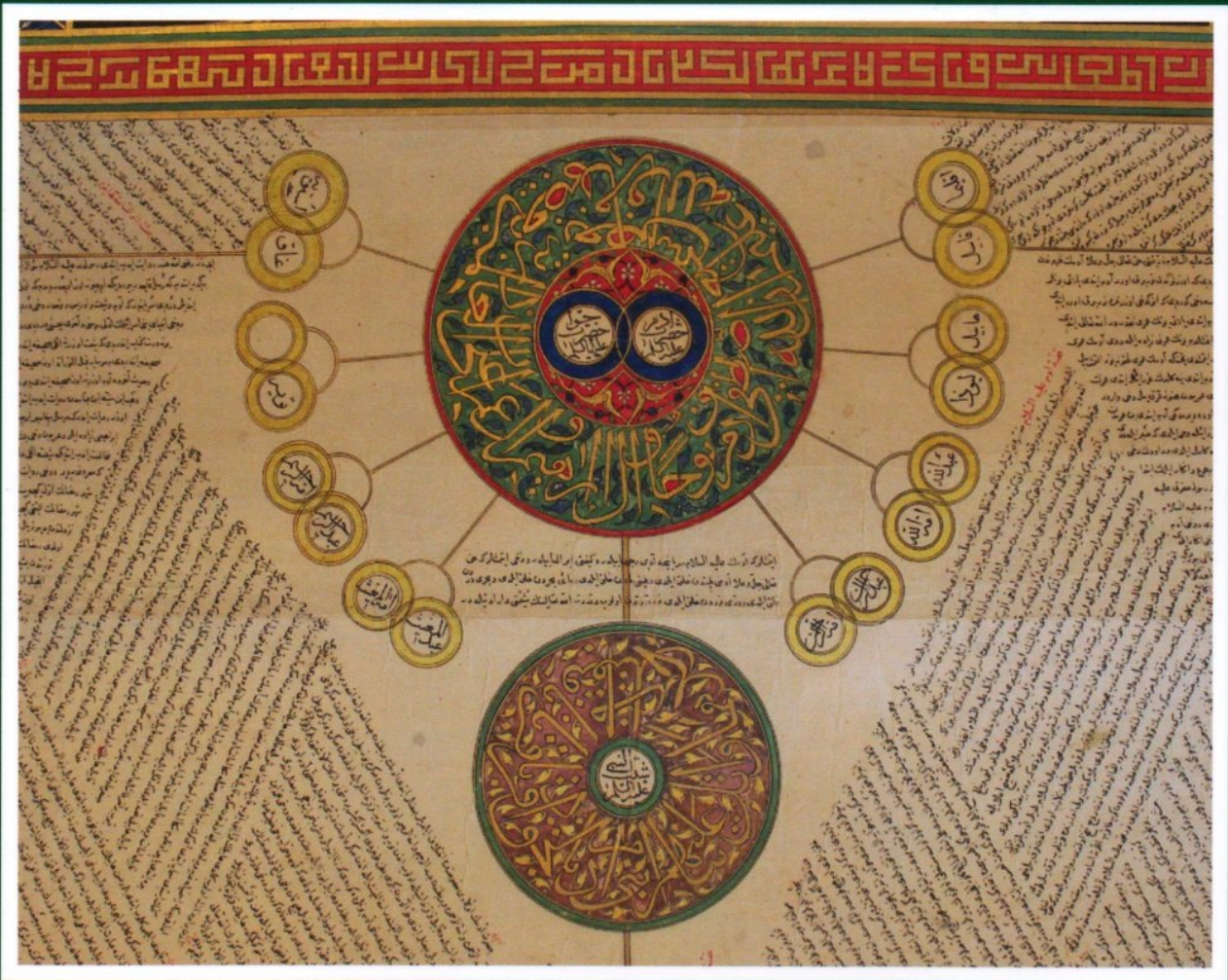


SPECULUM ARABICUM
INTERSECTING PERSPECTIVES ON
MEDIEVAL ENCYCLOPAEDISM



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Cover illustration : The beginning of human genealogy with Adam and Eve, and Seth in the central branch, The Imperial Scroll (Tomar-ı Hümâyûn), Topkapı Palace Museum Manuscript Library, A. 3599

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**ASTROLOGICAL AND PROPHETICAL CYCLES
IN THE PSEUDO-ARISTOTELIAN HERMETICA AND
OTHER ISLAMIC ESOTERICA***

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The Pseudo-Aristotelian Hermetica (hereafter, PsAH) is a corpus of texts that record teachings by Aristotle to Alexander the Great in the form of epistles on cosmological, cosmogenic, and occult matters including magic and astrology. Basing his instructions on knowledge he received from Hermes, the philosopher teaches his royal disciple on the universe, the hidden forces at work within it, and magic as a method for capturing these forces¹. One of these texts is the *Kitāb al-Ustūṭās* which constitutes the first part of *Kitāb ‘ilal al-rūḥāniyyāt* (« On the Causes of Spiritual Forces »), and it will be the focus of our discussion. This article will introduce the cosmological scheme of the *Kitāb al-Ustūṭās*, featuring unique astrological configurations and cycles that

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¹ The subject of the manuscript tradition of this fluid collection of works still awaits a comprehensive study ; see L. SAIF, « From *Gāyat al-ḥakīm* to *Šams al-ma‘ārif* : Ways of Knowing and Paths of Power in Medieval Islam », in *Arabica*, 64 (2017), p. 297-345, here p. 307-308.

are not found elsewhere in these forms. As shall be argued, these features appear to be singular variations of Indo-Persian cosmological and astrological elements, except that here a very particular system of volitional causality via spiritual forces known as *rūḥāniyyāt* is implicated in the genesis of the world, the creation of plants, animals, and human beings. Moreover, the first seven millennia of human history are each ushered in by a prophet-sage who trains humans in the arts, sciences and duties required for human civilization to prosper. We will first introduce these unique constituents of the world of the PsAH, then their Persian background will be highlighted, followed by a discussion of Islamic esoterica that have appropriated and reformulated these ideas, focusing on Abū al-Ḥasan ‘Alī al-Mas‘ūdī’s *Murūj al-Dhahab* (« Meadows of Gold »), Shams al-Dīn Muḥammad al-Shahrāzūrī’s *Rasā’il al-Shajara al-ilāhiyya fī ‘ulūm al-ḥaqā’iq al-rabbāniyya* (« Epistles of the Divine Tree on the Sciences of Divine Truths »), and Ibn ‘Arabī’s *al-Futūḥāt al-Makkiyya* (« The Meccan Revelations »).

