The Parapatellonta in ancient Greek astrological literature

written by
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(translated from Italian into English by Margherita Fiorello)

Yo pronuncio tu nombre
En las noches oscuras
Cuando vienen los astros
A beber en la luna
Y duermen los ramajes
De las frondas ocultas.
Y yo me siento hueco
De pasión y de música.

(from Si Mis Manos Pudieran Deshojar
Federico García Lorca)

Neglected because of their "unscientificity", until the end of the nineteenth century many ancient astrological texts laid unpublished in several European libraries and therefore unknown to most people. Within a few decades it was luckily possible to witness, however, to a real reversal of the situation; in fact, by a wide number of scholars, mostly German linguists, started a work of recovery and critical editing of several manuscripts.

Between 1887 and 1908 saw again the light Hephaestio of Thebes and Ptolemy and Manilius and Vettius Valens, just to name a few authors. To this cultural forge should be also attributed the project, ideated by F. Cumont with the cooperation of F. Boll, of the publication of the Catalogus Codicum Astrologorum Graecorum, twelve tomes in twenty volumes, which appeared from 1898 to 1953. Result of an international team bringing together the best specialists, the CCAG reviews and edits, saving from oblivion, a rich collection of Greek texts and fragments.

Franz-Valéry-Marie Cumont (1868-1947), Belgian epigrapher and philologist, director of numerous archaeological expeditions to Syria and Turkey, is still one of the most important historians of ancient astrology (Fig.1). Famous are his studies on the impact of Eastern mystery religions, particularly Mithraism, on the Roman empire. Shortly before his death in 1947, he bequeathed his private library, filled with more than 15,000 volumes, to Academia Belgica of Rome: a paradise for scholars researching ancient and modern treatises about the "science of the stars."

Figure 1: Bust of Franz Cumont at the Academia Belgica
Indisputable too is the role played by Franz Johann Evangelista Boll (1867-1924) in the resumption of studies on ancient astrology: classical philologist (in Berlin and then in Munchen) rigorous and careful, debuted in 1894 with Studien über Claudius Ptolemäus, i.e. a dissertation on Tetrabiblos, which after Camerarius edition (1535), republished by Melanchthon with a Latin translation in 1553 and again in 1581, was never been reprinted and of which he proved the authenticity.

His work as Director of the manuscript section of Munich Staatsbibliothek made of him a privileged observer and researcher and favored his support to Cumont, with whom he especially cooperated in the editing of the Codicum Romanorum partem priorem (CCAG V, I); to his only work it should be ascribed the seventh tome of CCAG Codices Germanicos descripsit Franciscus Boll published in 1908. He would have hoped to conclude it earlier, as he stated in Praefatio: much was left to be investigated and he thanked his friends as Cumont indefessus Catalogi nostri fautor atque tutor or Kroll or Bezold or Dyroff and others, for having supported and helped him. Which harmony of purpose! But at that time our scholar already had completed his masterpiece: Sphaera, where he showed, through the publication and study of Byzantine excerpta ignored for centuries, a key discovery for future studies, that is an entirely different image of the sky and its constellations than the typically "Greek" one, hitherto known. This is the so called Sphaera Barbarica (where ϒρβαρος barbaros is the onomatopoeic word which the ancient Greeks used for foreigners, literally "stuttering", those who could not speak Greek, so they did not share their culture). With a painstaking analysis Boll proved that this alternative representation rests its foundation on a list - attributed to Teucer of Babylon - of paranatellonta, namely the constellations co-rising with (later we will examine better the meaning of the word) with zodiacal signs or parts of it. He also succeeded to reconstruct the peculiar migration of this catalogue, from Babylonia to the Greeks, Arabs, and then in the West, via Abū Ma’shar.

All started from his discovery of several unknown Greek texts, which as he stated in the work’s Vorwort, he intended to publish only with a brief comment, but soon noticed as they were in need of a wide clarification in order to be understood and be of some use. And in order to provide this, it was necessary to become familiar with Eastern constellations, a task which he increasingly appreciated. At the end of his work, however, he could say "(...) There is hardly a sector of the Greek and Roman astrognostic literature, which does not receive through these new findings some
growth. Various passages of Aratus tradition and Eratosthenes, Eudoxus and Ptolemy, the Alexandrian astral literature as the depictions of the ancient and medieval sky receive new and often bright light. We can now get a clear picture of Nigidius’ Sphaera graecanica and barbarica, the interpretation of many stars in Manilius and Firmicus receives new foundation. (...)."

This paper wants to give a short introduction to this series of text, referring for their exhaustive coverage to Rothenburg ob der Tauber Professor.

I will never stop being grateful to my professors, who forced me, enrolled at the Faculty of Classics, to include German in my curriculum studiorum.

**Teucer the Babylonian**

Teucer! Who was? Many of us are (were) wondering. From Alfred von Gutschmid (1831-1887), German historian and orientalist, that in *Kleine Schriften* devotes to him a wide *excursus*. The longest fragment on Teucer is preserved in the book *Περὶ παραδόξων ναγνοσμάτων* (*Perì paradóxon anagnosmátωn*) written by Michael Psellos, a philosopher and politician living in the eleventh century and sounds like that: "Through Teucer the Babylonian’s books could be acquired many things more than beautiful, and through the zodiacal signs which are in the sky and by (the stars) rising together with each of them and through the so-called decans, obtaining resources of all kinds in different issues. In fact each of the signs numbers three decans, having various forms, one of which bears an ax, the other showing some different image, if you engrave their images and their shapes on a ring bezel, you will be protected from any injury. These things [have told] Teucer and the most qualified scholars in the study of celestial phenomena in his own way." (fig.3)

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![Image 1](image1.png)

Figure 3: The first decan of Aries bearing an ax: detail from Planisphaerium or Tabula Bianchini – Paris, Louvre Museum. Image from Historie de l’Academie Royale des Sciences, Paris 1708 (courtesy of the excellent Dr. Felice Stoppa www.atlascoelestis.com)

More concise the Neoplatonic philosopher Porphyrius (233 - c.305) in the *Εἰσαγογὴ εἰς τὴν Ἀποτελεσματικὴν τοῦ Πτολεμαίου* (*Eisagoge eis ten Apotelesmatiken tou Ptolemaiou*), where, at the end of chap. 47, about the 36 decans and the co-rising stars and faces, says: "The judgements on decans and the stars co-rising with them are discussed by Teucer the Babylonian."
As for the period in which Teucer lived, certainly we can only say it precedes Porphyrius. According to Karl Otfried Müller (1797-1840), German archaeologist and Greek scholar, with whom agrees Heinrich Ewald (1803-1875), (also German) orientalist, historian and philologist, our man should be identified with the homonymous historian of the town of Cyzicus. The evidence would be given in part by the fact that he wrote a book about the "earth containing gold", therefore about alchemy, which is astrology's sister, and partly from the fact that a link between Babylon and Cyzicus in effect can be proved: the historian Agathocles is called sometimes Babylonian, sometimes Cyzican.

Although Teucer the Cyzican, according to Gutschmid, does not belong to the category of Greek authors whose age is certainly known, one can expect on the basis of his literary output that he wrote after the deeds of Pompey the Great, and therefore in mid-I century BC.

We would have, if this identification was true, both Gutschmid and Boll himself, are skeptical a first possible date. Instead Boll suggests a different one, namely the first century AD, according to the following reasoning: the chapter in which Porphyrius quotes Teucer, refers as several others, to a prose paraphrase of the poet Antiochus, which the neoplatonic philosopher, however, explicitly mentions in the chap. 38 of Isagoge. That Antiochus was an astrological poet is proved by the fact that in Palchos is preserved a long texts in hexameters Ἀντιόχου δεσσα οἱ ἀστέρες ἐν τοίς τόποις τοῦ θέματος τυχόντες συμμάντουσιν (Antiocou osa oi asteres ev tois topois tou thematos tucontes semainousin), taken from one of his seven books he wrote, according the Arab Mā shutsā Allāh ibn Atharī (VII sec.). From Antiochus as from other poets were carried out several extensive prose paraphrases: and this one Porphirius used. Even if we do not want to leave a period of time - for Antiochus' poetry and his paraphrase - too small between Teucer and Porphyrius, we can not backdate Teucer more than the first century AD.

Five years after the German philologist complained, on p. 193 volume VII CCAG, he could not add anything else to what has been said about it in Sphaera. It is obvious that the stone on which everything else rests is the dating of Antiochus, which in turn is uncertain and on which, as we shall see in its own place, scholars are in complete disagreement.

Even our Teucer's birth place is controversial: there were in fact two Babylon, one best known in Mesopotamia and the other in Egypt. Wilhelm Gundel claimed that he perhaps would be originally from the Egyptian Babylon; Wolfgang Hübner is rather of the opposite opinion and identifies it with the famous Mesopotamian city Babylon, from which came other astrologers who in Hellenistic times introduced Eastern astrology. And he is inclined to believe that Teucer lived no later than the first century BC.

Giving a look to Arab sources, we discover, as signaled by Boll, that from them there is little to learn about our astrologer. In Kitāb al-Fihrist there are two items, Tinkelosthe Babylonian and Tingerus the Babylonian, included the following information: the former was one of the seven wise men of whom Al-Dabbah, a king of Persian dynasty, gave the keys of the seven houses built according to the names of the seven planets: he wrote on the decans and the terms of the planets; the latter, one of seven supervisors of the houses and, more specifically the one of Mars house, and he also wrote a book of births according to decans and terms of the planets. They are clearly the same person, without any other information than the addition of the story about the priest of the temple of Mars.

Of his writings are left just excerpta; everyone agrees, however, in attributing to his name the introduction of new constellations and of decans in the astrological practice.

