VENA, VEDA, VENUS

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Many scholars starting with Tilak suggested that Vedic Vena is Venus but this identification has been disputed. In this article we provide further arguments in support of this identification. We also review the question of the knowledge of the planets in the third millennium BC.

Key-words: Ancient astronomy, Vena, Venus

INTRODUCTION

The name Venus is from the Roman goddess of natural productivity and also of love and beauty. The Greeks called this planet Aphrodite and also *Eosphoros* or the 'bringer of light' when it appeared as a morning star, and *Hesperos* when it appeared as the evening star. It is believed that the Greeks first did not know that the two stars were the same but by the time of the Pythagoreans this identity was known and Plato writes, "The morning and evening star which are one and the same belong to Aphrodite." The Roman Venus derived her characteristics from the Greek Aphrodite which in turn appears to have been based on the Babylonian Ishtar. In Greek legend Aphrodite was taken to have been born in *Kupris* or Cyprus; Kupris, a feminine deity, was derived from the masculine *Kupros*.

It was suggested by Tilak¹ that an early Vedic name for Venus was Vena. Tilak also suggested that Kupros may be derived from the later Indian name for the planet, Sukra, who is considered male. The mention of Vena is to be found in Rgveda in a hymn dedicated to Vena which is described as being born of the sun.

ayam venascodayatpṛśnigarbhā jytirjarāyū rajaso vimāne imamapām samgame sūryasya śiśum na viprā matibhī rihanti (RV 10.123.1)

This Vena impels them who are in the womb of the variegated one; the membrane of light measures out the sky.

At the contact of the water and the sun the wise kiss him as an infant.

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Yāska's book on etymology, called *Nirukta*,² explains the word Vena as being derived from the root *ven*, meaning "to long for". This hymn later calls Vena explicitly as the "son of the sun."

Venus, in Indian literautre, has many attested names including Bhṛgu, Kāvya or Kavi Uśanas, and Śukra. RV 10.123 has Vena of the Bhṛgus as the seer and Vena is also the deity of the hymn. This clearly expresses the connection between Bhṛgu and Vena. There is mention of Śukra cups in a ritual that points to its astronomical origin and its being a planet that waxes and wanes.³ Śukra is mentioned in RV 3.32.2, 4.46.4 TS 3.1.6.3.; YV 7.12. Vena is mentioned again in YV 7.16. Tilak points out that Kātyāyan in his Śrauta Śutra 9.6.11-13 says that a Śukra cup be taken while reciting the Śukra or vena hymns. This point to a memory of the two words Vena and Śukra meaning the same thing. Tilak also points out that the Latin Venus is considered by linguists to be cognate with the Sanskrit van, "to love".

Usanas or Kavi, his patronymic, have several hymns in the Rgveda. Later Indian literature does not comment on the identity of Vena and Venus.

From the point of view of history of astronomy, the identity Vena=Venus suggests that the Romans had knowledge of Venus before their interaction with the Greeks. We should then consider the Greek astronomical myths as just one of the many system of such myths and not a precursor to those of other European tribes. Such a view is in general agreement with the astronomical interpretation of ancient myths by de Santillana and von Dechend.⁴

Tilak's view on the identity of Vena and Venus was rejected by Whitney.⁵ On the other hand, Shukla,⁶ in a recent survey, accepts this identity. In this paper, we review the question in the light of the new discoveries related to Indian astronomy.

On the names of Venus

In later Indian mythology (e.g. Matsya Purāṇa 10.3-35), Vena is described as a wicked king.⁷ This ascribed wickedness echoes the affiliation of Venus with the asuras. The notion of asura (demon or titan) basically defines the dual to the gods.⁸ This duality is mirrored in other dichotomies such as spiritual against material; mental against physical; higher against lower; bright against dark. Interestingly, Vena's son was one Pṛthu, a righteous king who commanded the earth to fulfil the needs of all creatures; it is due to this act that the earth is called Pṛthvī. This clearly points to the astronomical nature of the story and an astronomical basis of Vena.

Vena is called Gandharva in RV 10.123.7. Although in Śatapatha Brāhmaṇa 5.1.4.8, gandharvas are said to be 27 in number, an apparent reference to their identity

as the *nakṣatras*, constellations that the moon is conjoined with in its orbit, it is believed that originally there was only one *Gandharva*, who is Venus. *Gandharva* is the lover who is married to the *Apsarās* (water-nymph). This allusion is to love and to residence in the sea of heavens.

Vena, like Aphrodite, is associated with the waters or with the sea, which is the sea of heaven, from which he is born (RV 10.123.2). Vena arises like a drop (drapsa) from the ocean.

