## Munich

Bayerisches Staatbiblothek
clm 10268

## Padua

c. 1320

## text

ff. 1r-146v Michael Scot, Liber Introductorius
Utilis est cunctis nostri doctrinis libelli. Suscipiant - Expliciunt iuditia questionum hominum secundum sententiam Michaelis Scoti, grandis astrologi condam imperatoris Frederici de terra teotonica. Deo gratias. Amen.
ff. $78 \mathrm{r}-84 \mathrm{v}$ De noticia ordinum stellarum fixarum et que in nocte serena apparent apparitione licet non omnes simul in una et eadem hora celi seu ymaginum 48 que a phylosophis veraciter dinoscuntur.... Phylosophi quondam multis experimentis noverunt celum esse stallatum ordinibiliter - secundum quod nobis melius videbitur insignire. (= M. Scot, Liber de signis et imaginibus celi, ed. ACKERMANN 2013, pp. 106-28.)
ff. $78 \mathrm{r}-84 \mathrm{v}$ De noticia doctrine, qua insinuatur, quando unumquodque signum de numero 12 oritur et occidit ... in omni parte mundi. Omnes scilicet ymagines numero 48 totum celum comprehendunt - in medio haste .1., infra est una in thela sunt .2.. Et hec est forma sui aspectus in celo. (= M. Scot, Liber de signis et imaginibus celi, ed. ACKERMANN 2013, pp. 130-251.)
ff. 84v-86r Luminaria firmamenti celi sunt multa inter que 7 planete noscuntur - et hec est forma lune secundum predictum sermonem eius. (= M. Scot, Liber de signis et imaginibus celi, ed. ACKERMANN 2013, pp. 252-281 (Ackermann's edition provides the much shorter version of the text on the planets (as it appears in the Liber de signis), so the expicit for the section on Luna is different. In her transcription of the similar texts found in Oxford Bodley 266 (pp. 554-72), she provides only the texts concerning the zodiac signs.)

## illustrations


fol. 1r Foliate decoration on frontispiece with and author portrait in the opening initial and an architectural scene on the bottom of the author presenting the book to Federico. Between the columns of the text, there is a family stemma of the Lusignano di Cipro.

fol. 1 v

fol. 19v

fol. 20 r
fol. 1v Text surrounded by illustrations of books (the putative sources for Michael's work?), most of which have labels of authors or titles of astronomical works, such as: Alfraganus, Ally, Thebit, Flores Albumasar and Almagestum tolomei, etc. There is an angel flying down the left margin and
numerous figures in the bottom margin, including a depiction of God the Father with haloed people on one side (saints?) and nude people on the other (the Last Judgment?).
fol. 19 v Pen and wash drawing of Atlas (labelled: CAELON ATHALAX) walking to the right holding a schematic rota of the heavens above his head, with the zodiac signs labelled, ASC, DESC and the Sun and Moon. The figure is usually accepted to represent the demi-god Atlas.
fol. $20 r \quad$ A portrait of an astronomer in blue and black robes, holding up an armillary sphere in his left hand.

fol. 22r

fol. 33

fol. 34 r
fol. $22 r \quad$ Schema of the orbs of the planets in a tear-drop shape
fol. 33r Circular schema showing the aspects of the zodiacal signs
fol. $34 r \quad$ Schema explaining the changing velocity of the planets

fol. $35 \mathrm{v} \quad$ Schema of the northern celestial pole with the two Bears revolving belly-to-belly around it
fol. 36 r Circular diagram in which a dragon is standing with his head to the left (labelled: capud) and his tail to the left (labelled: cauda), with the Sun at the top (labelled: oriens) and Luna at the bottom labelled: occidens)
fol. $37 r$ Pen and wash drawing of Sol his quadriga is being drawn to the right, dressed in a long red gown with red rays coming from his body to form a mandorla. He holds the reins of 4 horses (2 brown, one pick and 1 red) in his right hand and a small golden nude male figure (labelled: pheton filius sol) stands on his left hand. In front of his chariot, there are five circles labelled with the names of the planets (from top: Venus, terra, Jupiter, Saturnus, Mars, Luna, Mercurius). The horses appear to be plunging into water that is labelled: fluvius pergrediens de paradiso. And there are fish in the lake in front of the figure that is labelled: Mare magnus.

fol. 38 r

fol. 38 v

fol. 45r
fol. 38r Drawing of a hand with the joints labelled.
fol. $38 \mathrm{v} \quad$ Schema of the cardinal points associated with music (with more musical notation on $40 \mathrm{v}, 41 \mathrm{r}, 41 \mathrm{v}$, $42 r$ and $42 v$ )
fol. 45r Map of the continents with the cardinal points marked = climes

fol. 46r

fol. 47v


 pent Cabula laancteranoinm- A-planety.
fol. 48r
fol. 46r Schema of the continents, paradise and the zodiac
fol. 47v Diagram of the different ways to draw the zodiacal glyphs
fol. 48r Diagram of the different ways to draw the planetary glyphs


