

their careers to him. Dr. Krishnan was deeply religious. He combined in himself the qualities of a scientist with the austerity of a savant.

Dr. Krishnan married while at college and his

spouse predeceased him in 1965. He lost his only son aged 17 in 1946—a tragedy which left a permanent scar. He leaves behind three daughters, the eldest of whom is married to the writer.

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## Memorial of Purama Rangashayee Jagapathi Naidu

October 3, 1903—February 22, 1970

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Professor P. R. J. Naidu, retired Professor of Geology, Founder-President of the Mineralogical Society of India, and an eminent geologist, passed away peacefully in the early hours of February 22, 1970, at Mysore, South India, leaving behind his wife and a vast number of students and friends. He will be remembered by his many professional colleagues and friends both in India and abroad as a man of great skill and intelligence in teaching, research and organization. His personal magnetism, ready wit, interesting conversation and criticism are sorely missed.

Purama Rangashayee Jagapathi Naidu was born on the third of October, 1903, in Tiruchinapalli, Madras State. He received his early education in Wesley Mission High School, Bangalore, from where he passed his Matriculation examination in I Class in 1918 and had the distinction of being nominated as the best student of the year. For his higher education he joined the Maharaja's College, Mysore, and subsequently the Central College, Bangalore. He graduated in the year 1923 with Botany, Literature and Law as optional subjects. It appears that he had a special aptitude to study Physics, but somehow circumstances favored his study of Geology, which he did with all earnestness and devotion.

This was the time when Mahatma Gandhi had started the Freedom Movement in India. Many students in Bangalore joined this National Movement, responding to the call of the leader. Naidu also plunged into the movement and emerged as a leader of the students, being himself both a good

debater and a fluent speaker in English. Even as a student, he was known for his indomitable fighting spirit, never caring for the consequences. His contemporaries and classmates were the political leaders S. Nijalingappa and K. C. Reddy, who later became the Chief Ministers of the Mysore State. During this movement, he underwent imprisonment for some time along with these leaders.

In 1929, he joined the Banaras Hindu University for his post-graduate studies in Geology, as a student of Professor K. K. Mathur, a geologist well-known at that time. Even in Banaras, he could not keep away from active participation in the student movement and joined the non-cooperation movement led by Pandit Madan Mohan Malaviya. These activities, however, never came in the way of his studies. He had the distinction of passing the M.Sc. in First Class, securing First rank.

In 1932, he was appointed a Demonstrator in Geology in Central College, Bangalore, and within a short period was promoted to Lecturer. A very popular teacher he was. Naidu never entered any class without adequate preparation. His memory was very sharp. He was capable of condensing any written matter without sacrificing its actual value. One could expect a masterly treatment of any subject he handled. He had a thorough command over the language and the subject and could speak in a pleasing and convincing style.

In 1940, he was promoted to Assistant Professor of Geology in Central College, Bangalore. Besides teaching, he was deeply interested in research and

pursued it on his own. Because he was anxious to learn advanced techniques of research in mineralogy, under a renowned professor, he proceeded with his wife to Switzerland in 1949, not on any scholarship but on his own money. Under the supervision of Professor Max Reinhard of Basel University, he learned the technique of the 4-Axes Universal Stage and his thesis on *Minerals of Charnockites from India* secured him the Doctor of Philosophy 'cum laude' in 1951.

Naidu during his stay in Europe had the privilege of going on field excursions with Professor Niggli in the Swiss and Italian Alps; with Professor Bruno Sander in the Australian Alps; and with Professor Hans Cloos in the Harz mountains and the Eifel Volcanic regions in Germany. He also took the advantage of visiting a number of leading institutions of mineralogy and petrology in order to acquaint himself with the new techniques. Particular mention may be made of the techniques that he learned in ore-microscopy and goniometry in Heidelberg, X-ray in Bonn, Petrofabrics in Innsbruck, Austria, and age determination of rocks in Berne, Zurich and Vienna.

