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## The Dragon and the Lunar Nodes

JACQUES DUCHESNE-GUILLEMIN

*Giauzar* was the transcription proposed by Piazzi, the Sicilian monk chiefly famous for his discovery, in the early nineteenth century, of the first asteroid, to designate  $\lambda$  *Draconis* (gi noting in Italian the modern pronunciation of Arabic ġ), now called in some atlases *Glanfar* (fig. 1). The term *al-ğawzahr* appears frequently in Arabic works to designate the nodes, viz. the points of intersection of the moon's orbit with the ecliptic: the ascending node being called *raʿas al-ğawzahr*, the descending *danab al-ğawzahr*, i.e., respectively, "head and tail of the ġawzahr," the invisible dragon supposed to cause the eclipses by swallowing the moon, or the sun.

Some Muslim authors felt *ğawzahr* to be foreign to Arabic and explained it as best they could.<sup>1</sup> Mahmud Šāh Khulġi saw in it a Persian word and glossed it *mahall-i zahr* "place of the poison," which does not make sense. Khwarizmy, the encyclopedist whose name, preceded by the article, has given our *algorithm*, explains the term as *gawz cihr*, viz. Arabic *ṣurat al-ğawz* "form of nut," or, quite as badly, as *guy cihr*, Arabic *ṣurat al-kura* "form of sphere." "Those are attempts," comments

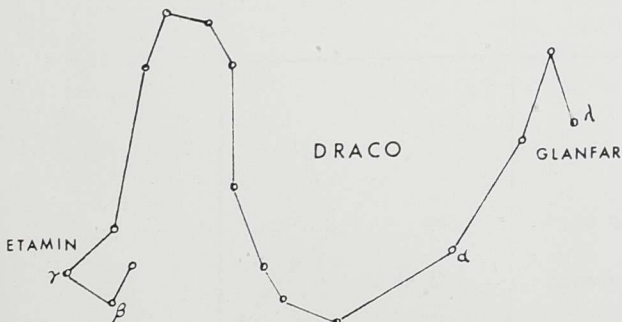


Fig. 1. Draco. After J. Klepesta and A. Rühl, *Constellations* (Paris, 1968) and V. de Callataÿ, *Atlas du Ciel* (Paris, 1963).

Paul Kunitzsch, "at etymologies such as we may expect from oriental writers." These writers obviously were ignorant of the ancient languages of Iran, for it has now been recognized by Iranologists that *ğawzahr* was a wrong vocalization of *gozihr*, the term which in Middle Persian designated the eclipse-causing dragon, with its head *gozihr sar* and its tail *gozihr dumb*.<sup>2</sup> The word *gozihr* or *gocihr* stemmed from the sacred language of ancient Iran, Avestan: *gaociθra* meant literally "having the seed of the bull" and was applied to the moon. The moon was supposed to receive the seed of dying bulls and other animals (as the sun received that of men), and this seed to descend back to earth with the nightly dew. How the lunar nodes came to be designated by an Iranian epithet of the moon will, I hope, become clear in the course of this paper.

The Arabs, who as we saw called the lunar nodes "head and tail of the *ğawzahr*," that is, of the dragon that caused the eclipses, pictured them in very concrete, lively fashion, witness a Turkish miniature of the sixteenth century (fig. 2).<sup>3</sup> And several representations of dragons connected with eclipses—none of them earlier than the end of the twelfth century—have recently been identified by Guitty Azarpay.<sup>4</sup>

Such representations should be connected with the signs  $\Omega$  and  $\Upsilon$  attested from the tenth century on by Byzantine astrologers (fig. 3) and whose resemblance to the Omega sign on Babylonian kudurrus, noted by Georges Contenau, must, owing to the enormous time gap, be considered fortuitous, coincidental.<sup>5</sup>

As for the idea that eclipses were caused by a dragon, although it belongs to an obviously primitive level of culture, it is not attested in Iran before the Middle-Persian treatises, dating from



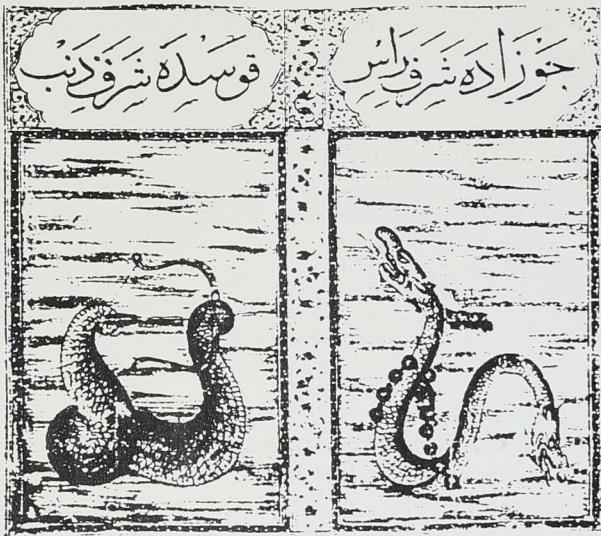


Fig. 2. The dragon nodes, from a 16th c. Turkish manuscript in the Pierpont Morgan Library. After W. Hartner, "The Pseudo-planetary Nodes."

