OBITUARY

Prof. K. S. Valdiya
(1937-2020)

A great teacher, scholar, and an extraordinary communicator of Indian geology, Prof. K.S. Valdiya breathed his last on 29th September 2020, at his Bengaluru residence. He was born on 20th March 1937 in Kalaw, Myanmar. His family returned to their hometown in Pithoragarh in 1947. His passion for geology possibly germinated in his childhood in this mountainous part of the present-day Uttarakhand. He moved to Lucknow to pursue higher studies in geology at the Lucknow University. He was appointed Lecturer at the young age of 20 years in 1957, soon after his Masters's degree. He obtained a Ph.D. degree in 1963 from Lucknow University, and in 1965, went to Johns Hopkins University (USA) as a Fulbright Fellow. He also taught at Rajasthan University before joining the Wadia Institute of Himalayan Geology in its formative period in 1970.

Prof. Valdiya went to build the Department of Geology at Kumaun University, Nainital in 1977. The dedication with which he created the department's infrastructure was on par with the country's well-established departments. When the department building was planned at its present site at the Durham, overlooking the Naini Lake, Prof. Valdiya was personally involved in every detail of constructing a self-sufficient premise. It is possibly the only department which has a guest-room with cooking facilities. The reputed faculty and researchers were regular visitors in the department. The students had the opportunity to hear the best geoscientists in the country. Moreover, Prof. Valdiya's mesmerizing lectures are now the legacy of the department. His story telling ability was put to great effect in explaining complex geological processes with simplicity both in English and Hindi.

Prof. Valdiya's greatest gift to students is the book "The Making of India: Geodynamic Evolution". The Indian stratigraphy had moved forward since the two classic textbooks by M.S. Krishnan and D.N. Wadia were written. The exploration industry added subsurface stratigraphic information. New findings in geochronology, tectonics, and structure of the Indian shield were of stratigraphic implications. Prof. Valdiya himself had made seminal contributions in the geology of Himalaya. Till his end, he continued traveling to various universities in the country to give lectures on different aspects of Himalayan geology and environmental geology. Every summer, he traveled from Bengaluru to popularize science among Pithoragarh's schoolchildren in Uttarakhand for the past several years.

Prof. Valdiya started his research career by mapping Uttarakhand's mountainous terrains and used stromatolites to reveal the age of stratigraphic successions in the region. It provided him further opportunity to focus his studies on tectonics and the evolution of the Himalaya. His sustained research through the 1970s and 1980s led to publications of important research papers and books, including "Geology of Kumaon Lesser Himalaya" (1980) and "Aspects of

Tectonics: Focus on South Central Asia" (1984). The two books provided stratigraphic and structural templates for later studies in Himalayan Geology. He was also very much concerned about the impact of development on the Himalayas' ecologically fragile environment. He tried to understand the role of neotectonic processes in landform development and natural hazards. As a gifted writer, he explained them to students in his book "Environmental Geology: Indian Context" (1987), and for the awareness of the society in general, he wrote, "Geology, Environment, and Society" (2005). Prof. Valdiya worked tirelessly in the field, and his contribution remained rooted firmly in field-based observations. His last association was with the Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru, where he set up the Geodynamics unit to study tectonic processes and past climate.

Prof. Valdiya tried to explore geology in Indian mythology and epics in his book "Geography, Peoples, and Geodynamics of India in Purans and Epics" (2012). He wrote books on River Saraswati, including "Saraswati: The River That Disappeared" (2002) in English and "Ek Thi Nadi Saraswati" (2010) in Hindi. He chaired the committee set up by the Union Water Resources Ministry to find the existence of the mythical River Saraswati. It submitted a report in 2016, providing geoscientific evidence of the legendary river's presence that was the lifeline of Harappan Civilization in ancient India. He compiled a mass of geological and archaeological data to reconstruct the flow of the river. He narrated the tectonic upheavals in the Himalaya's foothills at a time of drastically reduced rainfall, leading to the prehistoric river's disappearance.

Prof. Valdiya's accomplishments in all walks of academic life were extraordinary. He served the Science Advisory Committee to the Cabinet of the Prime Minister (1983–1988) on National Policy on Science and Environment. The honors that came to him can scarcely be mentioned in this brief account. He was a Fellow of the Indian National Science Academy, the Indian Academy of Sciences, the National Academy of Sciences, India, and Third World Academy of Sciences. He was a Fellow of the Geological Society of India and an Honorary Fellow of the Geological Society of America and the Geological Society of Nepal. The country conferred him with the Padma Shree in 2007 and Padma Bhushan in 2015 for his scientific contributions.

Prof. Valdiya has left behind a great scientific legacy of over 100 research papers, more than 20 authored and edited books, and many English and Hindi articles to popularize science. He is survived by his wife Indira Valdiya, son Sameer, daughter-in-law, a grandson, and many students, friends, and admirers.

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