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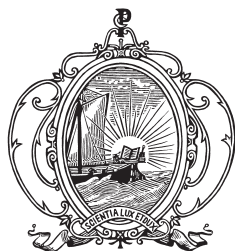
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# QUAND LES DUALISTES POLÉMIQUAIENT

ZOROASTRIENS ET MANICHÉENS

édité par

FLAVIA RUANI et MIHAELA TIMUŞ



PEETERS

LEUVEN – PARIS – BRISTOL, CT

2020

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# Late Antique Astrology and Uranography: Common and Antagonistic Patterns in Zoroastrianism and Manichaeism

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In the present article I will attempt to examine some main topics that sharply oppose Zoroastrian and Manichaean images of the heavens and their cosmological models within the framework of the different ways by which the two theological schools, the Zoroastrian and the Manichaean, tried to explain the opposition against the evil forces of darkness.<sup>1</sup> However, before entering into a discussion of these central subjects, it is necessary to remind ourselves that, at the beginning of the 3<sup>rd</sup> century, Classical astrology was a kind of knowledge that had already entered, since long ago, the Near East and Iranian lands, at least in its primitive version. In previous works,<sup>2</sup> and particularly in a series of lectures entitled *L'uranographie iranienne*, I have offered a systematic description of the Mazdean and Manichaean uranographies (i.e., “descriptions of the heavens”).<sup>3</sup> For this reason, I will make frequent reference to these studies, avoiding repetition of the details of what is there discussed.

## CLASSICAL ASTROLOGY IN IRAN

In some cases, Classical astrology was always part of these countries, if we consider and include under the category of “astrology” all doctrinal wisdom concerning the

1. I use the terms “Mazdean” and “Zoroastrian” in this study synonymously.
2. Recently a collection of my articles (in two volumes) concerning astronomy, astrology and calendrical problems has been edited (see Panaino 2014). The reader will find there a number of essays that strictly fit with the main subject of the present study.
3. See Panaino 1995 (a) and (b), 1999 (a) and (b), 2009, 2015 (a). On Sasanian astronomy and astrology and their role in the Late Antique Persian cultural framework, see also Henning 1942; MacKenzie 1964; Bailey 1971; Zaehner 1972; Pingree 1963, 1973, 1987, 1989, 1997; Brunner 1987; Raffaelli 2001 and 2009; Panaino 2018. As already remarked, in this contribution there is no intention to offer a full conspectus of the Sasanian astronomical and astrological traditions, but only an attempt to focus on some central points of agreement and contrast between Manichaeism and Zoroastrianism with close regard to the astral dimension. For this reason, the important subject of the theory of the planetary conjunctions of Jupiter and Saturn, which was very relevant in the Zoroastrian tradition, is not treated, because we do not know how it was received in the Manichaean context, and any comparative analysis would remain as only speculative.

elaboration of astral *omina* and astronomical reports, as well as the continuous computation of astronomical phenomena as practiced in ancient Mesopotamia. The same can be affirmed with regard to the mixture of Greek and Mesopotamian predictive methodologies that were developed between the fall of the Achaemenian Empire and the definitive *Reconquista* successfully enacted by the Parthians, under Mithridates I, about the middle of the 2<sup>nd</sup> century AD. During these years, Classical astrology started to evolve in a more elaborate way. Aristotelian physical doctrines were transferred from the West and partly integrated into the local systems, while a spherical model of the universe to which trigonometric patterns were commonly applied became more current.<sup>4</sup> Furthermore, astrology adopted a purely geometrical subdivision of the Zodiac with the determination of the four *cardines* (or κέντρα “centres”), one of which, the “horoscope,” became fundamental to denote not the *thema natale* of a given person, but – as this Greek word [ὠρόσκοπος] explicitly says – “the one that sees the [rising] time [i.e. the point/degree ascending on the horizon at a given hour and minute],” i.e. what we generally call “ascendant.” Other technical concepts were also elaborated and determined the evolution of this “art.”<sup>5</sup> Moreover, it is reasonable that it was in the seminal framework of a multi-cultural centre like Alexandria of Egypt of the 2<sup>nd</sup> century BC that Greek, Mesopotamian and Egyptian astral doctrines, of both a scientific and pseudo-scientific nature, joined altogether to contribute to the creation of a new, tremendously seductive synthesis, which played an extraordinary influence on the entire world. Only later on, in the 2<sup>nd</sup> century AD, with the enormous impulse given to both disciplines of astronomy and astrology by Claudius Ptolemaeus, did Classical apotelesmatics become a very strong and attractive doctrine, based on high mathematical and astronomical patterns (although not correct, but this is another problem), which step-by-step absorbed and replaced most of the previous theories. It is for this reason that most of the Pre-Ptolemaic astronomical models seem to have been better preserved thanks to their survival in Indian texts,<sup>6</sup> where the impact of Ptolemy arrived only some centuries later, while these obsolete patterns progressively disappear in the contemporary Western sources, where such an obsolete “science” was discharged and abandoned for a more advanced one. In any case, the Alexandrian “gift” of these sciences was exported more or less everywhere, both before and after

4. The contradictions due to the adoption of a spherical model and the survival of earlier cosmographical patterns in Zoroastrian Pahlavi sources is discussed in a new monograph I have presently in the press. See Panaino in printing (a).
5. On the basic Greek terminology of ancient astrology, see Neugebauer, Van Hoesen 1959, *passim*.
6. At least this is the theory advanced by D. Pingree already in 1976 (see Pingree 1976 [a]), and then in many other studies (e.g. Pingree 1981, pp. 10-16, *passim*), where he stated that at least four Sanskrit works (the *Yavanajātaka*, the *Paitāmahasiddhānta*, the *Āryabhaṭīya*, the *Pañcasiddhāntikā*), and other ones too, still preserved a number of archaic Greek astronomical parameters and models. Although this interpretation of the facts has become controversial, it still deserves to be taken into account. For instance, the dates for the translation of the Indian *Yavanajātaka* has been changed and postponed, so that also the role of this Sanskrit version of a Greek Alexandrian text on the transmission of the astrological Indo-Greek doctrines to Sasanian Iran is partly reduced, and in any case must be revised (Mak 2013 [a], 2013 [b], 2014). We certainly can rely on the importance of the works of astrologers as Varāhamihira, whose productions probably had a significant influence also out of India. At this regard I recommend the consultation of the new general study edited by D. Brown with its different contributions on pertinent subjects, see Brown 2018 (a). For a general presentation of the researches dedicated by Pingree on the Iranian tradition, in particular about the Sasanian world, see Panaino 2009.

Ptolemy. Because of this, we can observe at least two main directions taken by professional astrology in late antiquity: one moving from Egypt back to the Middle East during the Hellenistic period, which was supported by the strong presence of dynasties such as that of the Seleucids, and another one moving directly to India, and from India entering Iran and Central Asia.<sup>7</sup> It is only by considering these two ways not only as opposites, but also as partly joining, that we can fully comprehend the cultural and geographical ramifications of the art of astrology, which, in any of the countries in this region, produced additional interpretations and incorporated further doctrines.