After returning to India, Naidu served for some time in Central College, Bangalore. In 1952, he was appointed Head of the Department of Geology and Geophysics in the University of Madras. He organized, for the first time, a post-graduate center in Madras University. He came to the limelight by a number of research publications and supervision of graduate work of a number of students for Master's and Doctor's degrees in that University. In 1958, he published the *4-Axes Universal Stage*, a book which was welcomed by all mineralogists and particularly those who were not familiar with the use of the Fedorov Universal Stage. Professor W. Q. Kennedy, F.R.S., has remarked, "It is undoubtedly the best treatise on the subject in the English language."

In 1963 he was invited for the Geology Chair by Punjab University, in the Centre for Advanced Studies in Geology, Chandigarh, where he organized the Mineralogy and Petrology sections with all the rich experience at his command. During this year, he was honored by being elected President of the Geology and the Geography Sections of the Golden Jubilee Session of the Indian Science Congress held at New Delhi. His presidential address on "Hypersthene-bearing rocks of Madras Province" was really a new approach to this vexing problem in petrology.

He stated convincingly that there is nothing like (1) a rock called "charnockite," which is not a hypersthene-granite; or (2) an igneous consanguineous series of rocks called the "Charnockite-series," which have differentiated from the ultrabasic to the acidic end; or (3) a province called "The Charnockitic Province" which is not at once a granite-gneiss-schist province.

After the retirement of Professor M. R. Sahni, Naidu became the Director of the Centre for Advanced Studies in Geology at Chandigarh. Here too he was responsible for the publication of a number of research papers. Many students had the privilege of getting M.Sc. and Ph.D. degrees under his guidance.

His health did not permit him to stay too long at Chandigarh. He retired from service and decided to move to his home state and chose to work in the Department of Geology, University of Mysore, as Retired Professor of Geology under the University Grants Commission Scheme for utilization of the services of the retired teachers. During his tenure in Mysore of nearly four years, he was instrumental in establishing the Mineralogical Institute during the Golden Jubilee celebrations of the University of Mysore and was its Honorary Director. He spared no pains in organizing the Institute for advanced mineralogical work. He had a great ambition to write a book on optical mineralogy, having had the experience of teaching the subject for over 35 years. Owing to his failing health he could not fulfil that desire. However, he made efforts to write an adaptation from *Manual of Petrographic Methods* by A. Johannsen, which he considered a most suitable and valuable source of information for students of optical mineralogy.

Besides his active work in the universities of India, Naidu, at the invitation of the Russian Academy of Sciences, delivered lectures in the Universities and academies of the USSR in 1961 and gained the acclamation of the Russian geologists. In 1962, he attended the 3rd International Mineralogical Association meeting held at Washington and delivered lectures in some American universities. He had the privilege of attending and participating in a number of international conferences, namely, the International Geological Congress, Bonn, Germany; the International Swiss Geological Congress, Davos, Switzerland, 1950; the International Geological Congress and the International Mineralogical Association, Copenhagen, Denmark, 1962; the Inter-

national Geophysical Congress, Helsinki, Finland, 1962.

Professor Naidu was associated with a number of scientific societies. He was elected a Fellow of the National Institute of Sciences of India, of the Mineralogical Society of America, of the Mineralogical Society of Switzerland, and of the Geological Society of London. He had the privilege of serving on the Council of the International Mineralogical Association from 1962–64.

Being a great enthusiast of these scientific bodies, he founded the Mineralogical Society of India in 1959, while he was in Madras, and became the Founder-President of the Society. Under the auspices of the Society, a scientific journal, *The Indian Mineralogist*, was started. As President of the Mineralogical Society of India, he invited the International Mineralogical Association to have its 4th General Meeting in India, which was held in New Delhi in 1964 concurrently with the 22nd International Geological Congress.

Naidu was a most outstanding man, not only as a scientist but also as a citizen and leader. His love for his students and his dedication to geology won the respect and affection of all who knew him. By his passing away we lost a great personality, whom we miss very much.

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