

8. The night sky of the Indo-Europeans

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Abstract

It is not easy to talk about the stars, which are strewn across the night sky in immense abundance and seemingly at random. But this communication was of the utmost importance to farmers and sailors of ancient times. To be able to name the stars, they used metaphors – similarities to earthly phenomena – and perceived relations among the stars, and justified their existence through *aitia*. This study presents the names of stars and constellations that can be reconstructed for the Neolithic culture of the Indo-Europeans – known ones and some newly discovered ones – and tries to determine their respective naming motives. As in ancient and modern cultures, there existed among the Indo-Europeans a plurality of competing names for stars, constellations and their variously defined subdivisions, which led to conceptual overlaps and to the formation of those stories that constitute the core stock of ancient myths and conceptions of gods.

1. Onomastic reconstruction

The only two important deities of the Indo-Europeans that can be directly reconstructed by name for the proto-language are numina of the bright day and well known: the father sky **D̥iēus ph₂tér* and the goddess of the dawn **H₂áusōs*.¹ On the other hand, the sun god presents a colourful variety of attested name forms, even though these may ultimately be based on a single stem **sáh₂u̯l̥*. In addition, there are smaller figures such as the goat-god **Páh₂usōn*, who lives on in Πάυ and Ved. *Puṣán*;²

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² Cf. Schermutzki in preparation.

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and probably also the divine twins, although here the individual names in historical times already diverge. Referring to the night, the ‘moon’ (**méh₁ns-*) and the ‘stars’ (**h₂stéres*) are generally well known. Less attention has been paid to individual stars and constellations, although there is no lack of researchers who have made substantial contributions to the star lore of individual ancient Indo-European cultures or of the Indo-Europeans themselves, such as Franz Boll and Wilhelm Gundel (1937), Joseph Fontenrose (1981), Bernhard Forssman (1968; 1985), Wolfgang Hübner,³ André Le Bœuffe (1977), Antonio Panaino (e.g. 1990–1995; 2015), Jean-Michel Renaud (2004), Anton Scherer (1953), Bernard Sergent (1997; 2012) and Michael Witzel (1984; 1996), to name but a few. It is advisable first to compile the names of stars and constellations that are attested for more than one language and that point back to a common Indo-European predecessor; then to consider principles of constellation-naming within the context of a significant and detailed myth; and finally to trace the characteristic overlapping of motifs in astral mythology. There is a basic motif, a metaphor, which describes in great variety the eternal movement of the stars: it is a hunt they engage in across the firmament, with pursuers and fugitives (cf. e.g. Hübner 1998: 144), and occasionally the idea emerges that the end of the world has come, if some catch up with others.

1.1 Proto-Indo-European **T[r]istrijo-* ‘Sirius’ (Forssman 1968: 54–61). It could be that the Indo-European name of the brightest fixed star, Sirius, had already lost its first *-r-* through regressive dissimilation. In any case, it has been eliminated from all names in the individual languages: in Avestan *Tištriia-*, in Vedic *Tiṣyà-* (which additionally lost the second dental stop through dissimilation and then the second component of the sound sequence *-ṣr-*), and, according to Helmut Fischer (1969), also in Greek **Σῖριος*. **Σῖριος* was transformed into *Σείριος* under the influence of the *Σειρήνες*. **T[r]istrijo-* ‘Sirius’ is the star “which belongs to the complex of the three stars” of Orion’s belt. The three stars of Orion’s belt point directly towards the bright star Sirius.

1.1.1 The fact that Sirius was also called **kyōn* ‘dog’ is indicated by the partial correspondence of *Κύων* and the Latin *Canicula*. *Canicula* is repeatedly considered a loan name (Scherer 1953: 109). On the other

³ From the wealth of Hübner’s writings (cf. <https://www.uni-muenster.de/KlassischePhilologie/Institut/Ehemalige/huebner.html>), only the edition, translation and commentary of Manilius’ fifth book (2010) is to be mentioned here.

hand, it follows a specific Latin word formation type, which is characteristic for the names of celestial bodies.⁴ The designation ‘dog’ for a single star and later for the constellation *Canis maior* can only result from the fact that Sirius trots after the most human-like constellation of the night sky: the mighty hunter Orion.

1.2 It follows from PIE **T[r]istrijo-* ‘Sirius’, that Orion’s belt, with its three shining stars, was called **T[r]istro-* ‘complex of three stars’.

