

Vatican

Biblioteca Apostolica

Pal. lat. 1368, part 1

An astrological compendium with *Tabula stellarum*, celestial and terrestrial maps and diagrams

Middle-Rhein (probably Heidelberg)

1420s (c. 1426)

contents

The ms is composed of four sections.

Section I is attributable to Sebastian Münster of Heidelberg and is dated 1422. It is written on parchment.

- | | |
|----------------|---|
| ff. 1r-9r | Sebastian Münster, <i>Instrumenta planetarum</i> . Circular tables with rotating parts and pointers, as well as figurative representations in the centre. |
| fol. 9v | <i>Tabula radicum</i> . |
| ff. 10r-10v | Sebastian Münster, <i>Canones ad ordinandum in principium anni Instrumentum Planetarum</i> . Instructions for using the preceding rotating tables. The colophon states that the preceding sections were conceived, written and drawn by Sebastian Münster by from 1522 onwards. |
| ff. 10 bis r-v | A slip of paper added later: <i>Radices anni 1473 completi</i> . For calculating the true positions of the planets (supplement). The paper corresponds to ff. 63-67 |

Section II is written on paper, in *bastarda cursiva* and can be dated to the 2nd quarter of the 15th century, probably written in Heidelberg.

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| ff. 11r-v | <i>Canones Tabularum</i> (THORNDIKE/KIBRE 1963, col. 1472, no. 2). Instructions for the following table |
|-----------|---|

ff. 12r-33r *Tabulae planetariums*. Numerical tables. On fol. 28r in and insert in Greek, with a Latin transl. ending: *Sum ille piscis qui hoc stagnum/omnium primus intraui per/Imperatoris Federici II/manus, V die octobris/ MCCXXX.*

ff. 33v-33av blank

Section III is written on paper, dates c. 1426 and was probably written in Heidelberg. The authorship by Konrad Dyfflenbach appears in the colophon to Ptolemy's *Centiloquium* (fol. 45r).

ff. 34r-v *Tractatus de significationibus 12 signorum* (THORNDIKE/KIBRE 1963, col. 150, no. 5-6).

ff. 35r-36r *Aphorismi Almansoris* (THORNDIKE/KIBRE 1963, col. 1504, no. 6, cf. no. 7-8). Authorship unclear (Abu Ma^cshar?). The expl. states: *Et sic finiuntur 150 aphorismi Almansorum aliter Albumasaris translati de arabico in latinum per Platonem Tyburtinum/quos (corr.) Abraham Tholetanus obtulit domino Almansori regi Sarracenorum pro quo deus sit benedictus.*

ff. 36ra-37ra ps.-Hermes, *Centiloquium* (THORNDIKE/KIBRE 1963, col. 1513, no. 7). The Latin transl. attributed to Stephanus of Messina (for King Manfred of Sicily).

ff. 37ra-38ra Zael, *Praecepta quinquaginta* (THORNDIKE/KIBRE 1963, col. 1411, no. 2).

ff. 38ra-41rb Johannes de Wachenheim, *Considerationes Guidonis Bonatti collectae*. Extracts and summaries according to Guido Bonatti. Of the 150 *Considerationes* mentioned in the column, only 122 are included here.

ff. 42ra-42va *Infirmitates ac partes hominis Planetarum* (THORNDIKE/KIBRE 1963, col. 1383, no. 1). On the influence of the planets on the parts of the human body and their diseases, as well as on urine examination and its interpretation based on the celestial constellations. At the end, there are two circular diagrams, the first is unfinished

ff. 42vb-43va Leopoldus de Austria, *De significationibus planetarum* (THORNDIKE/KIBRE 1963, col. 152, no. 11-12). On the significance of the planets in the houses of the horoscope.

ff. 43vb-45ra *Centiloquium Ptholemaei* (THORNDIKE/KIBRE 1963, col. 1403, no. 8). Without commentary.

fol. 45ra: *Et sic finitur centilogium Ptholomei scriptum per me Conradum de Dyfflenbach anno domini 1426, festo epiphaniae domini etc.* See TOEPKE 1884, p. 70.

fol. 45v blank

ff. 46r-47v: *Tabulae geographicae*. fol. 46r is a geographical table and ff. 46v-47v is a map with a system of topographical coordinates.

