

Hestia: The Indo-European Goddess of the Cosmic Central Fire

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Abstract: The Pythagorean Philolaus of Croton (470-390 BCE) created a unique model of the Universe and he placed at its centre a 'fire', around which the spheres of the Earth, the Counter-Earth, the five planets, the Sun, the Moon and the outermost sphere of fixed stars, also viewed as fire but of an 'aethereal' kind, were revolving. This system has been considered as a step towards the heliocentric model of Aristarchus of Samos (310-230 BCE), the astronomical theory opposed to the geocentric system, which already was the *communis opinio* at that time and would be so for many centuries to come: but is that really so? In fact, comparing the Greek data with those of other ancient peoples of Indo-European language, it can be assumed that the 'pyrocentric' system is the last embodiment of a theological tradition going back to ancient times: *Hestia*, the central fire, was the descendant of an Indo-European goddess of Hearth placed at the centre of the religious and mythological view of a deified Cosmos where the gods were essentially personifications of atmospheric phenomena and of celestial bodies.

In 1960, an article came out in a scientific journal which specialised in topics which were a bit more eccentric than those of traditional research studies on the history of religions, especially the classical ones. Its title was *On the Relation between Early Greek Scientific Thought and Mysticism: Is Hestia, the Central Fire, an Abstract Astronomical Concept?*.¹ The author was Rudolph E. Siegel, Assistant Professor at the State University of New York in Buffalo, an American university where I, myself, was a professor with similar qualifications from 1998-1999. I am pleased, therefore, to talk about Ἑστία (Hestia) as the cosmic central Fire, inspired by the writing of a scholar who is linked to the same

¹ R. E. Siegel, 'On the Relation between Early Greek Scientific Thought and Mysticism: Is Hestia, the Central Fire, an Abstract Astronomical Concept?', *Janus. Revue internationale de l'histoire des sciences, de la médecine, de la pharmacie et de la technique*, 49 (1960): pp. 1-20.

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academic institution as me even though he was an historian of medicine and not a specialist in classical world religions or (Pythagorean) philosophy. The original article dealt with the particular representation of the astronomical system of the Pythagorean², Philolaus of Croton (470-390 BCE)³, which appears to be unique when placed among the different theoretical representations of the universe; indeed, it can rightly be called 'pyrocentric', namely fire-centred, unlike geocentric and heliocentric. It is in opposition to these representations, as it does not foster the belief, that at the centre of the *Kosmos*, there was the Earth or the Sun, but rather there was a 'fire', around which 10 celestial spheres revolved in a progression of the distance (from it) which was related to factors of 3, considered a sacred number by Pythagoreans.⁴

Siegel's article intended to prove that the so-called 'Central Fire' by Philolaus was not 'a material, extended body occupying the central space of the cosmos', but, in reality, was 'the geometrical centre, the focal point of the universe'.⁵ The hypothesis of the American scholar was that the Pythagorean of Croton would try to use geometric concepts to simplify astronomical laws, imagining, ultimately, a theory innovative as well as destabilising for its time, having the aim of supplanting the geocentric system accepted by Pythagoras and his school.⁶ In doing so, Philolaus would have borrowed some mystic traditions by fanning the religious feelings of his contemporaries in order to 'cover', with a more acceptable mantle of sacred tradition, the revolutionary idea of Earth as a planet, that is, a moving celestial body. If it is quite likely that the pyrocentric system of Philolaus had, as its goal, to elucidate, in a more reasonable way, from a purely geometrical point of view, some astronomical phenomena of indubitable intricate interpretation, if placed in a geocentric perspective, then it seems reductive to explain some

² On Pythagorean astronomy see B. L. van der Waerden, *Die Astronomie der Pythagoreer* (Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Natuurkunde, Eerste Reeks, Deel XX, No. 1) (Amsterdam: North Holland Publishing Company, 1951).

³ See C. A. Huffman, *Philolaus of Croton: Pythagorean and Presocratic* (Cambridge: Cambridge University Press, 1993).

⁴ P. Kucharski, *Étude sur la doctrine pythagoricienne de la Tétrade* (Paris: Société d'Édition 'Les Belles Lettres', 1952); A. Delatte, *Études sur la littérature pythagoricienne* (Paris: E. Champion, 1915), pp. 249-68 (cap.: 'La tétraktys pythagoricienne').

⁵ Siegel, 'On the Relation', pp. 2-3.

⁶ L. Zhmud, *Pythagoras and the Early Pythagoreans* (Oxford: Oxford University Press, 2012).

symbols adopted by the Pythagoreans. I believe, in agreement with what Walter Burkhardt said ('mythology in scientific clothing'⁷), that Philolaus had tried to give a 'scientific' covering to those mythological traditions which believed in a Central Fire in the *Kosmos-Mundus*; in my opinion, it is likely that Philolaus was the *only one* in *historical* times to re-actualise a very old *astronomical system* dating back to the prehistoric Indo-European period which was mirrored in an equally primitive ancestral pantheon where gods possessed a strong *astral* feature as they were, in fact, the *theological product* of such a pyrocentric system [author's italics]. I will analyse, then, the evidence that the classical tradition gives us relative to the 'new' astronomical theory of this Pythagorean of the second generation – the theory that, in hindsight, has proved to be very ancient!

