

**Aberystwyth  
National Library**

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**Ms 735 C**

**Germanicus, *Aratea* with *scholia Basileensia***

**Limoges**

**early 11th century**

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An intriguing manuscript, the current binding contains two, originally non-related parts. The first part was probably produced in Limoges during the early years of the 11th century. It contains several celestial maps and an incomplete text of the Germanicus *Aratea* with the *scholia Basileensia* (ff. 11v-23v), with illustrations of the constellations in sepia ink with colour washes and the stars marked. As McGurk points out (1973, p. 207), this part of the manuscript seems to have existed as an independent section for some time as its outer folio (fol. 26v) is darkened and scuffed. Its current foliation, comprising several single sheets and unequal quires, however, suggests that the pages of this section were probably once part of a larger collation.

The second half of the manuscript is in an Insular hand and dates from later in the 11th century. It contains the four Books of Hyginus's *Astronomica* and is not illustrated.

The illustrations show the influence of a number of different pictorial sources and inclusion of the numerous planispheres with a depiction of Aratus and the Muse are unique to this manuscript.

The text belongs to the so-called 'O' family of Germanicus's text, and to the sub-family referred to as 'v' or O<sup>i</sup>.

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**text**

ff. 1r-2v (in sepia ink with red flashes; titles in sepia caps with red flashes and verses in sepia with red initial letter)  
 DE VERITATE. Vincere me nulli possunt sed pedere multi (cf. Mc Gurk, 1973, p. 205 for a listing of the verses. It ends with DE VANAGLORIA) — falsior inter nos probatur nulla sororum. EXPLICIT DE VIII VICIIS PRINCIPALIBUS. (= Bonifatius,

*Carmina*, in *Monumenta Germaniae Historica. Poetae Latini Aevi Carolini*, ed. Dummler 1880, I, 1, pp. 1-15)

There are 9 letters or symbols in greyish ink at bottom of page.

fol. 3r (in sepia) VERSUS PRISCIANI ELOQUENTISSIMI VIRI DE EST & NON INCIPIUNT. Est & non cuncti monosyllaba nota frequentant .— Est naturalis homini non est lux ista diei. (? \*\*\* CHECK edited version) (= *Anthologia latina*, ed. Riese 1896, II, 2, no. 165, vv. 1-25)

(the text continues in the right column in paler ink) Est & non 1/8 quo      luciens — Qualis vita hominum duo quam monosyllaba versant.

(There is a schema at the bottom of page in lighter ink illustrating ‘three trios of contrasting conditions in 9 lines’; cf. McGurk 1973, p. 205 for a description).

fol. 3v Summer hemisphere

fol. 4r Winter hemisphere

fol. 4v Zodiacal diagram with planetary orbits

fol. 5r Pair of incomplete hemispheres

ff. 5v-7r (in sepia with red flashes) CONTROVERSIA CICERONIS IN SALLUSTIUM INCIPIT. (beginning initial with red flash and then in sepia with each sentence beginning with a capital with a red flash) Ea demum magna voluptus est — ego honeste effari possim. (= *Invectiva Ciceronis in Sallustium et invicem invectivae*, ed. Kurfess 1962, pp. 9-21)

ff. 7r- 7v SALLUSTII IN CICERONEM. Graviter et iniquo animo — in illa partes fidem habens. FINIT CONTROVERSA .S. (= *Invectiva Ciceronis in Sallustium et invicem invectivae*, ed. Kurfess 1962, pp. 1-8)

fol. 7v INCIPIT EPITOME PHENOMENON ID EST APPARATIO SIVE APPARENCEIA PRISCIANI GRAMMATICI VERSIBUS .XII. DE SIDERIBUS .  
Ad boreę partes arcti vertuntur & anguis —  
Celsior his saturnus tardior omnibus astris. (= *Anthologia latina*, ed. Riese 1896, I, 2, no. 679)

ff. 7v-9v SOMNIUM SCIPIONIS . M. TULLI CICERONIS EXCERPTUM EX LIBRO .VI. DE REPUBLICA.  
 Cum in Afficam venissem — Ille discessit. Ego somno solutus. (in very large  
 capitals with red flashes in each) EXPLICIT MACROBII·AM/ BROSII·THEODOSII·VI/ RI  
 CLARISSIMI· & ILLUS/TRIS COMMENTUM EX / CICERONE IN SOMNIU[M]/ SCIPIONIS ...  
 (= 'Somnium Scipionis' excerpt from Cicero, *De Republica*, VI; cf. Macrobius, *De  
 somnium Scipionis*, ed. Willis 1963, pp. 155-63)

Inter platonis et ciceronis libros — disputationem sequencium reservemus.  
 EXPLICIT LIB[ER] · I·M·A·T·UC / ET ILL. DE SO[M]NIO SCIPIONIS·  
 (= fragment from Macrobius, *De somnium Scipionis*, Book I, i, 1-4 and I, xxii, 30-32;  
 cf. ed. Willis 1963, pp. 1 and 93)

INCIPIT SECUNDUS· Superiore commentario eustachi — philosophia continetur.  
 (= fragment from Macrobius, *De somnium Scipionis*, Book II, I, 1-4 and II, xvii, 17-19;  
 cf. ed. Willis 1963, pp. 95 and 154)

fol. 10r Blank

fol. 10v Planisphere (see below)

fol. 11r Blank, but with an incomplete drawing of a goose in light brown ink.

fol. 11v (in sepia ink, inc. text)  
 T. CLAUDII CAESARIS. ARATI PHOENOMENA.  
 Ab iove principium magno deducit aratus  
 Carminis at nobis genitor tu maximus auctor —  
 (cf. Breysig 1867, p. 1.)

(inc. *scholia Basileensia*)  
 Queritur quare ab iove cepit et non a musis —  
 (cf. Breysig 1867, p. 55)

ff. 16v-17r on fol. 16v, vv. 147- 48:  
 Qua media est helice subiectum respice centrum  
 Accipitis suberunt gemini qua posteri oспes.

are repeated slightly differently on fol. 17r, following the paragraph of *scholia* on  
 the Gemini:

Quam media est helice subiectum respices cancrum

Accipiti suberunt gemini qua posterior pes.  
Horrentis que iubas & fulvum cerne leonem ...

fol. 20v v. 224 is missing at the beginning of the section on Aries, but more significantly, at this point there is a large section missing from the text, with the poem ending abruptly at v. 232:

Andromedae erit hic medii divortia mundi.  
( cf. Breysig 1867, p. 15)

the *scholia* also ends abruptly:

Hunc putant quidem esse — ipse autem signis adsequitur.  
(cf. Breysig 1867, p. 81, line 5)

(note: owing to this loss, it is impossible to verify the missing lines in this section.)

fol. 21r the text recommences with v. 433;

Sub geminis prochion fulgenti lumine surgit.  
(cf. Breysig 1867 p. 26):

and the *scholia* recommences

Hic prior qui (expunctuated) oritur quam maior — & ipse . xii. sint.  
(cf. Breysig 1867, p. 102):

vv. 434-36 are missing, then:

QUINque aliae stelle diversa lege feruntur.  
Et proprio motu mundo contraria volvunt  
Curriculo exceduntque loco & vestigia mutant.

*scholia Basileensia*:

De quinque stellis. Quae planetas vocant. — circulis albi species.  
(ed. Breysig 1867, pp. 102-04)

fol. 21r the *scholia* on the planets ends with:

... facta est & ostendisse lacte mirate effusum est circuli albi species

fol. 21v vv. 440-42 are missing, then:

Annonasque vias tardus vix praesiem orbis  
 Hoc opus archanis ancredam post modo musis —  
 Lacteus hic orbis nullo minor orbe rotatu.

There is then a variant repletion of the end of the *scholia*, thus forming the **expl.** of the *scholia*:

Ostenditur autem unus inter circulos — lacte facta est circuli albi species  
 (cf. Breysig 1867, p. 104)

then, vv. 459-61 are missing, with the next section beginning:

Aurige plantamque terit perssda laevam —  
 Clunibus irsutique iubam per pectoris exit.

fol. 22r                      Cancro fulgentes oculi. Seu regula currat —  
                                     Nec mutare vias possunt nec iungere sulcos.

fol.. 22v                     Quartus in oblicum tris unus colligit orbis —  
                                     Haec via solis erat bissem lucidas ignis.

vv. 532-34 missing

Sopito vigiles incesto donavit amore  
 Proximus infestas sol in qua fugerat undas.

fol. 23r                      Deucalion parum defundens indicat urnam —  
                                     Quod sine nube cava solis via forte latebit . (= v. 532)

fragments ii and iii are missing, and the text jumps to fragm. iv:

Iuppiter est illo laetus magis hic ubique solis —

text is missing vv. 3-4

vv. 26-27 are oddly conflated:

Sive aries Gemini quę deum sive acre leonis (26)  
 Sidus & equatę librato. pondere leonis (27/26)

missing vv. 56-61 (which have been added in the margin by a later hand)

fol. 24r expl.