In the *Kitāb al-Ustūṭās* we are told that « the Creator » (*bāri’*) gave each sign its own period of sovereignty, starting with Aries and ending with Pisces. The twelve periods of sovereignty (*sulṭān*) are expressed in millennia or « thousands » (*ulūf*) but these periods are of unequal length :

The sovereignty of Aries is 12,000 years. The sovereignty of Taurus is 11,000 years. The sovereignty of Gemini is 10,000 years. The sovereignty of Cancer is 9,000 years. The sovereignty of Leo is 8,000 years. The sovereignty of Virgo is 7,000 years. The sovereignty of Libra is 6,000 years. The sovereignty of Scorpio is 5,000 years. The sovereignty of Sagittarius is 4,000 years. The sovereignty of Capricorn is 3,000 years. The sovereignty of Aquarius is 2,000 years. The sovereignty of Pisces is 1,000 years. The sum of this is 78,000 years. The Sage said the lapsing (*inqidā’*) of this period (*mudda*) corresponds to the demise of the macrocosm (*al-‘ālam al-akbar*) [when] its parts are dissolved. God makes as He wishes².

The *Kitāb al-Madīṭīs*, another text of the PsAH, provides us with the same zodiacal chronology, except that at the end of the passage, the sum total of 78,000 years is interpreted as corresponding to the completion of the world, the dissolution of its parts and « its return to its first state of being (*wa-rujū’-hu ilā kawni-hi al-awwal*) », suggesting that we are here dealing with a cyclical cosmology³.

Furthermore, the *Kitāb al-Ustūṭās* provides more details about the sequence of creation within this 78,000-year period. Referring in this place to

² *Kitāb ‘ilal al-rūḥāniyyāt*, Paris, Bibliothèque nationale de France, ar. 2577, fol. 7r-7v. The mention of Gemini and its value is found in the margin of the Paris manuscript. Its omission in the text itself is an oversight from the copyist.

³ *Kitāb al-Madīṭīs*, Oxford, Bodleian, Marsh 556, fol. 10v.

another work by Hermes the Sage titled the *Kitāb al-makhzūn* (« The Treasured Book »)⁴, the author explains that for the first 33,000 years, that is, from Aries to Gemini, there were no moving animals on earth, but the stars were already acting on the earth's bowels to create the circumstances and seeds required for plants to emerge. Under the dominion of Cancer, that is, between the years 33,000 and 42,000, the signs gained more strength in their natures and the « spiritual force of life » (*rūḥāniyyat al-ḥayyāt*) poured down, corresponding to the creation of the aquatic beasts and the insects. Under Leo, the fifth sign (between years 42,000 and 50,000), four-legged animals appeared. Under the reign of Virgo (between the years 50,000 and 57,000), Admānūs and Haywānūs were created from the *rūḥāniyyāt* of that sign – an evident variant of the story of Adam and Eve, although here they are both described as microcosms (*al-‘ālam al-asghar*). Admānūs is portrayed as « a living, speaking, mortal, with little knowledge » (*al-ḥayy al-nātiq al-mā’it al-qalīl al-‘ilm*). Creation then concludes « when Virgo settled in her sovereignty and the planets had become strong in their movements, each being in that moment in its exaltation » (*lamma istawat al-sunbula fī sulṭāni-hā wa-qad qawwayat al-nujūm fī ḥarakāti-hā wa-kānat fī dhālīka al-waqt fī sharafī-hā*)⁵. However, human creation does not conclude the cycle. The text makes it clear, for instance, that birds were created after humans, under the subsequent sign of Libra (between 57,000 and 63,000 years) – an information also found in the *Kitāb al-Madīṭīs*⁶. Unfortunately, on the remaining 15,000 years and the last four sovereignties of the cycle, the text is silent, so that it is impossible to determine what our current ruling sign is meant to correspond to according to this scheme.

Although our texts do not clearly state the exact moment human beings were created under Virgo, it is written that :

All the planets bestowed their benefic spiritual force (*rūḥāniyyat sa’dī-hā*) to the human being, who is the microcosm, without deliberation (*min ghayr i’timād*) but by the facilitation (*tawfiq*) of He Who sets them in motion and in their courses, since all of them were in their exaltations (*fī ashrafī-hā*), except Saturn, who was in conjunction with Mars in the exaltation of Mars (*muqārīnan li-l-mirrīkh fī sharaf al-*

⁴ The *Kitāb al-makhzūn* is frequently mentioned in the collection of PsAH. For an overview of its contents, more specifically in connection with the Epistle on Magic (in its long version) at the end of the corpus of *Rasā’il Ikhwān al-Ṣafā’*, see L. SAIF, « A Study on Ikhwān al-Ṣafā’ Epistle on Magic, The Longer Version (52b) », in *Islamicate Occult Sciences in Theory and Practice*, ed. L. SAIF, F. LEONI, M. MELVIN KOUSHKI and F. YAHYA, Leiden – Boston, 2021, p. 162-206 ; C. BURNETT, « Nīranj : a Category of Magic (almost) Forgotten in the Latin West », in *Natura, scienze e società medievali : studi in onore di Agostino Paravicini Bagliani*, ed. C. LEONARDI and F. SANTI, Florence, 2008, p. 37-66 (Micrologus’ Library, 28), here p. 39-40.

⁵ *Kitāb ‘ilal al-rūḥāniyyāt*, fol. 8r-8v.

⁶ *Ibid.*, fol. 7v ; *Kitāb al-Madīṭīs*, fol. 11r.

mirrīkh), bequeathing serious misfortune to his progeny (*fa-awwaratha al-naḥs al-kabīr fī dhurriyati-hi*)⁷.

Contradicting the ‘ideal configuration’ for the rest of the planets, the *Kitāb al-Ustūṭās* explicitly reports that Saturn is not found in its own exaltation, but in the exaltation of Mars, namely, Capricorn. Since Capricorn is the exaltation of Mars and the domicile of Saturn, and since Mars and Saturn are the two malevolent planets⁸, we are to understand that the combined influence of these two planets in this place signifies and causes for Admānūs, Haywānūs, and all their progeny to experience a high share of misfortune, in spite of the favourable conditions provided by the rest of the planets in this configuration.

