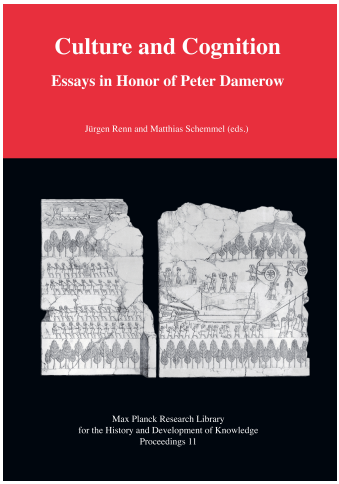
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Proceedings 11

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In: Jürgen Renn and Matthias Schemmel (eds.): *Culture and Cognition : Essays in Honor of Peter Damerow*
Online version at `http://mprl-series.mpg.de/proceedings/11/`

ISBN 978-3-945561-35-5
First published 2019 by Edition Open Access, Max Planck Institute for the History of Science.

Printed and distributed by:

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at `http://dnb.d-nb.de`

Chapter 9
Astronomical Knowledge in *The Slavonic Apocalypse of Enoch*: Traces of Ancient Scientific Models

Florentina Badalanova Geller

The celestial cosmography revealed in *The Slavonic Apocalypse of Enoch* (also designated among the specialists as *The Book of the Holy Secrets of Enoch*, or *2 Enoch*)[1] follows the sevenfold pattern of Creation, thus implicitly referring to the biblical scenario of *Genesis* 1–2, which is also reflected in other Judeo-Christian apocryphal writings, along with Rabbinic tradition and Byzantine hexameral literature. The symbolism of *seven* as the hallmark of esoteric wisdom in *2 Enoch* is reinforced by the fact that the visionary himself is born seven generations after Adam,[2] thus completing the first "heptad" of antediluvian ancestors and becoming its "Sabbatical" icon. Seven is also the number of heavens through which

[1] The proto-corpus of apocryphal writings attributed to the biblical patriarch Enoch was originally composed in either Hebrew or Aramaic, probably no later than the first century BCE, and after the discoveries of the Dead Sea scrolls from Qumran it became clear that some of its segments may be dated to the end of the third and beginning of the second century BCE. This ancient proto-corpus of writings was the intellectual ancestor of three main offspring: Ethiopic (*1 Enoch*), Slavonic (*2 Enoch*), and Hebrew (*3 Enoch*). As for the Slavonic corpus of *2 Enoch*, it must have originated from an earlier Greek edition of the apocryphon based on a Hebrew or Aramaic *Vorlage*; this (no longer extant) Greek protograph was fostered by Septuagint-related tradition and further influenced by Christian ideology of the Byzantine Commonwealth. The translation from Greek into Old Church Slavonic (using the Glagolitic script) was made most probably by a scholar close to the scribal circle of the Preslav Literary School, no later than the eleventh century. Various editions of a number of Church Slavonic text-witnesses were published by Popov (1880), Novaković (1884), Sokolov (1899, 1910), Ivanov (1925, 165–191), Vaillant (1952), Navtanovich (2000, 204–241), Jovanović (2003), Reinhart (2007), Mil'kov and Polianskii (2009, 459–493), Macaskill (2013), and others. For English translations of the apocryphon (with commentaries), see Morfill and Charles (1896), Andersen (1983), Pennington (1984), Badalanova Geller (2010), Macaskill (2013). See also the discussion in Bonwetsch (1896, 1922), Meshcherskii (1963, 1964), Alexander (1998), Böttrich (1991, 1995, 1996, 1997, 2012), Orlov (2004), Khristova (2008), Badalanova Geller (2012, 2014, 479–482, 2015). Several essays gathered in *New Perspectives on 2 Enoch* (2012) (under the editorship of A. Orlov and G. Boccaccini) are valuable and pertinent to the study of Enochic traditions in the Slavonic realm of the Byzantine Commonwealth.

[2] Cf. *Jude* 1:14.