Fol. 48v

fol. 49r

fol. 54r
fol. $48 \mathrm{v} \quad$ Schema of the orbs of the planets.
fol. 49r Zodiacal diagram concerning equinoxes and solstices; Illustration of an observatory (labelled: Castellum)
fol. 54r Schema of the zodiac with a basket-weave of planetary paths

fol. $54 \mathrm{v} \quad$ Schema of the distance of the planets from earth
fol. 58r Schema of the rising and setting of the Sun depending on the season
fol. 64r Schema of the phases of the Moon relative to the shadow on the Earth
ff.79r-84v Pen and wash drawings of 46 constellations with stars marked with red star shapes (the stars for Corona Austrinus are included in Sagittarius, but there is no image). Sagitta is depicted 3 times; Draco and Scorpio are depicted twice. In addition, there are also the images of Clocha sive Gallina (the Pleiades), Vultur cadens (not to be confused with Lyra), Figura sonantis canoni, Austronotus, Demon Meridianus, Equus secundus, Tarabellum and Vexillum. Each zodiacal constellation is also accompanied by a geomantic symbol.


ARIES leaps to the left, but turns his head back to the right. He has curled horns and holds his tail out straight behind him. He has a collar around his neck which has a fleur-de-lis pendant. There is a geomantic configuration [2/1/2/1] above his back. He has 1 star in each horn, 2 in the face, 2 in the neck, 4 on the back, 1 on the tail, 3 on the belly, and 1 on each foot, or 18 stars in all. Slightly above and to the right of Aries's tail, there are 6 stars in a semi-circle, which may refer to the first two lunar Mansions. Lunar Mansion no. 1 consists of 3 stars and associated with $B$ and $\gamma$ or $B$ and $a$ Ari. Lunar Mansion no. 2 also consists of 3 stars and is associated with $\varepsilon, \delta$ and $\rho$ Ari.

TAURUS is half a bull that faces to the left. His cut-off is an oval and he has his right left extended and his left leg tucked under. He has 1 star in each horn, 4 on the face, 2 on the shoulder, 1 on the chest, 1 on each knee, 2 in the right front hoof, 3 on the back, 7 on the cut-off and 1 large one behind the cut-off, or 24 stars in all. To the left of the cut-off (that is, set within his body), there are two geomantic configurations: [1/2/2/2] on the left and [1/1/2/2] on the right. In front of his right leg, there is a configuration of 13 circlets, which may be read as two diagrams, one of 6 and the other of 7 dots, which probably represent the Lunar Mansions nos. 3 and 4. Lunar Mansion no. 3 is associated with the Pleiades and Lunar Mansion no. 4 is associated with a Tau (or all the Hyades).


fol. $79 \mathrm{v} \quad$ GEMINI are depicted as 2 male nudes with wings, from whose left shoulders hang long capes. They turn slightly to the right, with the left Twin holding a curved implement (sickle?) in his right hand behind his buttocks, and the right Twin holds a lyre extended in front of him in his left hand. The right Twin leans back to extend his right hand so that it rests on the other Twin's shoulder, the left Twin reciprocated by reaching towards the right Twin's waist. The left Twin has 1 star on his head and 1 on each shoulder, and he is marked by the following circlets: 1 on his right hand, 1 on each knee, 1 on each foot, or 8 stars in all. The right Twin star on has 1 star on his head and he is marked by the following circlets: 1 on each nipple, 2 in the left forearm, 1 on the left hand under the harp, 1 on the left knee, 1 on the right foot, and 2 on the left foot, or 9 stars in all. There is geomantic configuration above the head of each Twin: [2/1/2/2] above the left Twin and [1/1/2/1] above the right Twin. There are also 6 star-shapes in an inverted 'L-shape' above the left wing of the right Twin, which may refer to the Lunar Mansion no. 6 (consisting of 2 stars, and associated with $\gamma$ and
§ Gem) and to Lunar Mansion no. 7 (which also consists of 2 stars and is associated with a and $B$ Gem).

CANCER is a round-bodied crab placed so that it faces to the top of the page. It has 2 large claws and 4 legs on either side. The following circlets are marked: 1 on each antenna, 1 in the mouth, 2 on the nose, 2 on the shell, 2 on the left claw, 2 at the bottom of the shell, 2 on the first top leg and 1 on each foot, or 22 stars in all. There is a geomantic configuration [2/2/1/2] to the right of the right claw. There are 4 star-shaped stars beneath the shell.

LEO stands to the left with his tongue out and his long tail dragging on the ground behind him. He has 1 star on the belly and 1 on the end of the tail, plus the following circlets: 3 on the head, 2 on the neck, 3 on the chest, 3 on the back, 1 on the right front foot, 1 in the right hind foot, 1 in the left hind knee and 1 on the middle of the tail, or 17 stars in all. In addition, there is 1 star in front of mouth, which is labelled: Canis. This represents the star described in the text as:
ante os 1 bene claram cuius nomen est canis qui non leoni attribuitur sed ymagini et hec forma sui aspectus in cela.

There is a diagram of 5 circlets in front of his chest, which may represent an incomplete geomantic configuration [2/[-]/2/1].