1.3 Proto-Indo-European **h₂értko-* ‘bear’ (m/f) is continued in Hom. ἡ ἄρκτος (Σ 487+) and Ved. *īkṣa-*, whereby the plural form, only attested in the Rigveda (1, 24, 10), is probably simply due to the plurality of stars belonging to this constellation.

1.3.1 Another PIE designation for *Ursa maior* is **septṛṇi* [X] ‘Seven Sages’, although the designation of the ‘Sages’ cannot be reconstructed for the time being. Ved. *saptá īśayas* are ‘Seven Scholars’, Astronomers, Poets and Legislators, who were transferred to heaven for their merits. The constellation explains the uniform number of seven within the Greek collegium of the ἐπτὰ σοφοί, with such prominent members as Solon, Thales, Bias and others (Janda 2005: 299–312). Vedic and Greek sages are held together by a common motif: the eternal chase around a tripod, which is golden in the competition of the Greek sages (τρίπους), and which was uncovered for India by Harry Falk (1994). Falk detected in *tri-pád-* a naming of the stars Kochab (β ursae minoris), α and κ *draconis*, which are located around the pole.

Why *Ursa maior* appeared as the ‘Bear’ in prehistoric times is unclear. Perhaps only the bear was a worthy prey for the heavenly hunter, just as Homer allows the she-bear to ‘scout’ for Orion (Iliad Σ 488).

1.4 This competition of Greek and Vedic sages for a tripod (1.3.1) guarantees the Indo-European reconstruction **Tripod-* for the aforementioned stars Kochab (β ursae minoris), α and κ *draconis*.

1.5 Proto-Indo-European **G^band^hryuo-* (Janda 2022b). *Alpha Centauri* is the name of the fixed star nearest to the earth, which has been associated with the partly disastrous, partly wise Κένταυροι at least since Hellenism. The long-known similarity of the names Κένταυροι, Vedic

⁴ Hübner 2010: II 77. E.g. Gundel 1925: 316f. considers *Canicula* as inherited.

Gandharvā- and Avestan *Gāndərəβa-* could be summarized under the formula *KVnTaruo-*, which has not, however, permitted any reconstruction so far. PIE **G^hand^hruo-* originally had the meaning ‘provided with the fragrance [of wine]’, which not only does justice to the historically attested (key) role of these mythical beings, but is also the form that led, via paronymological transformations, to their historical name forms. The direct successor of **G^hand^hruo-* in Greek led to *κάνθαρος*, a wine goblet – often held by centaurs. The Gandharva ‘rises above the firmament’ in the same way that *Alpha Centauri* does (RV 9,85,12).

2. Names and the comparison of larger mythical structures

For Joachim Deppert, the myth of Rudra and his ‘three-knotted arrow’, Prajāpati and Uṣas, who wander in the sky as Orion’s ‘Head’, Aldebaran, Sirius and the three stars of Orion’s belt, belongs “zu den ganz wenigen vedischen Mythen, die einen astronomischen Code direkt [...] aussprechen” (1977: 187). In this story, it is not the ‘father sky’ but the ‘lord of creatures’ Prajāpati, who is the father of Uṣas ‘Dawn’, whom he pursues with incestuous intent. Father and daughter appear in the form of cloven-hoofed animals: Prajāpati as a buck and Uṣas as an antelope (or gazelle/deer⁵). The gods instruct Uṣas’ brother Rudra to stop Prajāpati:⁶

*prajāpatir vai svām duhitāram abhyākāmayatośasañ sá rohīd abhavat tām
śśyo bhūtvādhyaīt tasmā āpavratam achadayat tām āyatayābhiparyāvartata
tasmād vā ābibhet sò ’bravīt paṣūnām tvā pātiṃ karomy ātha me mā
sthā iti... tām abhyāyatyāvidhyat sò ’rodīt tād vā asyaitān nāma rudrā iti.*

Prajāpati desired his own daughter, Dawn (Uṣas). She became a red doe. He, having become a buck, “approached” her. It seemed “against commandment” to him (Rudra). He (Rudra) turned toward him (Prajāpati) with an outstretched (arrow). He (Prajāpati) feared him (Rudra) and said, “I will make you lord of beasts, but don’t stand against me.” ... (Rudra), on taking aim, pierced him. He cried out (*arodīt*). And that is his name: *Rudra*.

We learn from the Aitareya-Brāhmaṇa what happens next (3,33,1–4):⁷

⁵ There is no full agreement in rendering Vedic *rohīt*. For ‘Antilopenweibchen’ cf. Deppert 1977: 265, for ‘red doe’ Jamison 1991: 290, for ‘Gazellenweibchen’ EWA II 471.

