-55) as fragment II, vv 1-16. The opening 39 verses of Breysig’s ‘*Prognosticorum reliquiae* I’, which Verkerk suggests filled the extra, now-missing folios.

⁹³ In the Leiden *Aratea*, the planets are depicted on fol. 80v and described in vv. 437-445 on the facing folio (fol. 81r). The picture of the Four Seasons appears immediately after this (fol. 82v), facing the verse description of the solsticial and equinoctial colures (vv. 446-455) on folio 83r.

Sol and Luna in their chariots. The fact that an image of the Four Seasons does not appear is not prompted by a change in the text or the loss of any key passages. Instead, it would seem that the change of format between the full-page miniatures in the Leiden *Aratea* and the bi-columnar arrangement of the Boulogne and Bern manuscripts provides a set of visual clues that support the idea that the parent of the two later manuscripts never contained an image of the Four Seasons. The illustrations in the Boulogne and Bern manuscripts are arranged with two constellation groupings per page, or four per opening. The folio on which the Five Planets appear is the third in a set, along with an image of Hydra/Crater/Corvus and one of Canis Minor. Had there been a depiction of the Four Seasons, the natural inclination would have been to pair the two final images together on a page, thus following the format that has been established in the rest of the manuscript. This unprecedented final bunching of pictures suggests that the scribe-illuminator who constructed the model did not want to have the image of the Five Planets stranded on its own because it raised the awkward issues of how to resolve the rest of the picture column; so he pushed it back to the previous folio, where it neatly completed the column of images and dropped the image of the Four Seasons.⁹⁴

The humanist manuscripts of the Germanicus *Aratea*

There are ten illustrated versions of the Germanicus *Aratea* that can be connected with the Italian humanist circles of 15th-century Italy. These are:

1. Cologne, Biblioteca Bodmeriana, Cod lat 7
 (formerly Malvern, Dyson Perrins collection, Ms 84)
2. Florence, Biblioteca Laurenziana, Plut 89, sup 43
3. London, BL, Add. Ms 15819
4. London, BL, Egerton 1050
5. Madrid, Biblioteca Nacional, Ms 8282
6. Naples, Biblioteca Nazionale, Ms XIV.D 37
7. New York, Pierpont Morgan Library, Ms M. 389
8. Vatican, Biblioteca Apostolica, Barb. lat. 76
9. Vatican, Biblioteca Apostolica, Barb. lat. 77
10. Vatican, Biblioteca Apostolica, Urb. lat. 1358

⁹⁴ One assumes that the Bern manuscript originally followed the format of the Boulogne one and, therefore, did not have a depiction of the Four Seasons either. But, since the poem ends incompletely with v. 386 in the Bern manuscript, it is impossible to draw firm conclusions.

Historically, the pre-Renaissance Germanicus manuscripts have received the lion's share of attention from philologists, art historians and historians of the book, with the group of illustrated 15th-century manuscripts only recently having benefited from close philological, paleographical and art historical scrutiny. The break-through occurred in Reeve's 1980 article, in which he tried to disentangle this closely linked set of manuscripts, each of which, at one time or another, had been connected to the Germanicus manuscript reportedly discovered in Sicily by Poggio Bracciolini sometime before January 1429.⁹⁵ The so-called '*fragmentum Arati*' was recognised as a descendant of the so-called 'O-family' of Germanicus manuscripts, as it contained only verses 1-430 of the poem and part of fragment IV (ll. 52-163). Also, the text of the poem was interspersed with sections of prose which Breysig published in 1867 as the '*scholia Stroziana*' after his readings taken from the manuscript in the Biblioteca Laurenziana, Strozianus XLVI,⁹⁶

As mentioned in the preceding chapter on the textual tradition of the Germanican *Aratea*, the contents of these manuscripts is nearly identical.⁹⁷ Similarly, the illustrations that appear in the manuscripts are also extremely close, with only one notably deviating from the norm.⁹⁸ Excluding title-page decoration, each of the manuscripts begins its set of illustrations with a full-page planisphere, which is set near the second text on the position of the five celestial circles (*Caelum circulis quinque distinguitur Connexio vero piscium comunem habet stellam.*)⁹⁹ Next, there is an image of Jove/Jupiter seated on the back of an eagle; then the illustrations of 39 constellations (counting *draco inter arctos* as three constellations and including the picture of the Pleiades in the total). And the illustrations continue with a picture of Sol/Apollo in his horse-drawn *quadriga*, Luna in her oxen-drawn *biga* and conclude with the problematic 'constellation' of Austronotus.¹⁰⁰

⁹⁵ See REEVE 1980, pp. 508-22, esp. pp. 511-17. See above for additional information about Poggio's 'Sicilian' discovery.

⁹⁶ For a discussion of these 'scholia', see pp. ____ above. *** Martin, *Histoire*, p. 40 seems to say that Strozzi 46 is also Florence Laur 89 sup 43 (46?) . But everyone else has these as two different mss from two different stemma. [CHECK].

⁹⁷ See MCGURK, *IV*, pp. xviii-xix and REEVE 1980, pp. 514-15.

⁹⁸ The Roman manuscript, London BL Egerton 1050, does not include the planisphere and the style in which the individual constellations are illustrated are much more pictorially inventive than one sees in the other 15th-century manuscripts. As a result, however, they also have much less value as astronomical illustrations. It is worth noting that the Egerton manuscript is also the only one of the group that does not include stars in its constellation pictures.

⁹⁹ For descriptions of the planispheres, see the section on planispheres. Note also that the rogue manuscript within the group, London BL Egerton 1050, does not have a planisphere.

¹⁰⁰ On the appearance and possible significance of Austronotus, see section [____]. Vat Urb lat 1358 deviates slightly from this pattern in that it has two images of a female figure in a horse-drawn *quadriga* (one on fol. 37r and the second on fol. 40r), who, for convenience's sake, one might consider to be 'Sol/Apollo'.

Given that the challenge of suggesting credible *stemmata* that might clarify exactly how these manuscripts are related to one another falls outside the immediate focus of this essay (as well as being *well* outside the areas of competence or comfort of its author), it may be worth pausing to consider whether there are patterns within the illustrations that might be cited either to support or temper some of the suggestions made by others.

As noted, the illustrations of the constellations are remarkably consistent across at least nine of the ten manuscripts, suggesting that the same kind of philological attention that was paid to the text during the copying process was applied during their illumination, as well. Nevertheless there are about a dozen or so divergences or pictorial ‘tics’ that allow one to discern faint traces of certain groupings.

For example, the Cologne and NY Morgan M 389 manuscripts maintain an iconographic closeness that distinguishes them as a separate group. In both manuscripts:

- BOOTES wears a tunic under his ‘toga’.
- The human torso of SAGITTARIUS wears a shirt.
- SAGITTA is missing beneath the feet of Sagittarius.
- AQUARIUS and CAPRICORN are illustrated on different pages (this feature also appears in London BL Egerton 1050), whereas in all the other manuscripts, the figures are depicted together in one scene. Also, Aquarius bares his right arm in the two manuscripts and not in the others.
- CENTAURUS carries a wooden keg on a strap from his right wrist (this also appears in London BL Egerton 1050).

Interestingly, there are also quite a few features that not only appear in both these manuscripts, but also in Vat Barb lat 76, suggesting that even though the artist of this manuscript might have been slightly ‘experimental’ in his rendering of the details of the planisphere, he was certainly conscientious about maintaining the pictorial *formulae* of the constellations figures within the text. All three manuscripts - Cologne, NY Morgan M389 and Vat Barb lat 76 - share the following details:

- VIRGO wears a heavy, ‘medieval’ garment that has a thick band at the waist and the hem of her shirt with another vertical band connecting the two.
- The body of TAURUS ends with two, tyre-like bands.
- The short cloak of CEPHEUS billows out to the side.
- The edge of CASSIOPEIA’S cloak hangs over her left arm.
- ANDROMEDA is dressed in a heavy, ‘medieval’ gown.

- The young girls representing the PLEIADES have heavy, decorative collars to their robes.
- AQUARIUS is depicted as an older man.
- CAPRICORN has slightly bowed horns.
- The representation of ORION is distinctive: as a bearded man, dressed in a short tunic, facing the viewer and walking towards the right, while looking back over his right shoulder towards the left. His whole right side, including his extended right hand and arm, is covered with a cape. His right hand holds a sword vertically in front of him.
- ARGO has an unusual structure supporting two of its large oars on the ship's stern.

Moreover, Vat Barb lat 76 shares the representation of a female Auriga only with NY Morgan M 389; and shares the feature of Aries's very long, thin tail and a nearly identical depiction of Piscis Austrinus with the Cologne manuscript. The evidence supplied by the pictures suggest that these three Neapolitan manuscripts either all came out of the same workshop or, certainly, the illuminators of the later manuscript, putatively Vat Barb lat 76, had access to both manuscripts when he was introducing the pictures into the text. The impression gleaned from the pictures, then, would tend to support Reeve's proposals. Namely, that the Cologne and New York manuscripts are very closely related (as he notes, de la Mare identified that both were written by the hand of G.M. Cinico in Naples) and that Vat Barb lat 76 is a hybrid, which melds together readings from the now-lost 'Siciliensis' manuscript (σ) and something resembling the Cologne and New York manuscripts.¹⁰¹

Pushing further, Haffner has suggested that the Cologne manuscript may have been made for Giovanni Brancati, the librarian of King Ferrante of Naples, sometime before 1469.¹⁰² The New York manuscript was certainly commissioned by Antonio Petrucci, secretary and prime minister to King Ferrante of Naples between 1458 and 1486 and a close friend of Brancati's.¹⁰³ Haffner argues that it was copied directly from the Cologne manuscript in 1469. As for the Vatican manuscript, Vat Barb lat 76, Haffner posits that it predates the other two, saying that it was a royal

¹⁰¹ See REEVE 1980, pp. 511-13. Reeve refers to the Cologne manuscript as Dyson Perrins 84, after its former home in the Dyson Perrins Collection.

¹⁰² HAFFNER 1997, pp. 111-12. She bases her attribution on the stemma of three 'branches' on fol. 1r (see fig. 95), though admits that there is not a positive identification between the Brancati family and this device. At some point, the manuscripts received collated against another Germanicus *Aratea*, similar to London BL Arundel 268, in hand that closely resembles those of Panormita and Pontano. See REEVE 1980, p. 512. Panormita died in January 1471 and Pontano in 1503, thus provides clues as to a *terminus ante quem* for the additional notes, but one takes slight exception to Haffner's assertion that this proves that the Cologne manuscripts was in Naples after 1469. It would seem that the pictorial evidence of that dated manuscript, NY Morgan M 389, provides much firmer support for this claim.

¹⁰³ See HARRSEN and BOYCE 1953, p. 50, no. 80, note that the colophon names the owner as 'Antonello Petruciano'. They also cite that the manuscript was owned by Francesco Catalano in Naples in 1469. See also, HAFFNER 1997, pp. 109-112.

commission, dating to sometime around 1467. She bases her argument on the stylistic closeness between the miniatures in Vat Barb lat 76 and other manuscripts executed for the King during the period.¹⁰⁴ Whereas the earlier part of her argument concerning the Cologne and New York manuscripts is compelling, the early dating of Vat Barb lat 76 cannot be sustained either textually or iconographically. Both the text and the pictures betray a manuscript that has benefited from more than one source. At best, Vat Barb lat 76 should not predate 1469. A more likely scenario is that it post-dates the other two Neapolitan manuscripts, but not by much.

Reeve also suggested that the Roman manuscript, London BL Egerton 1050 was related to this group of Neapolitan manuscripts.¹⁰⁵ Unfortunately, most of the illustrations in the Roman manuscript appear to be *sui generis* creations of its artist. In almost every instance, they diverge from the norm. There is one teasing detail, however, in that only the Cologne, NY Morgan M 389 and London BL Egerton 1050 manuscripts depict Aquarius and Capricorn on different pages; all the others present these two constellations as part of the same composition. In this detail, perhaps, one has additional evidence that the parent of London BL Egerton 1050 came from the Neapolitan side of the family, rather than from the Florentine branch.

All of the remaining Germanicus manuscripts seem to have been made in Florence sometime after 1468. Haffner proposed the very interesting thesis that all of these manuscripts descend from an illustrated version that was collected by Agnolo Manetti, during his travels to Naples in 1466-68. The happy coincidence of two recorded payments to a scribe named ‘*Ermanno Tedesco*’ for copying an ‘*Arato*’ manuscript, one apparently related payment to an illuminator and a third note confirming the shipment of an ‘*Arato in quinterni di membrana*’ to Florence on 8 March 1468 certainly supports the idea that Manetti’s manuscript helped to renew the interest in the Germanicus translation.¹⁰⁶ As the text of the manuscript was already known in Florence (Coluccio Salutati had at least two unillustrated versions of the text in his library dating from the previous century),¹⁰⁷ one senses that it may have been the addition of the illustrations that particularly appealed to the patrons and connoisseurs of late 15th-century Florence, for whom the desire to acquire authentic classical texts was being replaced by an heightened interest in pretty and precious objects.

Of these Florentine manuscripts, two can be separated slightly from the rest: London BL Add 15819 and Naples XIV D 37. Both bear the opening description of being ‘... *fragmentum cum*

¹⁰⁴ See HAFFNER 1997, p. 112.

¹⁰⁵ REEVE 1980, p. 511-13. The manuscript was copied in Rome around 1470 by Michael Laurentii, probably for Fabio Mazzatosti.

¹⁰⁶ See HAFFNER 1997, pp. 110-111 and 113-14. For additional bibliography, see pp. above.

¹⁰⁷ Salutati owned Laurenziana Strozzi 46 (from whence the title ‘*scholia Stroziana*’ is derived) and copied-out Vat lat 3110 in his own hand, sometime in the 1380s. Neither of these manuscripts has the *Aratea* section illustrated, but there are illustrations to the Hyginus section of Vat lat 3110.

comento noviter repertum in Sicilia'.¹⁰⁸ All in all, the illustrations in these manuscripts are not tremendously close, stylistically or iconographically, but they do each preserve two pictorial details that are idiosyncratic:

- The illustrations of CEPHEUS, CASSIOPEIA and ANDROMEDA show each figure with darkened facial tones - a characteristic that also appears in the planispheres. This iconographic detail seems to come from the description of the family grouping in the *scholia Stroziana*, where Cepheus is clearly described as '*Aethiopum rex, Andromedae pater*' and Andromeda as '*filia fuit Cephei et Cassiepieae*'.¹⁰⁹
-
- A second picture has been added to the depiction of ERIDANUS, which consists of flaming semi-circular shape, a nude male and a twisting ill-defined shape. Thanks to the addition of a label in the Naples manuscript, one can understand that this set is supposed to represent '*phaeton*', and his fall from the fiery chariot of the Sun into the earthly waters of the River Po below.

The manuscripts also share a number of minor, stylistic similarities, including:

- CASSIOPEIA's mantle is pulled back to expose both her breasts.
- The hood that PERSEUS wears has an extra piece of cloth rising from the crown.
- AQUARIUS is depicted as a youth, scantily clad in a short tunic, which is tied at the waist, but manages to expose most of his right thigh. He also wears knee boots.
- The tail of CANIS MAIOR is quite tightly curled.

Also, a number of the pictorial details found within their planispheric maps are very close. As mentioned, both manuscripts are Florentine and probably date to sometime in the early 1470s. London BL Add 15819 was part of the library of the Medicean banker, Francesco Sassetti, having been annotated by his librarian, Bartolomeo Fonzio.¹¹⁰ The Naples manuscript also has a Florentine provenance in that its scribe has been identified as Giorgio Antonio Vespucci.¹¹¹ As Reeve notes, textual corrections made by the hand of Bartolomeo Fonzio in the London manuscript, reappear in the Naples XIV D 37.¹¹² The London manuscript, then, must have been amongst the models for the Naples one, though there are a sufficient number of differences between the illustrations found in each to argue against any suggestion that the London manuscript was the sole pictorial source.

¹⁰⁸ London BL Add 15819, fol. 1r and Naples XIV D 37, fol. 1r. See above for Reeve's skepticism concerning the origin of Poggio's manuscript.

¹⁰⁹ BREYSIG 1867, pp. 137-39.

¹¹⁰ See above.

¹¹¹ See above.

¹¹² REEVE 1980, p. 512, n. 21.

The illustrations in London BL Add 15819 merit slightly closer attention since some scholars have suggested that they were drawn by Fonzio himself.¹¹³ The attribution rests on the perceived similarities between the London manuscript and the illustrations in Fonzio's 'autograph epigraphical collection',¹¹⁴ which is currently in the Bodleian Library, Lat Misc d. 85.¹¹⁵ Three questions about this attribution seem pertinent. The first is whether the drawings in the Bodleian manuscript are, indeed, by Fonzio himself or if it is a fair copy, written in his own hand and then illustrated by a professional illuminator. It may be succumbing to stereotypes, but it is hard to imagine that a person, whose primary interests lie in the accurate copying of texts, would have the right kind of spirit to create such delightfully free and inventive drawings. As two additional, contemporary illustrated versions of the collection have survived, one suspects that Fonzio must have copied his manuscript numerous times for friends, patrons and colleagues.¹¹⁶ The natural inclination, then, would be to hire a professional to fill in the illustrations.¹¹⁷

The second question surrounds the making of the pictures in London BL Add 15819. As de la Mare points out, the text of the London manuscript is by an anonymous scribe; only the annotations on the pictures are in Fonzio's hand.¹¹⁸ One peculiarity of the planisphere on fol. 3r is that two of the constellation figures are mislabelled: Cygnus is labelled as 'aquila' and Aquila is labelled as 'cygnus'. Anyone conversant with the structure of a celestial map would not have made that error, but someone who was later adding labels to a picture might. The illustration of Cygnus as a long-beaked heron or stork with its wings extended, on fol. 30r of the manuscript, does resemble the flapping bird depicted in the planisphere (Aquila). And once one has labelled one of the birds

¹¹³ See de la MARE 1976, p. 185, where she says: 'diagrams with figures perhaps drawn by Bartolomeo Fonzio. His annotations form an integral part of the drawings, e.g. on f. 3' [the planisphere]. Both de la Mare and Garzelli propose that Fonzio may have been not only the scribe of the manuscript, but its artist as well. See de la Mare (as cited above, where she says that the annotations to the drawings are certainly in Fonzio's hand and the diagrams and drawings are 'perhaps drawn' by Fonzio) and *Miniatura fiorentina del Rinascimento* 1985, I, pp. 93-97, where the hesitation is less pronounced and a number of other attributions to Fonzio's oeuvre are proposed.