VIRGO stands facing the viewer with wings, a long dress that has a border along the bottom hem and a crown on her head. She holds her arms out to the side in a ' $W$-shape' and holds 3 blades of wheat on her right hand and a caduceus in her left hand. She has 1 star on the middle blade of wheat and 1 on her right wing, plus the following circlets: 1 on her head, 1 on her right wing, 2 on the left wing, 1 on each shoulder, 1 on the right elbow, 1 on each hand, 6 in the stripe on her skirt her dress, and 1 in each foot, or 19 stars in all. There are two geomantic configurations to the left of the figure: [2/1/1/2] on top and [2/1/1/1] on the bottom. In addition, there are 4 circlets to the right of the figure, which may refer to the Lunar Mansion no. 13 (consisting of 4 or 5 stars associated with $B, \eta, \Phi, \varepsilon$ (and often $\delta$ ) Vir).

LIBRA is depicted as a male figure wearing a long robe and seated in a high-backed throne. He holds the Scales at his waist with his left hand and raises his right hand towards the viewer. He has 2 stars in his chest and the following circlets: 1 above his left shoulder, 2 at either end of the beam and 1 each pan, or 7 stars in all. There is geomantic configuration [1/2/1/1] above the right pan of the Scales. In addition, there are 4 circlets to the lower left of the figure, which may refer to the Lunar Mansion no. 16 (consisting of 2 or 3 stars associated with $\alpha$ and $B$ Lib).

SCORPIO faces to the left and has a long body with two front claws, 2 smaller claws on either side of its body and 2 long, straight protrusions facing towards his tail behind that. He has a sting at the end of his tail. He has 5 circlets in front of his nose, 2 on his nose, 3 on his back, 2 on the bottom side and 7 in the tail, or 19 stars in all. There are 2 geomantic configurations in front of his claws: [2/2/2/1] on top and [1/2/1/2] on the bottom. In addition, there is a set of 11 circlets that resembles the shape of the constellation behind the tail. These may refer to the Lunar Mansion no. 19 (consisting of 11 stars associated with the stars on the end of the tail, $\lambda$ and $u \operatorname{Sco}$ ).


fol. 80r SAGITTARIUS is a centaur that leaps to the left. There are horns on his head and a long lion-skin cape (with feet and tail visible) flowing from his shoulders. His human half is nude and he holds the bow with his left hand and pulls the string with his right. His horse's tail is tied in a knot. He has a SAGITTA pointing to the left between his front and hind feet. He has the following circlets: 2 in the head, 1 in the skin, 2 in the tail of the skin, 2 on the equine back, 1 on the equine belly, 1 on each front knee, 1 on the right hand, 1 on the left elbow, 2 on the bow and 2 on the arrow, or 14 stars in all. Sagitta has 5 red circlets marked. There is a set of 13 circlets above the Centaur, which may refer to the Lunar Mansion no. 20, (consisting of 9 stars and associated with the stars $\gamma$, $\delta$ and $\varepsilon, \eta, \sigma, \Phi$ and $\zeta$ Sgr); or, perhaps, to Lunar Mansion no. 21 (which refers to a configurations marked by many tiny dots and associated with an empty region). One subset of that grouping seems to indicate the shape of the constellation. There is a group of 7 circlets on his belly in the shape of a Greek $\lambda$, which may represent a misplacement of the stars of CORONA AUSTRINUS. There is also the depiction of SAGITTA between his feet, which points to the left and has 1 star in the tip, 1 in the shaft and 2 in the feathers, of 4 stars in all.

CAPRICORN has very long curved horns and faces to the left, with a beard on his head and a trefoil tail. It has 1 star on the nose and 1 on the neck, plus the following circlets: 1 on each horn, 2 on the face, 2 on the right front foot, 7 on the back, 4 on the belly and 2 on the tail, or 21 stars in all. There is a geomantic configuration [2/2/2/2] in the middle of the body. In addition, there are 4 circlets above his back, which may refer to the Lunar Mansion no. 22 (consisting of 3 stars and associated with $\mathrm{a}^{1}, \mathrm{a}^{2}$, v and $B$ Cap).

AQUARIUS is nude and stands facing to the right. He has a wide-brimmed hat and body, and holds an upturned urn in front of him with both hands, from which water falls vertically. He has 1 star in each shoulder and 1 in the right elbow, plus the following circlets: 2 in the hat, 1 on each hand, 2 above the waist, 1 in the right hip, 1 in each knee, 1 on the right shin and 1 on each foot, or 15 stars in all. There is a geomantic configuration [2/2/1/1] one to the left of the figure. In addition, there is diagram of 4 circlets above the urn, which may refer to one of the Lunar Mansions - 23, 24 or 25 - but it is not possible to say which one.

PISCES swim in opposite directions, belly-to-belly, with their mouths connected by a line. There are 11 circlets on the top fish, 12 in the cord and 14 in the bottom fish, or 27 stars in all.

fol. $80 \mathrm{v} \quad$ DRACO INTER ARCTOS shows DRACO as an S-shaped snake with a dragon's head seen in profile. Its head is towards the bottom of the page, upside-down. URSA MAIOR is set leaping upwards in the
first curve from to the head and URSA MINOR is in the second loop, near the tail, with his head pointing downwards. They are set back-to-back, are both brown with short tails and Maior is significantly larger than Minor. Draco has 3 circlets in the head and 12 in the body, or 15 stars in all. There are no stars in the bears.