The first Teukrotext in Rhetorius excerpta

This first text is based on the content of two codices, Vindobonensis philosos. Gr. 108 and Berolinensis 173 (Phill 1577). In the Vindobonensis, a voluminous code of astronomical content of
the fifteenth century, consisting of 371 sheets, at ff. 249-256 there is a bulky chapter with a lengthy ungrammatical title, of which we reproduce only the incipit (Fig. 4):

![Figure 4: Thus starts at the page 4 of Sphaera Boll’s presentation of the neue Texten](image)

which we could translate: "88 - About the twelve signs of the oblique circle according to the Saracen philosopher Teucer the Babylonian" which already reveals - as comments Boll - its Byzantine origin by the name given to Teucer, the Saracen ie pagan philosopher. This chapter talks about the 12 zodiacal signs, and for each of them are listed 12 topics:

- Description of the sign according to its nature: male or female, royal or vile, etc., according to the winds and its influence on human affairs;
- Information on the different relationships in which the sign is in respect to the planets;
- Annotation of the three paranatellonta of the three Decans or third of the sign;
- Exposition of the prosopa of each decan, ie the "face" of the planet it shows;
- Follow the λαμπροί αστέρες (lamproi asteres) namely the Northern or Southern first and second magnitude stars, arising with each sign, with indications of their longitude, their size, their krasis and their temperament,
- Then there are the oria or terms;
- List of klimata, i.e. the countries on which each sign has influence in accordance with the astrological geography;
- Body parts and their diseases under the rulership of each sign (with the opportunity to take into consideration paranatellonta too);
- Relationship of the sign with some letters;
- Attribution of individual parts of the zodiacal image to the sign degrees (eg. Aries, from 3th to 7th degree there arises the head, from the 8th to 10th the neck, from the 11th to 13th the chest etc.).
- Effect of the sign rising at the Ascendant;
- Effect of each of decans.

The paragraphs are repeated in the same order for all of the signs.

In Berolinensis Gr. 173 (Phillip. 1577), a codex printed in the fifteenth century, consisting of 204 pages and written by various hands, at ff.139-146 is located an insert, written by a different hand than the previous sheets, the first page blackened, as if it was the beginning of another manuscript. It contains three chapters, the first of them starting: (Fig. 5):

![Figure 5: Sphaera, page 11](image)

or "Treasure of Rhetorius containing the whole of astrology," and that immediately appears to be a literal parallel of the excerptum contained in Vindobonensis; the second chapter is about the nature of the wandering stars, the third is called Of the interpretation and explanation of all things said above and it is about the reason it is customary to begin the Zodiac from Aries. The first chapter is edited in its entirety in CCAG VII, fr. 139 from page 192 forward, and accompanied by a brief
presentation by Boll, who introduced as "Rhetorii Aegyptii excerpta ex Teuco Babylonio de duodecim signis", which can be read in James H. Holden English translation\textsuperscript{25}. Between the chapters of Vindobonensis and those contained in Berolinensis there is a substantial agreement, although in the second manuscript the sixth paragraph (about boundaries) and the final three are missing; and the remaining are of the same literal content, let alone some variation in linguistic terms used or some omission.

Despite the fact that Rhetorius name appears only in the second, Boll, through a careful philological analysis\textsuperscript{26} concludes that the two excerpta are not independent each other, but can be both attributed to Rhetorius: the former reproduces more closely his work, the second went through a Byzantine transcript. Rhetorius could profit from astrological material due to Teucer, and a further evidence for us comes from the re-elaboration of a Persian translation of Teucer, which was compiled in 542 AD and that we possess through Abū Ma'shar\textsuperscript{27}. From this we can infer that, except for the all sort of messy Arab and Persian interpolations, Teucer original text was a little richer than it appears in our two excerpta and that Rhetorius literally followed it. In his work as compiler he has been for us the mediator of the lists of Teucer paranatellonta, without adding anything of his own; since the longitudes of the stars of first and second magnitude, recorded in the chapter we are interested, is almost always 3° 40 more than in Ptolemy, we arrive around the year 510 (calculated according the method of the Alexandrian scholar, progressing of a degree each 100 years rather than 72, wrong approach, but generally accepted in ancient times).

Rhetorius therefore composed his astrological anthology (a kind of Treasure) at the beginning of the sixth century or later, but the exact date remains uncertain, as D. Pingree mentions too\textsuperscript{28}. If we accept as true the information given to us from Johannes Kamateros (Fig. 6)

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{Figure 6: Extract from Johannes Kamateros Εἰσαγωγή ἀστρονομίας (XII sec.)}
\end{figure}

in the poem dedicated to Manuel Komnenos\textsuperscript{29}, which will be discussed later (see page 20), he was an Egyptian, author of a work on the zodiacal signs: his verses sound like "A wise man among the ancients, a focused mind orator, Rhetorius of Egypt, so called, skilled in the knowledge of the course of the stars, for the first time wrote remarkable things in an easy to understand work about the motion of the twelve signs"\textsuperscript{30}.

Boll shows at pp. 16-21 of Sphaera the Greek text of all three paragraphs of the first chapter, that is the paragraphs in which are listed the Northern and Southern constellations rising along each decan of the Zodiac. Here follows the translation accompanied by some notes on the non-Greek constellations, which appear in the text, but not before having briefly mentioned the Dodecahōros. At the end of the list of constellations of each decan regularly appears in fact the name of an animal, followed by the word "of the Dodecahōros": with the first decan there arises each time the head, with the second the central part, with the third one the tail or the back or the end, only for the Pisces the order is reversed.

The twelve animals (cat, dog, snake, beetle, donkey, lion, goat, bull, hawk, monkey, ibis and crocodile), taken together form the dodecahōros and appear in their entirety only in the first Teukrotext, and of course into the verse translation made by Johannes Kamateros. We can see a picture in the Tabula or Planisphaerium Bianchini (Fig. 3), a marble table of uncertain date, probably the second or third century, found in 1705 in several fragments in the Aventine hill in
Rome and donated by the antiquarian Francesco Bianchini to the Academy of Sciences in Paris, now in the Louvre Museum. From the center, where there is a snake wrapping in its coils two bears, the standard image of the ecliptic pole, start four concentric circles: in the first stretches the dodecahōros, in the fourth a procession of images, three per sign, without any doubt the decans: the first one of Aries with an ax, just like Michael Psellus states in the passage where he mentions Teucer (see. 3)

Another representation is the so-called Daessy Zodiac (Fig. 7)

The French Egyptologist Georges Daressy (1864-1938) in his Notes et Remarques describes it: "A few years ago, a merchant in Cairo had a small relics which has then gone I do not know where. It is a marble disk which contains a double Roman zodiac. The central part is occupied by the joint heads of Apollo and Phoebe, the first with a crown of rays, the second with a crescent on the head, a bow is placed before her. The circle forms a double ring (the diameters of the circles are 0 m 193.01 m 188. 0 m 058), divided into twelve compartments by double lines directed toward the center. The outer compartments contain the signs of the months of Greek Zodiac, the inner compartments contain the corresponding signs of the Egyptian Zodiac, in line with those included (but incomplete) in Planispherium Bianchini"31. The artifact is lost, the squeeze made from Daressy is kept in the Institut Français d'Archéologie Orientale of Cairo.

The term δοδεκάωρος (dodecahōros) is composed of δοδέκα (dodeca, twelve) and ὥρα (hora, hour) and literally means "twelve hours." As Boll highlights, Teucer was by no means the only or the first to use it; it generally stands for the twelve hours of natural day, from sunrise to sunset, and we can translate it as "circle of twelve hours." But we are facing a problem: in Teucer text and in the Tabula Bianchini the twelve animals are in close link with the twelve signs of the ecliptic, and rise together with them, and one hour is not enough for a twelfth of the ecliptic to rise. Dodecahōros must therefore necessarily indicate a circle of twelve double-hours, in support of which Boll shows several epigraphic, literary and philological testimonies, at which for brevity the reader should refer32. In the two marble tables and in Teucer text ὥρα stands therefore for double hour and it is not the ecliptic but the equator twelfth. But how each of these twelfths were associated with the name of an animal? According to Boll, originally the name was likely to show big or small constellations near the equator, marking the beginning or the extension of the twelfth part of the circle, and passed then to the double-hours, which was in effect the time they took to rise.
These are the characteristics of the 12 animals, whose origin is purely Egyptian:

* Cat: in particular, was sacred to Bastet or Bast, goddess identified with Artemis, but also with the sun god Ra-Helios; the center of his cult was Par Bastet (Bubasti for the Greeks), where was found a necropolis of mummified holy cats, with its temple. Cats in Egypt were protected by law and hurting or exporting them was forbidden and punished with death.

* Dog or rather the golden jackal (*Canis aureus lupaster*) was sacred to Anubis, the god who protected necropolis and the world of the dead, as an animal feeding on carrion.

* Snake: sacred animal *par excellence*. Daressy describes (see reference) the one of the homonym Zodiac as "the serpent Agathodaimon, crowned and bearded." In it, the Egyptians saw the creator, the God Serpent Sata enclosing the world with many coils, the cosmic enemy APOPIS and so on.

* Scarab: called *kheperer* (from the verb *kheper* meaning to born or to become) was associated with the Sun god of the morning Khepri, which gave life and represented the coprophagist sacred animal *Scarabaeus sacer aegyptiorum*.

* Donkey: was sacred to Seth, who was depicted with the body of a man and a stylized head of an ass. Seth, god warrior, to which no one could resist and burning everything, was associated to the Greek god Typhon.

* Lion: was sacred to Atum, the creator, then identified with Ra in the form Atum-Ra, symbolizing the setting Sun and worshiped in Heliopolis, one of the most important places related to Sun worship. In Leontopolis (Taremou, modern Tell al Muqdam) were bred lions, which lived near the temple: they were considered incarnations of Sekmet, the goddess of war, which was depicted as a lioness or a woman with the lion's head.

* Goat: was worshiped under the name of Ba-neb-djedet in Mendes (the Egyptian Djedet), a city where the Mendes branch of Nile flows into Tanis lake. Herodotus reports that the god was represented with a goat head and fleece and that the inhabitants of the district of Mendes never sacrifice goats and especially regarded a goat, upon whose death they observed a deep mourning.

* Bull: was the form under, in the temple of Ptah in Memphis, was worshiped Apis, originally a symbol of fertility and later an "herald" of Ptah, whose soul he incarnated on earth. In its anthropomorphomorphic form was represented by the bull's head, surmounted by the Uraeus and the horns fastening the solar disk.

