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THE GEOGRAPHERS OF THE EARLY BYZANTINE PERIOD

Vassilios Manimanis [1], Efstratios Theodosiou[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

In Byzantine empire the knowledge of Geography was considered necessary for locating the Holy Land and for setting the boundaries of the dioceses. Essentially, Geography was studied by monks in the monasteries; the perception of the Earth by Byzantine geographers – especially by the monk Cosmas Indicopleustes – was to a large extent imaginary and influenced by the Scriptures and religious ideas.
Here are considered geographers of the early Byzantine period: Éthicus Istriote, Marcian of Heracleia, Caesarius, Palladius of Helenopolis, Agathodaemon, Christodorus, Hierocles the Grammarian, Procopius of Caesarea, Corippus the African, Stephen of Byzantium, Nonnosus, Priscianus the Grammaticus, Marcellinus the Illyrian and John of Gaza.

Keywords: Byzantium, Geography, Byzantines geographers, Natural Sciences

1. Introduction

During the early Byzantine period the knowledge of Geography was considered necessary for locating the Holy Land and for setting the boundaries of the dioceses. Thus, starting with the work of the ancient cartographer and geographer Marinus of Tyre (ca. 60/70 - 130 AD), and with the renowned *Geography* (also known as *Geographia*, *Cosmographia*, or *Geographike Hyphegesis*) [1] of the classical astronomer, mathematician and geographer Claudius Prolemy, the Byzantine scholars wrote their own treatises on the subject.

Essentially, only monks in the monasteries were studying Geography; the perception of the Earth by Byzantine geographers – especially by Cosmas Indicopleustes – was to a large extent imaginary and influenced by the Scriptures and religious ideas, while the geographical works were limited to lists

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

of names and city guides for school use, as well as travel narrations and descriptions, a fact that clearly delineates the difference between the ancient Greek geography and Geography as it was understood in Byzantium.

The capital of the Eastern Roman Empire (commonly known as the Byzantine Empire), Constantinople, had in the Byzantine period its own University, known as the *Pandidacterion*, which was the re-organized Roman Auditorium. It was also known as the *Magna aula* school, from the building it housed it, a section of the *Questor sacri palatii* (palace) complex built by Constantine the Great. The Pandidacterion itself was established by emperor Theodosius II the Younger (*Flavius Theodosius Junior*) on February 27, 425 AD, after he was persuaded in doing so by his wife, the educated daughter of the philosopher Leontius, Athenaïs, who was baptized as an adult, taking the Christian name Eudocia. The organization of the Pandidacterion, which is widely considered the first European university, provided for 31 professors: ten for the Greek grammar, five for the Greek rhetorics, ten for the Latin grammar, three for the Latin rhetorics, two for the Law studies and one for Philosophy [2]. Unfortunately, only one instructor was teaching Arithmetic, Astronomy and their branches, *"i.e. physics, which in turn included geography and animal history"* [3]. Consequently, the teaching of geography was *de facto* limited.

The Pandidacterion was also called 'Ecumenical Teachers College' and the instructors bore the title of the 'ecumenical teacher' or that of the 'teacher of teachers'.

2. The Natural Sciences and Geography during the early Byzantine period

The Natural Sciences as we perceive them today did not experience the growth it would be expected in the Byzantine Empire. The Byzantines were concentrating their efforts on the study of the works of the eminent ancient Greek philosophers and on the popularization and dissemination of the already present knowledge on Physics and Mechanics. This effort was directed towards the practical application both in everyday life and for military purposes. The publication of a form of encyclopaedias was a significant means for achieving this aim. In the Byzantium the teaching and the detailed study of the sciences was always combined with the corresponding philosophical systems in such a way that essentially it was a continuation of the teachings of the two main philosophical schools, those of Athens and Alexandria. A few basic subjects were taught in both elementary and higher education. Physics was taught along with Natural history, Zoology, Botany and Geography.

There was no scientific research, nor any novelty. A reason is that the sciences require the proper conditions for their development. In the Byzantine Empire one of these conditions did not exist: the proper mentality of the scholars. Sciences were approaching the reality of the natural world in a way that was not acceptable by the religious dogma (the prevalent factor that shaped people's thought in that period), while they were bringing in mind the pagan culture and hence paganism itself. The late historian Sir Steven Runciman

(1903-2000) described the scientific knowledge of the Byzantines in Geography and the natural phenomena not during the early Byzantine period, since he considers it negligible, but during the later period, that of Constantine VII Porphyrogennetos and Anna Komnena: *"Constantine Porphyrogennetos makes very few geographical mistakes, ... Anna Komnena is full of information, usually correct, about the currents and the prevailing winds… However, the various natural phenomena were not understood correctly. Kekaumenos attempts to explain the thunder and he realizes that the sound and the lightning are generated at the same moment. And Acropolites knows the cause of the eclipses. But the perception that these phenomena were warnings or punishments coming from 'above' was so extended that their explanation seemed to be more moral than natural."* [4]

During the early Byzantine period, Geography was served by the scholars Éthicus or Aethicus Istriote (4th century), Marcian of Heracleia (Marcianus Heracleensis, 4th - 5th century), Caesarius (4th century), Palladius (368-430), Agathodaemon (early 5th century?), Christodorus (5th century) and Hierocles (482-565), who is considered the author of a treatise under the title *Synecdemus* or *Synekdemos*, in which 64 provinces (eparchies) and 912 cities of the Empire are described.

