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Zoroastrian Doctrine of Formation of Heavenly Bodies in Pahlavi Texts

This article is about the doctrine of the formation of celestial bodies in Pahlavi texts. The doctrine is peculiar. It clashes not only with the accounts of the $G\bar{a}\vartheta\bar{a}$ and the Younger Avesta but also with the general cosmology of Pahlavi literature. Nonetheless it must be authoritative since it is found in our main sources of Zoroastrian (Pahlavi) cosmogony and there does not seem to be an alternative account of the formation of celestial bodies. It thus prompts us to look for its background. This article presents and discusses the texts that contain the Pahlavi doctrine, examines its Avestan roots, and shows the influence of Presocratic cosmogonic speculations on the doctrine. Further, comparative material allows us to propose a conceptual genealogy of the basic constituents of the doctrine.

Keywords: Zoroastrian Doctrine of Creation; Avesta; Pahlavi Literature; Cosmology; Presocratic Natural Philosophy

Introduction

The Zoroastrian doctrine of creation we find in Pahlavi literature is the result of a process of development. In its basic conception of creation it is rooted in the Avesta, but it also contains elements that seem to go beyond the Avestan horizon. These elements particularly pertain to the account of the formation of the heavenly bodies. In the Pahlavi text entitled *Bundahišn* "Original Creation," which is the most comprehensive work we have on Zoroastrian teachings about creation, the doctrine of the *formation* of the heavenly bodies is supplementary to the standard doctrine of creation of the *gētīg* world.¹ According to the Pahlavi account of creation, the

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¹Unless context allows it, I will not translate (Zoroastrian) Middle Persian terms *gētīg* and *mēnōg* in this article, because there are no adequate English equivalents for them. These two Middle Persian terms are not opposite simply in the way extended (or material) and mental (or spiritual), or terrestrial and celestial, or immanent and transcendent, or mortal and immortal (or divine) are, although all these oppositions are relevant as gradients. Generally *gētīg* is understood to mean visible and tangible and *mēnōg* invisible and intangible. Cf. D 3.123 (MD 120.15–19, MD 122.9) *hād gētīg* <*čēīh> ast stī ī tanōmandīh wēnišnīh ud gīrišnōmand ... har čē pad tan čašm wēnišnīg ud pad dast gīrišnōmand gētīg ... ud wimand ī*

formation of the stars, the moon and the sun is dependent on the developments that occur in the primal terrestrial realm in the wake of the attack by Ahriman. This dependence is remarkable. The five planets are absent in the doctrine's uranology, matching in this respect the Avestan scheme. In the perspective of the cosmology and astrology of Pahlavi literature, where the planets play a constitutive role, the Bundahišn doctrine of the formation of celestial bodies appears anomalous.² The basic structure of the doctrine can be traced back to the epithets of the moon and stars in the Avesta that combine the names of the constituents of the primal <code>gētīg</code> creation with the

mēnōg har čē nē-sōhīhēd pad tan sōhišn <ud> wēnīhēd pad gyān wēnišn mēnōg ast "the gētīg consists in corporeal being, visible and tangible ... whatever is visible to the eye and graspable by the hand is gētīg ... the definition of mēnōg: whatever is not grasped by the senses and is seen only by the vision of the soul is mēnōg." The Pahlavi text is cited from Fazilat, Dinkard. Book III, 65-7. But even these determinations are not always true. Ohrmazd is said to be both mēnōg and gētīg. Although the god Wahman exists only in mēnog state, he is said to have the stī ī rošnīh "being of light," that is, an entity made of light. The heavenly bodies are visible but intangible, celestial and indeed divine. The conception of light in particular resists classification in terms of familiar binary opposites I listed above. Cf. Gnoli, "Un particolare aspetto del simbolismo." All things exist first in the mēnōg state and what would become the world is subsequently "created" (from dādan) or "fashioned" (from brēhēnīdan) in stages into the gētīg state. There is an intermediary situation when the gētīg world exists in the mēnōg state, which consists in the mēnog models of the basic constituents of the gētīg creation. See Shaked, "The Notions 'mēnōg' and 'gētīg'," 76. The concept of rōšnīh "light" is especially important in this context. For humans to be in gētīg state means to be living on earth for a limited duration, and thence return to the mēnōg state as ruwān "personal soul." This state is also a celestial place. The world itself as it is now lasts for a limited time. Once Ohrmazd's adversary is expelled from the god's good creation, there will take place the resurrection of the dead who will receive a new gētīg existence that lasts forever; their bodies will consist of incorruptible light. Corruption and decay are not inherent to gētīg existence but are the result of the assault (ēbgat) of Ahriman and his maleficent horde. There is a fairly extensive literature on these themes. See, in particular, Shaked, "The Notions 'mēnōg' and 'gētīg'"; Panaino, "Cosmologies and Astrology"; Stausberg, Die Religion Zarathushtras.

²For recent accounts of Zoroastrian Pahlavi cosmology and astrology see Panaino, "Pre-Islamic Iranian Calendrical Systems," 953-6; and Panaino, "Cosmologies and Astrology." According to Lincoln, there are four different Pahlavi etiologies of the planets. See Lincoln, "Anomaly, Science, and Religion," 283. In three of these versions, the planets are creations of Ahriman; in the fourth, they are originally stars created by Ohrmazd but "dragged down" by Ahriman "into the void," and thus "become planets, which stagger and lurch as they move." The texts (WZ 1.31-3 and Bd 4.10—see the following note for the abbreviations) that Lincoln cites, however, do not support this latter version. In these two texts, it is rather the sky that is pulled downward by Ahriman as he flees, and there is no mention of stars or planets. Here is Bd 4.10: pas āxist Gannāg-Mēnōg ... u-š ān āsmān dīd ... arešk kāmagīhā tag abar kard. āsmān <ī> pad star-pāyag estād frōd ō tuhīgīh hāxt ... kū andarag ī buništag ī rōšnān ud tomīgān būd owon kū azabar ī star-pāyag az andaron ī āsmān tā sē ēk-ēw be estād. "Then the Evil Spirit rose ... and saw the sky ... attacked [it] out of envy and lust. The sky [which] stood at the starlevel he pulled downward into the void, that is to say, [into what] was between the [two] principles of the luminous ones and the dark ones, in such a way that [only] one third of the inner [space] of the sky stood above the star-level." I rely on WZ 1.32 (az ānōh ō tuhīgīh āhixt) and translate hāxt "took along" with the meaning āhixt "pulled," although "took along" (from hāxtan "have (the object) accompany oneself") is also perfectly acceptable. Lincoln translates the final phrase (from owon): "He [i.e. the Evil Spirit] stood as if one third above the star station, from inside the sky" (ibid., 283). This translation is both wrong and nonsensical. In any case, Lincoln appears to invent a Zoroastrian doctrine, i.e. lower stars are dragged down by Ahriman into the void and become the planets.

Avestan noun *ci\varthetara-* "brilliant form." However, the Pahlavi doctrine also shows conceptual developments and the influence of other sources. I recall that the Avesta consists of oral compositions that have been preserved because they were used in ritual and (mostly) composed to be recited in ritual, hence we should not expect to find there narratives or expositions of the written sort. But precisely because of their discursive taciturnity the canonized texts could prompt speculative elaborations particularly after they were written down, which must have taken place during Sassanid period. Zoroastrian Pahlavi texts that discuss matters of cosmogony show that in general the interpretation of the indigenous religious lore was shaped in important respects by Greek philosophy. This is not peculiar to Zoroastrianism, of course. All post-Hellenistic thinking, religious or otherwise, from the western Mediterranean to the Indus came under the powerful influence of Greek philosophy. We can see the extent of this influence on Zoroastrian writings in the polemic work Škand-gumānig Wizār and in speculative texts such as *Denkard* 3.191–4 and the more comprehensive works *Bun*dahišn and Wizīdagīhā ī Zādspram. This essay is mainly concerned with the account of the formation of celestial bodies in three Pahlavi texts, the (Iranian) Bundahišn, Wizīdagīhā ī Zādspram and the Pahlavi Rivāyat.³

I should like to make it clear that the topic treated in this article has nothing to do with the Pahlavi microcosm-macrocosm doctrine, whether in the form of melothesia or the Puruṣa-style correspondence of human body parts and cosmic components. There is a substantial literature on the latter topic. The Pahlavi doctrine of the formation of the heavenly bodies is a speculative development of a specific Avestan topos. I analyze the process of the elaboration of this doctrine and bring out the mythic motifs on which it is ultimately based.

Ι

In the Zoroastrian Pahlavi account of creation, Ohrmazd creates the *gētīg* world in six constituents in six stages: sky, water, earth, plant, cow, human being (see, for example, Bd 1.53; D 3.123). The seventh constituent of the world, namely fire, is not strictly speaking a "creation" since it is directly derived (in its luminosity) from the divine element of "endless lights" (asar-rošnīh); it infuses and vivifies the entire living

³I refer to these works by the abbreviations Bd, WZ, and PRDD; the cited passages are specified by the chapter and paragraph numbers. The editions used are as follows: Pakzad, *Bundahiśn*; Gignoux and Tafazzoli, *Anthologie de Zādspram*; and Williams, *The Pahlavi Rivāyat*. ŠGV refers to de Menasce, *Škand-gumānīk Vičār*; D refers to the *Dēnkard* (the numbers that follow D indicate volume, chapter and paragraph); for *Dēnkard* 3 I use Fazilat, *Dinkard. Book III*. The texts from Yasna (Y), Yašt (Yt), Vīsperad (Vr), and Vīdēvdād (V) are cited from Geldner, *Avesta*, unless otherwise specified; some Avestan letters of the Geldner edition (such as š/ś'/ś) are unified in accordance with the etymological principles of their distribution in Hoffmann and Forssman, *Avestische Laut- und Flexionslehre*.

⁴See Panaino, "Cosmologies and Astrology," for some references in the literature. See also Lincoln, *Myth, Cosmos, and Society*, 1–64; Gignoux, *Man and Cosmos in Ancient Iran*, 49–63; Raffaelli, "Astrology and Religion in the Zoroastrian Pahlavi Texts," with references; and Delaini, "The Image of Cosmos Reflected in the Body," with further references.

world (see Bd 1a.5; WZ 1.25). The six original creations were singular—however this may be difficult to imagine in the case of water. The one-to-one relation of the $m\bar{e}n\bar{o}g$ types (kirb or $\bar{e}w\bar{e}nag$) with their $g\bar{e}t\bar{i}g$ counterparts in the primal creation gives way to the one-to-many relation of the $m\bar{e}n\bar{o}g$ types with their $g\bar{e}t\bar{i}g$ tokens following the assault of Ahriman.⁵ The $m\bar{e}n\bar{o}g$ type of plant being itself singular gives rise to a single plant in the primal $g\bar{e}t\bar{i}g$ world, and similarly for the other creations. This is why it makes sense to use the term archetype for these original $g\bar{e}t\bar{i}g$ creations.⁶

The account of the creation of bovine and human archetypes in the *Bundahišn* is as follows:

(Bd 1a.14) panjom gāw ī ēk-dād brēhēnīd andar Ērān-wēz pad mayānag ī gēhān pad bār ī rōd ī Weh Dāitī kū mayānag ī gēhān. spēd ud rōšn būd čiyōn māh kē-š bālāy se nāy paymānīg u-š dād ō ayārīh āb ud urwar čē-š andar gumēzišn zōr ud waxšišn az ēn bawēd.

Fifth, [Ohrmazd] formed the archetypal cow in Ērānwēz, [which is] in the middle of the world, on the shore of Weh Dāitī river, that is, in the middle of the world. It was white and luminous like the moon, whose height measured three nāys, and he [i.e. Ohrmazd] gave [the cow] water and plants for support, since in the [world of] mixture strength and growth will be from these.

(Bd 1a.15) šašom Gayōmard brēhēnīd rōšn čiyōn xwaršēd u-š čahār nāy paymānīg bālāy būd pahnāy čiyōn bālāy rāst pad bār ī rōd ī Dāitī kū mayānag ī gēhān [†]estād. Gayōmard pad hōy ārag ud gāw pad dašn ārag u-šān dūrīh ēk az did dūrīh-iz az āb ī Dāitī čand bālāy xwad būd čašōmand ud gōšōmand ud uzwānōmand ud daxšagōmand būd.

Sixth, [Ohrmazd] formed Gayōmard luminous like the sun, and Gayōmard measured four *nāys* in height, [his] width equaled [his] height, [and] set him standing on the shore of Weh Dāitī river, that is, in the middle of the world. Gayōmard was on the left side and the cow on the right, and their distance from one another and also from Dāitī river was as much as their heights, ⁸ and he had eyes and ears and tongue and reproduction organ.