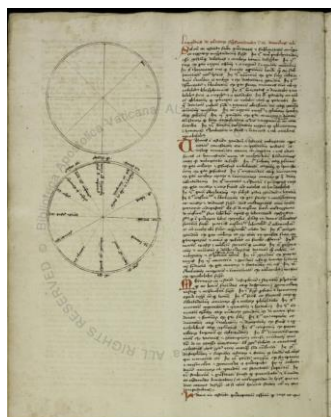
- fol. 48r *De stellis fixis secundum Ptholemaeum*. Stars list credited to the *Almagest*, as well as another list according to *Abrachum qui precessit Ptholomeum*.
- fol. 48v blank
- ff. 49r-50v Johannes de Wachenheim, *Tabula ascensionum*. Tables for the rising of the zodiac signs for Worms in 1420, whose latitude is given as 49 degrees and almost 34 minutes, and (fol. 50v) a table for the influence of the zodiac signs and planets.
- ff. 51r-56v Claudius Ptolemaios, *Tabulae stellarum fixarum* (KUNITZSCH ed. 1990). Verified in 1420 by Johannes von Wachenheim. Underneath the drawings, there are the pertinent texts from *De signis coeli*, describing the distribution of the stars in the picture - that is, the placement of the stars appears to follow ps-Bede, rather than Ptolemy. Longitude only in full degrees, without minute values
- ff. 56vb-58vb Johannes de Wachenheim, *Tabulae stellarum*.
- ff. 56vb-57va A list of stars according to their planetary natures (Saturn to Luna).
- ff. 57vb-58vb A list of stars according to their zodiacal coordinates (Aries to Pisces), each with the longitude of the respective sign. Ecliptic coordinates of latitude and altitude: *Et sic est finis stellarum ... fixarum in celo in gradibus 12 signorum verificatarum per magistrum Johannem de Wachenheim, decanum Nuhusensis, ad tempus 1400*.

Section IV contains a set of land and sky maps that were probably created slightly later than the rest.

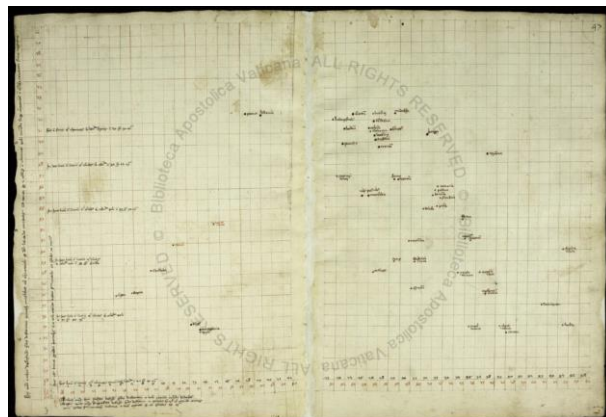
- ff. 59r-62v: *Rotae et Delineationes*. Drawings of astrolabe parts and rotating disks with degree divisions to represent the planetary movements. Labelled: *Theorica planetarum* by a later hand (Münster?) and provided with symbols of the individual planets
- ff. 63r-64v A set of star maps. The stars were drawn within a system of coordinates. The constellation figures appear as outlines only (cf. the advice given by Ptolemy in the *Almagest*), with various projections being used (see DURAND 1952, Plate I).
- fol. 65r blank
- ff. 65v-66r A map with a coordinate system with cities marked according to geographical longitude and latitude, but without further geographical details. The location of the cities differs significantly from the tables ff. 46v-47v: (See DURAND 1952, p. 119). - fol. 66v: empty
- fol. 67r Horoscope. Nativity as a square scheme, usual symbols for signs and planets. (possibly a later addition?)

note: Pal. lat. 1368, part 2 contains Sebastian Münster, *Instrumenta planetarum*, and is a 10-folio set of astrological dials with figures of the planet gods and their children (or attributes) set in the centre.

