



Review of *Rājamṛgāṅka* of Bhojarāja *

The *Rājamṛgāṅka* ascribed to the Paramāra king Bhoja of Dhar is the earliest *karāṇa* (“hand-book of astronomy”) based on the teachings of the *Brāhmasphuṭasiddhānta* of Brahmagupta. It also incorporates at places teachings of the *Sūryasiddhānta*, the *Romakasiddhānta*, the *Khaṇḍakhādya* of Brahmagupta, the *Śiṣyadhīvrddhida* of Lalla, the *Laghumānasa* of Mañjula, and other earlier works.

K. Madhava Krishna Sarma had earlier edited this work on the basis of the Adyar Library manuscript (shelf no. 8. D. 42). It contained 2 chapters only and was regarded as incomplete as 4 passages quoted from this work by Āmarāja in his commentary on the *Khaṇḍakhādya* were not found to occur in it.

David Pingree has now brought out a new edition giving the full text of this work on the basis of two manuscripts designated as F and G by him, the former acquired from the Bhandarkar Oriental Institute, Poona, and the latter from the Rajasthan Oriental Research Institute, Jodhpur. It contains 8 chapters dealing with mean motion, true motion, the three problems, rising and setting, elevation of Moon’s horns, lunar eclipse, solar eclipse, and conjunction of planets.

Chapter 1 begins with the benediction श्री गणेशाय नमः which really does not come from the pen of Bhojarāja and should have been given in the apparatus. The editor has missed to see that vs. 6c is out of place (being a scribal repetition of vs. 9c). The correct version of vs. 6cd should have been

रविवारादिकः स स्यात् लङ्कामध्यार्मोदयात् as in mss. A, C, D,

or

भवेदर्कादिः सप्तासो लङ्कायां तपनोदये as in ms. D.

He has also missed to note that in framing the *Ahargana* rule, 2 has been added to the *Caitrādi ahargana*, so the epoch of the work is not sunrise of Tuesday, February 23, AD 1042 as stated by him in his introduction to the work, but 2 days earlier i.e., sunrise of Sunday, February 21, AD 1042 as stated by S. B. Dikshit in his *Bhāratīya Jyotiṣaśāstra*. Sunday sunrise has

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been clearly mentioned in the manuscripts. It is surprising that Prof. Pingree has missed to see it. There is also an error in vs. 15 where शाकाब्दादवशिष्टं is printed in place of शाकाब्दानवशिष्टं.

Vs. 7 of chap. 1 is based on a table but the table is missing. Vss. 7–8, 17–18, 20–21, 28–30, and 32–33 of chap. 2, as well as vss. 35 and 45–46 of chap. 3 too are based on tables but these tables are also missing. These tables did occur in mss. B, H, and I but have been omitted by the editor. This has rendered the text incomplete and obscure at those places.

In vs. 12 of chap. 3, दिनपातोन्नं should be read as दिनयातोन्नं. In vs. 5 of chap. 4, सा यमज्येति should be read as साऽपमज्येति. In vs. 61 of chap. 4, द्विपद्भजेति should be read as विपद्भजेति as in *Romakasiddhānta* (ix. 16); similarly विशाखाग्रिम° in vs. 63 should be read as विशाखाश्विभ° and पश्चिमे in vs. 64 as पश्चिमा.

Vs. 6 of chap. 3 has not been edited carefully. Two rules are stated there, not one as supposed by the editor. Thus, instead of

तज्यासे घुदलार्कघ्ने नम्रत्रिज्ये प्रभाश्रुतिः ॥

there should be

तज्यासे घुदलेऽर्कघ्ने नम्रत्रिज्ये प्रभाश्रुती ॥

In vs. 60ab of chap. 4, ऽभीष्टधीवक्त्रसंज्ञिता conveys no meaning. This hemistich should really be read as follows:

अपांवत्सस्य निकटे भेऽष्टधावक्रसंज्ञिता ।

as in ms. G. अष्टधावक्रसंज्ञिता means अष्टावक्रसंज्ञिता. It may be mentioned that Aṣṭāvakra is the name of a well known Indian sage (*ṛṣi*).

Variations in mss. designated as A, B, C, D, and E, each containing 2 chapters only, have been given in the Appendix, the manuscript used by Sarma being designated as D. Tables contained in mss. B, H, and I have been briefly described (not given in full) towards the end of the work.

The whole editing is based on collation and not much care has been taken to rectify the text and make it free from errors.

The four passages quoted by Āmarāja which did not occur in Sarma's edition do not occur in Prof. Pingree's edition also, although similarity is noted in one case. Manuscripts of this work existing in the libraries at Ahmedabad, Baroda (343), Jaipur, Jesalmere, Poona, and Udayapur have not been consulted. They might give some clue regarding the missing verses and reveal something new.

Prof. Pingree must be congratulated for bringing out the present edition for the benefit of scholars working in the field of Indian mathematics and astronomy.