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# ASTROLOGY IN THE EARLY BYZANTINE EMPIRE AND THE ANTI-ASTROLOGY STANCE OF THE CHURCH FATHERS

**Efstratios Theodossiou[1], Vassilios Manimanis[1] and Milan S. Dimitrijevic[2*]**

[1] *National and Kapodistrian University of Athens, School of Physics, Department of Astrophysics, Astronomy and Mechanics, Panepistimiopolis, Zografos 15784, Athens, Greece*
[2] *Astronomical Observatory, Volgina 7, 11160 Belgrade, Serbia*

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## Abstract

The peoples of the Roman Empire in the 4th century AD were very superstitious. Sorcery and astrology were widespread in the early Byzantine period. Astrologers, guided by Ptolemy's *Tetrabiblos*, were compiling horoscopes and dream-books, while a common literature were the *seismologia*, *selenodromia* and *vrontologia*, with which people tried to predict the future. It was natural that in this environment many astrologers were famous and they flourished especially in the court of the Emperor Julian (361-363). The Fathers of the Church, however, were clearly against astrology and they were condemning those who wanted to learn about the future events from astrology and other occult practices and pseudo-sciences. Here are presented astrologers Maximus of Ephesus, Paul of Alexandria, Hephaestion of Thebes, Ioannis Laurentius of Lydia and Rhetorius of Byzantium, as well as the Emperor Julian the Apostate, together with the condemnation of astrology by Emperor Honorius and Church Fathers Basil the Great of Cesarea, Gregory of Nyssa, Gregory of Nazianzus, John Chrysostom, the bishop of Jerusalem Cyril I, Epiphanius of Cyprus, Eusebius of Alexandria, Nemesius of Emesa, and Synesius of Cyrene.

*Keywords:* astrology, occult, Byzantine Empire, Tetrabiblos, foretelling, Emperor Julian

## 1. Introduction

In the first century of the Byzantine (i.e. the Eastern Roman) Empire astrology was an extremely common activity. Claudius Ptolemy's *Tetrabiblos* (= 'Four-book work') was the basic work of reference for all persons who practiced astrology [1]. This astrological opus, which still forms the basis of the modern 'Western' astrology, defends the usefulness of predicting the future through the

* Corresponding author, e-mail: mdimitrijevic@aob.bg.ac.rs, Phone: +381-11-3089-072, Fax: +381-11-2419-553

observation of the stars – the 'prediction through Astronomy'. In this work Ptolemy presents the Hellenistic horoscope astrology in a detailed and systematic manual, the first complete manual of astrology, which of course was based on the geocentric system as it is described in the *Almagest*. This great astronomer, however, seems to consider astrological predictions rather as a probabilistic tool than as an infallible guide. Besides, he rejected other common types of prediction, such as numerology. In addition to *Tetrabiblos* the Byzantine astrologers were inspired and influenced by the works of the Neoplatonist philosopher Porphyrius of Tyros (232/233 - 305?), Iamblichus Chalcidensis (250-326) and later on by some Arabic works.

Thus, the early Byzantine astrologers were compiling horoscopes, oracles based on natural phenomena, dream-books, other kinds of oracles and other. This was the heyday of the so-called *seismologia* ('earthquake guides') *selenodromia* ('moon-phase books') and *vrontologia* ('thunder guides'), texts that were 'explaining' how one could prophesize e.g. the death of an eminent person or the outcome of a war through the sound of thunders. These special books, as the late professor of Byzantine studies and academician F. Koukoules writes [2], had their roots most probably in Aristotle's *Meteorologica* [3], where the 'thunder-prediction' is expressly mentioned.

It is an indisputable fact that in the first centuries of the Byzantine Empire its subjects were very superstitious and that sorcery and astrology were very widespread. Koukoules writes [2, p. 43]: *"The superstitious parents were taking care to learn, among other things, which day was the most appropriate for their children to start courses; as we know from astrological texts, appropriate dates were thought to be the first day of the moon and also the seventh, the tenth, the eleventh, the eighteenth, the twenty-seventh and the twenty-eighth days. They were also observing in which zodiacal sign was the moon; the astrological texts considered appropriate the dates on which the moon was residing in Pisces, Gemini, Leo, Capricorn or Virgo, as they are listed in the 'Catalogus codicum astrologorum graecorum'* ([4])*."*

In this *Catalogus codicum astrologorum graecorum* were given even the appropriate dates to end a baby's breast-feeding [4, Book 2, p. 19, Book 5, p. 3, 94, 96, Book 6, p. 22].

Astrology was so commonplace in the Byzantine 4$^{th}$ and 5$^{th}$ centuries that even the hunters were consulting its directions. According to these guidelines: *"When the moon is in Gemini it favors hunting and when it is in Libra it favors hunting using falcons"* [4, Book 5, p. 94 and 95].

Astrology, in other words, occupied an eminent place in the everyday life in the early empire, and its importance persisted even in its subsequent periods. One should not forget that legend has it that during the founding of Constantinople Emperor Constantine ordered the astrologer Vales to predict its future and its longevity [5].