As was the case for a good part of the classical authors of ancient times, from Philolaus, we received no written work concerning the doctrines which he had worked out in the various fields of knowledge of his chosen interest, of which we have rather meagre testimony of authors who lived in his time; this fragmentary documentary *corpus* has been thoroughly investigated, and the high level of science of these scholars we praise, nevertheless, we must note a total lack of any desire to actually make a comparison with similar sacred works of other Indo-European religions, such as Maria Timpanaro Cardini⁸ or Carl A. Huffman⁹ did, or to view the Philolaus data through the prism of a linguistic and inter-comparative method, which, although commendable for their era, is woefully inadequate, as was the case with Thomas Henri Martin.¹⁰ All this is very regrettable inasmuch as it can be seen as counterproductive in the

⁷ W. Burkert, *Lore and Science in Ancient Pythagoreanism* (Cambridge, Massachussets: Harvard University Press, 1972), p. 342.

⁸ M Timpanaro Cardini, M., *Pitagorici. Testimonianze e frammenti. II. Ippocrate di Chio, Filolao, Archita e Pitagorici minori* (Florence: La Nuova Italia editrice, 1962).

⁹ C. A. Huffman, 'Philolaus and the Central Fire', in S. Stern-Gillet and K. Corrigan (eds.), *Reading Ancient Texts. Volume I: Presocratics and Plato. Essays in Honour of Denis O'Brien* (Leiden: Brill Academic Publishers, 2007), pp. 57-94.

¹⁰ Th. H. Martin, 'Hypothèses astronomiques de Pythagore et de Philolaus', *Bullettino di bibliografia e di storia delle scienze matematiche e fisiche* Vol. V (1872): pp. 127-158; Th. H. Martin, 'Mémoire sur la signification cosmographique du mythe d'Hestia dans la croyance antique des Grecs', *Mémoires de l'Académie des inscriptions et belles-lettres*, Vol. XXVIII, first section (1874): pp. 1-23.

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time of hermeneutics, frustrating any ambition to put forward proposals for interpretative schemes marked by a religious perspective broader than that of ancient Greek.

First of all, we must take into account the passage from Stobaeus which affirmed ‘the first harmonically composed, the One, in the middle of the sphere called hestia’ which turns out to be a dry summary of the whole cosmology of the Pythagorean Crotoniate; it is said that the Unity, which is ‘even-uneven’ (ἀρτιοπέριπτον) as an agreement or ‘harmony’ of the two principles of even (unlimited) and odd (limited), is the medium which is the centre of the celestial sphere.¹¹ Philolaus, therefore, believed that the Unity, or Monad, which is the basic concept of Pythagorean mathematics, was the *foundation* of the Kosmos-Mundus and was, therefore, at the *centre* of it, as is confirmed by another witness, this time, Iamblichus: ‘The Monad, as it is the principle of all things according to Philolaus (in fact, doesn’t he call it “the One principle of all things”?) [author’s italics]’.¹² These fragments attest to the eminently practical aim of Philolaus: to explain the physical universe according to criteria and geometric patterns referring to the Pythagorean theory of numbers. It is relevant that he would use, in this particular context, the term ἐστία meaning ‘hearth’. This choice *necessarily* came from a *theological* background that would allow such a definition for the ‘medium-*centre*’ of the Cosmos – in short, the Pythagorean astronomer already had notions of a goddess, Hestia, as the *centre* of the Universe [author’s italics].

Having said that, let’s go then to the field of mythological thought on the Philolaic cosmological doctrine. In order to be of interest to this research, however, we have to recognise therein, at least, a clue about a possible Indo-European character.

In another passage of the *Anthologium*, Stobaeus shows the material constitution of the celestial sphere: ‘The bodies of the sphere are five: those inside the sphere, that is, fire, water, earth and air, and the

¹¹ Stobaeus, *Anthologium*, Eclogae I, 21, 8, 2-3. The original Greek, from which this translation was taken, is as follows Τὸ πρᾶτον ἀρμολογῶν, τὸ ἐν, ἐν τῷ μέσῳ τῆς σφαίρας ἐστία καλεῖται, in Huffman 1993, pp. 226-227.

¹² Iamblichus, *Nicomachi arithmetica introductionem* 77, 9-11. Translation is taken from the original Greek as follows: ἡ μὲν μονὰς ὡς ἂν ἀρχὴ οὐσα πάντων κατὰ τὸν Φιλόλαον (οὐ γὰρ “ἐν” φησιν “ἀρχὰ πάντων”), in Huffman 1993, p. 345.

cargo ship of the sphere, as the fifth'.¹³ The unexpected term ὀλκάς has sparked many possible hypotheses from scholars creating a real *crux interpretum* that was solved by Ulrich von Wilamowitz-Moellendorff¹⁴ with the emendation ὀλκόν which literally means 'drawing to oneself', but with an emendated value of *volumen Ueberzug* that actually makes the passage even more obscure, if that is at all possible. In fact, as the above-mentioned text shows, for Philolaus, there would have been *five* (!) elements in the celestial sphere, the fifth of which was called ὀλκάς [author's italics]. After the conjecture of Wilamowitz-Moellendorff, accepted by Diels and Kranz, according to which the fifth element was to be the aether or quintessence, the Italian scholar, Maria Timpanaro Cardini, in her esteemed work on the edition of the ancient Pythagoreans that expanded on that of Diels and Kranz, came to understand, based on acute observations proposed by Zeller and Mondolfo on the close correlation between elements and polyhedra¹⁵, that the Philolaus' fragment quoted by Stobaeus was similar to the one reported by Aetius concerning the polyhedra. In doing so, it was possible for her to state that the ὀλκάς indicated the dodecahedron, the solid form that seemed to come closer to that unreachable sphere and that contained, in itself, the solid forms attributed to the other four elements.