¹¹⁴ As described by de la MARE 1976, p. 185.

¹¹⁵ For reproductions, see SAXL 1940-41, pp. 19-46.

¹¹⁶ Florence, Biblioteca Laurenziana, Ashburnham 1174 (Laur. 836) and Siena, Cod Sen. CIII, 4. Vincenzo Borghini reportedly also owned an unillustrated copy of the inscriptions. See SAXL 1940-41, p. 21 and n. 3.

¹¹⁷ Perhaps tellingly, Pächt and Alexander describe the script of the Bodleian manuscript as being written by Fonzio, but describe the drawings as 'in the style of the school of Botticelli', making no apparent connection between the two. See PÄCHT and ALEXANDER 1970, p. 31, no. 329.

¹¹⁸ See de la MARE 1976, p. 185: 'good humanistic cursive hand'. The scribe also wrote ff. 3-4 of no. 72 below, and a scribble in No. 24'. See also n. , above.

'cygnus', the other one *de facto* must become 'aquila'. But an artist who has already drawn two eagles in the constellation catalogue (one accompanying Jove on fol. 4v and the other as Aquila on fol. 35r), would understand that the bird placed between Lyra and the head of Hercules in the planisphere is intended to depict an eagle. Therefore, it is highly unlikely that the artist of the manuscript and its annotator (Fonzio) are the same person.

The third question regarding London BL Add 15819 is that, if there were not the Fonzio connection between this manuscript and the epigraphic collection in Bodley Misc d. 85, would one assign the drawings in the two manuscripts to the same hand? Probably not. The drawings in the London manuscript are markedly less accomplished. Several of the nude figures are awkward, heavy-bottomed (especially Hercules and Ophiuchus) and somewhat stiff in their movements. The use of shading is minimal. In comparison, the knowledge of the human form is much greater in the Bodley collection (see, especially, the figure of the disinterred girl on fol. 161v),¹¹⁹ the figures are more elegantly proportioned and the use of shading to accentuate the movement of the figures is tremendously accomplished.

There are certain similarities, however, between the constellations in London BL Add 15819 and the figures that appear in the illustration of 'The Calumny of Apelles' in another Fonzio manuscript, Berlin, Kupferstichkabinett, 78. C. 26, fol. Ilv.¹²⁰ The Lucian manuscript was translated into *volgare* and copied-out by Fonzio for Ercole d'Este of Ferrara sometime July 1472.¹²¹ If one compares, for example, the figure of 'Truth' in the Berlin illustration with the left Twin of the Gemini (fol. 14r) or Eridanus (fol. 43v), the stance, proportions and even the pointing fingers of all three are quite close. The robes worn by 'Calumny' and 'Envy' (*Invidia*) are like the one worn by Virgo (fol. 12r) and one notes that the darkened face of 'Penitence' is similar in concept to the darkened faces of Cepheus, Cassiopeia and Andromeda in both the constellation illustrations (ff. 20v, 21v and 22r) and in the planisphere. As one would expect in a city where the copying of manuscripts was carried out on a vast scale, Fonzio had more than one illuminator at his disposal. And whereas, the hand that illuminated the Bodleian collection of epigraphs and the one that added the illustrations to London BL Add 15819 are not the same, the artist of the Berlin 'Calumny of Apelles' and that of the London manuscript may be.

¹¹⁹ Reproduced in SAXL 1940-41, pl. 5b. Following one's prejudices, it is interesting to compare the touching way in which the girl's dead body has been rendered and Fonzio's description of the event, which Saxl characterizes as being 'in the real schoolmaster manner a rather uncanny mixture of superlatives and dry observations' (*op. cit.*, pp. 26-27).

¹²⁰ This similarity was first noticed by de la MARE 1976, p. 185.

¹²¹ For an illustration of the image, see *Miniatura fiorentina del Rinascimento* 1985, II, p. 343, pl. 597.

This rejection of the attribution of the drawings in London BL Add 15819 to Bartolomeo Fonzio and the suggestion that they are not even by the artist who illustrated the Bodleian copy of his epigraphs raises another, slightly vexing problem. On the strength of the attribution of London BL Add 15819 to Fonzio, Garzelli also assigned the illustrations in one of the other Germanicus *Aratea* manuscripts to his hand: namely, Vat Urb lat 1358. It is certainly a Florentine manuscript, dates to around 1470 and was presumably commissioned by Duke Federico da Montefeltro of Urbino (1422-82), as it bears his arms.¹²² As far as one can see, there is nothing in the manuscript to connect it explicitly with Fonzio and, as Reeve has pointed out, it represents another branch of the ‘*Siciliensis*’ family.¹²³ Intriguingly, however, the illustrations in Vat Urb lat 1368 do bear a strong stylistic resemblance to those that appear in the Bodleian collection of Fonzio’s epigraphs. The thin elegant proportions of the bodies, the long columnar necks of the female figures and the pronounced use of dark wash to model the figures, suggests that - regardless of the fact that the text and script of the manuscripts themselves may not be related - the artist for each may be the same.¹²⁴ Again, the factors that might lead to such a possibility certainly existed in Florence at the time. In such a buoyant market, the allocation or ‘farming out’ of the different duties involved in the production of a finished manuscript must have been the norm.

As delightful and artistically inspired as the illustration in Vat Urb lat 1358 may be, as one often sees with talented artists, the approach to iconography is often slightly more cavalier. One notes, in particular, that the gender of a number of his figures seems a bit odd. For example:

- AURIGA is depicted as a female
- SOL/APOLLO is twice depicted as female.
- AUSTRONOTUS is depicted as a male.

Similarities in the texts and handwriting of Vat Urb lat 1358 and Florence, Laur 89 sup 43 has lead to their characterisation as ‘twins’.¹²⁵ From an art historical point of view this is slightly problematic as the pictures betray numerous, major differences: For example:

¹²² On folio 2r. See SAXL I, p. 103.

¹²³ Reeve 1980, p. 512.

¹²⁴ For a comparison between the drawings of the Muses (fol. 137v) and the head of Medusa (fol. 140v) with the figure of Cassiopeia (17v) and the planisphere (3r) of Vat Urb lat 1358, see *Miniatura fiorentina del Rinascimento* 1985, II, pp. 348 and 150-51 (figs. 603 and 605-07).

¹²⁵ See Reeve 1980, p. 512, n. 21, citing the evidence of the pictures in SAXL-MEIER, III, 1, p. liv-lv, but presumably based on more than this isolated observation. The Laurentian manuscript has the Medici arms on fol. 3r. See MCGURK, IV, p. 26. There are no works attributed to Aratus or Germanicus in the inventories of Piero de’Medici’s library (1456 and 1464/65), so the manuscript most likely post-dates

- BOOTES is depicted in profile in the Laurentian manuscript, but facing the viewer in Vat Urb lat 1358.
- CANCER is a crayfish in the Laurentian manuscript, but a crab in Vat Urb lat 1368.
- CEPHEUS has his head covered by his mantle in the Laurentian manuscript, but his head is uncovered in Vat Urb lat 1358.
- ANDROMEDA has no rocks in the Laurentian manuscript.
- SAGITTARIUS and AQUARIUS are clothed in the Urbino manuscript, but nude in the Laurentian one (and Sagittarius has also lost his arrow).
- ORION is posed in very different ways in the two manuscripts.

If these two manuscripts are ‘twins’, it is in their text. Their illustrations have been drawn from different parents.

Based on close comparisons of their illustrations, it is quite difficult to corral these remaining four manuscripts - Florence, Laur 89 sup 43; Madrid 8282, Vat Barb lat 77 and Vat Urb lat 1358 - any closer than acknowledging that they are all Florentine and can be dated to sometime around 1470. The pictures of the constellations are too divergent, revealing, perhaps, one of the pitfalls of having such a large number of manuscripts being illustrated by such high-quality illuminators. After a certain point, any artist worth his salt is going to deviate from his model and, one might argue, this would particularly be the impetus in as competitive an artistic environment as late 15th-century Florence must have been. The only place in these manuscripts illustrations where there seems to be a slightly greater degree of pictorial caution is in the planispheric maps and in the one drawing of a completely unfamiliar constellation, Austronotus - where, arguably, the artists would tend to rely more closely on their immediate model than on their imaginations. In these two cases, one can see that the illustrations, at least, do fall quite clearly into two pairs:

- The planispheres in Florence Laur 89 sup 43 and Madrid 8282 are more similar to each other than to the rest of the group and they both depict the human half of Austronotus as a nude female with long hair.
- The planispheres in Vat Barb lat 77 and Vat Urb lat 1358 are also similar and they depict the human half of Austronotus as a short-haired male figure. The animal half is either a lion or, perhaps, a dog.¹²⁶

1465. See Haffner 1997, p. 113, citing Ames-Lewis 1984. Haffner also notes (p. 113) that the miniatures in the Laurentian manuscript are stylistically closer to those produced under the patronage of Lorenzo or Giuliano de' Medici, citing the exhibition catalogue. *All' ombra del lauro* 1992, esp. pp. 71, 150, 154 and 158. Garzelli has attributed the miniatures to the painter, Gherardo di Giovanni di Miniato (1446-1497). See *Miniatura fiorentina del Rinascimento*, 1985, II, pls. 954-56.

¹²⁶ It may be helpful to note that a male Austronotus also appears in London BL Add 15819, fol. 62r and the flowers he carries are shaped very much like those in Vat Urb lat 1368.

APPENDIX I:

The missing lines in the ‘O family’

(red = missing; ¶ = new topic; missing lines from ed. Breysig 1867)

(ed. and sic Basle AN.IV. , ff. 27r - 42r)

Hunc ultra gemini pisces quorum alter in austrum. 241
Tendit threcium boream petit alter audit.

<i>scholia</i> on Triangulum
image of Triangulum

[241]

STRIDENTIS AURAS NIVEUS QUAS CREAT HAEMUS.
NON ILLIS LIBER CURSUS SED VINCULA CAUDA.
Singula utrumque tenit uno coeuntia nodo. 245
Nodum stella premit piscis qui respicit auras.
Threicia dextram andromedę cernantur ad ulnam.

<i>scholia</i> on Pisces	<i>scholia</i> on Pisces
image of Pisces	image of Pisces

¶ Subter utrumque pedem devotae virginis ales
Perseos effigies, servatae grata puellae.
moles ipsa viri satis est testata parentem, 250
TANTUS UBIQUE MICAT TANTUM OCCUPAT IOVE CAELI.
DEXTRA SUBLATA SIMILIS PROBE CASIEPIAM.
Sublimis fulg& pedibus properare vid&ur.
Et velle aligeris purum aethera tangere plantis.

(ed. and sic Madrid 19, ff. 61r-69r, with passages re-arranged in correct order)

<i>scholia</i> on Triangulum
image of Triangulum

Hunc ultra gemini pisces quorum alter in austrum.
Tendit threcium boream petit altera vidit.
Stridentis auras niveus quas perereat hemus.
Non illis liber cursus sed vincula cauda.
Singula utrumque tenet uno coeuntia nodo.
Nondum stella premit piscis qui respicit auras.
Threicia dextram andromedę cernantur ad ulnam.

Subter utrumque pedem devotae virginis ales
Perseos effigies, servatae grata puellae.
moles ipsa viri satis est testata parentem,
Tantus ubique micat tantum occupat iove caeli
Dextera sublata similis prope cassiepiam.
Sublimis fulet pedibus properare videtur.
Et velle aligeris purum ðera tangere plantis.

<i>scholia</i> on Perseus
image of Perseus

<i>scholia</i> on Perseus
image of Perseus

¶ *Poplite sub laevo, tauri certissima signa,
Pleiades suberunt brevis et locus occupat omnes,
nec faciles cerni, nisi quod coeuntia plura
SYDERA COMMUNEM OSTENDUNT EX OMNIBUS IGNEM.
SEPTEM TRADUNTUR NUMEROSE CARPITUR UNA
Deficient oculo distingere corpora parva.
Nomina sed cunctis servavit fida v&ustas.
Electra alcyoneque celenoque meropeque
Asteropeque & tayg&te & mala parente.
C&elifero genita est vere sustin& alas.
Regna iovis superosque atque ipso pondere gaud&.
Lumine non multis plias certaverat astris.
Praecipuo sed honore ostendit tempora bina.
Cum primum agricolam ventus super immov& atri
Et cum surgit hiemps portu figienda peritis.*

255

*Poplite sub laevo, tauri certissima signa,
Pleiades suberunt brevis et locus occupat omnes,
nec faciles cerni, nisi quod coeuntia plura
Sydera communem ostendunt ex omnibus ignem.
Septem traduntur numero se carpitur una.
Deficient oculo distingere corpora parva.
Nomina sed cunctis servavit fida vetustas.
Electra. alcyoneque. celenoque meropeque.
Asteropeque & taygete. & maia parente.
C&elifero genita si vere sustinet atlas.
Regna iovis superosque atque ipso pondere gaudet.
Lumine non multis plias certaverat astris.
Precipuo sed honore ostendit tempora bina.
Cum primum agricolam ventus super immovet atri
Et cum surgit hiems portu fugienda peritis.*

260

265

<i>scholia</i> on the Pleiades
Blank space (filled with tracing through of Perseus from recto)

<i>scholia</i> on the Pleiades
Image of Pleiades

¶ *Quin etiam lyra Mercurio dilecta, deorum
plurimum accente prohs caelo nitet ante labore
devictam effigiem planta erecta quoque dextra
TEMPORA LEVA PERMIT PORTI SUBIECTA DRACONE¹⁵
SUMMA GENU SUBVORSA TENET QUA SE LYRA VOLVIT.
¶ Contra spectat avem vel phebi quae fuit olim.
Cignus vel ledae thalamis qui lapsus adulter.
Furta iovis falsa volucer sub imagine texit.*

270

*Quin etiam lyra Mercurio dilecta, deorum
plurimum accente prohs caelo nitet ante labore
evictam effigiem planta erecta quoque dextra
Tempora leva permit porti subiecta draconis
Summa genu subvorsa tenet quas elyra volvit.
Contra spectat avem vel phoebi quae fuit olim.
Cygnus vel led& thalamis qui lapsus adulter.
Furta iovis falsa volucer sub imagine texit.*

275

<i>scholia</i> on Lyra
image of Lyra

Inter defectum sidus cygnumque nitentem
 Mercurialis habet sedem lyra. Multis videbis
 stellarum vacua in cygno, multa ignea rursus
 AUT MEDII FULGORIS ERUNT PENNA ULTRAQUE LÆTA
 DEXTERIOR IUXTA REGALEM CEPHEOS ULNAM.
 AT LAEVA FUGIT INSTANTEM SIBI PEGASON ALA.

280

<i>scholia</i> on Lyra
image of Lyra

Inter defectum sidus cygnumque nitentem
 Mercurialis habet sedem lyra. Multis videbis
 stellarum vacua in cygno, multa ignea rursus
 aut medii fulgoris erunt penna ultraque læta
 Dexterio iuxta regalem cepheos ulnam.
 At leva fugit instantem sibi pegason ala.

<i>scholia</i> on Cygnus
image of Cygnus

¶ Piscibus interlucet equi latus, ad caput eius,
 dextra manus latices qua fundit, aquarius exit.
 Quo prior aegoceros semper properare videtur
 OCEANO MERSUS SOPITAS CONDERE FLAMMAS.
 TUMBRES OCCASUS ORTUSQUE INTERCIPIT ORA.

285

<i>scholia</i> on Cygnus
image of Cygnus

Piscibus interlucet equi latus, ad caput eius
 dextra manus latices qua fundit, aquarius exit.
 Quo prior aegoceros semper properare videtur
 Oceano mersus sopitas condere flammæ
 Tumbres occasus ortusque intercipit ora.

<i>scholia</i> on Aquarius and Capricorn
image of Aquarius and Capricorn

cum sol ambierit metas gelidi capricorni.
 Nam neque perficiet cursus et vota brevis lux,
 ET CUM TERRORES AUGET NOX ATRA MARINOS.
 MULTUM CLAMATOS FRUSTRA EXSPECTAVERAT ORTUS.
 Tunc ro^[i]gor aut rapidis ponto tunc incubat auster.
 Pigra ministeria & nautis tremor alligat artus.
 Erationem anni temeraria pectora solvent
 Nulla dies oritur quæ iam vacua æquora cernat.
 Puppibus & semper tumidis ratis innatat undis.
 In terra temptare undas iuvat aspera sed cum.
 Adsa^[u]ltat lateri depensæ spuma carinae.
 Tunc alti curvos prospectant litore postus.
 Inventasque alti terras pro munere narrant.
 Interea exanimat pavidos intransis aquæ mons.
 Ast alii procul a terra iactantur in altum.

290

295

300

↑
 [text unbroken; no scholia or picture here]
 ↓

cum sol ambierit metas gelidi capricorni.
 Nam neque perficiet cursus et vota brevis lux,
 Et cum terrores auget nox atra marinos.
 Multum clamatos frustra expectaverat ortus.
 Tunc rigora ut rapidis ponto tunc incubat auster.
 Pigra ministeria & nautis tremor alligat artus.
 Erationem anni temeraria pectora solvent
 Nulla dies oritur quæ iam vacua æquora cernat.
 Puppibus & semper tumidis ratis innatat undis.
 In terra temptare undas iuvat aspera sed cum.
 Adsaltat lateri depensæ spuma carinae.
 Tunc alti curvos prospectant litore postus.
 Inventasque alii terras pro munere narrant.
 Interea exanimat pavidos intransis aquæ mons.
 Ast alii procul e terra iactantur in altum.

Munithros breve lignus & fata instatia pellit
Nam tantum a leto quantum rate fluctibabsunt.

305

Munit hos breve lignus & facta instatia pellit.
Nam tantum a leto quantum rate fluctibus absunt.

↑

[text unbroken; no scholia or picture here]

↓

Belligerum Titan etiam contingit arcum.
Ducentumque ferunt sinuato spicula nervo.
Iam clausam ratione mare est iam navia portu.
Infestam noctem fugitat longasque tenebras.
Signum erit exoriens nobis tum nocte suprema.
Scorpio ille micat supra freta caerula cauda.
Insequitur gravis arcus & in lucem magis exit.
Tunc alte cynosura repit tunc totus in mundas.
Mergitur orio numeris & vertice cepheus.

310

Belligerum Titan etiam contingit arcum.
~~Ducentumque ferunt sinuato spicula nervo.~~
Iam clausam ratione mare est iam navia portu.
Infestam noctem fugitat longasque tenebras.
Signum erit exoriens nobis tum nocte suprema.
Scorpio ille micat supra freta caerula cauda.
Insequitur gravis arcus et in lucem magis exit.
Tunc alte cynosura repit tunc totus in mundas.
Mergitur orio numeris & vertice cepheus.