In the early Byzantine Empire, while the Christian religion was struggling with the old one – especially during the short reign of Julian – a famous astrologer, Maximus of Ephesus, is mentioned among the consultants of Julian

in the emperor's effort to revive the ancient Graeco-Roman religion. In the 4th century another famous astrologer is mentioned: Paul of Alexandria, who was flourishing around 378 AD and wrote a treatise entitled *Eisagogica [eis tin apotelesmatikin]*, i.e. *Introduction [to the effective]*, meaning the power and the 'effective' energy of the stars and the signs. In the same period flourished Hephaestion of Thebes, who wrote the *Apotelesmatika* (= *The effective ones*) around 415. Finally, as Herbert Hunger reports in his *Byzantine Literature* [6], a few decades later we have Ioannis of Lydia, who wrote the treatise *On Diosemeia* (the divine signs or miracles) during the reign of Justinian [7].

The division of the zodiac into 12 parts, the so-called signs, is mentioned in texts of the Church Fathers; more specifically it is mentioned by Basil the Great [8], by Caesarius (the brother of Gregory of Nazianzus) [8, vol. 38, p. 938] and by Procopius of Gaza [8, vol. 87, p. 96]; all three of them condemn astrology, as all Fathers of the Church did.

Let us present now certain eminent astrologers of the first two centuries of the Byzantine Empire along with the scholar emperor Julian.

## 2. Maximus of Ephesus (4th century)

Maximus of Ephesus was a famous Neoplatonist philosopher of the 4th century. Some researchers suggest that he was born in Ephesus, hence his surname, yet others believe that he was born in Smyrna and he moved to Ephesus after completing his studies in the Neoplatonist School of Pergamus. He was a student of both Iamblichus (250-326) and Aedesius (†335). Maximus exerted a strong influence on the religious policy of Emperor Julian (361-363): he was his friend, his teacher and his spiritual advisor. It seems likely that when he moved to the capital city of Constantinople Maximus took the surname 'Byzantius', for in the literature he is also mentioned as Maximus Byzantius: it is most probable that Maximus of Ephesus and Maximus Byzantius is one and the same person.

Maximus, following the general philosophical views of Plotinus (204/205-269/270), studied sorcery, astrology and Logic. It is believed that he contributed a lot to the Emperor Julian's hostility towards Christianity, since he initiated him into the Chaldean rites as well as into the worship of the Sun and Mithra. According to the author K. Tsopanis: *"A central teaching of Maximus was the theory about the universal affinity, which manifests itself in above-the-Earth secret cycles, such as the solar cycles. According to this theory, every living creature (but also every object in the world) bears inside it a 'divine spark' that brings it into direct 'magical' contact with the Sun. According to Maximus, even the statues of the gods were 'soaked' as the years passed through worship and rituals by outflows of the divine essence, resulting in their ability to perform miracles."* [9]

As it was natural, after Julian's death in 363 Maximus of Ephesus was accused as astrologer and an enemy of Christianity, as well as for participation against the new emperor Valens Flavius Augustus (364-378). For all these

charges he suffered persecutions and humiliations, and finally he was executed by Phestus, the vice-consul of Asia, in 371. Maximus is the probable author of two philosophical treatises entitled *On unresolved antitheses* and *Commentary to Aristotle*. The latter work comments on Aristotle's *Analytics*, while it seems that Maximus also wrote a commentary on the Aristotelian work *Categories*. He also wrote astrological poems, such as *Peri katarchon* (= *On the beginnings* or *On commencing the sacrifices*), as well as astrological treatises such as the *Peri arithmon* (= *On numbers*). He probably wrote some other treatises addressed to the Emperor Julian, which were lost [7, p. 225]. Julian is examined separately in the following section, as he favoured astrology in his effort to revive the ancient Graeco-Roman religion.

## 3. The Emperor Julian the Apostate

Flavius Claudius Julianus was born in 331 AD in Constantinople, to the royal family of Flavii; he was the son of Flavius Julius Constantius, the half brother of Constantine the Great. His mother Basilina died only months after Julian's birth, an event that influenced decisively his character. In any case, he lived a tragic childhood, witnessing from a tender age a number of murders in his environment so that claims to the throne would not arise. After the death of Constantine the Great, in May 337, the six-year-old Julian was saved from the imperial purges of Constantius II, the son of Constantine the Great, thanks to his uncle Eusebius. Eusebius was Basilina's brother, a bishop of Nicomedeia and later the archbishop of Constantinople (339-341), the leader of the sect of Arius in the capital, who was then under the favor of Emperor Constantius II during the specific period of time. Julian and his brother Gallus continued to be protected by Eusebius until the bishop's death, in 342. Julian, still an eleven-year-old child then, was first educated by Mardonius, a teacher of Greek from Thrace, who inspired him his love for the ancient Greek world, while his religious education was in the hands of Eutropius, a fanatic monk and follower of the heresy of Arius. Later Julian studied in both Nicomedeia and Athens, where he was indoctrinated with the views of Neoplatonism. In the philosophical School of Pergamus he had Aedesius as his teacher, who in turn was a student of Iamblichus. Julian was also taught by Nicocles and by the Christian sophist Ekevolius, while he became acquainted with the teaching of Livanius the orator (314-390?) through notes kept by his students.