Is it therefore justified to assume that the Philolaic pyrocentric system, where the central fire was placed at the centre of the celestial Cosmos, but not on earth (considered a planet the same as the other five), had an *Indo-European legacy* [author's italics]? Indeed, the only difficulty in choosing this option is its historical incongruity related to the evolution of scientific thought as we would hesitate to attribute to people with a 'primitive' mind-set, as is commonly believed for the Indoeuropeans, an astronomical vision so advanced and/or complex from

¹³ Stobaeus, *Anthologium*, Eclogae I, 3, 27-29. Translation from Greek is as follows: Καὶ τὰ ἐν τῇ σφαίρᾳ σώματα πέντε ἐντί· τὰ ἐν τῇ σφαίρᾳ, πῦρ, ὕδωρ καὶ γᾶ καὶ ἀήρ, καὶ ὁ τῶν σφαίρας ὀλκάς πέμπτον, in Huffman 1993, p. 392.

¹⁴ U. F. von Wilamowitz-Moellendorff, *Platon, II. Beilagen und Textkritik* (Berlin: Weidmann, 1920): pp. 91-92; a discussion on this passage is in M. Timpanaro Cardini, (ed.), *Pitagorici. Testimonianze e frammenti. II. Ippocrate di Chio, Filolao, Archita e Pitagorici minori* (Florence: La Nuova Italia editrice, 1962), pp. 100-102, with whom we agree.

¹⁵ H. Diels, and W. Kranz, *Die Fragmente der Vorsokratiker*, I-III (Berlin: Weidmann 1951-1952⁶); Timpanaro Cardini, *Pitagorici*, pp. 100-02; and, E. Zeller and R. Mondolfo, 'Sulla questione degli elementi e dei poliedri regolari', in M. Isnardi Parente (ed.), *La filosofia dei Greci nel suo sviluppo storico*, I, vol. 2 (Florence: La Nuova Italia, 1950), n. 1 at pp. 512-14.

the point of view of logical-mathematics. This objection, mainly based on an *a priori* conviction of the alleged intellectual inadequacy of the ‘primitive’ Indo-European, encounters contradictions which are more apparent than objective. In reality, there is no need to believe that, in the Neolithic period, there was a sort of mathematician or astronomer in the same way as there was a Pythagorean such as Philolaus (!). However, it is more probable to assume, for the more intellectually vibrant representatives of this prehistoric community, such as was the Indo-European, a ‘normal’ *vis imaginativa*¹⁶ – to borrow a term of Marsilio Ficino – able to imagine the sky with its bright various phenomena, such as twilight, day and night, like a pantheon inherently structured and *orderly* (Κόσμος = ‘order’) [author’s italics] according to the usual options available within the different human parental bonds: paternity/maternity versus filiation, brotherhood versus sisterhood, *monogeniture* versus twinship, marriage versus celibacy. No spherical trigonometry, such as that of Hipparchus of Rhodes (185-127 BCE) then, but only in *mythology* and *theology* would there be reference to astronomical beliefs of the prehistoric ancestors of the Greeks [author’s italics]; although it has not been ruled out, being entirely natural, that these Indo-Europeans were able to advance an explanatory hypothesis, which could also be strong, about the formation of the terrestrial and celestial world, since they were, in the end, representatives of *Homo Sapiens Sapiens* with brains very similar to their more ‘civilised’ historical descendants who accomplished the so-called Greek miracle in the regions facing the basin of north-eastern Mediterranean. Apart from the complex Zodiac chart or of fixed stars, there is no doubt that the ancients were aware, *even* in periods previous to those of the historical civilizations, of the movement of celestial bodies such as the planets and, especially, one of the luminaries (although, being the orbit of the Sun around the Earth is apparent), which is quite clear. The sky above us was populated by gods from different cultures, whereas the Earth has always been populated by men and, therefore, it is obvious that to a ‘primitive’ way of thinking, every change of the heavenly state should correspond to a different divine will: indeed, the astrological thought encompasses all of itself into this simple concept.

One cannot discern anything for sure about the real astronomical knowledge of the prehistoric ancestors of several ancient Indo-European ethnic groups, but it is logical and probable that they had watched with

¹⁶ For more on *vis imaginativa*, see Benassi, S., *Marsilio Ficino e il potere dell'immaginazione*, in “I castelli di Yale”, II (1997), pp. 1-18.

interest while probing the sky (as testified – if ever it were needed for these mere platitudes – by the well-known divine onomastic series “*Dyaus Pitār-Zeὺς πατήρ-Iuppiter*”¹⁷) and that they had, at least (!), been aware of the major ‘planetary’ revolutions, that is the (apparent) one of the Sun and the other of the Moon. We must think that to a theological and mythological concept derived from observations of these cosmic phenomena could be added some speculation about cyclical time, for example, the changes of seasons, the life cycle of birth and death, and other similar natural processes – in short, a kind of reflection that turns out to be universal from the socio-anthropological point of view. In this regard, it will be remembered that the discipline called ethnomathematics has proven beyond doubt that a high degree of logical complexity can be attained by a group of people or individuals in a social and anthropological context in which they have long been defined by the biased and wrong term ‘primitive’. This being the case, it is thanks to the work of comparison with the *mythologies* and *theologies* of other ancient linguistically-related ethnic groups, that one is led to believe that the Philolaic perspective of the Cosmos was not then an isolated case inside that alleged ‘primitive’ Indo-European thought [author’s italics]. Thus, we finally enter the field of interreligious comparison.

