

## **Arsenius astrolabe MB 97**

Brass

Diameter: 157 mm

Weight: 800 gram

Gualterus arsenius or workshop, 1556

Gualterus Arsenius from Louvain (ca. 1530-ca. 1580; also: Gautier Arsens, Walter Arsenius, Walter Aertsen) was one of the most important builders of astronomical instruments and worked in Louvain (Leuven) in Flanders from around 1550. The unsigned astrolabe with the date 1556 was made by him or from his workshop and features the typical arsenius rete with the intertwined ribbons and a stylized angel figure in the center. The throne of the original instrument is pointered on both sides with a slashed and girdled lily; it is also found in the center of the Mater. Such a lily was part of the coat of arms of King Philip II of Spain, who was also ruler of the Spanish Netherlands. The heraldry could therefore point to his personal collection, although the fact that Arsenius would certainly have drawn by name in view of the fact that he was commissioned to do so speaks against this. The original was auctioned in Zurich in 1975 from the *René Greppin Collection* and then again in Paris in 1980 from the *Leonard Linton Collection*.

The double-sided tympana for the geographic latitudes 39°, 42°, 45°, 48°, 51° and 54° contain 3° almucantars, 5° azimuth lines, the unequal hours (temporal hours) and the boundaries of the twelve astrological houses according to Regiomontanus. The almucantars 15°, 30°, 45°, 60° and 75° are highlighted. The mater features a nautical square and a twelve-pointed compass rose with the Spanish names of the winds.

The rete has 37 star positions. Opposite the zodiac is the calendar circle (0° Aries = March 10), Regulus = 24°. The double pointer (alidades) with declination scale and sights rotates above the rete. The limb points to a 360° division and 2 x 12 hours.

The reverse side is engraved with the stereographic projection according to Gemma Frisius (1508 -1555; uncle of Arsenius) with a 2.5° net, which goes back to Al-Zarqali (Latinized Azarchel, 1029-1100). It comprises 25 star positions, including the seven main stars of Ursa major ( $\beta$  UMa). (There was therefore no space left for the shadow square that is otherwise common on classic astrolabes). If the star name is above the position marker, the star belongs to the hemisphere in front. Designations below the star mark are assigned to the rear hemisphere. Above the Frisius-/ Al-zarqali grid a horizon bar with twilight line (-18°), zenith and articulated pointer rotates. The limb points to a 4 x 90° division.

## Star lists

(Star positions around 1550)

### Rete

	<b>Arsenius</b>	<b>Bayer</b>	<b>Right ascension</b>	<b>Declination</b>
1	Pegasi umb(ilicus)	$\alpha$ And	356°	+ 27°
2	Pectus Cassi(opeia)	$\alpha$ Cas	04°	+ 54°
3	Tail of cetus	$\beta$ Cet	05°	- 21°
4	Ceti venter	$\zeta$ Cet	22°	- 13°
5	Ceti nar	$\alpha$ Cet	40°	+ 02°
6	Meduse caput	$\beta$ Per	40°	+ 39°
7	Oculus Tauri	$\alpha$ Dew	63°	+ 16°
8	Orionis sin(istra) pes	$\beta$ Ori	73°	- 09°
9	Hircus	$\alpha$ Aur	71°	+ 45°
10	Orionis dex(tra) hum(erus)	$\alpha$ Ori	83°	+ 07°
11	Canis maior	$\alpha$ CMa	96°	- 17°
12	Canicula	$\alpha$ CMi	109°	+ 06°
13	Hydre	$\alpha$ Hya	136°	- 07°
14	Cor Leonis	$\alpha$ Leo	146°	+ 14°
15	Crat(eris) fund(us)	$\alpha$ Crt	159°	- 16°
16	Ursa maior	$\beta$ UMa	158°	+ 59°
17	Cauda Leonis	$\beta$ Leo	171°	+ 17°
18	Corvi ala dextra	$\delta$ Crv	182°	- 14°
19	Spica virginis ( $\alpha$ Vir)	$\alpha$ Vir	195°	- 09°
20	(Ursae Maioris)	$\eta$ UMa	202°	+ 52°
21	Arcturus	$\alpha$ Boo	209°	+ 21°
22	Boötis sin(istra) hum(erus)	$\gamma$ Boo	213°	+ 40°
23	Lanx sept(entrionalis)	$\beta$ Lib	223°	- 08°
24	Corona sept(entrionalis)	$\alpha$ CrB	229°	+ 28°
25	Ophiuchi sin(istra) ma(nus)	$\delta$ Oph	238°	- 03°
26	Scorpii cor	$\alpha$ Sco	241°	- 25°
27	Caput Ophiuchi ( $\alpha$ Oph)	$\alpha$ Oph	259°	+ 13°
28	Caput Draconis	$\gamma$ Dra	267°	+ 52°
29	Ophiuchi ma(nus) dex(tra)	$\nu$ Oph	264°	- 10°
30	Lyra ( $\alpha$ Lyr)	$\alpha$ Lyr	275°	+ 38°
31	Aquila	$\alpha$ Aql	292°	+ 08°
32	Cauda Cygni	A Cyg	307°	+ 44°
33	Pegasi rictus ( $\alpha$ Peg)	$\epsilon$ Peg	321°	+ 08°
34	Capricorni cauda	$\delta$ Cap	321°	- 18°
35	Crus Aquarii	$\delta$ Aqr	338°	- 18°
36	Crus Pegasi ( $\alpha$ Peg)	$\beta$ Peg	341°	+ 26°
37	Pegasi humerus ( $\alpha$ Peg)	$\alpha$ Peg	341°	+ 13°

## Back side (Azarchel)

### 1. Front hemisphere (vernal equinox)

	<b>Arsenius</b>	<b>Bayer</b>	<b>Right ascension</b>	<b>Declination</b>
30	Lyra (α Lyr)	α Lyr	275°	+ 39°
31	Aquila	α Aql	292°	+ 08°
32	Cauda Cygni	α Cyg	307°	+ 44°
50	Pos: fus: aquae	α PsA	338°	- 32°
41	(without name)	α Eri	20°	- 60°
42	Eri: extreme:	θ Eri	40°	- 42°
7	Oculus tauri	α Dew	63°	+ 16°
8	Ori: sin: pes	β Ori	73°	- 09°
9	Hircus	α Aur	71°	+ 45°
10	Ori: dex: hum:	α Ori	83°	+ 07°

### 2. Rear hemisphere (fall point)

	<b>Arsenius</b>	<b>Bayer</b>	<b>Right ascension</b>	<b>Declination</b>
43	Canopus	α Car	94°	- 53°
11	Canis maior	α CMa	96°	- 16°
12	Canicula	α CMi	109°	+ 06°
14	Cor Leonis	α Leo	146°	+ 14°
16	Ursa maior	β UMa	158°	+ 59°
44	(Ursa maior)	α UMa	159°	+ 64°
45	(Ursa maior)	γ UMa	172°	+ 56°
46	(Ursa maior)	δ UMa	178°	+ 60°
47	(Ursa maior)	ε UMa	189°	+ 58°
48	(Ursa maior)	ζ UMa	196°	+ 57°
19	Spica Vir:	α Vir	195°	- 09°
20	(Ursa maior)	η UMa	202°	+ 52°
21	Arcturus (α Boo)	α Boo	209°	+ 21°
49	Centarus	α Cen	212°	- 59°
26	Scorpii cor	α Sco	241°	- 25°

As a supplement to this, a description of the classic astrolabe and two articles explaining the reverse side (azarchel) are offered as PDF downloads under the SERVICE section of our website.

*CHRONOS MANUFATUR in June 2024*