

Lalla | Encyclopedia.com

Complete Dictionary of Scientific Biography COPYRIGHT 2008 Charles Scribner's Sons
3 minutes

(fl. India, eighth century)

astronomy.

The son of Trivikrama Bhatta and the grandson of Śâmba, Lalla was one of the leading Indian astronomers of the eighth century; the only other major figure known to us from that century is the author of the later *PauliŚasiddhânta*. Lalla adhered to the two traditions started by Āryabhata I (b. 476); following the Āryapaksa (see essay in Supp.), he wrote the *Śisyadhivrddhidatantra*, which is the most extensive extant exposition of the views of that school. It contains twenty-two chapters divided into two books—an arrangement which influenced Bhāskara II (b. 1115):

I. On the computation of the positions of the planets.

1. On the mean longitudes of the planets.
2. On the true longitudes of the planets.
3. On the three problems involving diurnal motion.
4. On lunar eclipses.
5. On solar eclipses.
6. On the syzygies.
7. On the heliacal settings and risings of the planets.
8. On the shadow of the moon.
9. On the lunar crescent.
10. On planetary conjunctions.
11. On conjunctions of the planets with the stars.
12. On the *pātas* of the sun and moon.
13. Conclusion.

II. On the Sphere.

1. On graphical representations.
2. On the construction of the [celestial sphere](#).
3. On the principles of mean motion.
4. On the terrestrial sphere.
5. On the motions and stations of the planets.
6. On geography.

7. On erroneous knowledge.

8. On instruments.

9. On certain (selected) problems.

A commentary on the *Śisyadhivrdhidatantra* was written by Bāskara II.

In accordance with the teachings of the *ardharātrikapaksa* (see essay in Supp.), which was also founded by āryabhata I, Lalla composed a commentary on the *Khandakhādyaka*, which had been written by Brahmagupta (*b.* 598) in 665; this commentary is no longer extant.

There does survive, however, in two or three manuscripts an astrological work by Lalla, the *Jyotisaratnakṣa*. This was an extremely influential treatise on *muhūrtaśāstra*, or catarchic astrology, although it was later eclipsed by its shorter imitation, the *Jyotisaratnamālā* of Śrīpati (*fl.* 1040).

BIBLIOGRAPHY

The *Śisyadhivrdhidatantra* was edited by Sudhākara Dvivedin (Benares, 1886). There are brief notices concerning Lalla in Sudhākara Dvivedin, *Ganakataranginī* (Benares, 1933), pp. 8–11, repr. from *The Pandit*, n.s. **14** (1892); and in Ś. B. Diksita, *Bhāratīya Jyotiḥśāstra* (Poona, 1896; repr. 1931), 227–229. Fundamental for the problem of his date is the discussion by P. C. Sengupta in *The Khandakhādyaka* (Calcutta, 1934), pp. xxiii–xxvii.

David Pingree