

The textual and pictorial tradition of Basinio da Parma's *Astronomicon*

Basinio Basini da Parma was born in 1425 in the small mountain town of Vezzano near Parma, the son of a Mantuan soldier who had served under Ottobone dei Terzi.¹ He was educated, for the most part, in Mantua at the school of Vittorino da Feltre, probably remaining there until Vittorino's death in 1446. He continued his Latin studies in Ferrara under Guarino da Verona, where he was registered as a *magister* and *grammaticus* in 1448-49.² He is also described as '*maistro de poitria*' in a payment dated 23 August of the same year.³ In Ferrara, Basinio began an intense study of Greek under the tutelage of Theodore Gaza. Benedetto Soldati describes Gaza as possessing the ability to infuse his students with a passion for Greek literature, and it was certainly his influence that was responsible for Basinio's first attempts at Homeric imitation, the *Meleagris*, a three-book poem recounting the fable of Meleager and the Caledonian Boar, written between 1448 and 1449 and dedicated to Leonello d'Este.⁴ Basinio served Leonello not only as a poet, but also seems to have played a military role in the Estense bid to take over portions of the Parmense which had been left vulnerable by Filippo Maria Visconti's death in 1447. In 1449, Basinio fought with the Estense-backed troops led by Niccolò Guerriero dei Terzi (son of Ottobone) against the Rossi-led Milanese forces at Castello Guardasone. But when Francesco Sforza acceded to power in March 1450, Ferrara became a significantly less safe haven. Sometime between July and October 1450, Basinio fled to Rimini where he was warmly welcomed by Sigismondo

¹ See AFFÒ 1794; YRIARTE 1882, esp. pp. 255-59; TONINI 1884, I, pp. 100-08; SOLDATI 1906/1986, esp. pp. 74-104; FERRI 1914; FERRI 1925 and CAMPANA 1965. A version of these introductory remarks appears in LIPPINCOTT 1989, esp. pp. 418-19.

² See BORSETTI, II, p. 30; VOIGT 1893, I, p. 565; PARDI, p. 177 and CAMPANA 1965, p. 90. Campana notes that there is no reason to believe that he held his position at the Studio. Since the documents list him only as teaching grammar, it is more likely that he taught at the communal 'primary' or 'grammar' school.

³ See BERTONI 1917, pp. 69-70; BERTONI 1921, pp. 82 and 89-90 and CAMPANA 1965, p. 90.

⁴ SOLDATI 1906, pp. 78-80. The three books of the *Meleagris* are edited in *Basini Parmensis poetae opera*, 1794, I, pp. 345-47.

Pandolfo Malatesta and where he remained until his death in May 1457. The *Astronomicon* was one of four major poems Basinio wrote while he was court poet in Rimini.⁵

The *Astronomicon* was probably written in a relatively short period of time during the second half of 1455⁶. A letter written to his friend, Roberto Orsi, Basinio announces that he recently had finished editing his *Astronomicon* and had sent a copy to their mutual friend, Paulo di Sassoferrato.⁷ The letter bears the date of 27 October - but lacks the year. Most scholars, however, have accepted the proposal first suggested by Giacomo Ferri in 1793 that external references in the letter argue strongly in favour of its being dated to 1455.⁸

Basinio's poem is divided into two books, and totals around 1,204 lines. The illustrated sections of the *Astronomicon* fall in Book I, vv. 150-705. Here, Basinio describes 38 constellation groupings constellations in terms of their postures and positions relative to other constellations and to some of the Great Circles. The order in which the constellations are described is as follows:

⁵ In addition to the *Astronomicon* and the *Meleagris*, mentioned above, during this period, Basinio also wrote the *Hesperis* (a nine-book neo-Latin epic recording a series of military skirmishes between Sigismondo, fighting on behalf of the Florentine government, and the successive kings of Naples, Alfonso and Ferrante d'Aragona), and left another epic tale, *Argonautica*, unfinished at his death. For a resumé of the plot of the *Hesperis* and its place in 15th-century humanistic literature, see LIPPINCOTT 1989, esp. pp. 419-20.

⁶ Mitchell first dated the *Astronomicon* to between 1453 and 1457. See MITCHELL 1956. Chisena has refined this to the poem probably having been composed during a relatively short period of time, during the second half of 1455 and following the completion of the *Hesperis*. the second half of 1455, soon after the completion of his *Hesperis*. See CHISENA 2022, pp. 54-56.

⁷ The letter was first published by Girolamo Ferri in 1793. The pertinent passage reads: *Vale, et astronomica mea a me nuper edita, quae noster Paulus Saxoferratensis habet, perlege. A te enim quid de eo opere videatur, scire percupio. Vale iterum. Arimini, die Octobris XXVII.*

⁸ See FERRI 1793, pp. 208-09.

1. Draco inter arctos (Draco is called both 'Anguis' and 'Draco' and the two Bears (the Bears are not differentiated, but described as 'Ursae')
2. Bootes ('Arctophylax')
3. Corona Borealis ('Cressa Corona')
4. Hercules
5. Lyra
6. Cygnus ('Olor')
7. Cepheus
8. Cassiopeia
9. Andromeda
10. Perseus
11. Auriga
12. Ophiuchus ('Anguitenens') + Serpens
13. Sagitta
14. Aquila
15. Delphinus
16. Pegasus
17. Cetus ('Pistris Delphinum')
18. Eridanus
19. Lepus
20. Orion
21. Canis Maior
22. Canis Minor ('Procyon')
23. Argo
24. Centaurus + Lupus (called 'Lepus' !!) ⁹
25. Ara
26. Hydra + Crater + Corvus
27. Piscis Austrinus
28. Aries + Triangulus
29. Taurus
30. Gemini
31. Cancer
32. Leo

⁹ See below, pp. 6-8.

33. Virgo
34. Scorpio
35. Sagittarius
36. Capricorn
37. Aquarius
38. Pisces

In each section, Basinio mentions the zodiacal sign with which the constellation rises and sets; and then provides a versification of the positions of the stars in each. Irregularly, he also offers severely edited verse redactions of the catasteristic myths.

In the opening passages to Book II, Basinio announces his intention to discuss the seven planets, though the text itself focusses predominantly on the Sun and the Moon. There are also sections on the *thema mundi* and the sovereignty of the planets over each sign of the zodiac. As Chisena has pointed out, much of the astrological sections of Book II have been drawn from Macrobius's commentary on Cicero's *Somnium Scipionis*.¹⁰

Although the structure of the *Astronomicon* is loosely based on Aratus's *Phaenomena*, Basinio depends most closely on Hyginus for the descriptions in his star catalogue (see APPENDIX I).¹¹ The reliance is such that Soldati characterised

¹⁰ CHISENA 2022, p. 59.

