

AL-BĪRŪNĪ'S TREATMENT OF THE *LAGHUJĀTAKA* AND COMETS : A CRITIQUE

M. RAMAKRISHNA BHAT*

44 U. B. Jawahar Nagar,
Delhi 7

Al-Bīrūnī appears as a grand bridge between the Hindu culture and the western scholarship in the middle ages. He has done yeoman service to the cause of comparative religion and scientific thinking, especially in the sphere of astronomy and astrology. He appreciates the scientific approach of Varāhamihira in many instances, though he condemns his as well as Brahmagupta's servility to the ancient theologians. He has helped the cause of international co-operation and understanding by translating the *Laghujātaka* and the *Bṛhat Saṃhitā* despite his handicap in the form of corrupt manuscripts. Al-Bīrūnī's works would provide research scholars with much food for thought and light to guide their steps in the area of ancient Hindu achievements.

In the section on astrology he has given many useful tables explaining planetary characteristics, the signs of the zodiac with their aspects, which are alien to Varāhamihira and the houses of natal charts. He has also given three excellent charts for the three kinds of comets with all their qualities.

In this paper some of the statements of al-Bīrūnī have been reviewed in the light of Varāhamihira's works. For example, his descriptions of the forms of Gemini, Capricorn, Aquarius and Pisces may be cited. Next, his translation of IV 5, 7, 8 is examined with corrections wherever necessary. His reading, *Triśāla* instead of *Viśāla*, in verse 8 appears more correct. Verse 12 relating to women attendants at a confinement, as interpreted by him is reviewed. In XIII 5 the word *Tiraścaḥ* is translated by him as *Vṛścikaloka* and *Nāraka* as *Bhṛguloka*. In XIII 4 the words "*Janmani maraṇe vā*" is interpreted wrongly.

In the *Bṛhat Saṃhitā* too he commits errors of omission and commission while translating verse 7 of XI. Next his descriptions of the *ketus*, comets, are examined wherever he departs from the spirit of the text.

Al-Bīrūnī appears on the Indian horizon as a star of rare brilliance, shedding its light on many a dark page of medieval history. Being an eminent scholar himself, he developed great zeal for a comparative study of the religions, cultures, philosophies and scientific achievements of other nations. E. C. Sachau, his able translator, says about him: "The Hindus and their world of thought have a paramount fascinating interest for him." Al-Bīrūnī appreciates scientific statements wherever they are found. In mathematics and architectural constructions he considers the Hindus to have reached a high degree of art, though he ridicules their superstitions and practices. This does not mean that he is quite free from religious intolerance and arrogance, which come to the surface in a few places.

* Department of Sanskrit Hindu College, University of Delhi (Retired)
Present address : Vittal P.O., Via Mangalore.

Though al-Bīrūnī's work on astrology is based on corrupt manuscripts and interpretations of Hindu scholars, he has achieved remarkable success in the field of astrology-cum-astronomy, among others. It is known that he has translated into Arabic the *Laghujātaka* and *Byhatsamhitā* as well as written works on the "Lunar Stations", "Chronology" etc. His translation of these works is likely to open up a vast vista of research possibilities in the field of textual variations and interpretations.

Al-Bīrūnī's *India* consisting of 80 chapters deals with Hindu astrology in the last three chapters, quoting many verses in translation from the *Laghujātaka* and Chapter XI of the *Byhatsamhitā* bearing on *comets*. We do not understand why al-Bīrūnī considers the comets to have no astronomical significance, as he has relegated this topic to the astrological section rather than to the astronomical one. Actually they do have a scientific, astronomical basis which was visualized by ancient Hindu sages and which is being proved by modern theories and experiments on meteorites.¹ He states in this connection that his aim in writing this work is to remove the misunderstanding of his own people about the glorified nature of Hindu astrology, and to present to them the real state of affairs as they are. In this paper I shall address myself to the task of examining the performance of al-Bīrūnī in translating and presenting Indian astrological classics such as the *Laghujātaka* and the *Byhatsamhitā*.