Gayōmard's appearance is "like the sun," and the luminosity and whiteness of the *gāw* make her appear "like the moon." The comparisons appear to be made primarily on

⁵Cf. Shaked, "The Notions 'mēnōg' and 'gētīg'," 76: "Every material object, as well as intellectual concepts, seems to be represented by a *mēnōg* prototype or have a *mēnōg* counterpart." Shaked gives further examples in footnote 56 on the same page. Cf. WZ 3.2, 3.10.

⁶The same general conception must underlie the strange but regular Zoroastrian description of created phenomena as handsome young men. See for example Bd 1a.5 (*wād* "wind") or Bd 1a.16 (*xwāb* "sleep").

⁷WZ 2.9 adds *mādag* "female" to the description of the *gāw*.

⁸It probably means that each was located from the river by a distance that equaled its height.

the basis of the luminous appearance of the two primordial creations. This account of creation is found almost verbatim in WZ 2.8–10, which indicates its authoritative nature. As we will see, the luminous appearance of human and bovine archetypes has ancient Iranian lineage.

In the *Bundahišn* the luminous forms of the *gētīg* archetypes are invoked to account for the formation of the heavenly bodies (*rōšnān*). This peculiar conception is the node of the Pahlavi account. I would like to explain what it means, where it comes from, and how it is put together as a doctrine. In the Avesta the heavenly bodies are said to be created by Ahura Mazdā (*mazdaδāta-*). They struggle alongside other deities against the dark forces of disorder and destruction. But in the Avesta, as far as I can see, there is no explicit teaching about their creation (but see below). Yt 13.57 tells us that the stars, the moon and the sun remained motionless in the same place (*yōi para ahmāt hame gātuuō / darəyəm hištəṇta ⁺afrašūmaṇtō*) before Ahriman's assault (*daēuuanam parō thaēšaŋhat / daēuuanam parō draomōhu*); and that along with the "endless lights" they constitute the heavenly lights (*stram māŋhō hūrō anayranam raocaŋham*). It is very likely that they are understood to be consubstantial with the "endless lights," as fire is thought to be. This would be in conformity with their divine status. The idea that the heavenly bodies remained motionless before the assault of Ahriman is standard in Zoroastrian Pahlavi texts:

(Bd 2.19) tā madan ī ēbgat māh ud xwaršēd ud awēšān stāragān ēstād nē raft hēnd abēzagīhā zaman hamē widard ud hamwār nēm-rōz būd pas az madan ī ēbgat ō rawišn ēstād hēnd ud tā frazām az ān rawišn nē ēstēnd.

Until the coming of the assault the moon and the sun and the stars stood still and did not move; time passed without events and it was constantly midday. After the

⁹Cf. Panaino, "Philologia Avestica I."

¹⁰See Malandra, *Frawardīn Yašt*, 143. Malandra's translation of Yt 13.57 is puzzling: "We worship the good, strong, beneficent Frawrtis of the righteous, who [to the stars, the moon, the sun] to the Infinite Lights showed (their) paths, the righteous (Frawṛtis), which previously in the same place stood still [long] without moving forward, because of the hostility of the daiwas, because of the deceptions of the daiwas" (ibid., 93). The adverb and preposition parō (Skt. puráḥ) means "before" or "in front" in time or space; the ablative and locative nouns in situ make this clear. According to Yt 13.57, the motion of the heavenly bodies is due to the daēuuas (before their onslaught the celestial bodies stood still); the frauuašis' intervention makes their motion regular: the *frauuaši*s "showed (them) the paths that support *aša*" (γā̃ ... paθō daēsaiiən ašaonīš); in effect, paθō should be amended to paθā acc. fem. pl. of paθā- "path." Malandra's translation reverses the role of the daēuuas. It is unlikely, contra Pirart, Les Adorables de Zoroastre, 204, that the phrase "endless lights" is determined by "the stars, the moon, the sun." Rather, all four terms determine "the paths that support aṣˇa." We find the same four terms in Y 1.16 in the same ascending order. According to Hintze and Lincoln, Yt 12.29-37 counts nine celestial levels. See Hintze, "The Cow that Came from the Moon," 60; Lincoln, "Treatment of the Planets in Medieval Zoroastrianism," 273 note 7. I am not convinced that the passage intends to count the celestial levels. Yt 12.32 stārō yōi spantō.mainiiauua does not mean "the stars that contain the Good Mind," contra Lincoln, but something like "the stars which pertain to the beneficent-spiritual [sphere]." Cf. Y 1.11.

occurrence of the assault [they] were set in motion and until the end [they] do not desist from that motion.¹¹

Y 19.8 might seem to suggest that the heavenly bodies are thought to derive from the "endless lights" in their luminosity and "fashioned in bodily form" ($h\bar{u}$ $\vartheta \beta aršt\bar{v}$ $k \partial hrpiia$) from those lights. In a sense, this may be true of creation in its entirety, which is reflected in the Pahlavi doctrine of creation. But there are also some indications that in the Avesta, as later in Pahlavi literature, the formation of the heavenly bodies was thought to be mediated by the celestial (mainiiauua-) "forms" of the primal terrestrial creations (cf. Vr 2.4). These two conceptions may not be contradictory after all, as we will see.

II

I cite at length the relevant passages from the Bundahišn:

(Bd 7.1) gōwēd pad dēn kū ka Gannāg-Mēnōg andar dwārist nē pad sāl ud māh ud rōz čē tēz pad zamān be mad. nazdist ō se ēk ī ēn zamīg dudīgar ō panj ēk ī ēn zamīg sidīgar ō ēn zamīg hamāg be mad pas ō urwar. ēg Ohrmazd ān ī awēšān kirb abar grift ud abar awēšān stārag-pāyag burd ud frāz ō stāragān dād ast rōšnīh ī awēšān stāragān kē nūn abāz ō gētīg tābēnd.

It is stated in [our] religion that when the Evil Spirit rushed into [the world], he came, not in the course of a year or a month or a day, but in a flash. He came, first, to one third of the earth, second, to one fifth of the earth, third, to the entire earth, and then to the plant. Then Ohrmazd took their form and carried it to the station of the stars and gave it to the stars. The luminosity of the stars is [from the forms of the earth and the plant], which now shine back onto the terrestrial world.¹³

(Bd 7.2) čiyōn gōwēd kū axtarān āb-čihrag ud zamīg-čihrag ud urwar-čihrag hēnd.

¹¹Compare WZ 1.26: sē hazār sāl dām tanōmand ud a-frāz-raftār būd xwaršēd māh <ud> starān ēstād hēnd andar ō bālist a-wazišnīg "for three thousand years creation was in corporeal state and did not proceed; the sun, the moon, and the stars remained motionless in the zenith."

¹²Cf. D 3.123 cited in note 1, and Bd 1.43 *Ohrmazd az ān ī xwēš xwadīh az stī ī rōšnīh kirb ī dāmān ī xwēš frāz brēhēnīd pad ātaxš kirb ī rōšn ī spēd ud gird ud frāz-paydāg ud az stī ī ān mēnōg kē petyārag ī andar harw dō dām +aziš be bared ast tuwān ast zamān "Ohrmazd fashioned the form of his creatures from his own essence [which is] the being of light: in a fiery form, luminous and white, and round and brilliant; and from the being of that mēnōg, which will remove from the world the hostile obstruction present in both creations, is the power [to do so] and is the [requisite] time."*

¹³Here and below where the term *gētīg* is understood in opposition to the heavens I translate it as "terrestrial world."

As it is said [in the religious tradition]: stars are water-nature or earth-nature or plant-nature. ¹⁴

(Bd 7.3) awēšān āb-čihragān Tištar ud Tarahag ud Azarag ud Padēwar ud Pēš-parwēz ud haft stārag kē Parwēz xwānēnd ud awēšān āb-sardagān ān ī zamīg-čihr<agān> Haftōring ud Mēx ī mayān ī āsmān awēšān zamīg-sardagān ān ī urwar-čihrag abārīg jud az awēšān.

The water-nature [stars] are Sirius and Tarahag and Azarag and Padēwar and Pēš-parwēz and the seven stars called the Pleiades—these are the watery species. The earth-nature [stars] are Ursa Major and the Pole Star which is in the center of the sky—these are the earthy species. The plant-nature stars are the rest, aside from these.¹⁵

(Bd 7.4) pas Gannāg-Mēnōg ō gāw mad. gāw ō nēm-rōz ālag pad dašn dast ōbast. nazdist ān ī dašn pāy ō ham burd.

Then the Evil Spirit set on the cow. The cow fell on her right hand towards south. First she pulled in her right foot. 16

(Bd 7.5) Ohrmazd ān ī gāw kirb ud ēwēnag abar grift ō māh abespārd čiyōn ast ēn rōšngar ī māh ī abāz ō gēhān tābēd.

Ohrmazd took the cow's form and type and consigned it to the moon, for this is the illuminator of the moon that shines back to the world.

(Bd 7.6) čiyōn gōwēd kū māh ī gōspand-tōhmag kū ēwēnag ī gāwān ud gōspandān pad māh-pāyag estēd.

When it is said that the moon [possesses] the seed of the beneficent animals, this means that the type of the cattle and sheep exists at the moon station [or level].¹⁷

 $^{^{14}}$ For the arguments concerning the translation of compounds in Middle Persian *-čihrag*, Av. *-ci\thetara-see* below and the Appendix. For recent interpretations of these terms, see Hintze, "The Cow that Came from the Moon"; Panaino, "Pahlavi gwcyhl: gōzihr o gawčihr?"; Zimmer, "The Etymology of Avestan 2 ci θ ra-"; and Ahmadi, "Avestan $ci\theta$ ra-".

¹⁵According to Panaino (private correspondence), "Padēwar is one or more of the stars in Aries, Pēš-parwēz (presumably corresponding to *upa.paoiriia*) is Aldebaran or perhaps one of the stars in the vicinity of the Pleiades, Tarahag and Azarag must be in or near Canis Minor."

¹⁶I do not know what the gesture is supposed to signify (also below in Bd 7.7), or even whether my understanding of δ ham burd is right.

¹⁷The author is apparently dispelling a popular misconception that takes *tôhmag* in the biological sense (*šuhr*). In Presocratic cosmogony the notion of "seed" (*spérma*) is used beside "principle" (*archē*) and, if Aristotle is to be accepted, "element" (*stoicheion*) to designate the originative substance of the cosmos. See *Metaphysics* A3, 984b6 in Kirk, Raven, and Schofield, *The Presocratic Philosophers*, 89.

(Bd 7.7) pas ka ō Gayōmard mad Gayōmard ō nēm-rōz rōn <pad> hōy ālag ōbast. nazdist-iz ān ī hōy pāy ō ham burd.

After that [the Evil Spirit] set on Gayōmard, Gayōmard fell on the left side facing south. He first pulled in his left foot.

(Bd 7.8) Ohrmazd ān ī ōy kirb abar grift ō xwaršēd abespārd čiyōn ast ēn rōšnīh ī xwaršēd kē ō gēhān padiš tābēd.

Ohrmazd took his form and consigned it to the sun, for the luminosity of the sun is this [i.e. the form of Gayōmard] which shines onto the world [by the sun].

(Bd 7.9) čē gāw ōwōn būd čiyōn māh ud Gayōmard ōwōn būd čiyōn xwaršēd. Ohrmazd pad gētīg frāz brēhēnīd ka ēbgat mad ul ō azabar burd kū tā abāz ō xwēš buništ tābēnd ud dēwān-iz ān xwarrah ō xwēšīh nē rasēd kū padiš pādixšā(y) bawēnd. agar nē ēdōn kard hād ān rōšnīh ō gētīg nē tābist hād. handāzag ī ātaxš ka brāh az asar-rōšnīh awiš paywast estēd ka abrōzēnd rōšnīh ō azabar dahēd ō xwēš buništ ī-š aziš āmad.

For the cow was [luminous] as the moon and Gayōmard was [luminous] as the sun. Ohrmazd devised for the *gētīg* world that when [the Evil Spirit's] onslaught came [the forms of the two] are taken up above so that they shine back onto their original source and so, too, that the demons would not possess that Xwarrah by means of

Note the semantic development of *spérma* in the context of Presocratic cosmogonic speculations. The noun meaning "seed" is from Greek verb *spéirō* "to sow, seed," also (especially with prefix) "to spread, scatter, distribute," from PIE *\sqrt{sper} "scatter." See Beekes, *Etymological Dictionary of Greek*, 1379–80. The term is originally agricultural. The basic meaning of seed is generalized to designate the primary substance of the cosmos with the power to develop into actual things with particular qualities.

