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# INDIAN PLANETARY IMAGES AND THE TRADITION OF ASTRAL MAGIC\*

David Pingree

I AM DEALING here with visual representations and verbal descriptions thereof that cannot seriously be regarded as artistic. If I may employ the terminology of the poetic aesthetic of India, the *rasa* or emotion evoked in a modern educated Westerner by the images I ask you to look upon is *hāsya* or amusement. But just two or three centuries ago the descendants and more distant relations of these images aroused in some leading European intellectuals the *rasa* of *bhīti* or fear.<sup>1</sup> I apologize for choosing a topic that allows for only these responses, and hope that you will find this article more amusing than horrifying.

Some time ago I received from a colleague in London, Dominik Wujastyk, slides of some most unusual paintings of the planets which it is my intention to attempt to explain. He had found them in a Sanskrit manuscript preserved in the Wellcome Institute for the History of Medicine, whose rich collection of some seven thousand Indian manuscripts the two of us are cataloguing.<sup>2</sup> The manuscript is a fragment—eleven folia numbered 4 to 14—of a text on genethliology, the *Lagnacandrikā* composed by Kāśinātha in northern India in the first half of the sixteenth century.<sup>3</sup> This copy, as I would guess from the script, was executed in Rājasthān in the late seventeenth or early eighteenth century.

The illustrations are on fols 11 and 12 of the manuscript, and accompany a text to which they bear no relevance. Kāśinātha is describing<sup>4</sup> a system of astrological prediction wherein, for each planet, the twenty-seven *nakṣatras* or lunar constellations are distributed about a picture of the human body; then, as the planet regarded as significant travels through the *nakṣatras* and, by extension, through the representation of the native's body, it affects that person in various specified ways. Such forms of prediction, and the magical ceremonies that prevent any predicted injury from occurring, go back at least to a *Yāmalatantra* from which was quoted a *Śanicakra* (or Saturn's circle) similar to Kāśinātha's by Narapati in the

\* I can report that the magical images of the planets described in this article are still in use in India. Pictures very much like those in the *Lagnacandrikā* manuscript (though riding more traditional *vāhanas*) adorn, for instance, section 10 (a short rule for worshipping the nine planets) in the Hindī *Navagrahadarsana*, published by Rāma Kṛṣṇa Śāstri in the Śrī Rāma Prakāśana at Jammū in 1975; the title-page and separate plates between pp. 48 and 49 of Rājendra Rājā Śāhiva's Hindī *Janma lagna evaṃ navagraha*, published by the Kīskindhā Samsthāna at Dillī in 1987; and the front of the cover jacket of Rāmasvarūpa's edition of the *Grahalāghava* of Gaṇeśa, published by the Śrīveṅkaṭeśvara Steam Press at Bombay in 1987.

<sup>1</sup> See the forthcoming vol. II of my *Picatrix. The Latin Version of the Ghāyat al-Hakīm*, of which vol. I is *Studies of the Warburg Institute*, xxxix, London 1986.

<sup>2</sup> Many of the *jyotiṣa* manuscripts are and will be listed in my *Census of the Exact Sciences in Sanskrit* (hereafter *CESS*), series A, vols I ff., Philadelphia 1971 (4 vols to date); a rough description of a thousand manuscripts is D. Wujastyk, *A Handlist of the Sanskrit and Prakrit Manuscripts in the Library of the Wellcome Institute for the History of Medicine*, I, London 1985. The manuscript of interest to us is no. 208 in this handlist, with shelf-mark α 721.

<sup>3</sup> *CESS* A ii, 36b-39a; A iii, 20a; A iv, 52a-52b; and A v, I have used the edition published by Ṭhākura-prasāda and Sons, Vārānasi [n.d.].

<sup>4</sup> *Lagnacandrikā*, beginning of *pariccheda* 3 (pp. 90-97).

*Narapatijayacaryā* which he composed in Anahillapattana in 1177.<sup>5</sup> The human figure is of course totally unnecessary for this procedure; it merely illustrates it. The operative variable is the motion of the planet through the *nakṣatras*. More importantly, it is the figure of a human—the native—that the text describes, not the planet. The person who commissioned the artist to do his work completely misunderstood the meaning of the text; a second, fragmentary example which we will consider later will show that he was not alone in this kind of misunderstanding. The artist also, as we shall see, was not immune from blunders.

It is my intention first, however, to trace a rather broad outline of the development of planetary iconography in India and its relationship to the talismans of astral magic, in order to clarify the sources drawn upon by the artist of the *Lagnacandrikā* manuscript, though I cannot entirely explain his pictures. In the process I will, I hope, demonstrate that the historical development of the iconography of the planets was far more complex than was imagined long ago by Fritz Saxl.<sup>6</sup>

Though Sūrya, the Sun-god, enjoyed an ancient Vedic description, and though his temples from the time of the Guptas were adorned with images of him clothed in Iranian style, astral iconography in general in India begins with the introduction of an illustrated Greek manuscript on astrology from Egypt. This was translated into Sanskrit as the *Yavanajātaka* by Yavaneśvara in A.D. 149/150 in the territory of the Western Kṣatrapas, whose capital was Ujjayinī. From the pictures illustrating that papyrus roll, interpreted as if they were depictions of Śiva and his consort, Pārvatī, in several of their manifestations, rather than the Hellenistic Egyptian *Dekanoi*, originated the Indian iconography of the *Drekāṇas* and *Horās*. Through Sasanian and Arabic intermediaries, this iconography journeyed back to medieval Europe, eventually to adorn the walls of the Palazzo della Ragione at Padua and the Palazzo Schifanoia in Ferrara.<sup>7</sup> And from the verbal descriptions of the zodiacal signs in the versification of the *Yavanajātaka* made by Sphujidhvaja in A.D. 269/270 descended the traditional Indian representations of the twelve rāśis.<sup>8</sup>

The *Yavanajātaka* also contains verbal descriptions of the seven planets—descriptions which became a standard feature of Sanskrit texts on *jātaka* or genethliology.<sup>9</sup> But these planetary images were derived not from the Greek tradition of pictorial representations of the planetary gods themselves, but from the delineations in astrological treatises of the physical and psychological features of the natives born under those gods' influences. Moreover, so far as I am aware, these descriptions of the planets, though they have been sedulously repeated by Indian genethliologists down to the present day, have never been realized in visual representations. They are claimed to characterize the appearance of the planets, but no one has ever deemed it appropriate to draw, paint or sculpt them.

<sup>5</sup> CESS A iii, 137a-142a; A iv, 122b-123b; and A v. I have used the Śrīveṅkaṭeśvara edn, Mumbai 1934; the *Śanicakra* is on p. 208.

<sup>6</sup> F. Saxl, 'Beiträge zu einer Geschichte der Planetendarstellungen im Orient und im Okzident', *Der Islam*, iii, 1912, pp. 151-77.

<sup>7</sup> D. Pingree, 'The Indian Iconography of the Decans and Horās', this *Journal*, xxvi, 1963, pp. 223-54.

<sup>8</sup> *Yavanajātaka* 1, 14-25 in D. Pingree, *The Yavanajātaka of Sphujidhvaja*, Harvard Oriental Series, xlviii, 2 vols, Cambridge Mass. 1978; for the relationship of Sphujidhvaja's zodiacal iconography to the Greek and Indian traditions see *ibid.*, ii, pp. 195-99.