Enoch ascends and learns the secrets of the Universe.[3] Seven are the planets, about the movements of which he is instructed by the Creator,[4] and the heavenly rings, where the luminaries are located, are also seven; seven are the substances from which Adam is composed,[5] and seven are the traits assigned to him. In fact, cosmogonic and anthropogonic narratives anchored by the universal formulaic number *seven* contain some unique cultural features attested exclusively in the last *lingua sacra* of Europe, Old Church Slavonic. One such case is presented by the planetary order in *2 Enoch*; its description offers one of the most enigmatic schemes of celestial topography. While revealing the secrets of the creation of heavenly bodies to the visionary, God states:

> On the first and highest ring I placed the star Kronos [= Saturn]; on the second ring, below it, I placed Aphrodite [= Venus], on the third—Ares [= Mars], on the fourth—the Sun, on the fifth—Zeus [= Jupiter], on the sixth—Hermes [= Mercury], on the seventh—the Moon. I adorned the lower ether with smaller stars [= constellations?], and I put the Sun to shine during the day, while the Moon and stars were to shine during the night; and I ordered the Sun to advance through each zodiac sign, with each of the twelve zodiac signs allocated to a [particular] month. I gave names to the zodiac signs, and the time when they enter to be born [i.e., their Heliacal risings], and the period of their rotational movement. And after that it was night and morning—the fifth day.[6]

The specific sequence of the seven luminaries in *2 Enoch* is a conceptual *hapax* which so far has not been attested in any other extant cosmographic accounts containing ancient and medieval epistemological models; it does not have a counterpart in texts reflecting exact sciences from either Babylonian or Hellenistic traditions, nor does it occur in writings concerning the astronomical knowledge from the period of Antiquity to the Middle Ages.[7] It is rather significant that in the above-quoted fragment from *2 Enoch* there is a statement that "each of the twelve zodiac signs is allocated to a [particular] month"; this is a typically Babylonian trait, since in the early development of the zodiac, which we know

[3] Yarbro Collins (2000, 37–39); Schäfer (2004, 233–274; 2009, 85). However, there are singular cases in which the number of heavens is not seven but ten; the reasons for this numerical shift will be examined elsewhere.

[4] See also Yarbro Collins (2000, 47–54).

[5] See Lincoln (1986, 11–33).

[6] See Badalanova Geller (2010, 55–57).

[7] In fact, I have consulted with Alexander Jones, Gerd Grasshoff, and John Steele, and none of them could identify any familiar pattern in the Enochic sequence of planets. I am grateful for their advice on this matter.

originated in Babylonia some time before 400 BCE, each of the twelve zodiac signs were conveniently associated with a corresponding lunar calendar month.[8] This pattern changed later in Greek astronomy, in which zodiac signs were no longer associated with a lunar month but became a feature of the solar calendar. As a result, the correspondence between a zodiac sign and a single lunar month was gradually abandoned.

A brief survey of planetary order in Slavonic texts of the Byzantine Commonwealth, which are representative of the cultural and scientific context of *2 Enoch*, reveals an intriguing epistemological template. Against this particular background, the picture becomes more transparent.

One of the earliest star/planet lists in Old Church Slavonic is found in an astronomical fragment presented in the *Symeonic Florilegium*, the oldest extant copy of which, *Sviatoslav's Miscellany*, comes from 1073.[9] In this source, the list of the seven heavenly luminaries (copied on Fol. 250 v, columns i-ii and Fol. 251 r, column i) is rendered in an astral scheme described in relation to the twelve zodiac signs. The scribe claims to be quoting one particular excerpt from the famous *Fountain of Knowledge* (or *Fountain of Wisdom*) by John of Damascus (676–749);[10] indeed, in the *Symeonic Florilegium* the section is entitled "John of Damascus on the months in the Macedonian [calendar] according to the Church tradition" [Iwa(на) Дамаскина о македоньскыихъ м҃цихъ отъ цр҃квьнаго пр҃ъданиѧ]. The opening paragraph of this section reads as follows:

> Г҃ютъ во илине сѫшта дъва на десѧте животы • звѣздами на небеси противьное пошьстие имоуштa • слъньцѫ же и лоунъ • и инѣмъ пати планитомъ • и • і҃в҃ • животы пр҃ѣходѧща • седми тои • седми же планитъ сѫть имена се • слъньце ло(у)на • зеус • ермись • ари(с) • афродит(и) • (к)ронос • планиты же наричѫть ѩ • имьже странъ

[8] See Brack-Bernsen (2003, 24–25) (reference courtesy F. Rochberg).