<i>scholia</i> on Sagittarius
image of Sagittarius

***verse on Sagitta/ aquila

<i>scholia</i> on Sagittarius
image of Sagittarius

¶ Est etiam, incertum quo cornu missa sagitta,
quam servat Iovis ales. Habet miracula nulla,
si caelum ascendit Iovis armiger. Hic tamen arvo
UNGUIBUS INNOCUIS PHRYGUM RAPUIT GANYMEDEN
ET TELO APPOSITUS CUSTOS QUO IUPPITER ARSIT.
IN PUERO LUIT EXCIDIO QUEM TROIA FUREM.

315

Est etiam, incertum quo cornu missa sagitta,
quam servat Iovis ales. Habet miracula nulla,
si caelum ascendit Iovis armiger. Hic tamen arvo
unguibus innocuis phrygum rapuit ganymeden
Et telo appositus custos quo Iuppiter arsit.
In puero luit excidio quem Troia furem.

320

<i>scholia</i> on Sagitta and Aquila
image of Aquila w/ Sagitta

<i>scholia</i> on Sagitta and Aquila
image of Aquila w/ Sagitta

¶ Dephin inde brevis lucet iuxta Capricornum
paucis sideribus, tulit hic Atlantida Nymphen
in thalamos, Neptune, tuos, miseratus amantem.
¶ Sidera, quae mundi pars celsior aethere uolvit.
Quaeque vident boream ventis adsueta serenis.
Diximus hinc alius dedivis duciter ordo.
Sentit & insanos obscuris flatibus austris.

325

Dephin inde brevis lucet iuxta Capricornum
paucis sideribus, tulit hic Atlantida Nymphen
in thalamos, Neptune, tuos, miseratus amantem.
Sidera, quae mundi pars celsior aethere uolvit.
Quaeque vident boream ventis assueta serenis.
Diximus hinc alius dedivis duciter ordo.
Sentit & insanos obscuris flatibus austris.

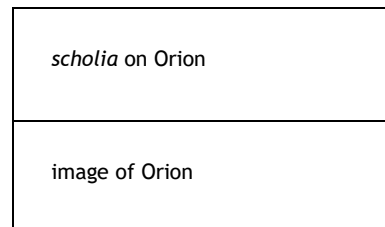
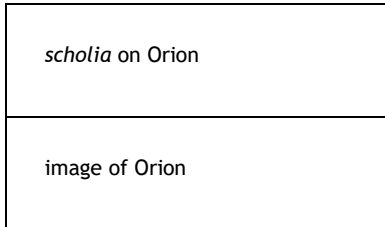
<i>scholia</i> on Delphinus
image of Delphinus

<i>scholia</i> on Delphinus
image of Delphinus

¶ Primus in obliquom rapitur sub pectore tauri
Orion. non ulla magis vicina notabit
stella urium, sparsae quam toto corpore flammae;
TALACAPUO MAGNISQUE UMERIS SIC BALTEUS ARD&
SIC VAGINA ENSIS PERNICI SIC PEDE LUC&.

330

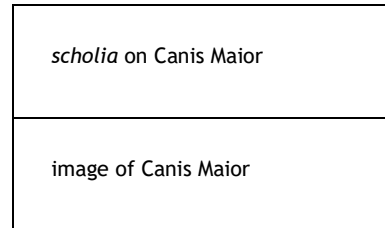
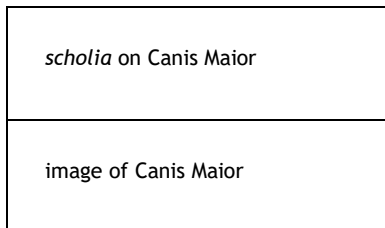
Primus in obliquom rapitur sub pectore tauri
Orion. non ulla magis vicina notabit
stella urium, sparsae quam toto corpore flammae;
talacapuo magnisque umeris sic balteus ardet
Sic vagina ensis pernici sic pede lucet.



Talis ei custos aderit canis ore timendo.
ore vomit flammam, membris contemptior ignis.
Sirion hunc Grai proprio sub nomine dicunt.
CUM TETIGIT SOLIS RADIOS ACCENDITUR AESTAS.
DISCERNITQUE ORTU LONGE SATA VIVIDA FIRMAT.
At quibus adstecte frondex aut languida radix.
Exanimat Nullo gaud& malusue minusue.
Agricola & sidus primo speculator ab ortu.

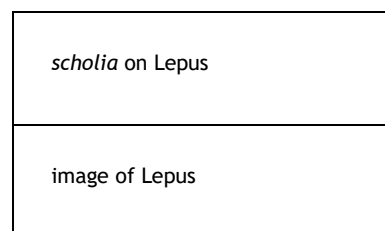
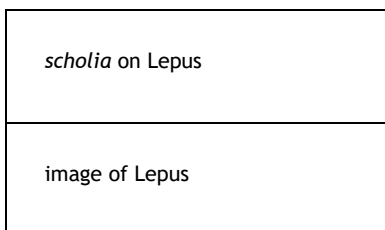
335

Talis ei custos aderit canis ore timendo
ore vomit flammam, membris contemptior ignis.
Sirion hunc Grai proprio sub nomine dicunt.
Cum tetigit solis radios accenditur aestas
Discernitque ortu longe sata vivida firmat.
At quibus adstecte frondes aut languida radix.
Exanimat nullo gaudet maiusue minusue.
Agricola & sydus primo speculator ab ortu.



¶ Auritum leporem sequitur canis et fugit ille,
SIC VERUMQUE ORITUR SIC OCCIDIT INFRA SIDUS.
TU PE^[A]RVUM LEPOREM PRIMA RE SUB ORIONE.

Auritum leporem sequitur canis et fugit ille,
Sic verumque oritur sic occidit infra sidus.
Tu parvum leporem prima re sub orione.



¶ At qua cauda canis languenti desinit astro,
fulgent Argoae stellis aplustria puppis,
puppe etinem trahitur, non recto libera cursu,
Ut cum decurrens inhib&^[n] iam navita ren^[m]os.¹²⁷
Aversamque ratem vatis damnatus ad ore.
Perlegat optatam cupiens contingere terram.
Sed quia pars violata fuit coeuntia saxa.

345

At qua cauda canis languenti desinit astro,
fulgent Argoae stellis aplustria puppis,
puppe etinem trahitur, non recto libera cursu,
Ut cum decurrens inhibent iam navita remos.
Aversamque ratem votis damnatus ad ore.
Perlegat optatam cupiens contingere terram.
Sed quia pars violata fuit coeuntia saxa.

350

¹²⁷ Opening lines in a larger font, but not capitalised.

Numine iunonis tutus confugit iason.
 Haec micat in cęlo lateri non amplior actus.
 Quam surgit malus quadebe tręd dereproram,
 Intercepta perit nulla sub imagine forma
 Puppis demisso tantum stat lucida clavo.

355

<i>scholia</i> on Argo
image of Argo

Numine iunonis tutus confugit iason.
 Hęc micat in cęlo lateri non amplior actus.
 Quam surgit malus qua debet reddere proram.
 Intercepta perit nulla sub imagine forma.
 Puppis demisso tantum stat lucida clavo.

<i>scholia</i> on Argo
image of Argo

¶ *Haud procul expositam sequitur Nereia pristis
 Andromedam. Media est Solis via, cum tamen illa
 terretur monstro pelagi gaudetque sub axe*
 Diverso posita & boreae vicina legenti.¹²⁸
 Auster pristis agit duo sidera perlegit unum.
 Namque aries supra pristin piscesque ferunter.
 Belva sed ponti non multum praeterit amnem.

360

<i>scholia</i> on Cetus
image of Cetus

*Haud procul expositam sequitur Nereia pristis
 Andromedam. Media est Solis via, cum tamen illa
 terretur monstro pelagi gaudetque sub axe*
 Diverso posita & boreae vicina legenti.
 Auster pristis agit duo sydera perlegit unum.
 Namque aries supra pristin piscesque ferunter.
 Belva sed ponti non multum praeterit amnem.

<i>scholia</i> on Cetus
image of Cetus

¶ *Amnen, qui Phaethonta suas deflevit ad undas,
 postquam patris equos non aequo pondere rexit,
 vulnere reddentem flammis lovis; hunc nova silva,*
 Planxere ignotis adaestae phethonides ulnis.
 Eridanus medius liquidis interiacet astris.
 Huius pars undę lævum ferit orionis.
 Lapsa pedem procul amotis qui piscibus usus.
 vincula coniectit nodus cristam super ipsam.
 Aequore pristis adiat sunt libera caelo.
 Sidera non nullam specie reddem^{[n]tia} formam.
 Sub leporis latus versam post denique puppim.
 Inter & Eridanum flexus cavumque carinae.
 Atque hęc ipsa nota sinullam praebere figuram.
 Sunt etiam totas sparsi sine nomine mundo
 Inter signa ignes quibus & proprii adesit.
 Forma per appositi noscuntur lumina signi.

365

370

375

*Amnen, qui Phaethonta suas deflevit ad undas,
 postquam patris equos non aequo pondere rexit,
 vulnere reddentem flammis lovis; hunc nova silva,*
 Planxere ignotis adaestae phethonides ulnis.
 Eridanus medius liquidis interiacet astris.
 Huius pars undę lævum ferit orionis.
 Lapsa pedem procul amotis qui piscibus usus.
 vincula coniectit nodus cristam super ipsam.
 Aequore pristis adiat sunt libera cęlo.
 Sydera non nullam specie reddentia formam.
 Sub leporis latus versam post denique puppim.
 Inter et eridanum flexus cavumque carinae.
 Atque hęc ipsa nota sinullam praebere figuram.
 Sunt etiam totas sparsi sine nomine mundo
 Inter signa ignes quibus & proprii adesit.
 Forma per appositi noscuntur lumina signi.

¹²⁸ Opening lines in a larger font, but not capitalised.

<i>scholia</i> on Eridanus
image of Eridanus

¶ Est etiam a geminis diversus piscibus unus,
 qui borean fugitat, totus directus in austros,
 ventre sub aegoceri, pristin conversus ad imam.
 Infimus hydrochoos sed quae vestigia figit.
 Sunt aliae stellae quae caudam belva flectit.¹²⁹
 Quaque capud picis media regione locatae.
 Nullum nomen neccausa sinominis ulla.
 Sic tenuis cunctis iam paene evanuit ardor.
 Nec procul hinc dextra defundit aqaurius undas.
 Atque imitata cadunt errantis signa liquores.
 Equibus una magis succauda flamma relucet.
 squamigeræ pristin pedibus subit altera signi.
 Fundentis latices est & sine honore corona.
 Ante sagitti ferit nullum perndia crura.

<i>scholia</i> on Piscis Austrinus
image of Piscis Austrinus

¶ Scorpis recta torquet qua spicula cauda,
 turibulum vicinum austris sacro igne videbis
 arcturum contra; sed quanto tardius ille
 Oceanum occasu tangit tanto & magis arte.
 Turibulo maetevi caelo suscipit & iam.¹³⁰
 Præcipiti tractu vastis dimi etitur undis.
 Multa dedit natura homini rata signa salutis.
 Venturamque notis cladem depellere suasit.
 Inter certa licet numeris sub nocte cavenda.
 Turibulum nam si sordebunt cetera caeli
 Nubibus obductis illo splendente timeto.
 Ne pacem pelagi solvat violentior auster.
 Tunc mihi siccentur abstricto cornua velo.
 et rigit temit tant latus per inane rudentes.
 Quod si deprensatur bavit lintea puppis.
 Incubuitque sinu laxo vel mergitur undis.
 Prona ratis soluetque inimicum nerea prora.
 Vel si per spexit servator iuppiter aeger.
 Ultima persolvunt iactatae vota sal^{utis};

<i>scholia</i> on Eridanus
image of Eridanus

Est etiam a geminis diversus piscibus unus,
 qui borean fugitat, totus directus in austros,
 ventre sub aegoceri, pristin conversus ad imam.
 Infimus hydrochoos sed quae vestigia figit.
 Sunt aliæ stellæ quæ caudam belva flectit.
 Quaque capud picis media regione locatæ.
 Nullum nomen habent nec causa si nominis ulla.
 Sic tenuis cunctis iam paene evanuit ardor.
 Nec procul hinc dextra defundit aqaurius undas.
 Atque imitata cadunt errantis signa liquores.
 Equibus una magis succauda flamma relucet.
 squamigeræ pristin pedibus subit altera signi.
 Fundentis latices est & sine honore corona.
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<i>scholia</i> on Piscis Austrinus
image of Piscis Austrinus

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 turibulum vicinum austris sacro igne videbis
 arcturum contra; sed quanto tardius ille
 Oceanum occasu tangit tanto & magis arte.
 Turibulo mætevi cælo suscipit etiam.
 Precipiti tractu vastis dimittitur undis.
 Multa dedit natura homini rata signa salutis.
 Venturamque notis cladem depellere suasit.
 Inter certa licet numeris sub nocte cavenda.
 Turibulum nam si sordebunt cetera cæli
 Nubibus obductis illo splendente timeto.
 Ne pacem pelagi solvat violentior auster.
 Tunc mihi siccentur abstricto cornua velo.
 Et rigite mittant latus per inane rudentes.
 Quod si deprensa turbavit lintea puppis.
 Incubuitque sinu laxo vel mergitur undis.
 Prona ratis soluetque inimicum nerea prora.
 Vel si perspexit servator iuppiter æger.
 Ultima persolvunt iactatæ vota salutis;

¹²⁹ Opening lines in a larger font, but not capitalised.

¹³⁰ Opening lines in a larger font, but not capitalised.

Nec metus ante fugit quam pars effulserit orbis.
Quae boream caelum spectantibus indicet ortum.

Nec metus ante fugit quam pars effulserit orbis.
Quę boream çelum spectantibus indicet ortum.

<i>scholia</i> on Ara
image of Ara

<i>scholia</i> on Ara
image of Ara

¶ *Sunt etiam flammis conmissa inmania membra*
centauri, capite atque hirsuto pectore et alvo
subter candentis hominem reddentia chelas,
INDE PER INGENTIS COSTAS PER CRURA PER ARMOS.
NASCITUR INTACTA SONIPES SUB VIRGINE DEXTER.
Seu praedam silvis portat seu dona propinque.
Placatura deos cultor iovis admovet arae.
Hic erit ille pius chiron iustissimus omnis.
Inter nubigenas et magni doctor achillis.
Hic umero medium scandens iter aetheris alii.
Si tenuem traxit nubem stellasque verecondit.
Toto clarus equo venientis nuntiat euros.

415

420

425

Sunt etiam flammis conmissa inmania membra
centauri, capite atque hirsuto pectore et alvo
subter candentis hominem reddentia chelas,
Inde per ingentis costas per crura per armos.
Nascitur intacta sonipes sub virgine dexter.
Seu praedam silvis portat seu dona propinque.
Placatura deos cultor iovis admovet arę.
Hic erit ille pius chiron iustissimus omnis.
Inter nubigenas et magni doctor achillis.
Hic humero medium scandens iter etheris alti.
Si tenuem traxit nubem stellasque verecondit.
Toto clarus equo venientis nuntiat euros.

<i>scholia</i> on Centaurus
image of Centaurus

<i>scholia</i> on Centaurus
image of Centaurus

¶ *Nec procul hinc hydros trahitur, cui cauda superne*
centaurum licet, tractu subit ille leonem,
pervenit ad cancrum capite et tria sidera tangit.
Huic primus ortus crater premit ulterioris
vocali rostro corvus foret Omnia lu^{[c]et},¹³¹
et corvus pennis et parvo pondere crater
et spatio triplicis formatus sideris hydros.

430

Nec procul hinc hydros trahitur, cui cauda superne
centaurum licet, tractu subit ille leonem,
pervenit ad cancrum capite et tria sidera tangit.
Huic primus ortus crater premit ulterioris
Vocali rostro corvus foret omnia lu^{[c]et}.
et corvus pennis et parvo pondere crater
et spatio triplicis formatus sideris hydros.

<i>scholia</i> on Hydra, Crater, Corvus
image of Hydra, Crater, Corvus

<i>scholia</i> on Hydra, Crater, Corvus
image of Hydra, Crater, Corvus

¹³¹ Opening lines in a larger font, but not capitalised; *n.b.*: ‘Sicilian’ manuscripts end here.

¶ Sub geminis procyon fulgenti lumine surgit.¹³²

<i>scholia</i> on Canis Minor
image of Canis Minor

Sub geminis procyon fulgenti lumine surgit.

<i>scholia</i> on Canis Minor
image of Canis Minor

¶ hic caelo ornatus trahitur noctemque diemque;
sors sua cuique data est; semel adsignata tuentur
inmoti loca nec longo mutantur in aevo.

435

¶ Quique aliae stellae diversa lege feruntur.
& proprio motu mundo contraria volvunt.
curriculo exceduntque loco & vestigia mutant.¹³³

hic caelo ornatus trahitur noctemque diemque;
sors sua cuique data est; semel adsignata tuentur
inmoti loca nec longo mutantur in aevo.

¶ Quique aliae stellae diversa lege feruntur.

Et proprio motu mundo contraria volvunt.

Curriculo exceduntque loco & vestigia mutant.

<i>scholia</i> on the 5 planets
Blank space for image of the 5 planets

<i>scholia</i> on the 5 planets
Image of the 5 planets

Haud equidem possis alio contingere signo,
quae divis sedes. Hinc atque hinc saepe videntur
occasus ortusque. Neque anfractus brevis illis,
Annonasque vias tardus vix perficit orbis.

440

Hoc opus archanis ancredam postmodo musis.

Tempus & ipse labor patiantur facta docebit.

445

¶ Signorum partes quorum est praedicta figura.

Annum expleturi praedicunt quatur orbis.

Inter nulla trium transversus colligat unus.

Nec per ^[se] ste^[l]lli spatium quoniamque feruntur.

Inter se aequales quorum est & maxima forma.

450

& totidem interse praedictis ante minores.

Hiis semper distant illos communia signa.

Committunt quae se tangunt pars aequa rotarum.

Dividitur binos ut si qui desecet arcus.

Dissimilis quintus liquida sub nocte videtur.

455

Sidera cum reddunt sincero seminus ignis.

Lactis & color & mediis via lucet in umbris.

Lacteus hic orbis nullo minor orbe rotatu.

Haud equidem possis alio contingere signo,
quae divis sedes. Hinc atque hinc saepe videntur
occasus ortusque. Neque anfractus brevis illis,
Annonasque vias tardus vix perficit orbis.

Hoc opus arcanis an credam postmodo musis.