Furthermore, the PsAH superimposes on this cosmogonic scheme a sacred history which is naturally contained within the age of humanity belonging to Virgo. The sovereignty of Virgo is divided into « seven days of 1,000 years each⁹ » and in the second part of the *Kitāb ‘ilal al-rūḥāniyyāt* that follows the *Kitāb al-Ustūṭās* we learn that each of these ‘thousands’ corresponds to a particular planet, associated with both a specific clime and prophet-sage identified by name in the text¹⁰ :

⁷ *Kitāb ‘ilal al-rūḥāniyyāt*, fol. 8bis r. The exaltation of a planet is the sign (or sometimes, the degree of the sign) in which the planet exerts its strongest influence. The list of values, canonical from Greek antiquity, is as follows : Moon at 3° of Taurus, Sun at 19° of Aries, Mercury at 15° of Virgo, Venus at 27° of Pisces, Mars at 28° of Capricorn, Jupiter at 15° of Cancer, Saturn at 21° of Libra. For these values, see for instance Ptolemy, *Apotelesmatika*, I.19. In the *Tafhīm*, Bīrūnī adds to these values those of the two lunar nodes and asserts that this system is common to both the Persians and the Greeks, although it would appear that the adjunction of the two lunar nodes was only realised in Sassanid times, under Indian influence ; see Bīrūnī, *Tafhīm*, § 443 in Abū Rayḥān al-Bīrūnī, *Art of Astrology, English Translation with Parallel Arabic/Persian Text*, Birmingham, 2007 (reproduction from R. Ramsay Wright’s original work, London, 1934). For a detailed discussion of this issue, see A. BOUCHÉ-LECLERCQ, *L’astrologie grecque*, Paris, 1899, p. 192-198 ; D. PINGREE, « Sasanian Astrology in Byzantium », in *La Persia e Bizanzio. Atti del convegno internazionale (Roma, Accademia dei Lincei, 14-18 ottobre 2002)*, Rome, 2004, p. 541-551, here p. 541-542.

⁸ It is a topos in astrology to consider Saturn and Mars as malevolent, Jupiter and Venus as benevolent, and Mercury as ambiguous (for a detailed typology of the characteristics of the planets in antiquity, see BOUCHÉ-LECLERCQ, *L’astrologie grecque*..., p. 89-101). About a passage from the *Bundahishn* specifically devoted to Saturn and Mars, E. RAFFAELLI (« Astrology and Religion in the Zoroastrian Pahlavi Texts », in *Journal Asiatique*, 305/2 (2017), p. 171-190, here p. 177) explains that « clearly, in this passage Saturn and Mars are chosen as the chief representatives of the planets, being considered as the most evil of them. »

⁹ *Kitāb al-Madīfīs*, fol. 10v.

¹⁰ *Kitāb ‘ilal al-rūḥāniyyāt*, fol. 54v-64v (Safandūlā) ; 64v-71r (Barmahātūs) ; 71r-78r (Na’būdā) ; 78r-82r ‘Ū’ūdīā ; 82r-86r (Sā’ūth) ; 86r-92r (Farīdūn) ; 92r-98r (Frādīkūn). It is curious to find the mention of Farīdūn amongst otherwise unrecognizable names. Although no

Millennia	Planets	Climes	Sages
First	Saturn	1	Safandūlā
Second	Jupiter	2	Barmahātūs
Third	Mars	3	Na‘būdḥā
Fourth	Sun	4	‘Ūd‘ūyā
Fifth	Venus	5	Sā‘ūth
Sixth	Mercury	6	Farīdūn
Seventh	Moon	7	Frādīkūn

For three of these sages, the text also mentions some remarkable achievements. Thus, Safandūlā, the sage of Saturn, is said to have brought order, law, administration, and religion to his clime, in a period when people were like animals¹¹. Barmahātūs, the sage of Jupiter, is described as the first to have known astrology and as the author of a work called ‘Sālūs’. He is also the prophet who provided clothing, crafts, and instruments to the people of his clime¹². As for ‘Ūd‘ūyā, the sage of the Sun, he is portrayed as having brought « beautiful amazing wonders (*al-‘ajā‘ib al-ḥasana al-bahiyya*), occult sciences (*‘ulūm khafiyya*) and the subtle craft (*al-ṣan‘a al-raḳīqa*)¹³. » This he supposedly did for his own clime, the fourth of the seven¹⁴.

Dividing the ecumene into climes (the inhabited quarter of the earth according to the representation inherited from the Greeks) is a recurring motif of the *Kitāb al-Ustūṭās*, as is also the notion that « God placed the Sun at the very centre of the celestial spheres, with three above it and three below it, like

textual filiation can be established, it may be interesting to recall here that the famous vision introducing the *Poimandres* at the beginning of the Greek *Corpus Hermeticum* (*Poimandres*, 9-17, ed. NOCK – FESTUGIÈRE, I, 6) already includes the image of the planetary spirits engendering, as ‘seven governors’ (διοικητάς τινὰς ἑπτὰ), the seven primary men.

¹¹ *Kitāb ‘ilal al-rūḥāniyyāt*, fol. 55r-57v.

¹² *Ibid.*, fol. 67v.

¹³ *Ibid.*, fol. 78r-78v.

¹⁴ Arabic literature provides us with various texts attributing to ‘the people of the fourth clime’, and to them alone, the invention of the most essential sciences, including the sciences of the quadrivium, medicine and occult sciences such as magic, alchemy and astrology. For a survey of these texts, see G. DE CALLATAÏ, « Dividing Science by Ten », in *Studia Islamica*, 115 (2020), p. 1-32.

the greatest of kings at the centre of his troops¹⁵. » Also present in the PsAH is the idea that Admānūs/Adam was taught « the secrets of four sciences : the secrets of the science of the stars and of their causes (*asrār ‘ilm al-nujūm wa-‘ilali-hā*), the secrets of medicine and its causes (*asrār al-ṭibb wa-‘ilali-hi*)¹⁶. »

The final peculiarity in the PsAH’s cosmological setup and dynamics is found in *Kitāb al-Ustūṭās*, where the period of 1,000 years attributed to each planet in succession is placed in relation to the movement of the highest sphere, that is, the sphere of the fixed stars :

The sphere shifts as it revolves one degree every thousand years, from which one *ruḥāniyya* is generated. Once this *ruḥāniyya* is generated, it descends into these planets¹⁷.