Under the influence of Greek cosmogony Middle Persian tōhm (or tōhmag) "seed" must have experienced a parallel semantic development starting from the biological field of animal generation. In the following passages, for instance, "seed" must be understood as originative substance and not as semen: Bd 6e.2 u-šān rōšnīh ud zōr ī andar tōhm ī gāw būd ō māh abespārd "[Amahraspandān] consigned to the moon the luminosity and power that was in the cow's seed;" Bd 6e.3 an tohm pad rošnih i mah be pālūd pad hamāg gōnagīhā be wirāst ud gyān andar kard "that seed was purified by the luminosity of the moon and was cultivated into all the animal species and [these] given life force." Cf. WZ 3.50 u-š pas {pad} ham rōšnīh <ī> andar zōr az tōhm ī gāw abar grift u-š ō +māh burd rōšnīh ī andar gāw būd be õ māh yazd abespārd pad gāh pad-iš ānōh ān tōhm pad rōšnīh ī māh be pālūd u-š was čihragīhā be wīrāst u-š gyānōmand be kard az ānōh frāz ō Ērānwēz brēhēnīd "And next he [i.e. Ohrmazd] removed from the cow's seed the luminosity that is in its strength and took it to the moon and entrusted the luminosity that was in the cow to the god Moon. There, [Ohrmazd] purified that seed $(t\bar{o}hm)$ by the luminosity of the moon, and arranged it in many forms (čihragīhā) and endowed these with life force. From there he fashioned them in Ērānwēz." The Pahlavi author specifies that the cow was female, thus ruling out that the "seed" in question could be semen. WZ 30.23 uses tohm in the two basic meanings that it has in Pahlavi texts side by side: ud gyān rōšn <ud> garm ud ham-gōhr ī ātaxš pēšōbāy abāg tōhm ī ātaxštöhmag andar ō gāh šawēd "and the vital soul, luminous, warm and consubstantial with fire, enters the place [i.e. womb], guiding the fiery-substance seed."

which they could become rulers [of the world]. If this had not been done, that light [i.e. of the sun and the moon] would not have shone on the world, like the fire that derives its radiance from the endless lights: when they kindle it, it gives its light upwards to its own source whence it came.

It is almost certain that in this context *kirb* and *ēwēṇag* are used jointly in order to designate more accurately one and the same entity, namely the luminous archetypal form. 18 Recall that the uniquely created cow and the first human are described in Bd 1a.14-15, as "white and luminous like the moon" and "luminous like the sun." Since this etiology of the luminosity of celestial bodies is not limited to the Bundahišn, it must be a Zoroastrian teaching. We find it in the Wizīdagīhā ī Zādspram and the Pahlavi Rivāyat. I have translated āb-čihrag as "water-nature" and similarly for the other two terms in Bd 7.2. These three terms are taken from the Avesta, which, there too, are used to characterize and classify stars. Avestan afsci9ra- does not mean "containing the seed of water" or even "watery-nature," but expresses the idea that the brilliance of the star characterized by the epithet is due to the (celestial) "brilliance" or "scintillating form" of water, and similarly for the other two terms zəmasciθra- and uruuarō.ciθra-. These three astral epithets are analogical products of the extension of the mythic conceptions that associate the primal man and primal cow, respectively, with the sun and the moon. Water, earth and plants, too, must have celestial connection. The systematizing intention of the speculative extension seems clear. 19 The Pahlavi literal equivalents of the Avestan terms were understood (which is reflected in my translation) in accordance with the semantic development of *čihr* "nature" that brought it into contact with the acceptation of *tōhmag* as (originative) substance. Thus we find not only $\bar{a}b$ - $\bar{c}ihrag$ but also $\bar{a}b$ - $t\bar{o}hmag$ (WZ 3.7²⁰) said of the star Tištar. I will come back to these issues. The following passages from the Wizīdagīhā ī Zādspram describes the resurrected in the tan ī pasēn.

(WZ 35.59) u-šān rāmišn-iz ī ēk az dīd ham ēwēnag ān {ī} wuzurg rōšnīh ī az kirb <ud> ēwēnag abar būm hamē tābīhēd kē-š pad ⁺nigāhbedīh az Gayōmard be padīrift az xwaršēd abar wisānīhēd nēmāg-⁺ē ō Gayōmard paymōzīhēd ⁺kē bun tōhmag ī

¹⁸For the acceptation of *ēwēnag* as archetypal form in unrelated passages, see for example PRDD 48.55 and 48.96. The former describes the process of resurrection: *Ohrmazd ast az zamīg ud xōn az āb ud mōy az urwar ud gyān az wād xwāhēd ēk ō did gumēzēd ud ēwēnag ī xwad dārēd dahēd* "Ohrmazd asks [and receives] the bones from the earth, the blood from the water, the hair from the plant, the vital breath from the wind [and] mixes them together and gives the form that he holds." PRDD 48.96 *būd kē-š guft kū jāwēdānagān pad ōzanišn <ī> ēwēnag agar be kunēnd nē pas gannā<g> mēnog bawēd nē ān ī ōy dām* "There were some who said that the gods incapacitate [the Evil Spirit] by smiting [his] form and afterwards the Evil Spirit will be no more, neither [will] his creatures."

¹⁹The Zoroastrian Pahlavi conception (e.g. D 3.123) that there are six fundamental (material) creations is already found in the Avesta (e.g. Yt 13.28, Y 19.2, 19.8). Of these six, five (earth, water, plant, cow, and human) are inside the first (sky); (from) D 3.123: *u-šān panj andarōn asmān <ud asmān> bēdom ī-šān wisp ō hamāg abar* "those five are inside the sky, and the sky is outermost with respect to them all, and is above all of them."

²⁰Gignoux and Tafazzoli, *Anthologie de Zādspram*, 41, translate *āb-tōhmag* as "d'essence aqueuse."

mardōmān būd nēmāg-⁺ē ō hamōyēn hāmist kē-š tōhmag būd hēnd meh-rōšnīhā ud keh-rōšnīhā.

And their mutual enjoyment is in a similar manner. The great luminosity [i.e. of the sun] that has continually shone from the form and type [i.e. of human beings] on earth, which [the sun] had received from Gayōmard for safekeeping, [now] separates from the sun, [and] half of it is put on by Gayōmard who was the primal seed of human beings, half of it by all who are his family, with greater or lesser luminosity.²¹

(WZ 35.60) ⁺u-šān ān ast paymōzan ⁺ī bāmīg a-zarmān a-marg.

And this is their clothes, shining, ageless, immortal.

The tan ī pasēn mirrors the original condition, except that Gayōmard receives only half of the luminous substance that was his before Ahriman's assault. The relevant texts from the *Pahlavi Rivāyat* are the following. (The paragraphs are not cited in full.)

(PRDD 65.3) kirb ud ēwēnag ī āb ud zamīg pad star pāyag be dād estēd ud star ēk ēk and čand kadag-masāy pad wīst ud dō āyēnd ud šawēnd u-šān wīst ud dō asp āhanjēd kirb ud ēwēnag ī star az kirb ī xwēš ud ēwēnag ī xwēš ēk az ān <ī> āb ud zamīg ud urwar.

The form and type of water and earth have been established at the level of the stars. The stars are each the size of a house, and in twenty-two [they] come and go, and twenty-two horses draw them; the form and type of the stars [which] is the same as their own form and their own type is from that of the water or the earth or the plant.

²¹Cf. Bd 34.8 pas ka-šān harwisp axw ī astōmand tan ud kirb abāz wirāyēd ēg-šān ēwēnag be dahēnd. ud ān rōšnīh ī abāg xwaršēd nēm-ē(w) be ō Gayōmard ud nēm-ē(w) pad abārīg mardōm be dahēnd "After they restore the body and corporeal form of every spirit that has body, they give [it] the [species] form. And they give one half of the luminosity that the sun holds to Gayomard, and one half to the rest of humans." The ēwēnag "type" (or "genus") must be understood as the species form whose substance consists of light. Cf. Bd 1.43 cited in note 18. In both Plato and Aristotle (Met. 7, 17) substance (ousia) and form (eidos) are equated. See Barnes, The Complete Works of Aristotle, 1643-4. (I am aware that this is not the only conception of substance in Aristotle; in Categories 2, for example, he rather equates primary substance with the individual, i.e., token, not type. See ibid., 3.) The reason they do this is that the form (eidos) persists in time (Aristotle) or is transcendent (Plato), and thus makes the particular thing (tode ti) what it is (esti). In the cosmological speculations of Zoroastrian Pahlavi texts (e.g. D 3.191-4; Bd 7) the semantic field of $t\bar{o}hm$ (in the sense of originative substance) to some extent overlaps with that of ēwēnag (and kirb "perceptible form"). In D 3.191 tōhmag is clearly understood as the originative substance akin to the archē of the Presocratics. See Shaked, "The Notions 'mēnōg' and 'gētīg'," 100-1. The overlap shows once again the penetration of Greek philosophy in Zoroastrianism. The convergence of the two terms in Zoroastrian cosmology is readily effected because the substance in question is light and the form is essentially characterized by its luminosity. I come back to this issue further below.

(PRDD 65.4) kirb ud ēwēnag ī gōspandān pad māh pāyag dād estēd.

The visible form and type of beneficent animals have been established at the level of the moon.

(PRDD 65.8) ud girdag ī māh hammis dō frasang drahnāy ud dō frasang pahnāy ud rōšnīh ī māh čē az tan ī māh ⁺ēnyā az kirb ud ēwēnag gōspandān pad [×]māh pāyag.²²

The disk of the moon is altogether two parasangs in length and two parasangs in width; and the light of the moon, which is distinct from the body of the moon, is from the form and type of beneficent animals [which exists] at the level of the moon.

(PRDD 65.13) girdag ī xwaršēd and čand ērān-wēz ... rōšnīh ī xwaršēd čē az mēnōg ī xwaršēd ēk az kirb ud ēwēnag ī mardōmān.

The disk of the sun is the size of Ērānwēz ... the luminosity of the sun, which is the same as the spirit of the sun, is from the form and type of human beings.

There are in fact two distinct themes in the Pahlavi texts which I have cited from the *Bundahišn*, *Wizādagīhā ī Zādspram* and the *Pahlavi Rivāyat*. The two themes were assimilated together and are almost indistinguishable. They are: (1) the etiology of the luminous form of the heavenly bodies; and (2) the presence of archetypal forms at the levels of the stars, the moon and the sun. The basis of their assimilation in the Pahlavi texts must ultimately be the celestial connection of the bovine and human archetypes, although the respective connections have different genealogies. Only the *Pahlavi Rivāyat* talks about the *kirb ud ēwēnag* of the water, earth and plant. I have already mentioned that the association of the stars with the three "forms" must be analogical. It is clear from PRDD 65.8 and 65.13 what the author

²²The MSS xwaršēd is clearly a mistake. See Williams, The Pahlavi Rivāyat, 114 and 270. The MSS have 'yny' (transcribed ēnyā) in 65.8 (az ... ēnyā). See ibid., vol. 2, 375–6. In view of the identical phraseology and similar contexts, ibid., vol. 2, 113–14, edits 65.8 'yny' and reads ēk instead of ēnyā. But this is unnecessary. The constructions az ... ēnyā and az ... ēk are similar to az ... hammis "together with" and mean, respectively, "otherwise than (being) from" and "one with." Here are the passages in Williams' translation: 65.3 "the body and form of the stars [are] of their own body and their own form, one of them [is of] water and [one of] earth and [one of] plants" (ibid., 113); "the light of the moon [is] from the body of the moon, one of the bodies and forms [is that of] beneficent animals on the [moon] station" (ibid., 114); "the light of the sun [is] from the spirit of the sun, one of the bodies and forms [is that of] mankind" (ibid., 114). Williams effectively ignores the parallel passages in the Bundahišn and Wizīdagīhā ī Zādspram. The texts in his translation are in my view incomprehensible. PRDD 65.3 says that the stars have no form and type other than that of the earth, the water or the plant; PRDD 65.8 says that the luminosity of the moon is not due to its body but to the form and type of the beneficent animals; PRDD 65.13 says that the luminosity of the sun which is of the mēnōg order is due to the form and type of human beings. As we will see, the equivalence of the mēnog of the sun, its luminosity, and the form and type of human beings is an ancient topos.

intends by this: the luminous form of the stars is due to the $m\bar{e}n\bar{o}g$ form of the water, or the earth or the plant. If the luminosity of the stars is due to the $m\bar{e}n\bar{o}g$ forms of the three $g\bar{e}t\bar{i}g$ creations, these forms must be present at the level of the stars. In other words, at issue is the first theme, not the second: the author infers the "presence" of the luminous forms on the stars from their being understood as the cause of the astral light. How was the problem of the discrepancy between the number of the forms and that of the stars resolved? Perhaps it was not perceived as a problem. Generally speaking, the $m\bar{e}n\bar{o}g$ form is understood both as a singular entity and as luminous ethereal substance (cf. Bd 1.43); or sometimes this, sometimes that (e.g. the $m\bar{e}n\bar{o}g$ of the wind). Moreover, the authors of the doctrine could appeal to the authority of the Avesta ($af\bar{s}ci\partial ra$ -, etc.). Indeed, as I mentioned, the etiology of astral light appears to be a speculative elaboration of the Avestan epithets.

