

Of the judgements on the lunar nodes

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

*“ Casta diva che inargenti
queste sacre antiche piante,
a noi volgi il bel semblante
senza nube e senza vel.*

*Tempra tu de’ cori ardenti,
tempra ancor lo zelo audace,
spargi in terra quella pace
che regnar tu fai nel ciel.”*

Norma (1831) - Act I, Scene IV
Music by Vincenzo Bellini
Libretto by Felice Romani

In Gerolamo Vitali's *Lexicon Mathematicum* (1) under the heading *Caput (& Cauda Draconis)* can be read: "Astronomers call in this way (too) the nodes or intersections of the planets, in truth especially the Moon ones: which are the points where the Moon's orbit (tell the same of the others' orbit) intersects the orbit of the Sun, and the ecliptic, one of which actually turns to the North, when the Moon starts to get a Northern latitude, the other to the South, when the Moon starts to get a Southern latitude. Where then it reaches its maximum latitude, is said bending, either Southern or Northern, according its latitude, in truth and with good reason, because as the Snake is great and wide in the body, but really slender in the region of the head and tail and thinner, so the space caught between the two semicircles, and the Moon's deferent and of the equant, looks like a Snake, whose the large part is the bending, and the intersections, in truth, *Caput* (head) and *Cauda* (the tail). Also such intersections are not staying always in the same place, but they move, according their own motion, along the Zodiac, nevertheless not with direct, but retrograde motion: imperceptibly in the higher planets, so that Saturn's North Node is currently in 3° and 20' Cancer, in the same way, Jupiter's node at 3° and 7' of Cancer, Mars' one at 1° and 17' Taurus: the Southern node in the opposite points. In the remaining three ones, nodes are more variable, and especially in the Moon, moving backwards every day for about three minutes. Astronomers observe planetary nodes, especially the Lunar ones and judge their nature and in truth they say that the Northern one is similar in nature to Jupiter and Venus; and in truth the Southern in nature to Saturn and Mars, and direct them to the significators not differently than the bodies of the planets themselves, which Titi disapproves in the *Coelestis Philosophia*. After having carefully considered, I don't deny to them some capacity to act, if only indirectly, as when the Moon in its nodes is joined to some malefic star, and in the angles, makes the native hunchbacked and lame and in any way twisted, as Ptolemy believes Bk. 3, chap. 17. But this is because the ray or the conjunction on the ecliptic is stronger, and therefore the Moon is more damaged by a malefic star, which is also what occurs to the Sun, which is always on the ecliptic. And so we say that *Caput* is of Mercury nature, benefic with benefics, malefic with malefics, because on the ecliptic planets are stronger and when, leaving the Southern part, they begin to

approach North, benefics increase their goodness, malefics the evil: and on the contrary in the Southern node, planets move away from the Northern region and approach the South, where they become weaker, and therefore it is rightly said that Cauda Draconis is malefic with benefics, benefic with malefics, because with those decreases their good, with these abates their evil. Of Caput it is said is masculine, feminine of Cauda; this is called by the Arabs Anabibazon, Catabibazon that, as we have said in its place "(2).

Our readers know that we rarely debate any astrological topic without seeking its astronomical foundations: in this case it would be indeed impossible. So let us begin too, as Vitali does, recalling what is meant by Nodes, then we will trace a brief history, and lastly we will pass to the judgements.

Astronomical foundations

As the wise astrologer knows and as we repeatedly pointed out in our essays, the position of the stars in the space is measured by their orthogonal coordinates, in practice by their spherical distance from the planes of the ecliptic and celestial equator. In dealing with the nodes we should fix in fact our attention on the motion by longitude, but especially in latitude, of the planets and the Moon along the ecliptic. The Sun has no latitude, it is its apparent motion around the Earth to create the ecliptic, but the planets and the Moon have it and of various size (3). They move on a revolution plane, which differs from the ecliptic one, and periodically intersects it in two points called Nodes, and precisely the North Node when the latitude turns from Southern to Northern; and South Node when occurs the opposite. The joining line is called nodal line. In particular, the Moon, our satellite, moves around the Earth on a plane shifted by $5^{\circ}9'$ in respect to the one our planet revolves around the Sun (Fig.1).

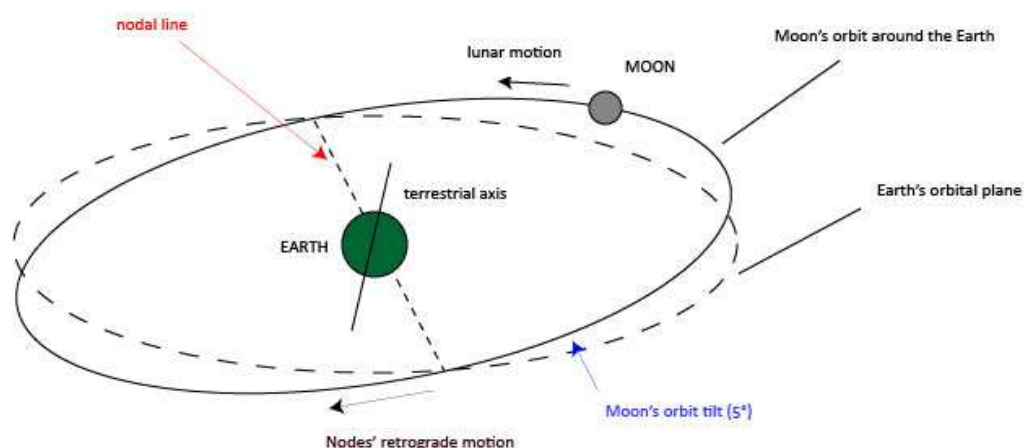


Fig.1: The Moon moves around the Earth and their two orbital planes are shifted by $5^{\circ}9'$.