Aedesius, being then in an old age (and hence probably being more respectable in the eyes of his students) brought Julian into contact with his best four students in Pergamus: Maximus of Ephesus, Priscus – who is known as a Neoplatonist philosopher– from Thesprotia, Chrysanthius from Sardis and Eusebius of Caria or Emesa, the so-called 'silent philosopher' or Pittacàs. All four, but mainly Maximus as we have already mentioned, contributed decisively to the separation of Julian from the Christian religion and to his turn towards the old religion [7, p. 226].

Julian continued his studies in Athens under the two famous teachers of rhetoric: Imerius of Proussa and Prohaeresius from Caesarea or Armenia, a Christian scholar who died in 368. It was in Athens that Julian met Saint Basil the Great (Basil of Caesarea) and Gregory of Nazianzus, who were also there as students.

Subsequently Julian was married Helen, the daughter of Constantine the Great and sister of emperor Constantius II. This marriage probably saved him from the second round of purges, as his brother Gallus was executed in 355 under imperial orders. However, the young Julian was also protected by the clever and educated Flavia Aurelia Eusebia (†360), the second wife of Constantius II (337-360).

In 350 Julian was appointed as commander in Galatia by the emperor. There, showing considerable ability and decisiveness, he expelled the Franks and the Alamanni by winning a series of battles at the north-western borders of the Roman Empire, in Danube, Argentoratum (Battle of Strasbourg, 357) and in other places. He also revived the economy of the region, while he became known as a just person. Finally, as the last survivor of the dynasty of Constantine the Great, but also being especially popular in the army and the populace, Julian became Emperor after the death of childless Constantius II (November 3, 361 AD), on December 11, 361, and returned to Constantinople.

As an emperor, Julian imposed the appropriate reforms in the fields of the administration and economic policy that relieved the people: he reduced the inflation, and stopped some fruitless spending in the imperial court, regulated the prices of food and reorganized the taxing system and the public services. These actions made Julian more popular, while in parallel he increased the wealth of the state treasuries [7, p. 227].

On the other side, Julian's admiration for the ancient Greek civilization led him to an effort to replace the Christian religion with the ancient Graeco-Roman one as the state's official faith. During his reign (361-363), Julian stopped the state subsidies towards the Church, while he removed the Christians from the upper public offices of the Empire and the positions of philosophy teachers with the justification that it was unfit for people who did not believe in the gentile gods to teach and to interpret the works of the gentile authors, which were full of references to these gods. From this edict was excluded his teacher Prohaeresius, who, however, refused to accept this special treatment and he resigned in 362.

In addition, with the edict of February 4, 362, Julian re-established the gentile worship, imposing the reopening of the temples of the gentiles that had been closed and restarting of the sacrifices on the altars.

Julian with his actions aimed to utterly vanish the new religion and he knew that these actions would bring divisions in the Church so that the divided Church would not represent a major threat for paganism any more [10]. These actions were met with remorse by the Christians and due to them Julian was called by the Church 'Apostate' ('Renegade') and by the lay Christians, mockingly, 'Adonaeus'.

It is, however, probable that he just wanted to equilibrate the situation in order to either establish a state without a preference towards a specific religion or to create a *syncretic* (mixed) 'state religion', which would accept the ancient gods, it would had a priesthood composed from priests of all religions without discrimination and its head would be the Emperor as Pontifex Maximus. This plan would be opposed by both Christians and devout gentiles, since they would see it as an attack against both religions and absurd [7, p. 228].

Julian's friend, the Latin historian of Greek descent Ammianus Marcellinus (330–400), wrote: *"Although Julian was more inclined towards the worship of the gentile deities since his youth and as he gradually grew older he was burning with the zeal to practice it, yet, because he had several reasons to be afraid, he did whatever pertinent to this worship he did with the greatest possible secrecy. But when his fears vanished and he realized that the time had come to freely materialize his wish, he revealed the secrets of his heart and with clear and explicit edicts he ordered the opening of the idolatry's temples, to resume sacrifices upon the altars and, in general, to restore the worship of the idols"* [11].

In reality, the ancient religion had closed its life cycle. Among Julian's friends was a medical doctor, Oreivasius (325-403), who, when Julian became emperor, was appointed chief doctor and treasurer in Constantinople. According to the tradition, he was the emissary of Julian to the Oracle of Delphi. He had been sent in order to receive prophesy on whether the ancient religion could be revived. The literary tradition saved the oracle given by Pythia to Oreivasius, according to the legend: *"Tell to the king: everything has collapsed, Apollo has no roof over his head anymore, neither foretelling bay leaf, nor speaking spring – the speaking water has also dried"* [12, 13].