* Hawk: according to Herodotus was as sacred to the Egyptians as the ibis, and those who, even accidentally, would kill one, were sentenced to death. He was worshiped by the name of Horos and closely associated with the Pharaonic monarchy.

* Monkey (the cynocephalus): was one of the ways in which it was depicted Thoth, the god of Moon, wisdom, writing and magic. This deity, worshiped in Hermopolis, had the appearance of an ibis or a baboon or the cynocephalus (the baboon has a pointed and canine snout).
It seems that for the ancients the ape had a malignant meaning, as bad and mischievous animal: it was believed that those who met one in the morning had a bad day ahead and that its appearance in dreams do not bring anything good. Hence the cynocephalus in our text is also known as the one who has a bad name.

* Ibis: a typical Egyptian animal, was sacred to Thoth, and, as far as Pliny relates, was invoked against snakes incursions, tamed by people because it could drive them away and it was often sacrificed to the gods to stop the plague. 35

* Crocodile: was sacred to Sobek, god of water and Nile flooding. Son of the goddess Neith, was worshiped in Crocodilopolis, today Faiyum. Its main sanctuary is in Kom Ombo; in the nearby cemetery were found mummies of crocodiles. Sobek is generally depicted as a man with a crocodile head, often with the uraeus on the head and the ankh in one hand.

And here's the translation of the first Teucrotext:

**Aries** - with its first decan there arise Athena and the Tail of the Whale and the third part of the Triangle and the Cynocephalus bearing torches and the head of the Cat of the Dodecahōros. With the second decan there arise Andromeda and the central part of the Whale and the Gorgon and Perseus' Harpe sword and half of the Triangle and the central part of the Cat of Dodecahōros. With the third decan there arise Cassiopeia sitting on the throne and Perseus upside down and the head of the whale and the rest of the Triangle and the tail of the Cat of the Dodecahōros.

**Athena**: constellation name of astrological origin. According to the ancient doctrine that gives the rulership of the twelve signs to twelve gods and that Manilius (Astronomicon, II, 439-447) follows too, Aries belongs to the goddess Athena. *Lanigerum Pallas tuetur* (Pallas protects the woolly”) Manilius says. And also Virgil (Aeneid XI, 259) recalls the *triste Minervae Sidus* ("Minerva's baleful star"). It could be therefore a single star or a small group of stars in the constellation of Aries. Or maybe not. Servius M. Honoratus, Roman grammarian and commentator of Virgil's works intends in fact *Sidus Minervae* as storms, lightning and bad weather characterizing the beginning of spring. Athena could therefore recall here the weather situation accompanying the first Decan of Aries.

**The Cynocephalus bearing torches**: an Egyptian constellation, as evidenced by the attribute of the lamps. For the Egyptians stars were not celestial bodies, but rather lamps (khabisou) lit in the firmament. In the tomb of Seth I, Isis-Sothis bears her lamp shaped as a five pointed star on her hair and Osiris-Orion his own above the rod. In the two Zodiacs of Chnum Temple at Esna (the Greek Latopolis) you can see hawk, dog or ram, headed human figures with small lamps in their hands: they are the Decans Lamp-bearers. Between the Decans of Denderah Zodiac there is also a monkey (the *Cynocephalus*), an animal that is often depicted in ancient Egyptian temples and we have seen to be sacred to Thoth.

**Taurus** - with its first decan there arise Orion armed with a sword and half of the Pleiades and half of the remains of the Dead Woman and the head of the Dog of Dodecahōros. With the second decan there arise the Cynocephalus, holding a naked statue and the Sceptre and the other half of the remains of the Dead Woman and the central part of the Dog of the Dodecahōros. With the third decan there arise the "Team of the horses" and the Auriga and the Chariot and the Goat raised by the Auriga with the left hand and the back of the dog of the Dodecahōros.
The remains of the Dead Woman: constellation difficult to identify, but surely due to Egyptian sphere, according to Boll\textsuperscript{38}. In the large Zodiac of Chnum Temple at Esna between Aries and Taurus is situated a standing mummy, which could be perhaps the one of Orion-Osiris. Here, however, are mentioned the remains of a female corpse, which could not be so straightforward linked to the god, who for the Egyptians is the Dead \textit{par excellence}.

The Cynocephalus, holding a naked statue: The same as for the cynocephalus bearing torches, although the attribution of the woman statue remains unclear.

The Sceptre: in all Egyptian representations is Osiris-Orion's attribute, together with the sword, which in the Greek versions appears with club and skin (Fig. 8) in memory of his tireless work as a hunter. The Egyptians, as is also evident by numerous inscriptions, thought to Osiris as lord of the constellation of Orion. In Denderah square Zodiac, above the image of a man solemnly advancing into a boat and turning his head back, is located the inscription "Sahu, the beautifully divine soul of Osiris." The same connection to Osiris - Sahu bears another inscription in Denderah porch. Sahu is the constellation of Orion.

\includegraphics[width=0.5\textwidth]{orion.png}

\textbf{Figure 8: Orion.}
Engraving taken from the Uranometria of Johann Bayer, Augsburg, 1603

\textbf{Gemini} - With the first decan there arises the Auriga and the Chariot and the wheel under the Chariot and the front half of the Dog and the head of the Serpent of Dodecahôros. With the second decan there arise the Lyre and Hercules, and the snake on the tree chased by Hercules and the central part of the Serpent of Dodecahôros. With the third decan there arise the Lyre and the Dog Star (Sirius) and the Dolphin and the front of the Little Bear and the back of the Serpent of Dodecahôros.

\textbf{Cancer} - With its first decan there arise the back of Ursa Minor and the Satyr touching the club and the Muse playing the lyre and one of the Graces and the head of the Scarab of Dodecahôros. With the second decan there arise half of the Manger and the Donkey and the second of the Graces and the central part of the Scarab of Dodecahôros. With the third decan there arise the third of Graces and the other Donkey and the other half of the Manger and the final part of the Scarab of Dodecahôros.

The Satyr touching the club: character very unclear. It seems to be a constellation near Orion or maybe the same Orion [also Abû Ma'shar speaks in the first decan of Cancer\textsuperscript{39} of a satyr with his club, next to the Muse playing the lyre].
The Musa playing the lyre: is present in the second decan of Virgo and the first decan of Libra and it does not belong to any Greek saga. Since it follows the Satyr, identified with Orion, cannot be connected to the constellation of Lyra, which is in another region of the sky.

The Graces: in the three decans of Cancer rise three stars of more or less the same size, called the Charites, beneficent deities symbol of beauty, joy and prosperity. More than to an Eastern origin we should think of a popular name and hence to the three stars of Orion's Belt, which in Alexandria and further North, at the time of Hipparchus, rose already with the third decan of Gemini.

Leo - with its first decan there arise the One with a Dog face shooting with the bow and the half of the Ship and the head of Hydra and the head of the Donkey of Dodecahōros. With the second decan there arise the other half of the Ship and a God stretching out his hand upward and the back of the Hydra and the Cup and Cymbals and the Phrygians flutes and the central part of the Donkey of Dodecahōros. With the third decan there arise the Auriga holding the wheel and the boy following him and the central part own of the Hydra and the back of the donkey of Dodecahōros.

The One with a Dog-face throwing with a bow: this is an archer with the head of a dog or better jackal, which does not belong to the realm of Greek sphere. It certainly cannot be Sagittarius; probably it belongs to the Egyptian sphere.

The Boat: see notes to Libra text.

A God holding his hands up, the Cymbals: the tradition of the various manuscripts is very discordant in this passage. In ms. Laurentianus XXVIII, 34 (the second Teukrotext) is mentioned The One outstretching arms and bearing cymbals, because there is κρατήρ instead of κράτηρ and the Cup is still mentioned, but previously; in Abū Ma'shar (see note 39) an idol holds his hands out upward and bears cymbals, as a dancer; in Antiochus some cymbals and Atlas. It is therefore a constellation belonging to the barbarian sphere, a variant of one or more Greek constellations. The player of the cymbals (ie plates) or the god with raised arms (which only Antiochus, on his own initiative, calls Atlas) could perhaps be a late transformation of Engonasin, the kneeling man, another name for the constellation of Hercules, which has a very large area (1225 square degrees) and rises for the greater part with Libra, but whose last stars set, as Hipparchus says, when Leo rises. Engonasin too is represented with his arms stretched upward.

The Phrygian flutes: hard to say why the mentioned flutes are the Phrygian ones, which can be distinguished by the others only for the different tuning. In Laurentianus XXVIII, 34 is said they signify failures of great expectations and therefore they recall to mind Satyr Marsyas myth, unmatched flute player, who lost with Apollo a skill contest based on playing the instrument. Apollo, in order to punish him for his hybris, but also in order to eliminate a dangerous rival, tied him to a tree and flayed alive. This character is thus depicted with his arms tied up: it could be another variant of Engonasin and not coincidentally the Phrygian flutes are then listed immediately after the Cymbals, as coincident or adjacent constellation.

The Auriga holding the wheel and a child: the constellation discussed here is not the one rising with the sign of Taurus, already known to Ptolemy, and which has Capella (α Aurigae) as its brightest star. The latter has as attribute the Chariot and the Goat (in the need the two Kids too) and produces the birth of famous drivers of chariots and carriages, the former is much more modest. It is represented as a man with the wheel in his left hand and the whip in his right hand and under its influence are born porters and muleteers. In the second Teukrotext these two charioteers are clearly mentioned and the second is called ήνικοχος ἀλλος (heniochos allos), i.e. the other charioteer. It cannot be reconnected to the Greek sphere, but rather than high-Egyptian one. In Denderah round Zodiac for example there appears above the sign of Leo a small sitting figure with a double crown, which has a whip (it should be a minor small constellation, because in the square one it is omitted). And in addition the whip is in the hands of Horos. This second charioteer is followed by a child [the pair will appear again in the second decan of Libra], that in Laurentianus XXVIII, 34 is said to bring a cup. Since all the three constellations [the other Auriga, the child and the cup] are in the area of the
sky rising with the third decan of the Leo, it follows, according to Boll,\(^\text{41}\) that this second Auriga may occupy the area which is identified today as the Sextant (Fig. 9).