The length of this revolution - counterclockwise (if observed from the North Pole of the ecliptic, of which the Earth occupies one of two foci) - can be computed in several ways (4):

- a) the time the Moon takes to return at any point of its orbit, or *sidereal month* (27 days 7 hours 43 minutes and 11.5 seconds). *Sidereal* or *sidereum*, and therefore stellar, as the Moon rotates 360 degrees and is thus realigned with the Earth and with a fixed star;
- b) time between two new moons or *synodic month* (29 days 12 hours 44 minutes and 2.9 seconds). It should be considered that the synodic month (ie σύνοδος synodos, meeting) is longer than the sidereal month because the Moon in order to realign and join the Earth and the Sun takes more than 360°. While in fact it travels around the Earth, it revolves around the Sun and in a sidereal month moves of about 27°. So we have $360^\circ + 27^\circ + 2^\circ$ (when the Moon crosses the 27°, the Earth moves further) = 389°;
- c) time between two passages of the Moon at perigee (27 days, 13 hours, 18 minutes and 33.1 seconds) or *anomalistic month* (so called because the orbits of celestial bodies are not the perfect ellipses defined by Kepler's laws and therefore we are at the presence of an *anomaly*). It's longer than the sidereal month because the perigee moves in a month of about 3° and the Moon should rotate of 363°;
- d) time between two successive passages of the Moon to the point gamma or vernal equinox (27 days, 7 hours 43 minutes 4 seconds) or *tropical month*. It should be considered that the tropical month is slightly shorter than the *sidereal month* because the vernal point moves on the ecliptic by retrograde motion and therefore it heads for the Moon;
- e) the time between two successive transits of the Moon on the same node or *draconitic month* (27 days, 5 hours, 5 minutes and 35.8 seconds). It should be considered that the draconitic month is shorter than the sidereal month. This is not a coincidence because the nodal line too moves along the ecliptic by retrograde motion and therefore it goes to meet the Moon. Also worth of consideration that the adjective *draconitic*, echoes the Latin name given to the two nodes, ie *Caput* and *Cauda Draconis*, and the myths about the *Draco Celestis* which will be discussed later.

Our satellite motion is therefore very complex and attracted man's attention since prehistoric times: determining the exact position in the sky implied for example having at disposal reliable calendars, with all the religious, agricultural, social implications they bring; and also allowed him to predict a very peculiar astronomical phenomenon, the eclipse, which here we only mention very briefly.

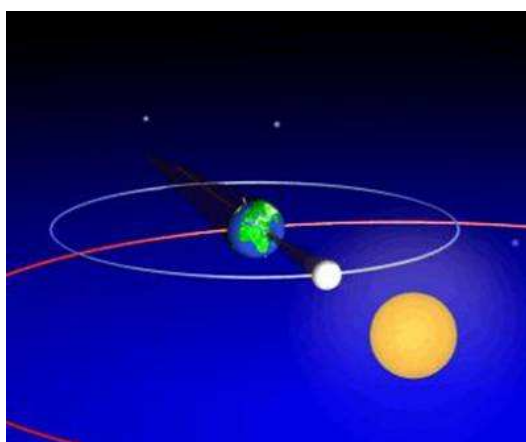


Fig. 2: Solar eclipse.
The moon passes between Earth and Sun in the ecliptic plane.
(In the Lunar eclipse is the Earth to interpose)

In order an eclipse (ἔκλειψις *ekleipsis* from ἐκλείπω *ekleipo* "I disappear", ie ecliptic *plane where eclipses occur*) takes place is required an alignment between the Sun, Moon and Earth (solar eclipse) or between Sun, Earth and Moon (lunar eclipse). Not a casual alignment (Fig. 2) - otherwise we would have an eclipse every new moon or full moon, that is twice in a month - but on the nodal line: the Moon should be in one of the nodes, ie having zero latitude and declination, the same as the Sun. It is possible to predict the date and place of an eclipse, because there is a precise mathematical relationship between the lengths of revolutions of the Moon, as mentioned above. 223 *synodic months* are equivalent in fact to 242 *draconitic months*, or 6.585 days (18 years and 10/11 days). This period, called *Saros cycle*, is the least common multiple of the *synodic* and *draconitic month* and therefore represents the shortest period of time after which Moon and Sun eclipses occur nearly at the same pace, because the Moon is again in the same phase and in the same position with respect to Nodes (5). A *Saros cycle* contains an average number, both total and partial, of 85 eclipses: 48 solar and 37 lunar ones. It was already known to the Chaldeans, as evidenced by some cuneiform tablets (6) of the last few centuries BC, and later to Hipparchus, Pliny the Elder (*Naturalis Historia* II.10, 56) and Ptolemy (*Almagest* IV, 2), under different names.

Nodes are thus, *stricto jure*, nothing but fictitious points but they eventually were charged firstly in legends and then in astrology of further different meanings.

The *Draco coelestis*

We read in Vitali that ascending and descending nodes are also called *Caput* and *Cauda Draconis*: why this particular name? Which *Draco* is this? An excellent answer is given by Franz Cumont in CCAG, VIII, I p. 194, where he produces some of the *Excerpta Ex Cod. 8 (Paris. 2423)*, attributed to an anonymous twelfth-century astrologer (7). The Belgian archaeologist and philologist reports that "An old opinion widespread in almost all the regions of the world states that a huge *draco* (snake) lived in the sky, and devouring and hiding the Sun and Moon, was the cause of their eclipses. This celestial serpent is often mentioned by astrologers, who taught that the nodes of the Moon course, ie ὁ Ἀναβιβάζων (*o Anabibázon*) and ὁ Καταβιβάζων (*o Katabibázon*) are its Head and its Tail and told many wonders about the nature and on the motions of that fabulous creature". In the first of these fragments (Fo. 9: *First discourse on Anabibazon*) we read: "The Babylonians, ie the Chaldeans, call Athalia this pneuma (spirit) which has the shape of a snake with two heads and two tails and one of two heads (8), one in Libra and the other in Scorpio, and in the same way the tails too, one is in Aries in opposition to Libra, the other in Taurus, and they dominate the third part of the zodiacal circle, moving with an ascending motion, and starting its movement from thirty degrees of Libra, and then it moves again starting from the thirtieth degree of Virgo to Libra; the tail also moves into Pisces in the same way. Both the head and tail, stay in each sign nineteen months and seven days, the Babylonians limit the stop to nine months and seven days [...]; but it dominates with its two heads and two tails for its opposition on a sign and accomplishes its action in them, therefore, it always travels without delaying or decreasing, but it is rather a backward motion. And it is found to be the most evil of evil stars, Sagittarius and Gemini obey him, and in them it accomplishes the most serious evils and his head is the cause of many evils not so much as his tail".