In the 6th century the best-known persons in the field were the historian Procopius of Caesarea with his work *Buildings of Justinian*, Flavius Cresponius Corippus (Corippus the African), Stephen (Stephanus) of Byzantium, Nonnosus, Priscianus Caesariensis, Marcellinus the Illyrian, John (Ioannis) of Gaza and finally Cosmas Indicopleustes, who wrote a geographical treatise entitled *Christian Topography* and he will be examined in detail in a future paper of our team.

3. The main geographers of the early Byzantine period

Let us now examine in detail the work of these geographers in the following paragraphs in chronological order.

3.1. Éthicus Istriote (4th century)

The geographer and scholar Éthicus or Aethicus from Istria of Illyria (hence his appellation Istriote) lived during the first decades of the empire. He is the most probable author of a *Cosmographia* in Greek, which contains much geographical and historical information. Although his work is characterized by an off-hand attitude, omissions and inaccuracies, it is useful in many ways, since it contains valuable data, especially about the countries and the tribes of Northern Europe. The manuscripts of *Cosmographia* were discovered in such a bad condition that they are unintelligible, however an adaptation of its text written in Latin is saved in good condition; it is attributed to Saint Hieronymous. However, the specialists in manuscripts believe that the Latin adaptation does not render the lost Greek prototype with accuracy [2, p. 202].

This adaptation was first published in 1852 by Marie Armand Pascal d'Avezac [5]. In the next year, Heinrich Wuttke (1818-1878), based on the Leipsig code (*Codex Lipsiensis*), published a summary of the Latin adaptation, again in Latin, under the title *Cosmographiam Aethici Istrici ab Hieronymo ex graeco in latinum breviarium redacta* [6]. In 1854, Heinrich Wuttke in another work [7] supported the view that *Cosmographia* was indeed a prototype work by Éthicus, rejecting the theory of some researchers that its first part was a just copy of the *Cosmography* written by Julius Honorius while the second part was an elaboration upon a portion of *Historiarum adversus paganos, libri VII* by Paulus Orosius (5^{th} century) [2, p. 203].

In any case, the value of Éthicus' *Cosmographia*, unlike its originality, is not a subject of debate, since it offers a wealth of useful information.

3.2. Marcian of Heracleia (4^{th}-5^{th} century)

Marcian of Heracleia (Latin form: Marcianus Heracleensis) was a Greek geographer from Heracleia of Pontos, where he was born *circa* 400 AD; as he himself wrote: *"I am Roman by name, while by nationality, language and education I am a Greek"* [2, p. 203]. His main works are:

- *Circumnavigation of the Outer Sea in two books*, of which the second one is incomplete;
- *Epitome of the eleven [books] of the geography of Artemidorus of Ephesus*, a work also consisting of 11 books, which was lost;
- *On the distances of the main cities of the World from Rome*, of which some fragments are saved;
- *Epitome of the circumnavigation work by Menippos of Pergamon in three books*, of which also some fragments are saved;
- Finally, to our author are attributed with probability the works *Preface* and *Circumnavigation of both Seas of Bithynia*.

The best edition of Marcian works is the one of 1855 by K. Müller (ed.) and the publishing house of Ambroise-Firmin Didot, at the end of the first volume of *Geographi Graeci Minores* [8].

The saved works of Marcian are considered valuable for their distance determinations and they testify to the profundity and diligence of this capable geographer.

3.3. Caesarius (4^{th} century)

The Church author and medical doctor Caesarius (†369) was the younger brother of Saint Gregory of Nazianzus, being the son of Gregory, bishop of Nazianzòs, and Saint Nonna. Caesarius received an education on Philosophy and Medicine in Alexandria. He is included in this paper because to him is attributed an eminent geographical work that covers the entire region of the Balkan Peninsula, Asia Minor, Syria and Palestine with a wealth of geographical

information. In addition to this information, this treatise –a kind of traveller's guide – contains a lot of meteorological and astronomical data.