Thus, although we no longer have access to Parthian astrological sources, we can notice the strong exposition of Parthian culture to Western influences. In particular, the long presence of Macedonian and Greek dynasties in the same territories makes the knowledge of Western astronomy and astrology in Iran more than plausible, especially if we consider that since early Antiquity the Persians and generally the Western Iranian peoples (such as the Parthians) already had been very strongly acquainted with astral divination, oneiromancy and other esoteric arts which developed in the Mesopotamian framework. In this, practitioners of astronomy incorporated a kind of legacy that they progressively tried to revise and reform according to their own traditional astral and religious patterns.

According to the sacred books attributed to Mani, we can deduce that he himself adopted and embedded in his kaleidoscopic doctrine many astrological theories. Despite his limited professional competences in this field, as have been already remarked upon by V. Stegemann,<sup>8</sup> astrology fitted perfectly into his view of the universal machine as a demonic prison,<sup>9</sup> inhabited by different types of demons, some of which were also active among the different levels of the heavens. In the Manichaean sources, we not only find the simple and in itself highly generic pattern regarding the influence of the astral bodies on the sub-lunar world, but we can also infer that Mani surely knew the theory of the planetary “aspects,” the earlier<sup>10</sup> doctrine of the

7. In this case too some of the main chronological assumptions stated by Pingree are matter of revision and of controversial discussions; Cf. again Mak 2013 (a), 2013 (b), 2014. See again the debate in Brown 2018 (a).
8. Stegemann 1939; cf. also Panaino 1997 = Id. 2014, v. 2, pp. 541-587.
9. The Manichaean doctrine considered the creation as a sort of dark prison, where light was imprisoned. The presence of the light offers a double resource. Thanks to it, God, by means of his emanations, can put a certain order into the chaos, but he also must try to recover as much as possible these particles of light entrapped within matter. The world then becomes a sort of ‘machine’, whose scope is the extraction of light. This action takes place on different levels. It starts with the human being; in fact, the pious man, behaving and eating in a proper way, digests (see BeDuhn 2000) both matter and light, sending the particles of light to the Moon through the “Column of Glory.” This column, thus, makes the Moon grow (and this explains the phenomenon of the Full Moon). Later, when the light of the Moon decreases, it moves up to the Sun, and from there to a special celestial place. This doctrine is well known thanks to a number of Manichaean and anti-Manichaean sources, such as Augustine (*De Haeresibus* 49.2), Hegemonius (*Acta Archelai* VIII), Epiphanius (*Panarion* LXVI), Ibn al-Nadīm (*Fihrist* IX), etc. For a direct reference to the transmission of light from the Moon to the Sun in a Middle Persian Manichaean text, see the *Šābuhragān* (M 7980 II R ii - V i); ed. Hutter 1992, pp. 58-60. Useful remarks in Panaino 2000 (with a detailed bibliography on the subject and a special discussion concerning the mutual influences between Zoroastrianism and Manichaeism with regard to the phases of the Moon).
10. See now Geller 2014 on the potential Mesopotamian background of the *melothesia*. Cf. Panaino 1997, pp. 290-294 = Id. 2014, v. 2, pp. 582-586.

astral *melothesia* – the theory positing a direct correspondence between the single Zodiacal signs and the different parts of human body – and even the cosmic model of the “wind-ropes” or “wind-cords,” which probably developed in the Gnostic framework, as we will see in the following pages. All these technicalities partly appear in the Middle Persian Mazdean texts and are in their essence confirmed by other Manichaean sources in Parthian and Sogdian as well as in Western languages.<sup>11</sup> The similar presence of these same traditions in the Zoroastrian literature, such as Mandaean, also confirms the spirit of the times and the influence of the astrological culture. At the same time, this clearly shows how astrology compelled late antique intellectuals to face a doctrinal corpus that was substantially “neutral” with respect to absolute religious *principia* like good and evil.<sup>12</sup> In actual fact, ancient astrology tried to observe and predict empirically the continuously changing geometry of the celestial bodies, thereby deducing the consequent impact of their mutual aspects on the individual and/or larger communal destiny. The individual lot, in fact, was pre-determined by a complex sum of factors completely independent of free-will and moral responsibility, but which inherited together a particular birth under a certain star or a particular Zodiacal sign within the framework of a given *thema natale*. Mani himself was considered to have been born under a good star.<sup>13</sup>

#### ZOROASTRIANS AND MANICHAEANS ON THE DEMONIZATION OF THE ASTRAL BODIES

Thus, when Zoroastrians and Manichaeans came inevitably to clash, their religious models had already incorporated and reformed, according to their different theological frames, not only many astrological ideas, but also some special (and differentiated) answers. A good example to begin with is the one concerning the essential classification of the astral bodies between “positive” and “negative,” or between divine and demonic beings. Since the earliest known sources, orthodox Zoroastrians have considered the (fixed) stars as being like two Luminaries, the Sun and the Moon, as true gods who are completely positive, while the planets, when distinguished as a special type of astral beings, have the capacity to become dangerous demons. Apparently the Mazdakites<sup>14</sup> considered all the astral bodies

11. I have collected and presented most of the pertinent sources belonging to this cosmographical doctrine in Panaino 1998 (a). The relevant sources in Greek and Latin are attested in the *Acta Archelai* VIII. 4-7, IX and in the *Panarion*; for the Coptic tradition see *1Keph.* 48, 69; pertinent Iranian sources are to be found in the Middle Persian Šābuhragān; while many other Parthian and Middle Persian Manichaean fragments describe these astral cords. For the Sogdian tradition, see the manuscript M 178. A similar doctrine is also attested in the Mandaean texts, as the *Ginzā*, Pars dextera, *passim*.
12. Although the Christian world is simplistically presumed to have been free from the influence of astrology, this art also played an important role in its *milieu*, and not only in the framework of heretical movements or Gnostic communities. Astrological consultations were current among Christians, and particularly among the members of the upper class (see Hegedus 2007, pp. 182-277, *passim*). In some cases also in the royal entourages, Christian priests, working as royal *doctores*, performed the astrological profession. In a recent study I have shown that remarkable examples of this practice are attested not only in the Byzantine and Sasanian courts, but also in the Chinese one and in the Arabic entourage of the first caliphs, see Panaino 2017 (c).
13. Panaino 1997, p. 255, n. 34 = Id. 2014, p. 547, n. 34. See below in the text.
14. The Mazdakite represented a religious movement that rebelled against the social and religious Sasanian order, in contrast with Zoroastrian ethics, which had a particular regard for the preservation of a number of social rules protecting the correct



(including the planets) as positive beings,<sup>15</sup> while, on the contrary, the Manichaeans demonized all the astral bodies with the notable exceptions of the two Luminaries and the star Sadwēs.<sup>16</sup> In turn, the Mandaeans demonized the two Luminaries as well. This is the most synthetic and at the same time essential description of the facts.<sup>17</sup> But what actually happened and why?