A complete revolution of the sphere would therefore be accomplished in 360,000 years, a duration frequently listed amongst ‘thousand’ revolutions in Islamic literature¹⁸. It is rather peculiar that in the *Ustūṭās*, the shift of the sphere

¹⁵ *Kitāb ‘ilal al-rūḥāniyyāt*, fol. 17v. Compare with Ikhwān al-Ṣafā’, *Epistle 4*, ed. I. SANCHÉZ and J. MONTGOMERY in *Epistles of the Brethren of Purity. On Geography. An Arabic Critical Edition and English Translation of Epistle 4*, Oxford – New York, 2014, p. 43-44 : « This clime is the clime of the prophets and the sages (*al-anbiyā’ wa-l-ḥukamā’*), because it is at the centre of the climes, with three climes to the south and three to the north, and also because it is in the compartment of the Sun, the most brilliant luminary. » See also the discussion provided on ‘The Fourth Clime : Geography and Prophetism’ on p. 36-42 of the introduction to the edition. On the classical theory of the seven climes, see E. HONIGMANN, *Die Sieben Klimata und die Poleis Episemioi. Eine Untersuchung zur Geschichte der Geographie und Astrologie im Altertum und Mittelalter*, Heidelberg, 1929. For traces of amalgamation in Islamic literature between the Greek theory of climes and the Iranian geopolitical system of kishwār-s, see A. MIQUEL, *La géographie humaine du monde musulman jusqu’au milieu du 11^e siècle*, vol. 1, Paris – The Hague, 1975, p. 56-68 ; G. DE CALLATAÏ, « Kishwār-s, planètes et rois du monde : le substrat iranien de la géographie arabe, à travers l’exemple des Ikhwān al-Ṣafā’ », in *Perspectives on Islamic Culture, Essays in Honour of Emilio G. Platti*, ed. B. BROECKAERT, S. VAN DEN BRANDEN and J. J. PÉRENNÈS, Leuven, 2013, p. 53-71 (Les Cahiers du MIDEO, 6).

¹⁶ *Kitāb al-Madīṭīs*, fol. 37v.

¹⁷ *Kitāb ‘Ilal al-rūḥāniyyāt*, fol. 20v.

¹⁸ In Epistle 36 (‘On Cycles and Revolutions’), the Ikhwān al-Ṣafā’ identify the 360,000-year period with the ‘Great Year’ in the Platonic sense (that is, the period required for all the seven planets to come back into conjunction with the sphere of the fixed stars at 0° of Aries) and explicitly derive it from Indian cosmological speculations ; see *Sciences of the Soul and Intellect. Part I. An Arabic Critical Edition and English Translation of Epistles 32-36*, ed. P. E. WALKER, I. K. POONAWALA, D. SIMONOWITZ and G. DE CALLATAÏ, Oxford, 2015, p. 136 (Epistles of the Brethren of Purity). In this system as well as in others similarly derived from India, it is assumed that such a conjunction of all the planets at the vernal point took place in the year -3,101 and that it coincided with a universal flood. With Abū Ma’shar, who used to call that cycle ‘the Year of the Persians’, it also corresponds to a period commonly referred to as the ‘mighty world-*tasyīr*’, whereas the ‘big world-*tasyīr*’, the ‘middle world-*tasyīr*’ and the ‘small world-*tasyīr*’ respectively

of the fixed stars is one degree every 1,000 years, since the canonical value assigned to the movement of equinoctial precession by Ptolemy is that of one degree in 100 years, corresponding to 36,000 years in all, and not to 360,000 years¹⁹. It is most likely that a confusion occurred at some point between these two values, namely the 360,000 years of the 'Indian' Platonic Great Year on the one hand, and the 36,000 years of the precessional movement on the other²⁰. What is also not clear in our text is how to understand these values with respect to the general cosmogonic frame, since neither 360,000 nor 36,000 years appears to tally well with the above figure of 78,000 years.

So far, we have elucidated the PsAH's twelve periods of zodiacal sovereignty, the total of which is a 78,000-year evolution, the sequence of the creation of species with them, the particular astrological configuration under which the first humans were created under Virgo's sovereignty when all the planets, save Saturn²¹, were in their exaltations, the seven prophets-sages of the human age, one of whom makes an appearance every 1,000 years of Virgo's 7,000-year long sovereignty and correspond to a specific planet, and finally the one degree shift of the sphere of the fixed stars every 1,000 years, adding up to 360,000 which marks the sphere's single revolution. Taken together, these elements form a unique view of the cosmos that is both astrological and prophetic. It surely stands as one of the many features that make the PsAH quite a curious and singular corpus. Nevertheless, there are some aspects that are reminiscent of elements of Indian and Persian astrological and astronomical systems, as will be shown in what follows.

Regarding the 78,000-year revolution, al-Bīrūnī (d. 1111) in his *Qānūn al-mas'ūdī* records a period called 'the big *fardār*', already known to the astrologer Abū Ma'shar (d. 886), which consists of 78 solar years divided into a sequence of exactly the same proportion between the sovereignties of the zodiacal signs, namely : 12 years for Aries, 11 for Taurus, 10 for Gemini, and so on until one reaches 1 year for Pisces²². As David Pingree has shown in his

correspond to 36,000 years, 3,600 years and 360 years. On all this, see D. PINGREE, *The Thousands of Abū Ma'shar*, London, 1968, in particular p. 27-31 and p. 59.

¹⁹ Ptolemy, *Synt. Math.*, VII, 2.

²⁰ Traces of the same confusion are perceptible, for instance, in the manuscript tradition of the above-mentioned passage from Epistle 36 of the *Ikhwān al-Ṣafā*.

²¹ Elsewhere, Mercury is the exception, as in this note, transliterated from Arabic, to Adelard's translation of al-Khwārizmī's *Tables* in MS Oxford, Bodleian, F.1.9, f. 127v *Cullel.kauuekib / kumna.fiscerafehu / ille.otarit. / hine.unxi.ademu* (« All the planets were in their exaltations except Mercury when Adam was born »). This passage is discussed in C. BURNETT, *The Introduction of Arabic Learning into England*, London, 1997, p. 41-42 (Panizzi Lectures).

²² PINGREE, *The Thousands of Abū Ma'shar...*, p. 61. Abū Ma'shar's *Great Introduction to Astrology*, VII, 8.2 (ed. K. YAMAMOTO and C. BURNETT, Leiden, 2019, p. 801) mentions the divi-

reconstruction of Abū Ma‘shar’s lost treatise, the *fardārāt* periods are elements of « a complex system of cycles which determine the dominant planetary or zodiacal influences at any particular point in time », a system that Islamic astrology inherited from Sassanid Persia²³.