This fragment is not the only place where the *draco coelestis* is mentioned, but it is very interesting for two reasons. Firstly because in it the snake is strangely presented as two-headed and two-tailed and also because it is a confirmation that the origins of belief can be attributed to the Chaldeans, as is also apparent from the chapter published in CCAG V, 2, pp.131 et seq. (9). In fact the snake is named Athalia: and Cumont (loc.cit.) observes it is a Syrian term, which corresponds to the Assyrian voice *antaluu*, *attaluu* (10). The Assyrians commonly believed that

this Athalia, whose huge body stretched for half of the sky, swallowed by its mouth the Moon or hid it while moving: for example we are informed of this by the Syrian bishop of the seventh century, Severus Sebokht, talking about what many believed the cause of eclipses (Syrian text translated into French by the mathematician and orientalist François Nau in *Revue de l'Orient Chrétien*, XV, 1910, p.253 et seq.): "Renowned scholars in this science [astronomy] say that eclipses and occultations of the stars take place because of the Snake (*Atalia*). In order to confirm their words they draw a similar figure and say that the Serpent (*Atalia*) has a body shaped as a serpent, so often it is called the dragon and snake. The width of its body is 24 degrees and the length is 180 degrees, ie six Zodiacal signs, or half of the sphere, so you can immediately see that its head and its tail are face to face and diametrically opposed. This Snake (*Atalia*) always walks in the Zodiacal signs, his head in one, its tail in the other. The center of its body is outside the crown all the signs of the Zodiac, toward the North, on the side of the Chariot, because it is curved and is shaped like a semicircle, like an arc... Its movement takes place, differently from planets' one, not from West to East, but as the twelve signs' motion, from East to West. It moves of 3'11" in a a day and a night, 1° 33' in a month, and 19° 20' in a year. It therefore makes a complete revolution in 18 years, 7 months and 16 days. Since the Snake is under the Sun and the Moon, whenever the Moon is in conjunction with the Sun in the sign and the degree where is the head of the Snake (*Atalia*) or its tail, the Serpent (*Atalia*) stays ahead the Moon and so hides the Sun..." (11).

These are obviously legends, but they were widespread and popular credulity - goes on Cumont (loc.cit.) - preserved for long the memory of the evil serpent the ancient Babylonians had placed in the sky; an evidence is for example John's Revelation, XII, 9: "The great dragon, the old serpent, which is called the Adversary and the Slanderer, the seducer of the whole world, was cast out, was cast into the Earth, and his angels were cast out with him". (Fig.3)



**Fig. 3: Michael and his angels fought against the dragon.
One of the woodcuts executed between 1496 and 1498 by Albrecht Dürer
for the St. John Book of Revelation**

or we can find in the *Acts of Philip*: "O my Lord Jesus Christ, let not the enemy have ground to accuse me at Your tribunal: but put on me your glorious robe, Your seal of light that ever shines,

until I shall pass by all the powers of the world, and the wicked dragon that lies in wait for us."(12). The terrible *draco of the outer darkness* is mentioned too in the Chap. 126 of *Pistis Sophia* (13), in it are the places of punishment of sinners: "And Jesus answered and said unto Mary: The outer darkness is a great dragon, whose tail is in his mouth, outside the whole world and surrounding the whole world. And there are many regions of chastisement within it. There are twelve mighty chastisement-dungeons [...]" And the Chap. 127 states: "(The souls of the wicked) from the jaws of the tail of the *draco* will be led out into the dungeons of the outer darkness: and when those souls have been led into the outer darkness, into the jaws of his tail, he turneth his tail into his own mouth and shutteth them in".

And also devours the sinners the *draco obscurus* of the *Apocalipsis Baruch Graeca*, a report of a visionary experience, whose protagonist is Baruch, pious hero of the biblical tradition. While he laments the destruction of Jerusalem (swept by Babylonians in 587 BC) an angel appears to him and guides him on a otherworldly journey, in which he witnesses God Mysteries. He is led through five heavens, and in third one he can see a dark snake whose belly is Hades, and that feeds on those who were wicked in life (14). Cumont closes (loc.cit.) his sequence of learned quotations with Olympiodorus Alexandrinus, which in his *Commentary of Zosimos book "on the activity" and the sayings of Hermes and philosophers* (15), explains as follows: "The interpreters of the Egyptian sacred books (hierogrammateis), when they describe the universe on the obelisks or express it with sacred characters, engrave the serpent ouroboros (16), whose body is dotted by the description of the stars." Here is the snake, whose beginning is in the end and whose end is in the beginning, as depicted in Egyptian papyrus of Dama Heroub (Fig. 4):



**Fig. 4: Papyrus of Dama Heroub
Egypt - XXI Dynasty (1069-945 BC)**

This is one of the oldest images of the οὐροβόρος ὄφις: the Zodiac in form of Ouroboros symbolizes the eternity of time and the boundaries of the universe; under it the double Lion Routi, agent of resurrection, holds the baby Sun God.

But already in the funerary pyramid of Unas (2375-2345 BC), the last pharaoh of the Va Dynasty, in Saqqara, the hieroglyphics on the pediment of the West wall of the sarcophagus chamber show "a snake entwined with a snake, the male snake is bitten by the female snake, and the female snake is bitten by the male snake". This interweaving and combination produces a spell

that binds heaven and earth. In an alchemical text of the late Hellenism called *Chrysopoeia of Cleopatra*, probably written in Alexandria in the second century is showed this ouroboros (Fig. 5):



Fig.5: Ouroboros from *Chrysopoeia of Cleopatra*

Black and white represent the duality present in everything and the Greek inscription in the center is εν το παν (hen to pan) "all is one"; *chrysopoeia* is the term used in alchemy to indicate the completion of the Great Work, ie the creation of gold.

A part is the whole, and therefore in the universe there is a single entity, energy, that changes and alters, allowing those who desire to accomplish the Opus in order to reach a higher stage of evolution. Carl Gustav Jung, described in *Psychologie und Alchemie* the Ouroboros as the serpent that devours, fertilizes, creates, destroys and brings himself back again to life: like through an alchemical process the ego turns into the Self, and the unconscious into consciousness.