Haec eadem tibi signa dabunt non inrita pisces.  
 (= fragm. iv (a.k.a. Breysig's fragm. iii, pp. 44-54));

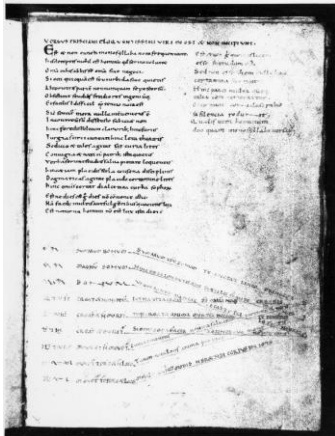
T. CLAUDII CESA/RIS PHENOME/NA • EXPLIC[IT]/ FELICIT[ER] DO[MINE]  
 GRA/CIAS •

fol. 25r Planisphere with names

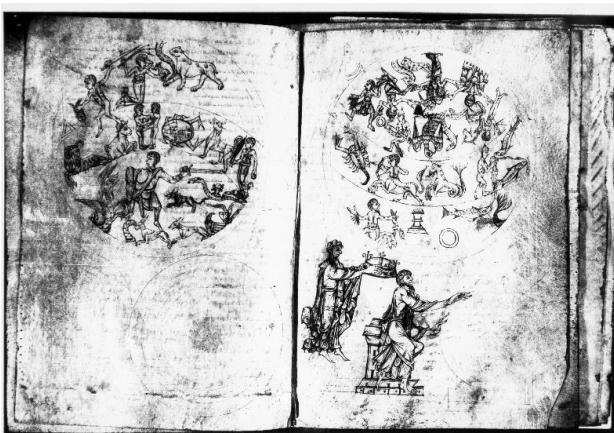
ff. 25v- 26v Blank

ff. 27r-47r IGINUS • M • FABIO PLURIMAM SALUTEM. Etsi te studio grammatice artis — ab  
 ęstivo circulo redeat. D[e]o gra[tia]s. (= Hyginus, *De astronomia*, Books I-IV)

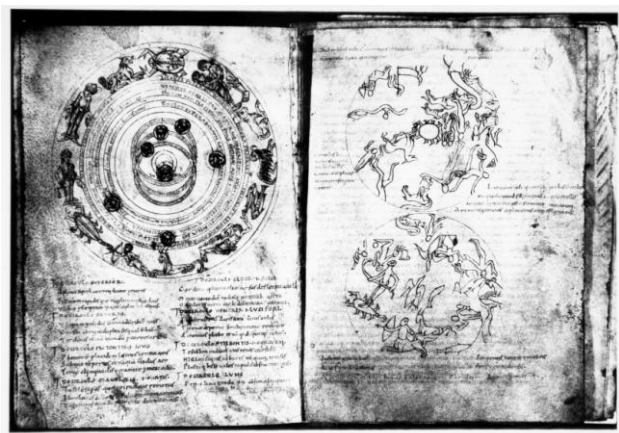
illustrations



fol. 3r



ff. 3v-4r



ff. 4v- 5r



ff 10v- 11 r



ff. 11v-12r



ff. 12v- 13r



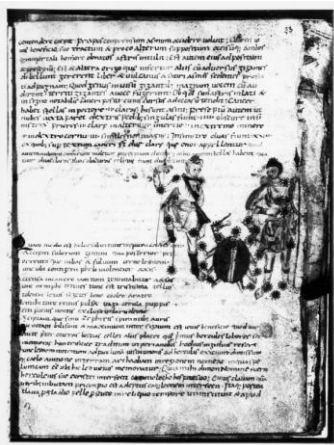
ff. 13v-14r



ff. 14v-15r



ff. 15v-16r



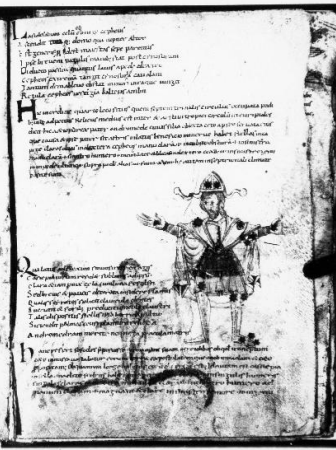
fol. 17r



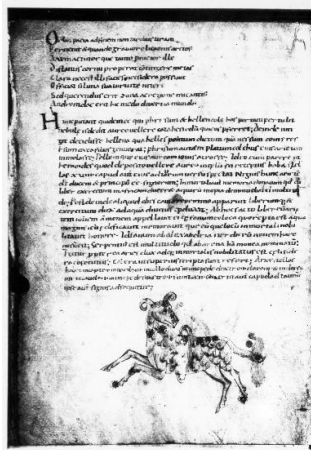
fol. 17v



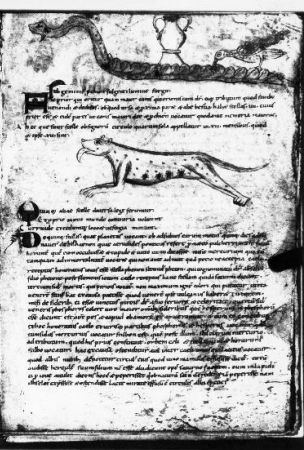
ff. 18v-19r



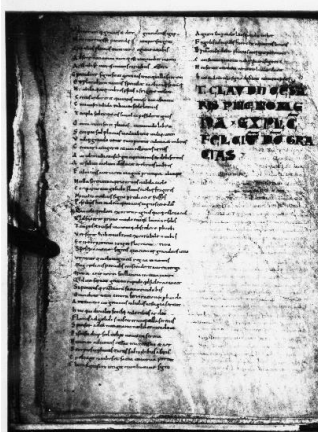
ff. 19v-20r



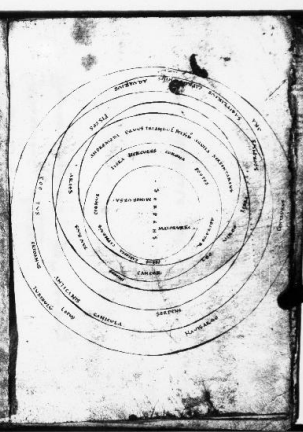
ff. 20v-21r



ff. 21v-22r



ff. 24v-25r



fol. 3v

Summer hemisphere in the upper half of the page. These are also with faint traces of a second diagram consisting of 7 to 8 concentric circles below to the lower right; and there is a third diagram consisting of two smaller concentric circles to the lower left).



fol. 4r

Winter hemisphere in the upper half of the page with two extra drawings below it. Directly below the main sphere, there is a seated man with his right hand outstretched so that he touches the edge of a globe, the contours of which are barely visible. There are indications of a set of two diagonal lines running through the globe from about his waist to the upper right. Also, there is a squared, U-shaped support beneath the globe. The man is being crowned by a female figure that stands behind him. Placed adjacent to the upper left of the winter hemisphere, there is a pencil drawing of a figure that is positioned so that it looks as though it is clinging to the edge of the sphere. The posture of this figure would suggest that it is actually only an inexpert attempt to copy the female figure at the bottom left of the page.

winter hemisphere

The drawings on both folii are in dark sepia ink. The outer edges of each folio is pricked and they were scored in 43 long lines and set with double bounding lines on both margins before the maps were drawn, suggesting that the scribe prepared the pages before it was decided where the illustrations would go. They appear to be single leaves within the current binding, which poses a challenge in trying to tie these maps to those which accompany illustrated star catalogues. Having said that, it is worth noting that the summer hemisphere has texts from Priscian on its recto and the winter hemisphere has a zodiacal diagram similar to those found in Macrobian manuscripts, with original verses on planetary motion derived from Martianus Capella, which provide a certain context for the maps.

In the summer hemisphere, there are a number of compass holes:

- 1 in the middle of the circle
- 2 placed vertically beneath the rearmost right hind leg of Cancer, to mark the southern boundary of the ecliptical band
- 1 on the northern boundary of the ecliptical band (slightly to the right of the head of the right Twin)
- 2 placed horizontally on either side of the solstitial colure at the bottom boundary (inner ring) of the map
- 1 between the right forefoot of Ursa Maior and the left Twin
- and 1 at each of the 4 points at which the boundaries of the ecliptic meet the inner edge of the sphere.

There are also compass points in the centre of the two other diagrams on this folio.

In the winter hemisphere, there are:

- 1 hole beneath the nose of Capricorn to mark the centre of the circle
- 2 small holes above the northern boundary of the ecliptical band

- and 1 hole on the inner line of the bottom double boundary frame of the map. There do not seem to be any others.

The circle forming the globe at the bottom of the page has a compass hole in the middle.

### Constellations

The presentation is in globe view.

Of the 48 Ptolemaic constellations, 46 are presented in these maps. Equuleus and Libra are missing. There is the additional depiction of the Aselli depicted on the shell of Cancer. Two constellations, Hercules and Ophiuchus, are drawn conform to Hipparchus's rule.