DRACO is individually depicted as a two-legged dragon, wings and bird's feet, facing to the right, with a double coil in his tail, which ends in a trefoil. He has 3 circlets in his head, 10 in the body and 2 at the end of the tail, or 15 stars in all. There is a geomantic configuration [2/1/1/1] in front of him.

HERCULES is depicted in the Garden of Hesperides with a snake climbing a green tree to the left. He is nude and kneels to the left, facing the viewer. He holds the lion's skin (with a human's face and 4 paws visible) over his extended right arm and holds a straight red sword above his head with his left hand. He has 2 stars in the head and 1 on the lion's skin, plus the following circlets: 1 in each shoulder, 1 on the left elbow, 1 on each hand, 2 on the groin, 2 on the right thigh, 1 on the right knee, 1 on the right shin, 2 on the left shin, 1 on each foot and 4 on the lion's skin, or 22 stars in all.

CORONA BOREALIS is a set of nested circles with alternating jewels set within circles with two ribbons coming from the bottom. It has 9 red circlets.

OPHIUCHUS is a nude male, with his back to the viewer and he faces to the left, with the SERPENS wrapped once around his waist and with it head to the left, turning to have the man. Its tail also curls around his right hand. Ophiuchus stands with both feet on the back of a SCORPIO, facing to the left and having 1 large claw and 3 large legs on either side. Its tail is smooth and ends in a sting. Ophiuchus has 1 star in the head, plus the following circlets: 1 on each shoulder, 1 on each hip, 1 on the right knee, 1 on each foot, 4 on the left hand and 3 on the right hand, or 14 stars in all. Serpens has 2 in front of the nose, 4 on the neck and none on the body, or 6 stars in all. Scorpio has 4 in front of the nose, 2 on the lower side, 4 on the head, 5 on the tail and 2 at the end of tail, or 17 stars in all.

fol. 81r BOOTES stands facing the viewer, dressed in a long toga, which leaves his right arm and shoulder exposed. He wears a wide-brimmed hat on his head and holds a sickle upraised in his right hand, a long straight spear upright in his left hand and he wears a long, straight sword behind his back so that the handle can be seen behind his left side, and the blade peeps out from behind his right side. He has 1 star in his right elbow and 1 star on his right knee, plus the following circlets: 1 in the head, 1 in each shoulder, 2 in the chest, 4 in the right hand, 4 in the sickle, 1 on the left knee, 1 on each foot and 3 in the spear, or 19 stars in all.

AURIGA stands facing the viewer in an open-slatted wooden cart that is drawn by two horses, set in front of 2 oxen. He is dressed in a toga that exposes his right arm and shoulder and has a helmet on his head. He holds a spear with its arrow-head pointing downwards, in his right hand. On his left shoulder, there is a small goat and there are two additional goats standing on his outstretched left forearm. He holds the reins on his left hand. He has 1 star in left shoulder and the following circlets: 1 in the head, 1 on the right shoulder, 1 on the right hand, 2 in the Kids, 1 on each knee, 1 on the nose of each horse, 1 on the front hoof of 1 of the horses, and 1 on the rump of the rearmost ox, or 12 stars in all.

CEPHEUS stands facing the viewer with his arms outstretched to either side. He has a soft cap on his head, wears a long robe, which is gathered at the waist, and has a money bag tied at his waist. He wears a sword at his left hip that is hung from a strap the hangs from his right shoulder and crosses his chest. He has the following circlets: 2 on the head, 1 on each shoulder, 7 on the strap, 1 on the belt, 1 on the sword, 1 on the right thigh, 2 on the left knee, 3 on each foot and 1 on each hand, or 24 stars in all.

CASSIOPEIA is seated in a high-backed throne with a triangular pediment. She has taken the right sleeve of her robe off so that her right breast is exposed. She holds her hands out to the sides and there is a stream coming from her right hand. She has the following circlets: 1 in her head, 1 on each shoulder, 1 on her right breast, 1 in her belly, 3 in the folds of her skirt, 1 on each hand and 4 on the upper cross-bar of the throne, or 12 stars in all.

fol. 81v PEGASUS is half a winged horse that flies to the right. He has 4 circlets in the face, 4 on the wing, 1 on each knee, 1 on each hoof, 1 beneath the wing and 1 on the belly, or 14 stars in all.

ANDROMEDA wears a long robe with long, tight sleeves. The skirt of the dress is opened to the waist and reveals male genitalia. She hangs, tied by her wrists to a tree set upon a rock at either
side, so that her feet dangle in the air. Her long hair is exposed and her feet are bare. She has 1 circlet on her head, 1 on each shoulder, 1 on each elbow, 2 in the right forearm, 1 in the right hand, 1 on the left hand, 3 at the waist, 1 on each thigh, 1 on each knee, 2 on the right foot and 1 on the left foot, or 19 stars in all.