Tempus & ipse labor patiantur facta docebit.

¶ Signorum partes quorum est praedicta figura.

Annum expleturi praedicunt quattuor orbis.

Inter valla trium transversus colligat unus.

Nec per illi spacium quoniamque feruntur.

Inter se equales quorum est & maxima forma.

Et totidem interse praedictis ante minores.

Hi semper distant illos communia signa.

Committunt quae se tangunt pars equa rotarum.

Dividitur binos ut si qui desecet arcus.

Dissimilis quintus liquida sub nocte videtur.

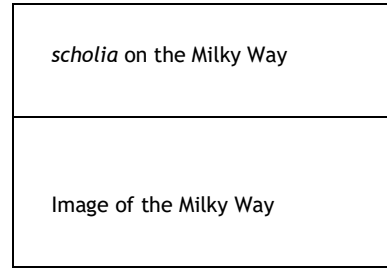
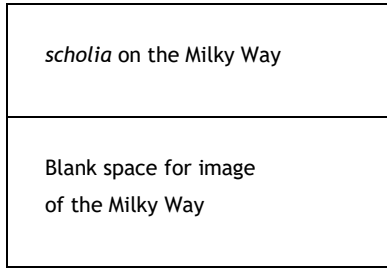
Sydera cum reddunt sinceros eminus ignis.

Lactis & color & mediis via lucet in umbris.

Lacteus hic orbis nullo minor orbe rotatu.

¹³² Opening lines in a larger font, but not capitalised.

¹³³ Opening lines in a larger font, but not capitalised.



¶ *Celsior ad boream qui vergit circulus altos
et peragit tractus vicinis haud procul ursis,
per geminos currit medios, vestigia tangit*
Aurige plantamque terit persida laevam.
Transverse andromedæ latera utraque persecat actus.
& totam ab umero dextra summa ungula pulsu.
Acris equi ferit oris iter.

460

*Celsior ad boream qui vergit circulus altos
et peragit tractus vicinis haud procul ursis,
per geminos currit medios, vestigia tangit*
Aurige plantamque terit persida laevam.
Transverse andromedę latera utraque persecat actus.
Et totam ab humero dextra summa ungula pulsu.
Acris equi ferit oris iter.

[...]

[...]

Sed tribus idem ortus omni nascuntur ab aevo. 520
Atque eadem occasus remanet certissima signa.

Sed tribus idem ortus omni nascuntur ab ævo
Atque eadem occasus remanet certissima signa.

↑

[no line break]

[line break here]

↓

¶ *Quartus ab oceano tantum vestigia mutat.
Obliquo currens spatio quantum capricornus.
Æstifero distant cancro quamtautus ad auras*
Aetherias surgit tam scaris mergitur undis. 525
In sex signiferum si quis diviserit orbem.
Aequalis aries occumbit regula binis
Inferior signis patiantumque tenebit;
Una tui lateris quantum a tellure recedit.
Nec tamen humanos ^visus fugit vectim orbis.
Hæc via solis erit bissemi lucidas ignis.¹³⁴ 530

*Quartus ab oceano tantum vestigia mutat.
Obliquo currens spatio quantum capricornus.
Æstifero distant cancro quamtautus ad auras*
Aetherias surgit tam scaris mergitur undis.
In sex signiferum si quis diviserit orbem.
Æstifero distant cancro quamtautus ad auras
Inferior signis patiantumque tenebit;
Una tui lateris quantum a tellure recedit.
Nec tamen humanos ^visus fugit vectim orbis.
Hæc via solis erit bissemi lucidas ignis.



*Nobilis hic aries aurato vellere, quondam
qui tulit in Tauros Phrixum, qui prodidit Hellen,
quem propter fabricata ratis, quem perfida Colchis*
Sopito vigiles incesto donavit amore. 535
Corniger hic taurus, cuius decepta figura.¹³⁵
Europæ thalmis & virginitate relicta.
Per fretta sublimis tergo mendacia senit.
Litore acretę partus enixa marito. [...]

*Nobilis hic aries aurato vellere, quondam
qui tulit in Tauros Phrixum, qui prodidit Hellen,
quem propter fabricata ratis, quem perfida Colchis*
Sopito vigiles incesto donavit amore.
Corniger hic taurus, cuius decepta figura.
Europa et thalmis & virginitate relicta.
Per fretta sublimis tergo mendacia senit.
Litore acretę partus enixa marito.

¹³⁴ In smaller hand and in two columns so that it runs as if it were: vv. 526/529; 527/530; 528/531.

¹³⁵ Opening lines in a larger font, but not capitalised.

APPENDIX II

Opening verses re: pictures and scholia (red = missing lines; ¶ = new topic)

I. Aberystwyth NLW 735 C,
ff. 3v-5r and 10v -13v

fol. 3v

Summer hemisphere

Winter hemisphere

fol. 4v

Zodiacal diagram with
planetary orbits

fol. 5r

Pair of incomplete
summer/winter
hemipsheres

[...]

II. Madrid 19, ff. 53v-56v

fol. 53v

blank

fol. 54r

blank

fol. 54v

blank

fol. 55r

Incipit liber arati philosophi. De astronomia. ARATUS patris
quidem est athinodori filius – mathematice reperimus illum
& super. (= 'Aratus genus' (V) section from *Revised Aratus
latinus*, cf. Maass 1898, pp. 146-50)

Image of Aratus and
Urania

fol. 10v

Planisphere

aiunt nec fabuloso iovi sufficere eius modi opinione — parens affirmatur & non solum hominum sed etiam deorum. (= *scholia Basileensia* fragment; cf Breysig, 1867, pp. 57-58)

fol. 11r

blank

Image of Jupiter

fol. 11v

Image of
Aratus and Urania

T. CLAUDII. CAESARIS. ARATI PHOENOMENA.

Ab iove principium magno deducit aratus
Carminis at nobis genitor tu maximus auctor
Te veneror tibi sacra fero doctique laboris
Primicias probat ipse deum rectorque satorque
Quantum & enim possint anni certissima signa
Qua sol ardentem cancrum rapidissimus ambit
Diversaque secat metas gelidi capricorni
Quave aries & libra æquant divortia lucis
Si non ^[parta] tanta quies te preside puppibus æquor
Cultorique dar& terras procul arma silerent
Nunc vacat audaces in caelum tollere vultus
Syderaque & mundi varios cognoscere motus
Navita quid caveat quid scitus vit& arator
Quando ratem ventis aut creat semina terris
Haec ego dum laciis cogor predicere musis
Pax tua tuque adsis nato. numenque secundes

fol. 55v.

Ab iove principium magno deducit aratus.
Carminis at nobis genitor tu maximus auctor.
Te veneror. tibi sacra fero. doctique laboris
Primicias probat ipse deum rectorque satorque
5 Quantum et enim possint anni certissima signa.
Qua sol ardentem cancrum rapidissimus ambit.
Diversaque secat metas gelidi capricorni
Quave aries et libra aequant divortia lucis.
Si non tanta quies te preside puppibus æquor.
10 Cultorique daret terras. procul arma silerent.
Nunc vacat audacis in caelum tollere vultus.
Sideraque et mundi varios agnoscere motus.
Navita quid caveat quid scitus vitet arator
Quando ratem ventis. aut creat semina terris.
15 Haec ero dum Latiis cogor predicere musis.
Pax tua tuque adsis nato. numenque secundes.

scholia Basileensia on
invocation to Jupiter
(cf ed. Breysig, 1867,
pp. 55-58)

↑

Image of Jupiter

¶ Cetera que toto fulgent vaga sydera mundo
Indefessa trahit. proprio cum pondere cęlum
[Axis stat] A usisatis motus semper vestigia servat [Axis at inmotus]
Libratasque tenet terras & cardine firmo
Orbem agit extremum geminum determinat axem
Quem grai dixere polon [veteres] pars mersa sub undas
Oceani pars celsa sub [h]orrifero aquilone
¶ Axem creteę dextra levaque tuentur
Sive arctoe seu romani cognominis ursę
Plaustraque que facies stellarum proxima vera

Tres temone rotisque micant sublime quaterne
Sime [melius] ius dixisse feras obversa refulgent
Ora feris. caput alterius super orrida terga
Alterius lucet pronas rapit axis in ipsos
Declinesumeros [ve]sueteris si gratia fame [forme]
Cresia vos tellus aluit moderator olympi
Donavit cęlo meritum custodia fecit
Quod fide comites prima incunabula magni
Foverunt [uderunt] iovis attonite cum furta parentis
Aerea pulsantes mendaci cymbala dextra
Vagitus pueri patrias ne tangeret aures
Dicteae texeredei famuli coribantes
Hinc iovis altrices helice cynosuraque fulgent
Dat grais [h]elice cursus maioribus astris
Phoenicas cynosura regit sed candida tog[ta]
Et liquido splendore helice nitet haud prius ulla
Cum sol oceano fulgentia condidit ora
Stella micat cęlo septem quam cresia flammis
Certior est cynosura tamen sul cantibus aequor
Quippe brevis totam fido se cardine vertit
Sydoniamque ratem numquam spectata fefellit
¶ [Ha] Ab inter medias abrupti fluminis instar
Immanis serpens sinuosa volumina torquet
Hinc atque hinc supraque illas mirabile monstrum
Cauda helicen superat tenditque [simul] ad cynosuram
Squamigero lapsu qua desinit ultima cauda

Cetera quae toto fulgent vaga sidera mundo.
Indefessa trahit proprio cum pondere cęlum.
Axis sat motis semper vestigia servat
20 Libratasque tenet terras & cardine firmo.
Orbem extremum agit geminus determinat axem.
Quem Grai dixere polon pars mersa sub undas.
Oceani pars celsa. sub horrifero aquilone.
Axem nam creteę dextra levaque tuentur.
25 Sive arctoe seu romani cognominis urse.
Plaustrum ~~quae~~ [vel] facies stellarum proxima vera.

Tres temone rotisque micant, sublime quaterne:
Simelius dixisse feras obversa refulgent.
Ora feris caput alterius super horrida terga.
30 Alterius lucet pronas rapit orbis in ipsos.
Declinis humeros veteris si gratia fame:
Cresia vos tellus aluit modrator olympi.
Donavit cęlo meritum custodia fecit.
Quod fide comites prima incunabula magni
35 Foverunt iovis attonite cum furta parentis.
Aerea pulsantes mendaci cymbala dextra
Vagitus pueri patrias ne tangeret aures.
Dicta exer cereę deę famuli corybantes
Hinc iovis altrices helice cynosuraque fulgent.
40 Dat grais helice cursus maioribus astris.
Phoenicas cynosura regit sed candida tota.
Et liquido splendore helice nitet haud prius ulla.
Cum sol oceano fulgentia condidit ora.
Stella micat cęlo septem quam cresia flammis.
45 Certior est cynosura tamen sul cantibus equor .
Quippe brevis totam fido se cardine vertit.
Sidoniamque ratem numquam spectata fefellit;
Has inter medias abrupti fluminis instar.
Immanis serpens sinuosa volumina torquet.
50 Hinc atque hinc supraque illas mirabile monstrum.
Cauda helicen superat tendit ad cynosuram.
Squamigero lapsu. qua desinit ultima cauda.

Hac caput est helices flexus¹³⁶ comprehenditur alto
 Serpentis cynosura ille explicat amplius orbes
 Sublatusque retro maiorem respicit arcton
 Ardent ingentes oculi cava tempora clav^lis
 Ornantur flammis mento sed& unicus ignis
 Tempus dexter^{us} quem signat stella draconis
 Queque sedet mento luc&que novissima cauda
 Extremumque helices sydus micat ac radiatur
 Serpentis decline caput que proxima signa
 Occasus ortusque uno tanguntur ab orbe
 Oceani tumidis ignot& fluctibus arct&
 Semper inocciduis servantes ignibus axem

scholia Basileensia on
 UMa, UMi and Dra (cf.
 Breysig 1867, pp. 58-60)

Image of *Draco inter
 arctos*

Hac caput est helices; flexu comprehenditur alto.
 Serpentis cynosura ille explicat amplius orbes.
 55 Sublatusque retro maiorem respicit arcton.
 Ardent ingentes oculi cava tempora claris.
 Ornantur flammis mento sed& unicus ignis.
 Tempus dexterius que signat stella **draconis**.
 Queque sed& mento luc&que novissima cauda.
 60 Extremumque helices sydus micat ac radiatur
 Serpentis decline caput que proxima signa
 Occasus ortusque uno tanguntur ab orbe.
 Oceani tumidis ignot& fluctibus arctoe.
 Semper in occiduis servantes ignibus axem.

scholia Stroziana on
 poles, UMa, UMi and Dra
 (cf. Breysig 1867, pp.
 111-117)

Image of
Draco inter arctos

¶ Haud procul efficiens unde est defecta
 Non illi nomen non magni causa laboris
 Dextro namque genu nixus diversa que tendens
 Brachia suppliciter passis ad numina palmis
 Serpentis capiti figit vesitigia leva.

scholia Basileensia on
 Hercules (cf. Breysig
 1867, p. 61)

Image of Hercules

65 **Haud procul effigies inde est defecta labore** labore ^[effigies inde]
 Non illi nomen non mangi causa laboris
 Dextro namque genu nixus diversa que tendens
 Brachia suppliciter pansis ad numina palmis
 69 Serpentis captit figit vesitigia leva

scholia Stroziana on
 Hercules (cf. Breysig
 1867, pp. 118-119)

Image of Hercules

¹³⁶ Expunctuated s.

scholia Basileensia on
Corona Borealis (cf.
Breysig 1867, pp. 61-62)

Image of Corona
Borealis



¶ Tum fessi subter costas atque ardua terga
Clara ariadneos sacrata stigne corona
Hunc illi baccus thalami memor addit honorem
Terga nitent stellis atquas evertice tollit
Succiduus genibus lapsum & miserabile *sidus*

70 Tum fessi subter costas atque ardua terga
Clara ariadneo sacrat astat igne corona.
Hunc illi bacchus thalami memor addit honorem.
Terga nitent stellis aqua se vertice tollit.
Succidus genibus lassum & miserabile *sidus*



scholia Stroziana on
Corona Borealis (cf .
Breysig 1867, pp. 119-
20)

Image of Corona
Borealis

Hic ophiuchus erit longe caput ante nitendo
Et vastos humeros dum cetera membra secuntur. [...]

75 Hac ophiuchus erit longe caput ante notabis
Et vastos umeros tum cetera membra secuntur. [...]

APPENDIX III

Page breaks in the Leiden *Aratea* re: missing lines in the ‘O family’

(ed. and spelling *sic* following majuscule hand in ms; blue = missing lines in Basle ms)

fol. 38v



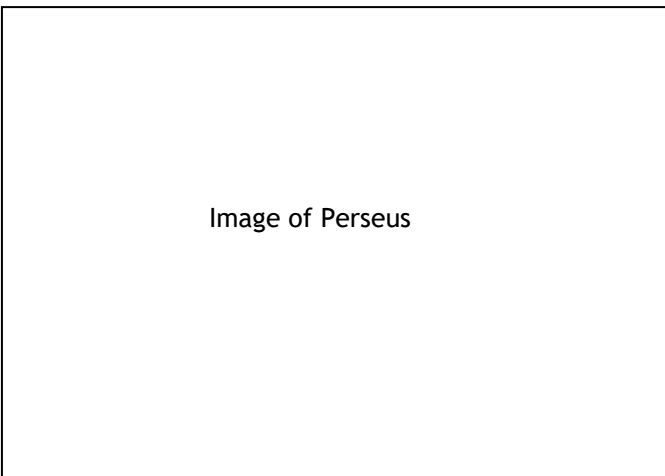
HUNC ULTRA GEMINI PISCES, QUORUM ALTER IN AUSTROS
TENDIT, THREICIUM BOREAM PETIT ALTER ET AUDIT
STRIDENTIS AURAS, NIVEUS QUAS PROCREAT HEMUS.
NON ILLIS LIBER CURSUS SED VINacula CAUDA

fol. 39v

SINGULA UTRUMQUE TENENT UNO COEUNTIA NODO.
NODUM STELLA PREMIT. PISCIS, QUI RESPICIT AURAS
THREICIAS DEXTRAM ANDROMEDĒ CERNANTUR AD ILLUM.

blank

fol. 40v



SUBTER UTRUMQUE PEDEM DEVOTAE VIRGINIS ALES
PERSEOS EFFIGIES, SERVATAE GRATAE PUELLAE.
MOLES IPSA VIRI SATIS EST TESTATA PARENTEM,
TANTUS UBIQUE MICAT TANTUM OCCUPAT AB IOVE CAELI.

fol. 41v

DEXTERA SUBLATAE SIMILIS PROPE CASSIEPIA
 SUBLIMIS FULGET PEDIBUS PROPERARE VIDETUR
 ET VELLE ALIGERIS PURUM AETHERA FINDERE PLANTIS.
 POPLITE SUB LEVO TAURI CERTISSIMA SIGNA,

255

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fol. 42v

Image of Pleiades

PLEIADES SUBERUNT BREVIS ET LOCUS OCCUPAT OMNIS
 NEC FACILES CERNI NISI QUOD COEUNTIA PLURA
 SIDERA COMMUNEM OSTENDUNT EX OMNIBUS IGNEM.
 SEPTEM TRADUNTUR NUMERO SED CARPITUR UNA
 DEFICIENTE OCULO DISTINGUERE CORPORA PARVA.
 NOMINA SED CUNCTIS SERVAVIT FIDA VESTUTAS:

fol. 43v

ELECTRA ALCYONEQUE CAELENOQUE MEROPEQUE
 ASTEROPE ET TAYGETE ET MEA PARENTEM
 CAELIFERO GENITAS SI VIRO SUSTINET ATHLAS
 REGNA IOVIS SUPEROSQUE ATQUE IPSO PONDERE GAUDET
 LUMINE NON MULTIS PLIAS CERTAVERIT ASTRIS,
 PRAECIPUO SED HONORE OSTENDIT TEMPORA BINA,
 CUM PRIMUM AGRICOLAM VENTUS SUPER IMMINET AGRI

blank

fol. 44v

Image of Lyra

QUIN ETIAM LYRA MERCURIO DILECTA DEORUM
PLURIMULUM ACCEPTAE PROHS CAELO NITET ANTE LABORE
DEVICTAM EFFIGIEM PLANTA ERECTAQUE DEXTRA
AT CUM SURGIT HIEMS PONTU FUGIENDA PERITIS. (v. 269)

fol. 45v

TEMPORA LAEVA PREMIT TORTIS SUBIECTA DRACONIS.
SUMMA GENU SUBVERSA TENET QUA SE LYRA VERSAT.
CONTRA SPECTAT AVEM VEL PHOEBI QUAE FUIT OLIM 275