## CARTOGRAPHIC NOTES BY ELLY DEKKER

### I. Cartography of the summer hemisphere

A pair of concentric circles that represent the equinoctial colures frames the map. There are two arcs (or sections of circles) that represent the northern and southern boundaries of the zodiacal band. The upper and lower boundaries of the zodiac intersect the solstitial colure (not drawn) at distances of 0.30 and 0.52 from the North Pole, respectively (distances expressed as fractions of the diameter of the map).

The summer solstitial colure (not drawn) passes through the tail of Draco, one of the Kids on the left arm of Auriga, the left shoulder and leg of Orion and through Lepus.

#### a. Locations of the constellations with respect to the zodiacal band

North of the zodiacal band (from left to right): Triangulum, Perseus except his lower legs, Auriga, the tail of Draco and Ursa Maior.

In the zodiacal band (from left to right): Aries, the lower legs of Perseus, Taurus, Gemini, Cancer (with Aselli), Leo and Virgo.

South of the zodiacal band (from left to right): Cetus, Orion, beginning of Eridanus, Lepus, Canis Minor, Hydra with Crater and Corvus, Canis Maior, Navis and the rump of Centaurus.

#### b. Significant features of the constellation images

- **Draco's tail [-]** passes through the northern celestial pole and between Auriga and Ursa Major. It ends close to the right front leg of Ursa Maior and right of the hand of Auriga.
- **Ursa Maior [+]** is placed to the right of the tail of Draco, walks to the left and is drawn as a bear with a short tail.
- **Perseus [0]** stands above Taurus (his left foot is touching the horns). He is nude and striding to the left with his right leg forward. From the position of his hands, it seems that his body is twisted so that his upper torso faces away from the viewer, so that he holds the Gorgon's head in his left (?)

hand in front of his body and a *harpe* in the right (?) hand behind him. The northern boundary of the zodiacal band cuts through his knees.

- **Auriga** [0] is to the right of Perseus, with his bent knees directly above the left Twin, kneeling to the right, nude to the waist and wearing a long skirt. He holds a flail with three thongs behind him in his right hand and has two small goats on his outstretched left arm. He kneels along the northern boundary of the zodiacal band.
- **Triangulum** [0] is set squarely above the head of Aries, along the northern boundary of the zodiacal band.
- **Aries** [+] with curly horns and a long tail, is leaping to the left while looking back over his left shoulder to the right. He has a ring around his body. The tips of his rear legs disappear behind the southern boundary of the zodiacal circle.
- **Taurus** [-] shows only the front half of the bull, with both of his front legs bent. He faces to the right.
- **Gemini** [-] are nude, they are standing and face each other, embracing with both arms. They are placed vertically across the zodiacal band and extend from one boundary to the other.
- **Cancer** [-] has two claws and 6 legs, and faces to the right (towards Leo). There are two animal heads on his shell, representing the Aselli.
- **Leo** [-] stands to the left, with his head held high, with his feet on the southern boundary of the zodiacal band.
- **Virgo** [-] is depicted without wings. She faces the viewer and wears in a long dress. She holds a plant (ear of sweet-corn?) in her right hand. She is placed vertically across the zodiacal band and extends from one boundary to the other.
- **Cetus** [0] the front part of the beast is placed below Aries and in front of Orion. It has been drawn as a sea monster with claws on his front legs, a beard, wings and long furry ears.
- **Orion** [0] is standing below Gemini and above Lepus, to the right of Cetus. He faces to the left and wears a knee-length tunic. He has a cloak that is draped so that it completely covers his right arm and shoulder. He holds a long sword behind him horizontally in his left hand. There is an empty scabbard at his waist. He occupies nearly 1/3 of the whole space, with the tip of his sword touching the bottom of the zodiacal band directly below the rear left leg of below Leo.
- **Canis Minor** [-] is placed to the right of Orion and directly above Canis Maior. He is racing to the left.
- **Hydra** [+] has its head below the front feet of Leo and its tail below Virgo. It is drawn like a snake.
- **Crater** [-] is drawn as a vase with handles on a raised foot and is placed on the middle of Hydra.
- **Corvus** faces forward and stands near the tail of Hydra, pecking at its body.
- **Lepus** [0] is directly below Orion, whose right foot is resting on its rump, and it runs to the left. His feet touch the bottom edge of the hemisphere.
- **Eridanus** [0] is drawn as a kind of a curl that is covered with patterns (waves?). It starts below the left foot of Orion.
- **Canis Maior** [0] is drawn to the right of and below Orion and left of Navis, jumping to the left. His hind feet rest along the bottom edge of the hemisphere. His tail touches Argo.
- **Navis** [0] is to the right of Canis Major and below Hydra. It is drawn as a partly visible ship with sails attached to a mast.
- the rump of **Centaurus** [0] is above and slightly to the right of Navis, with only the back haunches, leg and tail visible.

## II: Cartography of the winter hemisphere

A pair of concentric circles that represent the equinoctial colures frames the map. There are two arcs (or sections of circles) that represent the northern and southern boundaries of the zodiacal band. The upper

and lower boundaries of the zodiac intersect the solstitial colure (not drawn) at distances of 0.25 and 0.49 from the South Pole respectively (distances expressed as fractions of the diameter of the map).

**a. Locations of the constellations with respect to the grid:**

North of the zodiacal band (from left to right) are Boötes, Corona Borealis and Hercules, the head of Draco, Ursa Minor, Cepheus, Cassiopeia, Ophiuchus and Serpens, Lyra, Cygnus, Aquila with Sagitta, Delphinus, Pegasus and Andromeda.

In the zodiacal band (from left to right), there are Scorpio, Sagittarius, Capricorn, Aquarius and Pisces.

South of the zodiacal band (from left to right) there are Centaurus, Lupus, Ara, Corona Austrinus, Piscis (with the stream of Aquarius) and part of the tail of Cetus.

The winter solstitial colure (not drawn) passes through the feet and left arm of Cepheus, the hind feet of Ursa Minor, lengthwise down the body of Cygnus, the middle of Sagitta, lengthwise down the body of Aquila, the forefeet of Capricorn and the base of Ara.

**b. Significant features of the constellations images**

- **Draco [-]** has his head touching the left foot of Hercules.
- **Ursa Minor [-]** is placed to the right of the head of Draco, standing to the left and is drawn as a bear with a long tail.
- **Cepheus [-]** stands upside down with his arms outstretched to the right of Ursa Minor. He is nude to the waist and does not wear a headdress. His feet rest on the northern celestial pole.
- **Cassiopeia [-]** is upside down, to the right of Cepheus. She sits on a square seat with a low back. She is dressed in a long robe and wears no head covering and her arms are outstretched to either side. The bottom edge of her throne is cut off by the edge of the map.
- **Boötes [+/-]** is placed above the Claws of Scorpio. He is standing facing frontally, nude to the waist and wearing a short skirt, with a piece of cloth over his extended right arm and holding a curved staff in his upraised left hand. His right foot is on the northern boundary of the zodiacal band. (Whereas the posture of the figure is not dissimilar to that found in the main body of the manuscript (fol. 29r), he is not wearing a tattered skin as a skirt, does not have the 'wild man' hair and does not have a skin over his extended right arm.)
- **Corona [-]** is placed in the triangular space between the leg of Boötes, the head of Hercules and the left arm of Ophiuchus. It is drawn as two simple concentric rings.
- **Hercules [-]** is upside down, with his left foot touching Draco's head, he is facing to the right, with Corona behind his head. His head touches that of Serpens. The orientation of his hands suggests that his back is facing the viewer. He is nude to the waist and kneels on his right knee. He stretches his left hand out in front of him towards Lyra and raises a club in his right hand behind his head.
- **Lyra [0]** to the right of Hercules's left hand and to the left of Cygnus. It is drawn with a U-shaped frame.
- **Cygnus [0]** is placed upside down as if standing on the left shoulder of Cepheus and facing to the left.
- **Ophiuchus [+/-]** is nude, faces left with his back to the viewer and stands with his feet framing the head of Sagittarius. The snake held by Ophiuchus encircles his body with the snake's head facing away from him. The snake's head touches the head of Hercules and its 'neck' touches Corona. Ophiuchus rests his left and right foot on the northern boundary of the zodiacal band. (Whereas the postures of the two figures are similar, the back/front orientation is different and the map's Ophiuchus wears a very odd conical hat.)
- **Aquila [0]** is standing upside down above Sagittarius and Capricorn, facing to the right. His head almost touches the northern boundary of the zodiac.
- **Sagitta** is grasped by the talons of Aquila, the arrow pointing to the left.