Comes from far the success of this symbol, which is present in the mythology of many cultures: it is Jörmungandr in the Nordic countries, Quetzalcoatl for the Aztecs, Wagyl for Aboriginal Australians, and neither shows sign of decline his iconographic success: appeared on ancient gems, talismans (17) and tombs. And even in more recent times the artistic and funerary production associated it with other symbols indicating eternity (Fig.6):



Fig.6: Detail of plaque adorning the tomb of Giuseppe Magnico († 1849), Cloister III of the Certosa - Bologna

Caput and Cauda Draconis

Much more could be said of the *draco*, but now it is time to return to the subject of this essay, the nodes. So let us ask ourselves how and why the *Draco* head was associated to the lunar orbit's ascending node and the tail to the descending one. According Auguste Bouché-Leclercq (18) we should start exactly from the snake that - according the Gnostics mentioned by the author of *Philosophumena* (19) - watched from above the whole world and whose eyes look at everything from the Arctic Pole, and whose head lies to the East and West of the two hemispheres, because nothing can escape him. Were probably the Chaldean oracles' authors, contemporary of Ptolemy, who "did not know or would not know these fictitious planets", to be in charge of placing then the head to the East and to the West the tail of this snake, created by the Demiurge before the zodiac signs and planets. (see footnote n° 9). At this point its head was connected to the North Node, supposed to be in the East, but how and why, the French scholar concludes, we are not obliged to know. An answer might lie in popular beliefs, which we mentioned above (20) whereby the Moon is eclipsed as it swallowed by a dragon: placed the head of this dragon in a ecliptic node, the tail was therefore placed. The names *Caput* and *Cauda Draconis* were born, of which we saw as Vitali gave the more straightforward and effective explication, the Moon, departing the ecliptic appears to be shaped as a snake (Fig.7), which is larger and wider in the body and slimmer and thinner in the region of the head and tail.

We therefore argue that astrologers, who knew the intersections of the orbital planes of all planets with the ecliptic, ended by taking into account only those of the Moon (also considering the greater speed with which they move): firstly as places influencing planets and then as planetary entities, with their own characters.



**Fig.7: Ouroboros,
image from *Musaeum Hermeticum*
of Abraham Lambsprinck, 1749**

Indeed Ptolemy too mentions the nodes: in *Tetrabiblos*, Book III, chap. 13 (Vitali says ch.17), under the title *Of Injuries and Diseases*. So his statement: "Again, if the luminaries, together or in opposition, move toward the maleficent planets upon the angles, or if the maleficent planets move toward the luminaries, particularly when the Moon is at the nodes or her bendings, or in the injurious signs such as Aries, Taurus, Cancer, Scorpio, or Capricorn, there come about deformations of the body such as hunchback, crookedness, lameness, or paralysis, congenital if the maleficent planets are joined with the luminaries, but if they are at the mid-heaven points, elevated above the luminaries or in opposition one to the other, the deformations will result from serious

dangers, such as falls from a height, the collapse of houses, or the attacks of robbers or animals. If Mars prevails, the danger is from fire, wounds, bilious attacks, or robberies; if it is Saturn, through collapse of buildings, shipwreck, or spasms" (21).

However, he uses for nodes the word σύνδεσμος *syndesmos*, namely *vinculum*, the lunar orbit node and adds "or her bendings"; the nodes are not seen in fact as separate entities. Ptolemy desires to emphasize that if the Moon has no latitude or reaches its maximum or it is in some special signs and is configured to the malefic stars, derive specific malformations. We will come back to this point, we add for now, that in *Tetrabiblos* there is second mention of nodes and bendings: Book III, Chapter 14, entitled *The qualities of the soul*: ".. nevertheless the condition of the Moon itself also makes a certain contribution. For when the moon happens to be at the bendings of its northern and southern limits, it helps with respect to the character of the soul, in the direction of greater versatility, resourcefulness, and capacity for change." Here too the nodes appear as fictitious points not living an independent life.

Anyway half a century later the situation would have evolved if the Latin apologist Tertullian already speaks of the influence attributed by astrologers; in *Adversus Marcionem*, I, 18 in fact he says: "[...] Maybe *Anabibazon* was against him or some other evil star, the square of Saturn or the trine of Mars. In fact Marcionites are well versed in the astrological *ars* and not ashamed to live by those same stars of the Creator" (22). The two nodes are also included in the birth charts cast by Palchos (23), a Byzantine astrologer of the V century AD and *Anabibazon* position [24°33' Scorpio] was annotated after the seven traditional planets, in the nativity of the philosopher Proclus, in *Vita Procli*, Chap 35, written by Marinus of Neapolis, his successor as Diadochus of Academy of Athens (24).

The ancient, Medieval and Arab authors

Let's stay another moment on Ptolemy text about diseases mentioned above. Physical deformations are linked with *mutilated* signs (25): with Taurus, which makes the hunchbacked because *it is bent and lame due to its twisted leg*, with Cancer eyeless, with Scorpio, which in *Libra consumit brachia* and with Capricorn, traditionally associated to knees (see Valente, II, 36). The Alexandrian scholar adds the presence of luminaries on the nodes or in the bendings in aspect with the malefic stars in the angles, which will cause birth defects if there is a conjunction or, if the malefic stars are predominant at their culminations or oppose each other during the lifetime. In the latter case the deformation will occur according to the nature of the malefic planet. We read in the Commentary of Cardano (26) that "Haly said he had predicted a hump, which lasted 12 months, judging a nativity in which the Moon was joined to Mars and *Caput Draconis* in the twelfth house, which were in square aspect to the Sun with Jupiter, which were in the third house. And the time was equal in months to the number of years of the Jupiter revolution". Adds our competent commentator that *Caput* and even worse *Cauda* (and the planetary nodes in general) are *loci pravi* (wicked places) and should be always observed when the configurations listed by Ptolemy occur.