<sup>9</sup> *Yavanajātaka* 1, 123-136; see D. Pingree, 'Representation of the Planets in Indian Astrology', *Indo-Iranian Journal*, viii, 1965, pp. 249-67.

The *Yavanajātaka*, however, does present other material that has contributed to the images of the planets in India. The most direct contribution lies in its correlations of the planets with various colours,<sup>10</sup> directions<sup>11</sup> and substances;<sup>12</sup> for the images of the planets made for worship or propitiation were often, as we shall see, composed of those substances, coloured with those colours, and established in those directions. Thus Sphujidhvaja associates the planets with the following colours, all of which were fairly standard in Greek astrology: the Sun with coppery red, the Moon with silver, Mars with red, Mercury with green, Jupiter with yellow, Venus with white, and Saturn with black. But his assignation of the four cardinal directions to the planets—the east to the Sun and Venus, the south to Mars, the west to the Moon and Saturn, and the north to Jupiter and Mercury—was superseded by another, but derivative system already in the early fourth century, in an expansion of the *Yavanajātaka*, the *Vṛddhayavanajātaka* of Mīnarāja.<sup>13</sup> Mīnarāja assigns the east to the Sun, the south-east to Venus, the south to Mars, the south-west to Rāhu (that is, to the Moon's ascending node), the west to Saturn, the north-west to the Moon, the north to Mercury, and the north-east to Jupiter. This system, which imitates the Indian theory of the eight *dīkṣpālas* or protectors of the directions, plays an important role in the ritualistic arrangement of images of the planets in cosmological *maṇḍalas*, as we shall see.

Sphujidhvaja names various substances that are ruled by each planet; another writer of perhaps the fourth century, Bādarāyaṇa, in close imitation of other Greek sources translated into Sanskrit, gives a list of planetary metals rather different from the *Yavanajātaka*'s:<sup>14</sup> the Sun rules copper, the Moon jewels, Mars gold, Mercury an alloy, Jupiter silver or gold, Venus pearls, and Saturn lead. These planetary metals are those usually named by subsequent Indian astrologers, though they substitute iron for Saturn's lead. The metals also correspond to some extent to those out of which the statues of the planets are made in some ritual traditions.

These rituals constitute an area in which Sphujidhvaja made another direct contribution to the formation of traditions of visual representations of the planets in Indian art. For he recommended that a victorious king, upon returning to his capital after defeating his enemies, should worship the planets and sacrifice to their *devas* or gods.<sup>15</sup> He names the following *devas*: Fire (Agni) for the Sun; Water (Varuṇa) for the Moon; Skanda (more or less equivalent to Ἄρης) for Mars; Viṣṇu for Mercury; Mahendra (who occupies on Mt Meru Ζεύς's pre-eminence on Mt Olympus) for Jupiter; Devī ('the Goddess') for Venus—and, as the Indian planet Śukra is masculine, Devī clearly reflects the femininity of Ἀφροδίτη; and Prajāpati (the closest Indian equivalent to Κρόνος) for Saturn. These *devas*, as we shall see, contributed their *vāhanas* or mounts to one tradition of Indian planetary iconography and to Islamic and Western European magical images.

The rituals of *grahapūjā*—the worship of the planets—recommended by Sphujidhvaja are described in detail, also in the context of the celebration of a

<sup>10</sup> *Yavanajātaka* 1, 120; see vol. ii, pp. 245–50 of the edn.

<sup>11</sup> *Yavanajātaka* 1, 66–67; see vol. ii, pp. 223–27 of the edn.

<sup>12</sup> *Yavanajātaka* 4, 25–34; see vol. ii, pp. 253–59 of the edn.

<sup>13</sup> *Vṛddhayavanajātaka* 2, 11, ed. D. Pingree, *The Vṛddhayavanajātaka of Mīnarāja*, 2 vols, Gaekwad Oriental Series, clxii–iii, Baroda 1976.

<sup>14</sup> Quoted in *Yavanajātaka*, ii, p. 256.

<sup>15</sup> *Yavanajātaka* 77, 1; see ii, pp. 404–05 of the edn.

military victory, in the *Bṛhadyātrā*<sup>16</sup> and, less elaborately, in the *Yogayātrā*,<sup>17</sup> both composed by Varāhamihira at Ujjayinī in the middle of the sixth century. The elements of *grahapūjā*, according to the *Bṛhadyātrā*, include the metals or other substances out of which the images of the planets are to be made, the wood used as a fuel in the sacrificial fire, the kinds of incenses or perfumes and flowers to be employed, the food to be fed to the officiating Brāhmaṇas, the *dakṣiṇā* or fee to be paid to them, and the *mantras* that they must mutter. For our purposes at present it is useful only to consider the substances out of which the worshipped images are to be made; unfortunately, Varāhamihira says nothing about their forms. Following the astrological tradition of Bādarāyaṇa and his followers in the cases of Saturn, Jupiter, the Sun and Mercury, Varāhamihira instructs that the images be made thus: the Sun of copper, the Moon of crystal, Mars of red sandalwood, Mercury of bronze, Jupiter of gold, Venus of silver, Saturn of lead, Rāhu of lead, and Ketu, the Moon's descending node, of brass. Whenever freestanding statues of the gods were made in India, to be worshipped in accordance with the ritual outlined in the *Bṛhadyātrā*, the materials out of which they were formed were those recommended by Varāhamihira.

Moreover, at least one of Varāhamihira's works on military astrology was available in the eighth century to the Syrian astrologer, Theophilus of Edessa, who acted as adviser on his campaigns to the Caliph al-Mahdī;<sup>18</sup> Theophilus also repeats Sphujidhvaja's lists of substances controlled by the planets and the zodiacal signs,<sup>19</sup> lists which, in expanded form, were utilised later by those Ḥarrānians who developed astral magic in the ninth century and which appear in the *Ghāyat al-ḥakīm*<sup>20</sup> and its Latin derivative, the *Picatrix*.<sup>21</sup> We shall see that more than texts travelled from India to Syria and beyond.

But let us first return to India to trace the traditions of *grahapūjā*. The earliest texts describing the rituals are some Vaiṣṇava *Gr̥hyasūtras*—that is, rules for domestic rituals—that originated in, perhaps, the fourth or fifth century A.D. The first of these for us to consider is the *gr̥hya* portion of the *Smārtasūtra* of the Vaikhānasas,<sup>22</sup> at present a small group in Tamilnādu who still worship the planets as their fundamental *sānti* ritual. A *sānti* ritual is designed to avert the evils predicted by diviners. Like the Babylonian *namburbi* rituals upon which they seem to have been modelled, they were originally employed as counterfoils to terrestrial, atmospheric and celestial omens, but by the time of the *Vaikhānasasmārtasūtra* they were utilised to prevent adverse planetary influences from disrupting the effectiveness of the principal sacrifices. Despite this different function, the Vaikhānasa ritual of *grahasānti* is remarkably similar in most respects to Varāhamihira's triumphant *grahapūjā*; several other features come from the purely

<sup>16</sup> *Bṛhadyātrā* 18 in D. Pingree, *Bṛhadyātrā*, (*Yakṣyeśva-medhīdam*) of Varāhamihira, Madras 1972.