[9] This copy was made in Kiev for the Russian Prince Sviatoslav (hence its designation). As for the Slavonic protograph of the *Florilegium* itself, it was originally compiled in Bulgaria in the period between 914 and 927, during the reign of Symeon, on the basis of a Greek (Byzantine) *Vorlage*, and most certainly was commissioned by the king himself. It was designed as a compendium containing articles from various spheres of medieval knowledge: Christian theology and ethics, along with ancient science and philosophy; see Ševčenko (1981, 330–334), Lunt (1983), Dinekov (1991), Thomson (1993), Bibikov (1996). Actually, it is also in the *Symeonic Florilegium* where the first reference to the Enochic apocryphal corpus in the Slavonic realm of the Byzantine Commonwealth appears. The reference to Enoch is found at the very end of the Ms (Fol. 254), in the section devoted to the *Index of Prohibited Books*, the authorship of which is attributed to Isidore of Pelusium (d. c. 450). *Enoch* is listed at its very top, coming in second position after *The Life of Adam and Eve*; see Dinekov *et al.* (1991, 701). The Ms can be found online (http://catalog.shm.ru/api/pdf/2EC1vsn-oxUeFwTrSEVUvzwT156uM2KwKo8D9BMC8Mk.pdf). See also http://catalog.shm.ru/entity/OBJECT/178472?fund=21&index=11.

[10] The text of *De mensibus macedonicis* is contained in Book 2, Chapter 7 (*Concerning light, fire, the luminaries, sun, moon and stars*) of the *Fountain of Knowledge*.

небесе пошьствие имоуть • юсть же по коюмоужьдо поıасѫ ıединъ отъ з҃ • планитъ • а҃ • на прьвѣюмъ и на вышьшнимь • кронъ • в҃ • на вътор҃мь же дии • г҃ • на третиимь же ареи • ☿ • д҃ • на чєтвьрьт҃мъ • жѣ слъньце • на пат҃мъ же афродити • ♀ • ѕ҃ • на шест҃мь же ıермии • ζ҃ • на седм҃юмь же и дол҃шьниимъ лоуноу • ☾ да слъньце оубо по коюмоужьдо животоу ходить м҃ць • а҃ • и на дъва на десате м҃ца • оба на десате миноують животъ • ıв҃ • же животъ сѫть имена • и т҃ѣхъ м҃ци • а҃ • овънь • м҃ца марта • кa҃ • приемлеть слньце • в҃ • тельць • м҃ѣсаца априла • въ • кг҃ • д҃ • ракъ • иоуна • кд҃ • е҃ • львь • їоула въ • ке҃ • ѕ҃ • дѣвица • аугуста въ • ке҃ • ζ҃ • ярьмъ • сетевра • въ • ке҃ • и҃ • скорпиос • октовр҃ • ке҃ • ѳ҃ • стр҃лець ноѣбр҃ • въ • ке҃ • ı҃ • козьльрогъ • декавр҃ въ • ке҃ • ıа҃ • водол҃виць • їенъуар҃ • въ • к҃ • вı҃ • риба • фєуавр҃ар҃ • к҃ • …[11]

The Hellenes say that there are twelve astral zodiac signs, which move in heaven in a direction opposite to that of the Sun and the Moon, along with another five planets; these seven [luminaries] pass/move through the twelve zodiac signs. These are the names of the seven planets: Sun, Moon, Zeus [= Jupiter], Hermes [= Mercury], Ares [= Mars], Aphrodite [= Venus], Kronos [= Saturn]; and these move in a direction opposite to that of heaven: that is why they are called planets [= wanderers]. On each of the seven rings there is one of these seven planets. On the first and the highest ring is the planet Kronos [= Saturn], on the second is Dii (Διός) [= Jupiter], on the third is Ares [= Mars] ☿[12], on the fourth is the Sun, on the fifth is Aphrodite [= Venus] ♀, on the sixth is Hermes [= Mercury], on the seventh and the lowest is the Moon ☾. In each of the twelve months [during the solar year] the Sun passes through one of the twelve zodiac signs. It passes through all the twelve signs. These are the names of the zodiac signs, along with the names of the months. The Sun goes into the first one, Aries, on March 21st. The second one, Taurus, [begins] on April 23rd; [then comes the third, Gemini]; the fourth, Cancer, [begins] on June 24th; the fifth, Leo, on July 25th; the sixth, Virgo, on August 25th; the seventh, Libra, on September 25th; the eighth, Scorpio, on October 25th; the ninth, Sagittarius, on November 25th; the tenth, Capricorn, on December 25th; the eleventh, Aquarius, on January 20th; the twelfth, Pisces, on February 20th …[13]

[11] For the text of the *Symeonic Florilegium*, see Dinekov *et al*. (1991, Vol. 1, 694–695).

[12] The astrological symbol ☿ designates Mercury [Hermes, Ἑρμῆς], not Mars [= Ares, Ἄρης]; obviously, the copyist made a mistake.

[13] Author's translation.