![Figure 9: The constellation of Leo. The Sextant just below, the Crater to the right. Image taken from *Firmamentum Sobiescianum* (1690) by the Polish astronomer Johannes Hevelius](image)

**Virgo**—with its first decan there arises a goddess seated on a throne and nursing a baby, who some say is the goddess Isis in the Atrium feeding Horos; there arise also the Spike and the central part of the Hydra and head of the Fish and the head of the Lion of Dodecahōros. With the second decan there arise the Muse playing the lyre and the central part of the Fish and the tail of Hydra and half of the bull headed Bootes and the middle part of the Plow and the central part of the Lion of Dodecahōros. With the third decan there arise the other half of Bootes and the other of the two halves of the plow and the tail of Fish and the spikes and the tail of the Lion of Dodecahōros.

**A Goddess sitting on the throne:** this figure is nursing a child and by the same text is identified with Isis. Isis is for the Egyptians the goddess of Sirius α Canis Majoris, the brightest star in the sky, Sothis, at whose heliacal rising the Nile began to mount. Teucer description corresponds to a figure depicted on Denderah round zodiac: at the foot of the zodiacal sign of Virgo there is a goddess with a veil on a seat, which has in her left an object difficult to identify, perhaps spikes, and in the right a child. We are in front Isis with her son Horos, sucking him in the atrium, namely the entrance to the temple, as also witnessed by a large number of Alexandrian coins of the imperial age (Fig. 10).

![Figure 10: Isis nursing her son in the temple (Coin kept at British Museum, London)](image)
**Bootes the bull-headed**: Egyptian constellation of the Plowman, corresponding to Bootes. In Denderah round Zodiac, behind the Virgo there is a bull-headed figure, Hor-ka, the planet Saturn: there is also a second figure, twice the size of the first, bull headed, leading with both hands a plow, or rather, a dig like a plow, for land work.

**Libra** - with its first decan there arise Hades (the unseen) and Musa playing the lyre and the Boatman and part of Acherusian Lake and part of the Boat and the head of the Goat of Dodecahōros. With the second decan there arises the Auriga and the young boy and the front part of the Centaur and the central part of the boat and Acherusian Lake and the Spring and the Agora and the central part of the Goat of Dodecahōros. With the third decan there arise the back of the Centaur and the final part of the boat and the Acherusian Lake and Ariadne lying lying down with his left hand on the head and Ariadne Crown and two heads in the sky called the Queen and Adonis, calling the Heaven, and the final part of the Goat of Dodecahōros.

**Hades, the Boatman, the Acherusian Lake and the Boat**: in Teucer we find all the underworld region depicted in the sky. In addition to the god Hades, the ferryman with his boat and the river Acheron on which it travels in order to take the dead to the underworld. And not surprisingly, if we accept the Babylonian origin of these constellations. Macrobius, Roman philosopher and writer (whose *floruit* can be placed in the fifth century), for example, talking about the cult of Adonis among the Phoenicians, says that they borrowed it from the Assyrians and Adonis, Attis, Osiris and Horos are nothing else than the Sun, whose nature are related the twelve signs of the Zodiac too. According the Assyrians the upper part of the hemisphere and the six signs above the equator are ruled by Venus, the bottom part and the six signs below, by Proserpine. Venus weeps when the Sun begins its journey in the lower part of the Zodiac and falls under the dominion of Proserpine. It is said that Adonis was killed by a boar, which is the symbol of winter, as he likes damp, muddy, iced places and feeds on acorns. Even for the Sun the winter is a wound, which reduces its light and heat, causing the death of many living things. So it's evident the reason why in this part of its journey is Proserpine, goddess of the underworld to be the mistress. And correctly, we add, it can be explained why the underworld constellations appear in Libra, the sign starting with the passage of the Sun to the point ο (autumn equinox).

**Auriga and the young boy**: see what it has been said about Leo.

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*Figure 11: The sleeping Ariadne, second century
AD Roman copy of the second century b.C. original by the School of Pergamum –
Gallery of Statues Museo Pio-Clementino, Rome*
Spring: hard to tell the origin of this constellation. As it rises without interruption from the images of the Acherusian Lake and the other images of Hades, may have been originated in the Babylonian underworld.

The Agora: present in other manuscripts and in the Arab version. Absolutely unknown.

Ariadne lying down with her left hand on the head: next to the Corona Borealis, which is the golden crown she received by the enamoured Dionysus, we also find Ariadne as constellation. The image of the sleeping girl, after being abandoned by Theseus on the island of Naxos was well known in antiquity (Fig. 11).

Two heads in the sky: the Queen (Antiochus specifies to be Aphrodite) and Adonis. Constellations of which is difficult to identify the origin and probably lie in the vicinity of the same sign of Libra.

Scorpio - With its first decan there arise Hygiea and the back of the Centaur and the front part of the Bull of the Dodecahōros. With the second decan there arise Asclepius and the central part of the Centaur [and the central part of the Bull] of Dodecahōros. By the third decan there arise the front part of the Centaur carrying the hare and the front part of the Dog and Ophiuchus and the back of the Bull of the Dodecahōros.

Sagittarius - With its first decan there arise a God lying upside down which is called Talas and the Crow touches his head and the Dog turned backwards and the head of the Hawk of Dodecahōros. With the second decan there arise Cepheus touching with his right hand the Wolf and the head of the Wolf and the half of Argos and the front part of the Dolphin and the central part of the Hawk of Dodecahōros. With the third decan there arise the rest of the Dolphin, and Pelagus and half of the Big Dipper and the tail of the Hawk of Dodecahōros.

Talas: a god who is lying upside down, called Talas, with a raven touching his head. In Antiochus on the other hand is mentioned Talos hurling a stone. As usually the upside down character could be Engonasin, whose last stars have longitude from 0 to 5 degrees of Sagittarius. If we accept Talos variant we could think about the bronze giant, guardian of Crete, who protected the island throwing huge rocks at enemies.

Capricorn - with its first decan there arise the other half of Argos and the Ursa Major and the Nereid and Lyre and the head of Big Fish and the front part of the Cynocephalus of Dodecahōros. With the second decan there arise Eileithyia sitting on the Throne and the middle of the Wheel and of the Vine and the central part of the Great Fish and the central part of the Ominous One of the Dodecahōros. With its third decan there arise the other half of the Throne and the tail of the Big Fish and the Altar and the headless demon holding his own head and the back of the Ominous One of Dodecahōros.

Nereid: This constellation or star in Antiochus is called Nereus, but the female form is more correct, as also AbūMa'shar (see note 39) speaks of a sea creature named Nereid. Perhaps it is a poetic transposition of the sign of Capricorn as the goat-fish.

Eileithyia sitting on the Throne: it is again depicted Isis (see Virgo first decan), but under a different name. The iconography is the same: a goddess seated on a throne with a child on her lap. Isis as Eileithyia is the goddess of childbirth and the protector of pregnant women.

The Vine: constellation of the Egyptian sphere. In Firmicus the last decan of Sagittarius is called Chenene (or Chenen or Chenem), to which A. Romieu gives the meaning of asterism representing the appearance of a vineyard.
The headless demon: this demon holds his own head, it is also found in Antiochus, but as a Satyr. Its origin is Egyptian: in Denderah rectangular Zodiac, just before the goddesses of the second and third hour of the night, you can see a headless male figure, whose hands protrude forward with palms facing up. It is slightly different from Teucer; in Antioch it has been hellenized and becomes a satyr hiding his head. The Zodiac of Esna Northern temple seems to show the same constellation between Capricorn and Aquarius: a tailed man whose head is replaced by the disk of the Sun.

Aquarius - with its first decan there arises the river Eridanus, holding in hand the Vase and the head of Centaurus and his left hand outstretched and the head of the Ibis of Dodecahōros. With the second decan there arise the central part of the Centaur and two snakes in contact with each other and the central part of the Ibis of the Dodecahōros. With its third decan there arise the great bird, called Cygnus, [...], called Centaur, and the wolf biting its right hand and the back of Pegasus and the final part of the Ibis of the Dodecahōros.

The two snakes in contact with each other: also mentioned by Antiochus, who however speaks only of two snakes. This is the constellation extending to Pisces, a little like Pegasus. Two necks and heads of intertwined snakes are also depicted on Babylonian boundary stones. In the second Teukrotext (Laurentianus XXVIII, 34) are mentioned in the sign of Pisces the deer and the two snakes, suggesting a link, albeit only astronomical, between the two constellations.

Pisces - With the first decan there arise the front part of the winged horse Pegasus and the head of Deer which has two snakes into its nostrils and the fore part of the linen thread and tail of the Crocodile of Dodecahōros. With the second decan there arise the central part of the Deer and half of Engonasin and the central part of the Crocodile of Dodecahōros. With the third decan there arise the back of the Deer and the other half of Engonasin and the final part of linen thread and the head of the Crocodile of the Dodecahōros.

The deer which has two snakes into its nostrils: the deer is a constellation of Babylonian origin. Even Firmicus mentions it among those of Pisces (in pisce septentrionali oritur cervus). He adds that those having the Ascendant in the Deer's mouth are snake charmers, go on their trail and take them. There are no representation of the constellation as described by Teucer. Two snakes are present, as we have seen, even in the sign of Aquarius.

The second Teukrotext

This second text is based on the contents of three other manuscripts: the Parisinus Gr. 2506, the XXVIII Laurentianus 34 and the Vaticanus Gr. 1056. The Parisinus Gr. 2506 is a large paper manuscript, consisting of 216 sheets, dating from the beginning of the sixteenth century, mutilated at the beginning, written by two different hands (the first ff. 1-144 and the second ff. 145-216), coming from the Library of the ambassador of Charles IX, king of France, Huraut de Boistailé. Cumont, who reviewed it in CCAG VIII, I, was able to examine it in Ghent, where it has been amicably sent by Henri Omont-August, Curator of the manuscripts section of the Bibliotheque Nationale in Paris. It contains an astrological collection, whose unknown author seems to be lived, according Cumont, in the early eleventh century.