<sup>17</sup> *Yogayātrā* 6 in D. Pingree, unpublished edn; see ii, p. 401 of the edn of the *Yavanajātaka*.

<sup>18</sup> D. Pingree, 'The Indian and pseudo-Indian Passages in Greek and Latin Astronomical and Astrological Texts', *Viator*, vii, 1976, pp. 141–95, esp. pp. 145–49.

<sup>19</sup> A. Ludwich, *Maximi et Ammonis Carminum de actionum auspiciis reliquiae*, Leipzig 1877, pp. 119–22; see D. Pingree, 'Some of the Sources of the *Ghāyat*

*al-ḥakīm*', this *Journal*, xliii, 1980, pp. 1–15, esp. p. 6 n. 45.

<sup>20</sup> ed. H. Ritter, *Studien der Bibliothek Warburg*, xii, Leipzig-Berlin 1933; German translation by H. Ritter and M. Plessner, *Studies of the Warburg Institute*, xxvii, London 1962.

<sup>21</sup> See n. 1 above.

<sup>22</sup> *Vaikhānasasmārtasūtra*, iv, pp. 13–14, ed. W. Caland, *Bibliotheca Indica*, ccxlii, Calcutta 1927; transl. W. Caland, *Bibliotheca Indica*, ccli, Calcutta 1929.

astrological tradition. Related to the *grahapūjā* are the Vaikhānasas' flowers, foods, fuel-sticks, *mantras* and *dakṣiṇā*-fees for the Brāhmaṇa priests. From the astrologers come the colours of the planets and their directions, with some modifications (in the Vaikhānasa ritual the image of the Sun is in the central position with an image of one of the other eight planets in each cardinal and intermediate direction, so that the whole arrangement forms a *maṇḍala* or sacred circle). Also from the astrologers came the Vaikhānasas' list of *adhidevatās* or deities who preside over the planets, though Rudra—that is Śiva—replaces Skanda as Mars's deity and Venus's Devī is interpreted as being Indra's wife, Śacī; and Rāhu and Ketu, added to Sphujidhvaja's seven, are presided over by Śeṣa and Yama.

What the *Vaikhānasasmārtasūtra* has added is a set of geometrically shaped pedestals on which the statues of the planets are to be placed: the Sun's on a square, the Moon's on a circle, Mars's on one shaped like a cardamon (a quadrilateral with curved sides), Mercury's on a triangle, Jupiter's on an octagon, Venus's on one shaped like a half-moon, Saturn's on a diamond, Rāhu's on one having the form of a staff, and Ketu's on one like a banner. These pedestals, as we shall see, are of extraordinary importance in the history of planetary worship; for the moment we must only regret that the *Vaikhānasasmārtasūtra* does not describe the statues that were set upon them.

Almost the same *grahapūjā* rituals are described in another early Vaiṣṇava text, the *Āgniveśyagr̥hyasūtra*,<sup>23</sup> also followed by just a handful of families in Tāmilnādu today. The only differences are that the Āgniveśyas do not name the deities presiding over the planets, and that their pedestals are of different geometrical shapes. Thus the Vaikhānasas' square pedestal for the Sun and circular for the Moon are interchanged, Mars's becomes a triangle, Mercury's is shaped like an arrow, Jupiter's is an oblong, Venus's a pentagon, Saturn's takes on the form of a bow and Rāhu's that of a winnowing basket, while Ketu's retains the shape of a banner. It is clear, therefore, that variation with regard to the forms of the pedestals was quite normal within the Indian tradition, as will also be the case when we investigate outside India.

A ritual text from South India somewhat younger than those of the Vaikhānasas and of the Āgniveśyas, the *pariśiṣṭa* or appendix to the *Āśvalāyanagr̥hyasūtra*,<sup>24</sup> repeats the *adhidevatās* of the *Vaikhānasasmārtasūtra*, though with the Earth replacing Rudra as Mars's *adhidevatā* in accordance with the astrological myth that the planet is Earth's son, and with the Sarpās or snakes and Brahmā being introduced as the new deities of Rāhu and Ketu. The Āśvalāyanas also give a set of *pratyadhidevatās* or co-presiding deities: Rudra (Śiva) for the Sun; Gaurī, Śiva's wife, for the Moon; Skanda for Mars, as in Sphujidhvaja's list of *devas*; Puruṣa (Prajāpati) for Mercury; Brahmā for Jupiter; Indra (rather than his wife) for Venus; Yama for Saturn; Kāla for Rāhu; and Citragupta for Ketu. Again in the *Āśvalāyanagr̥hyasūtrapariśiṣṭa* there is no further indication of what the statues of the planets looked like. But Pl. 1a-c<sup>25</sup> illustrates some modern statuettes of the planets worshipped in

<sup>23</sup> *Āgniveśyagr̥hyasūtra*, beginning of *adhyāya* 5, pp. 76–78 in the edn by L. A. Ravi Varma, Trivandrum Sanskrit Series cxliv, Trivandrum 1940.

<sup>24</sup> *Āśvalāyanagr̥hyasūtrapariśiṣṭa* xxvii, ed. K. Parameswara Aithal, Madras 1964.

<sup>25</sup> From T. A. Gopinatha Rao, *Elements of Hindu Iconography*, i, Madras 1914, opposite p. 323.

the Sun Temple at Sūryanārkoyil near Tanjore; in the temple itself the Sun's image is normally at the centre of the shrine while those of the other planets surround him in a *maṇḍala*.

The oldest figures of the planets that we have from India date from the late Gupta period—that is from the fifth or sixth century A.D. These are sculptures on lintels, usually placed over the doorways to the inner sancta of temples, and they continue to be used, especially in North India, down to the present time.<sup>26</sup> These sculptures are not at all similar to the planetary statues erected on geometrical pedestals in Vaiṣṇava temples. The earliest surviving complete panel (Pl. 1d),<sup>27</sup> probably from Mathurā but now at the Worcester Art Museum, shows only eight figures, as was normal in such early examples; Ketu is omitted. The first of the seven standing figures on the left represents the Sun holding lotuses in his upraised hands and wearing a long garment and boots in the typical northern style of his images, influenced by Iranian dress; there follow the Moon, Mars, Mercury, Jupiter, Venus and Saturn, each wearing a garment shorter than the Sun's and with his right hand raised in *abhayamudrā* and his left holding a pot. Rāhu is shown as the upper part of a demon—a rather benevolent-looking demon in this rendition—with his hands cupped in *karapuṭa*. Some literary descriptions of the *navagrahas* depicted in such panels ascribe different attributes to each of the six *grahas* following the Sun that here look so similar, and some sculptures from North India follow those prescriptions. But it is sufficient for our purposes now to note that this tradition, except for the convention of representing Rāhu by his head in memory of the ancient story of the churning of the ocean, has no direct bearing on our manuscript illustrations.