¹¹ The connection with Hyginus is first mentioned by Drudi in his edition of the *Opera*, 1794, I, p. iv and is repeated by VOIGHT 1893, I, p. 583. Soldati's closer examination of the *Astronomicon* was the first to show that the general format of the poem was actually based on the *Phaenomena* of Aratus and that only the star catalogues (though he does not refer to these sections with this label) were drawn from Hyginus. See SOLDATI 1906, pp. 93-104. Unfortunately, he is not quite correct in his claim that the order of the constellations follow the Aratean tradition (*Onde in più di cinquecento e cinquanta versi, che negono a costituire la sostanza fondamentale del primo libro, ritae le figure degli asterismi, secondo l'ordine arateo...* (p. 86)); except to the extent that he considers Hyginus to be part of the 'Aratean tradition' (*...il quale via viene a collegarsi intimamente colla tradizione aratea* (p. 92)). With the exception of having moved the zodiacal constellations to the end of the list, Basinio follows the Hyginian order exactly.

Basinio's adaptation of Hyginus as having been done '*con tale larghezza e con una così pedissequa servilità, che ben si potrebbero chiamare iginiani, più che basiniani, i due terzi del primo libro del Astronomici*'.¹² Indeed, if one compares Basinio's descriptions of each constellation with the corresponding passages from Books II and III of Hyginus's *De astronomia*, the poem reads almost like a line-by-line versification of its prose model.¹³ Intriguingly, Basinio's poem never seems to have enjoyed widespread popularity.¹⁴ The manuscript tradition for the poem seems fairly well confined to Northern Italy and, even there, it ends with the close of the 15th century.¹⁵ The text was not edited until the 18th century.

In addressing the iconography of the constellations, one repeatedly returns to the question of whether and, if so, how and to what extent, illustrations of the constellations played a determining role in the construction of their textual descriptions. As unlikely as it may seem - for one tends to fall into the habit of characterising the humanists of the early Quattrocento as being overwhelmingly literary in their interest, repeating the mantra 'scholars devoted to words have little or no concern for pictures'¹⁶ - there is clear evidence that Basinio not only

¹² See SOLDATI 1906, p. 94.

¹³ Soldati compares the descriptions of Cygnus, Leo and the mythological discursus on Virgo to make the point. See SOLDATI 1906, pp. 94-97.

¹⁴ See SOLDATI 1906, pp. 103-04.

¹⁵ Chisena notes that there are some traces of the *Astronomicum* in the *Zodiacus vitae* of Marcello Paligenio Stellato (a.k.a. Pier Angelo Manzoli), which was first published in Venice in 1536. See CHISENA 2015, p. 80.

¹⁶ The quote is taken from a passage in LIPPINCOTT 1990, p. 97. The context is the question of why the *Astronomica* of Manilius, though exceedingly popular during the Renaissance, was never illustrated. The full reference runs: 'Given that the interest in the *Astronomica* [of Manilius] was apparently limited mainly to a small set of grammarians, it helps to explain why the poem was never illustrated, for surely it must have been as generally true in the fifteenth century as it is today, that scholars devoted to words have little or no concern for pictures. Illustrations are considered to have little or no value in determining the correct reading of a text, and, consequently, are superfluous'.

used the text of Hyginus's work to construct his verse, but that he relied on contemporary manuscript illustrations of that same text to form his understanding of the shapes and attributes of many of the constellations.

Two examples will suffice. The first is Basinio's description of the beast held by Centaurus. In the classical sources, this beast is given various names, such as *Θηρίον, λύκος, quadrupes, fera, bestia* or *bestiola, hostia, lupus, or panthera*.¹⁷ In Basinio's poem, however, the beast is described as a hare - *lepus*. He first uses the term to describe what Centaurus holds in his right hand:¹⁸

Ipse tenens dextrâ leporem decurrit

and, again, when he provides the descriptive star catalogue for the constellation:¹⁹

*At Lepus ut captus magnis cadit hostia divis
Parte pedm extremâ stellam tenet at duo caudâ
Sidera sunt summâ capiti tria, pectore stella est;
At pedibus primis una est quoque clara, sub ipso
Pectore et una latet...*

Whereas there is no significant classical source describing this beast as a hare,²⁰ there is however, a very strong pictorial tradition for depicting the animal held by Centaurus as a hare or rabbit. For example, Centaurus holds a hare:

- in three of the four early Cicero manuscripts²¹

¹⁷ This list is derived from Le Bœuffle 1977, pp. 146-47.

¹⁸ Basinio da Parma, *Astronomicon*, I, v. 491 (in *Opera* 1794, ed. DRUDI, p. 313).

¹⁹ Basinio da Parma, *Astronomicon*, I, vv. 506-08 (in *Opera* 1794, ed. DRUDI, p. 313).

²⁰ Le Bœeffle does note the appearance of an anomalous dog (XLV, 32) and a hare in the descriptions of Centaurus in the *Liber Hermes Trismegistus* (LXV, 4: ... *Hippocentaurus qui defert Leporem*). See Le Bœuffle 1977, p. 147, citing GUNDEL 1936, p. 200. Whereas it is just conceivable that Basinio might have come across this text, it seems highly unlikely that it could have played a significant role in the construction of his *Astronomicon*.

- in five *De ordine ac positione* manuscripts²²
- in the two 15th-century revised Aratus latinus manuscripts²³
- in two of the 15th-century Germanicus manuscripts²⁴
- and Centaurus holds a hare in his right hand (with a dog in his left) in three ps-Bede, *De signis caeli* manuscripts²⁵

Amongst the ‘non-humanist’ Hyginus manuscripts, Centaurus holds a hare in the following:

- Baltimore, Walters Art Gallery, W. 734, fol. 13r.
- Florence, Biblioteca Laurenziana, Plut. 29.30, fol. 24r
- Leiden, Universiteitsbibl., 8° 18, fol. 123r
- London, BL, Arundel, 339, fol. 84r
- Munich, Staatsbibl., clm 10270, fol. 4r
- Oxford, Bodleian Library, Digby 83, fol. 65r
- Wolfenbüttel, Herzog August Bibl., Ms 18.16. Aug 4°, fol. 20r.

But, the most consistent tradition for the appearance of the hare-toting Centaurus is in the 15th-century, Italian Hyginus manuscripts:²⁶

²¹ London, BL, Harley 647, fol. 12r; London, BL, Cotton Tib C.I., fol. 31v and London, BL, Cotton Tib B.V., fol. 43r.

²² Berlin, Staatsbibliothek, Ms lat 130 (Phillips 1832), 85v; Madrid 3307, fol. 62r; Monza, Biblioteca Capitolare, Ms F.9/176 (246), 69r; Paris, BN, lat. 8663, fol. 23v; BAV Vat lat 645, fol. 65r and Vienna, ÖNB, Vindob 12600, fol. 120r.

²³ Gottweig, Stiftsbibl. 7 (146), fol. 15v and BAV Reg lat 1324, fol. 32v.

²⁴ London, BL, Egerton 1050, fol. 30r and NY, Pierpont Morgan Library, M. 389, fol. 73v.