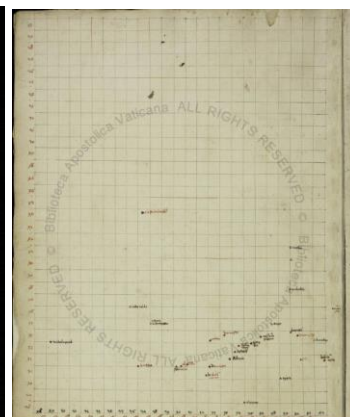
illustrations



fol. 42v



fol. 47r



fol. 47v



fol. 51r



fol. 51v



fol. 52r



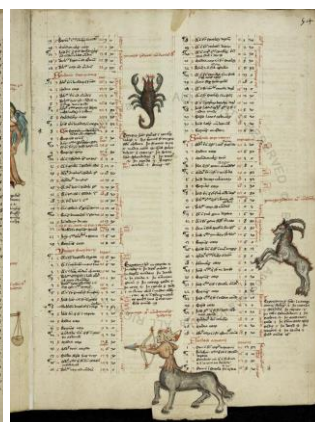
fol. 52v



fol. 53r



fol. 53v



fol. 54r



fol. 54v



fol. 55r



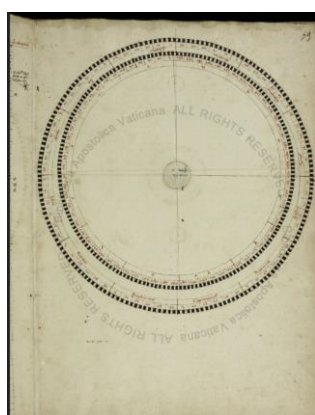
fol. 55v



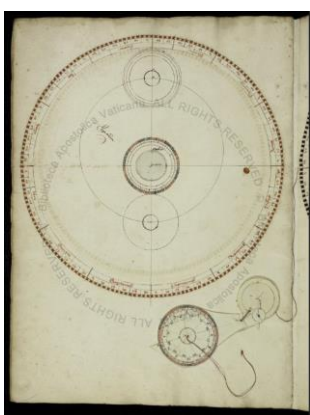
fol. 56r



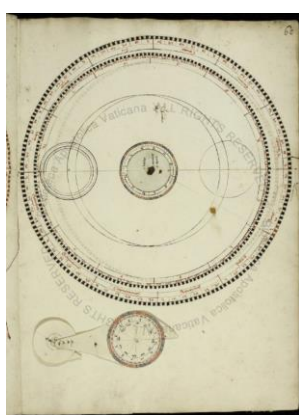
fol. 56v



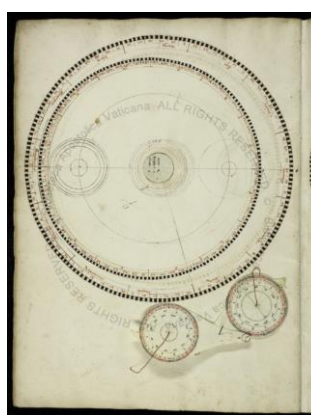
fol. 59r



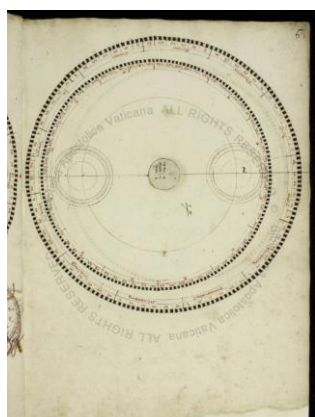
fol. 59v



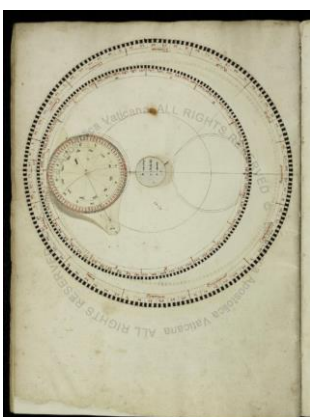
fol. 60r



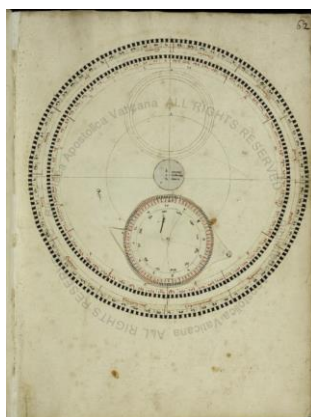
fol. 60v



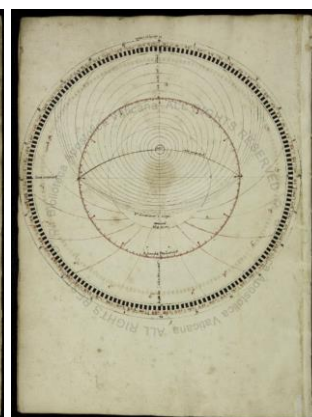
fol. 61r



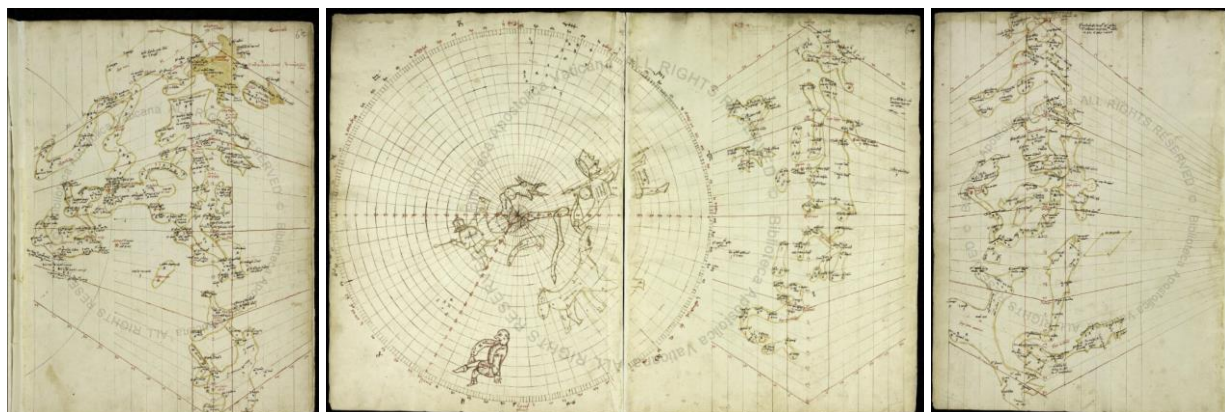
fol. 61v



fol. 62r



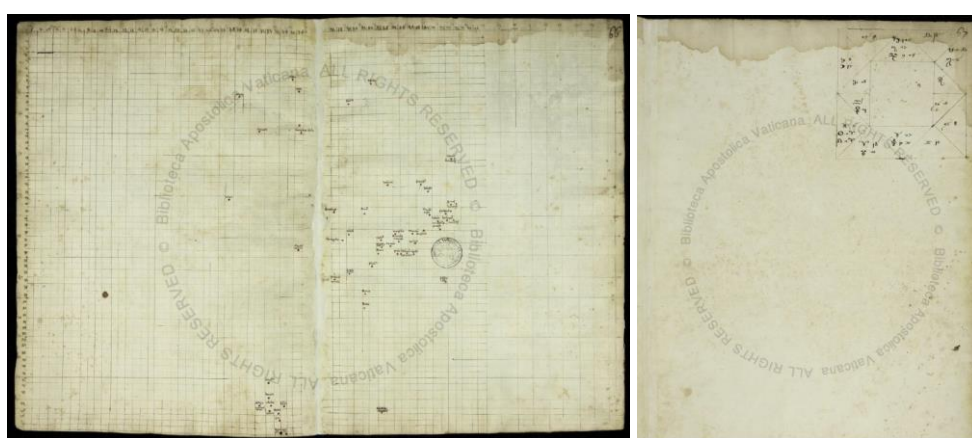
fol. 62v



fol. 63r

fol. 64r

fol. 64v



fol. 66r

fol. 67r

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- fol. 42v Two circular rotae, the latter showing the planets in specific houses.
- fol. 47r Latitude and longitudinal grid with certain major cities placed on it. The map extends from Tangier and *Babylon vetus* and between Oxford and Alexandria. The additions for Braunschweig (*Brunsvig* - between Trier and Magdeburg), Riddagshausen (*Riddageshusen* - west of Paris (!), on the same latitude as Erfurt) and Koblenz (*Confluentia* - between Cologne and Worms) are noteworthy. See DURAND 1952, p. 108, 119.
- fol. 47v Latitude and longitudinal grid with some major cities placed on it.