Aitreya Brāhmana 3.34 speaks of the birth of planets from the "seed" of Prajāpati, the "year" (Śatapatha Br. 3.2.2.4; 5.2.1.2.; 10.4.2.1,2). First, arises Āditya, the sun; this is followed by Bhṛgu, Venus; then comes Bṛhaspati, Jupiter It is interesting that mythology celebrates planets as being born from each other. Indian myths remember Mars as the son of the earth, Mercury as the son of the moon, and Saturn as the son of the sun.

Elsewhere, the story is recounted how Venus in the form of Kāvya Uśanas ($Mah\bar{a}bh\bar{a}rata$ 12.278.16) deprived Kubera of his wealth Kubera complained to Siva who punished Uśanas by swallowing him. Eventually, he let Uśanas come out of his semen passage which is why he was now called Śukra, "shining". For this reason, Venus is also called the son of Śiva or that of the sun.

One might wonder whether there exist any "astronomical" reasons for associating Venus with the asuras. Ancient legends from different civilizations, ranging from Roman to Samoan, refer to the horns of Venus, which have been taken to represent a crescent. Pliny in his Naturalis Historia (2, 37) represents Venus as a human figure with two horns. It has been discovered that Astarte, the Assyrian Venus, was shown as bearing a staff tipped with a crescent. It is generally accepted that, under favourable conditions, it is possible to see the crescent form of Venus with the unaided eye. It is reasonable, therefore, to assume that the "horns", together with the apparent rebirth after each disappearance against the disk of the sun, led to the myths that $\hat{S}ukra$ belonged to the party of the asuras and he possessed the secret of immortality. The immortality of Vena, likewise, is mentioned in RV 10.123.4, where as Gandharva, he knows immortal names; and in Atharvaveda 2.1.1 where it is claimed that Vena sees the supreme secret which leads to immortality (AV 2.1.5).

The image of a horned woman is so dissonant, that it represents the fusion of the images of the asura (demon) and the apsaras (water nymph). In other words, of the two notions that we see in the Vena hymn of the Rgveda only that of the lovely goddess is encountered in west Asia, Greece, and Rome. Aphrodite is the water nymph who rises from the foam of the sea of the heaven quite like the apsaras who longs for Vena.

PLANETS IN THE THIRD MILLENIUM BC

We have alread discussed elsewhere¹¹ the reasons why the famous myth about the three steps of *Viṣṇu* may represent the knowledge of the synodic and/or sidereal period of Mercury toward the end of the third millennium BC. We have also shown elsewhere that the organization of the Vedic books represents an astronomical code.¹² It has been argued there that this code, which implies a knowledge of the planets, must go back to at least the third millennium BC.

The early attitude of the historians of astronomy was that such knowledge is perhaps too early. But it is known that the Babylonians observed Venus in the middle of the second millennium BC. References to Venus come also from the even earlier 3000 BC. evidence at Uruk in Sumer.¹³ Known by the Sumerians as Inanna, Venus is represented there as an eight-pointed star. Later Mesopotamia also represents Ishtar (Venus) by an eight-pointed star. It has been suggested that this indicates a knowledge of the eight-year cycle of Venus.

It is believed by Greek scholars¹⁴ that "In Greek astronomy as known to Plato very few planetary observations had been made, and this is consistent with the comparatively late recognition of the planets as such and the fact, for example, that we are told nothing of the periods assigned to them in the Philolaic system [fifth century BC]; Eudoxus [390-337 BC] must have been one of the 'few men' to study them, but Plato's words support the idea that the data Eudoxus relied on to construct his system came from outside Greece (almost certainly from Baylonian astronomy.)"

Simplicius (6th century) attributes to Eudoxus knowledge of the sidereal and the synodic periods of the planets.¹⁵ The sidereal periods for Mercury and Venus are each taken to be one year, the other periods are approximately correct in whole years; the synodic periods are generally more accurate excepting that for Mars it is taken to be 260 days rather than the correct 780 days.

The astronomical system of Eudoxus was based on assigning four spheres to each planet, the moon was assigned three spheres; these spheres moved in ingenious ways to approximate the observed motions. In this model the moon moves at a constant speed round the ecliptic although it had been known for a long time that the speed actually varies. In other words, the system of Eudoxus did not have the capability to explain what was known.

I think the inference that correct sidereal periods for Mercury and Venus must have been obtained only after Eudoxus is not warranted by this evidence. Even if one were persuaded to ignore the evidence from India, it is quite clear from the tablets that have been found in the third-millennium Sumer and the second-millennium BC. Babylon that there was a tradition of observing the planets there. It seems reasonable to assume, therefore, that in the ancient world trade often carried ideas across lands but astronomical details were, in most likelihood, worked out afresh in each nation. The Greek evidence then only gives us the stages in the development of astronomy there, but its many details were known earlier in Mesopotamia, India, and other civilizations.