- **Delphinus** [0] is to the right of Aquila, drawn as a fish with his head cocked at an odd angle. His head is closest to the zodiac and placed above the tail of Capricorn.
- **Pegasus** [-] is only half of a horse without any evidence of wings. He is placed upside down, above Aquarius and faces left.
- **Andromeda** [-] is drawn upside down to the right of Pegasus and above Pisces, with her head nearly touching the head of Aquarius. She is nude and her right arm is tied with some rope, but there are no accompanying rocks. The fingers of her right (eastern) hand touch the northern boundary of the zodiacal band.
- **Scorpius** [+] has two front claws, 8 legs and a segmented tail. He faces to the left.
- **Sagittarius** [0] is drawn as a centaur, prancing to the left, holding a bow with his left hand before him.
- **Capricorn** [0] has two short horns and a corkscrew tail. His front legs are bent.
- **Aquarius** [0] is nude apart from a conical hat. He turns to the right, where he holds with both hands an upturned urn that pours water into a stream flowing to the mouth of Piscis. He is placed vertically within the zodiacal band and extends from one boundary to the other.
- **Pisces** [0] are joined by a line at their mouths. They are swimming back to back and in opposite directions, but are placed at oblique angles to one another.
- the front half of **Centaurus** [0] is below both Scorpio and Sagittarius, with his head directly beneath the forefeet of Sagittarius. He is nude to the waist (*i.e.*: he does not have a cloak) and bearded. He leaps to the right holding a dog-like animal by its heels in his outstretched left hand and a piece of cloth is draped over his right arm.
- **Lupus** is a dog-like animal held by Centaurus upside-down by its heels.
- **Ara** [0] is placed below the back legs of Sagittarius and to the right of Centaurus. It is drawn as a three-story structure with flames on top.
- **Corona Austrinus** [0], to the right of Ara, is drawn as two concentric rings.
- **Piscis** [0] swims upside down to the right, with his mouth connected to the stream of Aquarius.
- the tail of **Cetus** [0] appears to the right of the Southern Fish.

#### Comments

None of the striking iconographical oddities that are so common to the depictions of the constellations in the majority of hemispherical maps are seen in the present maps. The only exception is the strange illustration of water (?) found in the summer hemisphere, beneath the foot of Orion, presumably representing part of Eridanus. This lack of oddities seems to suggest that there were only a few, high-quality intermediaries between this set of hemispheres and a hypothetical classical prototype.

In many ways, the Aberystwyth hemispheres share a certain closeness with the depiction of the winter hemisphere found in Monza B. 24. 163. Even though the illustrations in the Monza manuscript are less sophisticated, there is a similar urge to fit all of the figures in to their allotted segments. Very few images are dropped for the sake of pictorial convenience. The zodiacal constellations are not boxed into segments, either - as they are in all of the other Greek and Latin sets of hemispheres. Moreover, both sets of hemispheres appear attached to manuscripts which, by rights, are not their natural home. The Aberystwyth hemispheres are found accompanying Germanicus's *Aratea* and the Monza hemispheres follow a truncated version of Boethius's *In topica Ciceronis*.

The hemispheres are arranged on two pages, with north at the top in both the picture of the winter hemisphere (fol. 4r) and north at the bottom in the summer hemisphere (fol. 3v). North is placed at the top and south is placed at the bottom of both hemispheres, so that the two hemispheres can be read in a continuous fashion across the two pages. One advantage of this method of presentation is that it allows the artist to depict the continuity of the main celestial circles and the zodiacal band around the globe.

The same arrangement appears in Vat Reg 1291 and in Paris BN 12957, except in the Paris manuscript, the winter hemisphere precedes the summer one (see below).

If one measures these maps against the template provided by the grid of celestial circles, design is not particularly good. When interpreted in terms of the orthographic model, the intersections of the boundaries of the zodiac with the solstitial colure should in the summer hemisphere be at distances of respectively 0.25 (the map shows 0.30) and 0.35 (the map shows 0.52) from the North Pole, assuming the boundaries to be 6° north and south of the ecliptic. For the winter hemisphere, the intersections of the boundaries of the zodiac with the colure should be at 0.25 (the map shows 0.25) and 0.35 (the map shows 0.39) from the South Pole respectively.

The absence of a grid showing the main celestial circles may account for this lack of accuracy in the placement of the zodiacal band. For additional information about this matter, see pp. \_\_\_\_.

Below the map of the winter hemisphere, there is a second picture of a seated man with a beard, who is shown holding the edge of a globe with both his hands. The sphere of the globe is supported by a square, U-shaped stand. A female figure stands behind him holding a crown. One assumes that this illustration might be a variant of the author-and-muse portrait that appears on folio 12r. Conversely, the way in which the male figure touches the globe - almost as if he were spinning it - recalls the iconography of God the Father or 'the prime mover' setting the universe in motion; though the formula of God the Father being crowned by a female figure seems unlikely. Or, finally, the fact that this figure is being crowned may reflect the long-standing misunderstanding of Ptolemy, the astronomer, being one of the kings of Egypt. But, the sudden appearance of Ptolemy in an Aratean manuscript seems to argue against the likelihood of this interpretation. At the upper left of this hemisphere (outside the frame of the sphere, but facing the constellation of Bootes), there is a later drawing of a figure who appears to cling to the side of the globe. This figure appears to represent an inexperienced attempt at copying the male figure depicted below.

fol. 4v Planetary diagram consisting of a zodiacal rota with orbs of the planets and verses

The zodiacal signs show the following interesting features: Aries and Taurus face in the same direction (Aries turns his head to look backwards over his shoulder and Taurus is half a bull with his right foot curled under him); Gemini appear to be male and female with the left Twin (male) caressing the breast of the right Twin and the right Twin (with breasts exposed) reaching towards the left Twin's genitals; the Asses are shown on the shell of Cancer; Libra is depicted by a female figure holding the Scales in her right hand and her toga exposes her right breast; the tail of Scorpio crosses Sagittarius's bow; Sagittarius is a bearded satyr; Aquarius raises his left hand.

fol. 5r Set of two hemispheres, with the summer on the top of the folio and the winter at the bottom, connected at the middle through the body of Draco. The pictures are sketchily drawn and accompanied by textual extracts.

folio size: 235 x 165 cm (size of each hemisphere = 92 cm)

The drawings are incomplete. This might suggest that they had been traced or hastily sketched from another illustration. There is no indication of scoring, but the lack of certain lines in some of the figures - such as the bottoms of Leo's feet, the loss of Orion's hand and the loss of the end of Capricorn's tail - suggests that these images may have been transposed from a map in which there were thick bands dividing the zone of the ecliptic from the rest of the map. With the loss of these demarcating bands, the contours of the figures have disappeared as well. None of the constellations has the high level of detailing seen elsewhere in the manuscript, such as in the hemispheres on ff. 3v and 4r described above.

There are compass holes in the centre of each circle and two holes on the boundaries of the spheres where the circles meet at the northern celestial pole. The relative lack of compass holes might support the suggestion that the figures were traced from another source, rather than having been constructed on this page. The folio is now a single leaf within the current binding.

There are some textual extracts on the page: \*\*\* lacunae due to illegibility - even with infrared; SOURCE OF TEXT ?

(at the top left of the page)

*Sub pedibus nostris antarticus iste iacebit  
Extrema zona quicingatur (?)*

(upper right)

*Circulus \_\_\_\_ humani \_\_\_\_ quidum volvitur orbis propinquus.*

(middle left)

*Circulis his nostris vigent (?) sub sextis ocellis .  
Contin& & pluvias & a gent es frigora ventos*

(middle right)

*Luce cap& celi que \_\_\_\_umque ponebus ob ambri cui qu&da nitidis de  
pingeras corpra stellis articus a greco sc\_\_mpsit sermone \_\_\_\_ merij.  
Arcturos Geminos completens angr \_\_ lingua ros.*

(bottom margin)

*Infermi gravibus Serpentis h\_\_ tenebris \_\_\_\_ di colonis ferrugine  
d\_\_sis.... Hunc \_\_\_\_-*

### Constellations:

The presentation is in globe view.

Of the 48 Ptolemaic constellations, 42 are presented in these maps. Ara, Corona Austrinus, Equuleus and Libra, Lupus and Sagitta are missing. None of the constellations seems to conform to Hipparchus's rule, but it is difficult to determine the orientation of the figures in many instances.

## CARTOGRAPHIC NOTES BY ELLY DEKKER

### I. Cartography of the summer hemisphere

The circle that frames the map represents the equinoctial colure. There are no internal divisions within the maps to signal to band of the zodiac, the solstitial colures or any of the other main celestial circles. Perhaps as a result, the constellation figures seems to float over the surface of the map slightly more than in those maps that have a dividing grid-system holding the constellations in place. The curve outlined by the zodiacal constellations is not correct: Cancer should be closest to the North Pole instead of Virgo and Aries (see Figure ##).

#### a. Locations of the constellations with respect to the zodiacal band

The summer solstitial colure (not drawn) passes through the tail of Draco, the head of Ursa Maior, one of the kids on the left arm of Auriga, a little to the east of the middle of Cancer, the hind parts of both Canis Maior and Canis Minor.