- ff. 51r-56r 57 images of the constellations. In several cases, variant iconographies for a constellation have been provided, as well as variant names. There are 2 versions of URSA MAIOR; 2 of CEPHEUS; 2 of HERCULES; 2 of LYRA; 2 of CYGNUS; 2 of PERSEUS; 2 of AQUARIUS; 2 of ERIDANUS and 2 of CANIS MINOR. The pen drawings are in black ink, with some light internal hatching. They have been lightly coloured. Paragraphs set in between the constellation have been taken from ps-Bede *De signis caeli* and Hyginus, *De astronomia*, Book III, which are sometimes cited as 'authorities'. METZGER 2016 notes that there are many iconographic parallels in

the figures with Lyon, BM, Ms 172, while also seeing connections to other 'Ptolemaic' imagery and with some of the *De signis caeli pictures*.

The stars are marked as asterisk-shapes most of time in red, but sometimes in black. In general, the positions of the stars appear to be derived from these ancillary texts, rather than from the accompanying star tables.

fol. 51ra URSA MINOR is a black bear, walking to the left and has a short tail. No stars are marked.

URSA MAIOR (first version) is standing on her hind legs, facing to the left. It is marked with stars.

URSA MAIOR (second version) walks to the right with its head lowered, shoulder hunched and turned to face the viewer. Cf ps.-Bede illustrations.

fol. 51rb DRACO is set vertically on the page. It is a green snake with lumpy backbone and a dragon's head, long ears and thin tongue sticking out. It is marked with stars.