This oracle, either uttered by Pythia or, more probably, being a creation of tradition, expresses an indisputable truth: the ancient religion was vanishing and along with it the famous sanctuary of Apollo was also perishing. It seems that the Olympian gods had decided to retreat from the stage of history and to silence themselves. Their allocated time in the history has passed [14].

### *3.1. Emperor Julian and the heliocentric system*

Julian was a scholar and cultivated person, an emperor who was also a philosopher and an author, and became the source of inspiration, according to Robert Browning, for eminent literary figures and intellectuals [15]. From a passage in his texts he even appears as a forerunner of Copernicus more than eleven centuries earlier! He believed that the planets revolve around the Sun, following circular orbits in well-defined distances. This passage (from the *Hymn to King Helios*) reads: "*For the planets round about him (the Sun), as though he were their king, lead on their dance, at appointed distances from him pursue their orbits with the utmost harmony; they make, as it were, pauses; they move backwards and forwards (terms by which those skilled in Astronomy denote these properties of the stars)*" [16].

This means that Julian was thinking of the Earth as a planet, which revolves following a circular orbit around the Sun and along with it all the other planets, which revolved around the Sun in well-defined orbits and intervals, i.e. spaced by well-defined distances between them. This quote shows that in the fourth century AD the heliocentric theory of Aristarchus of Samos (310-230 BC) was not forgotten, and that it still had its supporters.

Perhaps in the Neoplatonic School of Athens, where Julian studied and shaped his scientific opinions, the heliocentric theory of Aristarchus was being taught.

### *3.2. The death of Emperor Julian*

Julian was mortally wounded by the spear of an unknown knight in 363 during a battle near Ctesiphon against the king of Persians Sappor II (310-379), and he died in the evening of June 26 to 27.

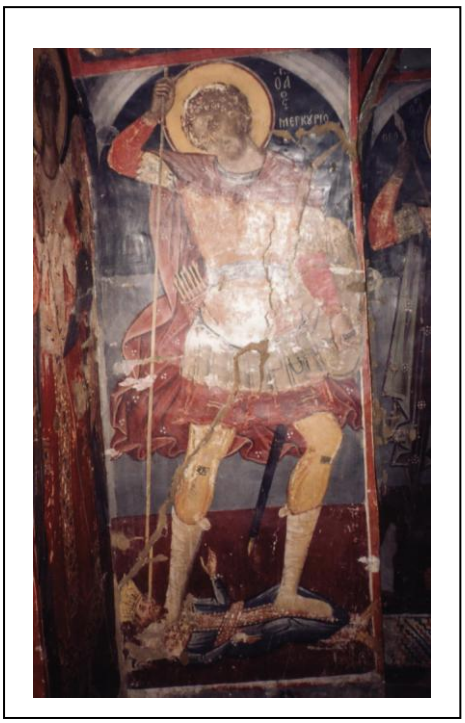

**Figure 1.** Saint Mercurius mortally wounds Emperor Julian (*Meteora, Monastery of Saint Stephanos, photograph by the authors*).

It should be noted that the theory of chronographer Ioannis Malalas [17] (also reproduced by Ioannis of Nikiou [18]) that Julian was killed by the spear of Saint Mercurius, is totally groundless. Mercurius had suffered martyrdom during the reign of Decius (249-251) or of Valerian (251-259) and therefore he is

totally out of date; yet, the tradition has it that this was done after a request of Saint Basil. However, since Basil was a fellow student and a friend of Julian, it is impossible that he made an entreaty to a Saint to 'murder' Julian. However, this legend is alive in the Greek Iconografy (see, for example, the icon of Saint Mercurius from Meteora – Figure 1).

Livanius the orator (314-393) supported the view that Julian's fatal injury was the result of an act by a fanatic Christian [19] and Sozomenus, the Christian writer of the early 5th century, agrees with this opinion [20]. Both are based on the fact that no Persian soldier appeared to state that he wounded Julian with his spear, in spite of the huge reward the Persian king had promised to the one who would exterminate his opponent.

Julian was emperor from November 3, 361, to June 26, 363, i.e. less than two years. After his reign the character of the Byzantine Empire would be strictly Christian and in Astronomy geocentric. The emperor's last evening is described by the historian Ammianus Marcellinus as follows: *"And because all who were present were crying, he, still retaining his grandeur, admonished them by saying that it was improper to lament for a sovereign who would become one with the sky and the stars. Then everybody fell silent and Julian started a complicated conversation with philosophers Maximus and Priscus about the nobility of the soul. Suddenly, the wound on his rib opened, the blood pressure cut his breath and, after he drank cool water he had asked for, departed calmly from this life in the darkness of the night at the age of 32."* [11, p. 15].

Julian's cousin Procopius asked from the new emperor Flavius Claudius Jovianus (Jovian, 363-364) the permission to bury his body in Tarsus, which was given to him immediately.

