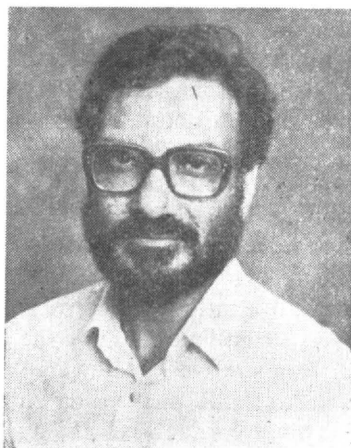


PRESENTATION OF L. RAMA RAO AWARD
TO
O. N. BHARGAVA



In presenting L. Rama Rao Award to O. N. Bhargava, S. V. Srikantia said :

I have great pleasure in announcing the L. Rama Rao Award to O. N. Bhargava, Director, Geological Survey of India, Chandigarh.

When B. P. Radhakrishna asked me to present the citation on the contribution made by my friend and colleague O. N. Bhargava to Himalayan Geology, I agreed to it with great pleasure and delight. Om Narain Bhargava and myself have been friends and close scientific collaborators for more than three decades and Himalayan Geology has been one of the important binding factors, besides many other common interests, ideals and ethics in the profession.

O. N. Bhargava passed M.Sc., from the Lucknow University in 1958. Initially for about 1½ years he carried out research in micropalaeontology at Lucknow University. In February, 1961, he joined the Geological Survey of India and since then has been actively associated with the study of Himalayan Geology.

Geological mapping of Rampur window was his first field assignment. In the Lesser Himalaya, his work contributed to establishing detailed litho-stratigraphy of the Jutogh Group, the Rampur Group, the Jaunsar Group, the Blaini Formation and the Tal Group. The suggested correlation of the Jaunsar and the Simla Groups proved significant in deciphering the evolution of the Krol Belt. Lithostratigraphic mapping of the Jutogh Thrust Sheet helped in establishing its upright nature.

He was awarded the Ph.D. degree of the Punjab University in 1976 for his work on the Tal Group of the Nigali Dhar Syncline. He received the National Mineral Award of the Government of India for his contribution to the geology of Simla Himalaya.

His mapping of Spiti made it possible to erect Event Stratigraphy of the Palaeozoic and Mesozoic eras and in the identification of important sedimentological breaks at the base of the Eocambrian, Ordovician, Devonian, Sakamarian, Dzhulfian, Rhaetian and Oxfordian sequences.

He made the first ever report of coral reefs of Silurian and Triassic ages in India which is of great palaeogeographic significance. Discovery of new significant fossils from the Silurian of Kinnaur, Permian of Lahaul and Spiti, and Triassic of Spiti by Bhargava has a great bearing on global correlation and palaeogeographic reconstructions.

His contribution to detailed lithostratigraphy and microfacies analysis of the Lilang Group provides a text book example of dynamic stratigraphy in the Himalaya.

Bhargava's concerted work on the Palaeozoic and Mesozoic trace fossils of Kashmir, Lahaul, Spiti and Kinnaur has put Himalaya on the trace fossil map of the world. He has mapped about 7500 sq. km in U.P., H.P. and J & K and led nine expeditions to Lahaul, Ladakh, Spiti and Kinnaur. For a short spell of two years he was associated with environmental geology of Rajasthan.

In view of his valuable contributions to the geology of the Himalaya in general and its stratigraphy and palaeontology in particular, the Council of the Geological Society of India has selected him for the L. Rama Rao Award. On behalf of the Fellows of the Geological Society of India and on my own behalf, I warmly congratulate Dr. Bhargava and express our expectation of further valuable contribution from him in future years.

Reply by O. N. Bhargava :