CEPHEUS faces the viewer, standing slightly to the left. He is dressed in a bulky blue cloak with a red reverse and he is nude beneath. He raises a lumpy club in his left hand and raises his right hand in front of him with the palm open. He is beardless and has blonde hair. The variant names are given as: *inflammatus*, *cheichius*, *zepheus*.

BOOTES (first version) walks to the left, dressed in a loose, belted, short blue rove with a red cape that cover his extended right arm. He has a pointed red hat on his head and holds a shaped sword above his head with his left hand. The variant names are: *plorans*, *ululans*, *arthophilax sive vociferans*.

fol. 51va BOOTES (second version) walks to the left and is dressed in a green jerkin and leggings. He holds a spear vertically in his left hand. And his right hand falls to his side. The variant labels are: *arthos*, *boetes*.

CORONA BOREALIS is a circle with 7 trilobes and a bow at the bottom.

HERCULES (first version) faces away from the viewer and walks to the left. He is nude. He raises a club in his right hand, and his extended left arm and hand are covered by the full body of a lion. No stars are marked. The variant labels are: *saltator*, *algeti super genu*, *erigonasin*, *Hercules*.

HERCULES (second version) is similar to above, though the figure has shorter blonde hair and the lion's pelt is draped over his left arm. The figure is marked with stars.

fol. 51vb LYRA (first version) is a heraldic eagle with its wings spread and its head towards the bottom of the page (as if falling). The variant names are: *lira*, *vulture cadens*, *aliora*.

LYRA (second version) is a hurdy-gurdy seen from the top, with a crank at the top. It is marked with stars.

