

Vienna

ÖNB

Ms Vindob 387

De ordine ac positione stellarum in signis (incomplete version of the Salzburg Compilation of 810-818 / *Liber calculationes*)

Salzburg

818

text

- ff. 116v-120v *De ordine ac positione stellarum in signis* (in a complete version of the Salzburg Compilation of 810-818 / *Liber calculationis*, a.k.a. the ‘Compilation of 810 in 3 blocks’)
- ff. 115v-116v Duo sunt extremi vertex mundi quos appellant polos septentrionis et austri — effusionem urnae aquarii que ad ipsum decurrit accipiens. (*Excerptum de Astrologia Arati*, cf. Maass 1898, pp. 309-12)
- fol. 116v De ordine ac positione stellarum in signum. Est quidem hic ordo et positio siderum ... (117r) eo quo ab ipso est ordine digesta descriptio. (cf. Maass 1898, p. 312)
- fol. 117 r Helice arcturus maior habet stellas in capite vii, in singulis umeris singulas, in armo i, in pectore i, in pede priori claras duas, in summa cauda clartam unam... (cf. Maass 1898, p. 312)
- fol. 120v Anticanis habet stellas . iii.
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illustrations

- ff. 117r-120v 32 full-colour illustrations of the constellations placed between paragraphs of text that are set into two columns (suggesting the pictures were later); several of the



figures are set upon a baseline and the figure of CYGNUS is placed within a square frame; the stars are marked as circlets with radiating lines; the constellations are marked with stars [star locations listed here are taken from Munich 210 and need to be CHECKED against Vienna ms]



fol. 117r



fol. 117v



fol. 118r



fol. 118v



fol. 119r



fol. 119v



fol. 120 r



fol. 120v

fol. 117r the 2 bears are depicted individually

URSA MAIOR stands to the left and has a slight hump

it has 3 stars around the nose, 4 above the head, 1 star on the back, 3 stars lined up in front of the foremost leg, 1 star on the left shoulder, 1 star on the belly, 1 star on each hind foot and 3 stars behind the back leg, or 18 stars in all

URSA MINOR faces to the right and has a large hump on his back

it has 4 stars on the on rump and 4 stars above back, or 7 stars in all

DRACO is placed vertically on the page and has four bends in his body; he faces to the right and has no comb or beard

he has 5 open red stars above his above head and 10 filled brown ones along his body, or 15 stars in all

HERCULES is nude and runs to the right with both knees bent; his left arm is bent at the elbow and he holds his left hand palm upwards and in his right hand, he holds a palm frond that rests on his right shoulder; his lions skin is rendered like a cloak that appears to be 'chasing' him as it flies behind him at shoulder level

he has 1 open red star above head, 1 filled red star above each shoulder, 1 open brown star above the left upper arm, 1 open brown star above the left hand, 3 filled brown stars along right hip, 1 open brown star above the left thigh, 1 open brown star on the right heel, 1 open brown star above the tip of palm frond and 4 open brown stars surrounding the skin, or 15 stars in all

fol. 117v **CORONA BOREALIS** is an oval wreath with stylised foliage; there appear to be two ribbons at the top

it has 5 filled brown stars and 3 filled yellow stars



OPHIUCHUS stands facing the viewer to the right on top of a small hill he is nude and holds the **SERPENS** held in front of him at his hips; the Snake's body runs horizontally through the man's hands and then curves upwards in a right angle with his head to the right and its mouth open

the man has 1 filled red star on the on head, 1 filled red star on each shoulder, 1 filled red star on each thigh, 1 filled red star on the right shin, 1 filled red star on each foot (with the left one a bit darker), 3 filled brown stars around the right hand and 4 filled yellow around left hand, or 15 stars in all; in the Snake, there are 6 filled brown stars around the head and 7 filled brown stars around snake's neck, or 13 stars in all

SCORPIO has an almond-shaped body and faces to the right; he has two long antennae, two arm-like front claws and a segmented tail

there are 2 filled yellow stars on the tops of the antennae, 2 on mouth, 2 on the eyes, 1 filled red star on the shell, followed by 2 filled dark grey stars and 2 filled yellow stars running down spine; there is 1 filled yellow star on each side of shell, 5 filled yellow stars along tail and 2 filled yellow stars at end of tail, or 20 stars in all

fol. 118r

PEGASUS is a full horse, without wings, standing to the left

it has 5 filled yellow stars in the face, 4 in the neck, 1 filled red star in the chest, 1 filled red star in each front knee, 1 filled red star on each front foot, 1 filled red star in the belly and 1 on the haunch, or 16 stars in all

ARIES bounds to the right, but looks over his shoulder to the left; he has a short curled horns and a very long tail that flicks upwards

he has 4 yellow filled star in the head, 1 yellow filled star in the neck, 2 filled red stars in the neck, 1 open red star on the right front foot, 1 filled yellow star on the left front foot, 3 filled yellow stars on the back and 1 filled yellow stars on the rump, or 13 stars in all