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fol. 46v

Image of Cygnus

CIGNUS NILLEDAE THALAMIS QUI LAPSUS ADULTER
FURTA IOVIS FALSA VOLUCER SUB IMAGINE TEXTIT.
INTER DEFECTUM SIDUS CYGNUMQUE NITENTEM
MERCURIALIS HABET SEDEM LYRA. MULTIS VIDEBIS
STELLARUM VACUA IN CYGNUM MULTA IGNEA RURSUS

fol. 47v

AUT MEDII FULGORIS ERUNT. PENNA ULTRAQUE LAETA
 DEXTERIOR IUXTA REGALEM CEPHEOS ULNAM
 AT LEVA FUGIT INSTANTEM SIBI PEGASON ALA.
 PISCIBUS INTERLUCET EQUI LATUS AD CAPUT EIUS
 DEXTRA MANUS LATICES QUA FUNDIT, AQUARIUS EXIT. 285

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fol. 48v

Image of Aquarius

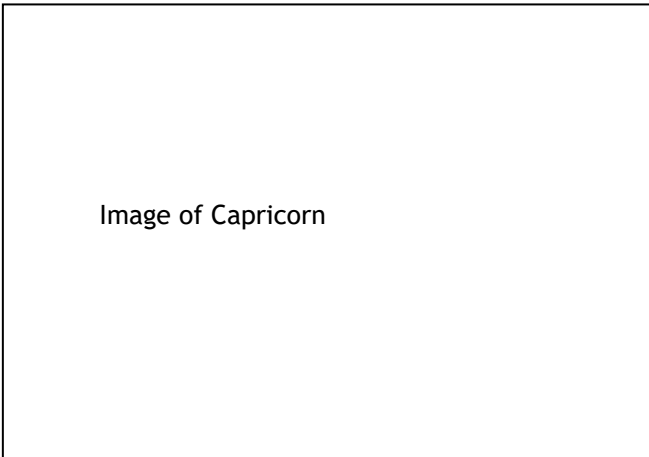
NEC PROCUL HINC DEXTRA DEFUNDIT AQUARIUS UNDA
 ATQUE IMITATA CADUNT ERRANTIS SIGNA LIQUORIS.
 ET QUIBUS UNA MAGIS SUB CAUDA FLAMMA RELUCET
 SQUAMIGER IUSTUS PEDIBUS SUBIT ALTERA SIGNA 390

fol. 49v

FUNDENTIS LATICES. EST ET SINE HONORE CORONA
 ANTE SAGITTIFERI PAULULUM PERNICIA CRURA.
 SCORPIOS REPTA TORQUET QUA SPICULA CAUDA

blank

fol. 50v



CUM PRIMUM EGOCHERO SEMPER PROPERARE VIDETUR

OCEANO MERSUS SOPITAS CONDERE FLAMMAS.

TUM BREVIS OCCASUS ORTUSQUE INTERCIPIT HORA

CUM SOL AMBIERIT METAS GELIDI CAPRICORNI.

[N]AM NEQUE PERFICIET CURSUS ET VOTA BREVIS LUX

290

[E]T CUM TERRORIS AUGET NOX ATRA MARINOS

[M]ULTUM CLAMATOS FRUSTRA EXPECTAVERIS ORTUS.

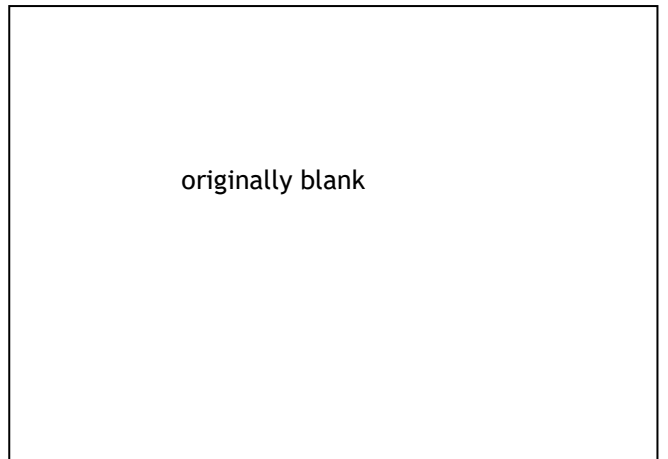
[T]UNC RIGOR AUT RAPIDIS PONTO TUNC INCUBAT AUSTER

[P]IGRA MINISTERIA ET NAUTIS TREMOR OCCUPAT ARTUS.

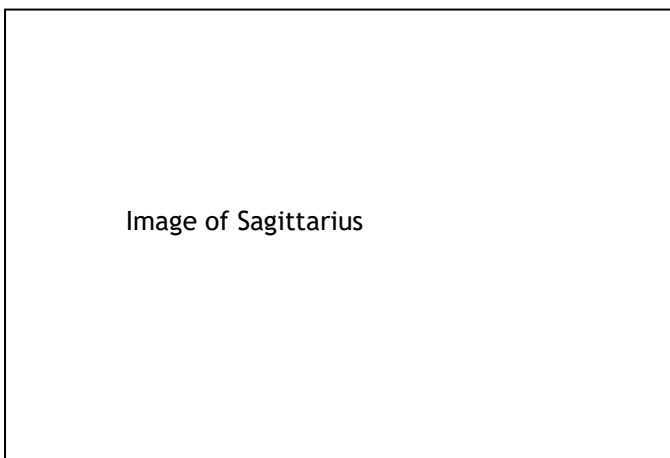
SED RATIONEM ANNI TEMERIA PECTORA SOLVUNT 295

fol. 51v

NULLA DIES ORITUR. QUA IAM VACUA EQUORA CERNANT.
 PUPPIBUS; & SEMPER TUMIDIS RATIS INNATAT UNDIS;
 ANTERRATEM TEMPTARE UNDA IUVAT ASPERA SED CUM.
 ADSULTAT LATERI DEPENSE SPUMA CARINAE.
 TUNC ALTI CURVOS PROSPECTANT LITORE POSTUS. 300
 INVENTASQUE ALII TERRAS PRO MUNERE NARRANT;
 INTER EA EXANIMAT PAVIDOS INSTANTIS AQVE MONS.
 AST ALLII PROCUL A TERRA IACTANTUR IN ALTO.
 PUNIT EOS BREVE LIGNUM & FATA INSTANTIA PELLUNT.
 NAM TANTUM A LOETO, QUANTUM RATE FLUCTIBUS ABSUNT;



fol. 52v



BELLIGERUM TITAN MAGNUM CUM CONTINGET ARCUM

LUCENTUMQUE FERUM SINUATO SPICULA NERVO.

IAM CLAUSAM RATIONE MARE EST. IAM NAVITA PORTU

INFESTAM NOCTEM FUGIAT. LONGASQUE TENEBRAS;

SIGNUM ERIT EXORIENS NOBIS TUNC NOCTE SUPERBA.

fol. 53v

SCORPIUS. ILLE MICAT SUPRA FRETA CERULA CAUDA.
INSEQUITUR GRAVIS ARCUS & IN LUCEM MAGIS EXIT;
TUNC ALTE CYNOSURA REGIT. TUNC TOTUS IN MUNDAS.
VERGITUR ORION. HUMERIS & VERTICE CEPHOEUS.

blank

fol. 54v

Image of Aquila

EST ETIAM INCERTUM QUO CORNU MISSA SAGITTA 315
QUAM SERVAT IOVIS ALES. HABET MIRACULA NULLA
SI CAELUM ASCENDIT IOVIS ARMIGER. HIC TAMEN ARDUM

fol. 55v

UNGUIBUS INNOCUIS PRYGIUM RAPUIT GANIMEDEN
ET TELO APPOSITUS CUIUS QUO IUPPITER ARSIT
IN PUERO LUIT EXCIDIO QUEM TROIA FUREM. 320

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fol. 56v

Image of Delphinus

DEPHINI INDE BREVIS LUCET IUXTA CAPRICORNUM
PAUCIS SIDERIBUS TULIT HIC ATLANTIDA NYMPHEN
IN THALAMOS, NEPTUNE TUOS MISERATUS AMANTEM.
SIDERA QVAE MUNDI PARS CELSIOR AETERE VOLVIT

fol. 57v

QUAEQUE UIDENT BOREAM VENTIS ADSUENTA SERENIS DIXIMUS.
HINC ALIUS DECLINIS DICITUR ORDO
SENTIET INSANOS OBSCURIS FLATIBUS AUSTROS.

blank

fol. 58v

Image of Orion

PRIMUS IN OBLIQUOM RAPITUR SUB PECTORE TAURI
ORION. NON ULLA MAGIS VICINA NOTABIT
STELLA VIRUM, SPARSE QUM TOTO CORPORE FLAMME 330

fol. 59v

TALE CAPUT, MAGNIQUE HUMERIS SIC BALTEUS ARDET,
SIC VAGINA ENSIS PERNICIS SIC PEDE LUDIT.

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fol. 60v

Image of Canis Maior

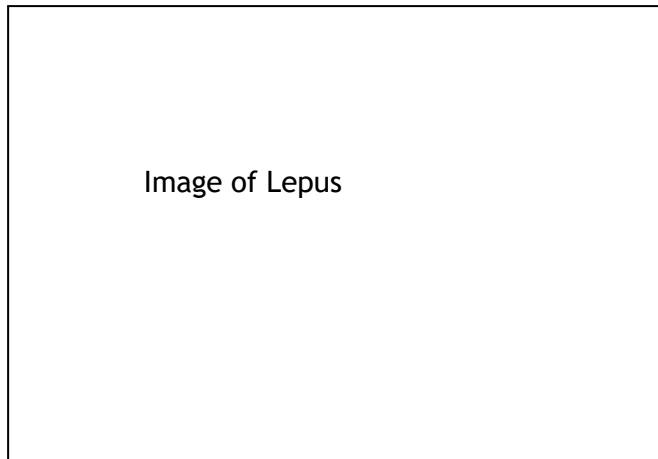
TALIS ET CUSTOS ADERIT CANIS ORE TIMENDO.
ORE VOMIT FLAMMAM MEMBRIS CONTEMPTIOR IGNIS.
SIRION HUNC GRAIPRIO SUUM NOMINE DICUNT. 335
CUM TETIGIT SOLIS RADIOS ACCENDITUR AESTAS

fol. 61v

DISCERNITQUE ORTU LONGE SATA VIVIDA FIRMAT
A QUIBUS ADSUETAS FRONDES AUT LANGUIDA CERNIS
EXANIMAT. NULLO GAUDET MAIUSUE MINUSUE
AGRICOLA ET SIDUS PRIMO SPECULATUR AB ORTU. 340

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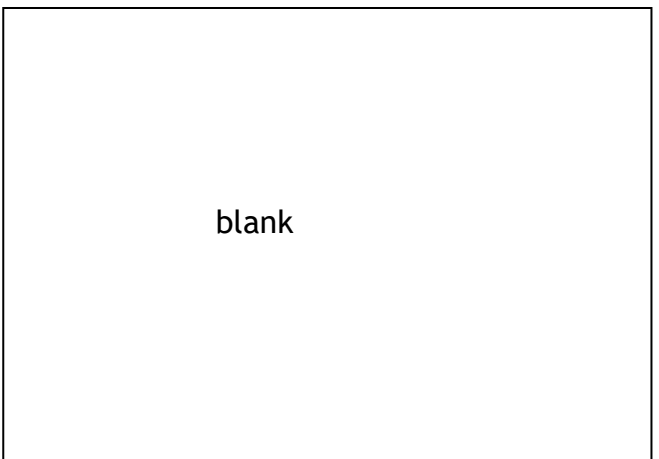
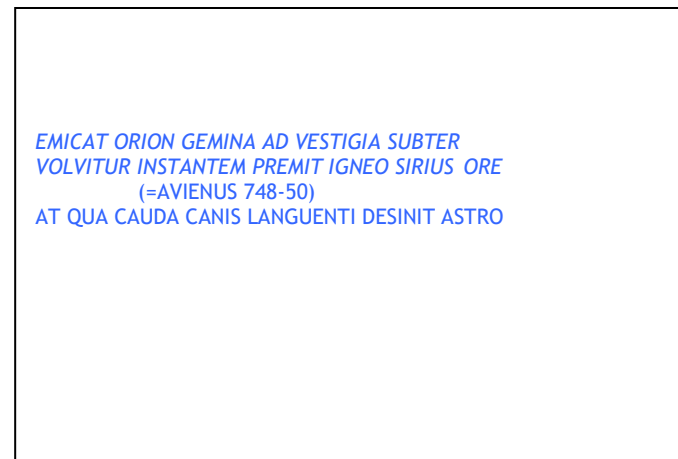
fol. 62v



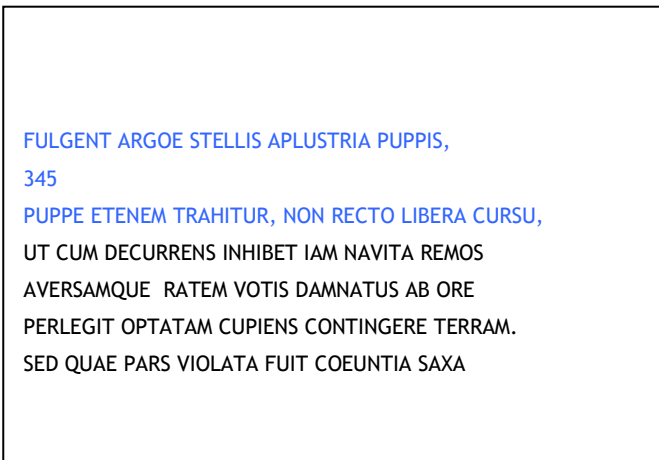
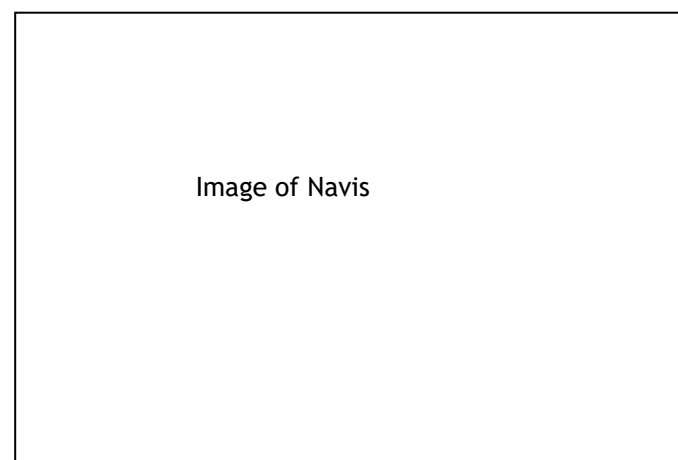
AURITUM LEPOREM SEQUITUR CANIS ET FUGIT ILLE
VRGETUR CURSU RUTILI CANIS ILLE PER AETHERA
(=AVIENUS 749)
SIC UTRUMQUE ORITUR SIC OCCIDIT IN FRETA SIDUS

PARVULUS IN STELLIS LEPUS EST QUOQUE NAMQUE UBI MAGNUS
(= AVIENUS 747)

fol. 63v



fol. 64v



fol. 65v

NUMINE IUNONIS TUTUS CUM FUGIT IASON
 HAEC MICAT IN CAELO LATERI NON AMPLIOR AUCTA
 QUAM SURGIT MAIUS QUA DEBET REDDERE PRORAM
 INTERCEPTA PERIT NULLA SUB IMAGINE FORMA
 PUPPIS DEMISSO TANTUM STAT ROSCIDA LAVO. 355

blank

fol. 66v

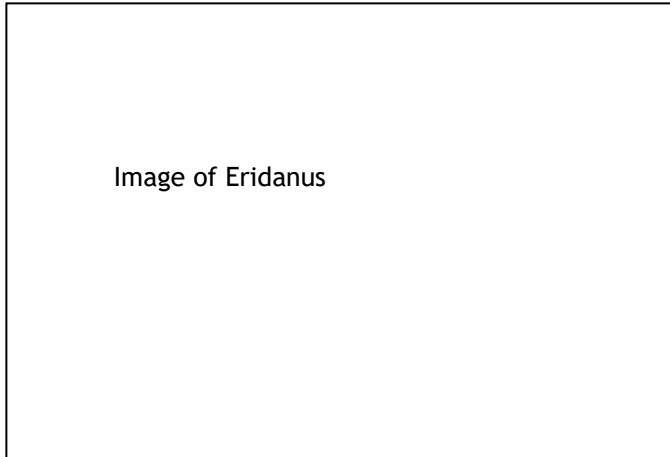
Image of Cetus

AT PROCUL EXPOSITAM SEQUITUR NEREIA PISTRIS
 ANDROMEDAM. MEDIA EST SOLIS VIA CUM TAMEN ILLA
 TERRETUR MONSTRO PELAGI GAUDETQUE SUB AXE
 DIVERSI POSITA ET BOREAE VICINA LEGENTE

AUSTER PRISTIN AGIT. DUO SIDERA PERLEGIT UNUM 360
 NAMQUE ARIES SUPRA PRISTIM PISCESQUE FERUNTER.
 BELVA SED PONTI NON MULTUM PRAETERIT AMNEM

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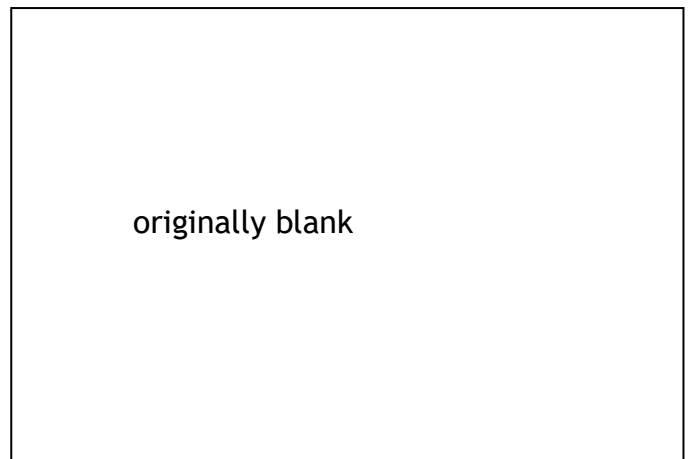
fol. 68v