²⁵ Klosterneuberg, Stiftskirche, Ms 685, fol. 83r; BAV Vat. Lat 643, fol. 94v; and Zwettl, Stiftskirche, Ms 296, fol. 96v bis.

²⁶ Indeed, the only 15th-century, Italian Hyginus manuscript *not* to depict Centaurus carrying a hare is the Vatican manuscript, Urb lat 1358, the illustrations of which stand apart from the other Hyginus manuscripts of the period.

- Cambridge, Fitzwilliam Museum, Ms 260, fol. 31r
- Cortona, Libreria del Comune, Ms 184 (265), fol. 54r
- Florence, BNC, Magliabecchiana XI. 141, fol. 67r
- Florence, Biblioteca Laurenziana, Ashburnam 1148, fol. 58v
- Florence, Biblioteca Laurenziana, Plut. 89. sup 43, fol. 90v
- Milan, Biblioteca Ambrosiana, T. 47 sup, fol. 60r
- Milan, Biblioteca Trivulziana, N. 690 (E. 83), fol. 31v
- New York, Public Library, Spencer Ms 28, fol. 57v
- Oxford, Bodleian Library, Can class lat 179, fol. 39r
- Oxford, Bodleian Library, Can misc 46, fol. 120r
- Pavia, Biblioteca Universitaria, Aldini 490, fol. 96r
- Siena, Biblioteca comunale, Ms L. VI. 25, fol. 48v (46v new)
- Vatican, Biblioteca Apostolica, Vat lat 3109, fol. 48v and fol. 66v
- Vatican, Biblioteca Apostolica, Vat lat 3110, fol. 75r
- Verona, Biblioteca capitolare, Ms CCLXI, fol. 83v

This preponderance of hare pictures strongly supports the idea that Basinio drew his image of Centaurus and ‘Lepus’ from manuscript illustrations, rather than from the texts. Given that we know that Basinio based his star catalogue directly on Hyginus, the particular consistency of hare-imagery that one sees in the illustrations of contemporary Hyginus manuscripts suggests that these very pictures were the source of Basinio’s amalgamation.

The second example also points directly to the influence of illustrated Hyginus manuscripts on Basinio’s imagination. As has been mentioned elsewhere, there is a small group of illustrated Hyginus manuscripts, all of which appear to have been produced in Italy during the second half of the 15th century, where Aries is shown with the constellation of Triangulum placed so that the three sides of the triangle form a frame around his back-turned head.²⁷ This curious feature derives from a

²⁷ These manuscripts are further related through a number of other iconographic similarities, including Scorpio shown carrying the scales of Libra; Auriga depicted without a chariot with the two Haedi on his outstretched hand and Capra perched on his shoulder; Perseus dressed in a full suit of Renaissance armour; Cetus as a dog-faced monster and Hydra as a two-legged dragon with Crater and Corvus on his back. All these features reappear in the Basinio pictorial families (see pp. 12-24 below).

scribal error in which the Hyginian description of Aries as being *infra Triangulum* becomes transposed into its being *intra Triangulum*. Even in those Hyginus manuscripts where the text has been corrected, the pictures continue to show the Ram with his head encircled by a Triangle.

Outside this small group of Italian Hyginus manuscripts, the occurrence of illustrations of Aries *intra Triangulum* are curiously limited.²⁸ One would have thought that such an arresting image might have had a greater impact on contemporary iconography. One place where the image does reappear, however, is in the text and illustrations of Basinio's *Astronomicon*. His description of the zodiacal constellations begins as follows:²⁹

*Primum Aries signum est eoas versus in oras,
Ora caputque novum magni quod magna Trigoni
forma tegit.*

And, perhaps not surprisingly, all but two of the illustrated manuscripts of Basinio's poem preserve the variant iconography of 'Aries *intra Triangulum*'.³⁰ Whereas the hare-toting Centaurus is a relatively common feature in *Astronomicon* manuscripts, the fact that it reappears consistently in a particular family of early Renaissance

²⁸ Two additional manuscript images of the Triangle-bearing-Aries appear in Matteo Palmieri's *Città di Vita* (Florence, Biblioteca Laurenziana, Plut. 40 sup 53, ff. 44r and 44v). A third image appears in the Michael Scot manuscript in Padua (Biblioteca del Seminario, Ms 48, p. 5).

²⁹ Basinio da Parma, *Astronomicon*, I, vv. 506-08 (in *Opera* 1794, ed. DRUDI, p. 313).

³⁰ Basinio manuscripts which include illustrations of the Triangulum-bearing Ram include Bologna, Biblioteca comunale dell'Archiginasio, Ms A. 173, fol. 17r; Cambridge, University Library, Ms Dd. 4. 64, fol. 26r; London, Wellcome Institute Library, Ms 122, fol. 138r; Munich, Staatsbibliothek, clm. 99r; Oxford, Bodleian Library, Bodley Ms 646, fol. 17r; Parma, Biblioteca Palatina, Ms Parmense 27, fol. 47v; Parma, Biblioteca Palatina, Ms Parmense 1008, fol. 9v; Rome, Biblioteca Casanatense, Ms 4059, fol. 18v; Venice, Biblioteca Marciana, Ms XII. 194 (4128), fol. 15v and the manuscript sold at Sotheby's (London), 23 June 1992, lot 72, p. 38 and now part of the Cassa di Risparmio in Rimini. The two exceptions are: Florence, Biblioteca Marucelliana C.CLI and Ravenna, Biblioteca Classense, Ms 120.

Hyginus manuscripts is more interesting than compelling. The image of the Triangulum-bearing Aries, however, is specifically Hyginian. Moreover, all the manuscripts in which this feature appear are Italian and date to the sometime between 1440 and 1480. In trying to locate the origin of this image more precisely, it seems pertinent that there is only one known, large-scale example of the ‘*Aries intra Triangulum*’: namely, in the frescoes of the *Salone dei Mesi* in the Palazzo Schifanoia in Ferrara, dating to 1469.³¹ Considering that Basinio spent most of his early twenties in Ferrara with the humanist scholars attached to Leonello’s d’Este court, it seems likely that the image of the triangle-wearing Ram in both Basinio’s poem and in the Palazzo Schifanoia can be traced to a variant version of Hyginus’s text that was circulating in Ferrara during the late 1440s and 1450s.