However, by the eleventh century stone *navagraha* panels began sometimes to depict the *vāhana* or mount, not of the *graha* himself, but of his *adhidevatā* or *pratyadhidevatā*. The example I have chosen (Pl. 1e) was found in excavations of a rampart wall built at Antichak near Bhagalpur in Bihar in the fourteenth century; the fortification incorporated as building material stones taken from the nearby Buddhist *mahāvihāra* of Vikramaśīla that had been destroyed by the Muslims in about 1200.<sup>28</sup> This panel in its upper course contains all nine *grahas* with haloes—the Sun, the Moon, Jupiter, Venus and Rāhu essentially as in the Worcester lintel, but Mars with a *gada* or club in his left hand; Mercury with, probably, a *khadga* or sword in both hands; Saturn limping and holding a *daṇḍa* or staff with an unusual top in his left hand; and Ketu as a sort of merman. The course below displays the *vāhanas* of the associated deities—note that the *grahas* are not themselves riding on them. These *vāhanas* are: a horse for the Sun, one of the seven who drew the chariot of Sūrya, the Sun-god; for the Moon a *makara* or sea-monster, the *vāhana* of Varuṇa; for Mars a peacock, the mount of Skanda; for Mercury what is, perhaps, a ram, the *vāhana* of Sarasvatī; for Jupiter a bird, which may be intended to be a goose, the mount of Brahmā; for Venus a frog, which is no deity's *vāhana* but which

<sup>26</sup> The best description of a large number of these panels is D. Mitra, 'A Study of Some *Graha*-images of India and their Possible Bearing on the *Nava-Devās* of Cambodia', *Journal of the Asiatic Society*, 4th series, vii, 1965, pp. 13–37.

<sup>27</sup> A. Coomaraswamy in *Rupam*, xviii, 1924, pp. 67–68; *Yavanajātaka*, ii, frontispiece.

<sup>28</sup> *Indian Archaeology 1979–80—A Review*, New Delhi 1983, pp. 12–13 and pl. VIIA.

is noted for its lasciviousness; for Saturn what should be a buffalo, the *vāhana* of Yama; for Rāhu the wheels of a chariot; and for Ketu what may be a snake representing the Sarpās. These *adhidevatās* are not in all cases identical with those of Sphujidhvaja and of the Vaiṣṇava ritual texts; nor is any of these lists in all cases the same as the lists of *adhidevatās* and of *pratidevatās* included by Śrīpati in the *Jyotiśaratnamālā*<sup>29</sup> which he composed in Mahārāṣṭra in the 1040s, more or less contemporaneously with the carving of the Vikramaśīla panel. As in the case of the geometrical pedestals, variation prevails in the details of this Indian tradition.

However, there does exist one text which in almost all particulars concerning the five star-planets parallels the Vikramaśīla panel. This is a gigantic treatise on architecture, the *Aparājitapracchā* composed by Bhuvanadeva in southern Mahārāṣṭra in the late twelfth century.<sup>30</sup> According to this authority, the Sun's chariot is drawn by seven horses and the Moon's by ten; Mars has a ram, Mercury a peacock, Jupiter a goose, Venus a frog and Saturn a buffalo, while Rāhu is in the middle of a pot.

A slightly different tradition was certainly known at Vikramaśīla itself. For in that monastery, in the early twelfth century, a Buddhist monk named Abhayākara Gupta wrote a description of twenty-six *maṇḍalas* in a book entitled *Niṣpannayogāvalī*.<sup>31</sup> The twenty-first of these sacred circles is called the *Dharmadhātuvāgīśvaramaṇḍala*, which basically consists of four concentric circles of images of deities surrounding a central representation of the Bodhisattva Mañjughoṣa; beyond the fourth circle are seven groups of images, among which are those of the twenty-eight *nakṣatras* and of the nine planets. I translate his descriptions of the *navagraha* images:<sup>32</sup>

The Sun is red, in a seven-horse chariot, holding discs of the Sun on a lotus in his right and left hands.

The Moon is white, on a goose, holding discs of the Moon on a lotus in his right and left hands.

Mars is red, on a goat, holding a dagger in his right hand and a human head in his left, in the act of eating it.

Mercury is yellow, on a lotus, carrying a bow and arrow.

Jupiter is yellow, on a frog or a begging bowl, carrying a string of beads and a jar.

Venus is white, on a lotus, carrying a string of beads and a jar.

Saturn is black, on a tortoise, bearing a staff.

Rāhu is red-black, carrying the Sun and the Moon in his right and left hands.

Ketu is black, bearing a sword and a snare.

This text, in transferring Venus's frog to Jupiter and Jupiter's (or rather Brahmā's) goose to the Moon, demonstrates that the iconographic tradition of the *navagrahas* in India was far from uniform, even in the same spot (in this case Vikramaśīla). It also furnishes some new and different images, especially of Mars and of Saturn, which are of great interest because of their relations to some planetary images engraved on Arabic and Western European talismans. It is not possible at present to determine how much older than Abhayākara these images were in India, but it is most likely that he took them from a tradition of *tantric* magic that, like the

<sup>29</sup> *Jyotiśaratnamālā*, iii, 1, ed. V. Vāsiṣṭha, Jammu 1978.

<sup>30</sup> *Aparājitapracchā* ccxiv, pp. 17–19, ed. P. A. Mankad, Gaekwad's Oriental Series, cxv, Baroda 1950.

<sup>31</sup> *Niṣpannayogāvalī*, ed. B. Bhattacharyya, Gaekwad's Oriental Series, cix, Baroda 1949.

<sup>32</sup> *ibid.*, pp. 62–63.

astrological and *grahaśānti* traditions to which we have already alluded, influenced the Ḥarrānians when they invented astral magic in the ninth century.<sup>33</sup>

This astral magic, employing talismans entered into by the spirits of the celestial bodies, especially those of the planets, was used for private manipulations, but grew out of the older practice of public worship of the planets followed most notably by the self-styled Sabaeans of Ḥarrān, though in some respects these rituals seem to be descended from Babylonian prototypes. The talismans are made out of the planets' metals, which are not the same as those of Bādarāyaṇa or Varāhamihira, but rather are borrowed from Greek alchemy: Saturn's talisman is made of lead, Jupiter's of tin, Mars's of iron, the Sun's of gold, Venus's of copper, Mercury's of an alloy such as bronze, and the Moon's of silver. These are the same materials that were used in making the statues worshipped in the temples at Ḥarrān.<sup>34</sup>

On the talisman was engraved, at an astrologically propitious moment, an image of the planet. The descriptions of these images vary considerably from one magical text to another; five separate authorities, for instance, are quoted in the *Ghāyat al-ḥakīm*,<sup>35</sup> whose Latin version appears under the name of one of them, *Picatrix*.<sup>36</sup> But some are strikingly close to some of the Indian images. For instance, the *Ghāya* quotes 'Uṭārid (that is Mercury, who equals Hermes) as describing the image of Saturn as a man standing upright holding a fish in both hands above his head and with a lizard beneath his feet;<sup>37</sup> in an illustration of this figure in Paris, Bibliothèque Nationale, MS arabe 2775, fol. 79 (Pl. 1f) a tortoise (if it is not indeed an extremely distorted lizard) takes the place of the lizard, and we have essentially the image of Saturn described by Abhayākara Gupta save that the Buddhist monk had him holding a staff rather than a fish. More striking is an image of Jupiter depicted on fol. 80 of the same manuscript (Pl. 1g), wherein the bird is exactly identical with that on which Mercury rides in the *Lagnacandrikā* manuscript. This bird might be inspired by the goose which is the *vāhana* of Brahmā, one of Jupiter's *adhīdevatās*, or the mythical *garuda*-bird, which is the mount of Viṣṇu, Mercury's deity according to Sphujidhvaja. It does not seem to be the more normal western eagle of Jupiter, on which he sits in another illustration, on fol. 88<sup>v</sup> of the Paris manuscript (Pl. 1h).