The second theme is in my view inflected through Plato's theory of forms; or, putting it more strongly, the specifically Zoroastrian elements in it are speculatively developed within the frame of Platonic theory of forms.²³ The most important of these Zoroastrian developments is given in Bd 7.9: Ohrmazd takes the bovine and human archetypal forms to their respective celestial stations, which would explain the presence of the two forms there. Perhaps the same process was supposed for the three forms associated with the stars. In the context of Zoroastrian speculations about the nature and structure of the world, the semantic fields of $t\bar{o}\bar{h}m(ag)$ and kirb overlap, both fundamentally understood as rōšnīh.²⁴ Thus, Ohrmazd takes the tōhm of the primordial cow to the moon, as in Bd 6e2-3 and WZ 3.50, as well as her kirb. In the second theme, the issue is not the etiology of the moon's luminosity but of the genus-species relation between the archetypal form stationed at the moon and the terrestrial animal species produced from it. Thus WZ 3.50 can say anoh an tōhm pad rōšnīh ī māh be pālūd u-š was čihragīhā be wīrāst "there [Ohrmazd] purified that seed by the moon's light and arranged many natural species." It is in this frame that we must place the idea that the *tōhmag* of the bovine archetype is taken to the moon and from it the species of beneficent animals are produced. This meets the objection of the author of the Bundahišn at Bd 7.6.25 In the Bundahišn author's

²³According to Plato's theory, every sensible phenomenon is what it is to the extent that it partakes of an intelligible archetypal form that exists in the divine sphere. Worldly, changeable phenomena are material (hence degraded) copies of unchangeable ideal forms, which alone *are*, in the full sense of this term, i.e. changeless.

²⁴Compare the following description of Ohrmazd's creation of the *gētīg* world in the *mēnōg* state (paragraph not cited in full): Bd 1.43 *Ohrmazd az ān ī xwēš xwadīh az stī ī rōšnīh kirb ī dāmān ī xwēš frāz brēhēnīd pad ātaxš kirb ī rōšnī i spēd ud gird ud frāz-paydāg* "Ohrmazd fashioned the form of his creation from his own essence, that is, from the being of light, in fiery form, which is bright and white, and circular and highly manifest." This shows that the luminous forms of the *gētīg* creations are *mēnōg*.

²⁵The context allows us to determine whether biological seed or substance is meant. In cosmogonic speculations, *tōhmag* generally means originative substance. Consider de Menasce's translation of D 3.276: "La production (*afūrišn*) mēnōgienne de créatures (om.) est en soi un produit en puissance (*dahīk nērōk*), invisible, et le germe (*tōxmak*) qui en provient est analogue à la torsion (*gartišn*) d'un fil de laine destiné aux nombreux vêtements qui seront faits de lui. La production mēnōgienne des êtres indi-

view, the notion that it is the cow's $t\bar{o}hmag$ (understood as semen) that is transferred to the moon by Ohrmazd is a misunderstanding of the presence of the bovine $\bar{e}w\bar{e}nag$ on the moon. It must have been popular even amongst the clergy, thus drawing the author's corrective clarification. From what he says, we may gather that the misconception was due to a confusion between the two senses of the term $t\bar{o}hmag$, that is to say, as semen and originative substance.²⁶ The misunderstanding that provoked our

viduels (čišān) vise donc le germe, et la création (dahišn) gētīkienne des corps vise un produit à la manière de ce qui a été dit de la laine et des vêtements qui sont faits de lui." See de Menasce, Le troisième livre du Denkard, 276. The tōhmag from which gētīg creatures are produced is of mēnōg nature, and it is likened to woven fabric (from which a number of garments are made). Cf. D 3.191.1–2 hād āfurišn ēwāz dām fradom pad-mēnōgīh ast mādag ud tōhmag mēnōgīg ud pad-nērōg gētīg nimāyišn ... ud dahišn ēwāz dām az mēnōgīh ō gētīg wardēnīdan ud dahīg az mādag ī-š pad-nērōg būd "the word āfurišn means that the creation is first in the mēnōg state, that is, it exists as stuff and seed of mēnōg nature, and potentially [contains] its [subsequent] gētīg manifestation ... and the word dahišn means the transferring the creation from being in the mēnōg state to the gētīg state, and [manifesting as] the product from [the mēnōg] stuff in which it existed in potentiality." See Fazilat, Dinkard, 359. The cited Dēnkard passages are difficult but comprehensible if properly analyzed. Cf. Shaked, "The Notions 'mēnōg' and 'gētīg'," 100–1; de Menasce, Le troisième livre du Denkard, 197. Note the proximity in nature and function of tōhmag "seed," i.e. originative substance (in these passages) and kirb "form" (in the Pahlavi Rivāyat passages quoted in the main text), both of which derive from the mēnōg order. See the following footnote.

²⁶Compare the explanation of *gōspand tōhmag* (i.e. as the epithet of the moon) in the Middle Persian version of Ny 3.1: gōspand tōhmagīh ēd kū wahman ud māh ud gōšurwan har se gōspand tōhmag hēnd. ān ī kē wahman mēnōg awēnāg agriftār ud az wahman be māh tāšīd pad wēnāgīh ud agriftārīh ud az māh be gōšurwān tāšīd estēd pad wēnāgīh ud griftārīh ud hamē ēn dām ud rāyēnišn pad gōspand tōhmagīh. ud xwarrah ī gāwān ud tōhmag gōspandān be māh pāyag estēd "being in charge of the tōhmag of beneficent animals' means this: Wahman and the Moon and the Cow's Soul, all three are in charge of the tōhmag of beneficent animals. That [tōhmag] which is mēnōg, which pertains to Wahman, is invisible and intangible, and from that of Wahman, that of the moon has been formed in a visible and intangible state, and from that of the moon, that of the Cow's Soul has been formed in a visible and tangible state. And these creations and [their] arrangement are oriented to the discharge of the responsibility for the tōhmag of beneficent animals. And the divine fortune of the cattle and the tōhmag of beneficent animals are stationed at the moon." The Pahlavi text is cited from Hintze, "The Cow that Came from the Moon," 60. In the crucial phrase ān ī kē wahman mēnōg awēnāg agriftār, ān is anaphoric and must refer to the tōhmag, so the phrase means: the tōhmag which pertains to Wahman is mēnōg, i.e. invisible and intangible. Thus the tōhmag appears to be understood to go through three gradations: from being invisible and intangible—this pertains to Wahman—through being visible but intangible—this pertains to the moon—to being visible and tangible—this pertains to the Cow's Soul. These grades are probably intended to parallel those of the original creation: mēnōg in the mēnōg state, then gētīg in the mēnōg state, and finally gētīg in the gētīg state. Šee Bd 1.52 u-š dām ī mēnōg mēnōgīhā dārēd u-š dām ī gētīg mēnōgīhā dād u-š dīd be ō gētīgīhā dād "Ohrmazd holds mēnōg creation in the mēnōg state, and he created the gētīg creation in the mēnōg state, and then he transferred it into the gētīg state." Cf. Bd 3.17 u-š gōspand pad panj bazišn frāz brēhēnīd tan ud gyān ud ruwān ud ēwēnag ud mēnōg kū andar ēbgatīh Gōšurwan tōhmag ī göspandān az māh-pāyag padīrēd pad ayārīh ī Rām ī weh andar gēhān rawāgēnēd. ka mīrēnd tan ō Gōšurwan ud ruwān ō Rām ud ēwēnag ō Māh ud mēnōg ō Wahman paywast kū daxšag be murnjēnīdan nē tuwān bawād "he fashioned beneficent animals in five components: body and vital soul and personal soul and type and mēnāg, and thus during the period following the assault, Gōšurwan receives the seed of beneficent animals from the moon-level [and] with the assistance of the good Rām propagates it in the world. When they die, their body joins Gōšurwan, the personal soul joins Rām, the type joins the moon, the mēnōg joins Wahman, so that it would not be possible to destroy the [gētīg] symbol [of the relevant mēnōg power]." The two passages (Ny 3.1 and Bd 3.17) do not mean the same thing, however. They

author's corrective remark nonetheless succeeded in displacing the (Platonic) doctrine of the presence of the $\bar{e}w\bar{e}nag$ of the constituents of the $g\bar{e}t\bar{t}g$ world in the celestial sphere. That misunderstanding appears to persist even among scholars, helped by a mistaken understanding of Av. $ci\theta ra$ -, MPer. $ci\theta ra$ -,

III

This observation brings us to the first theme. I mentioned above that the epithets composed of the names of the primal gētīg creations and ci9ra- and used of the heavenly bodies are not of the same vintage. The three classificatory epithets used of the stars are the analogical product of priestly speculations that extended the celestial valence of the bovine and human archetypes to the other three terrestrial creations. The epithets afšci9ra-, zəmasci9ra- and uruuarō.ci9ra- are thus artificial and to this extent devoid of descriptive content. If nonetheless we were to ask what they could be taken to mean, e.g. by our Pahlavi authors, and whether the star described by one of these epithets was envisaged to "possess the seed" of, for example, the water, or whether the epithet rather was taken to specify the cause of the luminous form of the star—in order to decide between these alternatives we have to consider how things stand with the celestial connection of the bovine and human archetypes. In other words, we should ask: what is the basis for associating these two archetypes, respectively, with the moon and the sun, and how solid (e.g. ancient) is this association? As it happens, we can unequivocally answer this question: the basis of the association is the apparent forms of the archetypes. We have ancient testimonies of this belief.

Recall that according to the Zoroastrian doctrine of creation Gayōmard is described not only "luminous like the sun" (WZ 2.10, B 1a.15) but also as roundish: *u-š čahār nāy paymānīg bālāy būd pahnāy čiyōn bālāy* "measured four *nāy*s in height and width" (Bd 1a.15). In the case of *gāw ī ēk-dād* only the height is specified: three *nay*s (WZ 2.9, Bd 1a.14). This is peculiar, for if we suppose that the intention behind the dimensions of Gayōmard is to make him have the appearance of the sun (i.e. luminous and round; also cf. Bd 1.43), why not do the same with the *gāw ī ēk-dād*? Three possible explanations come to mind. One is that the bovine archetype, too, was thought to have a roundish form, and being obvious, it is not explicitly mentioned. The relevant passage in the *Pahlavi Rivāyat* may be adduced in support of this view: PRDD 46.15 *u-š sē nāy pad bālāy ud pahnāy būd* "her height and width was three *nāys*."

are two renditions of the supposed correspondence between the divine sphere and the bovine archetype, each of which is divided in a number of components.

²⁷I discuss in some detail two such cases in the Appendix. Cf. Lecoq, *Les livres de l'Avesta*, 381 n. 0: "rien ne nous est dit dans l'Avesta sur le sens exact de cette épithète spécifique de la lune [i.e. *gaociθra-*]; la tradition postérieure fournie par les livres pehlevis, principalement le *Bundahišn* (Chapitres 4, 6°, 7) explique qu'après le meurtre du taureau primordial par Ahriman, sa semence, qui produira les animaux utiles, fut préservée dans la lune; l'épithète avestique pourrait se traduire, plus littéralement et plus prudemment par «qui est l'origine du bœuf» ou encore «qui contient le prototype du bovin»." Did the Pahlavi authors misunderstand the meaning of the epithet, i.e. "prototype" as "semen"?

However, there are indications that this description of the cow's body is adopted from that of Gayōmard's which was understood to be the standard. The clearest sign of this analogical development is the presentation in the passage of the process of genetic propagation of "all the species of the beneficent animals," which is modeled on that of human beings.²⁸ The second possible explanation is that the frontal aspect of bovine body is already roundish (or close enough), and hence no statement to this effect regarding the bovine archetype is necessary—unlike the frontal aspect of the human body.²⁹ This has certain plausibility, but our testimonies seem to point to another basis of the comparison of the cow and the moon: the bovine head—with the horns. This is in my view the right explanation. (I will return to this topic below.)