On the other hand, Caesarius acquired a great reputation as a medical doctor. After his Alexandrine studies, he settled down in Constantinople, where, because of his reputation, he became the palace doctor. His brother Gregory, after the end of his own studies in Athens, travelled to Constantinople between the years 358 and 360, where he met Caesarius and from there they went together in Nazianzòs. Then, Caesarius returned to the capital, where he became the chief-doctor of emperor Constantius II and then (proposed by medical doctor Oreivasius) of the emperor Julian, something for which he was reprimanded by his brother Gregory, as he accepted a position offered to him by a prosecutor of Christianity. Subsequently, the next emperor Valens Flavius Augustus offered him the office of 'overseer of treasures and paymaster of the public money' in Nicaea of Bithynia, where he died peacefully around 369 after he had survived as by a miracle the terrible earthquake of 368 [2, p. 262].

Caesarius of Nazianzus is with a low probability the author of the significant theological work *Four Dialogues* [9]. His brother, Saint Gregory, mentions in his works and orations the prudency and devotion of Caesarius to the Christian faith, as he was not influenced at all by emperor Julian's prompts to renounce his faith. The Eastern Orthodox Church elevated Caesarius to the ranks of its saints and honours his memory on March 9 [*Synaxari* (The book of the lives of Christian saints), online at http://www.agiooros.net/modules.php?name=GCalendar&file=viewday&y=2011&m=3&d=9&e=108].

3.4. Palladius of Helenopolis (364-431 or 368-430)

The scholar, Church author and monk Palladius was born in Galatia. A disciple of Evagrius of Pontus and an admirer of Origen, he became a monk in a young age. He acquired a rich monastic experience in Jerusalem around 380 and later on in the major monastic centres of Palestine, Syria and Egypt, where he stayed in the Nitrian desert and met Evagrius of Pontus (346-399), with whom he was nine years. Subsequently, he was ordained priest in Egypt by the bishop of Hermoupolis, Dioscurus, one of the famed 'Long Brothers'. After the death of Evagrius, Palladius returned in Palestine and then he travelled to Constantinople seeking Saint John Chrysostom's protection against the enmity of the archbishop of Alexandria Theophilus against the 'Long Brothers'. There Chrysostom became his close friend and ordained him bishop of Helenopolis in Bithynia (400-406). When Chrysostom was exiled, Palladius, also accused as an Origenist, went to Rome in 405 in order to communicate the issue to Pope Innocent I. The Western emperor Honorius sent Palladius back to Constantinople as a member of a mission sent to the Eastern emperor Arcadius (395-408) in favour of the banished patriarch. However, Arcadius sent Palladius in exile, to Syene in Upper Egypt; there from 406 to 408, Palladius as a student of Saint John Chrysostom narrated the life of his teacher and friend in his

Dialogue with deacon Theodore about the life and manners of John Chrysostom (*Dialogus de vita Sancti Joannis Chrysostomi*), which is our primary source about Chrysostom's life.

Palladius lived in Thebaid, Egypt, for four years, in Antinoe or Antinoopolis, and he returned to Palestine in 412, when Theophilus died and so the reaction against Chrysostom came to an end. Then he went to Galatia, where he lived in the house of a priest called Philoramus and in 417 he was ordained bishop of Aspuna in Galatia. Then we wrote (*circa* 419-420) his other major work, *The Lausiac History* (*Historia Lausiaca*). Its name comes from the dedication to Lausos, a chamberlain of Theodosius II (408-50), and it is also known as *He pros Lauson historia* and then shortly *Lausiakon* or *Lausaikon* [9, vol. 34, 1156C- 1161A].

So, Palladius wrote two important works: *The Lausiac History* [10] and the *Dialogue… …about the life of Saint John Chrysostom* [11]. In the *Lausiac History* he describes the lives of monks in Egypt and Palestine who lived in the first Christian centuries and he offers in a simple language a portrait of the Egyptian ascetism, describing the ascetic ideal. *The Lausiac History* is an interesting text of the end of the ancient period for both theologians and historians who examine this specific period. Now, a part of it concerning the history of the monks of Egypt is more of a narration than a history or a collection of biographies; it has the form of the description of a voyage along the Nile, and so it could be classified as a geographical work, as well. It was included by J.-P. Migne in his *Patrologia Latina* [12]. This form is probably a literary imitation of the Hellenistic novels. However, Palladius's visit to Upper Egypt must be a literary fiction. At one time the entire *Lausiac History* was considered a compilation of imaginary legends (see Weingarten, *Der Ursprung des Mönchtums*, Gotha, 1877 [13], and others). Later research has very considerably rehabilitated Palladius; the chief authorities now (Butler, Preuschen) consider the *Lausiac History* to be in the main a serious historical document as well as an invaluable picture of the lives and ideas of the earliest Christian monks.

Yet, most important from a geographical point of view is his work *On the nations and the Brahmans of India* (*Epistola de Indicis Gentibus et de Bragmanibus*), which contains original material both from personal experiences and from the descriptions of Egyptian travellers to India [14]. According to Beverley Berg Palladius describes Sri Lanka, which was also described by Cosmas Indicopleustes in his *Christian Topography* [15]. Palladius, however, describes in addition places that are to the east of Sri Lanka [16]. It seems very probable that Palladius actually made a journey to India at a date which cannot be definitely ascertained.