Jovianus ordered that the following words be carved on Julian's tomb: *"Here, next to the rich waters of Tigris, lies Julian, a good king and at the same time a valiant warrior"* [21].

From the works of Julian, which are considered masterpieces of style, the following ones are saved:

- *Panegyric in honor of Constantius,*
- *The heroic deeds of Constantius,*
- *Panegyric in honor of Queen Eusebia,*
- *Hymn to King Helios [Addressed to Sallust],*
- *Antioch's speech* or *Beard-Hater* (ed. C. Lacombrade), a speech against the Christians of Antioch who jeered at the Emperor's beard, which he used to keep long according to trait of the philosophers of that age.
- *The Caesars* or *Symposium,*
- *Apologies,*
- *Epistulae (Letters).*

From all these works the *Hymn to King Helios* contains the clear reference that supports the heliocentric system we already mentioned. There is also another work that was only partially saved (one book out of three), entitled *Against the Galileans*, i.e. against the Christians [22]. This work was refuted by

the Byzantine scholar and priest Philip of Side (4th to 5th century), the successor of Didymus the Blind in the School of Alexandria.

**Figure 5.** Julian pictured on a golden coin (solidus) of Antioch.

After the years of Julian astrology continued to flourish. It seems that never lost its grip on the Byzantine populace. After Paul of Alexandria, Hephaestion of Thebes and Ioannis of Lydia we find as the last astrologer of the early Byzantine period the sixth-century foreteller Rhetorius of Byzantium. Let us examine their work and personality one by one.

## 4. Paul of Alexandria (4th century)

Paul of Alexandria flourished in Alexandria around the year 378. He is regarded as the author of an astrological treatise entitled *Eisagogica [eis tin apotelesmatikin]*, i.e. *Introduction [to the effective]*, meaning the power and the 'effective' energy of the stars and the signs upon the persons and their actions.

This work was present in the library of Leon the Wise or the Mathematician (780-869), who in his *Codex* about astrology writes: *"The secret principles of Phoebus' art of foretelling I was taught by Paul, the eminent astrologer"* [6, p. 38].

## 5. Hephaestion of Thebes (4th to 5th century)

Hephaestion, an eminent Graeco-Egyptian astrologer of the 4th and 5th centuries, was born in Thebes of Egypt and flourished in Alexandria around 380; he wrote a treatise in three books that are entitled: *Astronomical principles*, *Birthday lore*, *Catarchae* or *Apotelesmatika* (= *The effective ones*).

In the first book, Hephaestion writes about the general principles of astronomy. In the second book he deals with birthday astrology, while in the third book, which is the main part of his treatise, he deals with the choice of the appropriate time to start any important work.

The work of Hephaestion influenced all subsequent Byzantine scholars who delved in astrology and can be found today in its entirety in the National Library in Paris and in libraries of several Italian cities. It is important for an additional reason: from certain passages of it we learn about significant scientists of that age, such as Thrasyllus, Critodemus, Apollinarius, Antigonus and others, for which it is the sole source of information [7, p. 233].

## 6. Ioannis Laurentius of Lydia (490-565)

The historian-archaeologist, scholar, astronomer and astrologer Ioannis Laurentius of Lydia was born in Philadelphia of Lydia. He followed law studies in the Pandidakterion (University) of Constantinople and his knowledge of Law and History helped him to rise to eminent offices of the empire. One of his teachers was Agapius, a philosopher and scholar who in turn was a student of Proclus.

Ioannis (John) worked initially in the tachygraphy service; subsequently he became a state officer by being promoted to the post of the service's director by the emperor Anastasius I (491-518). Finally, the emperor Justinian I (527-565) appointed him as a teacher of Latin in the Pandidakterion, from which he resigned after he fell into disfavour in 552, in order to pursuit full-time writing.

His work was not restricted to History as he gave it a rather encyclopaedic character; it is composed by three treatises, of which the larger one is the Law treatise *On the Powers* or *On the magistrates of the Roman State*. This work follows the evolution of the Roman offices from the beginning of the Roman Empire up to Justinian I. It offers us rich information about the history of the institutions and also about the actions of Ioannis Cappadoces, a Justinian's supreme officer of the praetorians. In addition, Ioannis Laurentius analyzes the administration of the empire and gives information on his personal life and career. This information, although it reveals a tendency for personal show-off, is illuminating as far as the character of education and the operation of the administration in the middle of the $6^{th}$ century are concerned.

This treatise was used as a source by the Byzantine author, historian and law specialist Theophylact Simocatta ($6^{th}$ to $7^{th}$ century) in his *Ecumenical History* (an opus of 8 books) [23] and by the bishop of Lepanto Constantinos Manassis (1130-1187), in his verse work *Synopsis of Time* [8, vol. 127]. The treatise *On the Powers* by Ioannis of Lydia was published in Leipzig in 1903 by R. Wünsch [24].