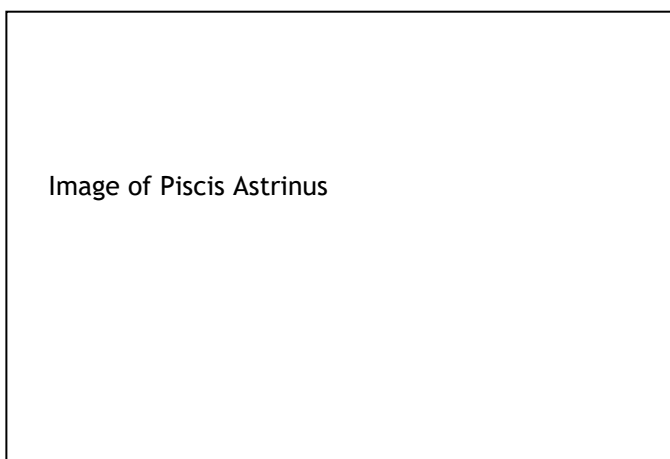
AMNEN, QUI PHAETHONTA SUAS DEFLEVIT AD UNDAS
 POSTQUAM PATRIS EQUOS NON AEQUO PONDERE REXIT
 VULNERE REDDENTEM FLAMMAS IOVIS HUNC NOVA SILVA
 PLANXERE IGNOTIS MAESTE PHAETHONTIDES ULNIS.
 HERIDANUS MEDIUS LIQUIDIS INTIACET UNDIS.
 HUIUS PARS UNDE MEDIUM TENET ORIONIS
 LAPSA PEDEM. PROCUL AMOTIS QUI PISCIBUS USUS
 VINCULA COIECIT, NODUS CRISTAM SUPER IPSAM 370

fol. 69v

AEQUOREE PRISTIS RADIANS. SUNT LIBERA CAELO
 SIDERA NON ULLAM CAELO REDDENTIA FORMAM
 SUB LEPORIS LATUS AVERSAM POST DENIQUE PUPPIM
 INTER ET HERIDANUM FLEXUS CALVUMQUE CARINAE.
 ATQUE HAEC IPSA NOTA EST NULLAM PREBUERE FIGURAM SUNT
 ETIAM TOTO SPARSI SINE NOMINE MUNDO
 INTER SIGNA IGNES QUIBUS ETSI PROPRIO DESIT
 FORMA PER OPPOSITI NOSCUNTUR LUMINA SIGNI.



fol. 70v



EST ETIAM A GEMINIS DIVERSIS PISCIBUS UNUS
 QUI BOREAN FUGIAT TOTUS DIRECTUS IN AUSTROS 380
 VENTRE SUB AEGOCHERI PRISTIM CONVERSUS AD IMAM.
 INFIMUS HYDROCHOUS SED QUAE VESTIGIA FIGIT

fol. 71v

SUNT ALIAE STELLAE QUA CAUDAM BELVA FLECTIT
 QUAQUE CAPUT PICIS MEDIA REGIONE LOCATAE
 NULLUM NOMEN HABENT NEC CAUSA EST NOMINIS ULLA
 SIC TENUIS CUNCTIS IAM PENE EVANUIT ARDOR.

blank

fol. 72v

Image of Ara

TURIBULUM VICINUM AUSTRIS SACRO IGNE VIDEBIS
 ARCTURUM CONTRA SED QUANTO TARDIUS ILLE 395
 OCEANUM OCCASUM TANTO ET MAGIS ARTE
 TURIBULI METAE. VIX CAELUM SUSPICIT ET IAM
 PRECIPITI TRACTU VASTIS DIMITTITUR UNDIS.
 MULTA DEDIT NATURA HOMINI RATA SIGNA SALUTIS
 VENTURAMQUE NOTIS CLADEM DEPELLERE SUASIT. 400
 INTER CERTA LICET NUMERES SUB NOCTE CAVENDA
 TURIBULUM NAM SI SORDEBUNT TEMPORA CAELI
 NUBIBUS OBDUCTIS ILLO SPLENDENTI METUENDUM

fol. 73v

[N]E PACEM PELAGI SOLVAT VIOLENTIOR AUSTER.
 [T]UNC MIHI SICCENTUR SUBSRICTO CORNUA VELO405
 [E]T RIGIDI EMITTANT FLATUS PER INANE RUDENTES.
 [Q]UOD SI DEPRENSAE TURBAVIT LINTEA PUPPIS
 [I]NCUBUITQUE SINU LAXO VEL MERGITUR UNDIS
 [P]RONA RATIS SURVETQUE INIMICUM NEREA PRORA
 [V]EL SI RESPEXIT SERVATOR IU PITER AEGRE 410
 [U]LTIMA PERSOLVUNT IACTATĒ VOTA SALUTIS
 [N]EC METUS ANTE FUGIT QUAM PARS EFFULSERIT OMNIS
 [Q]UA BOREAN CAELUM SPECTANTIBUS INDICET ORBEM.

SUNT ETIAM FLAMMIS CONMISSA INMANIA MEMBRA
 CENTAURI CAPITE ATQUE HYRSUTO PECTORE ET ALVO 415
 SUBTER CANDENTIS HOMINEM REDDENTIA CHELAS
 INDE PER INGENTIS COSTAS PER CRURA PER ARMOS
 NASCITUR INTACTA SONIPES SUB VIRGINE. DEXTRA
 SEU PREDAM SILVIS PORTAT SEU DONA PROPINQUAE

fol. 75r

PLACATURA DEOS CULTOR IOVIS ADMOVET ARAE 420
 SIC ERIT ILLE PIUS CHIRON TUTISSIMUS OMNIS
 INTER NUBIGENAS ET MAGNI DOCTOR ACHILLIS.
 HINC HUMERO MEDIUM SCANDIT ITER AETHERIS ALTI
 SI TENUEM TRAXIT NUBEM STELLASQUE RECONDIT
 [T]OTO CLARUS EQUO VENIENTIS NUNTIAT EUROS.425

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fol. 76v

Image of Hydra, Crater and Corvus

NEC PROCUL HINC HYDROS TRAHITUR CUI CAUDA SUPERNI
 CENTAURUM LUCET TRACTUS SUBIT ILLE LEONEM
 PERVENIT AD CANCRUM CAPITI ET TRISTIA SIDERA TANGIT.
 HIC PRIMUO EST TORTUS CRATER PREMIT ULTERIORES

fol. 77v

VOCALI ROSTRO CORVUS FORAT. OMNIA LUCENT 430
 ET CORVUS PENNIS ET PARVO PONDERE CRATER
 ET SPATIO TRIPLICI FORMATUS SIDERIS HYDROS.

blank

fol. 78v

Image of Canis Minor

SUB GEMINIS PROCYON FULGENTIA LUMINA SURGIT.
HIC CAELO ORNATUS TRAHITUR NOCTEMQUE DIEMQUE;

fol. 79v

SORS SUA CUIQUE DATA EST; SEMEL ADSIGNATA TUENTUR
INMOR[EXPUNTUATED]TI LOCA NEC LONGO MUTANTUR IN
AEVO.

blank

fol. 80v

Image of the 5 planet gods

AT QUINQUE STELLAE DIVERSA LEGE FERUNTUR
ET PROPRIO MOTU MUNDO CONTRARIA VOLVUNT
CURRICULA EXCEDUNTQUE LOCO ET VESTIGIA MUTANT.
HAUD EQUIDEM POSSIS ALIO CONTINGERE SIGNO 440
QUE DIVISA DIES. HINC ATQUE HINC SAEPE VIDENTUR

fol. 81v

OCCASUS ORTUSQUE. NEQUE AMFRACTUS BREVIS ILLIS,
ANNONASQUE VIAS TARDUS VIX PERFICIT ORBIS.
HOC OPUS ARCANIS SI CREDAM POSTMODO MUSIS
TEMPUS ET IPSE IN LABOR PATIATUR FATA DOCEBIT.

blank

fol. 82v

Image of 4 seasons

SIGNORUM PARTES QUORUM EST PRAEDICTA FIGURA
ANNUM EXPECTURI PRAEDICUNT QUATTUOR ORBES.
INTERVALLA TRIUM TRANSVERSUS COLLIGAT UNUS.
NEC PAR EST ILLIS SPATIUM DUO NAMQUE FERUNTUR
INTER SE AEQUALIS QUORUM EST MAXIMA FORMA
ET TOTIDEM INTER SE PRAEDICTIS ANTE MINORES.
HI SEMPER DICTANT ILLOS COMMUNIA SIGNA
CONMITTUNT. QUA SE TANGUNT PARS AEQUE ROTARUM
DIVIDITUR BINOS UT SI QUI DESECET ARCUS.
DISSIMILIS CUNCTUS LIQUIDA SUB NOCTE VIDETUR 455
SIDERA CUM REDDUNT SINCEROS EMINUS IGNES.
LACTIS EI COLOR ET MEDIIS UT LUCET IN UMBRIS.
LACTEUS HIC ORBIS NULLO MINOR ORBE ROTATUR.
CELSIOR AD BOREAM QUI VERGIT CIRCULUS ALTOS
ET PERAGIT TRACTUS VICINIS HAUD PROCUL URSIS⁴⁶⁰

fol. 83v

PER GEMINOS CURRIT MEDIOS VESTIGIA TANGIT
AURIGAE PLANTMQUE TERIT PERSEIDA LEVA
TRANSVERSAE ANDROMEDAE SECAT UTRAQUE LATERA TACTU
ET TOTAM AB UMERO DEXTRAM; SUMMA UNGULA CURSU
DIVIDET ET SAGITTEIFERI MEDIUM PERNICIA CRURA ...

[...]

fol. 85v

(begins with v. 518 on this page)

... QUARTUS AB OCEANO TANTUM VESTIGIA MUTAT,
 OBLIQUO CURRENS SPATIO, QUANTUM CAPRICORNUS
 AESTIFERO DISTAT CANCRO, QUAM LATUS AD AURAS
 AETHERIAS SURGIT, TAM SCARIS MERGITUR UNDIS.
 IN SEX SIGNIFERUM SI QUIS DIVISERIT ORBEM
 AEQUALIS ARIES, SUCCUMBIT REGULA BINIS
 INFERIOR SIGNIS SPATIIS TANTUMQUE TENEBIT
 UNA, SUIS LATERIS QUANTUM A TELLURE RECEDIT;
 NEC TAMEN HUMANOS VISUS FUGIT ULTIMUS ORBIS.
 HAEC VIA SOLIS ERIT BIS SENIS LUCIDA SIGNIS.
 NOBILIS HIC ARIES AURATO VELLERE, QUONDAM

QUI TULIT IN TAUROS PHRIXUM, QUI PRODIDIT HELLEM,
 QUEM PROPTER FABRICATA RATIS, QUEM PERFIDA COLCHIS
 SOPITO VIGILE INCESTO DONAVIT AMORE.
 CORNIGER HIC TAURUS, CUIUS DECEPTA FIGURA
 EUROPE,...

(ends v. 547 on this page)

APPENDIX V

Opening verses re: pictures and *scholia* (red = missing lines; ¶ = new topic)

Bern 88, ff. 1r-1v

CLAUDII. CAESARIS. ARATI PHOENOMENA.

AB IOVE PRINCIPIUM MAGNO DEDUXIT ARATUS.

Carminis at nobis genitor tu maximus auctor.

Te veneror. tibi sacra fero. doctique laboris

Primitias probat ipse deum rectorque sartorque

Quantum & enim posse^[i]nt anni certissima signa.

Qua sol ardentem cancrum rapidissimus ambit.

Diversaque secat metas gelidi capricorni

Que^[a]ue aries & libra equant divortia lucis.

Si non parta ^[tanta]quies te preside puppibus aequor.

Cultorique dar& terras. procul arma silerent.

Nunc vacat audacis ad ^[ini]caelum tollere vultus.

Sideraque & mundi varios agnoscere motus.

Navita quid caveat. quid scitus vit& arator;

Quando ratem ventis. aut creat semina terris.

Haec ero dum Latiis conor ^[cogor]predicere musis.

Pax tua tuque adsis nato. numenque secundes.

5

10

15

Image
of
Jupiter

¶ CETERA QUÆ TOTO FULGENT VAGA SIDERA MUNDO.

Indefessa trahit proprio cum pondere celum. < Ursa Minor '*scholia*' here

Axis at immotis semper vestigia servat.

Libratasque ten& terras. & cardine firmo.

Orbem agit extremum. geminus determinat axem.

Quem Grai dixere polum. ^[pars]quo mersa sub undas.

Oceani pars celsa. sub horrifero aquilone;

¶ Axem nam cretae dextra laeveque tuentur.

Sive arctoe seu romani cognominis ursae.

Plaustra quae que facies stellarum proximo vero.

Tres temone ^[rotis]polisque micant sublime quaternae.

Simelius dixisse feras. obversae refulgent.

Ora feris. caput alterius saper horrida terga.

Alterius reluc& pronas rapit axis in ipsos

Declives humeros veteris sic gratia famae;

Cresia vos tellus aluit modrator olympi

Donabat ^[vit]caelo meritum custodia fecit;

Qui^[o]d fide comites. prima incunabula magni

Foverunt iovis attonite cum furta parentis.

Aerea pulsantes mendaci cymbali dextra

Vagitus pueri. patrias ne tanger& aures.

Dictaei texere ady^[de]tis famuli choribantes

Hinc iovis altrices. helice. cinasuraque fulgent.

Dat grais helice cursum maioribus astris

Phenicas cynosura regit. sed candida tota

Et liquido splendore helice nit& haut prius ulla

Cum sol oceano fulgentia condidit ora.

Stella micat caelo. septem quam cresia flammis;

Certior est cynosura tamen sul cantibus aequor .

Quippe brevis totam fido se cardine vertit.

Sidoniamque ratem numquam spectata fefellit;

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45

Image of
Draco inter
arctos

< Ursa Maior '*scholia*' here

< Draco '*scholia*' here

¶ Has inter medias abrupti fluminis instar.

Immanis serpens sinuosa volumina ^[torquet]versat.

Hinc atque hinc supraque illas mirabile monstrum.

Cauda helicen supra tendit ^[pene]redit ad cynosuram

Squamigero lapsu. qua desinit ultima cauda.

Hac caput est helices; flexu comprehenditur alto.

Serpentis cinosura; ille explicat amplius orbes

Sublatusque retro maiorem respicit arcton;

Ardent ingentes oculi. cava tempora claris

Ornantur flammis. mento sedet unicus ignis;

Tempus dexter^[us]quem signat stella draconis.

Quaque sedet mento. luc&que novissima cauda.

Extremumque helices sidus micat hac radiatur

Serpentis decline caput ^[qua]sic proxima signa

Occasus ortusque uno tanguntur ab orbe.

Oceani tumidis ignotae fluctibus arctoe

Semper inocciduis servantes ignibus axem.

¶ Haud procul effigies inde est defecta labore

Non illi nomen non magni causa laboris

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60

65

Image of
Hercules

<p style="color: red;">Dextro namque genu nixus diversaque tendens Bracchia suppliciter passis ad numina palmis Serpentis capiti figit vesitigia laeva.</p>	<p>69 90</p>	<p>< Hercules '<i>scholia</i>' here</p>
<p>¶ IPSAM HELICEN SEQUITUR SENIOR BACULOQUE MINIATUR Sive ille arctophylax seu bacchi ob munera caesus Icarus ereptam pensavit sidere vitam. Non illi obscuram caput est non tristis membra Sed proprio tamen una micat sub nimone flamma Arcuturum dixere sinus qua vincula nodant.</p>	<p>95 70</p>	<p>< Corona Borealis '<i>scholia</i>'</p>
<p>¶ Tum fessi subter costas atque ardua terga CLARA ARIADNEO SACRASTAT IGNE CORONA Hunc illi bacchus chalami memor addit honorem here Terga nitent stellis adquas se vertice tollit . Succidius genibus lassum & miserabile sidus;</p>	<p>75</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Image of Corona Borealis</p> </div>
<p>¶ HIC OPHIUCHUS ERIT LONGE CAPUT ANTE NITENDO Et vastos humeros. tum cetera membra sequuntur; [...]</p>		

Verse breaks and location of illustrations and 'scholia' in Bern 88

(ed. and sic as in Bern 88; red = missing lines in Bern 88; blue = missing lines in Basle ms; ¶ = new topic)

(ff. 1r-1v)

CLAUDII. CAESARIS. ARATI PHOENOMENA.

AB IOVE PRINCIPIUM MAGNO DEDUXIT ARATUS.

Carminis at nobis genitor tu maximus auctor.

Te veneror. tibi sacra fero. doctique laboris

Primitias probat ipse deum rectorque sartorque

Quantum & enim posse^[n]nt anni certissima signa. 5

Qua sol ardentem cancrum rapidissimus ambit.

Diversaque secat metas gelidi capricorni

Que^[a]ue aries & libra equant divortia lucis.Si non parta ^[tanta]quies te preside puppibus aequor.

Cultorique dar& terras. procul arma silerent.

Nunc vacat audacis ad ^[in]caelum tollere vultus.

Sideraque & mundi varios agnoscere motus.

Navita quid caveat. quid scitus vit& arator;

Quando ratem ventis. aut creat semina terris.

Haec ero dum Latiis conor ^[cogor]predicere musis. 15

Pax tua tuque adsis nato. numenque secundes.

Image
of
Jupiter

10

¶ CETERA QUÆ TOTO FULGENT VAGA SIDERA MUNDO.

Indefessa trahit proprio cum pondere celum. < Ursa Minor 'scholia' here

Axis at immotis semper vestigia servat.

Libratasque ten& terras. & cardine firmo.

Orbem agit extremum. geminus determinat axem.

Quem Grai dixere polum. ^[pars]quo mersa sub undas.

Oceani pars celsa. sub horrifero aquilone;

¶ Axem nam cretae dextra laeveque tuentur.

Sive arctoë seu romani cognominis ursae. 25

Plaustra quae que facies stellarum proximo vero.

Tres temone ^[rotis]polisque micant sublime quaternae. < Ursa Maior 'scholia' here

Simelius dixisse feras. obversae refulgent.

Ora feris. caput alterius saper horrida terga.

Alterius reluc& pronas rapit axis in ipsos 30

Declives humeros veteris sic gratia famae;

Cresia vos tellus aluit modrator olympi

Donabat ^[vit]caelo meritum custodia fecit;Qui^[o]d fidē comites. prima incunabula magni

Foverunt iovis attonite cum furta parentis. 35

Aerea pulsantes mendaci cymbali dextra

Vagitus pueri. patrias ne tanger& aures.

Dictaei texere ady^[dei]tis famuli choribantes < Draco 'scholia' here

Hinc iovis altrices. helice. cinasuraque fulgent.

Dat grais helice cursum maioribus astris 40

Phēnicas cynosura regit. sed candida tota

Et liquido splendore helice nit& haut prius ulla

Cum sol oceano fulgentia condidit ora.