⁶ Maitrāyaṇī-Saṃhitā 4, 2, 12; text and translation: Jamison 1991: 290f.

⁷ Text: Aufrecht 1879: 81; translation: Deppert 1977: 265; cf. also Jamison 1991: 291f.

prajāpatiṛ vai svām duhitaram abhyadhyāyad, divam ity anya āhur Uṣasam ity anye. tām rśyo bhūtā rohitam bhūtām abhyait. tam devā apaśyann: akṛtam vai Prajāpatiḥ karotīti. te tam aichan ya enam āriṣyaty, etam anyonyasmin nāvindaṃs. teṣām yā eva ghoratamās tanva āsaṃs. tā ekadhā sambharta eṣa devo 'bhavat. [...] tam devā abruvann: ayaṃ vai Prajāpatiṛ akṛtam akar, imaṃ vidhyeti. [...] tam abhyāyatyāvidhyat, sa viddha ūrdhva udaprapatat, tam etam Mṛga ity ācakṣate ya u eva mṛgavyādhaḥ sa u eva sa. yā rohit sā Rohiṇī, yo eveṣus trikāṇḍā so eveṣus trikāṇḍā.

Prajāpati beehrte seine eigene Tochter, den Himmel, sagen einige, die Uṣas andere. Er verwandelte sich in einen Antilopenbock (*rśya-* [...]) und machte sich an sie, die zu einem Antilopenweibchen geworden war, heran. Diesen sahen die Götter: “eine noch nie getane Tat begeht Prajāpati!” Sie suchten den, der ihn bestrafen sollte, doch fanden sie ihn nicht unter sich. Auf der Stelle warfen sie ihre schrecklichen Formen zusammen. Zusammengeworfen entstand dieser Gott da [...] Zu ihm sprachen die Götter: “dieser Prajāpati hier hat eine noch nie getane Tat getan, durchbohre ihn!” [...] Nachdem er auf ihn gezielt hatte, durchbohrte er ihn. Durchbohrt flog er nach oben (*udaprapatat*). Ihn nennen sie die “Antilope”. Der Durchbohrer der Antilope (*mṛgavyādhaḥ*) ist genau der (Rudra). Die weibliche Antilope ist Rohiṇī, der Pfeil mit den drei Spitzen (*iṣus trikāṇḍā*) ist der Pfeil mit den drei Spitzen.

Rudra thus hits Prajāpati with the arrow, whereupon all the figures of the myth – including the arrow – ascend to heaven: Prajāpati becomes *mṛgaśīras-*, the ‘head of Orion’; his victim Uṣas, *Róhiṇī-/Aldebaran*; the archer Rudra, *mṛgavyadha-*, the “‘beast’-piercer” Sirius; and the ‘arrow with three knots’ (*iṣu- trikāṇḍā-*) becomes the constellation of the same name, Orion’s three girdle stars. Our attention is drawn by this etiological narrative to the winter hexagon with its bright constellations, namely the sequence Sirius with Procyon – Gemini – Orion – Auriga with Capella and Taurus with the Hyades on its head. The famous star cluster of the Pleiades, on the back of Taurus, adjoins outside the hexagon.

Uṣas, in this myth, is thus the object of desire of a ‘lord of creatures’, who transforms himself into Orion – conversely, in Greece, the initiative comes from Uṣas’ sister Eos, who ‘takes’ the Boeotian hunter Orion, as Calypso tells us (Odyssey ε 118–124):⁸

οχέτλιοι έστε, θεοί, ζηλήμονες έξοχον άλλων,

⁸ Text: van Thiel 1991: 87; translation: Lattimore 2007: 91.

οἳ τε θεαῖς ἀγάασθε παρ' ἀνδράσιν εὐνάζεσθαι

ἀμφαδίην, ἣν τίς τε φίλον ποιήσεται ἀκοίτην.

ὥς μὲν ὅτ' Ὀρίων ἔλετο ῥοδοδάκτυλος Ἥως,

τόφρα οἱ ἡγάασθε θεοὶ ῥεῖα ζῶντες,

ἕως μιν ἐν Ὀρτυγίῃ χρυσόθρονος Ἄρτεμις ἀγνή

οἷς ἀγανοῖς βελέεσσιν ἐποιομένη κατέπεφνεν.