Moreover, not only does the PsAH discuss the 78,000-year revolution as an amplification of the Persian *fardārāt* system by a factor 1,000, but it also appears to combine with one another the two systems of ‘chronocratoria’, the zodiacal and the planetary, that are known to have been in use in Persian astrology. The zodiacal chronocratoria is a system according to which each of the zodiacal signs exerts its dominion in turn for a period of 1,000 years. As various other Pahlavi texts, the *Bundahishn* keeps traces of this 12,000-year cycle, which was already known in more ancient times among the Zoroastrians²⁴. In the *Kitāb al-Ustūṭas*, 12,000 years is the period of dominion of Aries, but various Greek and Arabic sources also mention a 7,000-year cycle, possibly originating in Sassanid Persia, in which the seven planets have in turn the dominion over the world²⁵. In the *Kitāb al-Ustūṭas*, the 7,000-year

sion of the *fardār* of 75 (*sic* !) years among the planets and the Head and the Tail, and refers to a book of his own on the *fardārāt*, but in this case the unequal distribution of years follows the order of the planets (beginning with the Sun). In the same order of ideas, it may also be recalled here that according to Indian astronomers, the *Mahāyuga* of 4,320,000 years was traditionally divided into four unequal yugas of respectively 1,728,000 years (*Kṛtayuga*), 1,296,000 years (*Tretāyuga*), 864,000 years (*Dvāparayuga*) and 432,000 years (*Kaliyuga*), by which is reproduced the proportion of the Pythagorean tetraktys, namely : $10 = 4 + 3 + 2 + 1$. It would seem that Plato conceived of the subdivisions into ages of his famous ‘Perfect Year’ along the same proportions, namely with 25,920 years = 10,368 years (Golden Age) + 7,776 (Silver Age) + 5,184 (Bronze Age) + 2,592 (Iron Age). On all this, see G. DE CALLATAÏ, *Annus Platonius. A Study of World Cycles in Greek, Latin and Arabic Sources*, Leuven – Paris, 1996, p. 15-32 (Publications de l’Institut Orientaliste de Louvain, 47).

²³ For the three systems commonly used in horoscope astrology (namely, *tasyīrāt*, *intihāhāt* and *fardārāt*), see also E. KENNEDY, « Ramifications of the World-Year Concept in Islamic Astrology », in *Ithaca. 26 VIII 1962-2 IX 1962. Actes du Dixième Congrès International d’Histoire des Sciences*, Paris, 1964, vol. 1, p. 23-43, here p. 26-30.

²⁴ On this 12,000-year cycle, which appears to pre-date the introduction of Greek astrology into Persia, see for instance A. PANAINO, « Vecchie e nuove considerazioni sul millenarismo iranico-mesopotamico ed il chiliasmo giudaico-cristiano », in *Studi Iranici Ravennati II*, ed. A. PANAINO, A. PIRAS and P. OGNIBENE, Milan, 2018, p. 183-229 (*Indo-Iranica et Orientalia*, II), here p. 186-188.

²⁵ See ID. (with a contribution of D. PINGREE), « Saturn, the Lord of the Seventh Millennium », in *East and West*, 46/3-4 (December 1996), p. 235-250, here p. 238-240. See also RAFFAELLI, « Astrology and Religion... », here p. 180. For another example of conflation between the zodiacal and the planetary systems of chronocratoria, see E. S. KENNEDY and D. PINGREE, *The Astrological History of Māshā’allāh*, Cambridge (MA), 1971, here p. VII : « It is shown that Māshā’allāh superposed the conjunction astrology upon a Zoroastrian millennial cosmology in which the duration of the universe is to be 12,000 years. »

dominion falls unto Virgo, but it is precisely that sign, as we remember, that marks the entrance of human beings on the world scene.

Furthermore, the condition of planetary exaltations at the moment the first man and women were created and the arrival of a prophet-sage in each of the seven millennia that make up Virgo's sovereignty, reminds us of Persian and, more specifically, Zoroastrian astrology, namely the use of these exaltations in combination with the doctrine of planetary conjunctions. This is all the more striking when a general conjunction of this type is said to coincide with milestone events in the history of the world. This can be exemplified by the two famous chapters from the *Bundahishn* discussing respectively the *thema mundi* (or the horoscope of the world at its origin) and the horoscope and death of Gayōmart (that is, the first human) at the age of thirty – two parts on which a considerable literature has been already devoted²⁶. The *thema mundi* of Greek classical sources has the planets located in the 15th degree of their respective domiciles²⁷. However, in the *Bundahishn*, the horoscope of the world, meant to correspond to the beginning of the seventh millennium of the 12,000-year Zoroastrian cosmic cycle, has (or, at least, should have) the seven planets in their places of exaltations. As Raffaelli notes, « Mercury is not in its exaltation, but in Pisces, the sign of its dejection (a position of high weakness for the celestial bodies, corresponding to the degree opposite to that

²⁶ *Bundahishn*, V A and VI F. For a full discussion of these chapters, see E. RAFFAELLI, *L'Oroscopo del Mondo. Il tema di nascita del mondo e del primo uomo secondo l'astrologia zoroastriana*, Milan, 2001, p. 59-135; ID., « L'astrologie dans le Zoroastrisme d'époque sassanide : l'exemple de la 5^e section du Bundahishn », in *Studia Asiatica*, 11 (2010), p. 63-87. Among recent literature on the 'thema mundi', see also in particular G. BEZZA, « Sulla tradizione del *thema mundi* », in *Giovanni Schiaparelli : storico dell'astronomia e uomo di cultura. Atti del seminario di studi organizzato dall'Istituto Italiano per l'Africa e l'Oriente e dall'Istituto di Fisica Applicata dell'Università di Milano (Milano 12-13 maggio 1997)*, ed. A. PANAINO and G. PELLEGRINI, Milan, 1999, p. 169-185. Note that in their famous *Case of the Animals vs Man*, the *Ikhwān al-Ṣafā'* also provide us with a reminiscence of the same concept, when they have the *jinnī* representative saying, speaking of Adam : « On the day Adam was created, the planets were all in their exaltations (*kānat al-kawākib fī ashrafī-hā*), the pivots of the signs were straight (*wa-awtād al-burūj qā'imatan*), the seasons were well-balanced, and matter was ready to receive form, so his organism was built in the best form and the most perfect shape » ; see *The Case of the Animals Versus Man Before the King of the Jinn. An Arabic Critical Edition and English Translation of Epistle 22*, ed. L. GOODMAN and R. MCGREGOR, Oxford, 2019, p. 50 (Epistles of the Brethren of Purity).