This last image illustrates the figure given in the *Ghāya*'s fourth source, which is ascribed simply to 'others'.<sup>38</sup> From the same book of the 'others' the author of the *Ghāya* copies a description of an image of Mars that is strikingly like that in Abhayākara Gupta's *Niṣpannayogāvalī*; it is a man riding on a lion and holding a sword in his right hand, the head of a man in his left.<sup>39</sup> The next plate (Pl. 2a) shows a crude drawing of this image found in the undated Cairo imprint of the first two books of the *Ghāya*.<sup>40</sup> These magical images of Mars differ from the Buddhist

<sup>33</sup> D. Pingree, 'Some of the Sources of the *Ghāyat al-ḥakīm*', this *Journal*, xliii, 1980, pp. 1–15.

<sup>34</sup> A treatise concerning these temples, the *Kitāb fī buyūt al-'ibādāt*, had been written in the ninth century by Abū Ma'shar; see D. Pingree, article on Abū Ma'shar in *Dictionary of Scientific Biography*, i, New York 1970, pp. 32–39, esp. p. 39, work no. 37. Something is said about their planetary statues in the *Ikhwān al-Ṣafā'*. See Y. Marquet, 'Sabéens et Ikhwān al-Ṣafā'', *Studia Islamica*, xxiv, 1966, pp. 35–50, and xxv, 1966, pp. 77–109, esp. xxiv, pp. 44–45. But our main sources remain al-

Mas'ūdī, *Murūj al-dhahab*, ed. M. M. 'Abd al-Ḥamīd, 4 vols, Cairo 1945, ii, pp. 247–51, and al-Dimashqī, *Nukhbat al-dahrī*, 10, ed. A. Mehren, repr. Leipzig 1923.

<sup>35</sup> *Ghāyat al-ḥakīm* ii, 10.

<sup>36</sup> *Picatrix*, ii, x, pp. 10–38.

<sup>37</sup> See pl. 3, upper right, in the edn of the *Picatrix*.

<sup>38</sup> See pl. 4, lower right, in the edn of *Picatrix*; cf. also the image in the upper right, taken from Beylus.

<sup>39</sup> See pl. 5, upper right, in the edn of *Picatrix*; see also this *Journal*, xlv, 1981, pl. 2b, top (without the head).

<sup>40</sup> *Ghāyat al-ḥakīm*, ed. M. Naṣār, Cairo [n.d.], p. 60.

image in that there Mars sits on a goat, the *vāhana* of Agni, the god of fire and Mars's deity according to Sphujidhvaja, and is in the act of eating the head. Another similarity between the *Ghāya*'s planetary images and those of India involves that of Mercury, again according to the book of the 'others'; in this image the planet is represented by a warrior riding on a peacock, but holding a pen and paper;<sup>41</sup> the first part of this composite figure, the warrior on a peacock, is clearly Mars riding on the *vāhana* of his *adhidevatā*, Skanda. Moreover, according to Hermes's *Book of the Seven Planets*, also cited by the *Ghāya*,<sup>42</sup> the Moon rides on a rabbit, the animal commonly associated with that luminary by the Indians; in the illustration accompanying the Spanish version of the Pliny text in MS Vat. Reg. lat. 1283, fol. 21, a product of the court of Alfonso X el Sabio, the Moon is also depicted riding on a rabbit.<sup>43</sup>

There is, then, a real connection between the Indian planetary images, with their *vāhanas*, and at least a part of the Arabic and Western tradition, as there is also a similarity between the rituals of suffumigation, investment and invocation that induce the planetary spirit to enter the talisman in astral magic, and the perfumes, investments and *mantras* that accompany the *grahaśānti* rituals of the Vaiṣṇavas; these elements, however, are also found in the Babylonian prayers to the planets and constellations, and it is not yet proved that the Harrānians derived them from India. The connection between India and Harrān, however (though Harrān was certainly also a city, if any, in which Babylonian traditions might well have survived), is confirmed by the descriptions by al-Mas'ūdī and al-Dimashqī of the planetary temples in the Syrian city and the images they housed, taken together with the rituals and prayers to the planets quoted from al-Ṭabarī by the author of the *Ghāya*.<sup>44</sup>

The most noteworthy features of the temples were the geometrical shapes of their bases, though the two authorities do not always agree on their forms; nor do the several Vaiṣṇava traditions of geometrical pedestals, with which clearly the Harrānian temples must be compared. But both al-Mas'ūdī and al-Dimashqī state that the base of the Sun's temple was a square, as is his pedestal in the ritual of the Vaikhānasas. The base of the Moon's temple was an octagon according to al-Mas'ūdī, a pentagon according to al-Dimashqī; perhaps this uncertain form was an approximation to the Vaikhānasas' circle. Both Arab authorities describe the base of the temple of Saturn as a hexagon; the Vaikhānasas placed Saturn's image on a pedestal having the form of a diamond. Again, both Arabs agree that the base of Jupiter's temple was a triangle; the Indian pedestal was an octagon. The base of the temple of Mars was an oblong according to al-Mas'ūdī, a rectangle according to al-Dimashqī, both of which correspond to the quadrilateral pedestal of the Vaikhānasas. Venus's temple was placed on a triangle on a square in al-Mas'ūdī's description, on an elongated triangle in al-Dimashqī's; the Vaikhānasas place Venus's image on a pedestal shaped like a half-moon. Finally al-Mas'ūdī states that Mercury's temple-base was a triangle on an oblong, al-Dimashqī that it was a hexagon on a square; the first at least reminds one of the triangular pedestal assigned to Mercury's image by the Vaikhānasas. The variations in shapes within

<sup>41</sup> See pl. 8, lower right, in the edn of *Picatrix*.

<sup>42</sup> *Ghāya*, p. 161; *Picatrix*, III, iii, 10.

<sup>43</sup> This *Journal*, xlv, 1981, pl. 2a, centre.

<sup>44</sup> *Ghāya*, pp. 195–228; *Picatrix*, III, vii.

and between the Indian and the Ḥarrānian traditions may be due to divergent systems of geometric symbolism; but there are sufficient similarities that, taking them with the other pieces of evidence of Indian influence at Ḥarrān, one may hypothesize that the Ḥarrānian idea of placing the temples of the planets on bases of different shapes was inspired by the Vaiṣṇava pedestals.

When one reads al-Dimashqī's descriptions of the interiors of the Ḥarrānian temples, the impression of an Indian influence is vastly increased. On the wall of the temple of Saturn was a representation of the deity as an old, black Indian holding an axe in one hand; and, according to al-Dimashqī, Māshān the Indian had built a temple to Saturn at Sindān (presumably Sanjān near Bombay) to which the Sabaeans made pilgrimages. These two statements indicate clearly that al-Dimashqī's informants acknowledged a direct connection between Ḥarrān and India. In this matter it is instructive to note that Abū Ma'shar believed that Būdhāsaf—the Bodhisattva—was a Sabaeon who fled from Babylon to India,<sup>45</sup> and in the *Ghāya*<sup>46</sup> the Ḥarrānian ritual for preparing the speaking ram's head is attributed to Barthīm the Brāhmaṇa. More immediate is the fact that one of the depictions of Saturn on the walls of his temple at Ḥarrān showed him as a king seated on an elephant and surrounded by cows and buffaloes, an image that strongly evokes India though the elephant is the *vāhana* of Indra, who is not known to have been an *adhidevatā* of Saturn. We shall, however, soon consider a late Sanskrit *mandala* in which Saturn is represented as riding on an elephant. Even more convincing is the fact that in the Ḥarrānian temple of Mars was an iron statue of that god holding a sword in one hand and a head in the other, an image that connects this temple both with Abhayākara Gupta's *tantric* tradition and with the talismans described in the book of the 'others' cited in the *Ghāyat al-ḥakīm*.