Stella micat caelo. septem quam cresia flammis;

Image
of
Draco
inter

20

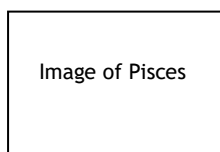
25

30

35

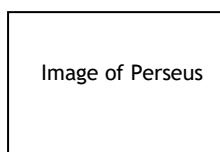
40

Certior est cynosura tamen sul cantibus aequor . Quippe brevis totam fido se cardine vertit. Sidoniamque ratem numquam spectata fefellit;	45
¶ Has inter medias abrupti fluminis instar. Immanis serpens sinuosa volumina ^[torquet] versat. Hinc atque hinc supraque illas mirabile monstrum. Cauda helicen supra tendit ^[pene] redit ad cynosuram Squamigero lapsu. qua desinit ultima cauda. Hac caput est helices; flexu conprenditur alto. Serpentis cinosura; ille explicat amplius orbes Sublatusque retro maiorem respicit arcton; Ardent ingentes oculi. cava tempora claris Ornantur flammis. mento sedet unicus ignis; Tempus dexteri ^[us] quem signat stella draconis. Quaque sedet mento. luc&que novissima cauda. Extremumque helices sidus micat hac radiatur Serpentis decline caput ^[qua] sic proxima signa Occasus ortusque uno tanguntur ab orbe. Oceani tumidis ignotae fluctibus arctoe Semper inocciduis servantes ignibus axem.	50
	Image of Hercules
	55
	60
¶ Haud procul effigies inde est defecta labore Non illi nomen non magni causa laboris Dextro namque genu nixus diversaque tendens Bracchia suppliciter passis ad numina palmis Serpentis capiti figit vesitigia laeva.	65
	69
¶ IPSAM HELICEN SEQUITUR SENIOR BACULOQUE MINIATUR Sive ille arctophylax seu bacchi ob munera caesus Icarus ereptam pensavit sidere vitam. Non illi obscuram caput est non tristis membra Sed proprio tamen una micat sub nimone flamma Arcuturum dixere sinus qua vincula nodant.	90
	< Hercules 'scholia' here
	95
¶ Tum fessi subter costas atque ardua terga CLARA ARIADNEO SACRASTAT IGNE CORONA Hunc illi bacchus chalami memor addit honorem here Terga nitent stellis adquas se vertice tollit . Succidius genibus lassum & miserabile sidus;	70
	< Corona Borealis 'scholia'
	Image of Corona Borealis
¶ HIC OPHIUCHUS ERIT LONGE CAPUT ANTE NITENDO Et vastos humeros. tum cetera membra sequuntur;	75
[...]	



HUNC ULTRA GEMINI PISCES QUORUM ALTER IN AUSTROS 241
 Tendit, threicium boream. petit alter et audit
 Stridentis auras, niveus quas procreat hemus;
 Non illis liber cursus sed vincula cauda
 Cingula utrumque tenent uno coeuntia nodo; 245
 Nodum stella premit piscis. qui respicit auras
 Threicias, dextram andromedę cernetur ad illam;

← 'scholia' begins at this line



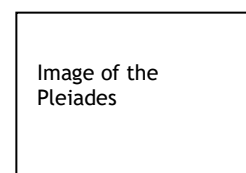
SUBTER UTRUMQUE PEDEM DEVOTAE VIRGINIS ALES
 Perseos effigies, servatae grata puellae;
 Moles ipsa viri satis est testata parentem; 250
 Tantus ubique micat, tantum occupat ab iove cęli;
 Dextra sublatę similis prope cassiępia.
 Sublimis fulget pedibus properare videtur.
 Et velle aligeris purum ęthera findere plantis.
 Poplite sub levo, tauri certissima signa; 255

← 'scholia' begins at this line

'scholia' begins at this line →

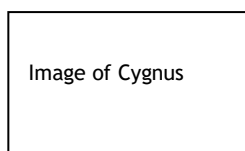
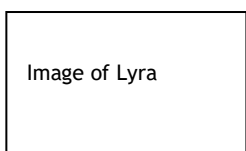
PLEIADES SUBERUNT BREVIS ET LOCUS OCCUPAT OMNES
 Nec facile est cerni, nisi quod coeuntia plura
 Nidera communem ostendunt ex omnibus ignem;
 Septem traduntur numero, sed carpitur una
 Neficiente oculo distinguere corpora parva; 260
 Nomina sed cunctis servavit fida vestutas.
 Electra alcyoneque celaenoque meropeque.
 Asterope et taygete et maia parentem
 Caelifero genitas, si viro sustinet athlas
 Regna lovis superosque atque ipso pondere gaudę;
 Lumine non multis plias certaverit astris.
 Praecipuo sed honore ostendit tempora binas
 Cum primum agricolam ventus super imminę agri;
 Et cum surgit hiems portu fugienda peritis.

265



'scholia' begins at this line →

QUIN ETIAM LYRA MERCURIO DILECTA DEORUM 270
 Plurimum accepte prohs celo nitet ante labore.
 Devictam effigiem plantae erecta quoque dextra;
 At cum surgit hiems. pontu fugienda peritis; (v. 269)
 Tempora laeva premit, tortis subiecta draconis.
 Summa genu subversa tenę qua se lyra versat.
 Contra spectat avem. vel phoebi quae fuit olim; 275



CYGNUS VELLE DAE THALAMIS QUI LAPSUS ADULTER
 Furta iovis falsa volucer sub imagine texit;
 Inter defectum sidus. cygnumque nitentem
 Mercurialis habę sedem lyra; multa videbis

	<p>Stellarum vacua in cygnum. multa ignea rursus; Aut medii fulgoris erunt penna ultraque laeta; Dexterio iuxta regalem cepheos ulnam. At leva fugit instantem sibi pegason ala. Piscibus interluc& equi latus. ad caput eius. Dextra manus latices qua fundit, aquarius exit;</p>	<p>280 ← 'scholia' begins at this line</p>
	<p>NEC PROCUL HINC DEXTRA DEFUNDIT AQUARIUS UNDAS. Atque imitata cadunt errantis signa liquoris; E quibus una magis sub cauda flamma reluc&. Squamigeri iustus pedibus. subit altera signa Fundentis latices. est et sine honore corona. Ante sagittiferi paulum pernicia crura. Scorpis erepta torquet qua spicula cauda;</p>	<p>285 367 390 ← 'scholia' begins at this line 393</p>
<div data-bbox="237 488 481 631" style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Image of Aquarius</p> </div>	<p>CUM PRIMUM ERGO CHERO SEMPER PROPERARE VIDETUR Oceano mersus sopitas condere flammās. Tum brevis occasus ortusque intercipit hora; Cum sol ambierit metas gelidi capricorni; Nam neque perfici& cursus & vota brevis lux;</p>	<p>286 290</p>
<p>'scholia' begins at this line →</p>	<p>Et cum terrores aug& nox atra marinos. Multum clamatos frustra expectaberis ortus; Tunc frigora. aut rapidis ponto tunc incubat auster. Nigra ministeria. & nautis tremor alligat artus; Sed rationem anni temeraria pectora solvunt. Nulla dies oritur. qua iam vacua equora cernant. Puppibus; & semper tumidis ratis innatat undis; Anterratem temptare undas iuvat aspera sed cum. Adsultat lateri depe&se spuma carinae. Tunc alti curvos prospectant litore postus. Inventasque alii terras pro munere narrant; Inter ea exanimat pavidos instantis aque mons. Ast alii procul a terra iactantur in alto. Punit eos breve lignum & fata instantia pellunt. Nam tantum a loeto, quantum rate fluctibus absunt;</p>	<p>300 305</p> <div data-bbox="1227 952 1471 1097" style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Image of Capricorn</p> </div>
	<p>BELLIGERUM TITAN MAGNUM CUM CONTINGET ARCUM Lucentumque ferum sinuato spicula nervo. Iam clausam ratione mare est. iam navita portu Infestam noctem fugiat. longasque tenebras; Signum erit exoriens nobis tunc nocte superba. Scorpius. ille micat supra freta cerula cauda. Insequitur gravis arcus & in lucem magis exit; Tunc alte cynosura regit. tunc totus in mundas. Vergitur Orion. humeris & vertice cepheus.</p>	<p>310</p> <div data-bbox="1203 1585 1447 1731" style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Image of Sagittarius</p> </div>
	<p>EST ETIAM, INCERTUM QUO CORNU MISSA SAGITTA. Quam servat iovis ales. habet miracula nulla; Si caelum ascendit iovis armiger. hic tamen arduum Unguibus innocuis prygium rapuit ganimedem Et telo appositus. cuius quo iuppiter arsit In puero. luit excidium quem troia furem.</p>	<p>315 320 ← 'scholia' begins at this line</p>
<div data-bbox="237 1758 481 1901" style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Image of Aquila</p> </div>		

<p>Image of Delphinus</p>	<p>DELPHINUS INDE BREVIS LUCET IUXTA CAPRICORNUM. <i>Paucis sideribus. tulit hic atlantida nym phen In thalamos neptune tuos. miseratus amantem; Sidera quae mundi pars celsior aethere uoluit. Quaeque uident borean ventis adsueta serenis; Diximus. Hinc alius declivis dicitur ordo. Senti& insanos obscuris flatibus austros;</i></p>	<p>← 'scholia' begins at this line 325</p>
<p>'scholia' begins at this line →</p>	<p>PRIMUS IN OBLIQUOM RAPITUR SUB PECTORE TAURI <i>Orion. non ulla magis vicina notabit Stella virum, sparsae qum toto corpore flamme. Tale caput. magnique humeri sic balteus exit. Sic vagina hensis. pernici sic pede ludet.</i></p>	<p>Image of Orion and Lepus 332</p>
<p>'scholia' begins at this line →</p>	<p>AUDITUM LEPOREM SEQUITUR CANIS ET FUGIT ILLE, <i>Urgetur cursu rutili canis. ille per ethra (=Avienus 749) Sic utrumque oritur. sic occidit in freta sidus;</i></p>	<p>341</p>
<p>'scholia' begins at this line →</p>	<p><i>Parvulus in stellis lepus est quoque namque ubi magnus Emicat Orion. gemina ad vestigia subter Volvitur. instantem premit igneo sirius ore (=Avienus 747, 748, 750) At qua cauda canis. languenti desinit astro. Talis ei custos aderit canis ore timendo; Ore vomit flammam membris contentior ignis. Sirion hunc grai priosum nomine dicunt; Cum tetigit solis radios. accenditur aestus Discernitque ortu longe sata. vivida firmat At quibus adsuetae frondes. aut languida cernis. Examinat. nullo gaud& maiusue minusue Agricola & sidus primo speculatur ab ortu.</i></p>	<p>Image of Canis Maior 344 333 340</p>
<p>Image of Argo</p>	<p>FULGENT ARGOE STELLIS APLUSTRIA PUPPIS, <i>Puppe &enim trahitur, non recto libera cursu. Ut cum decurrens inhib& iam navita remos Aversamque ratem votis damnatus ab ore Perligat optatam cupiens contingere terram. Sed quae pars violata fugit coeuntia saxa. Numine iunonis tutus cum fugit iason; Haec micat in c&elo, lateri non amplius aucta. Quam surgit maius. qua deb& reddere proram, Inter cepta perit. Nulla sub imagine forma. Puppis demisso tantum stat roscida clavo.</i></p>	<p>← 'scholia' begins at this line 345 350 355</p>
<p>Image of Cetus</p>	<p>AT PROCUL EXPOSITAM SEQUITUR NEREIA PISTRIS <i>Andromedam. media est solis via. cum tamen illa Terretur monstro pelagi. gaudetque sub axe Diversi posita. & boreae vicina legente Auster. pristin agit duo sidera. perlegit unum;</i></p>	<p>← 'scholia' begins at this line 360</p>

Namque aries supra pristim piscesque ferunter.
 Belva sed ponti non multum præterit amnem;

AMNEN, QUI PHETHONTA SUAS DEFLEVIT AD UNDA.

Postquam patris equos non equo pondere rexit.

Vulnere reddentem flammam. iovis hunc nova silva

365

Planxere ignotis maestę Phetontides ulnis.

'scholia' begins at this line →

Heridanus medius liquidis hic iniacę undis.

Huius pars undae medium tenę ferit ast orionis

Lapsa pedem procul amotis qui piscibus usus.

Vincula. conectit nodus cristam super ipsam

Aequorea pristrix radians; sunt libera caelo

Sidera non ullam cęlo reddentia formam;

Sub leporis latus. aversam post denique puppim.

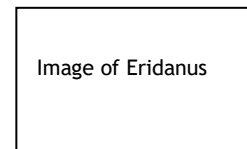
Inter ę heridanum flexus clavumque carinae.

Atque hęc ipsa nota est. nullam prebuere figuram.

Sunt ętiam toto sparsi sine nomine mundi

Inter signa ignes. quibus ęsi propria desit

Forma. per oppositi noscuntur lumina signi;



375

EST ETIAM A GEMINIS DIVERSIS PISCIBUS UNUS

Qui borean fugiat. totus directus in austros.

380

'scholia' begins at this line →

Ventre sub aegocheri, pristim conversus ad imam.

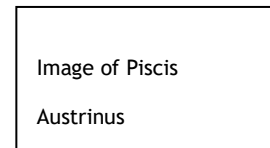
Infimus hydrochous. sed qua vestigia figit;

Sunt aliae stellę. qua caudam belva flectit

Quaque caput picis media regione locatę

Nullum nomen habent. nec causast nominis ulla.

Sic tenuis cunctis iam pene evanuit ardor;



385

APPENDIX VI:

Pictorial features of the three representatives of the Aratean tradition

(part 1):

<u>Germanicus with scholia</u>	<u>Vat grec 1087</u>	<u>Revised Aratus latinus</u>
summer and winter hemispheres ¹³⁷	ff. 310r-310v: summer and winter hemispheres	summer and winter hemispheres
planisphere ¹³⁸	fol. 310v: planisphere	
		globe on a stand
Aratus and his muse, Urania ¹³⁹		
Jupiter riding his eagle ¹⁴⁰	fol. 302v bottom: Jupiter riding his eagle	

(part 2):

<u>Germanicus with scholia</u>	<u>Vat grec 1087</u>	<u>Revised Aratus latinus</u>
	[Bears are split between ff. 303r and 304v]	Ursa Maior and Ursa Minor
<i>Draco inter arctos</i>	fol. 305r: <i>Draco inter arctos</i>	<i>Draco inter arctos</i>
Hercules with serpent and tree Corona Borealis	fol. 305v: Hercules Corona Borealis	Hercules Corona Borealis
Ophiuchus / Serpens / Scorpio [no individual Scorpio] Bootes	fol. 306r top: Ophiuchus / Serpens / Scorpio [no individual Scorpio] Bootes	Ophiuchus / Serpens / Scorpio Scorpio Bootes
Virgo Gemini Cancer Leo	[** Virgo then Leo on fol. 307r, with the intervening Gemini and Cancer missing]	Virgo Gemini Cancer Leo

¹³⁷ Hemispheres appear only in Aberystwyth 735C.

¹³⁸ Planispheres appear in Aberystwyth 735 C, Basel AN.IV. 18, Bern 88, Boulogne 188 and almost all of the *Siciliensis* Germanicus manuscripts.

¹³⁹ Appears only in Aberystwyth 735C and Madrid 19. See pp. .

¹⁴⁰ In both branches of the Germanican tradition, appearing in Boulogne 188 and Bern 88 in the 'Z family' and in Aberystwyth 735C, Madrid 19 and the *Siciliensis* manuscripts in the 'O family'.

Auriga Taurus	fol. 307v:	Auriga Taurus	Auriga Taurus
Cepheus Cassiopeia Andromeda	fol. 308r:	Cepheus Cassiopeia Andromeda	Cepheus Cassiopeia Andromeda
Pegasus Aries	fol. 303v:	Pegasus Aries	Pegasus Aries
Triangulum Pisces Perseus Pleiades Lyra	fol. 304r:	Triangulum Pisces Perseus [no Pleiades] Lyra	Triangulum Pisces Perseus Pleiades Lyra
Cygnus Aquarius Capricorn	fol. 304v:	Cygnus Aquarius. Capricorn	Cygnus Aquarius ¹⁴¹ Capricorn
Aquila Sagitta Delphinus	fol. 306r bottom: fol. 306v top:	Sagitta and Sagittarius Aquila Delphinus	Sagittarius Aquila Delphinus
Orion. Canis Maior	fol. 303r:	Orion Canis Maior	Orion. Canis Maior
Lepus Navis Cetus Eridanus	fol. 306v bottom: fol. 307r top:	Lepus Navis Cetus Eridanus	Lepus Navis Cetus Eridanus
Piscis Austrinus Ara	fol. 300v	Piscis Austrinus Ara	Piscis Austrinus Ara
Centaurus /Lupus	fol. 301r:	Centaurus /Lupus	Centaurus /Lupus
Hydra, /Crater / Corvus Canis Minor The 5 planet-gods	fol. 301v:	Hydra/Crater / Corvus Canis Minor The 5 planet-gods	Hydra, /Crater / Corvus Canis Minor The 5 planet-gods
Galaxia zodiacal rota	fol. 308v :	Galaxia zodiacal rota	Galaxia zodiacal rota

¹⁴¹ The order of Cygnus and Aquarius is reversed in the St Gallen manuscripts.

(part 3):

<u>Germanicus with scholia</u>	<u>Vat grec 1087</u>	<u>Revised Aratus latinus</u>
Luna		Luna
Sol-Apollo		Sol-Apollo
	fol. 302v top: Asini/Praesepe	[Asini/Praesepe] ¹⁴²
Austronotus		

¹⁴² See pp. _____ below.

APPENDIX VII

Descriptions of the constellations in the *Germanicus, Aratea* with *scholia**Stroziana* manuscripts (with additions and corrections by ELLY DEKKER)

- **URSA MAIOR** and **URSA MINOR** are shown completely enclosed within the curves of an S-shaped Draco. They are placed back-to-back and stand on the toes of their hind legs. Their heads are both towards the bottom of the page and their hind feet towards the top. Their front legs are held out in front of them. **Draco** is depicted as a snake, with his head to the right. He often has ears and sometimes a comb (Cologne, Egerton 1050, Madrid 8282, Barb lat 76 and 77). The bear closest to the tail of Draco (usually identified with Ursa Major) is adorned with 7 stars (the usual number of stars of Ursa Minor). In other words, the identification of the bears based on the stars added to them is contrary to that based on their location with respect to Draco. In all mss, the image of *Draco inter arctos* appears just before the text: *Vertices extremos circa quos spera...*

The only different image appears in Egerton 1050, where the bears both have their back to the left and they face in opposite directions, into the curves of Draco's body.