In this section he has given very useful tables pertaining to the *Karaṇas*, *vogas*, planets, signs and comets for the benefit of students of astrology. In the tables of planets the author has shown the several months of pregnancy that are presided over by the planets. In a table on page 221 (of Vol. 11) he speaks of the aspects exercised by the signs of the zodiac, which is an alien subject to Varāhamihira who knows only planetary aspects. Al-Bīrūnī does not mention the source of his information. However, the details of this topic must have been supplied to him by local astrologers well-versed in the *Horā* of the sage Parāśara.²

While describing the physical forms of the various *rāśis*, i.e. signs of the zodiac he says about *Gemini*: "The word applies to a man holding a lyre and a club", which is not correct. It ought to be "A man holding a club and a woman a lyre." About the description of Capricorn as *Goat-Cum-Crocodile*, he says, it is true only according to Greek astrology. He says the same thing about *Kumbha*, Aquarius, as it means only a 'Pot' but the figure is that of a human being holding a pot, which answers to the Greek representation of the sign. The name *Mīna*, Pisces, too means a single fish, not a pair of fishes according to him.

His translations of the verses of the *Laghujātaka* in many places are more of an explanatory nature than faithful renderings, there being some omissions and many additions. In IV-5 of *L.J.* the author gives a planetary configuration necessary for predicting an illegitimate birth, but al-Bīrūnī takes it to indicate short life for the child.

In verse 7 the house of confinement is described by Varāhamihira as *adṛḍha*—not strong or stable—if the Sun be the strongest planet in the chart, but al-Bīrūnī construes the word as “will be destroyed”. Similarly the word *nava*—new—is taken by him in the sense of ‘beneficent’. The word *dagdha*—burnt— means, ‘burning’ according to him. The word *citra*— colourful or variegated—is taken in the sense of “bow-shaped”. He has omitted the meaning of “*mānoraman*”—charming—corresponding to Venus. Similarly he has not translated the expression, “*Pratīveśma sannikṛṣṭaiśca*” which means, the house in the vicinity is to be predicted through the planets situated nearby.

While translating verse 8 of chapter IV he interprets the word *bhūmikā* meaning storey as ‘wing’. Another word *viśālam* meaning broad or spacious, is translated by him as “having three wings”. I should think that his manuscript must have had the reading, *triśālam*, which is quite correct as contrasted with the following expression, *dviśālam*.

He has completely omitted verses 10 and 11 of this chapter. He translates verse 12 as follows:— “The number of women who will be present in a house corresponds to the number of stars which are in the signs of the ascendant and of the moon. Their qualities correspond to the images of these constellations”.³ The correct meaning of this would be—“The number of women (in the lying-in-chamber) should be judged from the number of planets situated between the Ascendant and the Moon.” The second half of the verse too is misconstrued by him. For he uses the expression, *go away*, for *bāhyāḥ* which means, those that are standing outside, and ‘enter it’, for *Abhyantaragāḥ* meaning those that are inside.

Next he takes up the last verse, i.e. the 5th, of chapter XIII dealing with the soul’s previous place of residence. He takes the word *Tiraścaḥ* to mean *Vrścikaloka*, whereas it is the world of birds and beasts. The word *nārakīvaḥ* means, according to him, those hailing from *Bhṛguloka*, whereas it means only those that come from the other world.

Al-Bīrūnī does not take the verses in order. It is possible that he thought of giving his readers a succinct and connected account of Hindu astrology, and so changed the sequence of the materials to suit his pattern of writing. While translating XIII-4 dealing with *mokṣa* or liberation he omits the expression, *Ṣeṣair abalaih*, (with the rest being weak), which is an important condition. Similarly he errs in construing the expression, *janmani maraṇe vā*, as he says: - “If the constellation of the moment of death is the same as that of the moment of birth, in that case the spirit is liberated”. It should mean only “at birth or death”. He points out that these features are alien to the system prevalent in his country.

While discussing the phenomenon called comets he says that the theories and methods of the Hindus are very lengthy and very subtle. First he takes up III-7-12 of the *Bṛhatsamhitā* which describe the *Tāmasakīlakas* numbering 33 and their effects.⁴ Then he skips over the succeeding seven chapters and treats of the comets in chapter XI. He translates the first seven verses barring

the sixth. The second half of the seventh stanza is wrongly construed thus: "If the appearance of a comet lasts longer than $1\frac{1}{2}$ months, subtract from it 45 days. The remainder represents the months of its influence". He must have been misguided by the expression, *pakṣatrayāt parataḥ*. The right meaning of the verse is—"The effects of a comet last for so many months as the number of days it remains visible, and for so many years as the number of months it is visible. These effects will be felt after a month and a half. Here he adds another sentence as" "If the appearance lasts longer than two months,..." which is not warranted by the text. I presume that the astrologers whom al-Bīrūnī cross-examined gave him this queer explanation. In this connection we cannot but commend the pains the Arab scholar has taken in analysing materials given in this chapter of the *Samhitā* and tabulating the minute details in appropriate columns. He has tabulated the properties etc. of the three categories of comets described in verses 8 to 41. We shall take up these tables for consideration later on.