You are hard-hearted, you gods, and jealous beyond all creatures

beside, when you are resentful toward the goddesses for sleeping

openly with such men as each has made her true husband.

So when Dawn of the rosy fingers chose out Orion,

all you gods who live at your ease were full of resentment,

until chaste Artemis of the golden throne in Ortygia

came with a visitation of painless arrows and killed him.

The correspondence between the two cultures is so specific that the disastrous relationship between the Dawn and Orion must have belonged to Indo-European myth, even if we cannot reconstruct the PIE name of the great hunter at the time being. Only the Vedic myth reveals why in Hellas Eos and Orion are lovers (Janda 2022c): Aldebaran, the nocturnal apparition of Uṣas/Róhiṇī, is the left 'eye' of Taurus and immediately precedes the constellation Orion in the firmament. Seemingly, it was the colour of the red giant Aldebaran that made it the appearance of just the Dawn.

Uṣas and Rudra are brother and sister. Rudra has always been seen as a counterpart of Apollon (cf. West 2007: 148; Oberlies 1998: 214) – the bow, the special hairstyle, the dominion over young warriors, sickness and healing – however, it is not Apollon who shoots Orion, but rather his twin sister Artemis. Eos loves Orion, Artemis kills him. Artemis kills the hunter Orion in myth, but her epithet ἐλαφιβόλος is a fundamental fact of her cult, giving names to the festival ἐλαφιβόλια and even the month Ἐλαφιβολιών. Artemis often 'kills a stag', which corresponds precisely to the cloven-hoofed Prajāpati in India. Fontenrose (1981) has compiled numerous myths in which the goddess of the hunt is about to hunt down a hunter who, in the process, transforms into a

stag. The most famous of these is the story of Aktaion, who, intentionally or unintentionally, observes Artemis bathing. Aktaion turns into a stag, which is torn apart by his own hounds. Some conclusions can be drawn from these observations:

2.1 The Indo-Europeans also saw a stag in the constellation Orion. This can only be motivated by the following ‘dog’ – a concept which is conditioned by the preceding ‘hunter’. ‘Hunter’ and ‘stag’ overlap. The Gaulish month name *Elembiu* clearly refers to a ‘stag’, which can hardly relate to any other constellation except to our celestial ‘stag’ (Janda 2017: 69–78). In this regard, a PIE name for Orion can be reconstructed as **h₁elmbʰo-*, which serves as a common basis for ἔλαφος (: ἐλαφηβόλος) and Gaul. **elembo-*.

2.2 If Rudra transforms himself into the ‘animal piercer’ Sirius, one could also apply this to Rudra’s Greek brother Apollon (Janda 2022a). In fact, the superimposition of ‘dog’ and ‘archer’ – the latter motivated by the ‘arrow’ stuck in Orion’s waist – is also encountered in Apollon, who as Λύκειος and Λύκιος is a ‘wolfhound’; and at the same time neither wages war nor hunts with his arrows, but dispatches diseases – originally precisely in the heat of the dog days.⁹

2.3 The divine Dawn Uṣas transforms into Róhiṇī-Aldebaran at night. In addition to Eos we encounter Artemis in the Orion myth. Artemis shares a wealth of similarities with Eos (Janda 2016: 76–100) and apparently assumes the latter’s nocturnal role.¹⁰ It is not possible to reconstruct the PIE name of Aldebaran from *Róhiṇī-* and Ἄρτιμις, but the myth testifies to the attention that the Indo-Europeans paid to this red giant.

2.4 Strictly speaking, Prajāpati is not deified as Orion, but as his ‘Head’ (*mṛgaśiras-*). This gives us information about the origin of another lover of Eos, Κέφαλος, ‘who has a “Head”’, which Fontenrose (1981: 86–111) had also included in his mythical scheme of the hunted hunter (cf. Janda in preparation b).

⁹ More about Apollon below in the text.

¹⁰ This will be discussed in detail soon by the author (in preparation a).

3. The overlay of motifs

Soma in India and Haoma in the Avesta are simultaneously plant and sap, sacrifice and divine sacrificer. In the role of the sacrificer both gods are also located in the sky: ‘In the lap of these heavenly bodies Soma is set’, as we read in the Rigveda (10,85,2). In the Hōm-Yašt, Haoma appears with ‘a star-adorned girdle on mountain tops’ and receives a strange offering (Y 11,4 (cf. also Y 11,5)):¹¹

us mē pita haomāi draonō frāṛənaoṭ ahurō mazdā ašauua

haṇ"harəne maṭ bizuuō hōiūmca dōiθrəm.