In the case of the primordial man there are testimonies (at least three as far as I know) in which the likening of him to the sun involves his roundish body. One is the *Bundahišn* text cited above. The second is the story of the birth (or rather abortion) of the solar figure Vivasvant in the shape of an egg (*mārtāṇḍá*- "coming from a dead egg") in a number of Vedic and Brāhmanic texts. In one of these texts (TS VI 5.6) it is explicitly stated that this egg-shaped figure is the ancestor of human beings; in another (ŚB III 1.3.3.4) we find a more explicit description of its roundish shape: "he was as big transversely as he was vertically." It thus appears that the *Bundahišn* description of the appearance of Gayōmard does indeed have ancient roots. Both Gayōmard and Mārtāṇḍa are roundish solar figures that are the ancestors of mortal (human) beings.

The third testimony is from Plato's *Symposium* (189e5–190b4). In the course of his speech praising love, Aristophanes gives the following account of its ubiquitous presence in human life. Originally, human beings were shaped differently than they are at present, he says.

[T]he shape of each human being was completely round, with back and sides in a circle; they had four hands; they had four hands each, as many legs as hands, and two faces, exactly alike, on a rounded neck ... Now here is why there were three kinds ... The male kind was originally an offspring of the sun, the female of the earth, and one that combined both genders was an offspring of the moon, because the moon shares in both. They were spherical, and so was their motion, because they were like their parents in the sky.⁵³

²⁸Here is the text: PRDD 46.15 ka-š ahreman abar mad pad gyāg be murd u-š šuhr pad gyāg be ō zamīg mad hamāg sardag ī gōspandān ohrmazd az ān šuhr be kard u-š nazdist az harw sardag-ē ēk nar ud ēk mādag be kard "when Ahriman came upon [the cow], it died at once, and its semen fell onto earth right there, and Ohrmazd made all the species of beneficent animals from that semen; he first made one male and one female of each species."

 $^{^{29}}$ Bd 1a.15 specifies that u- \check{s} ... \mathring{rast} pad \mathring{bar} \mathring{i} \mathring{rod} \mathring{i} $\mathring{Dait}\mathring{i}$ \mathring{ku} mayānag \mathring{i} $\mathring{ge}\mathring{ban}$ ⁺estād "Ohrmazd set him standing straight on the shore of Dāitī river, that is to say, in the middle of the world." The same is implied in WZ 2.9.

³⁰See Hoffmann, "Mārtāṇḍa and Gayōmard."

³¹See ibid, 105.

³²See ibid., 111; cf. Kellens, Études avestiques et mazdéennes vol. 2, 23-30.

³³See Sheffield, *Plato: The Symposium*.

Fearing their power, Zeus cuts these extinct humans straight down the middle and thus produces the normal humans with one head, two legs, and so on.³⁴ Each half now seeks his or her severed half, which is in effect love (Symp. 191c9-191d3). The etiological intent of the myth explains the doubling up of the limbs. Sphere and circular motion are of course perfect shape and motion in Platonic cosmology. These spherical humans are divine beings by shape and motion and descent. And such a divine origin of course suits a divine being such as Eros. It thus may seem that this myth is purely Platonic. But we have seen the presence of a parallel physiognomy and genealogy in Vedic and Zoroastrian literature. In fact Greeks regularly associated the divinity of the sun, the moon and the earth with the "barbarians," and in particular Egyptians and Persians. Herodotus (Hist. 1.131) reports that the Persians worship the sun, the moon, fire and water, and do not believe that the gods have human form as the Greeks do. 35 Further, in Plato's late cosmology it is rather the cosmos itself which is divinized as embodying the divine nous "intelligence" and the souls are associated with the stars. The specific contributions made to the myth by the etiology of love on the one hand and by the Platonic conception of the perfection of the spherical shape and motion on the other are thus reasonably discernable. In accordance with the other two testimonies, it can be suggested that the core of Aristophanes' myth consisted of the genealogy of a primal human race whose descent from the sun, the moon, or the earth was reflected in the roundish shape of their bodies.

The celestial connection of bovine and human archetypes always bears on the appearance or form of these primal beings, which may be more specifically determined. We just saw one such determination (i.e. the roundish body). It is understandable that in the Zoroastrian context, the luminosity of their bodies is particularly the point of emphasis. In view of the geographical and religious diffusion of the mytheme of solar and lunar valence of the human and bovine primal beings we can reasonably postulate a Proto-Indo-European lineage for it. In Greek myth Io "moon" is a priestess of the sanctuary of Hera in Argos where she is noticed and pursued by Zeus. In order to hide Io and his affair with her, Zeus transforms her into a heifer. Hera finds out and asks for cow-Io and sets Argos Panoptes to guard her. In another version of the love affair (in Aeschylus, Hiketides), Hera transforms Io into a cow in order to prevent Zeus from continuing his amorous relations with her. Zeus responds by turning himself into a bull and mating with her. The myth is attested in a number of versions from the seventh (in the Ehoiai) through fourth century BCE in tales and images, which reflects its popularity.³⁶ In *Prometheus Bound* (585-7) when Io first meets the bound Prometheus she describes her condition in these terms: "I am well-wearied enough by many, many wanderings, nor can I learn in what way I am

³⁴ They were awesome in their strength and vigor and had great and proud thoughts, and they made an attempt on the gods" (*Symp.* 190b5–7). "So I shall now cut each of them in two ... So saying, he cut those human beings in two, the way people cut sorb-apple before they dry them or the way they cut eggs with hairs" (*Symp.* 190d–e).

³⁵See Henderson, *Herodotus: The Persian Wars*, 171.

^{171.} Cf. Peace, 405-16 in Henderson, Aristophanes: Clouds. Wasps. Peace.

³⁶See Gantz, Early Greek Myth, 198-203.

to escape my torment. Do you hear the voice of this maiden who is horned like a cow?"³⁷ The horns are of course also lunar, as her name makes clear. It is true that pictorial representations of the moon are regularly in crescent form, but mythic discourse has the freedom to present the complete lunar cycle in composite form as the head of a white cow. Mythic image (e.g. Io) signifies all the aspects, not just one. Nothing in the night sky is more noticeable than the regularly changing shape of the moon. It was the main instrument of measuring month and year in the ancient world until well into the first millennium BCE.³⁸

In the Gathic account of creation, for example, the moon is represented by its phases (Y 44.3dd'): kā yā må uxšiieitī nərəfsaitī θβāţ "through whom the moon now waxes now wanes?" Lunar phases are essential in mythic and ritual conception and representation of the moon. Here we have a clear indication that the cow represents the moon thanks to her horned visage. This phenomenology must be the basis of their assimilation in myth, which may take the form of the etiology of the lunar form, i.e. in its complete monthly cycle, or, conversely, of the lunar genealogy and nature of the cow. We saw that both aspects are found in the treatment of the myth in Zoroastrian Pahlavi texts, the latter as the presence of bovine archetype at the moon. The treatment is in accordance with the Avestan testimony. The dedicatory phrase that opens the Māh Yašt (7.0) concisely brings the two aspects together hinged on (the phenomenology of) the bovine archetype: månhahe gaoci@rahe, gāušca aēuuo.dātaiia, gāušca pouru.sarabaiia xšnaobra "with gratification of the moon that has the brilliant form of the cow, of the archetypal cow, of the bovine genus with many species." These considerations leave hardly any doubt about the meaning of the Avestan epithet of the moon gaoci θ ra: the moon has the luminous appearance of the cow. 40 The lunar valence of the bovine archetype is also represented in the tauroctony scene of the Mithraea: the head of the sacrificial bull points to the image of the moon in the celestial vault. The sacrificial bull signifies the moon. In Mithraic astrology Taurus is the sign of the moon's "exaltation." ⁴¹ Although we do not have any Mithraic account of the myth, it is generally agreed that the sacrifice was understood by the adherents of the mystery as the generation of the living world. 42 The moon-cum-bull allows ritual-iconographic rendition of Mithraic

³⁷Collard, Aeschylus: Persians and Other Plays, 116–17.

³⁸Cf. Mallory and Adams, The Oxford Introduction to Proto-Indo-European, 128.

³⁹Cf. Yt 7.1–4.

⁴⁰Kellens translates the epithet: "qui a la vache comme marque-distinctive" in Kellens, "Commentaire sur les premiers chapitres du Yasna," 86.

⁴¹See Beck, *The Religion of the Mithras Cult*, 197–200. "In the star-talk lexicon used in the tauroctony, the most interesting of the polymorphous signs is the bull. The bull, as we have seen, means Taurus, as both sign and constellation. It also means the Moon" (ibid., 198). "The sign of the Moon's exaltation was Taurus, the sign of its 'humiliation' (*tapeinōma*) Scorpius" (ibid., 199). "If Mithras in the tauroctony means the Sun and the bull means the Moon, then the encounter of Mithras and the bull means the conjunction of Sun and Moon, the monthly event we call 'new moon,' and the victory of the bull-killing Mithras signifies, whatever its ulterior meaning, the Sun's triumph over the Moon" (ibid., 199).

⁴²See Nock, "The Genius of Mithraism"; Gordon, "Reality, Evocation and Boundary"; Turcan, "Le sacrifice mithriaque"; Turcan, *Mithra et le Mithriacisme*, 101–2; Clauss, *The Roman Cult of Mithras*.

astrology; and at the same time, the sacrificial lunar bull is understood to be lifegiving.⁴³ Thus, the two aspects that we noted in the Zoroastrian treatment of the lunar connection of the bovine archetype, namely the bovine etiology of the luminous form of the moon and the lunar origins of animal species (through sacrifice of the cow), have firm ancient roots. The second theme is inflected in the Zoroastrian doctrine by the prism of the Platonic theory of forms: the origin is conceived as transcendent (bovine) "form" present at the moon.

The celestial connection of the human archetype, too, must be original, but it does not seem to have phenomenological basis. The connection takes a curious form in the (Middle Persian) Manichaean account of the creation of the first human couple. The demoness of lust Āz through a giant couple produces a pair of male and female progeny. Although the body of their (male) offspring has an evil lineage, his *gyān* "soul" is made "of divine light and beauty" ('c h'n rwšnyy 'wd xwšn). His form too has a divine origin.

'wd h'n nr cyhr 'yg yzd"n, 'yš 'c rh dyd, h'ncyš pdyš phyqym'd 'wd dysyd ... 'wd k' h'n nr d'm z'd, 'ygyš nwxwyr n'm nyys'd, 'y xwd gyhmwrd. 44

And the male form (*čihr*) of the gods [i.e. of the Third Messenger] which was seen by her [Āz] from [afar at] the celestial Wheel—exactly according to it [the first man] was formed and shaped ... And once that male creature was born, he was given the name Noxwīr ["first man"], who is no other than Gēhmurd.

The story does not specify the form given to the first man other than that it is the apparent form of the Third Messenger. Incidentally, the word *čihr* in the passage can only mean "apparent form" (see the Appendix).⁴⁵

Let us go back to the Avesta. Aside from Gaiia-marətan (Gayōmard), Yima (Jam) is also a primal man and a solar figure. Not only does he share the sun's epithet xšaēta-

[&]quot;With the aid of the dagger he [i.e. Mithras] creates life, by killing the bull" (Clauss, Roman Cult of Mithras, 62). "The cult-relief depicted a unique event, which yet symbolised all of creation. Out of the death of the bull new life burgeons; and this new life, which is, true, real life, is owed to Mithras alone" (ibid., 101). "Comme les espèces animales que le sang du taureau avait en quelque sorte nourries et réconfortées, les mystes prenaient avec le dieu sacrifiant leur part de la nourriture divine" (Turcan, Mithra et le Mithriacisme, 81). What is important in Mithraism is not sacrifice per se but the sacrifice of the moon-cum-bull, as Beck, Religion of the Mithras Cult, 102–24, argues.

⁴³On the bas-relief in Bourg-Saint-Andéol the moon goddess sports bovine horns. Cf. Turcan, *Mithra et le Mithriacisme*, 103, 144, 147–9.

⁴⁴See Boyce, *A Reader in Manichaean Middle Persian*, 72–3. The passages are from Text y 41 and 43 respectively. Boyce translates 'yš' c rh dyd "which had been seen by her [i.e. Åz] [coming] from the chariot [of the sun]." It is not clear in her translation whether *az rah* describes Āz or the Third Messenger. The syntax favors the latter. In my view, it is more likely that *rah* refers to the celestial wheel. Here the preposition *az* signifies the distant location of the viewer, i.e. the form (of the god) was seen from afar at the celestial wheel.