A sharp distinction between planets and stars was originally unknown to the ancient Indo-Iranian peoples. In the Avestan texts, apart from an unclear reference to a single personal name (*tirō.nakaθβα-*) that could be related to the Western Iranian name of the planet Mercury (Tir), we do not find any clear reference to the planets and to their particular motions. On the other hand, the single visible planets were well known,<sup>18</sup> as their orbits had been already computed in the Mesopotamian framework many centuries before the appearance of the Iranians on the land that later took their name. Thus, we can assume that, *in primis*, the Western Iranians began to know and distinguish between these different (*moving*) astral bodies (with respect to the *fixed* stars) thanks to the cultural intermediation of Akkadian, Babylonian and Elamite sky-watchers, who educated the new conquerors of Mesopotamia to acquire a higher knowledge of the heavenly bodies. This is not a simple guess, but is a conclusion based on a number of facts. The Iranian planetary nomenclature essentially followed the same pattern as the Akkadian one, and as the Greeks did too, following the same foreign system, the Persians denominated each one of the single planets by adopting a name of one of their own divinities. Indeed, each divinity corresponded, more or less, to the divinity of the Mesopotamian pantheon, and

transmission of the rights of property. See Christensen 1925; Klíma 1957 and 1977; Shaki 1978; Sundermann 1977; Yarshater 1983; Crone 1991, 1994, 2012, *passim*.

15. See Šahrastānī, *Livre des religions et des sectes*, ed. Gimaret, Monnot 1986, pp. 631–636. On the constellations see also Christensen 1925, pp. 81–82; Klíma 1957, pp. 188–191, 219–221; Shaki 1985, pp. 535–541. It is also to be noted that, as it happened in Western countries, the seven days of the week were named according to the planets and Luminaries in various Iranian countries, probably thanks to Christians and Manichaeans. This tradition also entered Western Iranian lands already during the Roman Empire between the first and the third century AD, see Panaino 1995 (a), p. 69, n. 39.
16. On the re-elaborations of the functions belonging to the star Sadwēs (< Av. *Satauuuēsa-*), see Panaino 2011.
17. It would be useful to mention the fact that Cosmas Indicopleustes, following Theodorus of Mopsuestia, not only radically rejected the Ptolemaic system with its spherical model of the universe, but also assumed that the planets were moved by angels, whose function would have been established by god. According to Cosmas (*Christian Topography* IX.3), these angels were “invisible powers” (αἱ ἀόρατοι δυνάμεις); Johannes Philoponos wrote important works against Cosmas’s cosmography and his doctrines. This peculiar doctrine, which astonished the Christian world, also clashed with the Mazdean and Manichaean visions of the heaven, where the planets had a clearly demonic role. For an overview of the problem, also with regard to the Iranian world, see Panaino 2017 (c) (with a large bibliography on the subject), and Panaino in printing (a).
18. On the other hand, we must observe that the planets were frequently given the generic denomination of “stars,” although the difference between the two categories was well known. For instance, the habit of considering the planets as “the star” of a certain divinity, such as seeing “Jupiter” as “the star of Marduk,” is a tradition also accepted in the earlier Greek literature, where we find the corresponding denomination of ὁ ἀστήρ τοῦ Διός “the star of Zeus.” See also the other current denominations: ὁ ἀστήρ τοῦ Ἄρεως, ὁ ἀστήρ τῆς Ἀφροδίτης, ὁ ἀστήρ τοῦ Ἑρμοῦ, ὁ ἀστήρ τοῦ Κρόνου “the star of Ares, of Aphrodite, of Hermes, of Kronos.” The expression “star of Ohrmazd (i.e. Jupiter)” occurs also in the Pahlavi text of the KAP III.5: *stārag ī Ohrmazd* (Cf. Panaino 1994, p. 182 [= Id. 2014, v. 1, p. 380]; ed. Grenet 2003, pp. 64–65).

under whose authority a certain planet was placed. The procedure was very simple: as Jupiter was the planet (or, better, “the star”) of *Marduk*, so it became “the star of Zeus” in Greek (= *Juppiter* in Latin) and *Ahuramazdā* in the Western Iranian framework. Conversely, as the planet Mars was associated with *Nergal*, it became *Áres* for the Greeks and \**Vr̥θrayna* for the Persians; as Mercury corresponded to *Nabû*, it became in Greek *Hermês* and corresponded to the Iranian \**Tīriya*-; as Venus was *Ištar*, goddess of fertility, it became *Aphrodītē* for the Greeks and, inevitably, *Anāhitā* for the Iranians. Only Saturn, who is usually denominated *Kajamā/wanu* “the slow one,” was associated with *Krónos* by the Greeks (in Latin it was *Saturnus*), while the Iranians preserved his Akkadian name and called it \**Kayvānu*-, a name that still survived in Pahlavi as *Kēwān*, in New Persian as *Keyvān*, and in Sogdian as *Kēwān*.

The following table offers a clear key for this development:

Planet	Akkadian	Greek	Old Persian	Middle Persian	Sogdian	New Persian
Mars	Nergal	Áres	* <i>Vr̥θrayna</i> -	Wahrām	Unxān	Bahrām
Mercury	Nabû	Hermês	* <i>Tīriya</i> -	Tīr	Tīr	Tīr
Jupiter	Marduk	Zeús	A <sup>h</sup> uramazdā-	Ohrmazd	Urmazt	Hormozd
Venus	Ištar	Aphrodītē	Anāhitā-	Anāhīd	Nāxid	Anāhīd
Saturn	Kajamānu	Krónos (Lat. Saturnus)	Kayvānu-	Kēwān (* <i>Zruvan</i> )	Kēwān	Keyvān (Zurwān)

The adoption of the Mesopotamian model confirms that, at the beginning, the planetary bodies were not classified as demons,<sup>19</sup> but as divine beings;<sup>20</sup> while in both the Zoroastrian Pahlavi texts and in the Manichaean Iranian sources, they became astral demons.<sup>21</sup> This process of demonization should have been quite common to the Iranian culture, and it was also connected with further differentiated motivations. In fact, in the Mazdean uranography, the planets and all the falling astral bodies (comets, bolides, meteoric showers, etc.) are demons, while the (fixed) stars remain divine beings, as was already the case in the Avestan sources. The Zoroastrians had already established a strong tradition, according to which the heavenly bodies had been divided into positive ones (comprising the fixed stars, plus the Sun and the Moon), with their regular movements and representative of the cosmic order, and,

19. See now Panaino 2015 (b).

20. Only in a later Zoroastrian source like the *‘Olamā-ye Eslām* (Zaehner 1972, p. 412), written down in Persian, do we find a desperate attempt at justifying their denomination: Ohrmazd (the supreme god) surrounded the planets (and very peculiarly also the Luminaries) with light, giving them Ahuric names, instead of their real (demonic) denominations, which were: *Zerij* (Saturn), \**Tarij* (Jupiter), \**Nānyaiθ* (Mars), *Tarmad* (the Sun), *Xišm* (Venus), \**Sēj* (Mercury) and *Bēš* (the Moon). On the role of Saturn in Zoroastrian cosmology see Panaino 1996 (c).