CYGNUS (first version) is a lizard-like creature with an ovate shell on his back. It is green and seen from above. The variant labels are: *gallina, eresin, cignus*.

CYGNUS (second version) is a hen with three small chicks walking to the left. It is marked with stars. The label is: *gallina*.

CASSIOPEIA is seated in a high, open-backed wooden chair with her arms extended to the sides. She is nude to the waist and her hair is exposed. Her skirt is orange and blue. She is marked by stars. The labels are: *habentis palmam, cassiopia*

fol. 52ra Perseus (first version) is nude save some white undershorts. He faces away from the viewer and walks to the left with a decapitated, bearded head of a man that drips blood in his left hand. He raises a curved sword in his right hand. He has short blonde hair. He is marked with stars and the alternate names are: [stellatio] *persoi, defontes (?) capud algol, perseus*

PERSEUS (second version) is in a similar posture, but wears a large orange cloak over his shoulders, exposing his back. He holds a club in his raised right hand. The label is: *perseus*.

AURIG walks to the right. He is dressed in a short blue robe with a tan and rose cloak over his shoulders. He looks upwards and has short blonde hair. He raises a three-thonged flail in his right hand and has a loop of fabric in his raised left hand. The variant labels are: [stellatio] *coralli, sive alhaioth, agitator*.

fol. 52rb OPHIUCHUS faces away from the viewer and is nude, walking to the left. He has the SERPENS wrapped around his waist. It is green with its head towards the left, which it raises and looks back at the man. Stars are marked. The variant names are: *alanguie, lator serpentis, officis*.

SERPENS is a blue serpent with a twist in its body. It is placed vertically on the page, with its head facing to the right. It is marked with stars. Labelled: *alague*.

fol. 52va SAGITTA is placed vertically on the page, with its tip towards the top. There are 4 stars marked. The variant names are: *telus, alhaneze, sagitta*.
AQUILA is an eagle that stands on an arrow, with its wings extended and its head turned back towards the left. The arrowhead faces down to the left. It has 4 stars and the variant labels are: *aquila, vultur volantis*.

DELPHINUS is placed vertically on the page, with its head at the top and facing to the left. It is blue and has a large trunk-like nose, red gills and a wattle. It has a spiky backbone. 9 stars are marked. The variant names are: *delfinus, piscis marini*.

EQUULEUS is a full grey horse without wings, it walks to the left and raises its front right hoof. No stars are marked. The labels are: *Ymago equi prioris*.

PEGASUS is half a grey horse with blue wings. It faces to the left with its forelegs extended. The head turns back to bite the raised left wing. Stars are marked. The labels are: *equus secundus, pegasus*.

- fol. 52vb ANDROMEDA stands facing the viewer. She is nude, but covered with a voluminous blue and tan cloak. Her hair is loose. She holds her right hand in front of her with the palm facing downwards and raises the left hand. She is marked with stars. The variant labels are: *Stellacio andromadei id est mulieris sine marito*.
- TRIANGULUM is a plain triangle with 3 stars. The only labels is: *triangulus*.
- fol. 53ra ARIES walks to the left, but turns his head to the right. He has curled horns and very long, wavy fleece. The stars are marked.
- TAURUS is the front half of a bull that faces to the left. It has lyre-shaped horns and its legs are bent in front of it. It has a straight cut-off and the stars have been marked.
- fol. 53rb GEMINI stand facing the viewer. They are nude, but covered with long cloaks: the Left Twin in a tan cloak and the Right Twin in a blue one. The Right Twin holds an animal-headed harp and puts his arm around his brother. They are marked with stars. They are also labelled: *castor, pollus*.
- CANCER is a red crayfish/lobster set vertically on the page, with its head towards the top of the page. It has two long antennae, large front claws and six smaller claws. It is marked with gold stars.
- fol. 53va LEO is placed horizontally on the page with his head towards the top. He walks to the left, with his red tongue sticking out. He is marked with stars.
- fol. 53vb VIRGO faces the viewer, slightly to the left. She is dressed in a pink, off-the-shoulder dress and has large blue wings. She holds a palm (*Spica*) raised in her right hand. She has something grey on her head. she is marked with red and yellow stars.
- LIBRA is a beam balance with rounded cups. It is marked with two red stars.
- fol. 54ra SCORPIO is placed vertically on the page with its head towards the top. It has three prongs on its snout, two large front claws and six smaller claws, with a curved tail with a hook. The stars are marked.
- SAGITTARIUS is a centaur that walks to the left. His human half wears a loose pink shirt with tendrilled hem. He draws his bow to the left and has a white headdress. His equine half is grey. He is marked with stars. Note that the page was originally longer at the bottom, but the part containing Sagittarius has been saved and folded inwards.
- fol. 54rb CAPRICORN is a simple grey goat that leaps to the left. It has long, knobby horns and a beard. He is marked with stars.
- fol. 54va AQUARIUS (first version; closer to depictions of Eridanus) is a nude male seated to the right, with a cloak over his shoulders. He is bearded and raises his right