There are 15 known copies of Basinio’s *Astronomicon*, of which 14 contain illustrations.³² The most detailed philological examination of these manuscripts to date has been carried out by Anna Chisena.³³ In it, she argues that even though the overall structure of Basinio’s poem was set in the first phase of his work on it, numerous emendations and corrections to the text appear to have been carried out in three main phases.³⁴ Creating stemmata to illustrate the history and relationships amongst these manuscripts is somewhat complicated by the fact that Basinio appears to have made emendations and corrections to several different manuscript copies simultaneously.³⁵ Nonetheless, Chisena suggests the following:

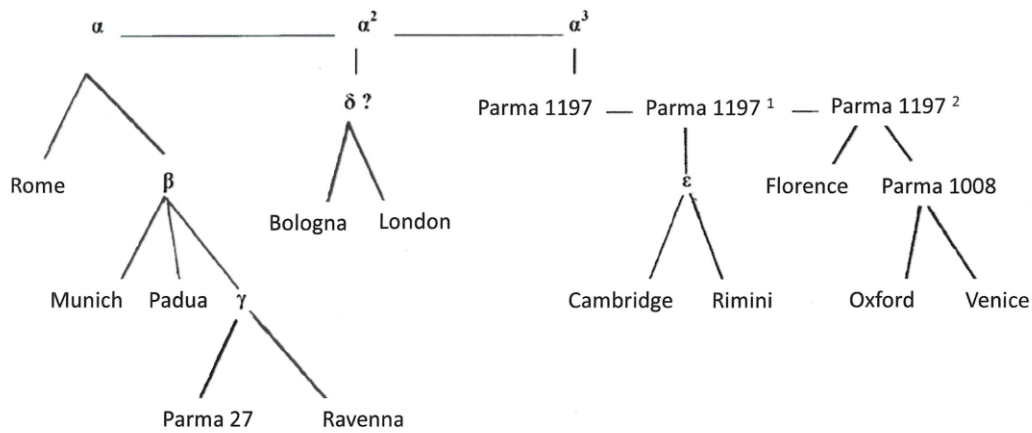
³¹ For a fuller discussion, see LIPPINCOTT 2006, esp. pp. 21-23.

³² See FRIOLI 1994; FRIOLI 2006; FRIOLI 2020; CHISENA 2016 and BLUME/HAFFNER/METZGER 2016, II, 2, pp. 656-700 and 978. The unillustrated copy is Parma, Biblioteca Palatina, Ms 1197, which appears to be a working draft of the manuscript, parts of which are in Basinio’s own hand and contains blank spaces into which the illustrations were to be inserted in later copies. See FRIOLI 2006; FRIOLI 2010; FRIOLI 2017 and FRIOLI 2018 and CHISENA 2022, p. 61.

³³ CHISENA 2016 (the PhD thesis is dated to the ‘ciclo XXVII; anni 2011/2015’).

³⁴ Frioli had already noted evidence of Basinio having significantly re-worked the text of his poem several times in her study of his autograph manuscript, Parma 1197. See FRIOLI 2006.

³⁵ CHISENA 2016, p. 83.



When it comes to the iconography of the constellations in these manuscripts, it is interesting to note that the philological families proposed by Chisena are mirrored quite closely in the iconographic families of the illustrations. Moreover, those manuscripts in which the iconography of the figures strays most notably from its proposed model always appear at the end of the stemma proposed by Chisena. In essence, then, the further a particular manuscript is from its supposed exemplar, the greater the number of variations that appear in the iconography of the constellation figures and the placement of their stars.³⁶

If one takes the cycle of illustrations in Hyginus manuscripts as a starting point, it becomes clear that the two manuscripts which have been identified as autograph copies of the text prove to have illustrations that adhere most closely to those found in the nearly-contemporary manuscripts of Hyginus's *De Astronomia*.³⁷

³⁶ CHISENA 2016 pp. pp. 84-85.

³⁷ These manuscripts have been classified as belonging to **HYGINUS Group IX** in the present study. They include:
Hyginus GROUP IXa: Cambridge, Fitzwilliam Museum, 260; Florence, BNC, Magliabecchiana XI. 141; Milan, Biblioteca Ambrosiana, T. 47 sup; Oxford, Bodleian Library, Can class lat 179; Siena, Biblioteca comunale, Ms L. VI. 25; Vatican, Biblioteca Apostolica, Vat lat 3109; and Verona, Biblioteca capitolare, Ms CCLXI.

GROUP I

Cambridge, University Library	Dd.IV. 64	North Italian (Rimini?) 2/2 15th century
Rimini, Cassa di Risparmio		Romagna (Rimini or Cesena?), c. 1455-65

The Cambridge manuscript, which has recently been identified as an autograph example of the *Astronomicon*,³⁸ contains a series of Greek glosses that have also been identified as being by Basinio's own hand. The illustrations have not been drawn by a professional artist. Several of the images look as if they might have been traced, while others demonstrate repeated efforts to try and capture the lines of the original. Note, in particular, the odd way in which the seaweed-like belly fins of Delphinus have been misunderstood in the Cambridge manuscript, so that the poor animal resembles a loaf of French bread. The current opinion is that these sketches represent Basinio's own attempt at illustrating his treatise. The most obvious suggestion is that he both copied and traced his images directly from an extant Hyginus manuscript.

The catalogue entry for the Sotheby's sale catalogue claims that the manuscript now in Rimini is 'almost certainly the earliest extant manuscript of the text' and 'may well be the dedication copy'.³⁹ The manuscript itself is dedicated to Domenico Malatesta, often

Hyginus GROUP IXb: Oxford, Bodleian, Bodley misc 46 and Milan, Trivulziana, N. 690

Hyginus GROUP IXc: Vatican, BAV, Vat lat 3110 and Florence, BNC, Magl. XI, 114,1

Hyginus GROUP IXd: Florence, Laurenziana, Ashburnam 1148

Hyginus GROUP IXe: Pavia, Bibl Universitaria, Aldini 490 and Vatican, BAV, Urb lat 1358.

³⁸ See FRIOLI 2006, pp. 260 and 267; MARIANI CANOVA 1994, pp. 207; CHISENA 2016, pp. 145-50 and CHISENA 2022.

³⁹ See the Sotheby's sale catalogue June 1992, pp. 80-87 and frontispiece, esp. p. 81 and 84.

known as Malatesta Novello (1418-1465), who was Lord of Cesena and Cervia from 1429 until his death. Malatesta Novello was the third illegitimate son of Pandolfo III Malatesta and, as such, Sigismondo Pandolfo Malatesta's half-brother.⁴⁰ Of a more reflective temperament than other members of his family, he seriously began to collect manuscripts in the 1440s, turning it to nearly full-time in about 1447, after serious battle injuries forced him to withdraw from more active pursuits.⁴¹ The core of his library still survives in the Biblioteca Malatestiana in Cesena.⁴² The dedication appears as part of the incipit on fol. 1r:

BASINII PARMENSIS AS/TRONOMICON LIBER PRI/MUS AD MAGNANIMUM IN/CLYTUMQUE
REGEM MAL' NOVEL'. /AETHERIOS ORBIS SUBIECTAQUE/ TEMPLA DEORUM/ Musa
cane: atque vias semper volventis olympi

The fact that none of the other manuscripts begin with such a dedication could suggest that Malatesta Novello was not the original patron of the poem, but merely the recipient of an early copy.⁴³ Alternatively, it could be that other owners of subsequent manuscripts had no desire to include this dedication line and simply deleted it. The possibility that this is a very early version of the poem is raised by the fact that the script, an attractive and well-spaced upright rounded humanist miniscule with burnished gold capitals

⁴⁰ For more information of Malatesta Novello, see FABBRI, *DBI*, LXVIII, 2007 (https://www.treccani.it/enciclopedia/malatesta-domenico-detto-malatesta-novello_%28Dizionario-Biografico%29/).