PERSEUS is nude and faces away from the viewer, walking to the left. He has wings on his feet, a turban on his head and he has a triangular shield covering most of his extended left arm. He holds a severed, bearded male head in the left hand and raised a notched machete in his upraised right hand. He has 1 circlet on his head, 1 on each shoulder, 1 on his right elbow, 1 on the right hand, 1 on the blade of his weapon, 2 in the buttocks, 1 on each knee, 1 on each shin, 2 on the left foot, 1 on the right foot and 3 in the 'Medusa's head', or 18 stars in all.

TRIANGULUM is a set of 3 nested equilateral triangles with 3 stars marked.

fol. $82 \mathrm{r} \quad$ The PLEIADES are depicted as 7 women set in two rows and they are all gesticulating and each has a small circlet on her head.

LYRA is a U-shaped contraption with something that resembles cotton wool nestled in the curve of the $U$. There are horns at the top of the $U$ and they are connected by a rectangular cross-bar with handles at either end. There are 8 vertical lines (strings) between this cross-bar and the base. It has 10 red circlets ( 1 in each horn, 5 at the base, 2 in the cross-bar and 1 in the strings).

CYGNUS stands to the right, with an angry expression on its face and its wings are raised and set back. It walks to the right and has 1 star on the head, 1 on each wing, 1 between the legs and the following circlets: 1 on the neck, 1 on the breast, 4 on each wing and 1 on the tail, or 15 stars in all.

AQUILA stands on SAGITTA to the right, with its head turned to the back and with its wings outstretched. It has 1 star on the head and the following circlets: 2 on the lower beak, 1 on the chest and 1 on each foot, or 5 stars in all. Sagitta has 4 circlets, 3 at the tip and 2 at the end.

VULTUR CADENS is depicted as the eagle carrying a male figure with a halo (Ganymede ?) on his back. The bird stands on SAGITTA and faces to the right. There is also a curl of drapery around his feet. The male figure has 1 star in the head and the following circlets: 1 on each shoulder and 1 on the chest. The bird has 3 circlets on the head, 1 in the chest and 1 in the tail. Sagitta has 4 or 5 stars ( 1 near the tip 1 in the middle (on the foot of Aquila) and 3 in the feathers).


fol. 82 v CETUS is depicted as a large fish swimming to the right. It has 2 circlets on its face, 7 on the back, 8 on the belly and 5 on the tail, or 22 stars in all.

ERIDANUS is depicted as a nude, bearded male lying by the side of a river. He holds his left hand to his chin and holds his right arm out behind his back. His torso is twisted so that his upper half faces the viewer and his lower half is in profile with his buttocks facing upwards. He has 7 circlets surrounding his head, 5 in the right arm, 1 on the buttock, 2 in the left thigh, 1 on the right knee, and 1 on the right foot, or 17 stars in all.
'FIGURA SONANTIS CANONI' is a seated male figure in a long robe with a soft hat on his head. He sits on a high-backed seat with a cushion and plays a musical instrument, which rests on his lap, with 3 large sounding holes. The man plucks its strings with his fingers. There is 1 circlet in each corner of the harp and 2 on the cushion, or 6 stars in all.

DELPHINUS is a long nosed fish, shaped like a pike that swims to the left. It has 1 circlet on the nose, 2 on the forehead, 4 on the body and 2 on the tail, or 9 stars in all.

fol. 83v ORION stands facing away from the viewer towards the left. He is dressed in armour and an open helmet, with a skirt and crossed laces on his boot. He holds a man-sized shield in front of him (resting its tip on the ground) in his left arm and raises a sword above his head with his right hand. He also has a long scabbard strapped to his left hip. He has 1 star on his head and the following circlets: 2 in the head, 1 on each shoulder, 1 to the left of his chest, 1 on the shield, 3 on the waist, 1 in each knee, 1 in each foot and 3 in the sword, or 17 stars in all.

CANIS MAIOR leaps to the left. He has 1 circlet on the tongue, 1 on the head, 2 on the neck, 3 along the bottom of the neck, 1 on the chest, 3 on the left front foot, 3 on the belly, 3 on the back, 1 on the right hind foot, 1 on the left one, and 1 at the tip of the tail, or 20 stars in all.

LEPUS leaps to the left and has 1 circlet in each ear, 2 on the neck, 2 on the body, 1 on each hind foot, or 7 stars in all.

ARGO is depicted as half a ship set in water with its cut-off at the right. It has a single mast, with rigging stretching to the deck, 3 side oars and 2 steering oars. There is also a small turtle (Testudo)
in the water at the cut-off. There are 3 circlets at the top of the mast, 4 in the curl of the stern, and 5 in each steering oar, and 3, 5 and 4 on each of the other oars, and one free-floating one in the keel or 30 stars in all. In addition, there is 1 circlet on the snout of the turtle.

fol. 83 v AUSTRONOTUS is depicted as a female figure that is half-human and half- cow (note cloven feet), but with a horse's tail. She has prominent breasts on her human half, and 4 full dugs along her animal body. She holds her hands out to the sides. She has 8 circlets around her head, 1 on each cheek, 1 on her right shoulder, 1 in each hand, 1 between her human breasts, 2 on her last dug, 1 on the haunch, 1 on the right front foot, 1 on the left hind foot and 3 in the tail, or 20 stars in all.