Unfortunately, al-Dimashqī does not describe the idols of the other planets, but some details of the sacrifices that he reports correspond to elements of the rituals of *grahaṭpūjā*. The Ḥarrānian priests wore garments of the colour pertaining to the planet they were worshipping; the Vaiṣṇavas invest the planetary image with clothes of its colour. And the Ḥarrānian priests carried branches of the planet's tree or bush, while the Indians made offerings of the planet's flowers and kindled the sacrificial fire with twigs from its tree.

Admittedly, the use of coloured garments and certain trees or flowers might be regarded by the sceptical as independent developments, but the same cannot be argued concerning one other aspect of the private prayers offered by the Sabaeans to the planets as recorded by al-Ṭabarī. For an essential part of these prayers is the invocation of each planet by its names in Arabic, Persian, 'Roman' and Indian. The Indian names are indeed Arabic transliterations of Sanskrit names of the planets: Shanashar for Śanaīścara (Saturn), Wahasfaṭ for Brhaspati (Jupiter), Anjārā for Aṅgāra (Mars), Ārasa for Aditya (the Sun), Surqa for Sukra (Venus), Budha for Budha (Mercury), and Sawma for Soma (the Moon). These Sanskrit names conclusively prove that the Ḥarrānians were influenced by India in their planetary worship; I have indicated above other aspects of their ritual that may have had an Indian origin or have been inspired by Indian practice. I have also shown that some

<sup>45</sup> D. Pingree, *The Thousands of Abū Ma'shar*, Studies of the Warburg Institute, xxx, London 1968, p. 16.

<sup>46</sup> *Ghāya*, p. 228; *Picatrix*, III, vii, p. 40.

of the planetary images utilised in the astral magic that originated in Ḥarrān were also modelled on Indian prototypes; and that the Ḥarrānian tradition, primarily through the *Picatrix*, is the basis of the astral magic practised in Europe from about 1250 till 1750, and of its talismans.

Now we must return to the images of the planets in the *Lagnacandrikā* manuscript, which seem to be a mixture of the older Indian traditions of images of the *navagrahas* with the images of astral magic evidently transmitted to India by some Iranian intermediaries. A fragment of a roll of the eighteenth century preserved in the Vyāsa Collection now in the Indian Institute Library at Oxford provides the only parallel to the *Lagnacandrikā*'s use of planetary images to illustrate a text, though the Oxford roll has a different text (on planetary influences, but not yet identified) and quite different pictures. The first image (Pl. 2b) shows Saturn as a four-armed black man seated on a bird; his attributes are a bow, perhaps a noose, and a trident. The next (Pl. 2c) shows Rāhu as a black head on a dog-like animal. And the third and last picture on this fragment (Pl. 2d) displays Ketu as a merman holding a flag. All three of these pictures are eclectic, but firmly within the Indian tradition of planetary iconography.

Much closer to the individual *Lagnacandrikā* illustrations are those in a *maṇḍala* published by Sir William Jones in 1790 (Pl. 3a).<sup>47</sup> He knew concerning its origin only that it was brought to Bengal by a Mr Johnson, who is presumably Richard Johnson, a founding member of the Asiatic Society of Bengal whose manuscripts were purchased by the East India Company in 1807. The *maṇḍala* is presumably now in the collections of the India Office Library.

Clearly this is in conception an unexceptional Indian cosmographic *maṇḍala* with the zodiacal signs in the outer circle, the earth in the centre, and the planets in between. In the middle of the earth is Sumeru, the mountain above which the Indians imagine the North Pole to be, and around the oval equator are the four cities of the cardinal directions: Laṅkā to the south on the right, Romaka (i.e. Rome) to the west on the bottom, Siddhapura to the north, and Yamakoṭi to the east. But when one looks at the details, the Iranian influence becomes clear. Above Yamakoṭi the Sun is depicted twice. In the upper representation he is seated on a lion; this is an Iranian representation of the constellation Leo, not an Indian *vāhana*; it reminds one of the lion sigil with which Arnauld of Villanova cured Pope Boniface VIII of the stone in July 1301. But in the lower depiction he rides in a chariot drawn by a single horse with seven heads, a curious abbreviation of the normal seven horses of the Indian tradition. To the south-west is Venus, as a woman (Iranian) rather than a man (Indian), riding on a camel and apparently carrying her Western attributes, a mirror and a comb. To the south is Mars riding a horse and holding a sword in his right hand. To the south-east is a head on a frog; the head should be Rāhu, but it is labelled Ketu; the frog, of course, is Venus's Indian *vāhana*. To the west are two planets, crowded in so that all nine may be included. First is Saturn on an elephant, the *vāhana* that he rode in the depiction on the wall of his temple in Ḥarrān; the second is the Moon on a deer, a mount presumably inspired by the Sanskrit conventional epithet of the Moon, *mygāṅka*, which can be

<sup>47</sup> W. Jones, 'On the Antiquity of the Indian Zodiac', *Asiatick Researches*, ii, 1790, pp. 289–306.

understood to mean ‘having the mark of a deer’. To the north-west is Mercury on an eagle, which one would expect to be under Jupiter. To the north is a headless man holding a lance and standing on what may be a dog; it should be Ketu, but is labelled Rāhu. Finally, to the north-east is Jupiter holding a book and riding a sort of equine creature that may be an ass, the *vāhana* of Cāmuṇḍā. Some of the iconography of the planets in this *maṇḍala*, therefore, is derived from the West, and was probably transmitted to India by Iranian texts on astral magic; some of it is Indian; and some is simply obscure. But the overall arrangement, despite the confusion between Rāhu and Ketu, is entirely Indian.

Much the same can be said for the planetary iconography of the *Lagnacandrikā* manuscript, including even the confusion between Rāhu and Ketu. Let us now consider the *Lagnacandrikā* pictures in order—noting that that order is the one traditionally given to the nine *grahas* in India.

The Sun (Pl. 3b) is a rayed and haloed face on a white horse. The face is not Indian, but Persian; one finds similar representations of both the Sun and the Moon in Iranian and Arabic illustrated astrological and magical manuscripts; one example is the picture of the second decan of Scorpio found in an Arabic manuscript executed in Cairo and now in Paris.<sup>48</sup> The Sun and the Moon as large, haloed faces with minuscule bodies are to the right in the lower register of planetary images. Note that to the left of the Sun is Saturn depicted as an old, black Indian as he was on the wall of his temple at Ḥarrān, but that here he holds what appears to be a simple staff, his Indian attribute, rather than an axe; and also note that Mars in the upper left is in the form of his statue at Ḥarrān, which we have previously compared to the description given by Abhayākara Gupta and to the figure in the manuscript of Alfonso el Sabio. A horse, you may remember, is the Sun’s *vāhana* in the *navagraha* panel from Vikramaśīla.