Significantly, on the page on which the above-quoted fragment appears in the *Symeonic Florilegium*, the twelve zodiac signs[14] are illuminated along the margins of the text. The order is idiosyncratic, starting from Sagittarius (стрѣльць) and going through Aquarius (водолѣиць), Aries (овънъ), Taurus (телець), Gemini (близньцы), Leo (левъ), Libra (жрьмъ), Cancer (ракъ), Virgo (дѣвица), Scorpio (скорп), Pisces (рыба), and Capricorn (козълърогъ). There have been many attempts to explain the reason behind this peculiar rendition of zodiacal sequence,[15] but none of them is satisfactory. On the other hand, a more precise comparison between the astronomical section in the *Symeonic Florilegium* and the respective excerpts from the *Fountain of Knowledge* shows that the *Florilegium* comprises information from two different chapters of the *Fountain of Knowledge.* Thus in Book 2, Chapter 6 (*Concerning Heaven*), John of Damascus lists the seven luminaries in an order which differs from that offered by him in Chapter 7 (*Concerning light, fire, the luminaries, sun, moon and stars*); in Chapter 6 he states the following:[16]

> It is maintained that there are seven heavenly girdles which are situated above each other. It is said that the substance of the heavens is similar to that of a thin smoke, and on each girdle there is a planet. It is maintained that there are seven planets: the Sun, the Moon, Dii (Διός) [= Jupiter], Hermes [= Mercury], Ares [= Mars], Aphrodite [= Venus] and Kronos [= Saturn]. Aphrodite is called either the Morning Star or the Evening Star. They are called planets [= wanderers], since they move in a direction opposite to that which the heavens follow; because the heavens and other stars move from east to west, and only [the planets] move from west to east. And this can be seen [while observing] the Moon, which moves each evening a little backwards [i.e., eastwards].[17]

[14]On the duodentary animal cycle in medieval Slavonic tradition (with special emphasis on Russian texts), see Ryan (1971, 12–20). Zodiac imagery also appears frequently in the iconography of *Isaiah* 34: 4 and *The Apocalypse of John* (*The Book of Revelation*) 6: 14; see 9.1

[15]See the research on the topic by Ivan Dobrev (1979), Elisaveta Musakova (1992), Tatiana Slavova (1993, 1994), and others.

[16]For the original Church Slavonic text of John the Exarch's *Theology*, see Mil'kov and Polianskii (2008, 63).

[17]Author's translation.



Figure 9.1: "The Angel of the Lord rolls up the skies"; fresco (1476) from the Dragalevtsi Monastery of the Holy Theotokos of Vitosha (Драгалевски манастир Света Богородица Витошка), Bulgaria. The fresco represents an iconographic rendition of the eschatological accounts in *Isaiah* 34: 4 ("And all the host of heaven shall be dissolved, and the heavens shall be rolled together as a scroll: and all their host shall fall down, as the leaf falleth off from the vine, and as a falling fig from the fig tree") and *The Apocalypse of John* (*The Book of Revelation*) 6: 14 ("And the heavens departed as a scroll when it is rolled together"). Depicted on the scroll of heaven, rolled up in the hands of the angel, is the disappearing image of the Sun; next to the image of the Moon (at the bottom) is the winged *Aphrodi* [Venus], depicted in a boat (alluding to her designation as a planet, i.e., as a "floating one"). Other winged luminaries (also in boats) are depicted to the left of the angel, next to the image of the Sun. The lower figure is difficult to identify, but the one above it is labelled as *Ermis* [Mercury]. Since the inscriptions are not clear, one can only guess that on the top edge of the scroll, to the right of the angel, are depicted (counterclockwise) Aries, Taurus, Gemini, Cancer; Virgo[?]; then below, clockwise, Scorpio, Sagittarius, Capricorn; below, Aquarius[?], Pisces, and Leo. Photo: FBG.

It is relevant to note that the above-quoted passage and other abridged excerpts from the *Fountain of Knowledge* were translated into Old Church Slavonic by John the Exarch,[18] one of the most important men of letters working at the end of the ninth and the beginning of the tenth century in Preslav, then capital of Bulgaria. They were put together into one composition entitled *Theology* (also known as *Heavens*).