As is known, the fire god in the ancient Indian pantheon is called Agni, theonym of unequivocal Indo-European origin, which is related to the Latin. *ignis*, the Russian. огонь, the Polish *ogień*, the Slovenian, *oganj*, the Servian-Croatian, *oganj*, the Lithuanian, *ugnis*, and the Latvian, *uguns*, all with the meaning of ‘fire’, whose reconstructed protoform was **h₁ng^wni-*.¹⁸ This deity was, after Indra, the most celebrated in the earliest periods of the religious Indo-European culture of the Indian subcontinent, as it is at the top of the list of deities to whom were dedicated hymns of the *R̥g Veda*, the oldest corpus of sacred Hindu writings, with over 200 hymns dedicated to Agni.¹⁹ The sacral, mythological, and religious spheres of this god are very complex so we will limit ourselves here to consider only part of his characteristic features.

¹⁷ F. M. Müller, ‘The Lesson of Jupiter’ in F. M. Müller (ed.), *Anthropological Religion. The Gifford Lectures delivered before the University of Glasgow in 1891* (London: Longmans, Green and Co., 1892), p. 82.

¹⁸ J. Pokorny, J., *Indogermanisches etymologisches Wörterbuch I* (Bern: Francke 1959), p. 293.

¹⁹ *R̥g-veda. Übersetzt und mit kritischen und erläuternden Anmerkungen*, I, trans. H. Grassmann, (Leipzig: F. A. Brockhaus, 1876); II, 1877.

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The birth of Agni is triadic, as is clearly stated in the first couplet of the 45th hymn in 'Book X' of the *Rg Veda*:

*Divas pari prathamam jajñe agnir-asmad dvitīyaṃ pari-
jātavedāḥ | 1a
trītyam-apsu nṛmaṇā ajasram-indhāna enaṃ-jarate svādhīḥ || 1b*

First Agni is born from heaven; the second time, 'the one who knows all of the creatures' came from us;
and, thirdly, 'the Manly-souled' was in the abyss. The pious lauds and kindles him as perennial.²⁰

The meaning is clear: the three birthplaces of fire are aerial, terrestrial, and aquatic, encompassing the entire Cosmos in its four fundamental elements; but the significance of these igneous generations is much more profound. The last birth of the god is that from his rising oceanic abyss which suggests the time when the sunlight comes up on the sea horizon, as we will determine soon, whereas his second coming to the world is the one of Agni as sacrificial fire controlled by *brāhmaṇās* priests, which is a very significant aspect of the igneous element. The first and most important of the fire god births, however, is the one that occurs in heaven, where the allusion to the lightning strike is clear: do not forget, in fact, that the first human contact with fire was through the combustion of inflammable items, such as trees and their like, implemented through the powerful electrical discharge of lightning. The exclusive natural-atmospheric aspect that characterises the three generations of the Vedic god of Fire is confirmed by family relations, which indicate that Agni was believed to be the son of Pṛth(i)vī, the Earth, and he had a sister Uṣas, the Dawn. His father was Dyaus Pitār, the Indian counterpart of the Greek Ζεύς πατήρ, Latin, Iuppiter, Norse, Týr, etc., all descendants of a primordial 'Shining Sky Father': *Dyēws Ph₂tēr, whose Indian successor had become an idle god or *deus otiosus* having bequeathed his Indo-European qualification of 'god of Lightning' (which is still attested to in

²⁰ The translations from Sanskrit are mine; the vedic text is in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Vol. II, Bonn 1877, p. 335, nonetheless, see R. T. H. Griffith (editor), *The Hymns of the Rigveda, translated with a popular commentary* Vol. 1 (Benares: E. J. Lazarus, 1889); R. T. H. Griffith (editor), *The Hymns of the Rigveda, translated with a popular commentary*, Vol. 2 (Benares: E. J. Lazarus, 1890).