The Moon (Pl. 4a) is a man holding a flower, which should be a lotus, and seated on a dog-like animal that rather resembles the crouching beast upon which the headless man falsely named Rāhu stands in the Johnson *maṇḍala*. I do not know where the *vāhana* comes from. The Moon’s crown, like those on the next five planets, is of a type found often in Rājasthānī paintings of the seventeenth and eighteenth centuries—and probably in other places and times as well.

Mars (Pl. 4b) is seated on the same ass-like animal that Jupiter rides in the Johnson *maṇḍala*; again, I cannot explain this *vāhana*. Mars holds what might be interpreted as an axe, an implement held by that planet in his role within the Greek tradition as the first decan of Aries.<sup>49</sup> But if it were a hoe, it would fit in with the description of an image of Mars given in an appendix (*parisīsta*) to the *Vāstusāraprakaraṇa*,<sup>50</sup> a work composed by Ṭhakkura Pherū in Rājasthān in the early fourteenth century.

Mercury (Pl. 4c) holds a book in his hands, and rides on the bird which we have noted previously in an Arabic manuscript of talismans to be one *vāhana* of Jupiter,

<sup>48</sup> Paris, BN, MS arabe 2583, containing the *Kitāb al-māwalid* of Abū Ma’shar, fol. 22<sup>v</sup>, reproduced as coloured pl. ii in L. Aurigemma, *Le Signe zodiacal du Scorpion*, Paris 1976.

<sup>49</sup> Teucer of Babylon cited by Psellus in his *Περὶ Παραδόξων ἀναγνώματων*, ed. A. Westermann, *Παρα-*

*δοξογράφοι*, Brunswick-London 1839, pp. 147–48; see also W. Gundel, *Dekane und Dekansterbilder*, Studien der Bibliothek Warburg, xix, Glückstadt-Hamburg 1936, p. 115.

<sup>50</sup> Mitra (as in n. 26), p. 36.

the other being an eagle. The Indian tradition associates a goose with Jupiter because of Brahmā, a *garuda*-bird with Mercury because of Viṣṇu. This bird in the *Lagnacandrikā* manuscript may possibly be a Western misinterpretation of an Indian picture or description of one of those birds, transmitted back to India through Iran; or possibly it may be a version of Hermes's description of Mercury in his *Book of the Seven Planets* quoted in the *Ghāyat al-ḥakīm*<sup>51</sup> in which the planetary deity is a nude man writing while riding on an eagle. A book appears as an attribute of Mercury also in the appendix to the *Vāstusāraprakaraṇa*.

Jupiter (Pl. 4d) rides on a male gazelle, an animal which carries the Moon in the Johnson *maṇḍala*; Venus rides on a deer in the book of the 'others' cited in the *Ghāyat al-ḥakīm*,<sup>52</sup> but why Jupiter ended up on this mount remains unclear. He holds a book, which is also his attribute in the *Vāstusāraprakaraṇaṇapariśiṣṭa*.

Venus (Pl. 5a) is here, as in the Johnson *maṇḍala*, represented in Western fashion as a woman. She is, however, as is proper in the Indian tradition, seated on a frog, which had become the *vāhana* of the head wrongly labelled Ketu in the Johnson *maṇḍala*. It is not clear what, if anything, she holds in her clasped hands.

Saturn (Pl. 5b) sits on a bull, but not the white humped bull, Nandī, that is the *vāhana* of Siva. It would have been more satisfying if he rode a buffalo, the *vāhana* of his *adhidevatā*, Yama, but the upright horns are against this interpretation.

Rāhu (Pl. 5c), as in the Johnson *maṇḍala*, is interchanged with Ketu—that is he is depicted as the headless body rather than the head of the demon. He rides a camel, the mount of Venus in the Johnson *maṇḍala*. Again, I cannot explain whence this *vāhana* comes. Rāhu's hands are not in the *karapūṭamudrā* as they normally are in Indian representations.

And Ketu (Pl. 5d) is represented by Rāhu's head as in the Johnson *maṇḍala*, here riding on a feline(?) creature with a short tail. This also is an inexplicable mount. His head is surrounded by a dark halo, presumably an indication of his power to cause an eclipse. Further, it is a bovine head, a fact that reminds us of the Iranian conception of the eclipsing body as *gōcīhr* or bull's sperm.

We have arrived, then, at a not entirely satisfactory conclusion. We can perceive in the *Lagnacandrikā* depictions of the planets a mingling of Indian and Persian traditions, but there are many features that still remain most puzzling. Some of the difficulties, I believe, are due to the confusion of the artists who executed the Johnson *maṇḍala* and the *Lagnacandrikā* images, though their shared errors suggest a common source; the introduction of unexpected *vāhanas* in both sets of pictures also indicates that they both derive from some Indo-Iranian tradition of planetary iconography that combines the *navagraha* tradition with the Muslim descendants of Ḥarrānian magical talismans. For this Indo-Iranian tradition there seems to be no other evidence as yet available. But like so much else in these pictures that tradition also was in part the product of the speculations on astral magic that originated in Syria under Babylonian, Greek and Indian influences, and served to preserve and diffuse widely one small remnant of our classical heritage.

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<sup>51</sup> *Ghāya*, p. 161; *Picatrix*, III, iii, p. 9.

<sup>52</sup> *Ghāya*, p. 108; *Picatrix*, II, x, p. 30.



a—Rāhu. Sukra. Ketu. Sōma (p. 5)



b—Budha. Sani. Bhauma. Bṛihaspati (p. 5)

a-c: Statuettes of the planets. Sūryanārkoṣil, Sun Temple



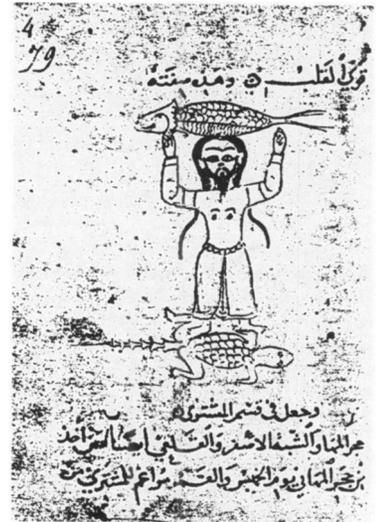
c—Sūrya (p. 5)



d—Planetary statues, probably from Mathurā. Art Museum, Worcester, Mass. (p. 6)



e—Planetary statues from Vikramaśīla (p. 6)