As for the particular planetary order, which was initially presented by John of Damascus in Chapter 6 of his *Fountain of Knowledge*, it corresponds to the ancient philosophical concept of *musica universalis* (or harmony of the Spheres) regarding proportions in the movements of the seven celestial bodies (the Sun, the Moon, and the five planets) as "seven musical tones" (octave, with $1^{st} = 8^{th}$ constituent); this theory rests on the Pythagorean idea that the Sun, Moon, and the five planets all produce their own unique tone (= "orbital resonance") based on their "orbital revolution." In fact, the concept of "orbital revolution" is presented in the concluding chapter of Plato's *Republic*, Book 10, in *The Myth of Er*, where he describes the rotation of the Spindle of Necessity. It is during the course of his afterlife journey that Er sees the cosmic mechanism of "orbital revolution," the Spindle turning on the knees of the deity Necessity, who is surrounded by her daughters, the three Fates, responsible for the present, past, and future of those born on Earth. This Spindle was stretched from the extremities of the heavens in the middle of a pillar of light. It resembled the brightness of the rainbow, its luminosity-like bonds holding the sky together:

> In the center of the light the ends of its bonds stretched from the sky: for this light was what bound the sky together, like the braces of triremes, so holding together the whole revolution. Stretching down from either end was the spindle of Necessity by means of which all the circles turn. Both its shaft and hook were made of adamant, while the whorl is a mixture of this and other sorts of material. The nature of the whorl is as follows: its shape is like the ones we use, but you have to imagine what it's like from his description of it, just as if in a large hollow whorl scooped out right through, another one of the same sort lies fitted inside it, and so on, just like boxes that fit into one another, with a third and fourth and four more. The total number of whorls is eight, each lying inside the other. Their edges seen from above are circles, forming from the back a continuous single whorl around the shaft, the latter being driven right through the center of the eighth.[19]

[18] See Thomson (1991), Trendafilov (1995, 1996, 1998a, 1998b, 1998c, 2003, 2004).

[19] See Emlyn-Jones and Preddy (2013, 470–473); see also the discussion in Badalanova Geller (2015, 387–388, fn. 19).

The cosmos is described here as a revolving vault or spindle whorl consisting of seven inner rings, which rotate concentrically within the eighth outer ring. This motif of rotating spheres resembles the description of the heavens in *2 Enoch* in similar terms, and it is possible that the celestial models from which the *Myth of Er* and *2 Enoch* were derived were comparable, or perhaps shared a common ancestry. One thing, however, is clear: the planetary order described by John of Damascus in Chapter 6 of his *Fountain of Knowledge* and its subsequent renditions in the *Symeonic Florilegium* and John the Exarch's *Theology* suggest that these traditions continued to be a vibrant part of the epistemological scope of exact sciences in the Byzantine Commonwealth at least until the tenth century.

Then again, as briefly stated above, only the first paragraph of the astronomical section in the *Symeonic Florilegium* derives from Chapter 6 of *The Fountain of Knowledge*; its second paragraph stems from Chapter 7 (*Concerning light, fire, the luminaries, sun, moon and stars*), where John of Damascus gives a totally different planetary scheme which follows the Ptolemaic system in reverse order. In the Old Church Slavonic rendition of Chapter 7, as translated by the medieval Bulgarian intellectual John the Exarch, the following is stated:[20]

> There are, it is said, seven planets amongst these luminaries; it is said that these move in a direction opposite to that of heaven: hence the name planets [= wanderers]. For, while they say that heaven moves from east to west, the planets move from west to east; but heaven bears the seven planets along with it by its swifter motion. Now these are the names of the seven planets: the Sun, the Moon, Zeus [= Jupiter], Hermes [= Mercury], Ares [= Mars], Aphrodite [= Venus], Kronos [= Saturn]. Each of these seven planets [belongs to] a separate girdle. On the first and highest is Kronos [= Saturn]; on the second—Dia (Διός) [= Jupiter]; on the third—Ares [= Mars]; on the fourth—the Sun; on the fifth—Aphrodite [= Venus]; on the sixth—Hermes [= Mercury]; on the seventh and lowest—the Moon.[21]

As we can see, the version in the *Symeonic Florilegium* (see pp. 105–107 above) represents a rather abridged redaction of the two astronomical excerpts from the *Fountain of Knowledge*; it also has some specific textual features which indicate that it was translated from a source which was not identical with the source used by John the Exarch. Still, in both accounts (the *Symeonic Florilegium* and John the Exarch's *Theology*) the pattern given is: Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon, which is the standard Ptolemaic sequence of planets but in *re-*

[20] For the original Church Slavonic text of John the Exarch's *Theology*, see Mil'kov and Polianskii (2008, 69).