21. The earlier planetary divine denominations, established in Western Iran, during the Achaemenian period, became so traditional that any real change of them was impossible, although the planets were demonized. The planets, when referred to as demons, were called *abāxtar* “retrograde” (see more below) or *nē axtar* “not-star.” But sometimes they were also called *gēg* “robbers, bandits” (ŠGW 4.8-10; ed. de Menasce 1945, pp. 50-51) in opposition to the stars, the “givers” (*bayān*) *par excellence* (see Panaino 2013). It would be useful to know that despite the theological demonization of the planets, we can find in the Pahlavi sources forms of invocation equally dedicated to stars and planets (Panaino 2004; 2005 [a]).

on the contrary, the falling stars, named *Pairikās* “witches,” which were also referred to as *stārō.karəma-*, i.e. “starred-worms.”<sup>22</sup> In practice, the planets, which were sometimes denominated in Pahlavi as *parīgān*, i.e. *Pairikās*, assumed their original negative role.

In the Mazdean system, the stars, as ancient gods, preserved their status of divine beings, so that all evil descending from heaven was sharply set aside and attributed to the irruption of the *daēvic* forces of Ahreman into the good creation. This army had actually entered the celestial vault from a hole opened in the Northern hemisphere, in order to attack, pollute and destroy the *gētīg* dimension. According to the orthodox Zoroastrian tradition (see *Bundahišn* II.7-9),<sup>23</sup> the extra-galactic stars immediately reacted, closing this hole off and thus imprisoning all the demons into what can be defined as Ohrmazd’s cosmic trap. Due to this swift reaction, Ahreman and his *pandemonium* were no longer able to escape from the living and corporeal world, so that a potentially universal and never-ending conflict was localized in the earthly dimension and within the borders of a limited period of time. Only at the end of the conflict would Ahreman and his dirty fellows be completely destroyed. These are the main lines of the Mazdean doctrine. The inclusion of astrology into the Zoroastrian framework underwent a sort of “theological revision” that attributed all faults to the planets. In fact, these astral bodies whose (direct) motion goes from West to East, i.e. exactly in the opposite direction of that attributed to the fixed stars (East > West), were progressively considered as negative beings.<sup>24</sup> Furthermore, the fact that sometimes the planets seem to undergo another retrograde, i.e. backward, motion,<sup>25</sup> favoured their

22. Panaino 2005 (b).

23. See Henning 1942, pp. 232-233.

24. The generic name of the planets was *abāxtar*, a term probably interpreted in later times as “un-stars.” But originally it was a derivative from Old Iranian \**apāxtara-* “backward-turning,” in its turn, built on \**apāk-* or \**apājk-* “backward” (from the preposition *apa* “behind”). It is plausible that such a denomination was originally adopted with close reference to their ‘antagonistic’ motion (with respect to the one of the fixed stars) and to their strange phenomena, as the stations and the following retrogradations. But we must additionally recall that Pahl. *abāxtar* meant also “northern,” and that in the framework of the Zoroastrian tradition this particular side was attributed to the demons.

25. The “retrograde” motion (from Latin *retrogradus*, i.e. “backward-step”) is an apparent astronomical phenomenon, generically referring to the motion of a planet advancing in a direction opposite to the one normally assumed within its own system. As clearly stated, it is only an ‘apparent’ event, but from the observational point of view of a geocentric system, it seems that the planet at a certain point of its orbit starts to move backwards (i.e. roughly westwards) with respect to its own usual (apparent) direct motion. In the Ptolemaic system, the retrograde motion corresponds to the phase of minor astrological power of the planet (Bouché-Leclercq 1899, pp. 112-114). In the frame of the cinematic model of Ptolemy, the retrograde motion takes place when the planet, moving on its epicycle, seems, after a stationary moment, to be closer to the earth and advances in a clockwise direction; then, it starts again to move in a counter clockwise direction (i.e. against the rotation of the Zodiac). This phenomenon, which is well recognized in early Babylonian astronomical texts (although without any description of its geometrical rationale; Neugebauer 1954), produced a very negative impression on Iranian observers, who associated it with the behaviour of the falling stars or of other astral beings (such as comets, bolides, etc.), the motion of which was unpredictable. For all these ‘peculiar’ phenomena they were considered a witness of the cosmic disorder in opposition to the ordered motion of the “fixed” stars. See Eilers 1987; Panaino 2015 (a), pp. 249, 253.

typological assimilation into the same category of the falling stars or of other similar astral bodies that were considered very dangerous for the cosmic order. We already see this, for instance, in the Avestan myth of the star-god Sirius (Tištriia) fighting against the shooting stars.<sup>26</sup>

On the other hand, in Manichaean doctrine,<sup>27</sup> not only the planets but also the whole Zodiac and the stars of the visible galactic sphere in general were demonized, although there were a few exceptions, such as that of Sadwēs.<sup>28</sup> For these exceptions their role and functions were re-adapted to the new framework. The origin of this demonization can be seen, on the one hand, in the further application of a dualistic pattern based on a sort of “neutral” model (represented by the traditional astrological technique), and, on the other hand, in the negative function allotted to the living (i.e. physical) dimension. In the framework of a world conceived as a prison, the astral bodies were considered responsible for all negative influences on the sublunar world, and for this reason their power became demonic. Moreover, this process of demonization involved stars and planets, but not the two Luminaries, the Sun and the Moon, and a few other interesting cases: for instance, sometimes we find the seven demons mentioned with the inclusion of the “Head and Tail of the Dragon” (or ἀναβιβάζοντες),<sup>29</sup> as in the case of the *Kephalaia*, chapter 69,<sup>30</sup> while in some cases the reference is simply given to the planetary demons. All the stars and planets, despite their apparent brightness, are nothing but astral demons that try to bind the souls of human beings and create an enormous cosmic trap, with the function of

26. See Panaino 1990, 1995 (a).

27. While Duchesne-Guillemin 1972, p. 15 assumed that the demonization of the planets was started by the Manichaeans, and only later followed by the Zoroastrians, I have never accepted this explanation, as wrongly ascribed to me by Brown 2018 (b), pp. 474-475. In fact, although the Manichaeans had certainly their reasons behind this solution, the dualistic separation between positive astral beings (the stars) and negative ones (the planets) was due to a theological reorganization of the celestial battle in the framework of the Mazdean cosmography of Late Antiquity. The neutral approach, which practical astrology assumed with regard to the ethic roles of the astral bodies, turned out to be a most important factor in the demonization of the planets, whose state shifted from that of divinities to the one of demons. In astrology, they can be actually positive or negative according to their mutual aspects and configurations, but this assessment was unacceptable from the point of view of Zoroastrianism, which could not attribute evil influences to beings previously considered divine (we must recall that the names of the planets were those of the highest Mazdean divinities). Thus, the stars maintained their traditional divine status, while negative influences were attributed to the planets. Of course, this was just a pious attempt, which professional astrologers never followed ad litteram. They did not follow these religious scruples, and their work maintained more or less the same general rules attested in other countries. About the alleged origin of the planets from a primordial incest according to the Iranian folklore, see Panaino 2008.