DEMON MERIDIANIS (labelled: circulus celestis qui dicitur galaxia) is depicted as two figures: a female (?) figure to the left, wearing a mantle over her head, and staring to the left with a melancholic expression; and a male figure wearing a toga that seems to fly to the right (his posture somewhat reminiscent of Eridanus's); he holds a large mandorla in both his hands in front of him that is marked with 16 stars.

PISCIS AUSTRINUS is depicted as a large upside-down fish with its head to the left. It has a smaller fish (Piscis parvus), with its back upwards, riding on the larger fish's belly. The little fish has 3 circlets in the face and 1 on the back. The larger one has 13 circlets.

ARA is a cup-shaped altar with flames coming out of the top and standing on 4 steps. There are 4 demons with red breath flying around it. There are 2 stars in the flames and 2 on the cup, or 4 stars in all.



 W. Fishavil, \&quck



 ducsir












 Gbzt mativium fur umuplíquad vifitamus, Elue


fol. 84 r CENTAURUS is a centaur that trots to the right. His human half is nude and he is bearded. He holds his right hand, palm upwards, extended in front of him. The LUPUS (a dog) rests his back in the palm, with its feet pointing upwards. A censer hangs from the right wrist. He holds a stick in his left hand that rests on his shoulder and there is a rabbit tied by its heels to the end of the stick. He also wears a sword strapped to his left hip. He has 3 circlets in the head, 1 on each shoulder, 1 on the human chest, 1 on the right elbow, 1 on the right hand, 2 on the equine back, 2 on the
equine shoulder, 2 in the equine belly, 1 on each front foot, 1 on the haunch, 2 on each back knee, 3 on the tail, 2 on the rabbit, 1 on the spear and 3 on the urn, or 30 stars in all. Lupus has 10 stars.

HYDRA is depicted as a long snake that climbs into the braches of a tree at the left. It has 26 circlets (from head to tail: $3 / 6 / 3 / 4 / 2 / 4 / 4$ ). An elaborate, two-handled, vase-shaped CRATER is placed on his back and a forward-facing CORVUS with its mouth open on its tail. Crater has 4 circlets on the lip, 6 in the body and 2 in the feet, or 12 stars in all, and Corvus has a bright star on its head and 2 circlets on its body, 1 in the tail and 1 on each foot, or 7 in all.

CANIS MINOR is a sleek hound that race to the left. It has 1 star on the neck and the following circlets: 1 on the mouth and 3 on the shoulder, or 5 stars in all.

EQUUS SECUNDUS is a full winged horse with wings on each of its 4 feet, running to the left. It has no stars marked.

TARABELLUM is an awl with 2 circlets in the handle and 3 in the shaft or 5 in all.

fol. $84 \mathrm{v} \quad$ VEXILLUM is a flag ending in 5 strips. There are 2 circlets on the pole and 2 on the flag. (At the bottom of the folio, there is an additional blank space in the text for another picture.)

fol. 85r Pen and wash drawings of the planet-gods:

Saturn is depicted as a mature warrior, with a shield o his left side and a scythe held on his left hand. He is marked by two geomantic configurations: [ $2 / 2 / 2 / 1$ ] on his chest and $[1 / 2 / 2 / 2]$ on his belly.

Jupiter is a fat burgher with a conspicuous money purse seated at a table laden with food. He is marked by two geomantic configurations on the sides of his chair: [1/2/2/2] on the left side and [ $2 / 1 / 2 / 1]$ on the right side.

Mars is a warrior with a shield and a spear in his left hand, a mace in his right hand and a crossbow on his right hip. There are two geomantic configurations on the left side of the figure:
[2/1/2/2] on top and [1/1/2/2] below it.

Venus is a courtly lady smelling a posy of flowers. She is marked by two geomantic configurations to the left and right of her head: [1/2/1/2] on the left and [1/2/1/1] on the right.

Mercury is dressed as a bishop with a mitre falling off his head and a crozier held in his right hand. He is marked by two geomantic configurations to the left and right of his head: [2/2/1/2] on the left and [2/1/1/2] on the right.


Sol standing in a quadriga with the horses splayed in front into two pairs. He is dressed in a long gown with a long cloak and with rays coming from his body. The remaining part of the chariot (whether intentional or not) resembles a sundial placed on top of a pillar. He holds a torch with three flames (labelled: pheton filius sol) raised in his right hand and a depiction of the terrestrial globe (labelled: totus mundus) in his left. The horses on the right are labelled: estas and ver and the background scene shows bare trees and rain. The horses on the right are labelled: autumnus and hiems and they are placed in front of two leafy trees. The foremost horse on the right has leaves covering his body. On the left and right side of the figure, there are two geomantic configurations: [1/1/2/2] on the left and [2/2/1/1] on the right.

fol. 86 r Luna is seated in a biga, drawn by 2 oxen. She sits frontally, but the oxen move to the right. She is set within a mandorla with a crescent moon on her head and a flaming torch held in each hand.
Above the mandorla, is the label: luna, and there is twice written: filius pater spiritus sanctus. On the left and right side of her head, there are two geomantic configurations: [1/1/1/1] on the left and $[2 / 2 / 2 / 2]$ on the right.

fol. 94v Melothesiac man with zodiacal names written on his body parts
fol. $99 \mathrm{v} \quad$ Diagram of eclipses
fol. 114 r Grid of how to draw the stars of the 28 lunar Mansions

fol. 114v Drawing of a devil harassing an embracing couple
fol. 121v Horoscopic diagram
fol. 123r Schema of the rising and setting of the Sun

fol. 125v Horoscopic diagram attributed 'a magno Batholomeo parmensis'

## notes

fol. 19 v 'fuit enim hic michael scotus chanonicus tolete que est in hyspania ...'