Righteous Ahura Mazda, {my} father, bestowed upon me, Haoma, a share, both jaws with the tongue and the left eye.

Gernot Windfuhr found a striking explanation for this (Windfuhr 2002–2003: 471):

This seemingly disjunct specification, two jaws and left eye, loses its enigmatic nature when sought in the sky: It is the head of Taurus. Specifically, there is a well-known celestial Jaw, which is the V-shaped outline of the Hyades. Inside it is a well-known left eye, which is the *lucida* of the celestial Bull, α Tauri, Aldebaran.

This allowed for the identification of Haoma as the recipient of the cosmic sacrifice:¹²

The specifications “star-adorned” and “mountain tops” support the correlation of the sacrificial animal with a celestial constellation. In fact, Taurus stands right in front of the best-known girdle-wearer in the sky, the mighty Orion. To note, Orion does not only wear his own girdle, but also touches the supreme cosmic girdle, which is the Milky Way.

The brilliant, and girdled [...] constellation Orion, then, would appear to be here identified with the radiant apparition of the divine *Hauma*, facing the head of his sacrificial Bull. The fact that the Avesta seems not to name that most majestic constellation in the sky at all has always been puzzling.

How does the god of the intoxicating drink get into this heavenly position? The answer this time comes from Hellas (Janda 2022a),

¹¹ Text and translation: Josephson 1997: 113.

¹² Windfuhr 2002–2003: 472; cf. also already, as mentioned by Windfuhr, Haug 1878: 182.

where Βότρυς ‘grape’ is an alternative name for the Pleiades, aptly chosen because of the cluster shape of this constellation. Dionysus, the god of wine and intoxication in Greece, follows this celestial ‘grape’ night after night. It seems that the Indo-Europeans drank wine made from grapes, which was replaced secondarily among the Indo-Iranians by the intoxicating **Sáuma*. In Greek literature, the Πλειάδες also appear as ‘doves’ (πέλειαι), at first in a paretymological play on words and then solidified into a repeated image. We now understand why doves in particular ‘bring ambrosia to the father Zeus’ (Odyssey, μ 62).

Dionysus is mentioned, like Orion, as a great ‘hunter’ several times in Euripides’ *Bacchae* (κυναγέτας, 1189+). He is not followed by a ‘dog’ but rather by a whole pack of ‘dogs’, the Bacchae and Maenads (κύνες, 731). In yet another myth, a ‘dog’, the ‘wolfhound’ Λυκοῦργος (‘Wolf-Deed’) pursues Dionysus with hostile intent and drives him into the sea (Iliad, Z 128–143). We have already encountered the reinterpretation of the accompanying dog into a pursuing one, in the naming of the constellation Orion as ‘stag’. The majestic sequence of the constellations Pleiades – Taurus – Orion – Sirius is clothed in the mythical images of Dionysus, who pursues the ‘grape’, possesses a ‘bull’s foot’ in the song of the Elian women (Schlesier 2002) and is himself accompanied by ‘dogs’ or pursued by a ‘wolfhound’.

3.1 The gilded archaic monumental statue of Apollon on Delos carried a bow and arrow and on its outstretched hand the still life-size figures of the three goddesses of grace, the Charites. The relationship between the constellations Orion and Sirius led to the concept of hunter and dog, Indo-Iranian **T[r]istro-* ‘Orion’s belt’ → **T[r]istrijo-* ‘Sirius’, and ‘arrow’ → ‘archer’. Here the mythical tie is expressed in multiple overlay: Apollon, like Rudra, is an archer because the straight line of the stars of Orion’s belt was interpreted as an arrow. He is a ‘wolfhound’ – not only as Λύκειος, but in fact presumably also as Λυκοῦργος, who received divine veneration as the lawgiver of Sparta – and the Τρεῖς Χάριτες he carries on his hand is an alternative naming of the three shining belt stars.¹³

3.2 One of the few figures that can be derived directly from the arrangement of the stars in the firmament is that of Orion as a mighty (double)

¹³ Janda 2022a; on the Τρεῖς Χάριτες cf. Boll 1903: 272f.

axe, attested under the Greek name Σκεπαρνία in a lexicon entry,¹⁴ to which Franz Boll and Wilhelm Gundel, two outstanding experts on ancient celestial science, state (1937: 983):

Die Form des Wortes, das ohne Frage zu dem schon homerischen σκέπαρνον, Schlichtbeil, gehört, ist fraglich, aber immerhin zu beachten. Man müsste freilich, wie die Sterne am Himmel stehen, an eine Doppelaxt denken, die diesen Sternbildnamen mit der vorgriechischen Kultur verbinden würde: <es> {...} würde hier das glänzendste Sternbild des Himmels mit dem wichtigsten Gottessymbol der kretischen Zeit verbunden sein. Der Name kann also, so spät und vereinzelt er auch bezeugt ist, recht gut alt sein.