We have already seen that the Greeks of the Lower Empire added nodes to the list of planets and Arabs will do after them. Before them, we should mention an important author as Rhetorius (CCAG, VIII, 4, 205) (27): "If *Caput* is with Jupiter or Moon or Venus or the Sun signifies deterioration: joined with the Sun makes the father sick, joined with Moon it devalues or depreciates and even outrages mother, especially if it is placed in an angle. *Caput* signifies the same things with Saturn and Mars, especially if they are in an angle. However, in general, *Caput* is favorable with benefic stars, *Cauda* with malefic ones. "

Rhetorius, the last great astrologer of the classical period, came from Egypt and probably lived in the sixth / seventh century AD (when Egypt was thus part of the Eastern Roman Empire and the Byzantine period was already started). He wrote a compendium in Greek (a kind of

Thesaurus) of all the astrological art, of which we have some *excerpta* (and several late Byzantine versions). He is credited with having built a bridge between Byzantine astrology and medieval and the Arab one (28). And as for the nodes, it is also interesting to read the translation of its text edited in CCAG VIII, 4 pp.126-174 (*Rhetorii Aegyptii capitula selecta*) with the title of *Hermes Trismegistus and the strength of twelve places*. In it are formulated opinions on the position of the planets in each place. *Anabibazon* and *Katabibazon* too are examined and judged for being together or in conjunction with the Lights or with one or more planets. The series is too varied to be summarized, but the list is worthy of being appreciated for its accuracy.

And finally we come to the Arabs, which using Bouché-Leclercq words *firent grand état des noeuds écliptiques*. Is know the role played by Islam in the ninth century in the development of astronomical knowledge and the contextual recovery and translation of works by Greek authors. In 829 the Abbasid caliph Al-Ma'mun built in Baghdad the first permanent observatory in the world, in order to enable its astronomers to methodically monitor the movement of planets, and patronizes the study and translation in the *House of Wisdom*, a cultural centre, born as his father's private library, the caliph Harun al-Rashid, and then expanded to accommodate almost half a million volumes. Greek, Coptic, Syriac, Hebrew, Pahlavi and Sanskrit works (in an age when the most reliable Christian Latin libraries did not reach a thousand books). He encourages the translation from the Greek of philosophical and scientific texts, protects mathematics, algebra, geometry, astronomy scholars (Fig.8).



**Fig 8 : Arab astrolabe
dated year 496 Hegira (Christian era from 1102 to 1103).
Museum of the History of Science - Florence.**

The translation and verification of the data of Ptolemy's 'Almagest is due therefore to Arab astronomers. At the same time they proceeded in the study and revision of the interpretation of celestial phenomena, which the Arabs had borrowed, like astronomy, from the countries on which from the seventh century they started to extend their domination. Thanks also to their presence in the Iberian peninsula the acquired knowledge mediated by Islam arrived to the Christian West, which was able to recover after centuries of oblivion, Aristotle's physics and Galen physiology between the rest.

In the Arab astrological manuals nodes are widely mentioned and precise connotations attributed: *Caput* is masculine, *Cauda* is feminine (30); *Caput* is hot, cold *Cauda* (31), *Caput* is diurnal, nocturnal *Cauda* (32); *Caput* is fertile, infertile *Cauda* (33), three are the years of *Caput firdaria*, two are the years of the *Cauda* (34). But even more interesting is their judgement according to Abu Ma'shar: "There are those who judge *Caput* augmentative in nature so it adds

benefit to the benefic stars which are with it, evil to the evil stars joined with it. *Cauda* nature is diminutiva: diminishes therefore both malefics and benefics which are with it". (35).

And according to Ali al-Qabī'sī: "*Caput* Draconis is masculine. It 'is similar to a benefic star and its nature is composed of the nature of Jupiter and Venus: this means the kingdom and the benefit and wealth. And some said that its nature is augmentative, because when it is with benefics increases their benefit and when it is with malefics enhances their evil. The years of its *firdaria* are three. *Cauda* Draconis truly is evil: its nature is composed of the nature of Saturn and Mars. It means degradation and loss and poverty. And some said that its nature is diminutive, because when it is with benefits reduces their benefit and when it is with malefics decreases their evil, so it was said that *Caput* is benefic when it is with benefics and malefic with malefics; *Cauda* malefic with benefics and benefic with malefics, and the years of his *firdaria* are two" (36).

According al-Biruni on the contrary: "Many astrologers attribute a peculiar nature to the ascending and descending nodes: they say that the former is hot and benefic and signifies the increase of everything, the second is cold and malefic and it is accompanied by the disappearance of all influences. It is said that the Babylonians felt that the ascending node would increase both the effects of the benefic and malefic planet, but not all accept this assertion, which is based on a rather vague analogy"(37). He adds too that the North Node is exalted in Gemini, the South in Sagittarius.

The same repeats Abraham ibn Ezra. We read in the Latin translation (1293) of his treatise *The beginning of wisdom*: "Ancients say that the nature of *Caput* is increasing, of *Cauda* decreasing. So if the benefics are with *Caput*, they will increase the good result. And indeed malefics a bad one. And if benefics are with *Cauda* the good will diminish. If on the contrary the malefics: with it, will be removed a portion of their wickedness"(38). The twelfth century Andalusian rabbi, expert of Ptolemy's *Tetrabiblos*, but also of the thought of Indian, Persian and Arab astrologers adheres to latter ones, an attitude that is still widely shared in the following centuries, as evidenced by Vitali's statements in the beginning of this essay.

We therefore conclude that astrologers of the past ended up recognizing to the nodes the virtue previously attributed to the lunar motion which so well Dorotheus of Sidon (39) described: "If the moon is increasing in the direction of the North the native will benefit at the end of his life and if it goes from South to North and ascends he will benefit in the beginning and the end of life. Learn that the best condition of the Moon is when it is waxing and moves towards the North of the sky" (40). The Greek names Ω *Anabibázon* (from ἀναβιβάζω *anabibázo* "which increases") and Ὑ *Katabibázon* (from καταβιβάζω *catabibázo* "which decreases") recalled this motion and specified its connotation: "to increase" is equivalent to "bring up, foster", "to decrease" is equivalent to "bring down, let down". *Caput* was therefore included between benefics because from it the Moon rises, *Cauda* between malefics because from it the Moon descends (41).