[21] Author's translation.

verse order. The author of *2 Enoch*, on the other hand, puts Venus between Saturn and Mars. Still, in all three sources (*2 Enoch*, the *Symeonic Florilegium*, and Exarch's *Theology*), Kronos (Saturn) is placed on the first and highest heavenly ring. Then again, in *2 Enoch*, Kronos and other luminaries were considered to be "stars" (as in Babylonian astronomy), while in the *Symeonic Florilegium* and John the Exarch's *Theology* they are called "planets" (as in Greek astronomy).

The survey of Slavonic sources containing astronomical fragments betrays, however, a certain uneasiness on behalf of the compilers, suggesting that they considered this kind of information to be related to astrological knowledge rather than to Christian discourse. Thus, in the first Slavonic *Hexameron*, also compiled by John the Exarch in the late ninth century, the list of the planets is rendered within the framework of the zodiacal signs, and is presented in the *Homily* on the fourth day as a treaty against astrologists who define planets as benevolent and malevolent:[22]

> Since the so-called planets are in fact "floating stars," they [the astrologers] divide them into benevolent [and malevolent]. The star of *Dii* [that is, Zeus = Jupiter] and the star of Aphrodite [= Venus] they call benevolent, whereas Ares [= Mars] and the star of Kronos [= Saturn] are considered to be malevolent. As for the star of Hermes [= Mercury], it is considered to be commonly representative of either of the two groups. They further maintain that the Sun and the Moon have the power of rulers.[23]

Since John the Exarch's *Hexameron* is a compilation based on the homilies composed by one of the Cappadocian Fathers, St. Basil the Great, Bishop of Caesaerea (around 370 CE), it can also be treated as evidence for the attitude of the Church towards astronomical and astrological knowledge not only as esoteric, but also as erroneous and blasphemous. This will also explain why *2 Enoch*, densely packed with ancient scientific—astronomical, calendrical, and mathematical—information, was featured in all the Slavonic redactions of the *Indices of Prohibited Books*. As for the sources outside of these *Indices* (such as *The Interpretative Palaea*, *The Historical Palaea*, and *The Chronographical Palaea*, along with *The Chronicle of John Malalas*, *The Chronicle of George Hamartolos*, and, last but not least, *The Alexander Romance* of Pseudo-Callisthenes), the survey of astronomical schemes offered in them shows that their scribes conventionally follow either of the two universal versions of planetary lists, as outlined in John of Damascus' *Fountain of Knowledge*. Then again, the context in which the Byzantine chronicler John Malalas (c. 491–578) describes the order of planets

[22] For the original Church Slavonic text, see Barankova and Mil'kov (2001, 452).
[23] Author's translation.

(Saturn, Jupiter, Mars, Venus, Mercury, Sun, Moon) is rather symptomatic. Thus the statement attributing the authorship of the astronyms to Adam's son Seth is linked to the narrative about the mythical ancestry of kings and rulers who were named after the heavenly bodies. The *Chronicle* claims, for instance, that from the lineage of the first son of Noah came a giant called *Kronos* (named after the star) who ruled over Assyria and Persia. He was married to *Semiramin* (*Semiramis*), who also descended from Noah's son Shem. She was called *Aria* (Ares) in Syria, due to her great stature and intellect. From this union *Zeus* was born, along with his brother *Nin* and sister *Ira*, whom *Zeus* married and produced a son, *Velon*, the founder of Babylon. Another son of *Kronos* married a woman called *Astronomy*, and from this union *Aphrodite* was born.[24]

The same symptomatic link between the list of kings and list of planets (Saturn, Mars, Jupiter, Venus, Mercury) is attested in *The Chronicle of George Hamartolos* (842–867).[25] Having stated that Seth was the one who invented "Hebrew script" and possessed wisdom and knowledge about heavenly portents [= astrology], Hamartolos, following Malalas, maintains that it was also Seth who gave names to the five "wandering stars" [= planets], so that people may know them correctly. The first "wandering star" he called Kronos [= Saturn], the second—Ares [= Mars], the fourth—Aphrodite [= Venus], the fifth—Hermes [= Mercury]. Subsequently Hamartolos embarks on a description of the lineage of Nimrud as a descendant of Ham, the cursed son of Noah. According to the *Chronicle*, he founded the city of Babylon and showed his people how to hunt and do magic. He also taught Persians the "law of the stars [i.e., astronomy], astrology, and movements of the heavens, and everything generated in them." Having associated his narrative with the biblical account of the Flood, Hamartolos then hastens to describe the genealogy of the kings of Assyria, with *Kronos* being the first among them; *Semiramis*, his wife, was called *Area* (that is, Ares) by the Assyrians. Their first son was called *Dii* [Zeus = Jupiter], according to the name of the "wandering star"; the second was given the name of *Nin*, and the daughter was called *Ira*; *Nin* reigned after *Kronos*, and married his mother *Semiramis*, while *Dii* took his sister *Ira* as a wife. *Nin* ruled Syria and founded a great city in this land named after him: Nineveh. From him *Zoroaster* was born.