3.5. Agathodaemon (early 5th century)

Geography in Alexandria was served by the Alexandrine geographer and engineer Agathodaemon, who most probably lived around the year 400. Some

researchers think that he was contemporary of Claudius Ptolemy, while others think he lived centuries after him; in any case, he can't be considered as posterior of the 5th century. From his works are saved 27 geographical maps ('tables') – the 26 of them showing various regions and one depicting the whole Earth. These maps are adapted to the manuscripts of Ptolemy's *Geographical Hyphegesis* (Codices *Vindobonensis* and *Veneticus*) and bear the signature: *"from the eight geographical books by Claudius Ptolemaeus, Agathodaemon of Alexandria depicted the whole œcumene"* [2, p. 204].

3.6. Christodorus (5th century)

The epic poet Christodorus from Egypt can be regarded as a geographer in the wide meaning of the word. He is mostly known for the poem he wrote about the victory of the Byzantine emperor Anastasios I (491-518) over the Isaurs in 497, for another work about the students of Proclus and for a singular opus entitled *Description of the statues in the public gymnasium called Zeuxippos* (in Constantinople) [17]. However, he is mentioned here because of his *Patria*, a set of narrations in verse about numerous cities, such as Constantinople, Thessaloniki, Miletus, Aphrodisias and Tralles in Asia Minor, which can be considered a geographical work. Yet, this work has been lost; the only work of this poet that was saved is the *Description of the statues in the public gymnasium called Zeuxippos*.

3.7. Hierocles the Grammarian (482-565)

In the age of Justinian I (527-565) flourished the famed historian, geographer and general author Hierocles (also written as Hierokles), who bore the epithet 'Grammarian' as a distinction from two earlier scholars: the Alexandrine philosopher Hierocles (5th century) and the veterinarian and law expert Hierocles who wrote the work *On the therapies of horses* and lived in the 4th century AD.

Hierocles the Grammarian presented what is probably the leading work of its kind: an opus of political and ecclesiastical administrative geography written most probably in 535, which bears the title *Synekdemos* (= *[Travel] Companion)*.

Synekdemos is essentially a work of statistical geography and a list of 64 provinces (eparchies) and 912 cities of the Empire, being the most important source for the administrative and political geography of the Byzantine Empire (Eastern Roman Empire) prior to the Arab raids. This is what it is written in its preface: *"There are all provinces and cities under the King of Romans in Constantinople, 64 provinces and 912 cities"*. Hierocles also gives a wealth of numerical and geographical elements.

The *Synekdemos* (or *Synecdemus*) of Hierocles, a real guide and statistical survey of the Eastern Roman Empire assumed to have been based on state documents, was the best his period could offer and formed in turn the basis of

the Byzantine political geography. It was the most important source about the administrative and political geography of the Empire prior to raids of the Arabs. It contains the 'official' list of the cities of the provinces of the Balkan peninsula in the period from 500 AD to the coronation of Justinian I (527) and a list of the cities of the 22 provinces of Asia Minor in the period from the late 5th to the early 6th century, with the names of 427 cities in Asia Minor.

Like the *Geoponics* of his contemporary Cassianos Vassos, the *Synekdemos* of Hierocles along with the work by Stephanus Byzantius were used by the emperor Constantine VII Porphyrogennetos as his main source of information on geographical issues and formed the basis upon which this emperor wrote his treatise *About the Provinces* (*De thematibus*) in the 10th century.

This very important work, which is considered to be the only source for the study of the ecclesiastical geography (Church administration geography) of the early Byzantine period, was first printed in Amsterdam in 1735 by Peter Wesseling [18] (reprint. 1840 in Bonn [19]) and then by Gustav Parthey (*Hieroclis Synecdemus*) in Berlin (1866) [20], and Amsterdam [21] and in a corrected text by A. Burckhardt in the Teubner series (*Hieroclis Synecdemus*, Leipzig, 1893) [22]. The last and most authoritative edition is E. Honigmann's *Le Synekdèmos d'Hiéroklès et l'opuscule géographique de Georges de Chypre* (Brussels 1939) [23]. Finally, the *Synekdemos* of Hierocles had been included already since 1864 in L.-P. Migne's *Patrologia Greca* [9, vol. 113, 141-156].

3.8. Procopius of Caesarea (490/507-562)

The historian Procopius of Caesarea (Latin: *Procopius Caesarensis*) was born in the city Caesarea of Palestine *circa* 500 AD to a rich and noble family. As a result of this, he received the best possible education for his time. He studied law and rhetoric ('*an orator and sophist*', according to the *Suda* encyclopaedic dictionary) in the renowned school of Beirut, while he also learned several foreign languages by private tutors: apart from Latin, he was especially fluent in Syrian (Aramaic) and had a working knowledge of Farsi and Gothic. His broad education and deep classical culture along with his proficiency in languages assisted him in becoming a famous historian, the 'Thucydides of the 6th century' as he was called ([2, p. 206], commonly held to be the last major historian of the ancient world.