the Vedic literature, although as a vestige) to his son, Indra, the Agni twin. In short, the fire god of the Hindu religion was born from the god, 'Daytime Sky'; in other words, out of the generative metaphor, he was a deity who *was within the heaven*, as he was within the earth when he was born in a sacrificial actor *status* [author's italics]. There it seems that the analogy with the Pythagorean-Philolaic Hestia, the inflamed central place of the celestial sphere, and the Ovid Vesta, considered 'the same thing of the earth' (*Fasti* VI, 267: 'Vesta eadem est et terra') is very strong.²¹ In hindsight, there appropriately came aid to overcome the aforementioned impasse between a pyrocentric and geocentric vision of the sacred fire – ultimately, the latter would have been seen at the 'Centre' of the Mundus-Kosmos when it was viewed as the perennial heat engine or the inextinguishable propellant energy whose destructive force was represented by the 'aethereal fire' of lightning, whereas the same igneous element was considered the 'Centre' of the Earth (something like a 'geo-pyrocentric' system) when it takes place in its 'emic' tract of sacredness in the role of the operator of sacrifices for human beings, as it was for the sacred fire guarded in the *adytum* of the Apollo sanctuary at Delphi or its Latin counterpart preserved near the *penus* of the *Aedes Rotunda Vestae* in Rome. It should be emphasised that the nexus, '*ajasram-indhāna*', appears in the centre of the couplet which I have analysed, having two terms of which the first, *ajasra*, has a meaning of 'inextinguishable' (privative *a-* plus *jas-*, see *jasati* 'run out'), whereas the second, *indhāna*, is a derivative of the root with nasal infix *in(n)dh-*, (see *inddhe* 'turn on', pass. *idhyate* 'be kindled') and is coradical of Greek words, αἴθερ 'burn', 'blaze' and αἰθήρ 'aether', '(part of purer) heaven', but also of the Latin, *aestas*, 'summer', 'summer heat', and *aedes*, 'small building (with fire)'. The latter item, along with those used to indicate the flame of the hearth, ('focus perennis'²²) brings us directly both to the fire always 'vivid' ('vigil ignis'²³) of Vesta and to the *Aedes Rotunda* of the goddess in which it was kept in Rome.

The three couplets 3-5 of the same hymn will dispel all doubts about the divine atmospheric 'kin' of the Indian fire god Agni:

samudre tvā nṛmaṇā apsv-antar-nṛcakṣā īdhe divo agna-ūdhan | 3a

²¹ Ovid, *Fasti* VI, 267, in Frazer 1929, Vol. I, p. 316.

²² Martial, *Epigrammaton* X, 47, 4, in Marco Valerio Marziale, *Epigrammi*, a cura di G. Norcio (Torino, UTET 2013), p. 619.

²³ Ovid, *Fasti* VI, 267, in Frazer 1929, Vol. I, p. 316.

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akrandad-agni stanayann-iva dyauḥ kṣāmā rerihad vīrudhaḥ-
samañjan | 4a
sadyo jajñāno vi hīm-iddho akhyad-ā rodasī-bhānunā bhāty-
antaḥ || 4b
vasuḥ sūnuḥ sahaso apsu rājā-vi bhāty-agra uṣasām-
idhānaḥ || 5b²⁴

You, Agni, 'the Manly-souled' lit thee in ocean and waters,
'man's Viewer' in the breast of heaven
Agni roared as Dyaus thundered: he licked the earth devouring
plants.
On the same day, just born, he looked around enkindled, and
lightened heaven and earth in all its splendour.
Good son of strength, a king amid the waters, in forefront of the
splendour of the Dawns, you are enkindled.

The first verse of the third couplet is very precise in regard to places, respectively, of the third and first birth. With regard to the aquatic generation of Agni, further specification is given in the last verse of the fifth couplet, when one says that, when he is kindled in the waters, of which he is the king, the fire god is at the forefront (-*agra*) of the light (*bhāty*-, corradical of φῶς, -τός 'id.') of the dawns (*uṣasām*). What is more important is the confirmation that the primordial characteristic of the Indian deity is the *heavenly* one: he was in the breast (*ūdhan*) of heaven (*divo*) and from there fell to the earth like lightning with the same roar of a 'stanayann- Dyauḥ'. This is a Sanskrit expression that is very useful for religious comparative purposes because the attribute of the Vedic god, being a morpheme derivative (causative) from the Sanskrit verb *stan-ati*, which is corradical (after the addition of the so-called Indo-European s-mobile) of Latin *ton-āre*, requires us immediately to make the comparison with the Roman god, Iuppiter, qualified as '*tonans*', as found in the phrase '*Iove fulgurante comitia populi habere nefas*' reported verbatim by Cicero from the *commentarii* of the college of augurs in his *De divinatione* II, 42-43.²⁵ In fact, far from being an idle god or a Supreme Being as of that in primitive societies, Dyaus Pitār is represented during the day the same way as a red steer, whose bellow is

²⁴ *Rg Veda* X, 45, 3a, 4ab, 5b, in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. II, p. 335.

²⁵ Cicero, *De divinatione* II, 42-43, in Marco Tullio Cicerone, *Della divinazione*, a cura di S. Timpanaro, Milano 1998⁴-2008, p. 143.

compared to thunder ('Let *Dyaus*, the red steer, bellow his *thunder* downward' [avosriyo *vṛṣabhaḥ krandati dyauḥ*]), and is connected to the lightning ('make room, *Dyaus*, to the jumping of the lightning" [*dyaaur dehi lokaṃ vajrāya viṣkabhe*]), whereas, as nocturnal sky, he takes the shape of a black horse adorned with pearls symbolising the stars' (*abhi śyāvaṃ na kṛṣanebhir aśvaṃ nakṣatrebhiḥ pitaro dyām apiṃśan*).²⁶ In one case, however, the god is depicted with a *Blitzstein* (*aśanimām iva dyaaur*, where the term *aśanimat* literally means 'possessor of stone (*aśan*)-lightning').²⁷ As one can see, this Vedic deity has a particular characteristic, that is the atmospheric element of electricity, which makes him close to the Roman Iuppiter and the Greek Ζεύς, a distinctive feature which, therefore, *could* also be supposed *even* for their divine ancestor of the common Indo-European period [author's italics]; therefore, it follows indubitably that the ancient Indian religious tradition took for granted the cause of origin of the fire in natural electricity: further confirmation can be seen in other Vedic hymns, such as in the 45th of Book X, where the second verse of the eighth couplet states that '*Agni became immortal by vital powers when Dyaus with the good seed begat him*' (*agnir-amṛto abhavad vayobhir-yad-enam dyaaur-janayat suretāḥ*) [author's italics]²⁸.