⁴⁵Cf. Brunner, A Syntax of Western Middle Iranian, 112: "And that male offspring of the gods—according to it she shaped that [Primal Man]."

(probably "brilliant") but he is actually described as *buuaro.darosa-* "having the appearance of the sun" (Y 9.4). His father is Vīuuaŋ haṇt-, "who shines far and wide." Yima is a semi-divine figure in Vīdēvdād 2.46 We thus have in him a testimony to the solar connection of the primal man. It seems reasonable to think that Yima's solar appearance means that he scintillates like the sun. Yima's sunlikeness must perhaps be understood to apply to his visage rather than his entire body. In any case, it is likely that the Avestan Gaiia-marətan displaced the sunlike Yima as the primal man and ancestor of human beings, especially of the Airiia people.⁴⁷ In this capacity he takes over the solar status of Yima. The solar characteristics of Gayōmard, as we have seen, are explicit. For his descendants he is the archetype whose features they inherit, and once they are resurrected in the fullness of time, they share in Gayōmard's luminous form, which the sun will have returned to him (and them). This image is also present in the Avesta, even if in a less explicit manner.

Y 13.87 gaiiehe marəθnō aṣaonō frauuaṣīm yazamaide yō paoiriiō ahurāi mazdāi manasca gūšta sāsnåsca yahmaṭ haca frāθβərəsaṭ nāfō airiianam dax'iiunam ciθrəm airiianam dax'iiunam.

We worship the pre-existent soul of Gaiia-marətan who was the first to listen to Ahura Mazdā's thought and teachings; from whom [Mazdā] fashioned the family of Airiia peoples, the scintillating appearance of Airiia peoples.

Whereas in the case of Yima the attributed splendor clearly pertains to his corporeal appearance, the usage of $ci\vartheta ra$ - in the Avesta obliges us to envisage the "scintillating form" of Gaiia-marətan as that of his soul. I say this not because I want to render the attribution more plausible, i.e. less vulnerable to phenomenological scruples. It is what our textual evidence requires. The Avestan noun $ci\vartheta ra$ -, in all its attestations, signifies a numinous appearance. It manifests an otherwise invisible quality, be it of the nature of the sacrifice, as in Y 12.4 or 58.1, ⁴⁸ or the character of the soul. The negative usage of Y 12.4 is isolated (if we discount Y 32.3⁴⁹). It could be that the noun became

⁴⁶See Kellens, *Cinq cours sur les Yašts de l'Avesta*, 104–15.

⁴⁷Cf. ibid., 114–15.

⁴⁸See Kellens, Le Hōm Stōm et la zone des déclarations, 135; Kellens, Études avestiques et mazdéennes vol. 4, 113–14; Pirart, Corps et âmes du mazdéen, 117.

⁴⁹Cf. Ahmadi, *The Daēva Cult in the Gāthās*, 155–8. The grammar (why the putative predicate *ciθτοπ* does not agree with the subject in number?), the syntax (why the ablative *akāt manaŋhō* is turned into a genitive in the translations based on the premise that *ciθτοπ* is a predicated adjective?), the supposed semantics (why translate "descent" as "offspring" *in situ*?)—these considerations favor its treatment as an adverb in Y 32.3. See also Ahmadi, "Avestan *ciθτα-*." To these grounds must be added the form and etymology of the word. See Wackernagel and Debrunner, *Altindische Grammatik. Vol II.2*, 849. See my discussion of Zimmer's alternative etymology in the Appendix.

a technical item of ritual language and developed into a neutral term amenable to positive or negative usage. In FrW 10 (Yt 22.39–40) it pertains to the soul of the righteous.

Yt 22.39 dātarə *kuua.ciθra *zī həṇti iristanąm uruuąnō yå aṣāunąm frauuaṣaiiō. Yt 22.40 paiti šē aoxta ahurō mazdå spəṇtaṭ haca maniiaoṭ zaraθuštra aēs̄am ciθrəm vahistāaṭ ca manaŋhaṭ.

O creator, where do the souls of the dead, that is, the pre-existent souls of the righteous, get their scintillating forms? Ahura Mazdā answered him: O Zarathuštra, their scintillating appearance is from the Beneficent Spirit and the Best Mind.⁵⁰

The association of the soul in both substance and form with the celestial sphere or divine element is not limited to Iranian mythology. It is a regular and fundamental notion of Greek philosophy from the Presocratics (the sixth century BCE) to the Neoplatonists (the fifth century CE). In fact, it may well be that the Presocratics adopted the notion from Iran, which became a basic feature of Greek psychology and cosmology through Plato, as Burkert has repeatedly argued.⁵¹ For Anaximenes, air is the cosmic archē, but it also constitutes the soul, the substance of the soul. 52 For Heraclitus, fire is the primal cosmic and divine element; soul is composed of fire, and upon death the joyous "bright" soul joins the cosmic fire or aither. 53 For atomists, only the atoms of fire and soul are spherical.⁵⁴ For Anaxagoras, upon death a person's soul as nous joins the cosmic nous, which was apparently taken by Euripides to mean that the soul was composed of divine aither and eventually goes back to the circle of heaven as the body goes to the earth. 55 Diogenes of Apollonia associates Anaxagoras' nous with divine air eminently present in the human being qua soul. ⁵⁶ In the *Phaedo*, Plato postulates an affinity or rather a basic homogeneity between transcendent forms and the soul. Once released from the prison of the body the truly virtuous (= philosophical!) soul returns to its celestial abode, where the divine forms are, to live "like a god." 57 Drawing on allusions in the Timaeus, Aristotle posits a fifth element, namely the

⁵⁰The Avestan text is cited from Hintze, "The Cow that Came from the Moon," 58. Cf. Lecoq, *Les livres de l'Avesta*, 1265. Yt 22.39 literally translates to: "O creator, where-from-[their]-scintillating-forms are the souls of the dead, that is, the pre-existent souls of the righteous?"

⁵¹See Burkert, *Babylon, Memphis, Persepolis*, 110–14; Burkert, "Prehistory of Presocratic Philosophy," 72–5. "The idea of *psyche* or *pneuma* rising to heaven after death is found in Greece in scattered references beginning about the middle of the fifth century B.C., together with the concepts of 'spirit,' *penuma*" (Burkert, *Babylon, Memphis, Persepolis*, 110). Cf. Bremmer, "Descents to Hell and Ascents to Heaven," 348: "the Greek idea of a journey of the soul to heaven may well have been influenced by Iranian ideas, given the Persian conquest of Ionia in the later sixth century and the probable presence of Persian magi in Athens in the late fifth century."

⁵²See Kirk, Raven, and Schofield, *Presocratic Philosophers*, 144–52, 158–61.

⁵³See ibid., 197–200; 203–8.

⁵⁴See ibid., 427.

⁵⁵Euripides fragment is cited in Burkert, *Babylon, Memphis, Persepolis*, 112; See also *Suppliant Women* 531–4 in Kovacs, *Euripides: Suppliant Women. Electra. Heracles*.

⁵⁶See Kirk, Raven, and Schofield, *Presocratic Philosophers*, 441–6.

aithēr: it is the stuff from which the celestial spheres and the stars and souls are constituted. ⁵⁸ In the *Laws*, Plato declares as the most fundamental principle of philosophy that the (cosmic) soul is the original mover and is thus primary with respect to all bodies, and explicitly associates it with the stars. ⁵⁹

Recall that in Manichaeism the bright appearance (čihr) of the primal man is an imprint of the form of the Third Messenger. Manichaeism inherited the strict synonymy or co-referentiality of divinity and light from Zoroastrianism, whether directly or indirectly (e.g. through Neoplatonism). The original divine element is light, uncreated and without limit; it is apparently the being (stī) of the gētīg creation in the mēnōg state and of the gods themselves, which again shows that light is the one and only mēnōg element, despite being visible (cf. Bd 1.52). As we saw, it is explicitly stated in PRDD 65.13 in respect of the sun and in Bd 1.43 in respect of the gētīg world in the mēnōg state. The one phenomenological characterization of the celestial (divine) realm in the Gāthās is that it is luminous (Y 30.1, 32.2, 43.16), and the most significant features of the final apotheosis of the gētīg world are that the sun will never move again from its highest position in the sky and that the resurrected will have immortal luminous bodies. In fact, immortality equals having a body made of light. 60 Thus the situation of the creation in respect of its luminous substance is restored to what it was prior to Ahriman's assault. 61 In sum, the association of the soul (and through it the primal man) with the celestial sphere is mediated through light. The light-being as it is in its pure state (the mēnōg of rōšnān) corresponds to the form or appearance of the soul and the primal man: luminous and round. It is fitting indeed that the highest gētīg creation is paired with the mēnōg of the sun in particular. 62 It is not clear to me what the original relation between the celestial nature of the soul and the solar status of the archetypal man was. Were they independent mythemes and brought together in Zoroastrianism? The prehistory of the celestial nature of the soul in Zoroastrianism is obscure. In any case, it seems that the key notion in the convergence (if there was one) must have been the luminosity of the soul. The context of the Zoroastrian reception of the Platonic theory of transcendent forms was thus wholly favorable. This reception produced the doctrine of the formation of

⁵⁷See *Phaedo* 75c–77b; and the famous eschatological myth at 109a–114d, esp. 109c and 114c, in Sedley, *Plato: Meno and Phaedo*.

⁵⁸See, for example, *On the Heavens* 268b 14–270 b 25, 270 b 22, in Barnes, *The Complete Works of Aristotle*, 447–51.

⁵⁹See *Laws* 967a–e, in Schofield, *Plato: The Laws*.

⁶⁰Cf. WZ 34.41 awēšān-iz zāyišnān a-xwarišnīh rāy hu-bōy kam tārīg mēnōg-čihr ud a-zāyišnōmand bawēnd "the children of the generation of the end time, because of their abstinence from eating, will be fragrant, only a little opaque, mēnōg nature, and without progeny."

⁶¹Cf. Shaked, "The Notions 'mēnōg' and 'gētīg'," 86–7.

⁶²The counterintuitive hierarchy of the celestial spheres in Zoroastrianism (followed by Anaximander) of stars, the moon and the sun (in ascending order) clearly depends on the apparent size of the respective heavenly bodies.

the heavenly bodies that we know from Pahlavi texts, namely the etiology of the luminosity of the heavenly bodies hosting the archetypal forms of the $g\bar{e}t\bar{\iota}g$ creations. It may well be that the Platonic theory of forms and the psychology that accompanied it starting from the *Phaedo* are philosophical elaborations of the ancient Iranian teaching about the celestial origin of the soul.

Conclusion

Zoroastrian doctrine of the formation of the heavenly bodies (rōšnān) teaches that they owe their luminous form (and substance) to the archetypal forms of the primal gētīg creations. The rudiments of this doctrine are apparent in the Avesta. In fact, it is a presumption to call the Avestan evidence rudiments. They may well be visible signs of a proper teaching more or less similar to the Pahlavi doctrine in one of its aspects, i.e. the etiology of the luminosity of the heavenly bodies. The Avestan epithets of the moon and the stars are significant in this respect. The ancient roots of the doctrine are the lunar and solar valence of the bovine and human archetypes. I tried to show that these in turn may be traced back to the bovine representation of lunar phases in myth and ritual and to the solar genealogy of the original race of human beings or of the primal man, respectively. This latter seems to have converged with the idea of the celestial nature of the soul in Zoroastrian speculations. The second aspect of the Zoroastrian doctrine of the heavenly bodies, namely their hosting the "forms" of the gētīg creations, is a Platonizing conception. This inflection is not at all surprising. The influence of Greek philosophy is evident in Zoroastrian Pahlavi cosmological speculations.

I argued that the supplementary status of the doctrine of the formation of celestial bodies in Pahlavi literature, that is to say, its dependence on the doctrine of the creation of the primal gētīg beings, may be traced to the Avestan epithets of the moon and the stars. Thus, the Pahlavi doctrine may be considered to be an elaboration of what was thought to be the conception underlying those epithets. But it is also possible that a version of the Pahlavi doctrine was already present in the Avestan period. Y 19.8 gives a list of the creations that matches in order and number the canonical Zoroastrian list of Pahlavi literature: the sky, the water, the earth, the plant, the "quadruped cow," and the "biped righteous man," followed by the "sun fashioned in bodily form." Or perhaps the Avestan epithets of the celestial bodies and the order of creation reflected in this list were the basis of the speculative elaboration of the Pahlavi doctrine.