At folio 119 there is a chapter, number 310 and 311, containing a fragment entitled Τεύκρου περὶ τῶν παρατελλόντων (Teucrou peri ton paratellonton). It lists the paratellonta to Aries, Taurus, Gemini and Cancer, with the information of the degree with which they arise, as well as the type of...
people or even events which can be expected with their rising. The list after the Cancer is interrupted, followed by half a blank page and then the chapter 312, which is entitled Περὶ συναστρίας ὁ αὐτὸς Ἰουλιανός αὐτῶς φησίν (Peri sunastrias o autos ioulianos autos fesin) namely “How the very same Julian talks about sinastry”. And then through this “the very same” Julian is also mentioned as a source of the previous chapter. Unless there is something missing between the chap. 311 and 312 (having a half-empty page), it can be thought of Julian of Laodicea\textsuperscript{46}, who could not live (according to Boll) before the fifth century, and who transcribed Hephaestio Theban to the letter. The excerptum is incomplete (missing the 2/3) and shows a great number of gaps, even in the middle of the word, and probably the manuscript from which it was copied too had to be in poor condition. It is preserved also in other two Codices Parisini: at f.134 of ms.2424 (olim Fontebladensis 71), a parchment manuscript of 241 sheets, written by a single hand at the end of the fourteenth century and at the f.185 of ms.2420 (olim Colbertinus-Regius 2079), a paper manuscript of 259 sheets, copied in 1550 by Christoph Aver. The fragment present in ms. 2424 was copied from ms. 2420 and it also contains the same slight difference in the title, compared to ms.2506, namely Τεύχρον in luogo di Τεύκρου. Mss. 2420 and 2506 are, according to Boll, independent each other and are certainly derived from a common source not much earlier.\textsuperscript{57}

The Laurentianus Plut. XXVIII, 34 is on the other hand a codex of 170 parchment sheets, partially mutilated at the end, as indicated by the Latin index in the beginning. It can be dated to the X-XI century, and it is the oldest known astrological manuscript (Fig. 12).

At ff. 134-136 there is a chapter Περὶ τῶν παραστελλόντων τοῖς ἅ’ ζῳδιοῖς κατὰ Τεύκρον (Peri ton paranatellonton tois dodeka zodiois kata Teukron) whose text is wholly preserved. The chapter is closely related to the one of Parisinus 2506 and contains all the constellations listed there, with lesser details. The two texts are independent and stemmed by an original that, according to Boll, is not fully represented in any of them, as is evidenced by the third excerptum, namely the one recorded in Vaticanus Gr. 1056 f. 28.

This latter codex it a paper manuscript of the fifteenth century of 175 sheets, written for the most part by a single hand, and preceded by a very old parchment sheet, written in two columns with capital letters and damaged by moisture; it contains elements derived from Greek, Arab and Jew astrologers mixed together. The excerptum of f.28 is the shortest of the two first mentioned and omits a large
number of constellations present in the latter ones; but on the other hand it mentions others missing there.

The original as reconstituted by the three excerpta, is according Boll, for the number of constellations mentioned and astrological explanations regarding the status and the profession of those born under the constellation itself, the most abundant of the survived texts and it is extremely important, as it is a Greek support to Manilius. And it was probably a paraphrase of a primitive poetic original in couplets or hexameters, as shown by its linguistic analysis. Another peculiarity is the presence in the first two excerpta of a lot of rare Greek words borrowed from Latin, terminating in -arios.

It is precisely on this base that our philologist raises the question whether an author lived before Porphyry could have used them and how this text could be traced back to Teucer. To begin, paranatellonta are not ordered in the second Teukrotext by decans, as in the first one, but by degrees, and more important the information provided by the two Teukrotexte are at odds with each other. Many examples can be given: in the first Cetus and the λύχνα φέρον rise with the first decan, in the second (in Parisinus) with 18-20 degree of Aries; in the first Cassiopeia is in the third decan, in the second (Parisinu) with the 13th degree of Aries, etc. In addition, the forms in -arius appeared in Latin not before Emperor Trajan (76-138) age, and then we can not expect such a large number of Greek words in -arios in the same period. The testimonies in fact, on papyri and inscriptions are much later. This is true both for other subjects and for astrology; in Ptolemy in vain we could search terms borrowed from Latin in large quantities. The language proves we are facing an older, revised, altered text by several changes.

In addition, the second Teukrotext, which is considerably richer than the first, is lacking of a lot of information present in the first. So while the first Teukrotext paternity, which was under Porphyry, or rather already Antiochus’eyes, is for certain for Boll, he cannot say the same for the second. Unless to conclude that Teucer work was just a large container where different sources were merged.

The excerpta taken from three manuscripts (Parinus, Laurentianus and Vaticanus) are showed in 3 columns, side by side, in Sphaera, pp. 41-52.

Antiochus

In the Codex Vindobonensis philos. Gr. 179, 135 sheets, a paper manuscript of the fourteenth/ fifteenth century, brought to Vienna from Constantinople by the Fleming humanist and diplomat Ogier Ghiselin de Busbecq (ambassador in Turkey from 1582 to 1589), we find at ff. 41-65, closely related each other, 44 chapters, under the title Fig. 13:

Figure 13: The title of the ff. 41-65 of the Codex Vindobonensis philos. Gr. 179

or "Of interpretation and explanation of the whole astrological ars." An index on top of this excerptum tells us that chapters 40 and 41 dealt with paranatellonta to the 12 signs and the stars rising and setting in the 12 months. They were therefore two different lists, the first similar to those we have seen so far attributed to Teucer, the second a fixed stars calendar.

Unfortunately in Vindobonensis, since the end of the 39th to the 42th chapter there is a big gap, which was already noted on f. 61 by a reader of the fifteenth century. The chapters (including the missing ones) are preserved in the Codex Monacensis 287, a paper manuscript of 164 sheets, which a fourteenth century scholar, a student of astrology and geography, copied for his own use,
collecting, sometimes extrapolating or mixing from various codices the things he thought might be useful. At ff. 107-133 we find a compendium by Antiochus in 37 chapters, including one mentioning together paranatellonta and a calendar of fixed stars.

There is also a third code, the Mutinensis 85 III C 6, a 100-sheet paper manuscript, written by Michael Suliarus in the fifteenth century, containing at ff. 68-74 the same material, Antiochi calendarium astronomicum cum figura caeli et versibus iambicis Byzantinis singulis mensibus), even with the same mistakes.

The dual list is also found in a fourth manuscript, Vaticanus 1056 and specifically in an anonymous chapter entitled Καὶ ἄλλως περὶ τῶν παρατελλόντων τοῖς τι β’ ζωδίοις (Kai allos peri ton paranatellonton tois dodeka zodiois), separated only by a short chapter from the one we described on page 17. Boll edited it in Sphaera at the pages 57-58, compared in two columns, paranatellonta listed in this final manuscript and those listed in Monacensis.

Antiochus the astrologer was a real authority in natal astrology and interrogationes also among the Arabs and the dating of his work is very controversial. Essentially, scholars are divided into two factions. Cumont estimated that Antiochus could write between 100 BC and 50 AD because of his use of archaic planetary names, the order they are discussed, the role given to the Sun, based on a doctrine "according to the solar theology" (born in Babylon and adopted by Greek science during the first century BC because of eclectic Stoics as Posidonius and Neopythagoreism); the presence of the doctrine of the eight places (topoi), the octatopos, older than the twelve places's one, dodecatopos. In addition, he assumed he could be identified with Antiochus of Ascalon, who directed the Academy of Athens and had among his pupils Cicero (although there is the no small obstacle that neither this nor others speaking of Antiochus of Ascalon, mentioned his interest for astrology. We have seen before that Boll proposes a different period. Kroll first assumed the second century of our era, then the period 100 BC-AD 50. And Boer is for the first century BC. Wilhelm Gundel wrote in Dekane un Dekanesternbilder that Antiochus lived in the early second century AD, except that he changed his mind and wrote in Astrologumena co-written by Hans Georg Gundel, that he rather belonged to the first century BC.

D. Pingree, in turn, considers completely unreliable the hypothesis of these two scholars and places Antiochus floruit in the second half of the second century on the ground of the following reasons: the astrologer seems to have written two books, i.e. the Εἰσαγωγικά (Eisagogika) [which we know through the Codex Parisinus gr. 2425 and through the copy made by Porphyry in his Εἰσαγωγή (Eisagoge)] and his Θέσαυροι (Thesauroi), stored in the Codex Laurentianus XXVIII, 34. Porphyry, as we know, makes the name of Antiochus once, in the chap. 38, mentioning the two methods the latter astrologer describes in order to determine the position of the Moon at native conception: Petosiris' one and his own. Hephaestio of Thebes, who calls Antiochus "Athenian" attributes the same two methods to the same two authors, but in reverse order (this should be the original order and the same Antiochus should have given Petosiris opinion before his own). In two passages of the chapter on the natives who die in infancy, in which he quotes a comment (apparently from Porphyry) on the tenth chapter of Ptolemy's Tetrabiblos, Hephaestio states that Antiochus and Apollinarius are essentially in agreement with the Alexandrian scholar. The former suggests, even if without evidence, that Antiochus wrote after Ptolemy and before Apollinarius, which in turn precedes Porphyry [who quotes, in turn, this astrologer in Isagoge 41]. The Anonymous of 379 AD, who we read in ch. 135 of Palchos (for Pingree pseudo-Palchos) cites Antiochus together with Valens and Antigonus of Nicaea (who lived at the latest in the late second century AD) as writers writing about the power of the fixed stars And finally Firmicus Maternus quotes Ptolemy and Antiochus talking about antiscia.

So far, the dispute among scholars.
Valens

In the Codex Marcianus 314 - a 286-sheet parchment manuscript of the fourteenth century, once owned by Cardinal Bessarione (Fig.14) - are collected next to a larger number of Ptolemy writings, wide excerpta from Vettius Valens Ἄνθολογίαι (Anthologhiai). The excerpta are divided into two books with all titles, the general one and those of each chapter, missing. The whole f. 256 was published by Cumont in CCAG II (pp. 92-99); Boll extrapolates in Sphaera for each sign only the lines related to the co-rising constellations, which are considerably intertwined with those in the first Teukrotext.