Given that, we have established the heavenly origin of the Indian fire god, Agni, and that we have also secured the intimate connection between the original god of Lightning, *Dyaus Pitār*, – a very important datum that is parallel to the close connection between Ἑστία, Ζεύς and the sacred fire; so, it is necessary to identify, in order to justify the legitimacy of this Greek-Latin-Indian interreligious comparison, also the *exact place* in the sky where the said-divine fire was placed: in fact, the 'emic' traits that characterise the Indo-European theology concerning the sacred fire are the 'Centre' and the 'Circularity' and, if it is true that the flame of Agni is the same from the point of view of the sacredness of

²⁶ *Rg Veda* V, 58, 6d, in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. I, p. 374; *Rg Veda* VIII, 100, 12b; *Rg Veda* X, 68, 11a, both in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. II, pp. 201 and 361.

²⁷ *Rg Veda* IV, 17, 13c, in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. I, p. 291; 'Blitzstein' in *Rig-veda. Übersetzt und mit kritischen und erläuternden Anmerkungen*, I, trans. by H. Grassmann (Leipzig: F. A. Brockhaus, 1876), p. 125; A. A. Macdonell, *Vedic Mythology* (Straßburg: Karl J. Trübner, 1897), p. 22.

²⁸ *Rg Veda* X, 45, 8b, in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. II, p. 336.

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Hestia-Vesta, one should expect to find in the ancient Indian mythological and/or religious literature at least an important clue to the presence of such distinctive features [author's italics]. These are actually present in the same *R̥g Veda* and in the *Śatapatha Brāhmaṇa*²⁹, too, a religious text written around the eighth century BCE. Being a compendium of descriptions of procedures related to the Vedic sacrificial rituals, this document should have the same legacy of wisdom as the Rgvedic hymnological corpus which seems a safe vestige of the antiquity of the tradition of wisdom to which both the above-mentioned features should belong – a background which dates, in my opinion, in all probability to the Common Indo-European period.

The mirroring of heaven and earth in the theology concerning the Vedic Agni is absolutely perspicuous in another Vedic hymn, the 44th of Book VIII, where the couplets 15-17 read:

yo agniṃ tanvo dame devaṃ martaḥ saparyati | 15a
tasmā id dīdayad vasu || 15b
agnir-mūrdhā divaḥ kakut patiḥ pṛthivyā ayam | 16a
apām retāṃsi jinvati || 16b
ud-agne śucayas-tava śukrā bhrājanta īrate | 17a
tava jyotīṃṣy-arcayaḥ || 17b³⁰

The mortal man who serves the god Agni within his own abode,
for him he causes wealth to shine.

Agni is the head and the top of heaven, the master of the earth is
he: he quickeneth the flowing waters' seed.

Upward, o Agni, rise thy flames, pure and brilliant,
thy lustres effulgences.

The intimate connection between the celestial sphere and the globe is given unequivocally in 16a, where, in the syntactic adjacency, the expressions '*mūrdhā divaḥ kakut*' and '*patiḥ pṛthivyā*' are juxtaposed, that is, respectively, 'the head and the top (*kakud*, related to Latin *cacumen*) of heaven' and 'the Lord of the earth': the *heavenly* connotation of fire binds well to the *terrestrial* one, which is connected to

²⁹ *The Satapatha-Brahmana, according to the text of the Mādhyandina school*, translated by J. Eggeling, Sacred Books of the East, Vols. 12, 26, 24, 37, 47 (Oxford: Clarendon Press, 1882-1900).

³⁰ *R̥g Veda* VIII, 44, 15, 16, and 17, in Th. Aufrecht, *Die Hymnen des R̥g Veda*, 2nd ed., Bonn 1877, Vol. II, p. 144.

sacrifice, and this cannot but recall both the Philolaic Hestia, that was considered to be the centre of the sidereal Cosmos, and the Ovidian Vesta, believed as ‘*the same thing of the earth*’ [author’s italics]. This connection may also constitute a parallel with the Vestal who cared to keep the sacred fire lit in the fireplace placed inside of Aedes and the Indian priest who ‘served’ (*saparyati*), and actually dedicated himself to paying special attention to the worship of the *sacred* fire, namely *sacrificial* [author’s italics]. The consequent benefit of devotion was to cause wealth to ‘shine’. Hence, the term *vasu* (< **vas-* ‘shine’, see *uṣās* ‘dawn’, Greek *ἔαρ*, (**ḗσαρ*) ‘spring’, Latin *ver* ‘id.’) corresponds to the Latin *dīvitiae*, whose root **dīv-* (< IE **dey-w-*, see *dīves* ‘rich’, *dīvus* ‘god’, *dīus* ‘heavenly’) is definitely related to the Sanskrit *dī-* (< IE **dey-*, see Latin *dīēs* (**dīēs*) ‘day’) of the causative verb form, *dīdayat*, according to an usual semantic shift ‘beautiful > rich’. Agni is, therefore, the giver of wealth and well-being; his fire keeps alive those who care for him, citizen or State, as it was for the hearth of Hestia-Vesta, the nominal root of which is precisely that of *vasu*. It is clear, then, that there was, in ancient times, in the historical Indo-European peoples and presumably in those prehistoric, a conceptual network that connected, in a structure, the celestial fire, its luminosity, the terrestrial hearth, and material well-being according to a precise ‘vital ideology’ in which were also included domestic pantry (*penus*) understood also as a personal ‘life insurance’.