MERCURY AND VENUS MYTHS

Mercury and Venus, being inner planets, are found always close to the sun. Hermes as Mercury is the messenger of the gods and the inventor of writing whereas Venus is the goddess of love. In India, the dichotomy is more symmetric: Budha (Mercury) is Viṣṇu, the younger brother of Indra, the great god, the sun who is also later represented by Śiva; whereas Śukra (Venus) is the teacher of the asuras (demons).

Sukra knows the secret of immortality; this presumably has reference to the fact that Venus emerges again after being swallowed by the sun. In the Saivite glosses of this story Sukra is swallowed up by Siva and later on expelled as semen; this is a play on the etymology of Sukra as "bright."

It is noteworthy that the Śiva/Viṣṇu split can be best understood in the interiorization of the astronomical frame. Śiva now represents the "sun" of consciousness and Viṣṇu represents the cognitive category of intelligence which ultimately draws its "light" from the sun; this explains the etymology of budha as intelligence.

Conclusions

The names for the planets in the ancient civilizations are generally different. Their difference suggests that the planets were known in various civilizations before trade and migrations brought unifying impulses and common terminology. The fact that RV 10.123 explicitly calls Vena as the son of the sun makes it clear that it could only be Mercury or Venus (only Venus if we recall that later mythology takes Mercury to be the son of the moon). Its association with Śukra in the Kātyāyana Śrauta Sūtra makes it certain that it is venus and not Mercury; later Purāṇic mythology also remembers Venus as the son of the sun/Śiva.

So is the commonality between Vena in India and Venus in Rome an ancient memory? We have seen that the *Rgveda* describes two aspects of Venus: one, as *Gandharva* who is the patron of singing and the arts; and the other, who is the son of the sun and an *asura*. These conceptions, together with the meaning of Vena as "longing" and "love", lead to both the later mythologies to be found in India as well as in west Asia. If we assume that the notion of Aphrodite was borrowed by the Greeks from western Asia, as is generally accepted, then this notion of Venus as a goddess may have been a late innovation, but it was an innovation based on old ideas. This,

in turn, implies that Freya, the Norse goddess of love and beauty, must be derived from Aphrodite and Venus, and not the original Vena. Venus for the name of the planet is related to Vena, but its mythology is to be traced to western Asia.

The other possibility is that Venus as a goddess is derived most directly from $S\bar{u}ry\bar{a}$, the sun maiden, celebrated in the Rgveda 10.85 or the Atharvaveda 24.1-2, who is really Venus and not a feminine representation of the sun.

REFERENCES

- 1. Tilak, B.G., The Orion. Tilak Brothers, Pune, Reprint 1986 (1893).
- 2. Sarup, L., The Nighantu and the Nirukta. Motilal Banarsidass, Delhi, 1984 (1920-7).
- See e.g. Frawley, D., "Planets in the Vedic literature", Indian Journal of History of Science, 29, 495-506, 1994.
- Santillana, G. de and Dechend, H. von., Hamlet's Mill: An essay on myth and the frame of time. Gambit, Boston, 1969.
- Macdonell, A.A. and Keith, A.B., Vedic Index of Names and Subjects (1912). Reprinted by Motilal Banarsidass, Delhi, 1982.
- Shukla, K.S., "Main characteristics and achievements of ancient Indian astronomy in historical perspective." In *History of Oriental Astronomy*, G. Swaroop, A.K. Bag, K.S. Shukla (eds.). Cambridge University Press, Cambridge, 1987.
- 7. Dimmitt, C.C. and van Buitenen, J.A.B., Classical Hindu Mythology. Temple University Press, Philadephia, 1978.
- 8. See 4 above.
- Macdonell, A.A., Vedic Mythology. Reprinted by Motilal Banarsidass, Delhi, 1981 (1898), pp. 136 7.
- 10. Moore, P., The Planet Venus. Macmillan, New York, 1956.
- 11. Kak, S.C., "Knowledge of the planets in the third millennium BC", Quarterly Journal of the Royal Astronomical Society 37, 709-715, 1996.
- Kak, S.C., The Astronomical Code of the Rgveda. Aditya, New Delhi, 1994;
 Kak, S.C., "The astronomical of the age of geometric altars", Quarterly Journal of the Royal Astronomical Society 36, 385-396, 1995.
- 13. Krupp, E.C., Echoes of the Ancient Skies. Oxford University Press, New York, 1983.
- 14. Dicks, D.R., Early Greek Astronomy to Aristotle. Cornell University Press, Ithaca, 1970, p. 130.
- 15. See above, p. 186.