One could add that only in the case of the constellation Orion do we encounter the combination of a (double) axe and arrow – a motif that appears in the bow contest of the Odyssey. In this case, the motif returns the hero his wife and brings death to the suitors (Janda in preparation a). The Odyssey is generally rich in symbolism that originates in the heavens and is otherwise usually solar in nature.

3.3 Michael P. Speidel (1980) had concluded from the specific astral iconography of the Roman mysteries of Mithras that the originally Iranian god represented Orion. In my opinion, this assumption is correct, apart from the fact that he was not referring to an Iranian constellation but rather to the Greek mythical figure. The Indo-Iranian **Mitrá-* shares outstanding similarities with the king of Crete Μίνως (Janda in print): Mithras sacrifices the bull unwillingly and turns his head away. In the story of Minos the motif turns up thrice: (1) The bull brings Minos' mother Europa to Gortyn. (2) A beautiful bull appears and testifies to Minos' right to the kingship, whereupon Minos, contrary to his vow, does *not* sacrifice him to Poseidon but rather adds him to his herd. (3) Finally, Minos does not kill the monster, the bull-man Mino-Tauros, but imprisons him in the labyrinth – a Cretan-Greek, not a “Minoan” myth. Likewise the Middle Persian Mihr Minos is also a judge in the underworld in a very characteristic way. Minos is married to a figure of the night sky, since Πασιφάα is the name of a moon goddess in the Peloponnese.

Just as Pasiphae has an artificial cow made by the divine artist Daidalos in order to mate in its form with the bull, so too does the

¹⁴ Ὀρίων· καὶ ἄστρον οὕτω λεγόμενον, ἢ λεγομένη Σκεπαρνία; Etymologicum Gudianum 581, Sturz 1818: 581.

Rigveda tell of the artist-god Tvaṣṭṛ who has a cow on the moon – in an unfortunately all too fragmented allusion (I,84,I5):

átráha gór amanvata náma tvaṣṭur apīcyām

itthá candrámaso grhé

Da erinnerten sie sich an den geheimen Namen der Kuh des Tvaṣṭṛ daselbst im Hause des Mondes. (Geldner)

Diesseits überlegten sie sich den geheimen Namen der Kuh des Tvaṣṭar so im Hause des schimmernden Monds. (Witzel/Gotō)

Right there they thought of the secret name of the cow of Tvaṣṭar – likewise in the house of the moon. (Jamison/Brereton)

Minos does not carry a club like Orion (Odyssey, λ 575), but, in the same book of the Odyssey, a ‘golden sceptre’ (λ 569). In other respects too, the same inventory of these myths is encountered in ever new combinations like in a kaleidoscope: the Boeotian hunter Orion emerges from the seed-filled hide of a cow – the cow of Middle Persian cosmogony provides the seeds for all good herbs – the tail of the cow in the Mithraic cult images turns into an ear of corn. The myths of Minos and the Indo-Iranian **Mitrá-* show that the Indo-Europeans saw, among other things, a judge of the dead and a lord of the bull in the constellation Orion. As it seems, they granted this figure a name formed from the root **mej-* ‘to fasten’ (LIV 426).

4. Perspectives

Presumably, not all myths can, in this way, be derived from the heavens; however, some can. The story of Heracles may belong to these celestial adventures – he hunts and kills huge animals with his powerful club which could correspond to Orion’s weapon.¹⁵ The cumulative evidence certainly also contributes to the heuristic power of this kind of cultural reconstruction, which could naturally only be dealt with in a rather preliminary manner in the present article.¹⁶ The heuristic tools are familiar to Indo-European studies, and in some cases exclusive to

¹⁵ On the interpretation of the name as ‘Glory of the Milky Way’, cf. Janda 2005: 317. On Μελέαγρος, ‘who cares for the club’, cf. Hanitzsch in preparation.