Another passage in the *Rg Veda* offers an astronomical system that could be called outright ‘agnicentric’, entirely homologous to the pyrocentric one professed by Philolaus.³¹ In fact, in the second hymn of Book III in the couplets 13-14 it is stated:

*ṛtāvānaṃ yajñīyaṃ vipram-ukthyam-ā yaṃ dadhe mātariśvā divi
kṣayam* | 13a

*taṃ citrayāmaṃ harikeśam-īmahe sudītim-agniṃ suvitāya
navyase* || 13b

*śuciṃ na yāmann-iṣiraṃ svaḍṛśaṃ ketuṃ divo rocanasthām-
uṣarbudham* | 14a

*agniṃ mūrdhānaṃ divo apratiṣkutaṃ tam-īmahe namasā vājinaṃ
bṛhat* || 14b³²

³¹ Quoted in Aristoteles, *De caelo* 293a.17-b.32, in Huffman 1993, pp. 231-32.

³² *Rg Veda* III, 2, 13-14, in Th. Aufrecht, *Die Hymnen des Rig Veda*, 2nd ed., Bonn 1877, Vol. I, p. 220.

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To Agni, faithful to the law, holy, wise, worthy of praise, which
Mātariśvan had established, living in the sky,
to him, whose run is splendid, gold-haired, excellently bright, we get
closer for a new prosperity;
as pure and swift of course, beholder of light, who dwells in the
bright firmament as a sign of the celestial vault, who to wakes at
dawn,
Agni, head of the sky, unstoppable; him, vigorous, we approach with
great tribute.

The text combines, as usual, a religious quality and a sidereal one, because it defines the Indian fire god with certain terms related to his sacral sphere and, in other respects, in reference to astronomical phenomena in a close succession of sentences, so that it seems obvious that the two language levels connoting the deity are closely linked and mutually essential. First, Agni is 'sacred' (*yajñiya*, from the root *yaj-* 'worship'; see Greek ἄγνός 'id.'), meaning he is the personification of the *sacrificial* fire [author's italics]³³, since his actions conform to enforceable rules of the rite (*ṛtāvan*, by *ṛta* 'order' 'law', see *atin ritus*). However, above all, his 'dwelling is in heaven' (*divi kṣaya*), a construct that closely resembles that of Stobaeus' description meaning 'house of Zeus' (Διὸς οἶκος) and referring to the Hestia-central cosmic fire of Philolaus³⁴, if one considers that the Greek theonym for the god of Lightning had an original meaning of 'Shining Sky'. The brightness of the heavenly light is indeed a *leitmotiv* which is pervasive throughout the song: the god is represented as 'blond' (*hari-keśa*) since he radiates a bright light (*su-dīti*, letter; 'well-shining' from the root *dī-* 'shine', see Latin *diēs* 'day', 'sky', *Dies-piter* Iuppiter") and he looks in the light (*svar-dṛśa*) and experiences a beautiful ride (*citra-yāma*) in sidereal space. It is remarkable how Agni is here described as a 'sign' or 'mark' (*ketu*) of heaven (*divaḥ*) in his stay in the bright celestial vault (*rocana-sthā*, from *ruc-*, related to Latin *luceō* 'shine', *lux* 'light', Greek λευκός 'white'), as if the god would mark a precise and relevant geometrical place in the firmament – namely, the central point (*madhyam*). He, as a sacrificial fire, is 'pure' (*śuci*), as (πῦρ ... καθαρὸν ἐκ Δελφῶν), according

³³ A. Michaels, *Homo Ritualis. Hindu Ritual and Its Significance for Ritual Theory* (New York: Oxford University Press, 2016), pp. 126-36, 187-96 and 230-49; see also, F. Staal, *Agni: The Vedic Ritual of the Fire Altar*, I-II (Delhi: Motilal Banarsidass 1984).

³⁴ Stobaeus, *Anthologium*, Eclogae I, 22, 1d, 1-17, in Huffman 1993, p. 237.

to Plutarch³⁵, the eternal flame of the sanctuary of Apollo at Delphi; and is ‘swift in his run’ (*yāmann-iṣira*) through the sky, as was the Greek god Ἑρμῆς: and finally, he was born or ‘wakes at dawn’ (*uṣar-budha*), in the morning hour when the fire of sacrifice was kindled.