After concluding his education, Procopius settled in Constantinople, where he worked as a lawyer. He proceeded to occupy administrative posts (*councillor, assessor* and *signer*) in the staff of General Belisarius, whom he followed in his military campaigns against the Persians (527-531), against the Vandals in Africa (533-534) and against the Goths in Italy until 540. From all these wars, Procopius collected valuable historical material. After 542 he worked as *illustrius* and *praefector* in Constantinople. A modern historiography for Procopius was written by Anthony Kaldellis [24].

Procopius, living on the border between the late Antiquity and the Middle Age, wrote three main works: *On the Wars [of Justinian]* (*De Bellis*), the *Apocryphal* or *Secret History* (*Historia Arcana* or *Anecdota*) and *About Buildings* (Greek: *Peri Ktismaton*; Latin: *De aedificiis*) all of which are valuable first-hand sources about the times and the actions of emperor Justinian I and for his period's history. As a historical author, Procopius attempts to imitate Thucydides, while he makes references to Herodotus, Xenophon, Polybius and also to Aeschylus, Aristotle, Strabo and others. The first work, *Eight Books On the Wars*, or just *Histories* [25], is a narration of the wars of Justinian I, mostly the campaigns of Belisarius in which he participated; it also contains valuable information about ethnography, cultural history, the Nika riots or revolt, and more generally about the political and socioeconomic state of the Empire in his period. He also describes the plague in Constantinople in 542.

The second book, the *Apocryphal* or *Secret History* [26], is a kind of a 'secret diary' or libel that was published after the death of Justinian I and contains unflattering details about the life in the imperial Court and his staff, from the emperor and his wife Theodora to general Belisarius and his own wife.

However, from all the works of Procopius the most interesting from a geographical point of view is the one *About Buildings* (*De Aedificiis*), a treatise in six books that was written *circa* 553-555 and praises the political and legislative activity of Justinian I along with his constructional achievements throughout the empire (castles, city walls, reservoirs, churches) [27].

As he describes in detail the buildings of the empire, Procopius proceeds to the description of their regions and cities; this way he offers a wealth of geographical, topographical and economical information, while he became a very significant source on the empire's internal and local history. This work most probably was written in parts during different time periods; in any case it seems that it was finished before the collapse of the dome of Saint Sophia on May 7, 558. The six books or 'Logoi' of the *De Aedificiis* offer a detailed exposition by region of the numerous public works that were constructed by Justinian I up to the year 550. Starting with the capital Constantinople (Logos 1), Procopius describes subsequently the region of the borders with Persia (Logos 2), then Armenia (Logos 3), Europe (Logos 4), Asia Minor and Palestine (Logos 5) and finally North Africa, from Alexandria to Gibraltar (Logos 6). The whole opus is a testimony to the extent of the emperor's efforts to fortify vital positions and, by doing this, to stop the stream of the barbarian raids against the regions of the empire. With this work Procopius made an 'official' account of the huge program of building and other public construction activities designed and materialized by the emperor and his staff from the one edge of the empire to the other; Procopius mentions significant Justinianian works in such remote places as Sinai, Jerusalem and Bethlehem, Egypt, Ravenna in Italy, in the Greek mainland and other places. His motto was founding, renovation or re-erection + renovation of old castles, erection of new fortifications and even founding of new cities. The *De Aedificiis* is a vital source about the works of the emperor in the Balkans, as well as about the history and geography of cities and castles. For

example, in Epirus we know from the *De Aedificiis* that Justinian I built walls around Nikopolis, while he renovated the walls of the cities Photike, Phoenice and Adrianopolis, which he renamed into Justinianopolis ('City of Justinian', nowadays Edirne in Turkey). Later, he erected walls at both Thermopylae and the Isthmus of Corinth in order to protect Peloponnese from the raids of the barbarians. Procopius, who – as a senior administrative officer – had access to the official documents, gives a list of 570 cities and fortifications in the Balkan Peninsula, a key region of Justinian's constructive activity. Similarly, in the 4th book of *De Aedificiis* the author mentions by name 56 cities or towns that were either renovated or built as new in Asia Minor.

For these reasons Procopius, is classified not only as a great historian, but also (perhaps involuntarily) as a great geographer, with sources that are totally reliable. It should be noted that in the *De Aedificiis* he reveals an exceptional ability in the description of the architectural monuments. This shows his broad and deep culture. Although he attempts to imitate Thucydides and Herodotus, his style is more sinewy and plain. This eminent historian and geographer, like all the scholars of his period, lived in an age that forms the exact border between two distinct periods in history: from the one side stands the ancient Greek/Graeco-Roman pagan world and from the other side the novel Byzantine Christian Empire. This becomes evident in both the works by Procopius and those of other authors of that period from the fact that often the ancient ideas and beliefs intermingle and alternate with the corresponding Christian teachings.