¹⁶ The complex around Bellerophontes+Pegasos – Chimaira – Amazons – Solymēr *versus* Tištriia – Apaoša – Pairikas – Yātus has been left aside for the time being; cf. Janda 2017.

it: the consideration of direct sources, the cross-cultural perspective and the operation with sound laws that exclude coincidental parallels or borrowings. The rise of epithets to autonomy and also, as we have seen, the superimposition of ideas, must be taken into account as an important *movens* in the development of the history of religion. One of the major tasks to be tackled is the comparison with the highly developed celestial sciences of Mesopotamia and Egypt, cultures that also had deities reigning from the night sky.

References

- Aufrecht, Theodor. 1879. *Das Aitareya Brāhmaṇa: Mit Auszügen aus dem Commentare von Śāyaṇācārya und anderen Beilagen*. Bonn: Marcus.
- Boll, Franz. 1903. *Sphaera: Neue griechische Texte und Untersuchungen zur Geschichte der Sternbilder*. Leipzig: Teubner.
- Boll, Franz & Wilhelm Gundel. 1937. Art. Sternbilder, Sternglaube und Sternsymbolik bei Griechen und Römern. *Roscher* 6. 867–1071.
- Deppert, Joachim. 1977. *Rudras Geburt: Systematische Untersuchungen zum Inzest in der Mythologie der Brāhmaṇas*. Wiesbaden: Steiner.
- Falk, Harry. 1994. Die Kosmogonie von RV X 72. *Wiener Zeitschrift für die Kunde Südasiens* 38. 1–22.
- Fischer, Helmut. 1969. Griechisch Σείριος. *Münchener Studien zur Sprachwissenschaft* 26. 19–26.
- Fontenrose, Joseph. 1981. *Orion: The myth of the hunter and the huntress*. Berkeley: University of California Press.
- Forssman, Bernhard. 1968. Apaoša, der Gegner des Tištriia. *Zeitschrift für vergleichende Sprachforschung* 82. 37–61.
- Forssman, Bernhard. 1985. Der altgriechische Name Orion. In Ernst Eichler et al. (eds.), *Der Eigennamen in Sprache und Gesellschaft*, XV. Internationaler Kongress für Namenforschung, 13.–17. August 1984, VI: Vorträge und Mitteilungen in der Sektion 5: Eigennamen und nichtlinguistische Gesellschaftswissenschaften, 81–86. Leipzig: Karl-Marx-Universität.
- Geldner, Karl Friedrich. 2003. *Der Rig-Veda: Aus dem Sanskrit übersetzt und mit einem laufenden Kommentar versehen*, Reprint, Cambridge, MA.: Department of Sanskrit and Indian Studies, Harvard University.
- Gundel, Wilhelm. 1925. Art. Sirius. *Paulys Realencyclopädie der classischen Altertumswissenschaft* 3A. 314–351.

- Hanitzsch, Miriam. In preparation. Meleagros (working title).
- Haug, Martin. 1878. *Essays on the sacred language, writings, and religion of the Parsis*. Second edition, edited by Edward William West. London: Trübner.
- Hübner, Wolfgang. 1998. “Herakles-Orion”? *Würzburger Jahrbücher* 22. 141–145.
- Hübner, Wolfgang. 2010. *Manilius Astronomica, Buch V*. Vol. 1. *Einführung, Text und Übersetzung*; vol. 2. *Kommentar*. Berlin: de Gruyter.
- Jamison, Stephanie W. & Joel P. Brereton. 2014. *The Rigveda. The earliest religious poetry of India, translated*. 3 vols. Oxford: Oxford University Press.
- Janda, Michael. 2005. *Elysion: Entstehung und Entwicklung der griechischen Religion*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Janda, Michael. 2016. *Artemis mit der goldenen Spindel*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Janda, Michael. 2017 [2018]. *Pegasos und die Amazonen: Ein Mythos in Antike und Vorzeit*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Janda, Michael. 2020 [2021]. Überlegungen zu Mithras und Minos. In Matthias Fritz, Tomoki Kitazumi & Marina Veksina (eds), *Maiores philologiae pontes: Festschrift für Michael Meier-Brügger zum 70. Geburtstag*, 84–89. Ann Arbor: Beech Stave.
- Janda, Michael. 2022a. *Apollon und Dionysos*. Münster: Kubo.
- Janda, Michael. 2022b. *Kentauren und Gandharven*. Münster: Kubo.
- Janda, Michael. 2022c. Warum Eos und Orion ein Liebespaar wurden. *Acta Linguistica Petropolitana* (Festschrift N. Kazansky) 18. 126–139. doi: <https://doi.org/10.30842/alp23065737181126139>
- Janda, Michael. In print. *Minos, Europa und das Labyrinth*. Münster: Kubo.
- Janda, Michael. In preparation a. *Iphigenie* (working title, monograph).
- Janda, Michael. In preparation b. *Athene* (working title, monograph).
- Josephson, Judith. 1997. *The Pahlavi translation technique as illustrated by Hōm Yašt*. Uppsala: Uppsala Universitetsbibliotek.
- Lattimore, Richmond. 2007. *The Odyssey of Homer*. New York: HarperCollins.
- Le Bœuffe, André. 1977. *Les noms latins d’astres et de constellations*. Paris: Belles Lettres.