#### Significant features of the constellation images

- **Draco's tail** [+] curls around the head of Ursa Maior, ending near its forelegs
- **Ursa Major** [+] appears to the south and almost within the last coil of Draco's tail. It stands facing left and is drawn as a bear with a short tail.
- **Perseus** [0] is nude and strides to the left, the inside stretch of his legs running parallel with Auriga's back. He holds Medusa's head in his outstretched right hand and his other hand is cut off by the edge of the circle representing the equinoctial colure. His left thigh touches the right arm of Auriga.
- **Auriga** [0] is to the right of Perseus, standing erect and to the right. His feet rest on the head of Orion and the toes of his left foot touch the left Gemini. He is nude and has one small goat on his outstretched left arm and another unidentifiable object in the crook of his right arm. Only the bottom half of **Boötes** [-] appears on this map (his top half having appeared on the winter hemisphere). The edge of the map intersects his chest so that his body below the chest and his legs appear in this hemisphere. His left foot almost touches the arm of Virgo.
- **Triangulum** [0] appears between the head of Perseus and the middle of Aries's back.
- **Aries** [+] is split between the two hemispheres. His back half appears on the summer hemisphere, with his cloven feet resting above the back of Taurus.
- **Taurus** [+] shows only the front half of the bull, with both of his front legs bent. He faces to the right. His right hoof touches the ears of Cetus.
- **Gemini** [-] are nude, they are standing and face each other, embracing with both arms. The feet of the left Gemini rest on the left hand of Orion.
- **Cancer** [+] has a round body, two claws and 6 legs, and faces to the right (towards Leo).
- **Leo** [-] has a head like a dog's, stands to the left, with his head held high. His front paws are intermingled with Cancer's claws and his tail wraps around the head of Virgo, with its tip touching the feet of Boötes.



- **Virgo [-]** is depicted without wings. She is nude and faces the viewer. She has no attributes, but is placed horizontally along the band of the zodiac, so that her head is near the tail of Leo. Her feet extend past the boundary of the sphere.
- **Cetus [0]** the front part of the beast is placed below Taurus and Aries and is to the left of Eridanus. It is drawn as a sea monster with claws on his front legs.
- **Orion [0]** is nude and stands between Taurus and the Gemini. He walks to the left, raising his right hand (but only from the elbow) and holding a small stick or sword behind his buttock in his left hand. The left Gemini stands within the space created by this position. Orion's head touches the right foot of Auriga and both his feet rest on the back of Lepus. The stream of Eridanus appears to spring from his right shin.
- **Canis Minor [-]** is placed to the right of the right Twin, its nose touching his left heel, and below Cancer. He runs to the left.
- **Hydra [+]** has its head below the front feet of Leo and its body and tail below Virgo. It is drawn like a snake facing the left.
- **Crater [-]** is drawn like an egg-cup and is placed on the middle of Hydra.
- **Corvus** faces forward and stands near the tail of Hydra, pecking at its body.
- **Lepus [0]** is directly below Orion's feet with his right foot in front of its ears and his left foot resting on its rump. It runs to the left.
- **Eridanus [0]** is drawn as a kind of a curl that seems to come out of a very large urn (?) It starts at the right shin of Orion and follows the front of Cetus's body until it flows off the end of the map.
- **Canis Maior [0]** is drawn to the right of Orion's left leg and behind Lepus. It runs to the left
- **Navis [0]** is to the right of Eridanus, with its hull cut by the bottom of the map. It is drawn as a partly visible ship with sails attached to a mast and two oars.
- **Centaurus [0]** is to the right of Navis. He runs to the right and holds a bow in his hands. His forefeet and the bow are cut by the edge of the map.

## II: Cartography of the winter hemisphere

The circle that frames the map represents the equinoctial colures. There are no internal divisions within the maps to signal to band of the zodiac, the solstitial colures or any of the other main celestial circles. Perhaps as a result, the constellation figures seems to float over the surface of the map slightly more than in those maps that have a dividing grid-system holding the constellations in place. The curve outlined by the zodiacal constellations is correct (see Figure ##).

### a. Locations of the constellations with respect to the zodiacal band

The winter solstitial colure (not drawn) passes through the left hand of Cepheus, the western wing of Cygnus, touches the beak and eastern wing of Aquila, passes through the neck and body of Capricorn and the rear hooves of Sagittarius.

## II. Significant features of the constellation images

- The head of **Draco [+]** forms an S-shape, with Ursa Minor being enclosed by the curl. The head of Draco faces left.
- **Ursa Minor [+]** is enclosed by the curl of Draco's body. It stands to the left and is drawn as a bear with a short tail.
- **Cepheus [-]** stands upside down to the right of Ursa Minor. He is nude and has his arms down by his side. He walks to the right and his feet rest of the edge of the map.

- **Cassiopeia [-]** is upside down, to the right of Cygnus. She sits on a square seat with a low back. She is dressed in a long robe and wears no head covering and her left arm outstretched and her right arm is raised.
- Only the top half of **Boötes [-]** appears on this map (his bottom half having appeared on the summer hemisphere). The edge of the map intersects his chest so that both shoulders and his upraised left hand appear in this hemisphere. His head touches the head of the snake held by Ophiuchus.
- **Corona [-]** is a simple circle that is placed behind the back of Hercules, right above his left foot
- **Hercules [+/-]** is upside down, kneeling to the right. His lower body is in profile, but his upper body faces the viewer. He raises his left hand at the elbow and holds an object (perhaps a lion's skin but not unlike Perseus's Gorgon-head) in his right hand in front of him. Corona appears above his left foot and Lyra is placed to the right of the object Hercules is holding. His head is very close to the right shoulder of Ophiuchus.
- **Lyra [0]** to the right of Hercules's right hand and to the left of cygnus. It is drawn with a U-shaped frame.
- **Cygnus [0]** is placed upside down, between the right shoulder of Cepheus and Cassiopeia. It flies to the left.
- **Ophiuchus [+]** is nude, faces the viewer and stands to the left. The snake held by Ophiuchus encircles his body and possibly runs through his legs, with the snake's head turned back so that it faces towards him. The snake's head almost touches the head of Bootes and his mouth is very close to the upraised left hand of Hercules. Ophiuchus rests both feet on the back of Scorpio.
- **Aquila [0]** is flying northwards to the right, with its beak nearly touching that of Cygnus.
- **Delphinus [0]** is to the right of Aquila, drawn as a fish with his head looking towards Pegasus. Its head faces towards the north.
- **Pegasus [-]** is only half of a horse without any evidence of wings. He is placed upside down, above Aquarius and faces left. His feet rest near the upraised right hand of Cassiopeia and his back brushes by the northernmost of the two Pisces.
- **Andromeda [-]** is drawn upside down to the right of Pegasus and Cassiopeia. She is nude and stands to the left, facing the viewer, with her left hand down by her side and her right hand raised at the elbow. Her head touches the mouth of the northernmost of the two Pisces and her right hand is raised so that her hand nearly touches the left horn of Aries.
- **Aries [+]** the front half of Aries appears in the winter hemisphere, including his forelegs and his curly horns. He appears to be leaping to the left. His right horn touches the cord of the Pisces and his feet touch the underbelly of the southernmost of the two Pisces.
- **Scorpius [+]** has two front claws, 6 legs and a hook-shaped tail. He faces to the right and supports both feet of Ophiuchus.
- **Sagittarius [0]** is a centaur, prancing to the left, holding a bow with his left hand before him. The feet of Capricorn rest on his rump.
- **Capricorn [0]** has two short, curved horns and a corkscrew tail. His front legs are bent so that his hooves rest on the rump of Sagittarius. His left horn seems to touch the tail of Delphinus.
- **Aquarius [0]** is nude, faces the viewer and is placed horizontally on the ecliptic belt. He raises his right hand at the elbow and holds an urn upside-down in his left hand. The stream pouring from it flows under his feet and into the mouth of Pisces.
- **Pisces [0]** are joined by a line at their mouths. They are swimming belly-to-belly, but are placed at oblique angles to one another. The mouth of the northernmost fish touches Andromeda's head and the cord beneath his mouth touches Aries's right horn. The belly of the southern fish touches Aries's left hoof.
- **Piscis [0]** is connected by his mouth to the stream of Aquarius.
- the tail of **Cetus [0]** appears to the right of the Southern Fish, with its fantail co-inciding with the back of the southernmost Pisces.

## Comments

The constellations depicted in the set of hemispheres on fol. 5r of the Aberystwyth manuscript are, in many ways, quite close to the more highly-finished one that appear in the hemispheres on ff. 4v and 5r. The majority of the 'iconographic' differences are due to the way in which the drawings of the 'sketchy' hemispheres have been constructed (*i.e.*: traced from another source and lacking in detail). It is worth noting, though, that all the human figures in the 'sketchy' hemispheres are nude, while on Andromeda, the Gemini and Perseus are the only humans that are nude in the more-detailed hemispheres. Also, the placement of the constellations in the 'sketchy' hemispheres seems a bit more fluid than in the more finished hemispheres, perhaps because the former lacks any defining boundaries, but the more finished hemispheres do have lines indicating the northern and southern boundaries of the zodiacal band.

The main pictorial differences between the two sets of constellation illustrations would include:

- in the 'sketchy' hemispheres, Auriga is standing, while his is kneeling in the others.
- there are no Aselli in the 'sketchy' hemispheres.
- Virgo has no attributes in the 'sketchy' hemispheres and is lying lengthwise along the band of the zodiac.
- in the 'sketchy' hemispheres, Aquarius is placed horizontally on the ecliptic belt, but stands upright and walks to the right in the finished ones.
- in the 'sketchy' hemispheres, Ophiuchus stands with both feet on Scorpio while in the other set they are not.
- in the 'sketchy' hemispheres, Centaurus holds a bow while in the other set he holds Lupus.
- Ara, Corona Austrinus, Lupus and Sagitta are not depicted in the 'sketchy' hemispheres.