## bibliography

BOLL 1903, pp. 102, 115, 274, 440-43 and 540-43.

FUCHS 1909, pp. 24-29.

SAXL 1912, pp. 166-68, 175-77 and pl. 27.

SAXL-PANOFSKY 1933, p. 242 and fig. 27.
ms has the oldest illustrations, c. mid-14th century; pictures of planet gods are so entirely different that they cannot be just degenerations or Oriental transformation of classical pictures, but must be recognised as complete innovations; are taken from Arabic mss, where they were given non-classical attributes (cf. Saxl Islam)

BYVANCK 1949, p. 219, no. 57.

SAXL- MEIER 1953, pp. xxxv-xliii.

THORNDIKE 1961, pp. 435-43

Scriptorium, 16, 1962

THORNDIKE 1965, pp. 99-102
14th century, re: sources of Scot illustrations

McGURK IV 1966, p. xx.
earliest illustrated Scot manuscript, written in Italy about 1340

MEISS 1968-74, $\qquad$ pp. $\qquad$

GALLO 1973, pp. 5-9.

SCHMIDT 1973, p. 72

MUTHERICH 1974, pp. 18ff

SCHMITT 1975, p. 58, no. 10.

MUTHERICH - SCHALLER 1977, n. 818

Scriptorium, 31, 1977

## EDWARDS 1978.

says first half of the 14th century, parchment, $146 \mathrm{ff}, 395 \times 255 \mathrm{~mm}(83 \times 283 \mathrm{~mm})$, two columns of 60 lines, collation: one flyleaf, $1-3^{10}, 4^{9}, 5-14^{10}, 15^{7}$, one fly leaf. Catchwords. Thee current Italian hands $a, b$, and $c$ as follows: $a=1 A-20 D ; b=21 A-99 D ; c=100 A-146 D$. The hands change at the end of each quire. The first folio has been badly damaged by water and the codex has been refoliated after the old folii 30 and 90-99 dropped out of the text between the third and fourth quarters of 15 th c (when B contains these portions from whom $M$ was copied), and c. 1700 (when CL 10663 was copied from M). Decoration, capitals, rubrics and the alternating red and blue paragraph marks are uniform throughout as are the many figures and charts highlighted in red.

A contemporary hand has corrected the text and added marginalia throughout a horoscopic charted dated 1320 has been added to the margin of fol. 76C, and a horoscope of Batholomew of Parma, dated 1287, appears in the margin of folio 125C (= terminus ante quem). The script is compact Italian book Gothic, with the letters being quite square. And this supports a date of c. 1300. Tillie de la Mare says that the decorations and colours are Bologna 1300-1310 and cannot be ascribed to an earlier period. There is a stemma in the middle of folio $1 A B$ that has not been identified [see id below]; certainly was in $n$ Italy in the third quarter of the 15 th century and in Mannheim at the end of the 17th century, then added to stock of Duke of Bavaria's library.

Jb der Kunsthistorischen Samml in Wien, 79,(nf 39) 1979, pp. 7-56

BAUER 1983.
pp. 15-27 (overview) - dates c. 1340

MORPURGO 1984.

MURDOCH 1984.

D'ARCAIS 1975.

D'ALVERNY 1985, pp. 19-64.

LIPPINCOTT 1985, p. 57.

EDWARDS 1985, pp. 329-40.

ARCAIS 1985, pp. 269-74.

KUNITZSCH 1986, nn. 42-43.

Medievo latino, 8, 1987.

MORPURGO 1987.

PALMER -SPECKENBACH 1990, p. 156.

CICCUTO 1991, p. 35, n. 46.

REMAK-HONNEF - HAUKE 1991, pp. 141-43

BAUER-EBERHARDT - BLUME 1993, pp. 268 ff.

BURNETT 1994.

REICHART 1995, pp. 443-44, 451-56, 470-71 and passim.

IMMAGINE E POTERE 1995, cat. no. 10.1.

BENATI 1995.

FEDERICI VESCOVINI 1996.

ŚNIEŻYNSKA-STOLOT 1997, p. 92.

HAFFNER 1997, p. 175.
says Italian and c. 1340

JACQUART 1997, p. 244.

OBRIST 1997, p. 83, note 187

MARIANI CANOVA 1998, pp. 27-40.

LA MINIATURA A PADOVA 1999, pp. 113-14, no. 34.
1+146+1, original numeration in Arabic numerals upper right with later corrections; $395 \times 255$; gothic miniscule, 2 columns in 59 lines. 18th century red binding with golden letters.

Provenance is the Lusignano di Cipro family (stemma on fol. 1r), in 1450 in Italy where is copied into Oxford 266; then to Mannheim then to Munich; not the original version of the text (which is now lost), but can reconstruct through copies.