Genoa, 20th April 2010
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 **Notes** 

**Translations from Latin, from Greek and other languages
unless otherwise mentioned are edited by the author.**

- (1) *Lexicon Mathematicum, astronomicum geometricum, hoc est Rerum omnium ad utramque immo et ad omnem fere Mathesim quomodocumque spectantium, Collectio et explicatio. Adjecta brevi novorum Theorematum expensione, verborumque exoticorum dilucidatione ut non injuria Disciplinarum omnium Mathematicarum summa, et Promptuarium dici possit. Auctore Hieronymo Vitali Capuano Clerico Regulari vulgo Theatino. Parisiis, ex officina L. Billaine 1668.* See the facsimile edition of Agora, 2003 cura Giuseppe Bezza with a foreword by Ornella Pompeo Faracovi.
- (2) Op. cit. pp. 132 and 133. As we will see below, actually it is the opposite: *Caput* is Anabibazon, *Cauda* instead Katabibazon.
- (3) On the orthogonal coordinates and celestial latitude cf. *Attenti al..la latitudine!* published in *Ricerca* '90 No. 63 July 2005 and presented in Vico Equense, XII Congress of Astrological Studies sponsored by the journal *Ricerca* '90; *Plutone e l'effetto latitudine*, published in *Ricerca* '90 no. 68 October 2006 and presented in Lavagna at the XIII Congress of Astrological Studies sponsored by the journal *Ricerca* '90; *Le stravaganze di Plutone* presented in Turin on June 6, 2009 at IX edition of Turinese Astrological Congress. All the mentioned articles can be found in the section *Articoli* of www.apotelesma.it official website of Apotelesma, Associazione culturale per lo studio dell'Astrologia based in Genoa.
- (4) For day we mean one mean solar day.
- (5) At the end of a *Saros cycle*, the occurring eclipse is almost the exact repetition of the eclipse occurred 223 *synodic months* and 242 *draconitic months* ago. We call it "almost exact" because the cycle actually lasts 6.585 days and 8 hours and this includes, between a cycle and the next, a change in the region of the Earth from which subsequent eclipses are observed, the interference is remedied (as the Babylonians already knew) considering a time interval three times longer than *Saros* and therefore 19.756 days, called Ἐξελιγμός *Exeligmos* "that took place completely" from ἔξειλισσῶ *exelisso* "I unroll". *Saros cycle* should not be confused with *Metonic cycle*, from Meton, the Athenian astronomer of the fifth century b.C., whose name is linked to the observation that 235 synodic months are equivalent to 19 solar years. It follows that every 19 years, the moon phases fall approximately in the same days of the year. Moreover it is called golden number of an year the order number (from 1 to 19) in a year of *Metonic cycle*.
- (6) Tablets 1414, 1415, 1416, 1417, 1419 in T.G Pinches, J.N. Strassmaier, *Late Babylonian Astronomical and Related Texts*. Ed. AJ Sachs, Brown University Press, 1955. The name "*Saros*" was given to the eclipses cycle in 1691 by the English astronomer Edmond Halley, which took it from *Suda*, an eleventh century Byzantine lexicon, where under the lemma *σάρποι* (see *Suidae lexicon ex recognitione Immanuelis Bekkeri, Berolini Typis et impensis, Georgii Reineri, A. 1854*) can be found: "*measure and a number among the Chaldeans: for 120 saroi make 2220 years according to the Chaldean reckoning, if indeed the saros makes 222 lunar months, which are 18 years and 6 month.*". The naming error was already pointed out in 1756 by the French astronomer Guillaume Le Gentil. On the other hand the word Sumerian / Babylonian word *šár* was one of the measurement units of the ancient Mesopotamia and as number it seems to have the value of 3,600. Even the Byzantine monk of the eighth or ninth century Georgios Synkellos expressed in his *Ekloghè tes Chronographías* (cf. Georgius Syncellus ex recensione Guilielmi Dindorfii, Volumen I, Bonnae Impensiis Ed. Weberi, MDCCCXXIX, page 30, 7): "*Saros means a period of 3.600 years.*"
- (7) *Catalogus Codicum Astrologorum Graecorum*, Tomi VIII Pars I, F. Cumont, 1929, Bruxellis In aedibus M. Lamertin..
- (8) The Greek text is corrupted.
- (9) *Catalogus Codicum Astrologorum Graecorum*, Tomi V Pars II, descripsit G.Kroll, 1906, Bruxellis In aedibus M. Lamertin. This is the F. 229 entitled *Fundamentals of the astrological ars according to Chaldean beliefs* (from the Codex Vaticanus 191 and also edited in *Analecta Sacra et Classica* in 1888 by JB Pitra, p. 300 "*Chaldaica*"), which describes the *thema mundi*, authored by an

unidentified Byzantine astrologer, of uncertain period, certainly writing - according F. Cumont (see comment page 131) - after the X century. A myth of the creation of the world, which was intended to explain the astrological principles, whose *incipit* states: "Exposition by the wisest man about the variegated and manifold sphere in the opinion of the very learned and wise Chaldeans. He said: God, full of wisdom, formed a snake of enormous length, width and thickness, which has a dark head, known as *Anabibázon*, to the East, and the tail, known as *Katabibázon*, to the West, and he also began to create the twelve signs, which are different one from the other by nature and position, ie Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, Pisces; and ordered that the snake bore on his back six signs, the one which are straight and of long ascension, ie from 30 degrees of Gemini to 30 degrees of Sagittarius, in the invisible hemisphere from the first degree of the horizon, ie from East to West, and the remaining six signs, called oblique and of short ascension from 30° Sagittarius to 30° Gemini in the visible hemisphere.