Vettius Valens lived, according to Boll in the second century of our era, during Antonines time: the later date in his work refers to the 17th year of the reign of Antoninus Pius (then 155 AD). His floruit can be placed, according the birth charts reported in his work, between 150 and 185 AD

Native of Antioch, he was a professional astrologer and an astrology teacher in Alexandria of Egypt. The Anthologhiai consist of nine books and maybe should be a manual containing everything needed in order to cast and reading a chart. In fact are shown 123 examples. The work was published for the first time in 1908 by Kroll, who confirms the opinion already expressed on page 86 of CCAG II (published in 1900), that Valens lived during the age of the Antonines. In his opinion he is comforted by the fact he makes no mention of Ptolemy, or viceversa. The Anthologhiai are, as it is evident even from its title, a compiler's work.

With regard to the topic at hand, Valens precisely mentions its source; in fact he mentions six times in chapter τὰ Σφαιρικὰ (tà Sfairikà), whose author does not mention, however, and which is useless to bother searching, according Boll, because he would have been one of the many authors of popular treatises about the pole and the sphere. Kroll instead gave a different interpretation of the expression (about which Boll disagrees) in CCAG II, p. 94, 30 he translates the expression κατὰ τὰ σφαιρικὰ (katà tà sfairikà) implying δρόμονα (organa) and therefore with in globis caeli formam exibentibus, which it would be to say "in the globes showing the shape of the sky."

Interpretation which could not be far from the truth, however, when one considers that at the time were certainly available several tools in order to measure stars position, like planispheres
and astrolabes and armillary spheres, such as those described by Ptolemy in the 1st chapter of fifth book of Almagest and celestial globes bearing the representations of the constellations.

Back to Valens, together with constellations there are also a large number of gods names (Aphrodite, Selene, Demeter, Hephaestus, Poseidon etc.), whose meaning may appear dark and whose explanation has been given by Boll in the third appendix to Sphaera. For only 4 signs (Gemini, Leo, Aquarius and Pisces), in addition to the constellations rising and setting with the sign, are indicated those found in proximity of the sign [this is the meaning of the verb used: 
πρόσκειμαι (proskaimai) means "to be located next to"]. The fact that the remaining signs are missing is, according to Boll, due to the fragmentary state of the tradition.

Eudoxus and Aratus were clearly the sources for rising and setting constellations: as evidence the German philologist gives several examples, of which here we will mention only one:

* According Valens, when Aquarius rises, between the Southern constellations setting the remaining portion of Centaurus and Hydra to the Crow;
* According to Aratus, however, when the beginning of Pisces rises the Hydra has already completely set;
* Eudoxus, unlike Aratus, states that when there arises the beginning of Pisces the Hydra has been setting only to the Crow;

[Of these two statements gives us testimony Ipparchus].

Therefore according Eudoxus the rest of Hydra set only with the rising of Pisces, as once again ensures Hipparchus: better therefore Eudoxus states, saying that the tail of Hydra still stays behind. And Valens follows the latter too, saying of Pisces: in the South there set the Thymiaterion (Ara or Turibulum) and the final part of Hydra (Fig. 15).

Figure 15: Hydra, Corvus and Crater.
Image taken from the celestial globe made in 1551 by cartographer Gerard De Cremer, better known as Gerardus Mercator

And wanting to look for further confirmation in terminology, the word he uses to indicate the Ara is Thymiaterion, according to Eudoxus linguistic usage, instead of Thyterion, according Aratus’ use. The author of Sphairika, although depending on Eudoxus, does not show having taken into account Hipparchus later corrections to the latter, either because it was prior to the great astronomer (and therefore he belonged to the III/II century BC) or perhaps because, given the popular nature of his work, he was simply not aware of it.

He was Valens source also for the information about the constellations lying at different latitudes, along with signs. Only here the mention to kata ta Sfairika occurs three times. Boll gives, in his commentary to this second type of constellations, more than an evidence of this dependence, and defines their quote just a clumsy, patched and of little value description of the celestial sphere.
Johannes Kamateros

The later paraphrase of the first *Teukrotext*, can be found as far as we know in Johannes Kamateros, a twelfth-century Byzantine poet and precisely in his *Eisagoge* ἀστρονομίας (*Eisagoge astronomias*). Identified by some with his namesake ‘master’ of the Patriarchal School (and author of a sermon about Epiphany) his compositional talent was greater than Byzantine average and was well known. The *Isagoge*, an endless poem in "political" verse, which he dedicated to his king Manuel Komnenos (1143-1180), the defender of astrology, is a compendium of astronomy, astrology and ethnography. Here's the exact header (Fig. 16), as it appears in Fo. 303, Codex Vindobonensis Philos. Gr. 108:

After paying homage to the king, the poet immediately goes *in medias res*, reciting a confusing amount of astrological terms and making them flutter around the reader, already mentioning, in addition to Ptolemy's *∝ρόχειροι κανόνες* (*prokeiroi kanones*), one of its main sources, namely Rhetorius who has in fact often transcribed word by word. Instead he will take the Egyptian names of the Decans from one of the last chapters of Hephaestion of Thebes. The chapter containing the list of *paranatellonta* is the first since the introduction and the largest, and it is an important testimony to the survival of tradition linked to Teucer/Rhetorius until the twelfth century. Here (Fig. 17) the (sic) title:

All 12 signs are examined, in similarity with Rhetorius, with the addition of some interpolations taken from Johannes Laurentios Lydos, who was monk and scholar and bureaucrat at the court of the Emperor Justinian.

For each of the signs are listed:
* Characters of the sign indicating the day when the sun enters there;
* The *paranatellonta* within the sign, without division by decans (this section only for Aries and Taurus); the text is the result of contamination from Rhetorius and the other list, almost like the anonymous Codex Vaticanus 1056, first described and attributed by Boll to Antiochus.
* List of some bright stars of some *paranatellonta* (e.g. those of Perseus for Aries), but not for all signs. List of *λαμπροί αστέρες* (*lamproi asteres*) with indication of their longitude;
* Explanation of *dodecahōros* (only for Aries);
* Names of the decans and division in *prosopa*;
* Doctrine of *paranatellonta* for each decan in a more precise correspondence with Rhetorius;
* Effect of each of decans.
* The critical or climaterical years;
* Doctrine of μεσεμβόλημα (mesembolema) namely the empty area between the constellation of Aries and Taurus;
* List of ορια, with names not otherwise known;
* List of κλιματα, half according Rhetorius and the other half according Hephaestio;
* Consequences of an earthquake taking place in one country or another, during the period when the Sun is in that sign;
* Same for the thunder;
* Same for lightning.

[These three paragraphs are taken from Lydos].

Boll published only the part listing paranatellonta claiming absolute certainty about the fact Rhetorius manuscript, which was available to Kamateros and which he employed for his work, could only be located in the middle between the Vindobonensis philosos. Berolinensis 108 and 173 (Phill 1577), the two manuscripts we have seen at the base of the first Teukrotext.

**Etymology of the term paranatellonta**

There follows here, for a better understanding of the texts mentioned above, and without wishing to steal the job to philologists, a brief explanation of the term paranatellonta, which we have so often met in these pages. Παρανατέλλοντα (paranatellonta) is the neutral plural nominative or accusative of the present participle of the verb παρανατέλλω (paranatello), in turn composed of παρά (para) and ἀνατέλλω (anatello). Anatello means, when referring to the stars, "rising". Para is a preposition, which can be translated as "along". Paranatello thus means "to rise along" and paranatellonta [implied ἄστρα (astra)] "(constellations), rising along" the zodiacal signs, in a sense of the celestial sphere as a globe divided by them into twelve segments (Fig. 18).

![Figure 18: The celestial sphere is divided into 12 segments by the Zodiac](The image is taken from CieloeTerra astrology course)

The infinitive paranatellein "to rise along" linguistically is a synonym for συνανατέλλειν (sunanatellein) which in Autolycus, Hipparchus, Ptolemy indicates the contemporary "rising of a star or a constellation with a zodiacal sign or degree or with another star or constellation. Between the
two terms there is an insignificant difference in meaning: *sunanatellein* [from *sun* (sun) i.e. "with" and *ἀνατέλλω* *anatello*] literally means "rising together", while as we have seen *parantellein* is "rising along"; in the first case is therefore highlighted the temporal aspect, in the other the spatial one. *Sunanatellein* is perhaps a more precise term and was favored by astronomers. The two verbs safely alternate in the Anonymous of 379\textsuperscript{72}; Manilius uses in the V book at verses 175 and 657 *consurgere* where our texts use *paranatellein*. The participial noun form can be also found in the version οἱ *παρανατέλλοντες* (ἀστέρες) [οἱ *paranatellontes* (asteres)], namely "the stars rising along" where *astra* were instead the (Northern, Southern and also the zodiacal) constellations.

After this necessary premise, let us ask ourselves with Boll\textsuperscript{73} what exactly is meant by this "rising along". Certainly θ the passage degree, namely the ecliptic degree with which the constellation or star rises, as it is natural to expect taking into account positional astronomy rules\textsuperscript{74}, which of course depends on the latitude of the place of observation. But in not a small number of cases indicates simply \( \lambda \) the celestial longitude.