Appendix

The Pahlavi noun *čihr* has the two related meanings of "nature" and "apparent form," and no other meaning. All its derivations, such as *čihrag* "visage," *čihrīg* "natural," *čihrēnīdan* "to form or endow with nature," and all the compounds where it is a component, such as *hu-čihr* "beautiful," *čihr-šnāsīh* "physics (i.e. study of natural phenomena)," *mazg-čihrīh* "being of marrow nature," *xwēš-čihrīh* "being of its own nature," *yazdān-čihrīh* "being of divine nature," *ayōxšust-čihrīh* "being of metal nature" are to be translated in accordance with those two meanings.

D 7.1.3 weh dēn čihr ud dahišn ud rawāgīh (transcription modified) means "the nature, creation and propagation of the good religion," contra Molé: "la semence de la Bonne Religion, sa création et sa propagation." Cf. WZ 4.3 dēn ī māzdēsnān ka āwām az gētīg-rāyēnišnīh abāz ō mēnōg-čihrīh hamē wardīhist pad zamīg paydāg būd "Dēn ī Māzdēsnān when she passed from being arranged in the gētīg state back to having the nature of mēnōg was manifest on the earth."

D 7.1.4 weh dēn čihr Ohrmazd xēm u-š dahišn pad ham-niyābīh ī fradom dām Wahman Amahraspand (transcription modified) means "the nature of the good religion is Ohrmazd's own character (i.e. nature), and its creation (took place) in collaboration with the first created being, Wahman the Amahraspand" (cf. Bd 1.52), contra Molé: "sa semence est le tempérament même d'Ohrmazd; sa création résulte de la première créature, l'Amahraspand Vahman."

D 7.3.9 abar čē ēwēnag margēnēd kē rāy Purušasp az wišobišn ī az-iš abē-čihr bawēd Durušasp pursīd ⁶⁸ (transcription modified) "Purušasp consulted Durušasp about how he may kill (Zardušt) while remaining unmarked by the destruction (of Zardušt)." Purušasp asks how he could avoid being implicated in the murder.

The curse that *hōm yazad* directs against those who do not offer him the parts that Ohrmazd has allocated to him in PRDD 26.4 includes the following: *andar mān ī ōy zāyēnd mardōm ī čihr ī jādūgān* "in his house are born people who have sorcerers' nature," i.e. disposition, *contra* Williams: "In his house people of the line of sorcerers will be born," which in any case is oxymoronic, i.e. its usage contradicts its alleged meaning.

⁶³The usage and hence semantics of *čihr* "nature" in Zoroastrian cosmological speculations seems to have more or less the same range as *phusis* in Greek philosophy. For a short exposition of the latter, see Lloyd, "The Invention of Nature." The opposition of *čihr* and *kāmag* in Zoroastrian cosmology can perhaps be compared with the opposition of *phusis* and *nomos*. See ŠGV 5.46–56; cf. Lloyd, *Magic, Reason and Experience*.

⁶⁴See Hintze, "The Cow that Came from the Moon"; Panaino, "Pahlavi gwcyhl: gōzihr o gawčihr?"; and Ahmadi, "Avestan *ciθra-*" for different positions on the topic and further literature.

⁶⁵Molé, La legende de Zoroastre, 3.

⁶⁶It makes better syntactic sense to make *āwām* (time) the subject of the subordinate clause, but the meaning would then be even less intelligible than making Dēn the subject, which is what I have done. In effect, I have ignored *āwām*.

⁶/Molé, *La legende de Zoroastre*, 3.

⁶⁸Ibid., 28.

⁶⁹Williams, The Pahlavi Rivāyat, vol. 2, 53.

The Sassanid kings' phrase kē čihr az yazdān, notwithstanding the Greek version of the phrase $(ek\ genous\ 9e\bar{o}n)$, 70 does not mean "whose descent is from the gods," contra Zimmer. The Greek version cannot be assumed to be a "translation," in the sense we use this word today, of the Middle Iranian versions. If *čihr* was in fact used in line with what we know of the Zoroastrian concept of "brilliant appearance" or even simply to mean "nature of the gods," 72 could the Greek version of the phrase "translate" such a conception? For the (Hellenistic) Greek speaker what was understandable, not to say expected, was that the king should claim divine descent, and this is what he got. To allow *čihr* to mean "descent" in the phrase is tantamount to maintaining that in one and only one instance the term has that sense. On what evidence? Zimmer is impressed by the alleged "remarkable similarity" of the Pahlavi phrase to Y 32.3aa' at yūš daēuuā vīspanhō, akāt mananhō stā ci@rəm, which he translates: "But you daēvas all, you are progeny of evil thought."73 Once again, "descent" is not the same thing as "progeny." Do speakers of any European language use the same word to refer to both their descent or origin and their progeny or offspring?⁷⁴ The idea that one and the same word can have both meanings is problematic. Second, the actual Middle Persian translation of the Gathic phrase demonstrates that Middle Persian čihr cannot mean anything like "descent." Here is the Pahlavi translation: ēdon ašmā harwisp kē dēw hēd ā-tān az akōman ast tōhmag [kū-tān tōhmag az ānōh kū akōman-iz]⁷⁵ "Thus you all who are Dew, your tōhmag is from Akōman [i.e. your tōhmag is from there where Akōman too (is from)]." Here is the perfect opportunity for the Middle Persian translator to use čihr in the alleged meaning of "descent" (or "offspring"), but instead he uses tōhmag. The Pahlavi translation shows that ci@rawas taken to mean "origin" in the passage, and that čihr did not mean that. Zimmer's evidence actually proves the opposite of his supposition. Finally, although using the direct relative pronoun $(k\bar{e})$ to render the oblique $k\bar{e}$ - \bar{s} is attested in Middle Persian, it is very rare. For the meaning that Zimmer ascribes to the phrase ("whose descent is from the gods") one expects *kē-š čihr az yazdān.

Old Persian ciqa- must have the same range of meaning as Avestan $ci\theta ra$ -. The instances (three, all seemingly in compounds) are too few and ambiguous to make a definitive judgment possible. Nonetheless we can make the following observations. The burden of proof lies with those who advocate a meaning for the term that

⁷⁰See Saeed Oryan, *Rāhnamā-ye Katībeh-hā-ye Iranī-e Miyāneh*, 76 and 89.

⁷³Zimmer, "The Etymology of Avestan," 143–4.

⁷⁵Malandra and Ichaporia, *The Pahlavi Yasna*, 34. The phrase in square brackets is the Pahlavi exegete's gloss.

⁷¹See Zimmer, "The Etymology of Avestan," 144. Zimmer's translation is almost universal. There is no point in citing all the literature which so translates it as a matter of course, that is to say, without arguing for it.

 $^{^{72}}$ One can assume that the Sassanid kings were familiar with Zoroastrian doctrines to some extent given the background of their house. Parthian $ba\gamma zihr$ means "of divine nature," not "of the lineage of the gods."

⁷⁴Zimmer, "The Etymology of Avestan," 144, also translates Yt 13.87 $ci\theta ra$ - as "progeny": "progeny of the Aryan lands," whatever this may mean. The etymological meaning Zimmer postulates for ${}^2ci\theta ra$ - is "carrying on the line" (ibid., 145), which squares with "progeny" but not "descent."

leaves the semantic range of Avestan cigra- and particularly Middle Persian and Parthian čihr. 76 The compound dipiciça- posited by Schmitt for a badly damaged word at DB IV, 89, if it is to be accepted, must mean something like text presentation, i.e. "version," as Huyse suggests, or "transcript," according to Shayegan, or "text," according to Tuplin.⁷⁷ Lecoq and Tavernier translate its Elamite equivalent *tippime* (or *tuppime*) as "text" or "inscribed text." Zimmer proposes to take the Old Persian term "as an expression for 'the line, the series', i.e., corresponding to our 'alphabet': ciça- here refers to the cuneiform signs specially created, after the Akkadian model, to write down Darius' 'Aryan' language (called Old Persian today)."⁷⁹ He believes this would be in keeping with the etymology ${}^2ci\vartheta ra$ - < ${}^2ci\vartheta ra$ - he posits, meaning "carrying on the line," from PIE * $\sqrt{k^{\mu}ei}$ "to arrange in serial order." If so, dipiciça- would mean something like inscribing or writing in line, since dipi- certainly means inscription or writing. What does the term ciça- add to dipi-? Were there ever inscriptions that were not "in line"? If it is said that what is meant is linguistic as opposed to pictorial inscription ("corresponding to our 'alphabet"") and that this is the semantic contribution of ciça- to the compound, then it has to be explained why this is needed in the passage in question, since *dipi*- on its own precisely means writing or (linguistic) inscription (at DB IV, 42, 48, etc.).

The term *ariyaciça*- (e.g. DNa 14–15 ariya: ciça; XPh 13 ariyaciça) is generally translated as "of Aryan lineage." The assumption has never been explained. It must be at least in part based on the context. It is a compound that occurs in an apparently rhythmic passage:

(DNa 8–15) adam : Dārayavauš : xšāya ϑ iya : vazraka : xšāya ϑ iya : xšāya ϑ iya : dahyūnām : vispazanānām : xšāya ϑ iya : ahyāyā : būmiyā : vazrakāyā : dūraiapiy : Vištāspahyā : puça : Haxāmanišiya : Pārsa : Pārsahyā : puça : Ariya : Ariya : ciça.

I am Darius, the great king, king of kings, king of lands of all peoples, king in this great earth far and wide, the son of Vištāspa, an Achaemenid, a Persian, son of a Persian, an Aryan, having the Aryan *ciça*-.

⁷⁶For the latter, see for example *syzdyn bg'nyyg 'fry'ng'n pydr'n p'dgyrb wynyd. cyhrg bg'nyyg kyrbkr'n wyndynd* "you see the awesome the divine shape of [our] beloved gods. The virtuous discover the divine appearance." The Parthian text from a Manichean hymn is cited from Boyce, *A Reader*, 110–11. <u>It</u> is possible that *wynyd* is a mistake and should be changed to *wynynd* "they see," etc.

⁷⁷See Huyse, "Some Further Thoughts"; Shayegan, *Aspects of History and Epic in Ancient Iran*, 97–103, with discussion of previous scholarship; Tuplin, "Darius' Accession in (the) Media," 224.

⁷⁸See Lecoq, "Le problème de l'écriture cunéiforme vieux-perse," 67–9; Tavernier, "The Case of Elamite *tep-/tip-* and Akkadian *tuppu*," 66.

⁷⁹Zimmer, "The Etymology of Avestan," 144.

⁸⁰ Ibid., 145.

⁸¹Kent, Old Persian: Grammar, Texts, Lexicon, 137.

The pleonasm of the supposed "an Aryan, having Aryan lineage" is allowed without further ado perhaps because of the preceding "a Persian, son of a Persian." Reference is also made to Yt 13.87, which looks very similar in phraseology. For Yt 13.87, too, a pleonastic expression is supposed: "from whom [i.e. Gaiia-marətan] Mazdā fashioned the family of Aryan peoples, the lineage of Aryan peoples."82 I argued above that Y 13.87 ci9ra- refers to the "scintillating appearance" of the primal man (the "luminous form" of his soul as an ašauuan-) that connects him with the celestial sphere. The advocates of rendering ci9ra- as "lineage" in the Avestan passage owe an explanation of the resultant pleonasm of their translation. But the similarity of the Avestan and Old Persian expressions is striking and may reasonably be assumed to convey a common conception. If so, the Old Persian ariyaciça- must signify the same quality that Airiia peoples (airiia- daxiiu-) inherit from Gaiia-marətan at Yt 13.87, their "bright appearance." As for pārsa pārsahyā puça "a Persian, the son of a Persian," it may be an expression of ethnic or cultural lineage, as it is still used to claim a lineage (real or imaginary) in Modern Persian; or the hyperbolic phrase may carry a polemical intent which would have been transparent in the context, e.g. "Persian" may refer to the putative lifestyle of a Persian.

It is hardly possible to judge in isolation whether the name *ciçaⁿtaxma*- is to be translated as "brave by descent" or as "remarkably brave." In my view, the arguments presented in this article rule out the former. In sum, none of the texts Zimmer adduces unambiguously bears out the etymology he proposes for the cognate Avestan, Old Persian and Middle Persian terms.

