

## OBITUARY

### T. A. Sarasvati Amma

Dr. T. A. Sarasvati Amma was born as the second daughter of her mother Kuttimalu Amma and father Marath Achutha Menon. The year of her birth was apparently 1094 of the Kollam (Kolamba) era which is prevalent in Kerala and which corresponds to A.D. 1918-1919. The initial letters in her name indicate the place of her birth which was Tekkath Amayankoth Kalam (Cherpulassery) in the Palakkad district of Kerala. In correspondence, Dr. Sarasvati always signed her letters as T.A. Saraswathi which is spelled in the usual south Indian style and which appears in some of her papers.



**T.A.Sarasvati Amma**  
(1918-2000)

Dr. Sarasvati graduated from the University of Madras with first class in Part II (Sanskrit) and Part III (Physics and Mathematics). She obtained M.A. degree in Sanskrit from the Banaras Hindu University in 1<sup>st</sup> class and secured 2<sup>nd</sup> rank. Later on she took M.A. degree in English Literature from Bihar University.

Smt. Sarasvati worked as a Government of India (Ministry of Education) scholar in the Sanskrit Department of the Madras University for three years (apparently between 1957 and 1960). She worked under the great Sanskrit scholar Dr. V. Raghavan who asked her to specialise in the field of Indian contribution to mathematics.

For brief periods, Sarasvati worked as a teacher in the Sree Kerala Varma College, Thrissur and the Maharaja College, Ernakulam. She was appointed Lecturer in Sanskrit in 1961 for the Ranchi Women's College which was a constituent college of Ranchi University. She served in that capacity for about a dozen years.

She submitted her doctoral thesis (prepared under the guidance of Dr. Raghavan) on “Geometry in Ancient and Medieval India” (about 300 pages) to the Ranchi University in January 1963. It was examined by an eminent mathematician of north India (Dr. R.S. Mishra then at Allahabad) and another of south India (Dr. A. Narasinga Rao).

Viva voce was held in Madras in February 1964 and it was approved for the award of Ph.D. degree by the Ranchi University soon. While in Ranchi, Dr. Sarasvati also supervised the doctoral thesis of R.C. Gupta (who was then serving B.I.T. Mesra, Ranchi) on “Trigonometry in Ancient and Medieval India” (Ranchi University, 1970/1971).

Dr. Sarasvati was the Principal of the Shree Shree Lakshmi Narain Trust Mahila Mahavidyalaya, Dhanbad, Bihar, from 1973 to about 1980. This administrative assignment did not allow her any time for research which she liked to enjoy. In her letter of April 16, 1973 to R.C. Gupta, she wrote:

“I do not do any useful work now-a-days, immersed as I am in the squabbles and problems of an affiliated college accustomed to tactics to which I am not accustomed.”

Dr. Sarasvati tried to publish her doctoral thesis privately at Ranchi. In fact, the whole thesis was printed (240 pages) at the G.E.L. Church Press, Ranchi. But due to presence of a very large number of printing errors (which escaped proof-reading), the whole lot was abandoned (R.C.G. has a copy of this).

Luckily, the thesis was published later on by the famous Motilal Banarsidass (Delhi, 1979; Revised edition, 1999). The delay in publishing was caused because the Ranchi University took a long time in releasing the financial aid it had sanctioned for the purpose.

The Delhi print of Dr. Sarasvati’s *Geometry in Ancient and Medieval India* was a great welcome. It was praised by scholars and reviewers. One of them says that the book “is an almost exhaustive survey of geometry in Sanskrit and Prakrit literature right from the Vedic times down to the early part of the 17<sup>th</sup> century A.D.” (Deccan Herald dated 21 October, 1979). Dr. Michio Yano of Japan writes that “Sarasvati’s discussion of the cyclic quadrilaterals treated by Brahmagupta (A.D. 628) reveals her remarkable competence in dealing with mathematical Sanskrit texts” (*Historia Mathematica*, Vol.10, p.469). Another reviewer remarks that “an admirable feature of the book is the impartial scholarly attitude to the study and a complete

absence of parochialism” (*Annals of the Bhandarkar Oriental Research Institute*, Vol. 69, 1988).

After retirement from the Principal’s post at Dhanbad, Dr. Sarasvati went back to her home town Ernakulam in Kerala. She wanted to continue her study and research but could not do much due to domestic and family work (her ailing aged mother needed care and attention). In 1986 she moved to a smaller house in Ottappalam.

Dr. Sarasvati breathed her last on August 15, 2000. Her only son (an engineering graduate) is living with his family in Australia (Dr. Sarasvati was separated from her husband soon after the birth of the only child). Her younger sister T.A. Rajalakshmi was a famous story writer and novelist but committed suicide in 1965.

Dr. Sarasvai was a simple lady but a great scholar. Her book on Geometry, in the words of Dr. Yano, “has established a firm foundation for the study of Indian geometry”. It will continue to stimulate and inspire students of history of mathematics. The Kerala Mathematical Association has started a regular Prof. T.A. Sarasvai Amma Memorial Lecture in its annual conference to honour her memory (the 1<sup>st</sup> lecture was delivered by P. Rajasekhar in March 2002 on the “*Golayantra* according to Nīlakaṇṭha”).

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**R. C. Gupta**