The entire work of Procopius was published by H.B. Dewing in seven volumes from 1914 to 1940 [28], and by J. Haury in 1964 [29].

3.9. Corippus the African (6th century)

Flavius Cresponius Corippus was a Latin grammarian and epic poet from North Africa, hence his surname 'African'. He lived initially in Carthage and later he became an officer of the imperial court of the Byzantine Empire in the years of Justinian I (527-565) and of his successors.

As a poet, Corippus wrote in Latin two poems of historical content in hexameter verse. The first one, entitled *Iohannidos seu De bellis Libycis libri 8* (*Of John or About the Libyan Wars in 8 Books*) is an epic poem of 5,000 verses in 8 books, which was composed in 549-550 AD in honour of Justinian's Byzantine general Ioannis Troglites, who stifled the rebellion of the Moorish in Africa (546-548). Corippus emerges as a competent geographer in this work, since he adds valuable material on the geography, topography and the ethnic background of the northern Africa. This poem was published in 1970 by James Diggle and Francis Richard David Goodyear [30].

In his second poem, entitled *In laudem Justini Augusti minoris* (*In praise of the younger Justin*), which was composed in 567 in four books, Corippus narrates in pompous style the ascending of Justin II (565-578) to the throne, as well as the first events of his period. It is also a very important work, because it presents facts about the imperial Court of that period [31].

3.10. Stephen of Byzantium (6th century)

Stephen of Byzantium or Stephanus Byzantius was a renowned scholar and geographer who flourished in the early 6th century, most probably during the reign of Justin I (518-527). Stephen wrote the *Ethnica* or *On Cities and Boroughs*, a unique great geographical dictionary in which he used all the geographical knowledge of the ancient Greek historians and geographers; this work's first title stems from the fact that in it the cities are mentioned with their ethnikà (gentile, old) names [32]. Indeed, it was a dictionary of Geography and names consisting of 55 books in which Stephen exposes valuable information about the geography of the ancient world. The sources for the compilation of this opus were the works of the great geographers, savants and historians of the antiquity, from Anaximander, Hecataeus of Miletus, Herodotus, Polybius and Pausanias to the Phoenician grammarian Philo Erennius (1st century AD), who had written a work under the same title (*On Cities And On the Glorious Persons Each Of Them Has Offered)*, and to Claudius Ptolemy (2nd century AD). For this reason the *Ethnica* contains a lot of important pieces of information (historical, religious, mythological, on linguistics and etymology, etc.) about the whole period from the antiquity to the author's century [33].

It should be noted that the ancient Greek historian, geographer and speech writer Hecataeus of Miletus (560-480 B.C.) in his work *Perihegesis* (*Tour of Earth*) compiled a 'world map' improving on that by Anaximander. In the new map (which was restored based on text from his written work) the eastern view about the world prevailed, i.e. that the Earth has the shape of a flat circular disk, with the land occupying the disk's central part and the Ocean surrounding the whole surface of the land.

Stephen's *Ethnica* geographical dictionary included also elements of the so-called mathematical geography. For the correct spelling of the place names and of their derivatives Stephen used as a source the famed grammarian Aelius Herodianus, whose work partly rescued. In this way, Stephen of Byzantium succeeded in writing an excellent encyclopaedic dictionary in both geographical and linguistic aspects.

This dictionary became particularly known and popular from an epitome written by a certain Hermolaus, a scholar and grammarian who dedicated it to emperor Justinian I (527-565). This epitome was circulated widely in the empire and became very popular; it is mentioned as being of great value by Theophanes, by the emperor Constantine VII Porphyrogennetos and by others, and rightly so, because even as an epitome, the *Ethnica* is of enormous value for the geography, the history and the evolution of language during the early Byzantine period. The full work formed the main source for the *De thematibus* by Constantine VII Porphyrogennetos.

Daniel Demetrio Magnes in his own dictionary (1834) writes the following about the *Ethnica*: "*This dictionary writes about Cities and Boroughs, and of the generation of the gentile names. Of this very useful Dictionary only a few fragments are saved and the Epitome written a certain grammarian*

Hermolaus from Constantinople during the reign of Justinian. The most complete edition of this work is the Greek and Latin of Lugdunum of 1694, which contains many and significant comments and Notes." [34]

The last full edition of this work was done by Augustus Meineke in 1849, in Berlin [35], and by convention references to the text use Meineke's page numbers. A new completely revised edition in German is in preparation by Margarethe Billerbeck.

The chief fragments remaining of the original work are preserved in *De administrando imperio*, ch. 23 (the article *Iberiae dio*) and *De thematibus*, ii. 10 (an account of Sicily); the latter includes a passage from the comic poet Alexis on the *Seven Largest Islands*. Another respectable fragment, from the article '*Dyme*' to the end of letter Delta, exists in a manuscript of the Fonds Coislin, the library formed by Pierre Séguier.