It is with a great sense of fulfilment that I receive the L. Rama Rao Award for 1992. As I do so, past events flash back. In 1961 when we commenced mapping in the Himachal Himalaya, the lesser Himalayan model was based on the classic Memoir of Pilgrim and West. As a result, all intermediate grade schists were referred to the Jutogh, phyllites to the Chail, slates to the Simla Slates, quartzites to the Jaunsar, conglomerates to the Blaini and carbonates to the Krol. The picture seemed simple, but the geological zig-saw pieces proved difficult to fit. The detailed lithostratigraphic mapping that we carried out revealed that there are schists and schists, phyllites and phyllites, slates and slates, quartzites and quartzites, conglomerates and conglomerates and carbonates and carbonates, belonging to different stratigraphic levels and basins. Thus, we created new formations and new groups and assigned them different positions in the litho-stratigraphic column. The geology suddenly became complicated. But, it was only an apparent complication, for when viewed in the terms of basins, tectonics and relative tectono-stratigraphic positions, the tiny zig-saw puzzle fitted quite well. The new stratigraphic classifications and detailed maps made a lot more sense. While assigning ages to various sequences we were guided by the fossils known from the Blaini, Infra-Krol, Krol and Lower Tal. Though there were moments when we doubted the validity of many of these fossils, we could not pluck enough courage to discard all of them. This task was accomplished by I.B. Singh admirably and with a great impact.

As a result, the stratigraphic column which stretched into the Paleozoic and Mesozoic shrunk to within the Precambrian. With new fossil finds in the Tal, we acquired some precision regarding the stratigraphic ages of the Blaini, Infra Krol, Krol and Tal. The basis of assigning ages to the pre-Blaini sequences and the crystallines of the thrust sheets, however, still remains nebulous. We are in for many more shocks. Already a late Archaean age for the volcanics in the Rampur Group, so far assigned a Middle Proterozoic age, has come to light. There is need for high resolution palynological work and more geochronological dates for these unfossiliferous Precambrian rocks of the Lesser Himalaya.

Despite these dramatic changes in the actual ages of different formations, the lithostratigraphic column we had erected has remained intact. Even now the Shali Carbonates remain older than those of the Krol. This is the beauty of a meticulous lithostratigraphic mapping. The lithostratigraphic mapping paid us rich dividend in deciphering the dynamic stratigraphy and a gross event stratigraphy even of the Tethyan sequence as well, though precision was lacking. It is a pity that despite rich faunal assemblages, we still lack precise age resolution of the Tethyan sequences, particularly those of the Palaeozoic. We have done precious little since F. R. C. Reed's contribution to the Palaeozoics. And what has been done during the last 25 years, we wish had not been done, as instead of shedding light on the ages of various formations, it has cast long and gloomy shadows. It is high time that we develop expertise on the Palaeozoic palaeontology and help in firming up the event stratigraphy, so essential for correlation of global events.

Sir, though physically I am the recipient of this award, in fact, it is a recognition of the Geological Survey of India to which I belong and of several of my mentors of whom I mention Prof. B. S. Tewari, Prof. S. B. Bhatia, Dr. M. K. Roy Chowdhuri, Mr. J. Swami Nath and Sri. V. S. Krishnaswamy. Also I owe a great deal to my friend Sri. S. V. Srikantia, who has been my favourite sounding board. He mercilessly tore down the flimsy and helped erecting permanent structures in every field of geology. My wife Malti not only put up with my long absence in field and office but also provided me with a worry-free home, ideal for scientific pursuit.

Sir, I avail of this opportunity to thank the Council of the Geological Society of India for the Rama Rao Award 1992. I promise to keep on working relentlessly for the refinement of the stratigraphy of the Himalaya.

Announcement

Second International Short Course on Dynamics of Structures and Structure-Foundation Soil Systems, Atlanta, Georgia, March 8-12, 1993. The objectives of this course are: (1) to provide an understanding of the manner in which structures and structure-foundation-soil systems respond to earthquakes and other sources of dynamic excitation, and (2) to review available methods for analyzing and designing such systems. Those interested may write to Prof. Shamsheer Prakash, Course Director, Department of Civil Engineering, University of Missouri, ROLLA, M.O. 65401-0249. USA.



Front Row (Sitting) Left to Right: B. G. Channappa, N. R. Karmalkar, U. D. Kulkarni, D. B. Panaskar, M. R. G. Sayyed, Vishwas S. Kale, N. J. Pawar, M. G. Kale and Dnyan N. Patil.

Back Row (Standing) Left to Right: M. H. Raghavendra Rao, B. L. K. Somayajulu, V. G. Phansalkar, B. P. Radhakrishna, K. V. Subbarao, K. B. Powar, R. M. Badve, R. Vaidyanadhan, R. B. Gupte, S. S. Merh, C. Rajashekhar, B. G. Deshpande, C. Leelanandam, R. H. Sawkar, O. N. Bhargava, A. M. Patwardhan, S. V. Srikantia, R. V. Karanth, S. S. Thigale, and B. S. Gogate.