

Uranologion tables

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Overview

Tables on the *Phenomena of Aratus* (e.g. Aratus & Hyginus, 1569) and the *chronology of Maximus* (c.f. Schissel, 1934) from the transcription and latin translation in the famous *Uranologion* by Denis Pétau or Dionysius Petavius (1630):

„Achillis Tatij Isagoge ad Arati Phænomena, qui liber falsò Eratostheni tribuitur.“, (Petavius, 1630, index).

Achilles Tatius' *introduction to the Phenomena of Aratus*. The book is *incorrectly attributed to Eratosthenes*.

Petavius gave the translation of the introduction by *Achilles Tatius* from the 3rd century (c.f. Oxford Reference, 2024) on *Aratus'* (c. 315-240 BC) hexameter prose adaptation of the (lost) *Phenomena* and *Enoptron* by Eudoxus of Cnidus:

„[...] largely responsible for turning astronomy into a mathematical science [...] was Eudoxus of Cnidus (ca. 390-337 B.C.). [...] we propose that Eudoxus was influenced by cosmological speculation, particularly that of the Pythagoreans and Plato. For, in their view, the circular motions of the heavenly bodies manifested a moral order that was ultimately analyzable by means of [...] whole-number ratios as melodious sound.“, (Goldstein & Bowen, 1983, p. 332-333).

A description of *astronomy*, the *world* and the *Earth* is given (Petavius, 1630, p. 256-267):

„ERATOSTHENIS, ALIAS HIPPARCHI [Pseud-epigraphus hic libellus. nam neutrius est], AD ARATI PHÆNOMENA.“, (Petavius, 1630, p. 256).

ERATOSTHENES, ALIAS HIPPARCH (this book is by *neither of them*), ON THE PHÆNOMENA OF ARATUS.

„De Zonis. PArallelis circulis zonæ quinque subjectæ sunt : Borealis, quæ tota supra terram eminens est, inhabitabilis, alsiosa, Saturno dicata [...] Æstiua, cuius maior pars supra finitorem extollitur. Temperata in qua regio nostra sita est ; attributa Ioui [...] Æquinoctialis æqualem supra, infrâque horizontem obtainens partem ; inhabitabilis est, exusta, Martis propria [...] hic enim tam ipsam, quam totam sphæram medium diuidit [...] Hiemalis contra atque aestius maiore sui parte sub horizonte latet ; inhabitabilis ; temperata ; dicata Veneri [...] Australis, quæ tota delitescit, inhabitabilis, frigida, ad Mercurium pertinens [...] Colliguntur ambitus terræ supra finitorem, scrupula 30 ; stadiorum verò 126000.“, (Petavius, 1630, p. 266).

About the Zones: Parallel to the circles there are five sub-zones: *The North*, which is entirely above the Earth, uninhabitable, sticky and dedicated to *Saturn*. The *Summer*, the greater part of which is emphasized above the limiter, is the climate in which our region is located and attributed to *Jupiter*. The *equinoctial part*, having an equal part above and below the horizon, is uninhabitable, scorched and proper to *Mars*, for here it divides both, itself and the whole sphere in the middle. The greater part of *Winter*, in the contrary to Summer, is hidden below the horizon; habitable; temperate; dedicated to *Venus*. *The South*, which is entirely hidden, uninhabitable and cold is belonging to *Mercury*. Areas above the limiter of the earth are collected, 30 scruples, indeed 126000 stades.

Table 1. Zones in *arc length* L_a , resulting in half the circumference $\frac{c}{2}$, given in *scrupula sc*, *patens pt* and *stadia st* (c.f. Engels, 1985).

Zone		sc	pt	st
<i>Borealis</i>	Saturn	sexagesima	sex	25200
<i>Æstius</i>	Jupiter	quinque		21000
<i>Æquinoctialis</i>	Mars	octo		33600
<i>Hiemalis</i>	Venus	quinque		21000
<i>Australis</i>	Mercury	quinque		25200
<i>Colliguntur</i>		30		126000

It should be noted that here the names of the *planets* are assigned to the *zones* of the Earth. For implications of the descriptions of the *arc lengths* L_a in *scruples sc* and *stades st* see petav_tab01.md¹, Walker et al. (2009) and Williams (2024).

Table 2. Excerpt from the *chronology of Maximus, S. MAXIMI COMPUTI*, which extends from the *Neolithic* period of 5500 BC until the early *Middle Ages* (833 AD, 912 AD, respectively).

p XI	m VI	nat	Σ	AD	patriarch
		230	230	-5270	Adam annus natus erat
		205	435	-5065	Seth
I		190	625	-4875	Enos
		170	795	-4705	Cainan
		165	960	-4540	Malaleel
II	I	162	1122	-4378	Iared
		165	1287	-4213	Enoch
		167	1454	-4046	Mathusala
III		188	1642	-3858	Lamech
	II	500	2142	-3358	Noë
		:	:	:	
		7	4232	-1268	Essebon
		10	4242	-1258	Aelon
		8	4250	-1250	Abdon
VIII		40	4290	-1210	Philistæi
		20	4310	-1190	Sampson
		40	4350	-1150	Interregni & pacis
		20	4370	-1130	Heli sacerdos
		:	:	:	
		17	5281	-219	Ptolemæus Philopator
		23	5304	-196	Ptolemæus Epiphanes
X		35	5339	-161	Ptolemæus Philometor
		29	5368	-132	Ptolemæus Euergetes
		16	5384	-116	Ptolemæus Physconis
		:	:	:	

See petav_tab02.md¹, petav_tab03.md¹, Maximus (n.d., fol. 240r-241r), Schissel (1934, p. 270) and also Schneider (1952, p. 519 ff.), Pinches (1911) or Frayne (1997, 2021).

¹ <https://doi.org/10.5281/zenodo.10691680>

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