Despite otherwise confusing renditions of quasi-historical events, both *The Chronicle of John Malalas* and *The Chronicle of George Hamartolos* provide an important piece of information—that the ancient king lists were seen in conjunction with the lists of astronyms, with each ruler assigned a particular star. What

[24] *The Chronicle of John Malalas* was translated into Old Church Slavonic no later than the tenth century in Bulgaria (most probably in the capital Preslav by contemporaries of John the Exarch); for relevant fragments see the Appendix, Part One.

[25] *The Chronicle of George Hamartolos* was translated into Old Church Slavonic in Bulgaria, most likely in the eleventh century; for relevant fragments see the Appendix, Part Two.

then if we try to apply the same epistemological scheme to the planetary order in *2 Enoch*? Can it be suggested that the astral list in *2 Enoch* is in fact a counterpart of the list of deities?

Let us once more return to the order of heavenly bodies in *2 Enoch*: Saturn, Venus, Mars, the Sun, Jupiter, Mercury, and the Moon. Might there be a narrative behind this list concerning the gods who are identified with these luminaries? What about Babylonian god names behind these planets? Might there be some reason why Venus (Ishtar) follows Saturn (Ninurta), or Jupiter (Marduk) follows Mercury (Nabu)? Is there a relevant genealogy or mythology here? What if *2 Enoch* and this unusual order of stars/planets might be hiding something which has been missed so far: a Babylonian narrative, partially surviving in Slavonic texts from the Byzantine Commonwealth?

Finally, there may be one further clue to explain the idiosyncratic order of luminaries in *2 Enoch*, which appears to have had Venus and Jupiter exchange places: Babylonian astronomy of the Seleucid period had Venus in the second position in the order of planets,[26] and *2 Enoch* may have attempted to follow this order, which required that Venus change places with Jupiter. In this way, *2 Enoch* appears to be a compromise between the Seleucid Babylonian and Ptolemaic Greek order of planets/stars, and therefore reflects neither system precisely. Moreover, the interchange between Venus and Jupiter in the *2 Enoch* list may show their mutual links within Babylonian astrology as being both benevolent and portending favorable omens (in contrast to malevolent Saturn and Mars, and ambivalent Mercury);[27] in fact, John the Exarch's *Hexaemeron* (see p. 111 above) provides firm evidence for such a hypothesis.

Indeed, *2 Enoch* gives an idiosyncratic scheme which does not appear to follow either Babylonian or Greek astronomy (in contrast to the *Symeonic Florilegium* and John the Exarch's *Heavens*, which conform to Ptolemy's order of planets), suggesting that *2 Enoch* drew from different sources. This, in turn, indicates that in the period when the Slavonic protograph of *2 Enoch* was composed (along with the *Symeonic Florilegium* and John the Exarch's *Heavens* and *Hexaemeron*), medieval Slavonic science did not have at its disposal an established system of astronomical knowledge; scientific concepts of this period derived from various competing sources from different traditions.

[26] See Koch-Westenholz (1995, 120, footnote 2).
[27] See Rochberg-Halton (1984, 123).

Appendix

Part One:
Fragments from the Slavonic translation/redaction of *The Chronicle of John Malalas*

Seth had Wisdom from God, and by God's will he invented the names of the stars and of the five planets [lit. "wanderers"], so that men may know them correctly. The first star he called *Kronos* [= Saturn], the second *Dii* [= Jupiter], the third, *Areya* [= Mars], the fourth *Aphrodit* [= Venus], and the fifth *Ermin* [= Mercury]. It is said that all together there are seven, five stars and two [great] luminaries [i.e., Sun and Moon]. He is also the one who invented Hebrew script [= "Hebrew characters"] and wrote them [down]. As for the [two] great luminaries, these are named by God Himself. The ruler of the day He called the Sun and the ruler of the night is the Moon. This is what the wise Fortunus, the Roman chronographer wrote. This work I composed in Constantinople.[28]

[…]

In that year, from the tribe of Aphraxad, a certain Moor came along. His Indian-astral name was *Gandovari*, and he was the first in India to write about astronomy. From the tribe of Ham, a Moor by the name of Hus was born. He begot Nimrud the giant, who founded Babylon. Persians call him a god, and they call the stars in heaven "planets" [lit. "wanderers"]. He was the first hunter and he gave to everyone food from his hunts. […] Syria and Persia were under the control of the tribe of Shem. From the first son of Noah, a giant was born, whose name was *Kronos*, given this name by his father Damya, after the name of the star / planet. He was very strong and showed how to rule and hold power, ruling in Assyria for many years and keeping under his control the entire land, called Persia by the Assyrians. He was a terrifying soldier, more than anyone else.