The most important difference between these sets of hemispheres, however, is a structural and cartographic one. The line of the colures intersects the constellations at different points in the two sets of maps. In the more finished hemispheres (ff. 3v and 4r), the line of the colure divides the zodiacal band at the beginning of Aries and end of Virgo (summer hemisphere) and at the beginning of the claws of Scorpio (Libra) and the end of Pisces. In the 'sketchy' hemispheres, the line of the colure cuts through the zodiacal constellations at the mid-point: most notably, the front half of Aries appears in the winter hemisphere and his back half appears in the summer hemisphere. Similarly, Virgo's feet are cut off by the edge of the map. Cancer and Capricorn appear to be located in the very middle of the sketchy maps. Considering the extra-zodiacal constellations, the top half of Boötes appears in the winter hemisphere and his bottom half appears in the summer hemisphere. In the southern zones, Cetus is often split between the two hemispheres, but in the 'sketchy map, most of the body of Centaurus appears in the summer hemispheres, whereas it is more common to see only his rump appear here, with most of his body appearing below Sagittarius in the winter hemisphere. Considered *in toto*, it is as if each of the 'sketchy' hemispheres has been rotated towards the east. A similar version of the constellations of the winter hemisphere can be found in the Monza manuscript, B. 24. 163 .

fol. 10v	Planisphere.
fol. 11r	Blank (with a crude, in complete ink drawing of a goose or swan towards the top of the page).

- fol. 11v Aratus and the Muse of Astronomy, Urania. The two figures are placed between two isolated columns, which have green and red capitals and decorations running down their shafts and on their bases. Aratus sits in a folding chair, facing to the right. His body and chair have red highlights. He holds a rectangle (papyrus case?) in his left hand on his lap and extends a green stick (*radius*) held in his right hand towards a globe. The globe is set on a tripod and has lines suggesting the Great Circles marked on it. Urania stands to the right side and has a feather on her head. She also has red highlights on her skin and dress. She points to the globe with her right hand and holds a box (papyrus case?) in her left hand in front of her body.
- fol. 12r Jupiter seated on his eagle, dressed in a red toga and facing towards the viewer. He holds a green flaming torch in his left hand and a long red stick (sceptre ?) in his right hand. The eagle is highlighted with green and he holds something that looks like a drum with a ring of bosses on its circumference and the drum's surface is red.
- ff. 12v- 21r Detailed, but slightly crude, sepia pen drawings of 23 constellations combined in 16 images, with washes of colour in red, green and a yellowish-tan. The stars are marked with big, red dots with smaller, yellowish points around them. The incomplete text is mirrored by an incomplete set of illustrations; but, beyond this, there is also a blank space for the constellation of Auriga even though the text and gloss are extant. The following are missing from the set: Auriga [blank], Triangulum, Pisces, Perseus, Lyra, Cygnus, Aquarius, Sagittarius, Capricorn, Aquila and Sagitta, Delphinus, Orion, Canis Maior, Lepus, Navis, Cetus, Eridanus, Piscis Austrinus, Ara and Centaurus with Lupus.
- fol. 13r **DRACO INTER ARCTOS** in light sepia ink with no colour with **Draco** depicted as a snake with a scaly back. He is oriented oddly on the page so that his head is at the right of the page and he looks down towards the bottom of it. He has 34 dots running down the length of his curves along his stomach, but it is unlikely that these are intended to represent stars (for a comparator, see the similar snakes in Ophiuchus and Andromeda). He has an arrow-shaped tongue in black ink (probably later). Both Bears are set within the curves of Draco. They walk in opposite directions, both having their backs 'upwards' (towards Draco's head).
- URSA MINOR** walks towards the bottom of the page, into Draco's second curve.
- URSA MAIOR** walks towards the top of the page, into the third bend of Draco's body. Neither bear has stars and Ursa Maior is slightly larger.

- fol. 13v **HERCULES** is set within the Garden of the Hesperides, with the green, red and yellow snake, shaped with three bends and with a long tongue. It wraps around a green and red striped tree on the left side and it has a series of red dots running along its stomach, which are not stars. Hercules is nude (save some decorated sepia bands around his calves) and appears to be facing towards the viewer (if one considers the orientation of his hands and the presence of nipples on his chest), but his anatomy is not very well resolved. He is bearded and has the lion's skin (with full mane and face) over his leading right hand, while holding a club behind his head in his following left hand. Both man and beast are highlighted with red and yellow washes. The body of Hercules is marked by 1 star in the head, 1 in each shoulder, 1 in left (following) elbow, 1 in the right (leading) upper arm, 1 in the left (following) hand, 1 in the club, 2 on the left thigh, 1 in the left knee, 1 on the left shin, 1 on the left ankle and 4 in the lion's skin, or 16 stars in all.
- fol. 14r **CORONA BOREALIS** (labelled: CORONA) is depicted as a circle with decorative bands and four stylised ribbons at the bottom. It is marked by 9 stars.
- fol. 14v **OPHIUCHUS** (labelled: SERPENTARIUS) is nude and walks to the left, with his feet placed on the back of a green Scorpio, which also faces to the left. Ophiuchus's lower body is set in profile, with his left leg leading and it seems that his upper body twists to face the viewer (so that his right arm is leading). He has blonde hair and a red wash on his body. *Serpens* is wrapped once around his waist, making an 'X' in front of the man's belly. It turns to look towards the man. The Snake has the same kinds of sepia dots along its stomach as Draco does and his body is red and green. The body of Ophiuchus is marked by 1 star in the head, 1 in each shoulder, 1 in each elbow, 3 in his right hand, 3 in his left hand, 1 on each knee, 1 on the right shin and 1 on each foot, or 16 stars in all. The snake is marked by 2 stars in the head, and 4 distributed over its body, or 6 stars in all. Ophiuchus stands on the back of *Scorpio* with both feet. It faces to the left, has very angular front claws and 8 feet and a curled tail. It is marked by 2 stars in each claw, 3 on the nose, 3 surrounding the right foot of Ophiuchus, 2 on the back, 5 on the tail and 2 on the sting, or 19 stars in all.
- fol. 15r **BOOTES** (labelled: ARCADES) appears to be facing away from the viewer and cranes his head back to look upwards, towards the top of the page. He is dressed in a *tunica rustica* with red and yellow washes, that exposes his left shoulder and has a furry hem. He has wild hair and holds both of his arms out to the side. Over his left arm, there are the remnants of some sort of skin or cloth and, in the right hand, he holds a curved green stick, outlined in red. His body is marked 1 star in his head, 1 on each shoulder, 1 below his left shoulder, 1 on his left elbow, 4 in his right elbow,

4 in his right hand and 1 on each knee, or in all 15 stars. Note that Arcturus is not marked.

fol. 16r **VIRGO** has large green wings and she stands facing the viewer with both her arms outstretched to the side. She is dressed in a long green robe with green sleeves, that is covered by a white over-tunic with red-striped straps over each shoulder and a red and white belt, with red in the lowlights of the skirt. Her wings fall in front of her shoulders. Also, her legs are oddly crossed so that the right one is crossed in front of the left one. In her right hand, she holds a green plant; and in her left a pair of red and yellow Scales. She is marked by 1 star in the head, 1 on each shoulder, 1 in each elbow, 2 in each wing, 1 in each hand, 6 along her hem and 1 in each foot, or 19 stars in all.

fol. 17r The **GEMINI** are depicted as two warriors, standing with spears in their outer hands. Their bodies are turned so they face away from each other, but they turn back to look at each other. Both are dressed in short tunics and short capes (left Twin is blonde-haired and wears a red tunic with a green and red cape and the right Twin has green hair and wears a green tunic with a red and yellow cape) and wearing knee-high boots that exposes their toes (right Twin green with yellow trim, left Twin yellow with red trim). Both Gemini hold their inner hands in front of their own bellies. The left Gemini steps up with his right foot to rest it on the line of text that comes jutting towards his body. The left Twin is marked by 1 star in his head, 1 in each shoulder, 1 in his right elbow, 1 on each knee, 1 in each foot and 1 below his right foot, or 9 stars in all. (note: there is an interesting 'correction' regarding the star that is supposed to be in the right foot of the left Twin. As the artist made the creative decision to raise this foot, it is no longer placed where it should be. As a result, it does not correspond to the correct location for the star located in the right foot of the left Twin. The star has been drawn in the right location on the page, and there has been a line added between the new position of the foot and the correct position of the star to link the two.) The right Twin is marked by 1 star in his head, 1 on his left shoulder, 3 on his chest, 1 on his left thigh, 1 on each heel and 1 below and between his feet (Propus), or 9 stars in all. **Cancer** is placed between the feet of the two Twins. It has a circular body that is positioned so that its nose is towards the top of the page. It has a green body with a yellow and white stripe running vertically down the shell. It has two large, yellow and red claws and 6 legs. It is marked by 1 star above its nose (or his mouth), 1 on its head, 2 on the back (that have largely flaked off), 2 in the left claw, 3 in the right claw, 1 in each of the three right feet and 1 in each of the three left feet, or 15 stars in all. There are two almond-shaped objects in black ink on the Crab's back that seem to be by a later hand and represent eyes (and are probably not a contemporary depiction of the Asses).