⁴¹ For information on his artistic and literary patronage, see most recently, *Le Muse e il Principe* 1991, pp. 121-29, cat. no 29, (entry by G. Mariani Canova); *The Painted Page* 1994, p. 22; LOLLINI 1995; LOLLINI 1998; and SYSON/GORDON *ad vocem*.

⁴² The current collection of the Biblioteca Malatestiana does not have a copy of the *Astronomicum*, though it does have a volume containing all of Basinio's other verses (Ms S. XXXIX, 9). It has been claimed that the Library, 'in its whole history, it has lost only six volumes' (see HOBSON 1970, p. 75). The shape of Malatesta Novello's private library, from which the Sotheby's catalogue entry posits 'the present manuscript may come' (p. 81) is less clear as no contemporary inventory has survived.

⁴³ Other versions of the *Astronomicum*, such as Bologna A. 173 and Parma 27, are bound together with copies of letters to Sigismundo Pandolfo Malatesta and Roberto da Rimini. Both these letters are edited Opera 1794 (ed. DRUDI), II, p. 31.

throughout, is very close to that found in a family of manuscripts, which are considered to have been written in Rimini for Basinio himself.⁴⁴

Whereas it was noted above that the constellation illustrations in these two manuscripts have been based on those found in contemporary copies of Hyginus's *De Astronomia*, it should also be noted that the illuminator of the Rimini manuscript was a highly-talented and self-assured artist, who appears to have felt free to offer his or her own elaborations on several of the figures, thus providing some unique and often bizarre pictorial compositions, which are noted below.

In comparing the illustrations in Cambridge and Rimini manuscripts to those found in the Hyginus GROUP IX manuscripts, for example, the shared features include:

- **DRACO INTER ARCTOS**, with Draco's head towards the bottom of the page, with the Bears back-to-back. Note how both the Cambridge and Rimini mss show Draco with a tri-partite tongue and how both sets of Bears stick their tongues out.
- **BOOTES** stands to the right, with his left leg on a box, holding a feminine ovate shield over his left arm and raising a club above his head in his right. Thought he has lost his step in the Cambridge ms, the figure is very close to that found in the Hyginus mss in Oxford, Verona and Florence BNC Magl. XI, 141. Oddly, the figure in the Rimini ms is shown standing with one foot on a box. Also, **CORONA BOREALIS** has been added to the illustration in the Rimini ms and is placed above the left shoulder of Bootes.
- **HERCULES** stands facing the viewer with the lion-skin draped over his extended left arm (with the face visible) and a club raised in his right hand. The figure's dress is very close to the Oxford Hyginus manuscript.
- **LYRA** is a stepped zither with a head attached to the right side of the instrument. The feature of the bird's head in both the Cambridge and Rimini mss also appears in the Siena Hyginus manuscript.

⁴⁴ The Sotheby's catalogue thanks A.C. de la Mare for drawing attention to the Bodley manuscript, Can class lat 81, which is a copy of Basinio's *Hesperides*, 'perhaps written under the author's supervision at Rimini and illustrated by Giovanni di Bartolo Bettini da Fano'. See *Sotheby's catalogue*, p. 84. See also the discussion of the possible artists of the Rimini manuscript in MARIANA CANOVA 1994 (attributing it to the so-called 'Master of De Civitate Dei'); BLUME/HAFFER/METZGER 2016 and the catalogue entry in the Saxl Project. The Bodley manuscript and its illustrations is discussed in PÄCHT /CAMPANA 1951.

- **CEPHEUS** has a pointed crown/mitre on his head that forms an overall diamond-shape on his head. A similarly shaped hat appears in the Hyginus mas in Florence BNC Magl XI, 114, 1.
- **ANDROMEDA** is nude to the waist, clutching at her shirt with her right hand and trailing her left hand behind her. The feature of very long hair falling down her back appears only in these two Basinio manuscripts, however.
- **PERSEUS** is dressed in armour, but his head does not have a helmet. He faces away from the viewer and holds the Medusa head in front of him. He has a long, curved sword held above his head. The Rimini ms adds the feature of recognisable snakes in Medusa's hair.
- **AURIGA** is dressed in rags, holds a flail in his raised right hand, two goat (rabbit?) heads in his raised left hand and has a goat on his left shoulder. In the Cambridge manuscript, he has the appearance of a 'wild man' with unkempt hair and his dress is made from animal skin. The closest parallel is with Siena L. VI. 25.
- **OPHIUCHUS** is nude and walks to the left and has **SERPENS** wrapped around his hips. He holds the Snake's neck in his right hand. His long, wild hair is especially close to Vatican, Vat lat 3109 (2nd set).
- **DELPHINUS** is on his back, with its curved snout to the right. As noted above, the artist of the Cambridge ms has misunderstood the seaweed-like fins on the belly of Delphinus (evident in the Rimini ms), showing them as triangular incisions, instead.
- **PEGASUS** has a bridle and faces to the right. The wings themselves form the cut-off. It is possible that the artist of the Cambridge illustrations has become confused by the shadow of the legs of Cetus coming through from the verso of this folio as he has added a set of downward-pointing feathers to Pegasus's wings, that exactly follow the shadow of Cetus's paws. The thick reins also appear in the Hyginus manuscripts: Vat lat 3109 (both images) and the Verona manuscript.
- **CETUS** has a dog's face. He shares the trilobate tip of his tail with the Hyginus mss of Oxford, Can class lat 179; Siena L.VI.25; Vat lat 3109 (both images); Vat lat 3110 and Verona manuscripts.
- **ERIDANUS** is a standing nude male, pouring water to the left. In the Rimini ms, the figure is clearly male, but the sex of the figure in the Cambridge is slightly less clear, though it is probably intended to represent a male figure.

The posture is similar to Hyginus manuscripts: Oxford, Cambridge, Fitzwilliam 260; Florence, BNC, Magl. 141 and Milan, Triv. N. 690.

