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Lalla

Flourished Lāṭa region, (Gujarat, India), 8th century

Lalla was a Hindu astronomer who attempted to synthesize two of the principal schools of astronomical thought that were active during the classical period (late 5th to 12th centuries). Despite the significance of Lalla's work, very little is known about his life. According to very brief autobiographical comments, he was a member of a Brahmin family, the son of Trivikrama Bhatta, and the grandson of Taladhvaja. Lalla did not record any dates relating to his life or work in his surviving treatises. He is generally placed in the middle of the 8th century based on his borrowings from earlier authors and those of later authors from him. Lalla's geographical location has been assigned to the Laṭa region based on the strength of some allusions in his verses, and a remark by one of his commentators that these probably reflected "regional chauvinism on Lalla's part." Only two of Lalla's works are known to be extant

The *Sisyadhīvṛddhidatantra* (Treatise for Increasing the Intelligence of Students) is one of the first major Sanskrit astronomical treatises known from the period following the 7th-century works of Brahmagupta and Bhāskara I. It generally treats the same astronomical subject matter and demonstrates the same computational techniques as earlier authors, although there are some significant innovations. Lalla's treatise offers a partial compromise between the rival astronomical schools of his predecessors, Aryabhaṭa I and Brahmagupta. Lalla is avowedly a follower of the former, but combines parameters and techniques from both. He borrows the titles from two chapters of the *Aryabhatiya* ("Computation" and "The Sphere") and applies them to sections of his own work. The first of This covers standard astronomical tasks, including the mathematical prediction of ominous events such as eclipses and celestial conjunctions.

Lalla's section on "The Sphere" is more concerned with general elucidations of the terrestrial and celestial spheres than with the immediate demands of astronomical computation. Nonetheless, Lalla insists on the necessity of understanding the larger mathematical picture as well as the application of formulas: "Those who have learned say that spherics is essential for calculation." Both his textual arrangement and arguments were frequently copied by later astronomers. His chapter entitled "False Knowledge" contains a defense of cosmology against criticism on physical and scriptural grounds. In the 12th century, Bhāskara II wrote a commentary on Lalla's *Šisyadhīvṛddhidatantra*

The *Jyotiṣaratnakośa* (Treasury of Jewels) is Lalla's treatise on catarchic astrology. It represents the earliest known Sanskrit astrological work for determining auspicious and inauspicious times. No edition of that work has been published; the several known manuscripts are incomplete.

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