

we apply the suitable limitation on the loose-parameters (on co-ordinates  $C, D$ ), any required value of a ratio between the chosen sides of triangles would be achieved<sup>12</sup>.

### CONCLUSION

From our discussion we find that the precise construction of the hypothetical spherical prototype III of the *Śrīyantra* seal and the real plane II-type specimens, not to speak of their design, would involve a very high level of the mathematical knowledge. As we know, the medieval and ancient Indian mathematicians did not possess knowledge of higher mathematics, even at its golden period (7-12 century A.D.) of outstanding achievements. One of the possible ways to solve this paradox is to suppose the possibility of existence of unknown cultural-and-historical alternative of mathematical knowledge, e.g. the highly developed tradition of the special imagination.

The *Śrīyantra*, as shown here, is a very complicated and many-sided object, and for its deep study it is required to apply efforts by specialists from different fields of knowledge: mathematics, history, ethnography, psychology, philosophy, etc.

### NOTES AND REFERENCES

- <sup>1</sup>A description of the *Śrīyantra* may be found in different tāntric texts: *Tantrarāja Tantra*, ed. J. Woodroffe, Madras, 1954; *Soundarya-lahari* ed. Anantakṛṣṇa Sārtri, Madras, 1957; *Kāmakulā-vilāsa*, ed. J. Woodroffe, Madras, 1953; *Bhāvanopaniṣad*, tr. S. Mitra, Madras, 1976; *Gandharva Tantra*, ed. R. C. Kak and H. Shastri, Srinagar, 1934; *Nityaśoda-sikarṇava*, with com. Sivananda, Banaras, 1968; *Sākta Upaniṣads*, tr. A. G. Krishna Warriar, Madras, 1967; and others.
- <sup>2</sup>J. Casparic, *Selected inscriptions from seventh to ninth century*, Bundung, 1956; p. 30, 34, 41.
- <sup>3</sup>*Atharva Veda*, X, v. 31-4, tr. S. Shamasastri in: *The Origin of the Devanāgarī Alphabets*, Varanasi, 1973.
- <sup>4</sup>More deep notion about the ritual significance of the *Śrīyantra* may be received from the excellent monograph by Madhu Khanna: *Yantra: The tāntric symbol of cosmic unity*, London, 1975.
- <sup>5</sup>This classification does not include some portrayals with obvious errors, e.g. tops of triangles do not connect with horizontal lines.
- <sup>6</sup>Nicolas J. Bolton, D. Nicol Macleod, *The geometry of the Śrīyantra*, *Religion*, London, v. 7, N 1, 1977.
- <sup>7</sup>P. H. Pott, *Yoga and Yantra*, Nijhoff, 1966.
- <sup>8</sup>Bolton and Macleod, *op. cit.*, and Pott, *op. cit.*
- <sup>9</sup>The reproductions on convex surface, see in: Madhu Khanna, *op. cit.*
- <sup>10</sup>Fig 8 is represented from the specimen of Philip Rawson, *Tantra. The Indian cult of ecstasy*, London, 1973.
- <sup>11</sup>These three portrayals are in: Madhu Khanna, *op. cit.* and Nic Douglas, *Tantra yoga*, New Delhi, 1971.
- <sup>12</sup>Similar attempts (in respect to golden proportion and number  $\pi$ ) have been undertaken in: Bolton and Macleod, *op. cit.*, which is the only, we know, research of the *Śrīyantra* as a mathematical object.