- **ORION** tucks his left thumb in his belt and holds a club in his raised right hand. The only Hyginus manuscript to have this feature is Siena, L.VI.25.
- **NAVIS** is a full ship. The shape of the hull, balustrades fore and aft and the rigging in the Cambridge Basinio manuscript are very close to the one in Cambridge, Fitzwilliam 260.
- **CENTAURUS** holds a hare in his outstretched right hand, has a bare torso and no other attributes. This figure is very close to Florence, BNC, Magl. 141; Oxford, Can class lat 179 and Vat lat 3110.
- **ARA** is a round altar on a square base, with a flame on top, similar to the Hyginus mss: Florence, BNC, Magl. 141; Oxford, Can class lat 179; Siena L. VI.25 and Vat lat 3110.
- **HYDRA** is a two-legged dragon. In its pronounced snout and curved nose, the dragon in the Cambridge Basinio is especially close to Milan, Ambrosiana T. 47.
- **PISCIS AUSTRINUS** is not upside-down.
- **ARIES** is '*intra Triangulum*' with his head turned back. He is shown biting one side of the triangle in the both the Rimini and Cambridge mss. This particular biting feature also appears in Cambridge, Fitzwilliam 260; Florence, BNC, Magl. 141; Milan, Trivulziana N. 690; Oxford, Can class 179; Oxford, Can misc 46; and Siena L.VI.25.
- The **GEMINI** are depicted as young men, dressed in Renaissance clothes, shaking hands and the left Twin is holding his left hand raised, with the palm open. See also the Hyginus mss: Siena L.VI.25 and Verona.
- **VIRGO** is winged, with a wimple over her hair and she holds a sheaf of wheat in her upraised right hand and holds her left hand in benediction in front of her chest. Compare Vat lat 3110 and Verona.
- **SCORPIO** holds the Scales.
- **SAGITTARIUS** has no attributes, beyond his bow and arrow. He runs to the right.

The minor differences between these two manuscripts and the Hyginus illustrations include:

- **CEPHEUS:** The long loose robe and very long beard evident in the Cambridge ms is at odds with the Hyginian tradition.
- **CASSIOPEIA** sits on a high-backed bench/throne in the Rimini and Cambridge mss, but not in any of the Renaissance Hyginus mss. Also, she wears a crown in the Basinio mss, but this feature only appears in the German star books ('secundum Hyginum' (HYGINUS IV) mss).
- The Rimini ms has a very odd feature, which appears to be unique to this manuscript in that **ERIDANUS** is depicted with a large tree growing out of each of his biceps. The origin of this detail does not appear to be textual and there is nothing in the Hyginus illustrations to explain it, unless one cites a gross misunderstanding of the wisps of drapery coming from his left shoulder in Milan, Trivulziana, N. 690 or Oxford, Can misc 46 his slightly luxurious hair in the Florence, BNC, Magl. 141 or Verona manuscript. The feature does not appear in the Cambridge ms.
- **ORION's** animal-pelt cape does not appear in the Hyginus manuscripts. Note also that the Rimini manuscript includes a depiction of **LEPUS** running to the right to the right of Orion, but the neither the Cambridge ms, nor any of the 15th-century Hyginus mss have this addition - though several versions of the related German star-books ('secundum Hyginum' (HYGINUS IV)) include both Orion's knobbly club and the depiction of **LEPUS** in the image.

It is fairly clear, therefore that the illustrations in the two manuscripts that can be most closely tied to the hand of Basinio himself do, indeed, derive from those found in contemporary Hyginus manuscripts. Significantly, all of the manuscripts in the Hyginus GROUP IX are from the 15th century and all are Italian, with at least two originating in Northern Italy and one coming from either Ferrara or Mantua.

GROUP IIa:

There are a second group of manuscripts, which are still pictorially close to the Hyginus GROUP IX manuscripts, though there are a number of significant differences.

Oxford, Bodleian Library	Bodley 646	Italy (probl. Paduan) c. 1459-61
Parma, Biblioteca Palatina	Parm. 1008	Italian, 2/2 15th century (1458?)
Venice, Biblioteca Marciana	XII, 194 (4148)	Italian, 3/4 15th century

Of these three manuscripts, Bodley 646 and Parma 1008 are virtually identical. The Venice manuscript appears to be a later, slightly more free copy of Parma 1008. All three manuscripts have labels accompanying the illustrations, which include the unusual names of 'cressa corona' for Corona Borealis, 'Erichthonius' for Auriga; 'Triptolemus' for Ophiuchus; 'Ceto(n)' for Eridanus and 'Pistrix delphinus' for Cetus.

The differences between this group and the GROUP I Basinio manuscripts are principally in the details of the figures. These differences include:

- In the depiction of *Draco inter arctos*, **DRACO**'s head is still towards the bottom of the page, but it is not shown in profile.
- **BOOTES** still stands to the right, holding a feminine ovate shield over his left, but he has lost his box and his club and he is now completely nude.
- **HERCULES** still stands facing the viewer with the lion-skin draped over his extended left arm (with the face visible). The Lion's hind-quarters fall over his right shoulder and down his right side, like a cape. The object he holds raised in his right hand has become transformed into a long, straight switch or scourge and he is now nude.
- **LYRA** is a stepped zither, but the bird's head on the right has turned into an animal's head.
- **CEPHEUS** wears a short tunic, much more like the Hyginus manuscripts than the Cambridge Basinio image; but in the Bodley and Parma 1008 manuscripts, he is presented in left profile.
- **ANDROMEDA** is definitely kneeling on her left knee.

- **PERSEUS** has gained a helmet on his head - a feature that is not derived from the Hyginus Group IX pictures. Also, the Medusa in Parma 1008 has snaky hair.
- The hem of **AURIGA's** tunic has sprouted some fantastically curling tendrils and his sleeves have been transformed into elegant bells. Again, this is a feature that is not derived from the Hyginus GROUP IX pictures.
- **OPHIUCHUS** is nude and has **SERPENS** wrapped around his hips, but he stands frontally, facing the viewer.
- **PEGASUS** has lost his bridle. In all three manuscripts, the horse's body is cut through the upper hind flanks. In the Venice manuscript, this dismemberment has disturbed a later owner, who added small feet on to the back legs.
- **ORION** is nude and rests his left hand on his left hip and he holds a bat vertically in his right hand.
- **ARIES** is '*intra Triangulum*', but does not bite the Triangle.
- **GEMINI** are nude and both Twins point to the left with their left hands.
- **SAGITTARIUS** is labelled as 'CENTAURUS' in the Parma 1008 and Venice manuscripts. This label has been struck through in the Parma manuscript by a later hand with 'Sagittarius' added.
- **AQUARIUS** hold a flower in his right hand in the Oxford and Parma 1008 manuscripts and holds a horn or empty cornucopia in his right hand in the Venice Manuscript.

A variant of this group includes the following manuscripts:

GROUP IIb:

Parma, Biblioteca Palatina	Parm 27	Italian, 3/4 15th century (c. 1500?)
Rome, Biblioteca Casanatense	4059	Italian. 3/4 15th century
Munich, Staatsbibliothek	clm 15743	Italian, 3/4 15th century

The pictures are very close to those in GROUP IIa, with only very minor pictorial dissimilarities. The constellations in Parma 27 are labelled in Latin with inscriptions similar to those found in the GROUP IIa manuscripts, but the labels in the

Casatense manuscript are in both Latin and Greek. The Munich manuscript has no labels.