Under verse 42 of this chapter which describes the comet *Dhruvaketu*, al-Bīrūnī translates the word *Deśānām* as *empire* instead of countries. Varāhamihira means to say that there will be destruction in all the countries where this comet has been sighted on houses, trees or mountains. Similarly he gives two meanings for the word *upaskāreṣu*, the second being "sweepings of the house". According to Bhaṭṭotpala it means house-hold utensils and the like such as ladles, winnowing baskets and brooms. Then he jumps to verse 61. Of course he utilizes the ideas of the intervening verses in the tables of comets. Another peculiarity of this scholar is that he takes the word *śikhā* or *cūdā* throughout to mean, *tail*, and not crest. This verse too he translates wrongly thus: "If a shooting star falls down opposite to the tail of a comet, health and well-being cease, the rains lose their beneficial effect, and likewise the trees which are holy to Mahādeva and the conditions in the realm of Cola... are troubled". Is it possible that al-Bīrūnī had different readings or was his manuscript illegible, which necessitated a strained construction? Our reading is "*Śivaḥ śivatāro'tivṛsto yaḥ*". Hence there is no chance of Śiva's tree creeping in. It only means *auspicious* and more *auspicious*. No doubt, he has translated the second half of the verse correctly, though he has omitted the word, *Avagāṇa* (Afghan?) from the list of countries affected adversely.

Next he translates verse 62. Here too he goes off at a tangent from the text. For, he says, "Examine the direction of the tail of the comet, it being indifferent whether the tail hangs down or stands erect or is inclined, and examine the lunar station, the edge of which is touched by it. In that case predict destruction... and that its inhabitants will be attacked by armies which "devour them as the peacock devours the snakes".⁵ Here the first line is misinterpreted. It should be—"The quarter where the crest of the comet is bent, where it is projecting..." He has not only omitted the word "*Dīvyā-prabhā-vīnihatān*" (destroyed by divine power) but has taken *garutmā* meaning *garuda*, as peacock.

Tables of Comets

Kiraṇas:—These comets number 25. Al-Bīrūnī calls them “Children of *Kiraṇa*”, but actually they are the sons of the Sun. Their effect is *Śikhibayadāḥ*, i.e. creating danger from fire, but he gives pestilence as the effect.

The 22 comets, children of the Earth:—He omits the adjective *Kiraṇāṇvitāḥ* (full of rays). For the effect, *Kṣudbhayadāḥ*, he gives “fertility and wealth” which applies to the succeeding set of 3 comets.

Sons of the Moon numbering three:—He quotes evil effects as “The world will be turned topsy-turvy”. This applies to the next comet called *Brahma-danḍa*, which causes, according to him, wickedness and destruction.

Kanakas:—These are 60 comets, children of Saturn. They are omitted by al-Bīrūnī.

Taskaras:—They are *Nātivayaktāḥ*, not quite clear, but he says, “the eye is dazzled by them”, which is wrong. It is possible that he could not find the negative particle *Na* in his manuscript.

Tāmasakīlakas:—Al-Bīrūnī includes them in the tables of comets. Though they are 33, it is given here as 36. Their effect, according to him, is ‘fire’, while Varāhamihira gives their effects under “The Sun’s Transit” in five verses as “famine, trouble to kings, theft, drought etc.”⁶

Viśvarūpas: He gives their effect as ‘evil’, but it should be “acute danger from fire.”

Aruṇas: Children of Wind numbering 77. Their quality *Vikīrṇadīdhitayaḥ* meaning “possessed of scattered rays” is translated by him as ‘their rays are united so that these appear as rivulets.’ About their colour *Śyāmāruṇaḥ*, dark red, he says “reddish or greenish.”