28. See Panaino 2011.

29. More precisely, the ἀναβιβάζων is “the ascending node,” and the καταβιβάζων “the descending one;” for their importance in the Manichaean tradition see Beck 1987. Cf. also Panaino 2005 (c). Brown 2018 (b) assumes a Mesopotamian influence in the determination of the Iranian figure of the heavenly Dragon, a derivation which is quite possible, although this transmission does not reduce the weight of other evidences concerning the Indian derivation of the well attested association between the Head and the Tail of the same Dragon with the two invisible planets, which exactly correspond to Rāhu and Ketu in the Indian astral tradition. In Iran, in fact, we find both images: that of the Head and the Tail, and that of the Dark Mihr (i.e. the dark Sun) and the Dark Moon, which obviously correspond to the two Indian fictive pseudo-planets.

30. See the discussion in Panaino 1998 (a), pp. 101-102.

preserving a state of detention for all the lights imprisoned in the material world. Of course, in their turn, stars and planets are bound to the celestial sphere, as explicitly stated in the Middle Persian fragment KPT (839-841): *any abar is(pi)r / kū bast dw(ā) zadh axtar / ud haft (a)[bāxtar* “another on the sphe[re] where he bound the twe[lve constellations] and the seven Pl[anets].”<sup>31</sup> In this sense, Manichaeism adopted astrology, but assumed its apotelesmatic doctrine as a demonstration that the world machine was an enormous trap not against Ahreman and the demons (as in the Zoroastrian system), but against light, life and all humanity. All the astral bodies were thus considered demonic, and their geometrical configurations, manifested in the high heavens, showed the negative cooperation enacted by the joined forces of the planets and the Zodiac (but see below for certain contradictions). Due to their movements and phases, only the Moon and the Sun, the *norīa* (i.e. a water-raising device) of the Western authors, extracted light from human souls and earth, generating the “Column of Glory” that ascended from earth to the Moon, and then from the Moon to the Sun.<sup>32</sup> The sublimation of the light to a special, separate and provisional place, namely God’s kingdom, explains in particular the phenomenon of the lunar phases, and shows that the Manichaean doctrine had also introduced some mediations into its radical anti-cosmic picture, saving for instance some elements of the natural cycles. The Manichaean sources, however, do not present us with a coherent assessment of the astral bodies, and embarrassing contradictions are easily detectable. For instance, many sources consider the 12 Zodiacal constellations as demons: the Sogdian text M 178 clearly states that the twelve constellations and the seven planets were rulers over the whole Mixed World, and that they were set in opposition to each other.<sup>33</sup> But the *Panarion* of Epiphanius (66.26) also says that the *norīa* possessed 12 buckets, the function of which was certainly positive and patently corresponded to that of the 12 signs of the Zodiac, which turned one after the other according to the apparent motion of the heaven. The Virgins of Light are also 12, and this number again implicitly refers to the Zodiacal signs.<sup>34</sup> Chapter 69 of the Coptic *Kephalaia* not only assumes a good knowledge of some astrological configurations, but also accepts a pure astrological theory, in which trine and sextile were considered ‘positive’, while diagonal (i.e. ‘opposition’) and square were ‘negative’. This ambiguity is confirmed in the case of an already quoted reference to Mani himself: in the Middle Persian fragment M 543 R 4-5 we read: [...] *če zād hē pad \*farrōj axtar* [...] “born under a sign [= star/asterism/constellation] of (good) fortune.”<sup>35</sup> This means that, in spite of the proclaimed demonization of the stars (as well as the demonization of the constellations in which the stars are ordered), some signs were considered to be of good auspices. This is a real contradiction, which does not fail to stupefy any scholar who usually works with this material.

31. See Sundermann 1973, p. 45; Panaino 1998 (a), pp. 101-102.

32. See Panaino 2000. We may recall that in the Iranian tradition survived hemerologies including forms of divination based on the observation of the Moon or of the snakes (that are considered demoniac beings among Zoroastrians), whose origin is clearly Mesopotamian; see Panaino 2005 (a).

33. For this text see Henning 1948, pp. 312-133 = Id. 1977, II, pp. 307-308; Cf. Panaino 1998 (a), p. 97 and *passim*, where many other examples concerning the demonization of the Zodiac have been offered.

34. See the discussion with additional bibliography in Panaino 2000, pp. 270-271.

35. Salemann 1908, p. 28; Boyce 1975, pp. 149ff.

Nor was the process of demonization devoid of other, more striking contradictions. For instance, the Mazdakites tried to maintain a divine status for all the astral bodies, as we can deduce from the summary of their doctrines presented in the *Kitāb al-milal wa'l-niḥal*, “The Book of the Religions and the Sects” by Šahrastānī.<sup>36</sup> In this respect, they were probably closer to the current behaviour of professional astrologers who were uninterested in a confessional approach, i.e. to people who considered their astrological diagrams perfectly neutral with respect to any *a priori* theological subdivision of the superior astral beings, irrespective of their status as stars or planets. It is also to be noted that, for instance in the *Bundahišn* 5.B.12, according to the standard patterns of Classical astrological doctrine, two of the planets (Ohrmazd and Anāhid, i.e. Jupiter and Venus) are presented as *kirbakkar* “beneficent,” another two (Kēwān and Wahrām, i.e. Saturn and Mars) as *bazakkar* “maleficent,” while Mercury (Tīr) is considered as astrologically neutral, i.e. “good” in a favourable configuration, but “bad” in a negative scheme.<sup>37</sup> Other contradictions appear in the case of some rituals attested in Zoroastrian folklore, such as a number of apotropaic incantations (now surviving only in Pāzand) made to the planets. A good example is the following: *pa zōr axtaraṇ u aβāxtaraṇ tan darust baṭ* “by the power of the stars and the planets, may he be healthy.”<sup>38</sup> The Mazdean denomination of the planets also still survives in the Arabic and Latin versions of the famous medieval magic treatise *Picatrix*.<sup>39</sup> In addition, it is known that the author of a *Kitāb al-mawālīd* “Treatise on nativity,” attributed to Zoroaster, used a very peculiar list of stars.<sup>40</sup> In this latter case, the fixed stars are considered to be positive or negative, according to a doctrine that formally clashed with the core of the Mazdean tradition, while another piece of evidence shows that the theological position presented in the religious Pahlavi sources was not unique but rather commonly shared. In this respect, we find similar phenomena attested in the Manichaeic tradition, where a theological assessment of the universe, radically dualistic in its basic intentions, clashed with the advantages of some empirical techniques connected with the astrological praxis and its secular methods.