The other two treatises by Ioannis Laurentius of Lydia are entitled *On months* and *On Diosemeia*. The first one contains a wealth of historical information about the Roman calendar and festivals, and about the various customs observed in certain dates. For this reason it is a very interesting book for those who study calendrical issues and historical folklore; it also deals with the associated legends.

Finally, the second treatise refers to methods of weather forecasting based on astrological connotations. Its name refers to the 'signs of Dias' (the divine signs or miracles) after the Greek god Zeus (Días-Diòs), because the ancient lore attributed all atmospheric phenomena to him. *On Diosemeia* contains a multitude of references to meteorological omens and weather phenomena. It describes these phenomena (thunderstorms, thunders, rain, lightning) but also earthquakes and the phases of the moon, lunar and solar eclipses, the apparitions of comets and other phenomena associated with oracles and the religion of both the Roman and the Etruscan civilization. In other words, this treatise deals with all the kinds of celestial omens. Both this and *On months* were published by August Immanuel Bekker [25].

As a writer, Ioannis Laurentius is uncritical and superstitious; nevertheless, his works are significant, as they offer a wealth of information.

## 7. Rhetorius of Byzantium (6th century)

The last significant astrologer of the early Byzantine empire was Rhetorius of Byzantium, who was also an astronomer, widely considered as the author of the opus *Description And Explanation Of the Entire Art Of Astronomy*, which consists of 120 books.

Unfortunately, it is difficult to find more about his life and his written works. It is very probable, however, that he is the same person with the astrologer Rhetorius of Egypt who lived in the same century and whose work is a mixture of older books on the subject (such as those by Vetius Vales of Antioch, Claudius Ptolemy, Paul of Alexandria and others). Most of his work has been saved [4].

It should also be noted that the famous philosopher Proclus (410-485), inspired by Ptolemy's *Tetrabiblos*, wrote an astrological work that essentially is a rephrasing of *Tetrabiblos*. This work is known as *Paraphrasis to the Tetrabiblos of Ptolemy* [26]. Although its genuineness has been doubted because in several points it makes mistakes in interpreting the Ptolemaic text (which is difficult and rather vague, anyway) and these mistakes are incompatible with the tremendous interpreting capacity Proclus shows in his commenting of other texts, especially Platonic ones, nevertheless the *Paraphrasis* was especially valued during the Middle Ages and the Renaissance as a basic manual for the interpretation of the Ptolemaic text; apart from its mistakes, in other passages it gives appropriate and correct interpretations, following faithfully the original text, clarifying it and smoothing its language. One of the manuscripts that contain the *Paraphrasis*, the Vatican No. 1453, is dated from the 10th century and thus it is older than any saved manuscript of the *Tetrabiblos* itself.

Finally, Heliodorus the Neoplatonist (5th to 6th century), the brother of the philosopher, astronomer and mathematician Ammonius (†510), is considered by many to be the author of the astrological treatise *Eisagoge eis ta apotelesmatika*, probably influenced by the work of the astrologer Paul of Alexandria [7, p. 173].

## 8. The condemnation of astrology by Honorius and the Church Fathers

During the first century of the Byzantine (Eastern Roman) Empire, as we already mentioned, the flourishing of astrology was so great that even emperors like Honorius (the son of Theodosius I the Great and his successor in the western part of the empire), issued a decree that condemned the practice of astrology in Rome. Indeed, as Karl Krumbacher (1856-1909) writes: *"Honorius issued a law for the the 'mathematicians' from Rome and the burning of their books"* [27].

Subsequently the larger part of the burden of the struggle against astrology and astrologers (who were casually called mathematicians) fell on the shoulders of the Church Fathers and the scholarly bishops. Because of the intensity of the clash between the bishops and the astrologers, the impression is often created that all bishops were opposed to the cultivation of Science and to the research of the celestial phenomena rather than to that apocryphal art. However, the reality was different; the leaders of the Church with their writings and other actions were condemning not the science of Astronomy but the quackery, the omens and all those who claimed that they could predict the future from the relative positions of the celestial bodies, the 'earthquake guides' the 'moon-phase books' and the 'thunder guides'.

Basil of Caesarea, for example, in his homilies *On the Six-day Creation* (*Peri Hexahemerou* or *On Hexameron*, circa 379) writes with respect to the study of Astronomy: *"What is the meaning of Geometries and of the methods of Mathematics, of the stereometries and of the much-celebrated Astronomy, of all this multi-sided vanity, if all who ardently keep themselves busy with them made the thought that the world we see has the same origin with the creator of everything God, thus equating in grandeur the limited and material world with the limitless and invisible nature?"* [28].

