

## An intellectual aristocrat

*An obituary of Bagepalli Ramachandrachar Seshachar by H. Y. Mohan Ram*

Professor B. R. Seshachar passed away suddenly on 25 January 1994 at the age of 86. His death has removed from our midst an outstanding zoologist and a cell biologist, who left a deep imprint on the scientific and educational scene in this country. He had a profusion of covetable qualities: penetrating intelligence, knowledge, ability, dynamism, energy, discipline, dutifulness and aesthetic sensibility. An intellectual aristocrat, he stood out in any group of scientists.

I had known Seshachar ever since I was a boy of 8. He was our neighbour. My first impression of him is still vivid: an immaculately dressed, tall, bespectacled handsome young man, who left home early and returned from his laboratory late in the evening. He was a role model for a budding scientist. Seshachar visited our home on Saturday evenings to listen to my father's Karnatic vocal recital. After the singing was over, the two friends would be engaged in lengthy discussions on music. I was unlucky in not being his student, but had the privilege of knowing him for over five decades.

Seshachar's scientific career started in 1926, when he joined the Central College, Bangalore (then part of University of Mysore) as Demonstrator in Zoology, soon after completing the Bachelor's degree. Even from early days he was a cut above his contemporaries, being deeply motivated and obsessed with excellence. A turning point in his life was his tutelage under C. R. Narayana Rao, an inspiring teacher who not only taught Zoology but also English. Seshachar's initial research was on the cytology of Apoda, an ancient order of burrowing, limbless amphibians. This contribution has stood the test of time as a pioneering study. He had to give up studying these fascinating animals because of their restricted world-wide distribution and scantiness. In selecting the ciliate protozoans as subject of his research, Seshachar found an inexhaustible supply of microscopic organisms, occurring in aerated sewage. These organisms were characterized by the presence of two nuclei (the macro- and the micro-nucleus). To understand the basis of the

origin and development of nuclear dimorphism and cell cycle, Seshachar employed quantitative methods to estimate nucleic acid content, with optical techniques considered modern in his time. A steady stream of publications dealing with the ciliate macronucleus and conjugation, especially in *Spirostomum*, *Blepharisma*, *Vorticella* and *Frontonia* appeared in leading international journals and established the Bangalore School as a centre for research to be reckoned with. Although



Seshachar's personal interest was centered on the cytology and cell biology of protozoans, his students were encouraged to use insects, centipedes, millipedes, snakes and tunicates as materials.

The long service of 34 years at the Department of Zoology, Central College, Bangalore (which subsequently became the Zoology Department of Bangalore University), which he also headed for many years, overlapped with the golden era of the University of Mysore, which had on its faculty many celebrated scientists and scholars. Some of the students of the Department of Zoology of that period who later became leading figures in Zoology include M. R. N. Prasad, M. R. Rajasekhara Shetty, B. I. Sundararaj,

C. M. S. Dass, Appaswamy Rao, S. R. V. Rao, Kasturi Bai and Parvati Busrur.

Seshachar was a teacher *par excellence*. He was admired for the breadth of his knowledge in general zoology, his deep understanding of cell biology, genetics and evolution, and above all for his mastery of exposition. He was also an impressive and forceful public speaker, who popularized the latest developments in biology with a sense of wonder and excitement. He was gifted with a clear, unforgettable voice.

After his retirement from the University of Bangalore he was invited to head the Department of Zoology of the University of Delhi in 1960 by V. K. R. V. Rao, the Vice-Chancellor. The Departments of Physics, Chemistry and Botany had already built up a high reputation through eminent leaders like D. S. Kothari, T. R. Seshadri and P. Maheshwari. The responsibility of overhauling and transforming teaching and research in Zoology fell on Seshachar's shoulders. Outmoded syllabi were changed, gifted faculty were selected, new laboratories were built and modern analytical instruments were acquired. Seshachar encouraged his colleagues to apply for research grants from various sources. Funds flowed from the Ford Foundation, Population Council, World Health Organization and Indian granting agencies. Within a very short time the Department of Zoology rose in stature. Talented research scholars were trained in protozoology, cell biology, endocrinology, fishery biology, insect physiology, toxicology and taxonomy, biochemistry and developmental biology. In recognition of high quality research output, the University Grants Commission elevated the Department to a Centre of Advanced Study in Zoology, the first such centre in the subject to be started in India. In my opinion the building of the Delhi Zoology Department is Seshachar's richest contribution to higher education. He was Dean of the Faculty of Science, and also Provost of Gwyer Hall.