TRIANGULUS is upside-down

it has 3 filled red stars at each point

PISCES swim in the same direction, one on top of the other; their mouths are joined by a stream shaped like the number '3'

the fish are marked with alternating filled red and brown stars and there are 12 in the top fish and 15 in the bottom fish

fol. 118v

PERSEUS faces the viewer and crouches slightly to the right; he is dressed is a large cloak that covers the top of his body and striped leggings; he holds the decapitated Medusa's head so that it 'stands' on its streaming blood; in his left hand in front of him; he holds a palm frond in his right hand that rests on his right shoulder



he has 1 filled red star on each shoulder, 1 on the right elbow, 1 on the belly, 1 on the left thigh, 1 on the right knee, 1 on the right shin, 1 on each foot and 2 filled yellow stars beneath Medusa's head, or 10 stars in all

LYRA is a U-shaped lyre with curved supports and three black strings

it has 2 open red stars at the tips of the curved 'horns', 3 filled yellow stars above the strings, 4 open yellow stars in the body and 1 open yellow stars below the base, or 10 stars in all

CYGNUS is set within a frame; it stands to the left and has its wings outstretched to either side

it has 1 open red star in the head, 5 filled right wing, 3 filled and 1 open red stars on the right wing, 1 open red star on the body and 1 open red star on the tail, or 12 stars in all

AQUARIUS is dressed in full skirted tunic and leggings with long cloak that flows out behind him; he stands facing the viewer and to the right holding a handle-less urn with both hands in front of him, pouring a stream diagonally away from him

he has 2 open yellow stars in the head, 1 open red star in each shoulder, 1 filled yellow stars in each nipple, 1 open red star on the left elbow, 1 filled yellow star between the legs and 1 open red stars on each foot, or 10 stars in all. There are 14 open red stars to the left of the stream and 13 open brown ones above it, or 27 in all

fol. 119r

CAPRICORN faces to the right and has short, curved horns and a single twist in the fish tail; his front legs are stretched out in front of him

there is 1 filled yellow star in each horn, 2 filled brown stars in the head, 1 open red star on the nose, 2 filled brown stars on the neck, 3 filled brown stars on the back, 1 filled red star above the back, 1 filled brown star on the left front hoof, 1 open red star on the right front hoof, 4 filled brown stars and 1 filled red star on the belly and 2 open red stars on the tail, or 20 stars in all

SAGITTARIUS is a centaur that leaps to the right; he holds the bow with his left hand and pulls the string with his right

he has 2 filled brown stars on the head, 1 filled red star in the right hand, 1 filled brown stars on the right elbow, 1 filled brown right star on the armpit, 2 filled brown stars on the arrow tip, 1 filled brown star on the rump, 1 filled brown star on the tail, 1 filled red star on the front right knee, 1 filled brown star on the left front hoof and 1 filled yellow star on the equine breast, or 12 stars in all

AQUILA stands to the left with its wings outstretched, but turns its head to the right and touches the wing's shoulder with his beak (proto-biting?); he stands on a ground line and not on the SAGITTA

it has 1 filled yellow star on the head, 2 surrounding the body and 1 open red star in the chest, or 4 stars in all.

DELPHINUS is a long, thin fish that swims at a slight upward angle to the right; he has a long horn on its head and on its chin and a curled upper lip

there are 9 filled red stars that surround his body

fol. 119v

ORION stands facing the viewer in a knee-length cloak that exposes his right shoulder, but covers the rest of his body; he holds a curved stick out to the side in his right hand

he has 3 yellow stars with red centres on head, 1 filled yellow star on the left shoulder, 1 filled brown star on each elbow, 3 filled yellow stars on the waist, 1 filled yellow star on each knee, 1 filled yellow star on each foot and 3 filled yellow stars on his stick, or 16 stars in all

CANIS MAIOR is a sleek greyhound that bounds to the right; it sticks out its red tongue

it has 1 open red star on the tongue, 1 open brown star on the neck, 1 open and 1 filled brown star on the right shoulder, 3 filled brown stars on the left front leg, 1 filled brown star on the right front foot, 2 filled brown star on the belly, 2 filled brown star on the hind knees, 1 filled red star on the left hind foot, 2 open and 2 filled brown star on the tail, or 17 stars in all

LEPUS runs to the right

it has 5 yellow filled stars: 2 on the back, 1 on the tail and 2 on the back feet

ARGO (NAVIS) looks like a sledge with a peculiar tri-partite structure on the left side reminiscent of other 3-prong bows; it has five rowing oars and a circle n top of the curved (stern?) end

there is 1 open yellow and 2 open red stars around the knob at the curved end of the boat, 5 alternating red and yellow open stars along the deck, 4 alternating open red and yellow stars down the stern, 5 alternating open red and yellow below the keel, or 17 stars in all

fol. 120r

CETUS faces to the left, but strains to looks over his shoulder to the right; he has a dog's head and a 'skirt at the juncture between the dog and the fish part; he holds his forelegs in front of him and the tail has a single twist

he has 4 filled yellow stars above the body, 5 in front of the chest, 1 below the tail and 2 filled red stars at the tip of the tail, or 11 yellow and 2 red stars in all