However, it seems that when Basil calls astronomy a 'vanity' he most probably means what we now know as *astrology*. This view is supported by the fact that in other texts he considers the observation of the stars necessary, because through it, as he writes, we become acquainted with the divine wisdom and we receive important precept from its knowledge; but up to a certain point: one should not examine the stars beyond what is necessary. Indeed the polymath Father of the Church notes: *"What other does the Moon teach us by becoming full and waning once again, except to avoid thinking great about the prosperities of life? It only suffices not to examine the signs that come from the stars beyond what is necessary."* [8, vol. 29, p. 9]

Basil's classical culture enabled him to teach properly in his *Treatise towards the young* [29] on the issue of the place of the secular education in the Christian school and, in doing so, to influence the stance of the Church with respect to the classical education both then and during the Renaissance. In other words, the attack of Basil and other Church Fathers is not directed against the scientific research of the celestial bodies and events, but rather against all those who proceed beyond the information gained through the observation and the experience, and want to infer conclusions from the stars.

The late professor of Astronomy Demetrios Kotsakis (1909-1986) suggested that both Basil of Caesarea and his brother Gregory of Nyssa were strong adversaries to all those who tried to predict future events based on the stellar positions and constellations in the sky; in a relative paper entitled '*Saint Basil the Great against astrologers*' writes: *"It is important to hear the views (in short) as well as the reasoning of two brothers and scholars: Basil the Great and Gregory of Nyssa. Basil, commenting on the method of the astrologers, who scrutinize things to determine with an accuracy not just of degrees but of arc minutes and arc seconds the positions of the stars, in order to predict with purported absolute certainty the future life of various persons, demonstrates that it is impossible to determine with high absolute precision the positions of planets or of fixed stars and hence it is impossible to predict this or that future evolution of a child* [8]. *Gregory of Nyssa in his speech 'Against fate', in order to refute the belief that wars, earthquakes and various disasters are caused by 'peculiar forces of the stars' cites various biblical events* [8, vol. 45, p. 165], *such as Noah's Flood, the burning of Sodom and the destruction of the Egyptians in the Red Sea, in order to refute in the end the faults of the astrologers by a crushing argument."* [30]

Gregory of Nyssa was not against the science of Astronomy; for example, he wrote that through the science of the heavens *"the intellect is excited towards virtue and the truth is understood through the numbers"* [8, vol. 46, p. 181].

In addition to Basil of Caesarea, Gregory of Nazianzus writes that *"astronomy was considered a dangerous teaching"* [8, vol. 35, p. 761] meaning astrology, since in a homily he argued that: *"... and Asia was the school of impiety, to the extent it relates wonders about astronomy and the births and fancies of predictions, and about the art of witchcraft that follows these"* [8, vol. 36, p. 557].

Here it is obvious that the scholarly bishop does not accuse Astronomy but astrology, thinking of Asia as the place it was developed. Also, in his letters and homilies he mentions in positive terms the topics of cosmography, the study of the solar and lunar eclipses, the Sun, the stars, the Galaxy (Milky Way), the ecliptic and of meteorological phenomena such as lightning, thunders, etc. [8, vol. 36, p. 68].

Finally, in his funeral oration for his brother Caesarius, Gregory mentions that Caesarius avoided: *"... the dangerous teachings of astronomy that suggest that all things and events depend on the stars"* [8, vol. 35, p. 761]. In a more general context he argues that: *"At least from geometry and astronomy and the learning that is dangerous to the other people, he [i.e. Caesarius] had chosen the useful part, which is the admiration of the Creator from the celestial harmony and order, while he escaped the harmful part – by not attributing the beings and the events to the course of the stars, like those that put the material creation (which is subordinate like them) above the Creator, but by assigning their motions to God, as it is natural, along with everything else."* [8, vol. 36, p. 761]

The populace in the empire, as it is known from the historians of that period, generally believed in the foretelling power of the stars, which was also known as *genethliology* ('birthday-logy'), i.e. birthday astrology, since it was said to predict the future of every child from the moment of its birth. In addition, often the future parents of the baby asked the Byzantine astrologers about its sex before tackling birthday astrology: *"before [the birth], when it was asked to make known the sex of the child, since as they argued, the time of the conception defined the sex of the child to be born"* [2, vol. I, Book 2, p. 141]. For this reason John Chrysostom taught that: *"It is not the job of astronomy to know from the stars about the people who are being born"* [8, vol. 57, p. 61]. Once again here he means astrology and not the science of astronomy. He also wrote: "*Do not pay attention to genealogies, oracles and astrologies… …which you inherited by the Greeks and the Jews"* [8, vol. 59, p. 564].

From John's writings it is evident that he attempted to consolidate the Christian faith since he was a connoisseur of the culture of the ancient Greek authors himself and he wanted to condemn astrology and not Astronomy.