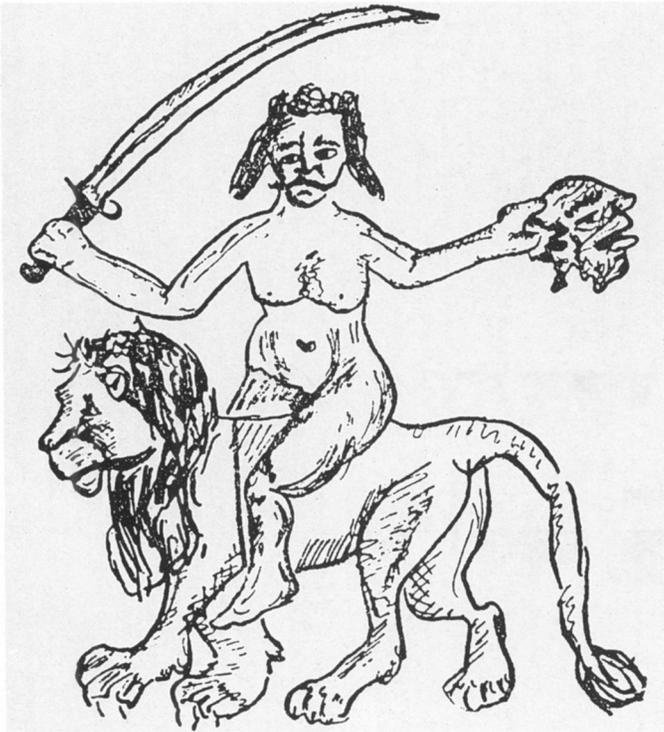
f—Saturn, fol. 79 (p. 8)



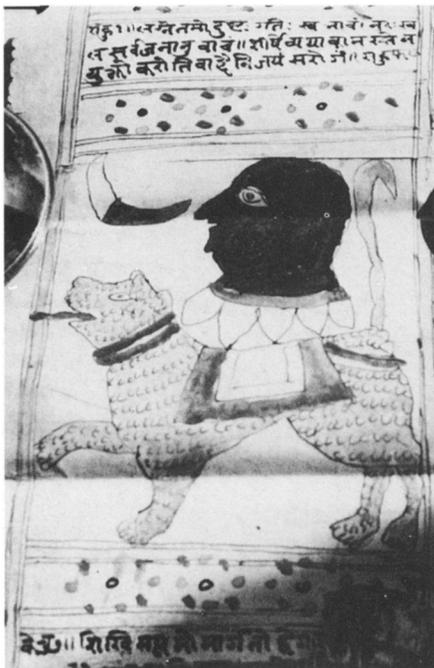
g—Jupiter, fol. 80 (p. 8)



h—Jupiter, fol. 88<sup>v</sup> (p. 8)

a—Mars, from the *Ghāya* (p. 8)

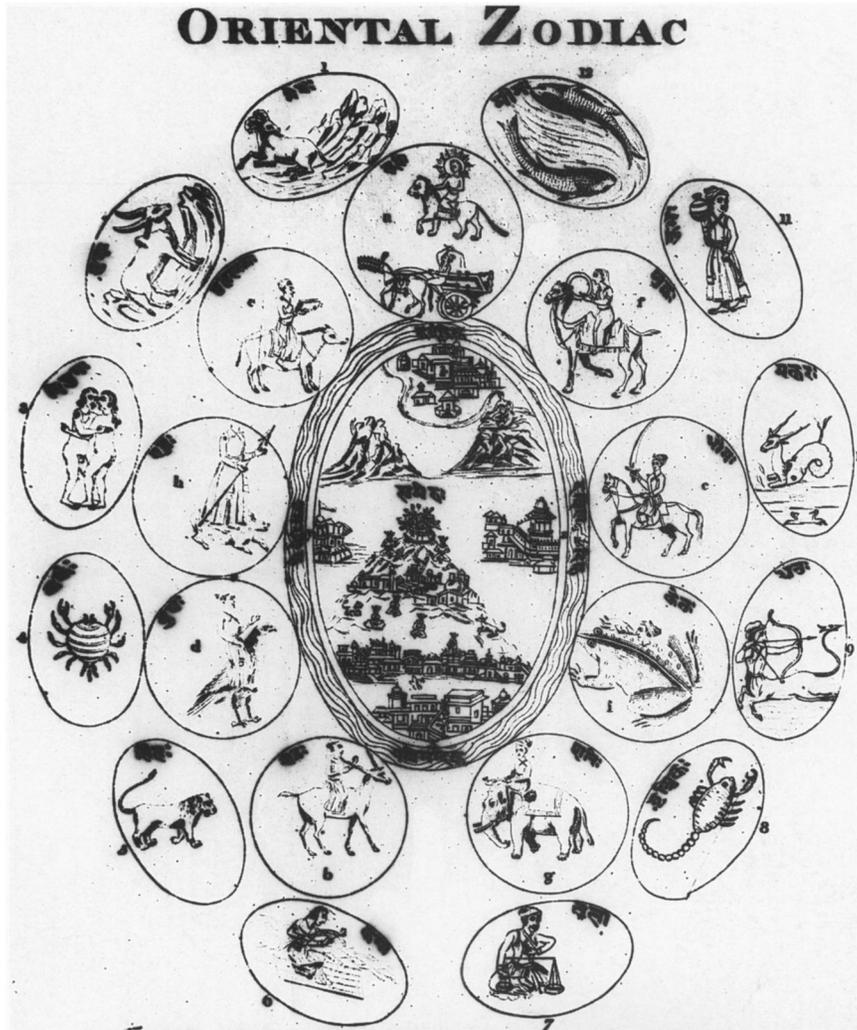
b—Saturn (p. 11)



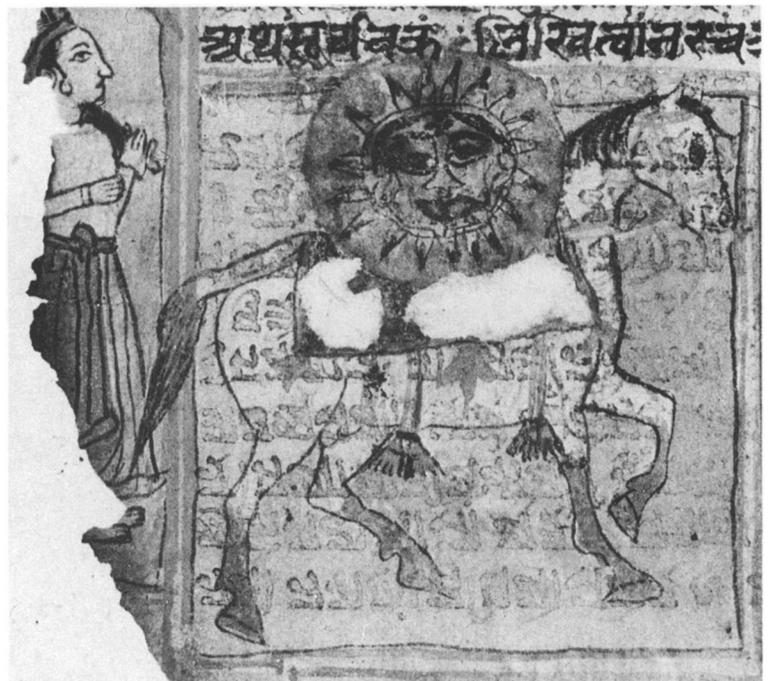
c—Rāhu (p. 11)



d—Kētu (p. 11)



a—Signs of the Zodiac circling the earth and the planets, from a *mandala* published in 1790. London, India Office Library (p. 11)



b—The Sun, from the *Lagnacandrikā*. London, Wellcome Institute for the History of Medicine (p. 12)



a—The Moon (p. 12)



b—Mars (p. 12)



c—Mercury (p. 12)



d—Jupiter (p. 13)