ERIDANUS is nude to the waist and his legs are covered by material; he reclines by a stream, with his head to the left, leaning his right elbow on the urn from which a stream flows out to the right (so that he sits 'above' it; he holds his left hand out in front of him; there is a long tree-like object above him

he has 1 filled yellow star in the head, 1 filled yellow star in the right shoulder, 5 running down the top of his legs and 7 filled yellow stars in the stream, or 14 stars

in all

PISCIS AUSTRINUS swims to the right

it has 12 filled yellow stars along the top line

CENTAURUS is a centaur that walks to the left with his forelegs bent; he holds a rabbit (**LUPUS**) by its heels in his right hand in front of him; in his left hand, which is outstretched behind him, he has an animal skin with 2 legs and a tail that flies out behind him like a cloak and he also holds a *thyrsus* in that hand vertically

he has 5 filled yellow star on his head, 1 on each shoulder, 3 across the chest, 1 in the belly, 1 each equine breast, 1 on the equine back, 1 on the haunch, 1 on each elbow, 3 on the right hand, 2 in the baton, 2 in the skin; there are red filled stars as follows: 1 in the skin, 1 in the equine chest, 1 in the equine belly, 1 on the groin, 1 on the haunch, 1 on the right front hoof and 1 on the right back hoof, or 31 stars in all

LUPUS has 2 filled red stars in the feet and 6 filled yellow stars in the body

ARA is a two-level box with flames coming from the top

it has 2 blue stars and 2 filled red stars above the box and 2 blue stars on the body, or 6 stars in all

fol. 120v

HYDRA is long snake with three humps that crawls to the right and sticks out its tongue.

it has 3 red open stars on the head and alternating filled and open red, brown and yellow stars down its body, making a total of 23 stars in all

There are individual representations of **CORVUS** and **CRATER**.

CORVUS stand to the left with its wings closed

It has 1 filled yellow star on the head, 1 filled yellow star on the back, 1 filled yellow stars on the tail, 1 filled red star on the tail, 1 filled red star on the right foot and 1 filled yellow star on the left foot, or 6 stars in all

CRATER is a two-handled fat-bellied pot

it has 2 filled red stars at the top and 2 yellow, 1 brown and 1 red star on the body, and 2 filled brown stars on the feet, or 8 stars in all

CANIS MINOR stands to the right, with round ears and a pointed, curves tail; it sticks out its tongue

it has 2 filled yellow, and 1 filled red stars above the back, or 3 stars in all

notes

The manuscript is missing a page on which there were the following constellations: BOOTES; VIRGO; GEMINI; CANCER; LEO; CEPHEUS; CASSIOPEIA; ANDROMEDA, AURIGA; TAURUS.

According to BORST (1995²) this manuscript is a copy of the *Liber calculationis* (ff. 1r-165v), a compilation in 3 parts originally created between 810-818 in Salzburg and is a twin with Munich 210.

The cycle of illustrations in this manuscripts has all the characteristics of the cycle *De ordine II*. This cycle is also seen in Munich clm 210.

WEITZMANN (1970, p. 72) says that the earliest illustrated Latin Aratus manuscripts belong to Carolingian period. They are without frame or background and the manner of papyrus style and are placed within the writing columns: **Munich 210** (Salzburg dated 818) and **Vienna 387** (Salzburg, same period) 'were copied from the same model and show an identical arrangement of their pictorial decoration'. Short descriptions are in two columns and the drawings 'which in spite of their crudeness are still close to the ancient archetype', inserted before the paragraph they intend to illustrate; '... and if all the pages of these manuscripts were placed side by side, the result would resemble ancient illustrated rolls, not unlike the early Eudoxus Roll from the 2nd century BC' (cites: BETHE, THIELE, SWARZENSKI, GOLDSCHMIDT, HERMANN).

bibliography

SWARZENSKI 1913, pp. 13-22, pl. IX, fig. 24.

HERMANN 1923, pp. 145 ff.

SAXL 1927, II, pp. 78-81: says 9th century, with some later additions; notes association with Vat Reg lat 123 in the *Excerptum de Astrologia Arati* and with Vat Reg lat 309 with what he calls 'Pseudo-Bedae libellus de signis caeli'.

BYVANCK 1949 nos. 81-2.

UNTERKIRCHER 1967, pp. 34-37.

KING 1969, pp. 3, 23-27.

WEITZMANN 1970, p. 72: Roll and codex: '*column picture*' is a picture that interrupts that continuity of the column of writing. '... and is found in the majority of those illustrated codices whose archetype existed back in the period when the roll was the prevailing form'. Some of the most striking examples are preserved among astronomical manuscripts, which go under the common name of 'Aratea' Not certain if the *Phaenomena* of Aratus was actually illustrated.. 'but with greater likelihood there were already pictures in the *Katasterismoi* of Eratosthenes of Cyrene (ca. 275-195) BC, which were later taken over into the commentaries and translations of Latin writers such as Germanicus, Cicero, Hyginus and others.

BISCHOFF 1974, p. 462.

NORTH 1975, pp. 386-8.

Le **BOURDELLÈS** 1985, p. 99ff.

BORST 1995 ², p. 145 note 22 and p. 174, note 22.

HAFFNER 1997 p. 176: says 'De ordine ac positione'.

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