### ZOROASTRIANS AND MANICHAEANS ON THE COSMIC “WIND-ROPES”

Another remarkable doctrine concerns the image of the cosmos as being full of “wind-ropes.”<sup>41</sup> It is uncertain whether this tradition might have been inspired by an interpretation of a very simple Platonic doctrine, already attested in the *Timaeus* 38a-39a, where one finds a reference to some “living bonds” (δεσμοῖς τε ἐμφύχοις) by which all the planets are bound; these “livings bonds” seem to control the motions of the celestial bodies, producing a fitting cooperation in the exact subdivision of time.<sup>42</sup> An echo of this tradition seems already to appear in the *Sūryasiddhānta* II.2,<sup>43</sup>

36. See ed. Gimaret, Monnot 1986, pp. 631-636. Cf. again Christensen 1925, pp. 81-82; Klíma 1957, pp. 188-191, 219-221; Shaki 1985, pp. 535-541.

37. It is also important to recall that some later Mazdean sources attest to a frequent confusion between Tištar and Tīr, a situation probably due to a relevant number of earlier connections between these two astral bodies (Panaino 1995 [a], pp. 61-85).

38. Kanga 1900, pp. 144-145; Panaino 2005 (a).

39. Pingree 1976 (b), pp. 178-179.

40. See Kunitzsch 1993 and Panaino 1996 (b).

41. Panaino 1996 (a).

42. Panaino 1998 (a), pp. 52-53, n. 74.

43. The history of this Sanskrit astronomical text is very complex; if the oldest version can be placed around the 5<sup>th</sup> century BC, revisions and additions belong to the following

where one finds an astral model in which the planetary motion is explained by means of “wind-ropes” (*vataśāmi-*), attached to the single planets.<sup>44</sup> There, these cords of wind are pulled up and down by some demons, located on the Sun, the knots and the apogees. This doctrine appears also in the Purāṇic literature of the 3<sup>rd</sup>/4<sup>th</sup> c. AD (e.g., in the *Viṣṇupurāṇa* II, *passim*),<sup>45</sup> where all the stars and the nine<sup>46</sup> planets were connected by means of cords or ropes of wind (*vāyuraśmi-*, *vātāśāmi-* or *vātabaddhāni-*) to Dhruva, the centre of the heaven or the cosmological Pole of the heaven, later assimilated to the Polar star,<sup>47</sup> although this model seems to reflect a mythological vision of the sky and of its order more than a true celestial mechanism. In this celestial architecture, all the astral bodies rotate around Dhruva in a sort of encircling wind (*vātacakra-*). It has been usually assumed that this particular cosmological system had been introduced in Sasanian Iran, where it crossed with an ancestral tradition in which Tištrīa bound the shooting stars in order to take control of them. This Indian astronomical doctrine was reinterpreted in Iran and produced a new model, basically shared by Zoroastrian, Manichaean and Mandaeen texts, where the cords of wind, placed on the Sun and the Moon, assumed an additional antidemonic function, which was completely absent from the Hindu sources. Thus, while these cords of wind simply bound the astral bodies and determined their motion in India, in Iran they assumed a new function, that of being an instrument of control against the astral demons. But while in the Zoroastrian texts the anti-demonic role of the cords remained limited to the planets, in the Manichaean framework it was extended to perform a more complex function. We must note that, also in the Zoroastrian Pahlavi sources, there are a few cases in which the stars were supposed to be bound by cords directly to the earthly regions or to the Luminaries, but the model remained purely astronomical (and here the direct influence of the Indian background is clearer).<sup>48</sup>

centuries. In any case, some Purāṇic sources of the 3<sup>rd</sup>-4<sup>th</sup> century AD clearly developed some ideas connected with this system, and we can reasonably presume, for instance, that the model attested in the *Sūryasiddhānta* II.2 was older than that of the *Viṣṇupurāṇa* II. See also the note 48.

44. Panaino 1998 (a), pp. 53-54.

45. *Ibid.*, pp. 54-57.

46. They are nine because this number includes not only the five visible planets plus the two Luminaries, but also the two invisible planets, Rāhu and Ketu. See Panaino 2005 (c).

47. Panaino 1995-96, *passim*.

48. As I have noted in another study (see Panaino in printing [b]), Brown 2018 (b), p. 480 has suggested that the doctrine of the cords of wind might be of genuine Iranian origin, so that it was the Iranian cosmography to play its influence on the Indian astronomical models. But despite the fact that we can question (and even reject) the chronology established by Pingree 1990, p. 275, who puts the Purāṇic pertinent literature around 400 AD, it is difficult to imagine that this tradition could be genuinely Iranian. In fact, if it is true that the oldest Iranian witness of this astral doctrine already occurs in Mani's *Šābuhragān*, we must observe that it is presented after Mani's description of his trip to India. We well know that Manichaeism assimilated a number of Indian doctrines, while a Manichaean direct impact on Indian traditions is completely unknown, so that it is more probable that it was Mani or Mani's ambience to accept and develop the Indian model of the wind-ropes than the opposite. Actually the Manichaeans (and Mani himself) did not develop any special astrological and astronomical methodology of scientific relevance, and their cosmographical architectures resulted really baroque and bizarre, as it was the model of the ten firmaments described in the Sogdian Manichaean manuscript M 178 edited by Henning 1948 (Cf. Panaino 1997, pp. 258-273). The Manichaean interest was only for the idea that all the heavens were a sort of prison, with celestial embroidery of