- (10) In *Zeitschrift für und Assyriologie Vorderasiatische Archäologie*, Vol 25, pp. 356 et seq. we find the copy of two letters, exchanged in the beginning of last century between the German Orientalist Theodor Nöldeke and Carl Bezold about the meaning of this word. It appears in Assyrian phonetic writing after 650 BC, meaning "night", "darkness" and similar. According to Bezold it could be related not only to astral and atmospheric obscurations, but also to people, as for the Greek word ἔκλειψις (*eclipse*), which means eclipse but also disappearance; anyway there is no trace in any of the cuneiform texts known to him of a link between the word *atalu* and a dragon causing eclipses. He would be oriented to think that it was not associated not before the Christian era with the ancient Hebrew word (ס) נָח (ס) (*a*) *teli* (*a*) - which means snake - so combining the name with the primitive beliefs about eclipses. On *attalya* cfr. also G. Furlani, *Tre trattati astrologici siriaci sulle eclissi solare e lunare*, Atti della Accademia Nazionale dei Lincei, Anno CCCXLIV, 1947, Serie Ottava, Volume II, Gennaio-Febbraio 1947, pp. 569-606.
- (11) S. Sebokht (575 approx. - 666 approx.), native of Nisibis (modern Nusaybin in South-Eastern Turkey) and bishop of the Qenneshrê monastery, was one of the major figures in ecclesiastical, philosophical and scientific culture of ancient Syria. His works fill 3/4 of the manuscript 346, written in 1309 in Mar Hananiah monastery, near Mardin (modern Turkey) and currently preserved in the National Library in Paris. Great its contribution in the transmission of Greek science in the seventh century to the Syrians, and through their intermediaries, to the Arabs. He rejected astrology, preferring to remain in the scientific field: if on one side he was a strong supporter of Ptolemy's *Almagest*, on the other he wrote against poets and astrologers who attributed a degree of objectivity and some influence to the images of constellations. In this line we can include the chapters in the mentioned manuscript intended to show that there is no Snake (*Atalia*) causing eclipses (of which he in fact explains the astronomical causes).
- (12) *Acta Philippi et Acta Thomae accedunt Acta Barnabae*, Max Bonnet, Lipsiae, apud H. Mendelssohn, 1903 (144, p. 86). These are the New Testament Apocryphal acts: the Acts of Philip were written in Greek in the fourth century and describe the preaching of this Apostle and his martyrdom by being crucified upside down.
- (13) Carl Schmidt, *Koptish gnostische-Schriften*, Leipzig, JC Hinrich'sche Buchandlung, 1905. This is an apocryphal gospel of Gnostic origin, written in Coptic probably in the second half of the third century. A copy of the text was discovered only in 1772 in London by the bibliophile A. Askew (the manuscript known as *Codex Askewianus*) and is preserved in the British Museum. The work probably belongs to the sect of Gnostic Ophites (ancient Greek: ὄφις "snake") or Naasseni (Hebrew *Nahash*, snake)
- (14) M.R. James, *Apocrypha Anecdota II*, Cambridge at University Press, 1897. The *Apocalipsis* is one of Pseudoepigrapha to the Old Testament, saved from oblivion thanks to the discovery of a manuscript of the fifteenth century, a Slavic version, published in 1886 and another, a Greek version, published about ten years later by the mentioned James from the end of the first - early second century AD. It belongs to the apocalyptic genre.
- (15) Comment can be read in the original Greek version (translation in French) p. 80 in *Collection des Anciens Alchimistes Grecs*, publiée par M. Berthelot avec la collaboration de M. Ruelle, Première Livraison, Paris, Georges Steinheil Éditeur, 1887. Olympiodorus was a philosopher and alchemist - scholars are not in agreement about the period he lived, identified too with Olympiodorus the Younger from Alexandria, the sixth century Neoplatonist philosopher, as well as an astrologer.
- (16) Οὐροβόρος (ὄφις): literally signifies (ὄυρά, βιβρώσκω) "(the snake) that devours its tail".

- (17) Think of the so-called *magical gemstones*, which use was spread throughout the Roman Empire in the second half of the second century AD until the beginning of the fourth. Gems such as the red jasper, hematite, chalcedony were not chosen anymore for their decorative aspect, but for their supposed magical powers (Pliny, *Nat. Hist.*, XXXVII, 118, 124). The signs and representations previously charged (the snake biting its tail, the rooster-serpent god, the horseman beating a demon) pertain to Egyptian and Jewish religious tradition in particular.
- (18) A. Bouché-Leclercq, *L'Astrologie grecque*, Paris, Leroux éditeur, 1899, p.122
- (19) *Origenis Philosophumena sive omnium Haeresium refutatio*, E. Miller, Oxonii, 1851. The work, written in Greek and formally attributed to the Christian philosopher (185-254) should be instead ascribed to the theologian and Christian writer Hippolytus of Rome (ca. 170-235), which was also the first anti-pope in Church history.
- (20) These popular beliefs deserve a separate treatment. There is evidence in every age and in many different cultures. The disappearance of the Moon or the Sun was seen as a fatal event, which should be prevented helping the star in trouble with the sound of bronze and iron tools or with various kinds of noises, which would scare whatever demons or the monster attacking the star.
- (21) Claudius Ptolemaeus, *Tetrabiblos*, Robbins translation, Harvard University Press, 1940. Italian translation cura Giuseppe Bezza, Milano, 1995.
- (22) Of *Adversus Marcionem* can be read the 3rd edition written between 207-8 and 211.
- (23) A. Bouché-Leclercq, op. cit. see above, p.122, No.1. About Palchus we know he wrote in fifth *saeculo exeunte*. Franz Cumont in *Revue de l'instruction publique en Belgique*, XL (1897), pp. 1-12, gives us information of a manuscript, the *Codex Angelicanus* containing a booklet of astrological subject in 149 chapters, written by Palchus. It occupies ff. 91-152, incipit *Τάδε ἔνεστιν ἐν τῆδε τῇ ἀποτελεσματικῇ βίβλῳ τοῦ Πάλκου*. In dating Palchus of different opinion is David Pingree [*The Astrological School of John Abramius*, *Dumbarton Oaks Papers*, Vol. 25, 1971, pagg. 203-204], where he mentions a pseudo-Palchus, and credits the work to the compiler of the manuscript Eleutherius of Elis, who transcribed it in Mitylene in 1383 (I owe this information to Margherita Fiorello, who drove my attention on Prof. Pingree paper and sent me a copy).
- (24) A. Bouché-Leclercq, op. cit. see above, p.509, No.1 specifies he does not know if it is possible go back further in time for the practical use of the lunar nodes than this testimony of Marinus of Neapolis. He was a Jew born in Flavia Neapolis (now Nablus in Palestine) and then converted to paganism, he was born around the 450 and succeeded in the direction of the school of Plato in Athens, to Proclus the Neoplatonic, when he died in 485. For a reading of *Vita Procli*, cf. Ioh. Franc. Boissonade, *Marinou Proclos (Marini Vita Procli)*, Lipsiae, 1814 [Greek text with Latin translation].
- (25) Cfr. p. 447, Claudius Ptolemaeus, *Le previsioni astrologiche* (edited by Simonetta Feraboli), Scrittori greci e latini (Milano: Fondazione Lorenzo Valla: A. Mondadori, 1985).
- (26) Hieronymi Cardani, *In Cl. Ptolemaei De astrorum iudiciis, aut (ut vulgo appellant) Quadripartitae Constructionis Lib. IIII Commentaria.*, Basileae, Ex Officina Henricpetrina. Lib. III, *Caput XVI* De vitijis et morbis corporis, Textus LVIII.
- (27) Giuseppe Bezza, *Alcuni testi sui nodi lunari* (Schema 4, 3. 1987). On page 146 (footnote 33) of Al-Biruni's book, *L'arte dell'Astrologia*, Ed. Mimesis 2005, Bezza points out that the Greek text contains an evident error in transcription and the correct translation is "If the descending node is with Jupiter etc..."
- (28) David Pingree [David Pingree - *From Alexandria to Baghdad to Byzantium. The Transmission of Astrology*. *IJCT* 8 (2001-2002), pp. 3-37] shows us how his compendium was reviewed and often used by Theophilus of Edessa between 765 and 775, which made it available to Masha'allah, his colleague at the Abbasid court in Baghdad. The Maronite astrologer in fact translated into Syriac and Persian also several Greek works on astronomy and medicine. It seems that a manuscript of Rhetorius compendium was brought to Byzantium by a pupil of Theophilus, Stephanus, about 790; from this archetype derive numerous epitomes and revisions of portions of this text, some of which passed through Demophilus hands around the year 1000.
- (29) Giuseppe Bezza, *Arcana Mundi*, Vol. I, BUR, 1995, pp. 234 et seq.
- (30) Alī al-Qabī'sī (Alcabitius), *Preclarum Summi in Astrorum Scientia Principis*, Ed. Antonio Fanti, Venetiis, In aedibus Petri Liechtenstein, 1521 - *Secunda Differentia*, pag. 12. See also Vitali, and even Bouché-Leclercq, op. cit. p.122, No.1.