- LIV = Helmut Rix (ed.). 2001. *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstammbildungen. Unter Leitung von Helmut Rix (...) bearbeitet von Martin Kümmel, Thomas Zehnder, Reiner Lipp, Brigitte Schirmer*. Zweite, erweiterte und verbesserte Auflage, bearbeitet von Martin Kümmel und Helmut Rix. Wiesbaden: Reichert.
- Oberlies, Thomas. 1998. *Die Religion des R̥gveda. Erster Teil: Das religiöse System des R̥gveda*. Wien: Institut für Indologie.
- Panaino, Antonio. 1990–1995. *Tīštriya*. Part 1. *The Avestan hymn to Sirius*; part 2: *The Iranian myth of the Star Sirius*. Roma: Istituto italiano per il Medio ed Estremo Oriente.
- Panaino, Antonio. 2015. Cosmologies and astrology. In Michael Stausberg & Yuhon Sohrab-Dinshaw Vevaina (eds.), *The Wiley Blackwell companion to Zoroastrianism*. With the assistance of Anna Tessmann, 235–257. Oxford: Wiley Blackwell.
- Renaud, Jean-Michel. 2004. *Le mythe d'Orion: Sa signification, sa place parmi les autres mythes grecs et son apport à la connaissance de la mentalité antique*. Préface de Paul Wathelet. Liège: Centre Informatique de Philosophie & Lettres.
- Scherer, Anton. 1953. *Die Gestirnnamen bei den indogermanischen Völkern*. Heidelberg: Winter.
- Schermutzki, Jil. In preparation. *Pan and Pushan* (working title).
- Schlesier, Renate. 2002. Der Fuß des Dionysos: Zu PMG 871. In H. F. J. Horstmannshoff et al. (eds.), *Kykeon: Studies in honour of H. S. Versnel*, 161–191. Leiden: Brill.
- Sergent, Bernard. 1997. Indo-Hellenica I: Les Pleiades et les Kṛttika. *Ollodagos* 10. 179–222.
- Sergent, Bernard. 2012. Astronomie comparée indo-européenne. *Journal Asiatique* 300(2). 635–651. doi: <https://doi.org/10.2143/JA.300.2.2961397>
- Speidel, Michael P. 1980. *Mithras–Orion: Greek hero and Roman army god*. Leiden: Brill.
- Sturz, Friedrich Wilhelm. 1818. *Etymologicum Graecae linguae Gudianum et alia grammaticorum scripta e codicibus manuscriptis nunc primum edita*. Leipzig: Weigel.
- van Thiel, Helmut. 1991. *Homeri Odyssea*. Hildesheim: Olms.
- West, Martin L. 2007. *Indo-European poetry and myth*. Oxford: Oxford University Press.
- Windfuhr, Gernot. 2002–2003. Zoroastrian myth and Constellations: *Hauma* and Zarathustra. *Orientalia Suecana* 51–52. 471–477.

- Windfuhr, Gernot. 2010. Avestan aši ‘reward’ and the charioteer Auriga.
In *The Dasturji Dr. Hormazdyar Dastur Kayoji Mirza birth centenary memorial volume*, Udvada. (Manuscript available to me without pagination.)
- Witzel, Michael. 1984. Sur le chemin du ciel. *Bulletin d’Études Indiennes* 2. 213–279.
- Witzel, Michael. 1996. Looking for the heavenly casket. *Studien zur Indologie und Iranistik* 20. 531–544.
- Witzel, Michael & Toshifumi Gotō. 2007. *Rig-Veda: Das heilige Wissen. Erster und Zweiter Liederkreis*. Aus dem vedischen Sanskrit übersetzt und herausgegeben unter Mitarbeit von Eijirō Dōyama und Mislav Ježić. Frankfurt am Main: Verlag der Weltreligionen.