On the other hand, in the Manichaean corpus, all the astral bodies were imagined as connected and controlled by means of these cords, which were bound to the Pole of the world as in the Indian system, but also, as in an enormous demonic machine, being made of an enormous number of ropes. Although the texts do not refer to this mechanism, defining it in strictly physical terms (and in fact it would be far-fetched to expect a sort of celestial mechanics in the Manichaean sources, which is unable in some cases even to explain simple phenomena like eclipses), it was conceived and developed as an important component of a larger system, in which the *noria* assumed a fundamental role, as I have previously described. More precisely, in the Manichaean framework, we can observe a later and progressive evolution, according to which the heavenly dimension was systematically bound to the terrestrial one by means of special cords. In Pahlavi they are called *band*, *paymānag*, *rag*, *zīg*, in Manichaean Middle Persian *bannestān*, *paywann*, *zīg*, in Parthian *band*, *padband*, and in Sogdian *wyk* “roots,” *r’k* “veins,” *ptβnd* “bonds.”<sup>49</sup> In the Coptic texts the functions of the *lihme* “channels” and *noune* “roots,” as in Lat. *radices*, and in Gr. *ρίζαι* (see *Acta Archelai* VIII-IX), performed a more complex series of functions, which constitute a very intriguing problem.<sup>50</sup> In fact, not all the scopes of these astral “roots” are clear, and their double action, at the same time negative and positive, require further investigation.<sup>51</sup> In the Coptic *Kephalaia*, for instance, the *lihme* assumed such a complex and articulated role that one cannot summarize it here. Yet, it might be useful to briefly mention at least the three kinds of *lihme* to which *Kephalaion* 48 was particularly devoted.<sup>52</sup> These *lihme* had the following functions: that of binding the celestial powers to the earthly carcasses,<sup>53</sup> in order to purify them; that of

binding ropes blocking the astral bodies. This doctrine included also the idea that human souls too can be bound to the heavenly dimension. In its formulation, the Manichaean sources give no reference to a central peg as in the *Pūraṇas* or to the celestial nodes as in the *Sūryasiddhānta*. The Zoroastrian application of this tradition is just anti-demonic (plus a strange reference to the connections between the seven stars of Ursa Major and the seven continents of the world); the idea that also astral ropes can move human souls is a fatalistic development, which can be explained as a result of the popularity of Manichaean doctrine. Furthermore, I must insist on the fact that A. Parpola (1994, pp. 231-236, 256-260 and 2014, pp. 110-111) has very fittingly remarked that already in the Harappan culture we can find some antecedents of this model, which played already a certain influence also on the *R̥gveda* 1.24.7. Thus, we have at disposal another good argument supportive of an Indian initially religious pattern, which was developed in an astronomical model. All these traditions do not support the thesis of an Iranian independent idea, although the concept that the falling stars should be bound is already present in Young Avestan texts (see again Panaino 1998 [a], pp. 81-86). In his turn, van Bladel 2007 has suggested that the cosmic model with the cords of wind would be in contrast with a spherical cosmography, but this conclusion is unnecessary. On this problem see my new book in the press (Panaino in printing [a]).

49. Panaino 1998 (a), pp. 97-100 and 1997, pp. 283-290 = Id. 2014, v. 2, pp. 575-582.

50. Panaino 1998 (a), pp. 113-110. See already de Menasce 1945, p. 49; Henning 1942, p. 232, n. 6 = Id. 1977, v. 1, p. 98. Cf. also Sundermann 1973, p. 39, line 697.

51. Although I have dedicated a large part of my book entitled *Tessere il cielo* (Panaino 1998 [a]) to this subject, some problems are still open. This is due to the complexity of the Manichaean cosmography and the different presentation of the cosmic architecture of the world in its different and multilingual traditions.

52. Ed. Polotsky, Böhlig 1940, pp. 120-125; trad. Gardner 1995, pp. 127-133; Panaino 1998 (a), pp. 105-113.

53. The “Conduit” or *lihme*, and the *noune* “Root,” which are usually referred to as *ρίζαι*, in Greek sources such as the *Acta Archelai*, produced a direct interconnection between the



connecting the celestial places with the five types of Trees,<sup>54</sup> so as to extract the living lymph; and thirdly, that of binding the demonic celestial powers with the Five Worlds of Flesh, i.e. human beings, their soul, and the animals. Thus, these “channels” played both positive and negative roles. With regard to their demonic function, these *radices* also controlled human minds and diverted their paths from good to evil. This negative action is also present in the Manichaean cosmic models of Iranian derivation, where the same planets and the zodiacal constellations, taken under the control of a chief demon like Āz, have a close link with the souls of human beings. One can find the same representation in the Mandaean sources.<sup>55</sup> I would also recall here the presence of the seven “stars” in the Ethiopian version of the *Book of Enoch* XVIII.13-16. Here, probably, the planets plus the two Luminaries, and the stars *stricto sensu*, appear to be not only demonized, but also strongly bound on the heaven, according to a pattern that seems to be more than an echo of the various sources we have previously discussed.

Even though it remains very difficult, and indeed probably impossible, to explain how these ideas and doctrines circulated in one direction and in another during the late antique period, we can at least observe that the present tradition was one of the different ways to explain the astral influences, according to a strongly negative vision of the cosmos. This pessimistic approach also entered the Mazdean context, as it results from a passage preserved in the Pahlavi booklet that was dedicated to the *Explanation of Chess and the Disposition of Backgammon* (*Wizārišn ī čatrang ud nihišn ī nēw-ardaxšīr*), chapters 30-31, where the movement of the single pieces on the board was associated with the destiny of human beings, whose souls would have been moved by astral bonds directly connected with the planets and the Zodiac:

30. The revolving and turning of the counters (in opposite directions?) according to the die (I shall make) just as the peoples (who live) in the *gētīg* are tied by a bond to the *mēnōg*<sup>56</sup> (and) all turn and move according to the seven (planets) and the twelve (zodiacal signs) and, when (the counters) hit and remove (the opponent’s counters by stacking) one on the other (it happens) just as the people in the *gētīg* hit one another.  
 31. And when by one turning of the die (the players) continuously remove (the opponent’s counters) (it will be) just as the people who all pass out of the *gētīg*; and when (they) set (the counters) up again (it will be in) the likeness of the people who will all come again alive at the resurrection of the dead (WCN 30-31).<sup>57</sup>

heavenly dimension, that in the Manichaean system was considered contaminated, and the earthly reality. On the earth there are the “carcasses,” or the physical bodies, which were thrown down in the darkness of the material creation. On the Coptic word *lihme*, see Smagina 1990, pp. 120-121.

54. The World of the Darkness is composed of five elements, which give birth to these “Five Trees.” These earthly trees grew up from the five abysses, and were connected to five different levels of the world. Cf. Panaino 1998 (a), p. 107, n. 144.  
 55. *Ginzā*, ed. Lidzbarski 1925, pp. 103-104, 318-319, 490-492; Panaino 1998 (a), pp. 131-140.  
 56. On the *gētīg* and the *mēnōg*, see Gnoli 1963 and Shaked 1971.  
 57. Panaino 1998 (b), pp. 75-76, 187-223, 250 and 1998 (a), pp. 81-86.