In the Codex Vindobonensis philos. Gr. 108 at folio 283 is located under the heading ΄ТЬΕΤΡΟΝ (i.e. *kephalion*) τοῦ θείου Πτολεμαίου [eteron (kephalaion) tou theiou Ptolemaiou "another chapter of the divine Ptolemy "] a passage in which are listed the longitudes of 31 bright stars: from an examination of the mentioned degrees it is impossible that the word *paranatellei* can indicate their rise. Also the Anonymous of 379 AD provides - openly mentioning\textsuperscript{75} - the longitudes of 30 bright stars recalculated for his time according Ptolemy method. For Teucer and Antiochus is the same: eg. in the first *Teukrotex* is said about Taurus:

\begin{quote}
Τὸ δὲ γ’ δεκανὸ παρανατέλλει .... αἷξ βασταζόμενη υπὸ τοῦ ἕνιόχου
\end{quote}

namely " there arises with the third decan ... the goat kept (in his arms) by the Auriga". But this statement cannot be proved for whatever pole: at Alexandria latitude it was far above the eastern horizon and approximately would rise in the same moment as the second decan of Aries. But if we attribute to *paranatellei* the meaning "has the same longitude than third decan of Taurus" it makes sense. Ptolemy places Capella (\( \alpha \) *Aurigae*) in his time at 25° Taurus. Right ascension and declination of the star appear to be for the year 2000 respectively 79.17 and 46; if we do the calculations properly taking into account the imperceptible proper motion of the stars and the precession of the equinoxes, we find that in 100 BC Capella had \( \lambda \) 52.06; in the year 100 \( \lambda \) 54.94; in 200 \( \lambda \) 56.37; in 300 \( \lambda \) 57.81.

Another example: the same text says for Aries:

\begin{quote}
Τὸ δὲ τρί τῳ δεκανῷ παρανατέλλει ἡ Κασσιέπεια επὶ θρόνου κατεζομένη καὶ Περσεύς κατακέφαλα κτλ. (To de trito dekano paranatellei e Kassiepeia epi Thronou katezomene kai Perseus katakefala)
\end{quote}

that is " with the third decan there arises Cassiopeia sitting on the throne and Perseus upside down." Even this statement of Teucer is incomprehensible for any possible pole height of the old *Oikoumene*, if we try to translate *paranatellei* with "rising along." Let us consider, for example. the constellation Perseus (Fig. 19): at Alexandria latitude, just to pick one, it was completely above the horizon while Aries third decan was rising, as also Hipparchus tells us: "When Perseus rises, the zodiac co-rises with it from degree 5° 20 of Capricorn until the middle 14 ° of Aries"\textsuperscript{76}.  

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But if we give to this sentence the meaning "the stars of Perseus have a longitude from 20 to 30 degrees of Aries" everything becomes clear. Since it is difficult to speak of longitude for a constellation, whose stars often have very different celestial coordinates one from the other, let us consider one, Algol ($\beta$ Persei). This star right ascension and declination appear to be for the year 2000 respectively 56.17 and 22.42; when taking into account the annual changes for 150 AD we obtain a longitude of 29.14, which obviously decreases going back in time. Therefore by paranatellei was intended in this case the longitude of some of the main stars of the constellation.

What to think of the fact that in the lists of neue Texten appears this double entendre ($\theta$ and $\lambda$)? Boll concludes that they drew from different originals without much discernment: the one the most significant describing contemporary rising (without being able of nothing else but speculating about the place for which they were calculated: Alexandria? Babylon?) Of constellations, the other one listed their longitudes. And since the former are more significant in number, will think to the second as an infiltration.

And in the context of authentic risings it is necessary to do further distinctions, which could lead us to blur the concept and extend it, meaning under the term paranatellein not only the rising along a sign, but rather the presence at one of the four angles at the rising of that sign. For example, both in the two Teukrotexten and in Antiochus we find between Pisces paranatellonta Engonasin / Heracles, which in truth culminates at the rising of that sign. This same constellation is mentioned later with Gemini, at whose rising, sets. Finally in the second Teukrotext (namely in the Codices Laurentianus and Vaticanus) Ophiuchus is listed with Leo, therefore when it reaches its lowest position in the sky or its anti-culmination.

They are then deliberately taken into account, especially for the Greek constellations (much less for barbaric ones) the κέντρα (kentra) or cardines geniturarum, the four most important points of the sky.

Hard to tell to which original these two lists refer: Hipparchus for the former? For the latter Boll does not doubt it was formed on the other hand on the basis of the use of celestial globes. How else could be assessed which constellations were at the Imum Coeli? They could hardly be seen through direct observation. Perhaps through calculations, but even so it would be incomprehensible how from these ones they got the detailed description of Engonasin, which at Gemini rising, is showed as "Hercules, and a snake on a tree chased by Hercules".
Use of decans in magic and medicine

Let us consider for a while a peculiar use of decans, which with paranatellonta seems to have little to do, referring once again on Teucer's fragment preserved in Michael Psellos work (see page 3): If you therefore engrave the image or the seal of the decan on a stone and embed it in a ring, you get amazing benefits and means of protection against a wide variety of setbacks. This belief has long exercised its influence over the centuries and still Cornelius Agrippa\textsuperscript{78} described in the sixteenth century, through the mediation of the Arabs, the wonderful effectiveness of particular celestial images, including even the Decans.

In the \textit{grimoire} called Διατήκη Σολομόντος (Diatheke Solomontos) or \textit{The Testament of Solomon} (an apocryphal of the Old Testament, originally written in Hebrew in a first century Jewish circle and elaborated in Greek in Christian environment in the third century) the 36 decans are invoked (rather \textit{conjured}) by King Solomon, who meets them flesh and blood and then they are forced by him, by the power of the ring (Fig. 20), to obey his wishes\textsuperscript{79}.

![Figure 20: The Seal of Solomon.](Image taken from the Harleian Manuscript, British Museum, No. 5596, paper, F. 58, XV century)

With this seal ring King Solomon forced the decans/demons to build the Temple.

In the magical thinking therefore the space between heaven and earth is destroyed and one can be \textit{vis-a-vis} with the gods or demons, after they are invoked with prayers or led by threats to reveal themselves, or one can capture the essence in statues\textsuperscript{80} or more simply in seals representing them.

The operation, of course, is not immediate and simple, rather it requires precise rituals, but if successfully carried out, the \textit{magista} is allowed to win their favour. The literary categorization, however, of the specific conditions under which an astral deity can be contacted (it is really the case) makes it possible for any mortal, not just for the \textit{magus} to undertake a venture and try to get some satisfaction especially from decans for the earthly needs.

In the magical papyri the decans\textsuperscript{81} are often invoked. For example at the beginning of Greek magical papyrus P Berlin 5025 is conjured Orion. The astro-magician’s goal is to get him to move in with him and be his counselor. Barefoot and equipped with a suitably stuffed hawk, as magical instrument, he says: "\textit{a ee ããã iii oo oo oo yyyy oo oo, come to me, good countryman, Agathos Daimon, Horos Chnupis. Come to me, holy Orion, which rests in the North, shaking waters of the Nile and mixes them with sea and changes (for life) the human semen during intercourse, which has built the world on indestructible (bases) which is young in the morning and in the evening an old man, which infiltrates the underworld and rises from it spitting fire, which has divided (?) the seas in a month, which constantly (sends) the seed on Heliopolis (sacred) fig tree, that is your real name... (Magic words) }"

Finished the spell he keeps it strictly secret for several days and refrains from having sex with his wife. Orion therefore here is associated with the decan Chnupis, which belongs to the
Cancer and the Sun-God Horos. It is in fact nothing but one of the epiphanies of the latter and it is invoked to increase the pressure on him.

Greek magical papyri align decans with the other gods and give them the same powers. The astrological texts instead try to determine more accurately each decan's range of action. In the above cited Testament of Solomon, their effectiveness is focused primarily on bodies. Some of them however have other functions: the eleventh one causes disputes, the twelfth quarrels and altercations and rejoice if it can promote them, the eighteenth parts husband and wife, the twenty-first causes dyspnea to infants, the thirty-fifth bewitches everybody etc..

Particularly effective in order to protect from God-Decan negative influences or attract the positive ones are amulets: picture, sacred name and/or seal, engraved on a particular type of stone which is in sympathetic relation with him and associated with particular types of animal skins (deer, hyena) or of metal or wood, food or drink, are useful in the need.

The use of magic spells and astrological talismans is very ancient. An Egyptian black granite statue dating the 30th dynasty period (380-342 BC), found at Tell el-Faraïn and donated to the Cairo Museum, bears an inscription translated by Daressy: it speaks of a highborn person devoted with all his energies to astrology and the observation of the stars. He could build sundials and measure time, but also could charm snakes and more in general dangerous animals, rendering them harmless.

In the Codex Vindobonensis philos. Gr. 108, at f. 357 there is a chapter (published in CCAG VI, p.73 under the title De duodecim signorum decanis) which lists the names of decans, with instructions to make talismans and attached to the writing margins the seals to be engraved on the proper stones (Fig. 21: It provides the richest table of the past about the magical action of decans amulets, apt to protect journeys (8th decan), to obtain truthful dreams, where it is possible to see everything one wants to know (12th decan), to emerge victorious in any trial (15th decan), and so on.
The same text is found in other codices, particularly in Parisinus 2419 (a fifteenth century paper manuscript consisting of 342 sheets) at f.38, compiled, according to his author, κατὰ Χαλδαιον φωνάς (kata Chaldaion fonas), supplied with images and, as reported by Cumont in CCAG VIII, I, p. 27 with many words in Hebrew letters, mostly with transcription.

But the images of the astral gods also exerted their influence in the medical field. This is testified for example by the Greek catechist and theologian Origen of Alexandria, who in Κατὰ Κέλσου (Kata Kelsou) reports of people who, for the health of body, love and other advantages, rather than relying on God Almighty prefer to invoke, with magic spells, stones, plants and seals, demons names. In Hermes Trismegistus ἱερὸ ἑιρεῖον (iera biblos) the description of each decan is accompanied by a list of body parts linked to it and possible corresponding diseases, but all the damage they send to men because of their astral influx can be healed through their images.

They are made when the Decan action is stronger by virtue of its heavenly position and their healing effect is enhanced by the use of name, stone and plant. Let us see for the purpose of explanation which are the remedies for diseases sent and healed by the first decan of Aries: it is called Chelanchori and is shaped like a small child stretching his hands up. He holds a stick on the head and is dressed with bands from the knees to the ankles. He rules the head accidents. In order to captivate his favors one should draw its image on a porous stone of Babylon, put under Peudacenum officinale (plant of Mars, which has its face in this decan), set in a ring to keep to finger.