The late professor of Astronomy at the University of Athens D. Kotsakis writes in another work: *"The experts in this foretelling art used a special instrument called the astrolabe or horoscope in order to determine with precision the positions of the planets and the stars on the celestial sphere. Needless to say, they mostly observed the constellations of the zodiac, the so-called signs, the positions of the planets and the positions and the phases of the Moon. The development of the pseudo-science of astrology assisted in certain periods the development of astronomy, however in other periods it was a motive for the defamation and the persecution of the purely astronomical and, more generally, the scientific research."* [31]

Indeed, according to F. Koukoules: *"The Byzantines knew of two kinds of mathematics: the scientific ones, whose teaching was allowed since, as Gregory of Nyssa writes, 'the intellect is excited towards virtue and the truth is understood through the numbers' and the occult ones, which were strictly forbidden. Astronomy, for example, as long as it examined the motions, the sizes and the distances between the celestial bodies, it was being taught; but when it turned into astrology by suggesting that the human fate depended on the stars, then it was considered despicable and its teaching was persecuted."* [2, vol. I, Book 1, p. 125]

Similarly, the other Fathers of the Church condemned astrology. The bishop of Jerusalem Cyril I (348-386?) was a strong opponent of astrology and superstition, writing: *"Do not pay attention neither to astrologies, nor to bird omens, nor to other superstitions; do not even listen to the mythical oracles of the Greeks, the use of potions, the singing prophesies and the most unlawful things of the necromancers"* [8, vol. 33, p. 501].

Also, Epiphanius of Cyprus (315-403) was an eminent persecutor of astrology, which he condemned by writing: *"Magic and potion drinking, astronomy, the cledonism"* [8, vol. 24, p. 3], meaning of course 'astrology' by writing 'astronomy'. Eusebius of Alexandria (444-451), in his *Homilies* on

moral, ascetic and dogma issues also accuses *"the mythologists and curious people and astronomers"* [8, vol. 86A, p. 422]. Nemesius of Emesa (Syria, c. 400) writes about all the believers of astrology: *"Those who attribute the cause for all events to the revolution of the stars do not only combat common sense, but also they render useless all state justice. For the laws are out of place and the courts are unnecessary when they punish those who are responsible for nothing. But the stars, too, are unjust in cleansing the fornicators and the murderers; and prior to the stars their creator God mentioned the reason."* [8, vol. 40, p. 761]

Synesius of Cyrene (370-414), bishop of Ptolemaïs in Cyrene, condemned astrology in these words: *"So the savants foresee the future, some of them by observing the stars, others by observing torches and shooting stars, others by 'reading' the intestines, by hearing the noises, the sitting or the flying of the birds"* [8, vol. 66, p. 1284].

Finally, according to the *Codex Justinianus* in the paragraph it deals with *"maleficis et mathematicis et ceteris similibus"* [32], the practice of 'mathematics' was forbidden; this stipulation was in force and was repeated in the following centuries. The books of 'mathematics' were burned and their teachers were removed from the city [2, vol. I, Book 2, p. 144]. In this case, however, once again the term means astrology, since astrologers were also called 'mathematicians'. Besides, the *Teaching of the Twelve Disciples* suggests the same: *"My child, do not become a bird observer… …nor a mathematician… …because from all these stems idolatry (paganism)"* (Chapter III). In addition, the 36$^{th}$ canon of the Council of Laodikeia prohibits the practice of mathematics (i.e. astrology) by clergy members: *"It is forbidden for priests to be magicians or mathematicians, or to construct the so-called amulets, which are prisons of their souls"* [33].

## 9. Conclusions

Astrology was extremely widespread during the early Byzantine years and emperors such as Julian favored its dissemination by keeping astrologers in their court as advisors. The parents were asking for the advice of astrologers not only for the future of their children, but also for the appropriate dates for them to start courses. Even hunters were asking astrologers about the best days for hunting and the best method to use for a particular day or week.

The Church Fathers, however, and most of the educated bishops were indisputably against astrology and they were condemning all astrologers, foretellers and magicians who boasted that they could tell the future by using astrology or other occult practices. The Church Fathers were by no means against scientific research or against Astronomy and Mathematics, however, they were struggling against those who proceeded beyond the simple observation and knowledge of the phenomena, i.e. beyond the data of science, and wanted to extrapolate them with vague and unscientific methods where they could not possibly be applied, i.e. to the prediction of the future and the fate of

human beings. Their polemic was against oracle giving, bird watching and astrology – often called 'mathematics' or 'astronomy', hence the misunderstanding. The practitioners of these techniques were trying to predict the future by observing the intestines of the sacrificed animals, by hearing the thunders or by observing the positions and motions of the Sun and the planets through the zodiac. After Julian's death the official state also was against these charlatans: According to the *Codex Justinianus* the practice of 'mathematics' (i.e. of astrology) was forbidden, while as professor F. Koukoules writes, their occult books were being burned and they were driven away from the cities.

However, because the simple priests were sometimes influenced and tempted by the pseudo-science of astrology, a canon of the Council of Laodikeia prohibited the practice of mathematics (i.e. astrology) by clergy members.

Nevertheless, the practice of astrology persisted in the Byzantine Empire throughout its middle (610-1204) and late (1204-1453) periods. There were certain time intervals during which many scholars, even emperors like Manuel I Comnenus (1143-1180), dealt with it. Present article follows our previous work on the spirituality and science [34, 35] and on the contribution of the Church in Byzantium to the natural sciences [36, 37]. The scholars who studied astrology will be examined in more detail in a future paper.

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