Amongst the minor discrepancies, it is interesting to note how the deletion of verse 555a in all three manuscripts (*Quattuor est arma cauda, sed cernitur una*) has effected a change in the placement of the stars in Aries. The four stars in the shoulder are missing and there are no stars shown in the tail. Beyond this, the pictures in GROUP IIb differ from GROUP IIa in the following ways:

- The head of **DRACO** in the *Draco inter arctos* is set in profile.
- **BOOTES** is dressed in a jerkin and tights, with the laces visible. In the Casatense and Parma 27 manuscripts, he carries a feminine ovate shield, but in the Munich manuscript, it is a horsehead shield.
- **HERCULES** holds a club in Parma 27 and Munich manuscripts, but the top half of the Rome image has been lost, due to damage.
- **CEPHEUS** is standing frontally. He also wears the wide, low-slung belt often seen in Hyginus illustrations (but not apparent in the GROUP IIa manuscripts).
- **CASSIOPEIA** has lost her crown in the Munich and Rome manuscripts.
- **ANDROMEDA** kneels on her left knee in the Munich manuscript, but is standing with legs bent in the other two.
- **PERSEUS** has lost his helmet, but has a hunter's hat in the Munich manuscript. Also, all the Medusa heads have snaky hair.
- The tendrils on the hem of **Auriga's** tunic have calmed down substantially in the Parma 27 and Rome manuscripts, and have disappeared in the Munich one.
- **SAGITTA** points vertically, with its tip towards the bottom of the page (in all previous examples, Sagitta was horizontal).
- **AQUILA** has a crown on its head. This feature is unique to these three manuscripts and may be related to the personal device or *impresa* of one of the original owners.
- **PEGASUS** has regained his bridle.
- **ERIDANUS** is female in the Parma 27 and Munich manuscripts. It is labelled 'Eridanus' (as opposed to the 'Ceto[n]' in the Group IIa manuscripts).
- **ORION** is still nude and carries a stick. Lepus is placed in front of him, so that it appears he is chasing the hare.

- **TAURUS** is depicted emerging from clouds in the Parma 27 and Munich manuscripts.
- In the Munich manuscript, the **GEMINI** are male and female. In Parma 27, the drawing is very rough, appearing to be an addition by a later hand, and the sex is impossible to determine. In the Rome manuscript, the picture of the Gemini is missing.

The four remaining Basinio manuscripts are all singletons. In general, their illustrations follow the features outlined in GROUP II above, but that each diverges from the formulae established within the sub-sets of this group in curious and, apparently, idiosyncratic ways. For example,

GROUP III (singleton):

Bologna, Biblioteca Comunale	A. 173	Italian, last third 15th century (c. 1467)
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The Bologna manuscript has large, freely drawn illustrations, with a pronounced *all'antica* feel, in which the attributes are kept to a minimum. Odd features include:

- **DRACO** has a bulbous nose. Pierced with a round nostril.
- **CORONA BOREALIS** is a ring with foliate design only along the top.
- **PERSEUS** holds a bearded male head in his left hand.
- **AURIGA** is dressed in an animal skin that has 3 long tails hanging down as a hem. This image is closer to the Hyginus manuscripts, especially Mian, Trivulziana N. 690.
- **ORION** holds a very large plant vertically in his right hand.
- **HYDRA** has bat's wings (see the Hyginus manuscript, Cambridge, Fitzwilliam 260).
- **CANCER** is a crayfish facing towards the right (see also, the Hyginus manuscript Siena L. VI. 25).
- **VIRGO** is cut-off at the waist.

GROUP IV (singleton):

London, Wellcome Institute Ms 122

Italian, c. 1475

The Wellcome manuscript is slightly rougher in execution. It also is close to the GROUP II illustrations, but has a number of anomalous features, including:

- **CORONA BOREALIS** is depicted as a crown.
- **HERCULES** stands frontally, with his legs splayed.
- **CYGNUS** has a peculiar, lumpy beak. A similar illustration appears in the Hyginus manuscript, Vat lat 3109.
- **CEPHEUS** is dressed in a very short doublet and hose.
- **CASSIOPEIA** sits on a low bench.
- **ANDROMEDA** is fully dressed and grabs her genitals.
- **AURIGA** has a lion's skin wrapped around his hips, with the face placed over his genitals.
- **NAVIS** has a broken mainmast.
- **TAURUS** seems to have a full body, with his hind-quarters tucked under.
- **CANCER** has a long thin tail coming from the crescent on his bottom.
- **VIRGO** is cut-off at the thigh.

GROUP V (singleton):

Ravenna, Biblioteca Classense Ms 120

Italian, 1483

The Ravenna manuscript has a series of high-quality drawings, with the artist taking license in a number of instances. Even in this fragment of a manuscript, several of the features fall well outside the shared pictorial conventions of the Basinio manuscripts. Some of these changes appear to be due to inadequate space being left for the illuminator of the text. For example:

- *Draco inter arctos* is depicted so that **DRACO's** head is at the left.
- **HERCULES** is depicted sideways on the page so that his head is on the left. He has a lion's skin over his right shoulder, but the lion's head, usually held in his left hand, has been transformed into a dragon's head.

- **CEPHEUS** is depicted on his side, so that his head is to the right. He stands on a small platform.
- **ANDROMEDA** is depicted horizontally, with her head to the right. She has an athlete's band around her head and looks upwards.
- **PERSEUS** is depicted horizontally, with his head to the right. He faces the viewer and stands on a small platform.
- **AURIGA** is placed horizontally, so his head is to the left. He stands on a small platform and has a belt around his waist that seems oddly inflated, like an inner tube.
- **OPHIUCHUS** is placed horizontally with his head to the right. The Serpens is placed so that his head is to the right of the Serpent-holder (in the opposite direction from the other Basinio illustrations).
- **ERIDANUS** is depicted as a stream (see analogous illustrations in the Hyginus manuscripts, Leiden, Universiteitsbibl, 8° 18, Florence, Laurenziana, Plut 29.30 and Cortona 184 (265)).
- **ORION** stands holding a stream (?) in his right hand and has a sword in his left hand at his hip. The origin of this may be related to the sort of image seen in the Hyginus manuscript, Cortona 184 (265)

GROUP VI (singleton):

Florence, Biblioteca Marucelliana Ms C.CCLI Italian; 2/2 15th c (possibly post 1513)

This manuscript has nothing to do with the Hyginus/Basinio pictorial tradition as it has been outlined above, beyond illustrating how it was completely overwhelmed by the advent of printed illustrations in the late 15th century. Erhardt Ratdolt had published his edition of Hyginus's *De astronomia* in Venice in 1482, which was illustrated with a series of woodblock prints of the constellations. The figures from which Ratdolt's illustrations were derived are not related to those found in contemporary Italian Hyginus manuscripts, but to a series of constellation images drawn from the illuminated manuscripts of Michael Scot's *Liber Introductorius*.⁴⁵

⁴⁵ See Lippincott 2021.