3.11. Nonnosus (6th century)

In the same age with Stephen of Byzantium flourished the polymath, scholar and speaker of many eastern languages Nonnosus. He was born to a family of diplomats, so he became an ambassador himself and during the reign of Justinian I he participated, as Photius writes in his *Bibliotheca* [36], in several missions-embassies to various nations, such as to the Ethiopians (553), to the Saracens (557) and others.

Nonnosus is mentioned as the author of various treatises, which originated in notes taken during his embassies to the Arabs, to the Red Sea nations and to the Axumites. The special interest in his work stems from the fact that it contains much reliable geographical and ethnographic information collected from the author's personal experience and impressions. For example, in the year 557 he personally led an embassy to the Saracens ('then a most powerful nation') and wrote down his impressions to a text, a passage of which was saved in Photius' *Bibliotheca* along with other fragments from his works about his diplomatic missions [36, Cod. 3: I 2]. In addition, from his work *Historia* only fragments exist today [37].

The work of Nonnosus was an important information source for the subsequent historians John Malalas (6th century), Theophanes (6th century) and those who continued the work of Theophanes (6th and 7th century), Photius (9th century) and George Cedrenus (11th century) [2, p. 210].

An example of Nonnosus from Photius follows: *"He tells us that most of the Saracens, those who live in Phoenicon as well as beyond it and the Taurenian mountains, have a sacred meeting-place consecrated to one of the gods, where they assemble twice a year. One of these meetings lasts a whole month, almost to the middle of spring, when the sun enters Taurus; the other lasts two months, and is held after the summer solstice. During these meetings complete peace prevails, not only amongst themselves, but also with all the natives; even the animals are at peace both with themselves and with human beings. Other strange, more or less fabulous information is also given.*

He tells us that Adulis[1] is fifteen days' journey from Axumis. On his way there, he and his companions saw a remarkable sight in the neighbourhood of Aue (Ave), midway between Axumis and Adulis; this was a large number of elephants, nearly 5000. They were feeding in a large plain, and the inhabitants found it difficult to approach them or drive them from their pasture. This was what they saw on their journey.

We must also say something about the climatic contrarieties of summer and winter between Ave and Axumis. When the sun enters Cancer, Leo, and Virgo, it is summer as far as Ave, as with us, and the atmosphere is extremely dry; but from Ave to Axumis and the rest of Ethiopia, it is severe winter, not throughout the day, but beginning from midday, the sky being covered with clouds and the country flooded with violent rains. At that time also the Nile, spreading over Egypt, overflows and irrigates the land. But when the sun enters Capricornus, Aquarius, and Pisces, the atmosphere, conversely, floods the country of the Adulites as far as Ave, while it is summer from Ave to Axumis and the rest of Ethiopia, and the fruits of the Earth are ripe.

During his voyage from Pharsan[2], Nonnosus, on reaching the last of the islands, had a remarkable experience. He there saw certain creatures[3] of human shape and form, very short, black-skinned, their bodies entirely covered with hair. The men were accompanied by women of the same appearance, and by boys still shorter. All were naked, women as well as men, except for a short apron of skin round their loins. There was nothing wild or savage about them. Their speech was human, but their language was unintelligible even to their neighbours, and still more so to Nonnosus and his companions. They live on shell-fish and fish cast up on the shore. According to Nonnosus, they were very timid, and when they saw him and his companions, they shrank from them as we do from monstrous wild beasts."

[1] A seaport town, generally identified with modern Thulla or Zula in Annesley Bay on the West shore of the Red Sea.
[2] Town in Ethiopia.
[3] The Pygmies

3.12. Priscianus the Grammaticus (6th century)

Priscianus, commonly known as Priscian, was a noted Latin grammarian, hence his nickname 'Grammaticus'. Because he was from Caesaria of Mauritania, he is also known as Priscianus Caesariensis. He flourished *circa* 500 AD in Constantinople as a professor of grammar and rhetorics, a fact known from a speech he wrote and dedicated to the emperor Anastasius I (Prisciani Grammatici, *De laude imperatoris Anastasii et de ponderibus et mensuris carmina*) [38].

However, he is better known from his 18-book opus on grammar entitled *Institutiones grammaticae* (*Grammatical Foundations*) [39]. In addition to some other works he wrote on Mathematics and Science, such as *De Figuris numerum*, *De metris fabularum Terentii* (*The Meters of the Plays of Terence*)

etc., Priscian should probably be also mentioned separately as a geographer. This is because he translated in Latin and disseminated in the Western Empire the geographical poem *Ecumenes Periegesis* (*Tour of the World*) by Dionysius the Traveler (*Periegesis de Dionysio*) [40] a work of 1,187 hexameter verses. This Dionysius had flourished during the Roman imperial times, in the age of the emperor Hadrianus, and for his poem he used as prime sources works by eminent geographers such as Eratosthenes, Poseidonius, Metrodorus, Alexander of Ephesus and others.