hand. In his left hand, he holds the base of an upturned vase from which blue water pours and falls under his feet. He is marked with stars.

AQUARTIUS (second version) is a female figure standing towards the right and wearing a long pink robe. She holds the vase in front of her and it pours out stream that ends in a curl. She is marked with stars.

fol. 54vb PISCES are depicted as two blue fish swimming in opposite directions, with their backs upwards. They are connected at the mouths with a red string that has a curl in the middle. All three parts are marked with stars.

fol. 55ra CETUS is a dragon-like monster placed vertically on the page, with his head at the top. He is green, with a long neck and a dog's head that breathes fire. He has clawed forefeet and its tail is a corkscrew that ends in a bifurcated tail. It is marked with stars. The label reads: *stellatio ceti marini*.

ORION stands to the right and wears a short, belted, green tunic. He raises a straight sword in his right hand, and holds the scabbard in his left. He is marked with stars and labelled: *Stellatio orionis sive audacis*.

fol. 55rb ERIDANUS (first version) is a curled bit of blue stream. No stars are marked.

ERIDANUS (second version) is a nude figure seated to the right, with an exposed chest and its bottom half covered by a blue cloak. The sex of the figure is unclear. It holds a palm frond in its right hand and looks upwards towards the right. To its left, there is an upturned urn that pours a stream of blue water. The water is marked with stars.

fol. 55va LEPUS is a grey hare, jumping to the left. It is marked with 7 stars.

CANIS MAIOR is a grey dog that jumps to the left. It has a wide red collar with a ring on it and stars are marked. It is labelled as: *Stellatio canis alhabor*.

CANIS MINOR (first version) is a smaller brown dog with pointed ears. It leaps to the left, but turns its head to the right. It is marked with numerous stars and is labelled: *stellatio canis antecedens, algomeisa, canicula*.

CANIS MINOR (second version) is a powerfully built, snub-nosed black dog walking to the left. It is marked with 3 stars and is labelled: *anticanis*.

fol. 55vb NAVIS is a complete, round-hulled wooden ship, with the main mast towards the right side, 5 rowing oars and a steering oar at the left. There is a billowing sail on the mast and a crow's nest. It has stars. It is labelled: *navis vel argo*.

HYDRA, CRATER and CORVUS are depicted together. HYDRA is a blue snake placed vertically on the page with its head towards the top. Its red tongue sticks out and it has three peacock feathers on its head. It is labelled: *Hydra sive serpens*. CRATER is a footed vase with one handle. CORVUS is a black bird that faces towards the tail. All are marked by stars.