The Marucelliana Basinio manuscript has been illustrated by two different hands. Six of the illustrations appear to have been drawn either contemporaneously with the writing of the text or shortly after: the figures of Hercules, Andromeda, Aries, Gemini, Leo and Pisces. All these figures are finely drawn, the shading is indicated with parallel lines and the figures generally stand on a sketchily indicated ground-line. If one considers the pictorial tradition to which these six pictures are most closely related, it seems to be very loosely Hyginian:

- **HERCULES** appears to be close to the kneeling figure with the lion over his outstretched left hand found in Hyginus manuscript Leiden 8° 15 (which derives from the ps-Bedan *De signis caeli* pictorial tradition), as well as to the figures in the later, 'German' Hyginus manuscripts, Leiden 8° 18 and Florence, Laurenziana, Plut 29.30.
- **ANDROMEDA** is nude and stands to the right with her left hand outstretched and her right hand covering her genitals. The closest parallel would be to contemporary, 15th-century Hyginus manuscripts, though none of these is nude.
- **ARIES** walks to the left and turns his head to the right, but does not have **TRIANGULUM** around his head.
- The **GEMINI** are two nude youths, who rest their inner hands on each other's inner shoulders. The closest parallel, again, appears to be the figures in Leiden 8° 18.
- **LEO** stand to the left and his tail curls between his hind legs, making a reverse S-shape, so its tip rests above the lion's back. One sees this configuration in two of the ps-Bedan manuscripts (Dijon 448 and Venice VIII.22) and in Hyginus manuscripts, including Baltimore, Walters 734; Oxford Bodley 614; Oxford, Digby 83; and Leiden 8° 18.
- **Pisces** are depicted as two fish swimming in opposite directions, belly-to-belly, with their mouths connected by a line. The string is labelled 'nodus celestis'.

The remaining illustrations were added to the manuscript after 1513. The second group of drawings is considerably more crude and cross-hatching is used to indicate shadows. Stylistically and iconographically, they are exact copies of the rough constellation pictures found in the Hyginus edition printed by Jacobus

Paucidrapius de Burgofranco in Venice in 1513.⁴⁶ The dependence on the 1513 Paucidrapius edition is made clear by a number of details, which are specific to this edition - such as the left-facing Cygnus, the eagle-like Aquila and the trilobed bowl into which Aquarius pours his water. Other Scot-derived images in the Marucelliana Basinio manuscript include:

- **BOOTES** carrying both a sickle and a spear, wearing a hat and standing next to a sheaf of wheat.
- **AURIGA** standing in a cart drawn by two oxen and two horses, carrying Capra on his shoulder and the Haedi on the wrist of his rein-holding hand.
- **CEPHEUS** facing the viewer and walking to the right with his arms stretched straight out to the side, wearing peasant's clothes with a close-fitting cap on his head and a sword at his waist.
- **CASSIOPEIA**'s throne has sticks as its back.
- **CETUS** has a sea-shell for an eye.
- **ERIDANUS** nude and lying by the bank of a river.
- **CAPRICORN** has a knot in its tail.

It would seem that one of the owners of the Marucelliana manuscript inherited an incompletely-illustrated manuscript. Whether the manuscript originally contained the six drawings is unclear, but stylistically, they would seem to date to the latter quarter of the 15th century, rather than to the first quarter of the 16th century. The pictorial source could well have been an early, illustrated Hyginus manuscript - perhaps a manuscript readily available in Florence, such as the 12th-century Hyginus manuscript which later found its way into the Laurentian Library. In any event, if something like Laurenziana Plut 29.30 was the model, the exquisitely talented artist of the Marucelliana Basinio manuscript certainly earned his wage in transforming these rough scratchings into beautifully-drawn miniatures. Sometime after 1513, the rest of the illustrations were added by an artist who certainly had a talent for being able to reproduce a graphic model, but little else. Unfortunately, but this time, the most readily available pictorial source for constellation illustration was the Michael Scot-based illustrations in the woodcuts of Paucidrapius's 1513 edition of *De astronomia*.

⁴⁶ See LIPPINCOTT 2006.

APPENDIX I:

Comparison of the star positions from the text of Hyginus, *De astronomia* with the illustrations from the different mss of Basinio da Parma's *Astronomicon*. The wide range of values in the Basinio mss reflect the fact that some illustrators were more diligent in placing the stars and others less so.

order	HYGINUS	no. of stars		order	BASINIO	no. of stars
1	Ursa Maior	17		2	Ursa Maior	15-17
2	Ursa Minor	7		3	Ursa Minor	7
3	Draco	15		1	Draco	15
4	Bootes	14		4	Bootes	14
5	Corona Borealis	9		5	Corona Borealis	9
6	Hercules	19		6	Hercules	15-20
7	Lyra	9		7	Lyra	8
8	Cygnus	13		8	Cygnus	13-17
9	Cepheus	19		9	Cepheus	11-14
10	Cassiopeia	13		10	Cassiopeia	9-12
11	Andromeda	21		11	Andromeda	15-19
12	Perseus	18		12	Perseus	15-18
13	Auriga	7		13	Auriga	8
14	Ophiuchus	17		14	Ophiuchus	0-13
15	Serpens	23		15	Serpens	21-25
16	Sagitta	4		16	Sagitta	4
17	Aquila	4		17	Aquila	4
18	Delphinus	10		18	Delphinus	8-11
19	Pegasus	18		19	Pegasus	16-17
20	Triangulum	3				
21	Aries	17		34	Aries and Triangulum	19-21+ 3
22	Taurus	14		35	Taurus	16-21
23	Gemini left Twin	8		36	Gemini left Twin	10-11
	right Twin	10			right Twin	8
24	Cancer	18		37	Cancer	16-18
25	Leo	19		38	Leo	18-21
26	Virgo	21		39	Virgo	13-15
27	Scorpio	19		40	Scorpio	17-20
28	Sagittarius	15		41	Sagittarius	13-14
29	Capricorn	20		42	Capricorn	20
30	Aquarius	14		43	Aquarius	11-13
	the water	30			the water	10-15
31	Pisces	41		44	Pisces	16-18
32	Cetus	13		20	Cetus	12-13
33	Eridanus	13		21	Eridanus	10-13

34	Lepus	6		22	Lepus	6
35	Orion	17		23	Orion	17-18
36	Canis Maior	19		24	Canis Maior	17-19
37	Canis Minor	3		25	Canis Minor	3
38	Argo	26		26	Argo	19-24
39	Centaurus	24		27	Centaurus	17-23
40	Lupus	10		28	Lepus (<i>sic</i>)	6-9
41	Ara	4		29	Ara	4
42	Hydra	27		30	Hydra	22-28
43	Crater	8		31	Crater	8
44	Corvus	7		32	Corvus	7-8
45	Piscis Austrinus	12		33	Piscis Austrinus	12