- fol. 17v      **LEO** rushes to the left with his mouth open and his tail flowing behind him. He is filled in with green wash, with 'shadows in brown-yellow and red wash. His body is marked by 3 stars on his head, 1 on his neck, 3 on his left front leg, 1 on his left front claw, 3 along his back and 1 in his tail, or 12 stars in all.
- fol. 18r      [blank space for **AURIGA**]
- fol. 18v      **TAURUS** is depicted as half a bull facing to the right. His body ends in a cloud and is highlighted by red and yellow wash. He tucks his right leg under his chest so that the hoof is hidden. His left leg is held vertically. There is a large 'X' that covers his face and he is marked by 1 star in each of the tip of the horns, 1 at the base of each horn, 1 on each eye, 1 on the nose, 2 in his neck, 3 on his chest, 1 in each front knee, 3 on the back and 1 on the belly, or 18 stars in all.
- fol. 19r      **CEPHEUS** is depicted standing, facing the viewer and holding his arms out to either side. He wears a short reddish tunic that is gathered at the waist and has a full skirt with a green apron on top of it and a knee-length red-highlighted cape. There is a series of red buttons down the middle of his chest and along the right side of his green apron. He also has a red and yellow mitre-shaped hat on his head with two straps flying out to either side. He is marked by 2 stars on his hat, 1 on each shoulder, 1 on each hand, 1 on his right elbow, 3 around his left elbow, 1 in his waist, 2 on his right thigh (one of which has flaked off), 2 on his left knee and 3 on his left foot or 18 stars in all.
- fol. 19v      **CASSIOPEIA** is seated in a brownish throne with a high-backed semi-circular top and a green and red striped cushion. She is dressed in a long green gown with a green and red vertical stripe with buttons down the front and she wears a green Phrygian cap on her head. She holds her hands out to either side so they form a 'W'. She is marked by 1 star on the head, 2 on her throne, 1 in each shoulder, 1 on her breast, 1 on the navel (partially flaked off), 1 on her right elbow, 1 on each hand and 3 in her left knee, or 13 stars in all.
- ANDROMEDA** stands facing the viewer, dressed in a long green gown with a tan shawl that is draped over her shoulders, the ends of which cascade from her elbows. She stands with her arms outstretched, being held by loops to two rectangular piles that are covered with tan and red toilet articles. She stands on a pig-faced serpent with a trefoil tail, whose body is laid out flat at her feet. His back is green and his stomach is marked by red dots running down the length of his curves. Andromeda is marked by 1 star on the head (nearly flaked off), 1 on each shoulder, 1 on each elbow, 1 on the left hand, 1 on the top of each plant, 3 at her waist, 4 below the

waist at her hips, 1 on each knee (nearly flaked off), 1 on the left foot and 2 on her right foot (one flaked off and the other nearly flaked off) or at 20 stars in all.

fol. 20r **PEGASUS** is depicted as half a winged horse that flies to the right. His mouth is open and he has a red band across his forehead. Both feet are stretched out in front of him, with green hooves, and his left wing is seen behind his head. His body is highlighted with red and tan wash. He is marked 1 star in each ear, 1 in the head, 2 in his face, 1 in his jaw, 4 on his mane, 1 on his chest, 1 on his back, 1 on his belly, 1 on each front knee and 1 on each front hoof, or 17 stars in all.

fol. 20v **ARIES** leaps to the left, but his head is turned backwards so that he looks to the right. He has curly yellow horns and a long tail and a red ring around his waist. His body is covered with yellow wash and he has red scallops indicating his fleece. He is marked by 1 star on his head, 3 on his nose, 2 on his neck, 4 along his back, 1 on his front left foot, 1 on his hind left foot and 1 on his tail or 13 stars in all.

fol. 21r **HYDRA** is a long green snake, slithering to the left with a flat body, but his neck is raised so his head is lifted. His body is marked by small red dots, but it is unlikely that these are stars. There are 3 proper stars (red dots surrounded by yellow points) in the body, however.

**CRATER** is a two-handled red and green urn set in the middle of Hydra's body and **CORVUS** is red and yellow and stands near his tail, facing forward and pecking at Hydra's body. It is difficult to see whether these are marked by stars because of damage to the top of the page, but there are the remains of 3 stars in Crater, on the rim of the vase, and at least 3 stars in Corvus, 1 in his beak and 2 in his wing.

**CANIS MINOR** runs to the left, had a long tail and rounded ears and has a long, pointed tongue. His body is highlighted with red and tan. He has a number of red dots on his body, but also is marked by 4 proper stars along his belly.

fol. 21v Set of five, highly-coloured, red and green planet busts set within red and yellow circular frames. Mercury has wings on his head. There are some later scribbles beneath in ink.

fol. 25r A planisphere with names of the constellations.



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**notes**

Aberystwyth 735C has been closely studied by McGurk (see bibliography below). He has noted that the manuscript itself is in two parts. The first, illustrated part can be stylistically and paleographically connected to the region around Limoges and dates to the early 11th century. The second part (containing an illustrated text of Hyginus) shows an Insular hand and dates to the late 11th century.

The text and *scholia* of the *Aratea* is related to those found in the illustrated manuscripts of Germanicus' *Aratea*, Basle AN IV 18 and Berlin lat 130 (Phill 1832), which Breysig 1867 calls the 'O<sup>i</sup> family' and Gain, p. 2, called 'the O family, v branch'. It is closest to the Basle manuscript, but does have numerous differences throughout. These differences led McGurk to suggest that the Aberystwyth manuscript is a contaminated descendent of the Basle manuscript or, more likely, its model. Reeve (p. 21, n. 20), however, disagrees, arguing that the textual differences are not sufficiently striking to merit distinction as a hybrid.

Regardless of its precise textual parentage, the illustrations in the Aberystwyth manuscript are anything but straightforward. Generically, as McGurk noted, they are closer to those found accompanying the ps-Bedan *De signis caeli* (especially to two manuscripts with Limoges connections, Paris BN 5543 and Paris BN 5239; as well as to the ps-Bedan Vat lat 643 and related manuscripts) which in the present work is labelled as DSC II.

Some of these pictures also appear in the illustrated Hyginus manuscript, Leiden, Voss lat. Oct 15 (the so-called 'Hyginus of Adhémar of Chabannes' - another Limoges link), and in the Hyginus excerpts in Vat Reg lat 123. Beyond this however, there are similarities between the pictures in the Aberystwyth manuscript and those in the Byzantine manuscript, Vat grec 1087 - not only in terms of the canon of constellations and extra pictures represented, but also in a number of the shared details, such as the cushion on Cassiopeia's throne, the inclusion of toilet articles in the image of Andromeda, Virgo holding the scales, Hercules with the Snake in the Garden of Hesperides, etc. Both manuscripts also share the extra features of a planisphere, a set of hemispheres and include pictures of Jupiter sitting on his eagle. Further still, unlike both the ps-Bedan manuscripts and Vat grec. 1087, the Aberystwyth manuscript includes depictions of the Aratus with his Muse, whose only manuscript appearance is in the Germanicus manuscript, Madrid 19

Needless to say, this strange collection of pictures within one manuscript is slightly problematic. It points to two possibilities. Either the author/s of this manuscript cobbled-together this wide assortment of images from a number of different manuscripts that existed in and around Limoges at

the time or, the pictures were drawn from a model - McGurk suggests a Carolingian model - in which all of these images already existed side-by-side.

Regarding the planetary diagram on fo. 4v, McGurk (1973, p. 205) identifies the verses with those also found in Reims, Bibl. Mun., Ms 1263, ff. 98v-99. The complete text is described and identified by Bruce S. Eastwood, 'Notes on the planetary configuration in Aberystwyth N.L.W. Ms 735C, f. 4v,' in *The National Library of Wales Journal*, 22 (1981), pp. 129-140 = 'original conception, in both diagram and verses, contains a conscious reflection of ideas about planetary motion from the astronomy of Martianus Capella grafted on to a pattern from Macrobius manuscripts. Our best explanation of the planetary configuration, therefore, shows a pattern which does not give other than decorative significance to the zodiac, which sees the moon and the outer planets arranged in the traditional cosmic pattern like that of Macrobius, which uses patterns of intersecting circles attributable to an interaction of Macrobian and Capellan texts, and which simply errs in placing the sun's circle between those of mercury and Venus rather than above both and below both. The planetary configuration is a nice witness to speculations occurring in the eleventh and twelfth centuries with regard to the paths of the planets'. (p. 135). He also says (p. 136) that though close to the Reims ms, they are not dependent on it, but they represent two close relatives of a single tradition. The origins of the verse are unknown, but they fully accord with the cosmology found in Pliny, *NH*, esp. Book II).

folio size: 235 x 165 cm

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### bibliography

PLAS POWER MSS, 1816

BREYSIG 1867, pp. 44-104.