The physical quality of the fire of sacrifice is eminently its exceptional *refulgence*, an ‘emic’ tract that connects it in a close relationship to the god, ‘Shining Sky’, namely Dyaus (Pitār), who is none other than the ancient Vedic god of *Lightning* whom we know to be related to the Greek Ζεὺς (πατήρ) and the Roman *Iū-(piter)* [author’s italics]. Not only is the fixed point in which is located this celestial sphere bright, but also its run through is bright. It seems as if Agni, the centre and the circular perimeter of the Cosmos that he enclosed, containing it within his fire, is simultaneously the igneous and aethereal element of Philolaus. This comparison is not at all risky, if you thoroughly analyse the contents of the following couplets:

pitā yajñānām-asuro vipaścitām vimānam-agnir-vayunaṃ ca
vāghatām | 4a
ā viveśa rodasī bhūrivarpasā purupriyo bhandate dhāmabhiḥ
kaviḥ || 4b
vibhāvā devaḥ suraṇaḥ pari kṣitīr-agnir-babhūva śavasā-sumad-
rathaḥ | 9a
tasya vratāni bhūripoṣiṇo vayam-upa bhūṣema-dama ā
suvṛktibhiḥ || 9b
vaiśvānara tava dhāmāny-ā cake yebhiḥ svarvid-abhavo
vicakṣana | 10a
jāta āprṇo bhuvanāni rodasī agne tā visvā paribhūr-asi
tmanā || 10b³⁶

Father of sacrifices, *Asura* of the inspired, measure and rule of the establisher of a sacrifice,
 Agni hath entered the heaven and the earth in many forms, sage much loved is happy in his dwellings.
 Agni, the resplendent god, joyful, with his chariot surrounded the earth with strength;

³⁵ Plutarch, *Aristides* XX, 4, 1-6, 6, in Plutarch, *Lives*, II: *Themistocles and Camillus. Aristides and Cato Major. Cimon and Lucullus*, translated by B. Perrin (London: Loeb Classical Library, 1968 [repr. 1914]), pp. 276-77.

³⁶ *R̥g Veda* III, 3, 4, 9 and 10, in Th. Aufrecht, *Die Hymnen des R̥g Veda*, 2nd ed., Bonn 1877, Vol. I, pp. 221-22.

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let us try to provide the observance of multi-nourisher in his house
with beautiful laudations.

I wish thy dwellings, *Vaiśvānara*, with which thou, farsighted, are
in search of light;
generated, thou filledst the heaven and the earth: all this, Agni, hast
thou surrounded with thyself.

In these verses, the celestial feature of Agni is repeated several times; he, however, is defined as 'father of the sacrifices' (*pitā(r) yajñānām*), confirming his pre-eminent function as the cultural tool operator: the god gives the measure and the way (*vayunam*, which has the same root *vī-* of *veti* 'go', compare Latin *ve-nāri* 'go hunting', German *weida*, *Weide*, *weiden* 'graze') to follow for those who lead (*vāghat*, corradical of *vahati* 'carries', 'leads', see Latin *vehō* 'id.', *vehiculum* 'vehicle', wagon, Greek ὄχος (*φοχος) 'id.', slav. *vesti* < IE *weǵh-) the ritual with which the sacrifice itself is made. Verse 4a contains many words that indicate movement, as can be seen from *vimāna*, which, besides being a medical technical term suitable to indicate the science of the right size and proportion, also identifies the legendary Indian gods' chariot going through the heavenly airspace, but sometimes also serving as their 'throne': the Rgvedic syntagma, *vimānam-agnir*, would then ideally be analogous to the "Διὸς θρόνος" which relates to ἐστία, the central fire of the pyrocentric system of Philolaus. In fact, if Agni occupied the central point of the Indian Cosmos, from the above-mentioned Rgvedic verses, it seems that the fire god resided even in an extended 'perimeter zone' of the Cosmos itself, thus making his dwelling place within the Universe at the same time fixed as a 'throne' and automotive as a quick 'chariot'. Ultimately, with this *vi-mān-a*, he would appear as to measure (from the verb stem *vi-mān-* 'measure', see Latin *men-sura*) the entire circumference of the celestial sphere, surrounding it all with his igneous element. This is a hypothesis which I'm going to prove in due time.³⁷

Within the parameters of what has been detected, it requires a reflection on the facts described: the strong formal and 'emic' concordances between the Vedic cosmology concerning the god Agni and the pyrocentric system of Philolaus are so numerous that they cannot be attributed to chance. For all we know, moreover, only the Greek and

³⁷ M. De Martino, *Le divine gemelle celesti. Sacertà del Fuoco centrale e semantica dell'Aurora nella religione indoeuropea* (Lugano: Agorà and Co., 2017).

Indian speculations have led to the creation of such a complicated ideology on the sacredness of Fire. We are not aware of other ‘primitive’ cultures that have laid the igneous element within a *broad* astronomical structure wherein the concepts concerning Centre and Circularity were the *fundamental* characteristic features [author’s italics].

The remarkable and cogent structural congruences of such mythological and cultural themes regarding fire as sacrificial element confirm our conviction that one has entered another important piece in the complex mosaic of religious Proto-Indo-European framework. Accordingly, once having made sure of an Indo-European ancestry even regarding the conceptual material that has been handed down as the ‘mythological tinsel’ of the Pythagorean-Philolaic pyrocentric system, we feel entitled to make a further and more profound analysis in the future in order to better understand the ‘philosophical’, or rather, theological reasoning that had conceived it.