- **HERCULES** is depicted as a nude male standing towards the left, facing the serpent in the Garden of Hesperides, with his back towards the viewer. He holds a heart-shaped lion's skin that has one foot sticking out from it (there are two feet on Barb lat 76). He holds a club in his right hand behind his head. He is depicted as a clean-shave youth in all the mss except Barb lat 76 and Madrid 8282, where he has a beard.

The only different image is in Egerton 1050, where Hercules is set within a landscape and lunges toward the left and the serpent. He carries a spear in his upraised right hand.

- **CORONA BOREALIS** is depicted as a wreath with small, dot-like leaves that is bound at top and bottom with bands and has two pieces of fabric/ribbon coming out of the bottom.

The only different image is in Egerton 1050, where Corona Borealis is a wreath composed of long, pointed leaves and the thin ribbons make S-shapes as they leave the bottom of the wreath.

- **OPHIUCHUS** is depicted as a nude male, who stands to the left with his back facing the viewer. He is youthful and has long hair in all the mss, except for Naples XIV D 37 and

London BL Add 15819 (where he is bearded) and Barb lat 76 (where he has short hair). He holds the Snake's neck just below its head, which faces towards him, with his left hand. It then wraps once around his waist and then curls around at his right hand. He stands with both feet upon **Scorpio**, which faces to the left. The Scorpion always has two claws, has a varying number of legs, but all of the mss have a segmented tail ending in a curved sting.

The only different image is in Egerton 1050, where the man has a wreath in his hair and the Snake is knotted around his waist.

- **BOOTES** is a man wearing a short toga that stops at his knees and exposes his right arm and shoulder. He faces the viewer while walking toward the right. His left arm is stretched out, palm upwards in front of him and his right arm is raised behind his head and holds a stick. He wears a sword on his left hip on a strap that hangs from his right shoulder. He is bearded in all of the pictures. One begins to see some stylistic grouping at this point: Cologne 7 and NY Morgan M 389 have Bootes wearing a tunic under his 'toga'; and in Barb lat 77 and London BL Add 15819, he has a notably receding hairline.

The only different image is in Egerton 1050, where Bootes is rushing to the right and is nude except for a cloak which fastens at his right shoulder he holds a hefty club behind his head.

- **VIRGO** stands facing the viewer and is winged. She is dressed in a long robe and has over her shoulders a mantle that is held at her breast by a clasp. Her head appears to be uncovered. She holds her arms out to either side, with her left palm upwards or facing the viewer and her right hand holding a plant or sheaves of wheat. Barb lat 77 and Madrid 8282 share a peculiar hairstyle, which in the Vatican manuscript makes her seem to be balding. Cologne, NY Morgan M389 and Barb lat 76 all have her wearing a garment like a 'chausible' that has a heavy band at the waist and the hem with a thick vertical band connecting the two.
- The **GEMINI** are depicted as two, young male nudes, who wear short capes on their shoulders. The left Twin appears to be walking slightly to the right, towards the other twin and points to him with his right hand. The right Twin holds a U-shaped lyre or harp in his mantle-covered left hand to which he also points with his right hand (except for Vat Urb lat 1358, where he holds his hand up). In all of the models, his left leg is slightly bent so there is a certain degree of *dehanchement* in the figure's pose. The Twins are accompanied by **Cancer** as a crayfish in all of the mss, except Cologne 7 (where there is nothing) and Vat

Urb lat 1358, (where it is a Crab). Where Cancer appears, it is placed to the right of the couple, except for NY Morgan M 389, where it is to the left.

- **LEO** is a full-maned lion running to the left, with his head in profile and his tongue sticking out.

The only exceptions to this is in NY Morgan M 389, where he stands and raises his right forepaw and in Vat Urb lat 1358, he turns his head to face the viewer.

- **AURIGA** is depicted in all the manuscripts as a figure placed in a square cart that is drawn to the right by two white horses. The Charioteer holds a spear in the right hand and holds the reins in the left hand. The figure is male all the manuscripts, except for: NY Morgan M 389, Vat Barb lat 76 and Vat Urb lat 1358 (where she is seated, as is the figure in Egerton 1050) All of the figures have animals on their left shoulder and forearm, except Florence Laur 89 sup 43. The animals are clearly rabbits in all of the manuscripts, except NY Morgan M 389, where they are goats. **CHECK Cologne 7**
- **TAURUS** is $\frac{1}{2}$ a bull that faces to the left, with crescent shaped horns. He tucks his left leg completely under his body and extends his right one in front of him (except in Vat Urb lat 1358, where both legs are extended in front). The break in his body is depicted in a number of ways: with two tyre-like bands in Cologne 7, London BL Add 15819, London BL Egerton 1050, Madrid 8282, NY Morgan M 389 and Barb lat 76. In Florence Laur, 89 sup 43, his body ends in clouds; in Vat Barb lat 77 it is just cut off; and in Vat Urb lat 1358, there is a kind of cummerbund.
- **CEPHEUS** is a male figure that stands with his legs apart, facing the viewer. He holds his hands stretched out to either side. He wears boots, a short tunic and cloak that is draped over his head. The exception is Vat Urb lat 1358, where his head is bare, and London BL Egerton 1050 (see below). His short cloak billows out to the left side in Cologne 7, Florence Laur 89 sup 43, London BL Add 15819, NY Morgan M 389 and Vat Barb lat 76. He is bearded and wears a sword on his left hip from a strap that is hung over his right shoulder. It is also worth mentioning that the face of Cepheus is darkened in London BL Add 15819 and Naples XIV D 37.

The main exceptions are found in London BL Egerton 1050, where he is shown as a youthful nude male, with a cloak around his shoulders, upon whose ends he treads. He is beardless and has very long hair.

- **CASSIOPEIA** is seated on a wooden throne with her hands stretched out to either side, her head is uncovered and she wears a toga-like garment that variously exposes her upper torso. Both breasts are exposed in all but Cologny 7, London BL Add 15819, London BL Egerton 1050, and Naples XIV D 37 in which mss only the right breast is visible. The top of her throne is convex in all the manuscripts, except for Cologny 7 and Florence Laur 89 sup 43 (where it is straight) and London BL Egerton 1050 and Vat Urb lat 1358 (where it is concave). Cologny 7, NY Morgan M 389 and Barb lat 76 share the feature of an edge of her cloak hanging over he left arm. Her skin is darkened in London BL Add 15819 and Naples XIV D 37.
- **ANDROMEDA** is a young woman with long hair, placed facing the viewer. She is dressed in a long gown and has long, bell-shaped sleeves in all the manuscripts, except Florence Laur 89 sup 43, London BL Egerton 1050, Vat Barb lat 77 and Vat Urb lat 1368. She is flanked by rocks in all the manuscripts, except Florence Laur 89 sup 43 and NY Morgan M 389. She is tied to these rocks in all but London BL Egerton 1050. She appears to hover well above the ground line in London BL Add 15819, Madrid 8282 and Vat Barb lat 77. Her dress seems heaviest and ‘medieval’ in Cologny 7, NY Morgan M 389 and Barb lat 76. In the others, she is dressed is a slightly more *ninfa*-fashion, especially in London BL Egerton 1050. Her face is darkened in London BL Add 15819 and Naples XIV D 37.
- **PEGASUS** is depicted as half a winged horse facing right in all of the manuscripts. Also, his body is truncated with a slightly peculiar, wedge-shaped band in all but Florence Laur 89 sup 43, where is body just ends and he is shown flying through the clouds.
- **ARIES** leaps to the left, while turning his head backwards towards the right. The two major distinguishing features are the length of the tail and the shapes of the horns. He has an extremely long, thin tail in Cologny 7 and Vat Barb lat 76. His horns are curled inwards (like a ‘C’) in Florence Laur 89 sup 43, Madrid 8282 and Barb lat 76. They are curled up and outwards in all the rest.
- **TRIANGULUM** is a nearly equilateral triangle.
- **PISCES** are two fish swimming in opposite directions, placed so their stomachs are closest to each other. They are joined by a cord at their mouths.

- **PERSEUS** is a young nude male who stands to the left (he is bearded and older in Vat Barb lat 76), facing away from the viewer. In some of the manuscript, he wears a hood and a long cape that covers his shoulders and then flows out behind his body to the right. And in Cologny 7, London BL Add 15819, Naples XIV D 37, NY Morgan XIV D 37 and Vat Barb lat 77, this hood has a small extra piece of cloth rising above the crown of the head. In some of the manuscripts, the hood has disappeared and become part of the cloak (Florence Laur 89 sup 43, Vat Barb lat 76 and Vat Urb lat 1358). He carries Medusa's head in his left hand in front of him and holds a halberd vertically in his right hand behind him. The only exception to this appears in London BL Egerton 1050 and Madrid 8282, where the figure is completely nude in the former and has no hood or head covering in the latter.
- The **PLEIADES** are depicted as seven young girls, arranged in two horizontal rows with four on the top and three on the bottom. There is nothing to distinguish one from the other. In most of the manuscripts, they appear as bust portraits set behind/upon long horizontal parapets. The parapets in NY Morgan M 389 and Vat Urb lat 1358 are decorated. In Florence Laur 89 sup 43 and London BL Egerton 1050, the busts are set on clouds. Stylistically, the girls in Cologny 7, NY Morgan M 389 and Vat Barb lat 76 are set apart by the heavy bands decorating the collars of their robes.
- **LYRA** is a U-shaped lyre or harp with a straight bar at the top from which a varying numbers of strings are strung. In general, the sides of the harp tend to wrap themselves around the crossbar, almost like a snake.

The only exception is London BL Egerton 1050 and London BL Add 15819, where the ends of the harp rise somewhat above the crossbar and its tuning pegs.

- **CYGNUS** is a long-legged, long-necked stork or heron with a pointed beak that walks towards the right. It has claws, rather than webbed feet (except London BL Add 15819 and below) and holds its wings out to the side.

The only exception to this type is in London BL Egerton 1050 and Naples XIV D 37, where Cygnus is depicted as a swan.

- In the depictions of **AQUARIUS** and **CAPRICORN**, the manuscripts are clearly split. In Cologny 7, London BL Egerton 1050 and NY Morgan M 389, the two constellations are depicted on separate pages. In all the other manuscripts, the two figures are contained within one picture. Beyond this, however, there is other evidence of a second split in the

iconography. In four of the manuscripts (Cologne 7, NY Morgan M 389, Vat Barb lat 76 and Vat Urb lat 1368), **Aquarius** is depicted as an older man wearing a short tunic and cape. In the first two manuscripts, the cape exposes his right arm, in the latter two, it does not. In the other manuscripts, he is depicted as youth, either nude (Florence, Laur 89 sup 43), scantily clad (London BL Add 15819 and Naples XIV D 37) or as a young Renaissance page (Madrid 8282). In all, he walks to the right, holding his urn upside-down in front of him, from which pours a stream studded with stars so that it resembles a pearl necklace.

The only exception to this type is in London BL Egerton 1050, where Aquarius stands facing the viewer. He is nude, except for a cape that flutters to the right, holds his urn in his extended left arm, from which nothing issues.

CAPRICORN is depicted in the normal fashion, but in a number of cases, in fishy half resembles a hunting horn more than any aquatic beast. The main differences between the manuscripts is in the shapes of his horns. Some have slightly bowed horns (Cologne 7, NY Morgan M 389 and Vat Barb lat 76), others have horns that are wavy (London BL Add 15819, Madrid 8282, Naples XIV D 37 and Vat Urb lay 1358) and in some, his horns are lyre-shaped (Florence Laur 89 sup 43).

- **SAGITTARIUS** is a centaur that leaps to the left. His human torso is nude in all the images, except Cologne 7 and NY Morgan M 389. He is bearded and wears an animal skin as a cape, which has two leonine feet and a long tail attached. He holds his bow with his left arm and pulls its string with his right. **Sagitta** is beneath his feet, pointing towards his front hooves (except in Cologne 7, NY Morgan M 389 and Florence Laur 89 sup 43). There is some kind of frilly or furry border between his human and equine halves.
- **AQUILA** is an eagle that stands towards the right, with its wings outstretched, but its head turned backwards towards the left. There is a second **Sagitta** beneath its feet, pointing to the right.
- **DELPHINUS** is a rather mean looking fish swimming to the left in all of the manuscripts. He only slightly resembles a dolphin in London BL Egerton 1950. Long curled nose and pointed teeth predominate.
- **ORION** is another one of the rare instances in which there is a high level of divergence. Cologne 7, NY Morgan M 389 and Vat Barb lat 76 show him as a bearded man, dressed in a short tunic, facing the viewer and walking towards the right, while looking back over his

right shoulder towards the left. His whole right side, including his extended right hand and arm, is covered with a cape. His right hand holds a sword vertically in front of him.

Florence Laur 89 sup 43 is posed in a similar fashion, but Orion is depicted as a youthful man. London BL Egerton 1050 is one step further away, with the young man posed as in the Florence manuscript, but, except for his cape, he is completely nude. The Orion in Vat Barb lat 77 and Madrid 8282 is quite different from the one in the preceding manuscripts, nearly identical to one another. They show a young man dressed as a Renaissance page, standing in a slightly fey pose, looking towards the left with a billowing cape covering his right arm and hand. London BL Add 15819 has a cloak that flutters like the two preceding manuscripts, but the youth has turned his whole body to the left and does not seem to face the viewer (note the bump of his buttocks). Vat Urb lat 1358 also depicts a young man, but one more confident in his stance, with his exposed right hand resting on his right hip.

- **CANIS MAIOR** is a sleek dog with a pointed head that rushes to the left. It wears a very wide collar, which has a ring on it, and sticks his tongue out. The only other feature worth mentioning is that in London BL Add 15819 and Naples XIV D 37, the dog's tail is quite tightly curled.
- **LEPUS** is a hare that leaps to the left. The only extra detail worth mentioning is that the hare in Vat Barb lat 76 has its tongue sticking out and evidence of rather sharp teeth.
- **ARGO** is a full ship in all of the manuscripts. In all but three, it has a very distinctive form that is almost like a canoe at its bow, but its stern end ends in a raised circular form. There is a central mast from which a flame issues (except in Vat Barb lat 76) and two oars in the front and two in the back. In Cologne 7, NY Morgan M 389 and Vat Barb lat 76, there is a structure consisting of two uprights and a crossbeam, from which the two steering oars at the back are hung. In the other manuscripts, the vertical supports are maintained, but not the crossbeam. In Florence Laur 89 sup 43, the ship is more normative, lacking the odd circular structure on the stern. Instead, there is a balustrade at bow and stern. The feature of the lit mast still appears. In Vat Urb lat 1358, the ship is also more normative, with the stern sporting an X-shaped balustrade. And in London BL Egerton 1050, the flaming mast is replaced with a crow's nest and the walls of the structure on the stern resemble a pulpit.
- **CETUS** is a winged dragon that faces to the right. He has a corkscrew reptilian tail, which ends in a kind of tassel, long pointed ears, a pointed nose, a beard, a mane, sharp teeth

and lions paws on its two front feet (except Vat Urb lat 1358, where it has talons). In Naples XIV D 37, its ears have become transformed into two white horns.

- **ERIDANUS** is placed perpendicular to the page in all of the manuscripts. He appears to be walking to the ‘right’, but given his orientation, seems to be walking down the page, with his right leg crossed in front of his left. He is completely nude and is bearded (except London BL Egerton 1050) and sports a pair of curved horns. As he walks, he trails his right hand behind him and lifts his left hand to his left ear (as if holding a mobile telephone; except in Vat Urb lat 1358, where his left hand is also down by his side). In the Coligny 7 manuscript, he is obviously holding something in this left hand that is curved on one side and pointed on the other (a clam shell?), but by the time one has reached NY Morgan M 389, the object has become subsumed by part of his bushy hair. In all of the pictures, there is an urn placed parallel to the river god’s body that is ‘upturned’ and pours water to the left of the page (or ‘down’ if one reads the picture that way). The shape of the urn is surprisingly consistent: a long-necked vessel with two curved handles, except for Vat Barb lat 76, where it is a simple pot. In London BL Add 15819 and Naples XIV D 37, a second picture has been added to the left of the main one (below the river god’s feet), which consists of flaming semi-circular shape, a nude male and a twisting ill-defined shape. Thanks to the addition of a label in the Naples manuscript, one can understand that this set is supposed to represent ‘phaeton’, and his fall from the fiery chariot of the Sun into the earthly waters of the River Po below.
- **PISCIS AUSTRINUS** is depicted as a large, upside-down fish in all of the manuscripts, facing to the left. To reinforce the idea of ‘families’, it is worth noting that the fish in Vat Barb lat 76 is nearly identical to the one in the Coligny 7.
- **ARA** is shaped like a chalice, and has flames coming out of the top. It is interesting that all but two manuscripts preserve the feature of having exactly four tongues of flame (Florence Laur 89 sup 43 and London BL Egerton 1050 are the exceptions). Also these two manuscripts and NY Morgan M 389 and Madrid 8282 are the only ones not to have the bottom of the chalice shaped like acanthus leaves.
- **CENTAURUS** is a centaur that runs to the right, his upper body twisted so that it faces away from the viewer. He is bearded and wears some sort of cap on his head (except, London BL Egerton 1050, where he is bare-headed). His human torso is nude, but he has an animal-skin cape ties around his neck and it flutters out to the left, with two rear paws and a long tail evident. There is some kind of band separating his human and equine halves. In his outstretched right hand, he holds an animal on its back with its legs pointing upwards.

In Florence Laur 89 sup 43, London BL Egerton 1050 and NY Morgan M 389, this creature is clearly a rabbit. In Naples XIV D 37, the animal has disappeared and the Centaur is shown carrying a large stemmed dish in his hand (the Renaissance approximation of a thurible), from which flames issue. In Florence, Laur 89 sup 43, London BL Add 15819 and Vat Barb lat 76, only the base of the thurible is visible. But in Cologne 7, NY Morgan M 389 and London BL Egerton 1050, the base of the thurible has become transformed into a wooden keg, held on to his wrist by a strap. In all of the manuscripts (except London BL Egerton 1050), he holds a spear in his hidden left hand, so that it appears above his left shoulder. In all of the manuscripts, there is a rabbit sitting on his left shoulder, facing backwards.

- **HYDRA, CRATER and CORVUS** are depicted together, with Hydra as a long snake, with an animal's head and two small protruding ears, which slithers to the left. Crater is an elegant urn with two handled (the Crater has no handles, but does have flames coming out of in Florence Laur 89 sup 43). Corvus is perched on the Snakes tail and faces forward.