- fol. 56ra CRATER is depicted separately as a silver, footed vase with a handle. Stars are marked
- CORVUS is depicted separately as a black bird facing to the left with its wings drawn back. It has stars.
- CENTAURUS is a centaur that trots to the right, but looks over his shoulder to the left. Its human half is nude, and it has a lobed connection between the two halves, The equine half is light brown. Lying on his extended left arm, there is an upturned animal (dog?) with its feet sticking upwards. Both are marked by stars.
- fol. 56rb LUPUS is a grey wolf that trots to the left, with a red tongue sticking out. There are no stars.
- fol. 56va ARA is a square, stepped altar with three flames from the top block altar with step and flames. 4 stars are marked and the label reads: *ymago laris sive thuribulum*.
- CORONA MERIDIONALIS is a circular shape with 6 lobes and 6 spikes. No stars are marked.
- PISCIS MERIDIONALIS is a very large blue fish, placed vertically on the page, with the curl of a stream coming from its mouth. Its gills are red and the fish is marked with 3 stars on those gills.
- ff. 59r-62v Eight drawings of different astrolabe plates, and rotatable discs divided into degrees.
- ff. 63r-64v Star maps. The stars were drawn in a coordinate system and provided with outlines of the constellations, with various projections being used (see DURAND 1952, Plate I).
- fol. 65r blank
- ff. 65v-67r see contents above.

notes

39.7 x 29.0 cm, 70 folia, *bastarda cursiva* in several hands, fol. 1-10 parchment, the rest paper.

From METZGER 2016: A particularly rich compilation of material, with which an attempt was made, in an encyclopaedic manner, to bundle the knowledge of the fixed stars and constellations and to combine it in one work. The updating by Johannes de Wachenheim also indicates an active, creative approach to the tradition. However, the star coordinates

of Johannes von Wachenheim were not used for Dyffebach's projection (DEKKER 2013, p. 364f.).

The dating of this fascicle to 1426 (DURAND 1952, p. 119) is by no means certain, as this date can only be directly related to the *Centiloquium* (fol. 43vb-45ra). However, all texts up to at least fol. 58vb are likely to have been written around this time. The rest was probably written after this, but not much later. The labels on the map sketches are also by Conrad von Dyffebach. He had enrolled at the University of Heidelberg in 1399 and was described in the register as the son of the county clerk (TOEPKE 1884, p. 70). This is consistent with the information that the star tables of Johannes von Wachenheim - a founding member of the University of Heidelberg in 1386 and later dean of the Neuhausen monastery near Worms - were 'verified' in 1400 and 1420 respectively. It seems very likely that the manuscript was created in Heidelberg, but certainly in the Middle Rhine region between Worms and Heidelberg around 1426. The first part, written by Münster in 1422, probably came to the Heidelberg Castle Library as a gift to Ludwig V of the Palatinate and with it to the Bibliotheca Palatina. After its transfer to the Vatican Library (1623), the two parts were united there.

bibliography

SAXL I 1915, pp. 10-15; plates XI, XIII, XIV

DURAND 1952, pp. 114-122, and Plate I

MONTUSCHI 1971 (Claudia Montuschi, 'Le biblioteche di Heidelberg in Vaticana. I fondi palatini; in *La Vaticana nel Seicento (1590-1700). Una biblioteca di biblioteche*, ed. Claudia Montuschi [Storia della Biblioteca Vaticana, 3, 2014.

COX-REARICK 1982, p. 208

POULLE 1983, pp. 233f.

LIPPINCOTT 1985, 47f., 52-56, 66, 68.

German 1426

For the date of the tables, see fol. 51r: *Tabule stellarum fixarum in 48. celi imaginibus verificatarum per magistrum Johannem decanum Nehuensem ad annum 1420.*

SCHUBA 1986 (Fig. fol. 2v/3r and fol. 53r Aries-Cancer)

KUNITZSCH 1986, pp. 56-58

GAUTHIER DALCHE 1996

MITTLER 1986, pp. 81-83

SCHUBA 1992, pp. 63-66

DEKKER /LIPPINCOTT 1999, pp. 98-106, esp. pp. 103-05 and fig. 42.

DEKKER 2013, pp. 358-367, 408-415.

BLUMER/HAFFNER/METZGER 2016, II, 1, pp. 78-79 and 512-19; II, 3, figs. 548-49.

The manuscript is available digitally at:

https://digi.vatlib.it/view/MSS_Pal.lat.1368.pt.1

For reproductions of Pal. lat. 1368, part 2 see:

https://digi.vatlib.it/view/MSS_Pal.lat.1368.pt.2