The principle on which the operation is based is that the god-demon relocates its influence from the affected body part to the image whom it is attached, or in the case of prophylaxis, affects it in its place. The healing for toothache, eye problems, bleeding wounds, ulcers, dropsy, skin diseases and diagnosing away, is guaranteed.

The short treatise contained in Vindobonensis, and cited above, lists the various diseases ruled by decans.

Of paranatellonta was gradually lost track, the groups of stars depending on constellations, treated as devils in the Egyptian way, acquired their own independent life and with them one must come to terms, from mortal to astral deities.

Conclusion

At the end of this short fascinating journey into the past of our discipline we will be allowed to state some thoughts coming to our mind in the proceeding of this essay. In the first part we have said about the large number of studies on ancient astrological texts dating from the beginning of 1900, especially, and I would say only with just few exception, by academics, linguists, in short by scholars, who examining the large amount of information there contained, took to heart, as it was right, linguistic aspects, or the dating or the proper attribution to this or that author. Certainly not the study of the possible implementation/verification of the various astrological doctrines. This is up to those involved in our discipline and therefore they should come forward in order to know, and where appropriate, to revisit the past, with the knowledge that in it is rooted the desired future.

What we can learn then from paranatellonta and decans? Can we make some use in current astrology practice? Very little I would say. The extension itself, in celestial longitude and latitude, of constellations makes it difficult to determine the correct position in respect to an angle or a luminary or planet, and then use it. More appropriate is instead the use of the fixed stars: the aforementioned Anonymous of 379 AD, or Cardano or Jean Stade - only desiring to mention some who have left us several aphorisms about - offer valuable insights on their interpretation in the judgment of a chart.

The migration of Teucer catalog (which since the beginning joined the mythologizing of the Greek origin sky with the oriental one) in the Arab astrological culture and then again in the West which we briefly mentioned in an earlier essay on the decans, led to the formulation of judgments,
which often simply can be lead back to the various legends about this or that star and that, moreover, are now completely disconnected from its actual position in the sky.

Boll points out with a bit of benevolent irony that the ancient astrologers in most cases did not break their heads on the impact and significance of a constellation: the name or even a myth of the star, which was connected with the name, provided the explanation. Whoever born under the influence of Auriga could only become a chariot driver, a groom or servant on a military tank and whoever would appoint Cetus as his natal star in the future would put tuna in brine.

We agree with him in putting in some way in its right perspective the scope of judgments like those reported - one for all - in Laurentianus XXVIII, 34, wanting (all) those born under the first decan of Aries as scholars, experts in art, architects; under the third decan of Cancer manufacturers of water mills, aqueduct officers or attendants in the bathrooms; under the second decan of Capricorn vine dressers or drunkards; ..... and I will stop here. The opinion of a philology scholar, a man of great culture, who had certainly not intended by writing Sphaera intentionally draw a story of ancient astrology converges with ours, who want instead to revisit the texts which in that work were examined, with the spirit of treasure hunters, if they ever arise.

We therefore confirm for decans their lesser dignity role, as it wants the wording of Ptolemy, who not for coincidence in Tetrabiblos does not make any mention of them.

Genoa, 3 October 2010
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Franz Cumont was the first Chairman of the Board of Directors of the Academia Belgica, from its foundation in May 1939 until 1947. The inauguration of the Library took place on May 7, 1947, a few months before his death, in the hall where a medallion with his portrait and a Latin inscription, reminds now of the patron and his scientific reputation. His archives too are assigned as legacy to Academia Belgica, with the exception of correspondence, left to his family, who settled to Academia Belgica to be studied.


4. Not just philological or historical, but also iconographic studies. Scholars such as Aby Warburg or his student Fritz Saxl had in mind Sphaera in their research. See my essay From Teucer the Babylonian to Schifanoia Palace. The Decans. presented at the First International Astrology Conference, March 7, 2009 organized in Perugia by Astravidya Association, which can be read in the Articles section of the site www.apotelesma.it.

5. This migration is better described in my essay referred to footnote 5.

6. Sphaera, p. V.


10. Teucer the Cyprian wrote, as reported by the Suda, an eleventh century Byzantine lexicon, under the heading Τευξήρος (Tesauroi) in CCAG I, p. 142.

11. From Teucer the Babylonian to Schifanoia Palace. The Decans. presented at the First International Astrology Conference, March 7, 2009 organized in Perugia by Astravidya Association, which can be read in the Articles section of the site www.apotelesma.it.

12. This migration is better described in my essay referred to footnote 5.

13. Sphaera, p. V.


16. Teucer the Cyprian wrote, as reported by the Suda, an eleventh century Byzantine lexicon, under the heading Τευξήρος (see Suidae lexicon ex recognitione Immanuelis Bekkeri, Berolini Typis et impensis, Georgii Reineri, A. 1854 – page 1020) of the Deeds of Mithridates and a Jewish History.


19. CCAG I. pp. 108-113 (Fr. 135).

20. CCAG I. p. 82. The seven books cover five nativities and two interrognationes. The entire work is mentioned as Θεογνώπος (Tesauroi) in CCAG I, p. 142.

21. According to Strabo (Geography XVII, 30) and Josephus (Antiquities of the Jews, II 15) Babylon of Egypt was placed next a channel connecting the Nile with the Red Sea, had a military garrison and was inhabited by many Jews. It was a Roman and then an Arabian fortress, at SE of the modern city of Cairo.


25. Sort of index of books of all peoples, Arabs and foreigners, existing in Arabic with supplemental information on their authors, dating at the year 377 of Hijra (that is, our 988), work by Abu’l-Faraj Muhammad bin ‘Is’hq al-Nadim, bookseller and calligrapher, probably Persian, who copied manuscripts for a fee.


27. Sphaera, pp. 14-15

30 On Rhetorius see also page 14 of my article From Teucer the Babylonian to Schifanoia Palace. The Decans. (Link at footnote 5).
32 Sphaera, p. 309 et seq.
33 Herodotus, Histories, II 42 and 46.
34 Herodotus, ibidem II, 65.
38 Sphaera, pp. 226-227.
39 Abû Ma’shar, op.cit. Book VI, Chap.2. De Naturis signorum
41 Sphaera, p. 224.
42 Saturnalia, Book I, 21, 1.
43 Matheseos Libri octo, edidierunt W. Kroll et F. Skutsch, Lipsia 1897, IV, 22 (p. 269).
45 Matheseos Libri octo, edidierunt W. Kroll et F. Skutsch in operis societatem assumpto K. Ziegler, Lipsia 1913, VIII, 30 (p. 356).
46 About the astrologer Julian of Laodicea see also Wilhelm and Hans Georg Gundel, Astrologumen. Die astrologische Literatur in der Antike und ihre Geschichte (Sudhoffs Archiv, Beiheft 6), Franz Steiner, Wiesbaden, 1966, pages 248-249.
47 Sphaera, p. 32.
48 Sphaera, p. 40.
51 Wilhelm Kroll, Astrologisches, p. 126, 1, in Philologus 57, Leipzig 1898. In this article Kroll ascribes to Dorotheus the 150 verses handed down under the Antiochus name (we have seen above that Boll was in total disagreement with him), here as in Antiochus, RE Suppl. IV 32 ff. and V 2 et seq. places him around 200 BC, and moves in RE XVI 2166 his life between 100 BC and 50 AD.
52 E. Boer, Der Kleine Pauly, I (1963) 662.
57 At ff. 84-93v.
58 Hephaestio, Apotelesmatica, (treatise written around 415 AD) II. 1 2-6.
59 Hephaestio, ibidem, II.10.9 and 29.
60 Work cited in footnote 42, Book II, 29, p.77.
61 Sphaera, pp. 69-72.
63 W. Kroll, Vettii Valenti Anthologiae libri, Berolini, apud Weidmannos, MDCCCVIII.
64 Sphaera, p. 472-478.
65 Karl Manitius, op.cit., p. 170, paragraphs 11 and 12.
66 Karl Manitius, op.cit., p. 172, paragraphs 14 and 15.
67 Karl Manitius, op.cit., p. 114, the end of the 6th paragraph.
69 The political verse [in Greek πολιτικός στίχος, Politikos stichos] or decapentasyllabic verse , is as it is known, a metric form of modern Greek poetry, developed since the ninth / tenth century onwards. It is a fifteen syllables iambic verse used in traditional and popular poetry. The term political does not imply political content, but referring back to the meaning of the Greek word πολιτικός i.e. concerning the polis i.e., "civil, of the people" refers to a secular, not religious poem.
An excellent text on astronomical and mathematical foundations of astrology is *I moti del cielo* by Marco Fumagalli, ed. Cielo e Terra, Milano, 2000.


Cf. Cornelius Agrippa von Nettesheim (1486-1553) *De occulta philosophia* (Italian reprint Edizioni Mediterranee Roma, 1983) Volume II, Chapter XXXVII ”Of the Images of the Faces, and of those Images which are without the Zodiac” (p. 117 et seq. See also my article from *From Teucer the Babylonian to Schifanoia Palace: the Decans*. which can be read in the website cited in footnote 5).


See for example Marsilio Ficino (1433-1499) *Asclepius*. This late Hellenistic period treatise of talismanic magic is part of the *Corpus Hermeticum*, which was rediscovered by the Byzantine scholar Michael Psellos around 1050 and translated by the Tuscanian humanist between 1460 and 1463 on Cosimo de’ Medici order. In the Ch. IX (p. 808 of *Marsilii Ficini philosophi platonici medici aitque theologi omnium praestantissimi*, *Operum* Tomus Secundus. Paris - Guillaume Pelé, 1641) Trismegistos speaks of animated statues by the feeling and full of spirit, able to do so many wonders, statues predicting the future by sorts, prophecy, dreams, and in many other ways; statues causing illness in humans or curing them, and which provide happiness or sadness according their merits.


Apologetic writing (lat. *Contra Celsum*) written in 248 AD to refute what was written 70 years earlier by the philosopher Celsus against the Christians in Ἀλήθης λόγος (Alethes logos). Cf. Book VIII, chap. 61.