- (31) Ma'shar Abu al-Balkhi (Albumasar), *Introductorium in astronomiam*, Augsburg, Erhard Ratdolt, 1489, Book IV, Chap.7 *De mutatione stellarum et natura effectu in temporum motibus*. From the Latin translation of 1140, made by Hermann of Carinthia, from the Arab original of 848 AD.
- (32) Ma'shar Abu al-Balkhi, op. mentioned in footnote 31, Book IV, Chap.9 *De diurnis et nocturnis*.
- (33) In his commentary on *Tetrabiblos*, Book IV, Chap. 6, entitled Children, where are mentioned the planets giving children and those denying them, Francesco Giuntini says that "foecundi seu prolem largientes" planets are Jupiter, Venus, Moon and *Caput Draconis Lunae*, sterile planets are Saturn, Mars, the Sun and *Cauda Draconis Lunae*, adding in practice the nodes to those listed by Ptolemy, borrowing from Arab authors, of which the work is rich in quotations. Cf. *Speculum Astrologiae*, Lugduni, in Officina Q. Phil. Tinghi Florentine, 1581, p.769. Similarly Andrea Argoli in his commentary: "*Caput Draconis* also, from experience, grants children, which on the other hand *Cauda*, in the houses of children, denies". Cf. Andrea Argoli, *Ptolemaeus parvus in genethliacis iunctus Arabibus*, Lugduni, J. A. Huguetan et M. A. Ravaud, 1659 - Cap. XXVI De Filiis, p.126.
- (34) *Firdaria* is the interval of time for which each of the seven planets or two nodes rule in turn some years of a person's life. The term is the transcript of the Arabic *fardāriya*. Cf. Abu Ma'shar al-Balkhi, op. cit. Book VII, chap. 8; cf. Abu-Hasan 'Ali ibn Abi l-Rijal (commonly known as *Haly Abenragel*), who in *Libro Conplido en los Iudizios de las Estrellas*, translation of the thirteenth century in Castilian language by Moshe Yehuda from the original *Kitāb al-bāri' fi akhām an-nujūm* says: "The *firdaria* of the Sun are X years, of Venus VIII, of Mercury XIII, of the Moon IX, of Saturn XI, of Jupiter XII, of Mars VII, of *Caput* III and *Cauda* II. And the sum of all those years are LXXV". (II 29.12,13,14,16). See also Ali al-Qabī'sī (op. and passage in footnote 30).
- (35) Ma'shar Abu al-Balkhi, op. cit. Book VII, chap. 6, *De fortuna stellarum fortitudine, debilitate atque infortunio*.
- (36) Ali al-Qabī'sī (op. and passage in footnote 30).
- (37) Muhammad ibn Abu al-Rayḥān Ahmad al-Biruni, *L'arte dell'astrologia*, op. and passage mentioned in footnote 27. (English translation Muhammad ibn Ahmad al-Biruni, *The Book of Instruction in the Elements of the Art of Astrology. Written in Ghaznah, 1029 a. D., Reproduced from Brit. Mus. Ms. or. 8349, the Translation Facing the Text*. 1934.)
- (38) Abrahe Auenaris Iudei astrologi peritissimi *In re iudicali opera: ab excellentissimo philosopho Petro de Abano post accuratam castigationem in latinum traducta*, ex officina Petri Lichtenstein, 1507, Chap. V.
- (39) Dorotheus Sidonius, *Carmen Astrologicum* ed, D. Pingree, Leipzig 1976 – 1,12 pag. 171.
- (40) The translation is taken from the essay (already mentioned in footnote 27) of Giuseppe Bezza, *Alcuni testi sui nodi lunari*.
- (41) See John of Eschenden, *Summa astrologiae iudicialis de accidentibus mundi quae anglicana vulgo nuncupatur* - Venetiis 1489, fo.54v: "The dragon's head essentially means the good and also modest fortune: from here in fact the Moon begins to rise and ascending means the good luck. The tail of the dragon means on the contrary according its nature evil: in fact from here the Moon begins to descend along its inclined orbit and descending means an evil. Now, the Head sometimes works for good, sometimes for evil. Similarly any other planet has its dragon's head. The Dragon head is merely the place where the planet passes from the southern to the northern hemisphere intersecting the path of the Sun. The Dragon tail is the opposite point and each Dragon tail presages evil". Even this translation is taken from the essay (already mentioned in notes 27 and 40) Giuseppe Bezza, *Alcuni testi sui nodi lunari*.