In his lecture on the concept of Iran, de Blois, too, relates Yt 13.87 and DNa 8-15, but in an unexpected manner. Like other scholars, he translates Yt 13.87 ciðra- as "seed" and suggests that the phrase ciðram airiianam daxiiunam indicates the fifth and highest level of social grouping (after nmāna-, vīs-, zantu-, and daýhu-) in the Avesta: the Airiia tribes (daýhu-) "together form the 'seed of the Aryan tribes' that is mentioned in Yašt 13." The "seed of the Aryan tribes" (ciðram airiianam daxiiunam) designates the most comprehensive grouping of the "Aryan tribes." While each of the four levels of grouping attested in the Avesta has a leader (e.g. nmānō-pati-, etc.), the "seed of the Aryan tribes" (i.e. the highest level) does not have a leader. De Blois suggests that the head of the "whole Zoroastrian church," the zaraðuštrō.tama- (the most Zarathuštra-like), might have corresponded at the fifth level to the leaders of the other four levels. "Thus, the enumeration of the dignitaries jumps over the rank of the 'seed of the Aryan tribes' and replaces him by the spiritual leadership of

⁸³The form *ciçaⁿtaxma*- given by Kent, *Old Persian*, 53, on the basis of the Elamite and Akkadian versions of the name, if linguistically real, requires explanation. The first term may be **ciçam* used adverbially in the compound, so "remarkably." Cf. Schmitt, *Wörterbuch der altpersischen Königsinschriften*, 156ff.

⁸²Zimmer's translation is: "We worship the Fravaṣi (a kind of protective spirit) of Gaiia Marətan (the primordial being, later Gayomard) ..., from which (= out of his body parts) he (viz. Ahura Mazda) created the family (vel sim., lit. 'navel') of the Aryan lands, the progeny of the Aryan lands" (Zimmer, "The Etymology of Avestan," 144). As far as I know, the idea that human beings are created by the god from the primal man's "body parts" is not found anywhere in Zoroastrian texts.

the entire church, a man whose authority was, one must assume, recognised both by the Aryan and by the non-Aryan tribes."⁸⁴ Before considering how, in de Blois' view, this interpretation of Yt 13.87 bears on Darius' inscription at Naqš-e Rustam, I should like to draw attention to the dubious nature of this construction. In effect, de Blois theorizes into existence a level of social organization on the basis of an untenable interpretation of the significance of the *ratu- zaraðuštrō.təma-*, which he believes would provide a reference for Yt 13.87 *ciðrəm airiianam daxiiunam* "the seed of the Aryan tribes" (in his translation).

Do we know what position zara 9 uštro. toma- occupies in the Avestan society? From its occurrence at Vr 9.1 in the apparently descending order of mazdā-, zaraðuštra-, zaraðuštrö.təma- one may surmise that zaraðuštrö.təma- designates the present successor of Zarathuštra in a supposedly unbroken chain, as Kellens seems to maintain.⁸⁵ If so, the term must signify an office, the head of a "religious" organization. The supreme rank of this (supposed) office may be assumed for or in the viewpoint of Avestan authors. I emphasize the qualification because it is very likely that this perspective is distortive of the social reality we are trying to reconstruct. How extensive was the organization that was headed by the zara 9 uštrō. təma-? We do not know for sure (see below), but whatever image we form of its extension (and the pertinent complexity) must be commensurate with the type of society to which it pertains. It could not have been extensive either in geography or in (effective) authority. We cannot even tell whether the "church" headed by the ratu- zara&uštrō.təma- was inclusive or factious. This latter possibility cannot be ruled out, given the superlative term used to designate its head. What was the relation between this organization and the four levels of social grouping of Avestan society?

Our evidence tells us that there were four levels of social organization, because there were only four levels of government: nmānō.pati-, vīs.pati-, zantu-pati- and daýhu.pati-. Y 19.18 lists five ratu- ("religious" authority? ("religious" authority? ("religious" authority? ("religious" authority? ("religious" authority? ("pertaining to clan," zantuma- "pertaining to tribe," dāśiiuma- "pertaining to people" and zaraðuštra- "pertaining to Zarathuštra." This list matches that of Yt 10.115, except that in the latter the fifth and highest rank is called zaraðuštrō.təma-. ("If we assume that the final terms of the two lists designate one and the same office, we will be in a position to know more about the extension of the organization headed by the zaraðuštrō.təma-, and

⁸⁴De Blois, "The Concept of Iran in Zoroastrianism," 3.

⁸⁵See Kellens, Études avestiques et mazdéenes vol. 3, 79.

⁸⁶I place "religious" in scare quotes throughout to indicate that it is our term to refer to a poorly known situation and hence to be taken with a grain of salt. We do not know the exact nature of the authorities designated by *pati-* and *ratu-*, and know nothing about their relation. This is a fundamental problem for any theory. De Blois, "The Concept of Iran in Zoroastrianism," 3, assimilates the two without any explanation.

⁸⁷See Kellens, Études avestiques et mazdéenes vol. 3, 48; Gershevitch, The Avestan Hymn to Mithra, 130. According to Kellens, Études avestiques et mazdéenes vol. 3, 45–6, Y 19.18 evokes the two senses of ratu-, namely "divine speech" and "model," and thereby "effects" a semantic (rather than logical) "passage from the rhetorical to the social."

its relation with the four levels of social organization. According to Y 19.18, "peoples" or "lands" (daήhu-) other than Raγā have five levels of "religious" authority (ratu-) mentioned above. "Zoroastrian Rayā" (raya zaraðuštriš), however, is quadri-ratu-(ca9ru.ratuš), namely nmāniia-, vīsiia-, zantuma- and zaraθuštra-. Keeping in mind that we hardly know anything about the relation between the pati- (something like "governor") and the ratu- ("religious" authority), we may venture the following picture of the ratu- zara uštro. toma-. It was located in Raya, where it occupied the position that the ratu- dāxiiuma- held in the other (Zoroastrian) "political" communities (dańhu-).88 If the ratu- zaraduštrō.toma- indeed signified the highest religious office across Airiia lands, its authority was symbolic (or "religious") in the territories that were organized at the dai/hu-level, but in Rayā it performed a quasi "political" role because of the tribal division of this particular land. One may speculate that the aspiration of the ratu- zara uštro. to such a position in the politically organized communities (again, if such in fact was the case) was based on its pretension to being the office once occupied by Zarathuštra himself. In any case, it did not correspond to a level of social organization above the dańhu-. Hence, de Blois' "religious leader of the whole Zoroastrian church" does not provide any support for his thesis of a "fifth level" of socio-political organization.

But even if there was a fifth level of grouping, why does de Blois think that Yt 13.87 ciðrəm airiianam daxiiunam "the seed of the Aryan tribes" (according to his translation) refers to such a social organization? What is it about this phrase or about the phrase plus its context that makes such an inference plausible? If what is crucial is that it designates the "genealogical organisation" of the airiia-, as de Blois claims, 89 so, too, does Yt 13.87 nāfō airiianam daxiiunam "the family of Airiia peoples," even more meaningfully. The only reason that de Blois chooses ci9ra- is that it is ostensibly matched in the Old Persian DNa 14-15 ariya: ciça. But the parallel collocation of ariya-/airiia- and ciça-/ci9ra- on its own does not prove anything if one cannot plausibly argue that ci9rom airiianam daxiiunam refers to a category of social grouping. According to the usual translation of Yt 13.87 (including de Blois'), worshippers venerate the pre-existent soul (frauuaši-) of Gaiia-marətan from whom Mazdā formed the "race ($n\bar{a}fab$ -) of the Aryan peoples," the "seed ($ci\vartheta ra$ -) of the Aryan peoples." How does this context warrant de Blois' view about the reference of $ci\theta ra$ - to the "genealogical organisation" of the Airiia? Besides, so far as "genealogy" is concerned, such a view suppresses the knowledge that Gaiia-marətan is the ancestor of all human beings and not just the Airiia. In fact, the privileging of the Airiia peoples to the exclusion of others in Yt 13.87 is dependent on the designation of Gaiia-

 $^{^{88}}$ I use "political" to indicate the highest level of governing authority. The absence of a *ratu- daŋ'bu-* in Rayā may indeed indicate that it was not a "political" community. According to Grenet, "An Archeologist's Approach to Avestan Geography," the description of the land in V 1.15 as θ rizantu- "of the three tribes" implies that it is not organized above the tribal level. Incidentally, Grenet convincingly argues that the Avestan Rayā is not the Median Ray (of Zoroastrian Pahlavi literature) but located in Badakhshan, Afghanistan. There is still a city called Ragh in this region. Cf. Pirart, "Le mazdéisme politique de Darius I^{ct}," 133-4.

⁸⁹See de Blois, "The Concept of Iran in Zoroastrianism," 3.

marətan as the ancestor of the aṣauuan- people in particular, that is to say, in a particular respect: the Airiia peoples who inherit the $ci\theta ra$ - "the luminous form" (of the soul) precisely as aṣauuan-. Here is an indirect argument for the interpretation of $ci\theta ra$ - I proposed in the article.

De Blois' interpretation of DNa 8-15 is no less problematic. According to him, "Son of Vištāspa" signifies the "patrilineal family, his *māna-"; "an Achaemenid," "his clan, or $vi\theta$ -"; "a Persian, son of a Persian," "his tribe, his dahiyu-"; and finally "an Aryan, of Aryan seed" designates "in just the same way that Yašt 13 speaks of ci@rəm airiianam daxiiunam" "all the Aryans tribes." "So the Aryans are a 'seed' $(ci\theta ra-, cica-)$ which encompasses various tribes (dahiyu-), among them the Persians." Although the third level of Avestan society (the zantu-) is missing, de Blois says, the "Old Persian system is fundamentally identical with that in the Avesta. There are four levels of social organisation: the family ($nm\bar{a}na$ -, * $m\bar{a}na$ -), the clan ($v\bar{i}s$ -, $v\bar{i}\theta$ -), the tribe $(da\eta hu-, dahiyu-)$, and finally the common seed $(ci\vartheta ra-, cica-)$ of the Aryan tribes." ⁹⁰ I am not sure what to make of the assurance that the two social systems are "fundamentally identical" if the third Avestan level is said to be lacking in the Old Persian one, which then ends up with four rather than five levels. The tendentiousness of this schematization of DNa 8-15 can easily be seen in the fact that the word dahiyu- in the Achaemenid inscriptions generally refers to territories rather than (ethnic) tribes, each with its specific tributary burden to the empire (even if in a couple of cases tribal designations are used), and these territories were not all "Aryan"—unless one allows that dahiyu- is simultaneously a political-geographical category in the imperial nomenclature and the appellation "tribe" in the "Old Persian system."91

In a sense, de Blois knows that his scheme of the Avestan and Achaemenid social systems is untenable, precisely with regard to the "airiia/ariya level" he is keen to establish. Yt 13.87 "suggests," he says, that "there was also a fifth level of genealogical organisation, namely that of the seed (ci\theta ra-), and that the airiia- belong to this level." Once he postulates his "fifth level" he has to find evidence for it. If there is such a social organization there has to be a corresponding authority. In the absence of an *airiia.pati- he has no choice but to assign the role to the ratu- zara\theta wistro.tama-(the "religious leader of the whole Zoroastrian church"). The "genealogical organisation of the Aryan tribes" has to be then linked with the "leader of the whole Zoroastrian church," without which it remains an arbitrary assertion. But, at the same time, in acknowledging that there were "non-Aryan," "large groups of people" with Zoroastrian components, de Blois undermines what he has erected. For, if the "authority" of the "spiritual leadership of the entire church" was "recognised both by the Aryan and the non-Aryan tribes," and thus the "church" included both "Aryan and non-Aryan tribes," the "genealogical organisation" of the airiia- loses its (supposed) single basis in

⁹⁰De Blois, "The Concept of Iran in Zoroastrianism," 5.

⁹¹Cf. de Blois, "The Concept of Iran in Zoroastrianism," 5: 'the Pārsa- are but one of the various *dahiyu*- who belong to the 'Aryan seed."

⁹²Ibid., 3.

⁹³Ibid., 3.

the Avesta. In the absence of a *specifically* Aryan *ratu-zara@uštrō.təma-* nothing remains of the "Aryan seed" *qua* a level of social organization. The same malaise dogs his conception of the Old Persian *ariya-ciça*, as we just saw. Thus, in his concluding summary de Blois leaves out the thesis of "genealogical organisation" altogether and reverts to the traditional conception of the Airiia:

in the Old Iranian languages *airiia/ariya* is the name of a unit⁹⁴ encompassing an assortment of tribes who considered themselves to be genetically related. It does not designate a political or religious entity. There is no "lord of the Aryan seed" corresponding to the 'lords' of the tribe, the moiety, the clan, and the household.⁹⁵

One wonders then what remains of the thesis of the "Aryan seed."

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⁹⁴This "unit" might be taken to refer to the "Aryan seed," but the context shows that it contains nothing more than the traditional conception of the Airiia. In other words, it is a tautology for the appellation "Airiia."

⁹⁵De Blois, "The Concept of Iran in Zoroastrianism," 5.

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