Seshachar was elected a Fellow of the Indian Academy of Sciences, Bangalore and Indian National Science Academy in 1953. He also served on the Council of

Indian Academy of Sciences (1965–1967). He served the Indian National Science Academy (INSA) as Editor, Secretary, Vice-President and President. He left a mark in every office he held. He continued to help INSA in editing manuscripts for the biographical memoirs. He was awarded the Sunder Lal Hora Medal by INSA (1965) in recognition of his work, whose impact had been felt for a considerable length of time.

Seshachar's counsel was sought by several scientific organizations and government committees, as he was known to express his views unreservedly. He formally retired from the University of Delhi in 1971 and was appointed Professor Emeritus.

He moved to Bangalore and settled in his own home in Malleswaram. During active working life, the immediate takes precedence over the important. One seldom gets free time to do the numerous things one really likes. Most professionals store them for retirement. Seshachar updated his personal library which contained works on science, literature, religion, philosophy and biographies. The fastidious care with which he maintained his collection showed his deep love for learning. It was a delight to see his tastefully planned and well-tended garden with a rich collection of chrysanthemums, hibiscuses, roses, gerberas, dahlias, crotons and other foliage plants.

Seshachar joined the Centre for Theoretical Studies, Indian Institute of Science, Bangalore and became closely associated with E. C. G. Sudarshan, the eminent theoretical physicist and a number of enthusiastic scientists. The 17 years spent in the Centre were devoted to the study and discussions on various subjects: genetics, developmental biology, evolution, ethics, education and society. He

wrote several articles on science policy and on the impact and limitations of science in the modern world.

Seshachar steadily attended classical music concerts at the Gayana Samaja with his wife and was a regular participant in the activities of the Gokhale Institute. Just as he was settling down to an enlightened and peaceful life, his wife Smt. Ratnamma, a graceful and generous lady, suddenly died. The couple had lived with devotedness. The abrupt isolation became unbearable to Seshachar. Finding no explanations to the meaning of sorrow, pain and loneliness in the science that he knew and had practised, he realized that science could not interpret realities of human life. He made a deep study of Bhagawadgita, the Upanishads and other Indian philosophical texts. In his article, 'Lessons from my Life', (*Bhavan's Journal*, Nov. 15, 1991) he states that he believed in the existence of a higher 'super-rational cognitive power' as a necessary complement to reason.

Despite solitariness, he kept himself fully occupied and wrote letters to friends about his new insights. I occasionally met him at Bangalore, sometimes with friends. On one occasion, I took two young research scholars from Delhi to meet him. They were amazed to meet a person of his age who was mentally sharp, witty, hospitable, full of zest for life, surrounded by books and objects d'art, deeply interested in diverse things and yet mystically withdrawn.

In remembering eminent people who are no more, there is a tendency to eulogize and lose sight of their frailties. The human interest becomes greater when the essence of their total personality is perceived. In his active professional days Seshachar had an overbearing personality; he was sarcastic, intolerant and was often

unclear about loyalty and sincerity. These contrasted with his pursuit of truth, creativeness, warmth, generosity and concern.

Renowned movie directors and gurus (be they artists or scientists) share a common predicament. They put in an enormous effort to help talented youngsters to attain their own thresholds of distinction. A stage often comes when the patron starts feeling envious of the protégé or the product begins to disregard the mentor. Seshachar, like other gurus before him, was not spared of this ordeal.

As a true scientist Seshachar experimented with himself. He had the boldness to write about his results. He turned from the science of the external world to the world of turmoil within. He fought contradictions and doubts with courage. Through deep reflection, he distanced despair and gained a tranquility of mind and realized the futility of 'I' and cherished the oneness of creation.

In his last days Seshachar had come to terms with death in his own way. He stated 'Indeed the success of one's life could be said to be measured by the manner one prepares to face death'. Death is inevitable and the world goes on. But for those who had known Seshachar, it is a less colourful world. Every time I met him, I felt refreshed and acquired a part of his distilled wisdom. That fountain is eternally silent. Seshachar's long career can be summed up in Khalil Gibran's words: 'In education the life of the mind proceeds from scientific experiments to intellectual theories to spiritual feeling and then to God'.

I am grateful to Prof. S. R. V. Rao, for the generous help received in preparing this note.

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### Erratum

We have received many letters pointing out an error in the last sentence in the editorial note on page 784 (Volume 66, 25 May 1994). The last sentence should read: '...this tradition of mathematics and astronomy which even studied infinite series some years earlier...', and not as printed. We regret this error which was due to mistyping.

—Editor