3.13. Marcellinus the Illyrian (6th century)

Marcellinus was born in the western part of Illyria. He was a scholarly writer of considerable education. From his work is saved only a *Chronicle* (*Annales*) in Latin, with which he continues the work of Hieronymus and covers the period from 379 to 534 AD [41]. In his *Annales* Marcellinus offers precious facts concerning the history of the empire's eastern part. He lived in Constantinople during the reign of the emperor Justinian I (527-565); Marcellinus was chancellor to Justinian, so when Justinian ascended to the throne his chancellor remained in favor and obtained various high places in the government and the title of 'Count' (*Comes*) [42]. Otherwise little or nothing is known of his life. Marcellinus died apparently soon after 534.

Marcellinus is of interest as far as Geography is concerned because of his lost work *Odoiporikon*, a 'most exact description of the cities of Constantinople and Jerusalem in four little books' with geographical and topographical information, which is mentioned by Cassiodorus the monk (Flavius Magnus Aurelius Cassiodorus Senator, *c.*485-*c.*585) in his *Institutiones Divinarum et Saecularium Litterarum* (*Institutes of Divine and Secular Literature*, 543-555) [43].

3.14. John of Gaza (Ioannis Gazaios, 6th century)

John was a renowned scholar, poet and geographer from Gaza of Palestine, that's why he is known as Gazaios. John also flourished under the reign of Justinian I (527-565).

From John's works was saved a poetic geographical description composed in 700 hexameter verses (with introductions in trimeter verse) under the title *Ecphrasis tou Cosmikou Pinakos* (*Expression of the World Table*). It is reported that John was inspired to compose this work from 'a painted map of the World' located in Gaza's winter baths with a mixture of Christian and pagan elements. According to the standard edition of Johns' poem by P. Friedländer [44] these are the baths Choricius of Gaza refers to as in course of construction at Gaza in 535 or 536 [45].

In his *Ecphrasis* John of Gaza imitates the literary, poetic and metric style of Nonnus of Panopolis (fl. *c* 450 AD). John also wrote poems on various topics and epigrams.

4. Other authors of Geography

After the age of the previous geographers and geographical authors, early Byzantine period followed various 'itineraries' or travelogues with much geographical information, especially about the Holy Land, since they were of practical use for the pilgrims.

Of noted significance are the itineraries written by John Phocas, Andreas Livadenos and Daniel, the bishop of Smyrna. Also, in the 7th century appeared the geographical work by George of Cyprus, which was of similar style with the work by Hierocles.

Essentially, aside from various patriarchal documents that contain many historical-geographical elements, cities and towns of their age, as 'real' historical-geographical sources can be classified the *Synecdemos* of Hierocles the grammarian (6th century), the Greek Codex No. 1155a of the 8th century (now in the French National Library, in Paris), the treatise *De thematibus* (*About the Provinces*) by the emperor Constantine VII Porphyrogennetos (10th century), as well as two works by foreign travellers-geographers: The first by the Arab traveller Abu Abdullah Muhammad ibn Ash Sharif al Idrisi (or Edrisi, 1106-1166), entitled *Kitab Nuzhat al-mushtaq fi'khtiraq al-'afaq* (= *The book of pleasant journeys into faraway lands* or *The pleasure of him who longs to cross the horizons*, 12th century), and the second by the Jewish Rabbi Benjamin of Tudela (1130-1173) under the title *Travels in the Middle Ages* [46]. It should be noted that the French expert of Byzantine studies Raymond Janin (1882-1972) dedicated his life to the history of the ritual of the eastern Churches and to the geography of the Byzantine Empire [http://openlibrary.org/authors/OL132622A/Raymond_Janin].

5. Conclusions

The early Byzantine period extends from about 300 AD to the 6th century and is characterized by the efforts to consolidate the Christian religion and make it the prevalent one in the empire. Therefore, anything that was in contradiction with the Holy Scripture should conform to it in any possible way. For this reason, and because geographical information often was not in agreement with the text of Scripture (and since the *Bible* could not be wrong), Geography according to the current way of thinking had to be adapted to the holy texts of Christianity. This task was overtaken by the Nestorian Christian monk Cosmas, the so-called Indicopleustes (6th century), who will be the subject of our subsequent paper. Cosmas wrote a *Christian Topography*, a work through which he attempted to create a novel system of Geography in the sense of a representation of the World in a way that would be compatible with the text of the Holy Scriptures.

We note here as well, that this paper is the continuation of our previous work on the connections between spirituality and Science [47, 48], on the contribution of the Church in Byzantium to the Natural sciences [49-51] and on the anti-astrology stance of the Church Fathers [52].

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