Gaṇakas and *Caturaśras* are both children of the Creator, the former being 8 clusters and the latter 204 in number. Al-Bīrūnī takes *Gaṇaka* as the name and *Caturaśra* as its epithet, and gives their number as 204. According to Bhaṭṭotpala *Caturaśra* is a descriptive name.

Kaṅkas: Al-Bīrūnī extends their effects, viz. *tīvraphalāḥ*, by bringing in the effects of *kabandhas*, viz. *pundrabhayapradāḥ*. Even here he has taken the word *māraka*—mortality.

or danger, while *abhaya*, protection.

Asthiketu: He reads it as *aṣṭi*, and translates *rūkṣa* as ‘less bright’.

Śastraketu: It appears in the east, but he says west. In its effect he leaves off *māraka*—mortality,

Raudraketu: It is to be seen in the *Dahanavīthi*, which has been mentioned in connection with the transit of Venus. This Avenue consists of the two stars, *Pūrvāśāḍha* and *Uttarāśāḍha*, but al-Bīrūnī gives the three stars, viz. *Pūrvāśāḍha*, *Pūrvabhādrapada* and *Revatī*. This is against Varāhamihira’s rule given in IX 3. Though the author has told us that its effects are the same as those of *Kapālaketu*, i.e. hunger, mortality, drought and diseases, yet al-Bīrūnī gives only “fighting among kings.”

Śvetaketu : It is visible in the east at midnight, but according to him in the south at the *beginning of the night*. He was misled by the words *prāk* and *yāmyāgrah*.

Ka : Al-Bīrūnī omits its form, *Yugākṛti*, like the yoke. He says that it appears in the 'first part of the night.' It should be 'midnight'. The adjectives, *Saptadinadrīsyau*—visible for seven days—and *Snigdhausubhikṣasiavadau*—glossy and conducive to good crops and benefits—are applicable to this and the previous comet. He describes *Ka* as: 'its flame is like scattered peas. He applies the evil effects of *Ka*. when it is visible for more than a week, to both *Ka* and *Śvetaketu* against the textual specific statement. He also gives the effect, viz. destruction of two-thirds of the population, of the following *Ketu Śveta* (which is omitted by him), as belonging to this pair of comets. Varāhamihira says clearly about the distinctness of *Śvetaketu* and *Śveta*. Still al-Bīrūnī takes them as identical.

Rāsmiketu : It is similar to *Śveta* in effects, but al-Bīrūnī gives a different version of it as "ruining all human affairs and creating revolutions." In reality it is 'destruction of two-thirds of humanity.'

Dhruvaketu : He does not give the evil effects of this, given in verse 42 which he applies to the entire class of atmospheric comets.

Kumuda : He construes the word *Prākśikkhā*, meaning, with its crest turned to the east, as having its 'tail directed towards the south.'

Maniketu : He omits its characteristic of being a tiny little star.

Bhavaketu : Here too he omits its glossiness and form of a tiny star.

Padmaketu : He takes the direction of its appearance as South, but it ought to be *Āpareṇa*, the West.

Āvarta : It is *arūṇanibha*, red in colour, but he takes it as 'light gray.'

Samvarta : It is described as "Śūlāgrāvasthitah"—situated like the trident—and dreadful. He omits the latter quality and alters the former as "with a tail with a sharp edge."

My above-mentioned criticism of al-Bīrūnī is not meant to belittle his yeoman service to the cause of international understanding and of enriching the knowledge of his countrymen, but to show that there is a vast field of research for scholars to prove the veracity and justness of the statements made by the great Arab savant, to whom the world of scholars and lovers of culture owe a deep debt of gratitude.

REFERENCES

¹ *Bṛhatsaṃhitā* translated by V. S. Sastri & M. R. Bhat, P. 146.

² See Chapter IV of *Bṛhatparāśarahr̥asārā*.

³ Page 233 Vol. II.

⁴ Al-Bīrūnī follows Varāhamihira in clubbing together the *Tāmasakīlakas* and the comets mentioned in Ch. XI, simply because they have the same generic name, *Ketu*. Varāhamihira however, knew that they were sunspots, solar flares and the like. Hence they are of a different type.

⁵ P. 289 vol. II.

⁶ *Br. Saṅ.*, III 12-16.