²⁷ Following upon the ancient Greek doctrine (BOUCHÉ-LECLERCQ, *L'astrologie grecque...*, p. 182-192), medieval astrologers attributed a specific zodiacal domicile (*bayt*) to each one of the two luminaries (the Sun and the Moon) and two zodiacal domiciles to the rest of the planets, with the following correspondences : Sun (Leo), Moon (Cancer), Mercury (Virgo and Gemini), Venus (Libra and Taurus), Mars (Scorpio and Aries), Jupiter (Sagittarius and Pisces), and Saturn (Capricorn and Aquarius). The domicile is, like the exaltation, a place of the zodiac where a planet is believed to exert a particularly strong influence. See Bīrūnī, *Taḥīm*, § 440.

of the exaltation). This placement was aimed at saving the astronomical verisimilitude : if Mercury were at 15° Virgo, it would be further from the Sun than possible²⁸. » The Zoroastrian *thema mundi* appears to have been modelled on the Indian system of *Mahāpuruṣas* in which the birth charts of outstanding individuals of Indian history are similarly arranged to have the seven planets in the places of their exaltations²⁹.

A systematic study on the influence of the Pseudo-Aristotelian Hermetica on Islamic occult and esoteric thought is yet to be published³⁰. However, its periods of zodiacal sovereignty were known in medieval sources. For example, in his *Murūj al-dhahab*, the geographer and chronicler Abū al-Ḥasan ‘Alī al-Mas‘ūdī (d. 956), writes that a group of people described the end of the world in the following way :

And they mentioned that the sovereignty of that time will be for Virgo which is 7,000 years [long], and this is the age of the human world, with Jupiter aiding Virgo in administration [...] they claimed that the sovereignty of the sign of Aries 12,000 years ; the sovereignty of Taurus 11,000 years ; the sovereignty of Gemini 10,000 years ; the sovereignty of Cancer 9,000 years ; the sovereignty of Leo 8,000 years ; the sovereignty of Virgo 7,000 years ; the sovereignty of Libra 6,000 years ; the sovereignty of Scorpio 5,000 years ; the sovereignty of Sagittarius 4,000 years ; the sovereignty of Capricorn 3,000 years ; the sovereignty of Aquarius 2,000 years and the sovereignty of Pisces 1,000 years. The total of this is 78,000 years³¹.

In his discussion of different types of astrological cycles, the philosopher and physician Shams al-Dīn al-Shahrastūrī (d. 1288), in his *Rasā’il al-shajara al-ilāhiyya fī ‘ulūm al-ḥaqā’iq al-rabbāniyya*, mentions the doctrine of the world-year among ‘the people of the cycles’. He seems to follow al-Mas‘ūdī in his description of the now-familiar alternative :

A group of people claims that the cycles are to be understood in terms of the sovereignty of the signs over this world. To each sign, a period : they considered the sovereignty of the sign of Aries 12,000 years ; the sovereignty of Taurus 11,000 years ; the sovereignty of Gemini 10,000 years ; the sovereignty of Cancer 9,000 years ; the sovereignty of Leo 8,000 years ; the sovereignty of Virgo 7,000 years ; the sovereignty of Libra 6,000 years ; the sovereignty of Scorpio 5,000 years ; the sovereignty of Sagittarius 4,000 years ; the sovereignty of Capricorn 3,000 years ; the sovereignty of Aquarius 2,000 years and the sovereignty of Pisces 1,000 years. The total of this is 78,000 years. They claim that the world gets destroyed after the

²⁸ RAFFAELLI, « Astrology and Religion... », p. 177.

²⁹ D. PINGREE, « Indian Influence on Sasanian and Early Islamic Astronomy and Astrology », in *The Journal of Indian Research*, 34-35 (1973), p. 118-126, here p. 123.

³⁰ Kevin VAN BLADEL calls attention to these texts in his *The Arabic Hermes : From Pagan Sage to Prophet of Science*, Oxford, 2009, p. 101. Liana Saif is currently analysing the texts and has mentioned their influence on the Ikhwān al-Ṣafā’, Maslama al-Qurṭubī, and others. See SAIF, « A Study on Ikhwān al-Ṣafā’'s Epistle on Magic... ».

³¹ Mas‘ūdī, *Murūj al-dhahab*, ed. Kamāl Ḥasan MAR’I, 4 vol. (Beirut : almaktaba al-‘aṣriyya, 2005), vol. 2, p. 170.

passing of this and then returns again. They claim the sovereignty of this time is for Virgo, which is 7,000 years, and this is the age of this world³².

In late medieval and early modern writings dealing with the esoteric science of letters, we can detect significant parallels and reformulations of some elements of its astrological cosmogonies such as the zodiacal cycles, planetary ages, and the related sage-prophets. In such discussions, letters and prophets take a more prominent position than astrology which is usually elementary compared to our earlier medieval works. A text wherein we very clearly detect the influence of the PsAH with a lettrist twist is the *Futūḥāt al-makkiyya* by Muḥyī al-Dīn Ibn ‘Arabī (d. 1240). Ibn ‘Arabī’s familiarity with the twelve periods of zodiacal sovereignty is found in the second chapter of the *Futūḥāt* concerned with the ranks of the letters. Some letters are associated with a sphere and a period of sovereignty which immediately brings to mind the PsAH even though the list is incomplete³³:

Letter		Sphere	Years	Dominion
Hamza	ء	4 th sphere	9,000 years	Jinn, plants, and inanimate things
Hā’	ه	4 th sphere	9,000 years	Plants
‘Ayn	ع	2 nd sphere	11,000 years	Animals
Hā’	ح	2 nd sphere	11,000 years	Inanimate things
Ghayn	غ	2 nd sphere	11,000 years	Animals
Khā’	خ	2 nd sphere	11,000 years	Inanimate things
Qāf	ق	2 nd sphere	11,000 years	Jinn
Kāf	ك	2 nd sphere	11,000 years	Jinn
ḍād	ض	2 nd sphere	11,000 years	Animals
Jīm	ج	2 nd sphere	11,000 years	Jinn
Shīn	ش	2 nd sphere	11,000 years	Animals
yā’	ي	2 nd sphere	11,000 years	Inanimate things
Lām	ل	2 nd sphere	11,000 years	Animals
Rā’	ر	2 nd sphere	11,000 years	Inanimate things
Nūn	ن	2 nd sphere	11,000 years	Divine presence
ṭā’	ط	2 nd sphere	11,000 years	Inanimate things
Dāl	د	1 st sphere	12,000 years	Animals
Tā’	ت	1 st sphere	12,000 years	Inanimate things
Ṣād	ص	1 st sphere	12,000 years	Animals

³² Shahrāzūrī, *Rasā’il al-Shajara al-ilāhiyya fī ‘ulūm al-ḥaqā’iq al-rabbāniyya*, 3 vol. (Tehran, Institute for Research in Philosophy, 1385 AH), vol. 3, p. 521.