Munich 10268 is the oldest illustrated copy, but is probably 100 years younger than the original. The original was illustrated because uses motifs that are not used in other manuscripts. It was found in the library of Ferderico II = Madrid 19 which is an Aratus with scholia based on the scholia Basileensia, which was illustrated in Montecassino in the 12th century; Michael used this book, but did not understand the illustrations, so created his own variations and to justify these inventions, he created new text. These include the figura sonantia canoni, cavaluccio, the trapano and the vexillium. The austronotus and the vultur cadens are derived from non-astronomical imagery in the original = Jove on the eagle. Other elements he invents are:
wings on Gemini
horns on Sagittarius = Madrid
lion skin of Herc with a human face
slance and hat of Bootes
two cows and 2 horses for Auriga
purse on Cepheus's belt
Andromeda as androgynus
Andromeda tied to two branches
Blood from hand of Cassiopeia $=$ Madrid
Shield and bearded male head for Perseus
Cetus as a whale
Eridanus as Phaeton fallen in the water = Madrid
Shield and military uniform of Orion
Vertical cut for Argo with a turtle
Small fish added to Piscis Austrinus
Ara with demons
Small keg for Centaurus
Tree with Hydra

Stylistically = the watercolour technique led Schmidt (1973) to think it was Bolognese; while A Schmitt (1975) says Paduan (see also Schaller 1977, Bauer 1983), but there is nothing like them in Paduan art during this period, but the authors say regardless there is a closeness to the Scrovegni chapel and the signs depicted in the Palazzo della Ragione so perhaps the illuminator knew the original designs from the Palazzo.

Also the planet gods are odd. Are influenced by contemporary series of uomini famosi and world chronicles.

## CICCUTO 1999, pp. 74-5, Figs 5-6;

BLUME 2000, pp. 53-63.

GIOTTO E SUO TEMPO 2000, p. 241.

BAUER-EBERHARDT 2003.

MARIANI CANOVA 2002, pp. 394-400.

BUTCHER 2009.

METZGER 2009.

ACKERMANN 2013, pp. 516-22 and passim.
pp. 516-22: Liber quatruor distinctionum; dates to c. 1320. Italian miniscule for the main text, with one hand for the first section of nativity prognoses and a second hand for the second section.
notes that Bauer (1983) follows Schmitt (1975) in assigning the ms to Padua, while Edwards (1978 and 1985) suggests Bologna following the opinion of AC de la Mare, who says that the colours and illustrations suggest Bologna between 1300 and 1310.
date for the manuscript vary: Bauer (1983) dates it to c. 1340; Edwards to c. 1320; she notes that the tables on fol. 76 v show a date of 1320 , and probably reflect an updating to the manuscript at that time, so suggests the whole ms should be dated c. 1320.

Notes that this is one of three mss of the Liber quatuor distinctionum which contains the Liber de signis (with Oxford Bodley 266 and Munich 10663); Bodley is a copy of this ms before the loss of some of it folii (and it contains the text that was lost from the Munich ms); Munich clm 10663 was made by the library in the 17 th or 18 th c when there was an incident where the original sustained water damage; all these three contain the section on the Firmamentum celi (of which the Liber de signis is a part); the two other important later ms (Paris BN na 1401 and Escorial f III 8) do not have the Liber de signis (the Escorial has only a fragment of the Firmamentum celi)

BLUME - HAFFNER - METZGER 2016, II, ii, 186-191 (no. 8); 24-26,38-45,48-49, 60; II, iii, figs. 52-66.
pp. 186-91: earliest and most important text and set of illustrations; dates to c. 1320-30; marginalia in a slightly later hand; earliest illustrated copy; cites scholarly opinions about connections with the reception of the plasticity and physicality of Giotto's paintings, but says that the connections to the decoration of the Palazzo della Ragione must remain hypothetical as the original paintings are lost.
details in clothing of the figures date it to the 1320s and pre-1340 (recognising a rapid change in styles during that period); notes that d'Arcais (1985) and Mariani Canova (1998) date the ms earlier than Bauer on account of the form of the fleuronnée, which reflect styles from the first quarter of the century
queries whether the stemma of the Lusignan on fol. 1 r is contemporary with the ms and whether the family was the first owner; problematic as the first folio is so damaged and the cut-out may have been where an earlier coat of arms was placed
although the iconography of the constellations reflects a type that was spread widely throughout northern Italy during the 14th century, the Munich ms itself appears to have little direct influence on this tradition; Oxford Bodley 266 copies the text, but has differences as it was copied before the loss of some of Munich's folii; also the origin of the geomatic symbols in Bodley 266 is problematic; the astrological descriptions ('natus in...') were written after the pictures and fleuronées were placed, this suggests that they were placed in this fashion in the original model for Bodley 266.

In her comparison of the Munich ms with Vienna 2352, Bauer (1983, pp. 32-79) concludes that the Vienna ms is closer to Madrid 19 and, therefore more authentically reflects the original text of Michael Scot than the Munich ms does.
colour digitised images: http://bildsuche.digitale-sammlungen.de/