His wife was *Semiramin* [= *Semiramis*], who was called *Aria* [= Ares] in Syria, because she was great of stature and very clever. She was also from the genealogy of Shem, son of *Noah*. *Kronos* had a son whose name was *Pika*, who was called by his parents *Zeus*, since he was named after the wandering star / planet [i.e., Jupiter]. *Kronos* had yet another son whose name was *Nin* and a daughter named *Ira*. *Zeus*, who was also called *Pika*, took his sister as a lawful wife, and they all lived together. […] *Zeus* had a son from her and he was called *Velon* [abbreviation of Vavilon = Babylon?], since he was speedy. […] His grandfather *Kronos*

[28] For the original Church Slavonic text of this fragment see Istrin (1897, 6); author's translation.

left his son *Pika* in Assyria, along with his wife *Area*, also called *Semiramida* [= *Semiramis*], and with many brave men he went to the western lands which were ruled by nobody, and he conquered the lands westwards of Syria. […] He [Kronos] had a son from his wife *Filura* whose name was *Afron*, and he gave him the land of Lybia. He married the woman whose name was *Astronomy*, and by her he had a daughter whose name was *Aphrodita*. […] And by *Filura Kronos* had a son whose name was *Chiron the Philosopher*, who reigned for 20 years in Assyria.[29]

Part Two:
Fragments from the Slavonic translation/ redaction of *The Chronicle of George Hamartolos*

Seth was the one who invented "Hebrew characters," and wisdom and heavenly portents [= astrology], and customs, [and] the four seasons of the year, and months and weeks, and he gave names to the stars, and to the five "wandering stars" [= planets], so that people may know them correctly. The first "wandering star" he called *Kronos* [= Saturn], the second—*Ares* [= Mars], the fourth—*Aphrodite* [= Venus], the fifth—*Hermes* [= Mercury].

After the Flood, Cainan—the son of Arphaxsad, wrote the "law of the stars," and he found the name of Seth and his children and the names of the stars written on a stone tablet, because for Seth's grandchildren it was professed from above that people will perish; and two columns were created, one of stone and one of clay. And on these he [Cainan] wrote [the knowledge which he received] from the discourse of his grandfather Seth, concerning the heavens. Thinking that if the world would perish from water, the stone column would remain, along with what is written on it. If [the world would perish] from fire, the clay column would remain, along with what is written on it. As [Flavius] Josephus says, this particular column survived the Flood and it is on Mt. Siridon [Sidon?] up until today.

Afterwards there was a giant, called a Titan, whose name was Nimrud, son of Hus the Ethiopian, from the genealogy of Ham. He founded the city of Babylon and showed how to hunt and do magic. He also taught Persians the "law of the stars" [i.e., astronomy], astrology, and movements of the heavens, and everything generated in them. […]

From the genealogy of *Semel* and *Aron*, from them are the Assyrians. And they reigned in Assyria and Persia and all the countries to the East. And after that a

[29]For the original Church Slavonic text of this fragment see Istrin (1897, 11–12); author's translation.

gigantic man, called *Kronos* [= Saturn], after the name of the "wandering star," came along. Being very strong, he subjugated and subdued many, thus being the first to constitute kingship and subdue other people. First, he was the King of Assyria for 56 years and reigned over the entire Persian lands. […] He had a wife, *Semiramis*, whom Assyrians called *Area* [= Ares?], and they had two sons and one daughter. The first son was called *Dii* [Zeus = Jupiter], according to the name of the "wandering star," and the second son he called *Nin*, and the daughter was called *Ira*, who was taken by *Pik* as a wife, just like *Zeus* took his sister as a wife. *Nin* reigned after *Kronos* for 52 years; and *Nin* married his mother *Semiramis*, since Persians had the custom of marrying their mothers and sisters. *Dii* afterwards took his sister *Ira* as a wife. *Nin* ruled mightily in Syria and founded a great city in this land […] and gave it a name after his own name, Nineveh. From him *Zoroaster* was born.[30]

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[30]For the original Church Slavonic text, see Istrin (1920, 33–35); author's translation.

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