³³ Ibn ‘Arabī, *al-Futūḥāt al-makkiyya*, ed. Aḥmad SHAMS AL-DIN, 9 vol. (Beirut, al-maktaba al-‘aṣriyya, 2011), vol. 1, p. 106-118.

Zayn	ز	1 st sphere	12,000 years	Animals
Sīn	س	1 st sphere	12,000 years	Inanimate things
Dhāl	د	1 st sphere	12,000 years	Animals
Thāʾ	ث	1 st sphere	12,000 years	Inanimate things
Fāʾ	ف	1 st sphere	12,000 years	Inanimate things
Bāʾ	ب	1 st sphere	12,000 years	Inanimate things

As the table shows, Ibn ʿArabī gives a lettrist interpretation of three of the pseudo-Aristotelian *Hermetica*’s periods of zodiacal sovereignty, giving each a dominion. However, more evidence from *al-Futūḥāt* adds robustness to our suggestion that Ibn ʿArabī explicitly ‘islamicises’ some of the PsAH’s ideas. For example, he explains that the soul of the Prophet Muḥammad was created by God on the first motion of the universal sphere, a movement that initiated Time. This is the ‘esoteric’ Muḥammad, who is incorporeal yet actual since all of the prophets that preceded him functioned according to the soul of this Muḥammad whose deputies they were. The creation of the prophet’s soul, the beginning of time, occurred in the sign of Libra, the 7th sphere. Between the creation of his soul and his embodiment as the ‘exoteric’ Muḥammad is a cycle of 78,000 years. His soul came to reside in his body also on Libra, thus the period of zodiacal sovereignty is implied³⁴. Besides, we are told that Adam was created in Virgo, which is also found in the PsAH³⁵.

Finally, Ibn ʿArabī seems to give an Islamic reading to the planetary sages-prophets who rule over the seven climes, noted earlier in the PsAH. Among the select groups who are spiritually sublime are the *abdāl* (the plural of *badal*, meaning literally « substitute ») who are seven corresponding to the planets. Each one of them has dominion over one of the seven climes. They are linked with the prophetic *rūḥāniyyāt* of the planets. Truths pour from these *rūḥāniyyāt* into their hearts. In addition, the secrets of the macrocosm, the actions of the higher world on the lower world, and astrology are also revealed. Like the planetary sages-prophets of the PsAH, these *abdāl* transmit specialised knowledge into this world. For example, the *badal* of the Sun whose connected to the *rūḥāniyya* of Idrīs, rules the fourth clime, corresponds with Sunday, and to him belongs the knowledge of the secrets of *rūḥāniyyāt*, the science of light and illumination, and knowledge of thunder and lightning³⁶. The list of sciences does not match that found in the PsAH. However, when we also consider the other pieces of evidence presented here, the likelihood of Ibn ʿArabī’s knowledge of the PsAH becomes stronger.

³⁴ Ibn ʿArabī, *al-Futūḥāt*, vol. 1, p. 220-224.

³⁵ *Ibid.*, p. 191.

³⁶ *Ibid.*, p. 238.

Conclusion

In this article we have introduced two texts from the Pseudo-Aristotelian Hermetica, the *Ustūṭās* and the *Madīṭīs*, and four unique yet influential ideas : first, the conceptualisation of periods of planetary sovereignty that make up a world-cycle of 78,000 years ; second, the creation of man under the sovereignty of Virgo when the planets were in their exaltations save for Saturn ; third, the planetary millennia that make up the age of mankind under Virgo ; and fourth, the manifestation of prophet sages in each millennium who transmit the sciences and elements of knowledge that correspond to the ruling planet.

We highlighted the Persian astrological cycle theories that are reminiscent of the system we encounter in the PsAH : such as the ‘big *fardār*’ (78 years) and its periods of sovereignty that are proportionally identical to those we find in the PsAH. This suggests that theories of the PsAH were devised in a context where Persian astrology constituted an important part of the cosmological set-up of that age. We also highlighted the relevance of chronocratoria and the Indo-Persian astrological theory of exaltations to the narratives on the creation of man. These were not isolated ideas but were taken up by al-Mas‘ūdī as part of his *Murūj al-Dhahab*, and by al-Shahrazūrī in his esoteric *Rasā’il al-Shajara al-ilāhiyya fī ‘ulūm al-ḥaqā’iq al-rabbāniya*. The wide reception of this prophetic cyclical cosmology is evident in the explicit islamisation of the aforementioned four ideas by Ibn ‘Arabī in his *al-Futūḥāt al-Makkiyya* and his fascinating lettrist take on the periods of planetary sovereignty.

The PsAH’s cosmology is only one aspect of its exceptionally interesting content, which deserves more attention. Its cosmogony belongs to a unique and elaborate creation narrative in which the planets and stars take a central role. The mysterious composer was clearly active in a learned setting where astrology, the occult sciences, and natural philosophy were integrated under the legacy of Hermes and Aristotle. This is also true of the intellectual atmosphere of the tenth century when we have an early citation of the *Ustūṭās* and other PsAH treatises in the *Rasā’il Ikhwān al-Ṣafā’* and the *Ghāyat al-ḥakīm* by the Andalusian occultist Maslama al-Qurṭubī (d. 964) whose utilisation of the PsAH is subject for future studies.