*HANDLIST ... NLW* 1943, I, pp. 54.

MARTIN 1956, pp. 38-39.

GABORIT-CHOPIN 1967, pp. 189-91.

McGURK 1973, pp. 197-216.

He says that

- 1) the book is in two parts
- 2) impossible to tell when 2 parts of ms came together, but possible that second part from Limoges arrived in the 11thc and was completed by Insular hand later that century;

The first part is Germanicus Caesar's translation of Aratus with scholia and illustrations; clearly a member of the family O<sup>i</sup> in Breysig's edition. The text shares distinctive readings and omissions and repetitions of verses and relationships of scholia to verses; close to Basle, but not direct as it also shares some readings with Paris 7886 and M (a member of the O<sup>ii</sup> family); therefore a contaminated descendant of Basle or Basle's exemplar.

The scholia are close to those of the Basilensia (which are confined to the O<sup>i</sup> family); as the Basle ms is the only one of this family that is illustrated, then Ab's illustrations are highly significant;

Ab's illustrations not quite like Basle or the other illustrated translation of Aratus; instead are more like those found in the pseudo-Bede mss and Vat Gr 1087, which he says may have belonged to the *Catasterisms* of Eratosthenes; they are clearly mythological; also they have additions that the Bedan catalogue does not:

portrait of Aratus and Urania, is very rare and only appears in the Germanicus Manuscript of the O<sup>ii</sup> family, called 'the O family, 'branch' Madrid 19, which has different scholia and in a debased form in Vienna ms. (Saxl II, pp. 86-90)-

Zeus on the eagle

busts of 5 planets

says that the iconography must come from the Madrid ms archetype, which has long been known to come from monumental painting of the late Roman period and probl first appeared in a ms in the 4th c; he does not agree that this would have been inappropriate in a Germanicus ms or that was taken from a Life of Aratus, as the portrait in the Madrid ms is clearly a frontispiece [but his reasoning not really clear];

ills are especially close to Bedan mss connected to Limoges (Paris, BN, lat 5543 and Paris, BN, lat 5239) and to two others (Vat reg lat 123 and Lat lat 643, which may have Limoges connections);

illustrations share:

particular fringe to Boötes' tunic also in Paris lat 5543 and Leiden oct lat 15

bridal presents to left of Andromeda also in Paris lat 5543

Cancer near feet of Gemini in Leiden oct lat 15

may be a Limoges book, but does not completely agree with them, nor do other Limoges books completely agree with each other (though in n. 21 he says style of illustration is close and that Bischoff has said that the script looks like Limoges)

Differences with Paris, BN 5543 include:

Ab has stars, Paris 5543 does not

Ab (like Paris 5239) gives tongue to anticanis

hands of Gemini on hips like Leiden oct lat 15 and Reg lat 123

believes that Ab may have been the third book that Ademar used when he compiled Leiden oct lat 15; Ab 735 and Leiden oct lat 15 are also the only mss of their traditions that place Cancer between the feet of Gemini (all the Germanicus mss that associate the two place it to the right of the Twins); Cancer appears between the legs of Gemini in the Bede books: Vat lat 643, Klosterneuberg 685 and Zwettl 296; also in the scholia Sangermanensia ms Siena L. IV. 25; the association of two texts having close illustrations (Paris 5239 and Ab) must go back before this date

The relationship between this text and the Bede illustrations is problematic esp. since its closeness to Vat grec 1097 and the extra illuss argue that Ab=s sources could not go back to barbaric Aratus latinus and Bede catalogues; perhaps belongs to an early text of the 'catasterismic' fables and was transferred to a Germanicus transl; he believes may have been a Carolingian model and the washes of colour meant to represent swathes of colour (p. 200-01): more or less agreed that Vat grec is closest to antiquity;

Thiele (who did not know about this Ab planisphere) says of the Latin ones, Basle is the closest the stipulations in the text of the poem [one assumes he means Germanicus and not Aratus]; says that Ab is closer to the poet [which one? Aratus, see the forthcoming essay on the maps] than Vat grec 1087; also notes that Thiele's criteria were star positions along 3 circles in poem, and again Ab comes out best so it must be very close to the prototype in its placements of constellation; (p. 202) the iconography of the constellations, however, is not very close to an antique prototype (Harley 647 and Boulogne are better);

Hemisphere: 203-05 and p. 212 (Appendix E): notes that there are no other hemispheres accompanying versions of the Aratean poem, but are part of the normal, preliminary section of the *Revised Aratus latinus*, with their appearance elsewhere as 'random'. He notes that the only manuscripts with both planispheres and hemispheres are Aberystwyth and Vat grec 1087. Shares feature of hemispheres on 2 pages with 2 Greek manuscripts and Paris BN 12957. Closeness to Vat grec 1087 is a measure of its antiquity. (p. 203): re: hemispheres, Vat grec 1087 and Ab are the only ones with north hemispheres and planisphere;

McGURK 1966 IV, p. xxiv. no. 40.

talks about 'farming out' images that are not necc. connected to the text; frontispiece of text from Madrid 19, but in general the illustrations agree more with the ps-Bedan catalogue especially the 2 Limoges mss of Leiden 15 and Paris, BN, lat 5239

REEVE 1970, p. 516.

probl from Limoges, 1st half XI c; illustrations in same places as Basle AN..IV.18 and Madrid 19; (p. 21) says his reasons for considering it a hybrid are bad.

LEBOEUFFLE 1975.

dell'ERA 1979.

LOTT 1981, pp. 147-58.

EASTWOOD, 1981.

MUNK OLSEN 1982, I, pp. 404-05.

MOSTERT 1987.

MÜTHERICH 1989, p. 32.

HAFFNER 1997, *passim* and p. 25.

text related to Basle AN.IV.18 and connected to group of 5 mss that have a Frankish background, represented by the 'Carolingian' Basle mss and 5 others.

BLUME 2000, p. 274.

EASTWOOD 2002, p. 281 ff.

DEKKER 2009.

BLUME, HAFFNER, METZGER 2012, I. pp. 95-97 and 179-84.

pp. 95-97: Effects of Fleury 'monastic reform'; style and script recalls Limoges or Fleury c. 1000; and the illustrations are the same 'in every detail' as the Fleury *De signis* manuscript, **Paris BN 5543**; says taken from the and transferred to Germanicus, adding the Germanicus image of the the author and the Muse and Jupiter on his eagle; also the maps are a borrowing from the *Revised Aratus latinus* tradition and a variant of the Sol/Luna images; reflects 'a special interest in diagrams'; suggests that maps came from a Fleury map which was then the basis of Hyginus iconography; notes the difference between the constellations in the maps and accomonaying the text and suggests that they were derived from ;more impressive' images and then adapted to the Germanicus text (i.e.: placing Cancer between the Twins) ; also suggests that the addition of the stars were added from the Germanicus tradition (??); but still believes that the original form for all this must have come from Fleury - with the most comprehensible manuscript encompassing a number of different traditions being exported to England

pp. 179-84: In two parts; part 1 (with the illustrated Germanicus sections) is from Limoges or Fleury, c. 1000; and part 2 (with an unillustrated Hyginus) is Insular from the end of the 11<sup>th</sup> century; both sections are written in Carolingian miniscule

Also linked textually to two other west-Frankish Carolingian manuscripts (Paris BN lat 7886 from Corbie, 9th century, and Berlin Phillips 1830 and 1832 from Reims?, 9th century), but the texts is not illustrated.

Notes author portrait and Muse also appear in Madrid 19.

Notes that the manuscript is unique in its planisphere having a representation of the Aselli. The hemispheres are related to the *Revised Aratus latinus* tradition; and the planisphere on fol. 10v is related to Leiden 4°79 and Munich 210), as well as to the 14th-century Greek manuscript Vat grec 1087.

Notes stylistic similarities to other manuscripts connected with Limoges (following McGurk and Gaborit-Chopin 1969) and connection with Abbo of Fleury.

**DEKKER** 2012, pp. 120, 127, 139-40 (hemispheres); 153; 171-3; 207-210 and 227-28.

p. 120: maps are contained within a miscellany of texts (Cicero and Macrobius), which is followed by the text of Germanicus *Aratea*; no other example of maps within a Germanicus manuscript

p. 127: hemispheres lack a cartographic grid

pp. 139-40: misses defining characteristics of Eudoxan tradition and also lacks the ivy leaf; also includes a Sagitta, which is absent from other hemispheres; Libra as Claws of Scorpio may point to a 'Greek' model; also Asses in the Manger is unique but suggests they were added by the scribe and not a feature of the original model; zodiacal band not divided into segments

p. 153 - aselli also appear on the planisphere;

pp. 171-73: presence of Claws means belongs to an earlier tradition; in globe view; discusses oddities of the schematic map

consulted - 7 March 2006