## THE MAZDEAN THEOLOGICAL REACTION

We have seen how many contradictory statements our sources offer with regard to the astral material. In studying this, we have also observed the inevitable occurrence of similar patterns among Zoroastrians, Manichaeans, Mazdakites, and Mandaeans, although some standard distinctions maintained their distinctive relevance. Thus, if popular credulity favoured a pure and simply neutral approach to the astrological doctrines (and the related cosmography), which were basically devoid of theological preoccupations, the intellectual circles endured in their reflections and developed strong theo-philosophical evaluations against the opponents' tradition. In this respect it is remarkably important to take into proper consideration some paragraphs preserved in the incomplete chapter XVI of a late Zoroastrian book, the *Škand gumānīg-wizār* or "The Doubt-dispelling exposition,"<sup>58</sup> written by Mardānfarrox son of Ohrmazddād, a Zoroastrian theologian who lived in the second half of the 9<sup>th</sup> century AD. This source, which is unfortunately preserved in its largest part only in Pāzand,<sup>59</sup> still contains a whole chapter (XVI) against the Manichaeans and their doctrines. In these precious pages we find a number of statements that explain the way in which what we have previously presented was actually known, and how it was judged and criticized. The most relevant passages are in the first part of this polemical chapter. Mardānfarrox surely knew the outlines of Manichaean cosmology (with reference also to the creation of the heaven by means of the skin of a demon, or the myth of the seduction of the Archons), but he also had a precise idea of the celestial demons, here identified with the Māzandarān, male and female, which were bound onto the heavenly sphere (par. 30: *ka Māzandarā i pa spihir bast estend*).<sup>60</sup> Only the Sun and the Moon are placed outside of the cosmic sphere, in a higher position, in order to play the role of purification attributed to them. This Zoroastrian text does not mention the *norīa*, but it is evident that the Mazdean scholar knew the positive function that the Manichaean tradition attributed to the two Luminaries. It is useful to recall that a category of demons called *Mazanān*, and which was considered as a type of *Parīgān*, i.e. of celestial demons (like the planets or the falling stars), were mentioned in the Middle Persian Manichaean text M 7981 I R ii.<sup>61</sup> This text states that these demons are bound to the eleventh heaven, and are equally connected with the myth of the seduction of the Archons. In this myth, according to the *Škand gumānīg-wizār* XVI.31-36,<sup>62</sup> the male Māzandarān were seduced by the twelve Glorious Daughters of Zurwān (*dvazdahq Xvarīgq Duxtarq i Zurvañ*), who, as we previously remarked, represent the positive aspects of the Zodiacal signs, otherwise demonized in the Manichaean system. The *māzainiia- daēuua-* (Pahl. *māzanīgān dēwān*) were already attested in the Avestan literature, where they are conceived as a sort of "giant," as the epithet *māzainiia-* should have originally meant<sup>63</sup>. It is only later on that

58. See ed. de Menasce 1945, pp. 252-254.

59. The first chapters, which some MSS preserve in a Pahlavi translation, are late, although it is clear that the *Vorlage* was in Pahlavi; see Cereti 2014.

60. See ed. de Menasce 1945, p. 254.

61. See Boyce 1975, p. 65. Cf. Panaino 1998 (a), pp. 89-90.

62. See ed. de Menasce 1945, p. 254.

63. As Henning 1943, p. 54, n. 2 noted, this stem should be derived from Av. *mazan-* "greatness." A different, but wrong explanation is given in Bartholomae 1904, p. 1169. The "giants" had a very important role in the Manichaean cosmology, and in particular the Sea Giant, to whom the whole chapter 44 of the *1Keph.* is dedicated. See the pertinent remarks and the translation of the text by Gardner 1995, pp. 119-122.

this word was misunderstood and connected with the region of the Māzandarān. Thus, these demons strictly belong to Iranian folklore.<sup>64</sup> This short commentary demonstrates that at least a few Zoroastrians (and surely the people who read or heard Mardānfarrox) had the opportunity to maintain a reasonable knowledge of the Manichaean tradition and some of its cosmological doctrines. In spite of historical persecutions of this religion, and its existence in a state of underground survival,<sup>65</sup> a certain memory of the Manichaean tradition was preserved, as this late source still confirms, and as we can deduce from the pertinent Islamic literature against the Manichaeans and their affiliates.<sup>66</sup> We must also recall the presence of semi-secret sects of crypto-Manichaeans or other minorities, which even tried to organize social revolts during the early Abbasid Caliphate.<sup>67</sup> Although the *Škand gumānīg-wizār* did not specifically concern uranography and astrology, it still preserved a number of pertinent details, which confirm the existence of a scholarly tradition among the Zoroastrians, still under Arab domination, who were able to criticize Manichaean doctrines. This was probably also achievable thanks to older commentaries and excerpts of original materials, that turned out to be useful for the formation of at least the highest level of Mazdean priesthood and secular intellectuals (as happened in the case of Mardānfarrox).

## CONCLUSIONS

Most of the people belonging to various diverging and even mutually hostile religions, such as Mazdeans, Manichaeans, Mandaeans, and Hebrews, as well as Christians, were living in a world where religious competition and struggle were normal. If the statements preserved in the above quoted chapters of the *Wizārišn ī čātrang ud nihišn ī nēw-ardaxšir* had been discussed by persons of different religions, what kind of reaction would have been produced? We should expect a lot of healthy polemical debates among scholars, while basic agreement among simple peoples. This answer is due to the fact that astral determinism became current in late Antiquity despite its overtly theological orientation. For the same reason, if nowadays we would like to survey a large number of Christians concerning the theological legitimacy of astrological divination and prognosis, very few would dare to advance fitting objections. This is just an example that shows not only the patent impact of astrological doctrines, but also their seductive power. On the other hand, the presence of diverging cosmological models confirms that this matter was taken into serious consideration from a higher theological point of view, although this approach raised theoretical problems mainly for scholars, wise men, philosophers and priests who shared intellectual interests in their different approaches to uranography and astral models. In some cases, different cultures even tried to define a full teleological (pre-)vision of world-history, in which the role of the astral bodies, planets, stars, Luminaries, lunar nodes, etc. should be precisely determined

64. See also Panaino 1998 (a), pp. 89-90 and n. 109.

65. We must insist on the fact that the endurance of Manichaeism was strong. As Sundermann 2009 wrote: "It probably died out in the European part of the Roman Empire in the 6<sup>th</sup> or 7<sup>th</sup> century, in Byzantium not later than in the 9<sup>th</sup> century, but probably already in the 7<sup>th</sup> century [...], in the Islamic Near East in the 11<sup>th</sup> century, in Central Asia probably in the 12<sup>th</sup> or 13<sup>th</sup> century, and finally in China in the 16<sup>th</sup> century (Lieu 1992, p. 303)."

66. On this subject see Reeves 2011, pp. 162-221, and *passim*, with the pertinent sources and additional bibliography.

67. Ibrahim 1994; Zaman 1997, pp. 61-68; see also Crone 2012.

and classified, not simply according to a scientific (or, to us, pseudo-scientific) model, but in harmony with a precise conception of the cosmos, its origins and its final scope. In this framework, we find the speculations concerning the World-Year, chiliasm and millenarianism, doctrines that played an enormous importance, and which saw very interesting resonances and mutual influences with the later period. But this is a subject sufficient for another related occasion.<sup>68</sup>

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