APPENDIX

An astrological scheme of creation in the *Rasā'il Ikhwān al-Ṣafā'*

(Godefroid de Callataÿ)

The Ikhwānian corpus includes an astrological scheme of creation which is somewhat reminiscent of the cosmogony of the PsAH, although substantially different from it in the detail. In Epistle 31 ('On the Diversity of Languages'), in a chapter concerned with « the origins of sounds and the bodies that were at the beginning below the sphere of the Moon before the creation of man and animals », we are told of a time when, after the creation of minerals, the 'aquatic stars' (*al-kawākib al-mā'iyya*) took over the dominion and sent rains over the surface of the earth. By getting in contact with the air already present, and with the contribution of the shining stars and the Sun, these rains made possible the circulation of « the growing power of the soul » (*quwwat al-naḥs al-nāmiyya*). As a result, the Ikhwān tell us :

The first thing to emerge on the surface of the earth, starting to grow and to develop on its surface, was the form of plants (*ṣūrat al-nabāt*). [Things] remained under this condition, the earth being without anything else than vapours, mountains, plants, and trees for 3,000 years, according to what some wise men have mentioned [...]. And when this appointed period (*hādhihi al-mudda*), with those characteristics, came to an end, [and when] the emergence of the new cycle (*ibtidā' al-dawr al-jadīd*) [took place], God – Praised He be – wished the genesis of the second genesis (*al-nash'ā al-thāniyya*), and He created Adam and Eve from clay and made them inhabit the Garden. The account about all this has been recorded in every detail by a Persian (*raḥul fārisī*), an expert in the calculation of the stars (*aḥl al-'ilm bi-ḥisāb al-nujūm*), in a book where these things are explained³⁷.

It is at this stage that some elements of zodiacal chronology are brought into the discussion, though unfortunately not as many as one would have desired. Having mentioned that the appearance of Adam and Eve came after that of animals, and that animals in turn came after plants, the Ikhwān write :

The beginning of the emergence of plants took place in front of Virgo (*bi-ḥidhā' al-sunbula*), the [emergence] of animals [took place] in front of the sign of Taurus (*bi-ḥidhā' al-thawr*), and Adam and Eve in front of bi-corporeal Gemini (*bi-ḥidhā' al-jawzā' dhāt al-jasadayn*). The beginning was from Aries, and Saturn was in it, being in its dejection (*wa-kānat al-bidāya min al-ḥamal wa-qad ḥalla zuḥal wa-huwa ḥābiṭ*)³⁸.

³⁷ Ikhwān al-Ṣafā', *Epistle 31*, ed. Beirut, vol. III, p. 111-112, slightly modified to conform with the critical edition that Eric Ormsby is currently preparing of Epistle 31 as part of the Epistle of the Brethren of Purity series. I am grateful to Eric Ormsby for providing me with his edition of this passage before publication.

³⁸ *Ibid.*, p. 112.

How are we to interpret these lines? Since the Ikhwān have just referred to a 3,000-year period, it is possible that when using the expression ‘in front of a given zodiacal sign’ they have in mind the kind of millenary cosmogonic scheme that we have come across in the PsAH. But how do we understand the Brethren’s scheme? On the zodiacal circle conventionally starting with Aries, Virgo comes in the sixth position, whereas Taurus comes in the second and Gemini in the third. We can certainly explain the shift from Taurus to Gemini, corresponding to the move from ‘the animal phase’ to ‘the human phase’. Indeed, in a scheme based upon the precession of equinoxes with its canonical value (namely 36,000 years) and regularly distributed into twelve signs (as we know the Ikhwān conceived it), the period for this shift would amount to 3,000 years, thus matching the figure just mentioned for the ‘pre-animal phase’. But how does Virgo fit with this, then?

In his *La Philosophie des Iḥwān al-Ṣafāʾ*, Yves Marquet conjectured that « since there are eight signs from Virgo to Taurus [counting clockwise], one should infer that 24,000 years would have elapsed between the appearance of plants and that of animals³⁹. » The manuscripts available for the edition of Epistle 31, and which Marquet did not have at his disposal, all agree on having Virgo in this place, which would seem to corroborate the conjecture. In the subsequent lines of this passage the Ikhwān appear to go back in time again, for they mention there ‘the beginning from Aries’ with ‘Saturn being in its dejection in it’, which could very plausibly be a reference to ‘the mineral phase’ at the very beginning of the cycle. In short, given the fact that our passage does appear to include mutually contradictory data, it is probably better to renounce reconstructing the cycle as a whole. Having said this, and provided that our data do not arise from scribal errors, it is probably no mere coincidence if, at a more symbolic level, Virgo (in Arabic, *sunbula*: « the spike ») was chosen in connection with plants, Taurus with animals, and Gemini with the human race in the form of its original couple.

The final part of the passage is concerned with Adam and Eve again. Relying once more on the aforementioned book by the Persian expert in astrology, the Ikhwān detail some important episodes of Adam and Eve’s time (prostration of angels, eating from the tree, and so on). Most of them are explicitly associated with conditions that are relevant in terms of astrology, such as the use of logic and articulated speech being put in relation with Mercury. Some further chronological indications now reappear in the background of the description. Thus, Adam and Eve’s downfall from the Garden and their sub-

³⁹ Y. MARQUET, *La Philosophie des Iḥwān al-Ṣafāʾ*, nouv. éd. augmentée, Paris – Milan, 1999, p. 143.

sequent sharing of the animal condition for some period are said to have taken place « before Aries gave way to Taurus » (*ilā an sallama al-ḥamal al-dawr ilā al-thawr*). Their union and the instruction provided by Adam to his progeny – in Syriac, and before writing was invented – are meant to have taken place « before Taurus gave way to Gemini » (*ilā an sallama al-dawr al-thawr ilā al-jawzā*). Writing, using the 24-letter system of the Greeks, is said to have been invented only at this stage, as a result of Gemini « being the house of Mercury, the exaltation of the Head and the dejection of the Tail » (*bayt 'uṭārid wa-sharaf al-ra's wa-hubūt al-dhanab*)⁴⁰.

By and large, there appear to be too many contradicting elements in the Ikhwānīan cosmogony and also too many divergences with the PsAH's narrative to suggest that this latter could have been taken as a model for the former. This said, it remains that both accounts reveal a similar conception of the process by which man and the other species on earth were generated in succession as a result of the slow revolution of the zodiacal sphere and according to the positions of the planets. Although they leave the author unnamed, the Ikhwān affirm that the detail of their cosmogony is explained in a book of Persian astrology. This also concords with what our study has led us to surmise about the origin of the PsAH's cosmogonic scheme. Future research should bring more light on the development and the transmission of such cosmogonic pattern.

⁴⁰ Ikhwān al-Ṣafā', *Epistle 31*, ed. Beirut, vol. III, p. 112.

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