the ninth or tenth century of our era. Could it have originated in India? The two nodes are represented in Hindu mythology as the monster *Rāhu*, or more exactly as his head, which bears this name, and his tail with the new name *Ketu*.<sup>6</sup> This is not attested very early. *Rāhu* appears in the Atharvaveda 19, 9, 10, but the reading is uncertain. In the Mahābhārata, the demon *Rāhu*, who takes part in the great struggle between gods and demons, seizes the drink of immortality but, before he swallows it, he is beheaded by the god Viṣṇu. His head falls on the ground (variant: rises up [to the sky]). "Since then," the text goes on, "there has been a lasting feud between *Rāhu* and the sun and moon [who are on the side of the gods] and even today he swallows them both." There is still no mention of *Rāhu*'s tail, nor of his connexion with the lunar nodes, which are unknown in the great Epic. It remains possible that the dragon originated in Iran. But it is at least

μεσοῦράνημα μ. κβ

<p>☉ θ ε'</p> <p>μ. ιθ ν'</p> <p>♌</p> <p>♍</p> <p>♎</p> <p>♏</p>	<p>♐</p> <p>♑</p> <p>♒</p> <p>♓</p>	<p>♈</p> <p>♉</p> <p>♊</p> <p>♋</p>
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ὑπόγειον μ. κβ

Fig. 3. Thema Codicum Laurentianorum et Monacensis. After H. Usener, *Kleine Schriften*, vol. 3 (Leipzig, 1914), 321.

equally possible that the fertile imagination of the Hindus reinterpreted the learned notion of the lunar nodes, inherited from the Greeks, via the Persians, as a moon-devouring dragon, a myth which may have spread to China, where it is, however, rather poorly attested.<sup>7</sup>

However, the idea that a dragon caused the eclipses by swallowing the moon (or the sun) bore in pre-Muslim Iran a name derived from the sacred language of the Avesta, *gocihr*, a dragon whose head and tail represented the lunar nodes and which appeared under its Arabic disguise as *ġawzahr*.

The term *gocihr*, before becoming the name of the dragon supposed to cause the eclipses, was only an epithet of his, meaning "lunar." It seems probable that the complete name of the dragon was *až-i gozihr*, and that the substantive, *až-i*, was then omitted because of a tabu: close parallels of this are found in Russian, where the ancient (Indo-European) name of the bear has been replaced by an epithet, *medvěd*<sup>2</sup>, literally "honey-eater," and in the Germanic languages, in which *bear* originally meant "brown."<sup>8</sup>

How and when was the eclipse-causing dragon identified with our (Greek) *Draco*? This problem is being tackled by Marten Stol, Leiden, whom I met, thanks to Dominique Collon, at the 36th Rencontre Assyriologique, Ghent, where I was playing prince consort to Dr. Marcelle Duchesne-Guillemin.

Finally, how was *Giauzar* (from *ġawzahr*) further corrupted into *Glanfar* (after the *h* had been dropped, as never pronounced in Italian)? I think the *i* was welded into *l* (conversely, *l* became *i* in *Betelgeuze*, always written *Beteigeuze* in German—and hence in Modern Greek!); moreover, *z* was replaced by *s*, the form of which, in the Gothic script, differs little from *f*, hence, with the added

confusion of *u* and *n*, the name of  $\lambda$  *Draconis* in some atlases: *Glanfar* (fig. 1).

## Notes

1. P. Kunitzsch, *Arabische Sternnamen in Europa* (Wiesbaden, 1959), 165f.
2. D. N. Mackenzie, "Zoroastrian Astrology in the Bundahišn," *BSOAS* 27 (1964), 511f. W. Hartner, "Al-Djawzahar," *Encyclopédie de l'Islam*, 2d ed., s.v. *Idem*, Le problème de la planète Kaïd, Conférences Palais de la Découverte, D. 36 (Paris, 1955).
3. W. Hartner, "The Pseudoplanetary Nodes of the Moon's Orbit in Hindu and Muslim Iconographies," *ArsIsl* 5 (1938), 113f.
4. G. Azarpay, "The Eclipse Dragon on an Arabic Frontispiece Miniature," *JAOS* 98 (1978), 363f.
5. This refutes the explanation I put forward in my paper to the Académie des Inscriptions et Belles Lettres, "Origines iraniennes et babyloniennes de la nomenclature astrale," *CRAI* (1986), 234–50. This has been pointed out to me by the editors of the *Journal for the History of Astronomy*, for which many thanks.
6. See n. 3 above.
7. J. Needham and Wang Ling, *Science and Civilization in China*, vol. 3, ignore it. M. De Visser, "The Dragon in China and Japan," *Verhandelingen der koninkl. Akad. Amsterdam*, vol. 13, pt. 2 (1913), has this to say (106): "A couple of dragons facing the moon! These were the first written characters I ever saw on this interesting subject, for the sea of texts concerning the dragon, ancient and modern, did not give a single word. . . . Would it be absurd to represent dragons trying to swallow the moon? Not in the least, for the dragons are . . . the clouds. . . ."
8. On linguistic tabu, see G. Bonfante, "Etudes sur le tabou dans les langues indo-européennes," *Mél. lingu.* Charles Bally (Geneva, 1939), 135f., repr. in *Scritti Scelti di Giuliano Bonfante*, vol. 1 (Alexandria, 1986), and quoted in my contribution to the *Festschrift Vanden Berghe, Archaeologia Iranica et Orientalis* (Ghent, 1989).