BOOK REVIEWS


The Annual Report 1988-89 of the Wadia Institute of Himalayan Geology, Dehra Dun opens with a preamble listing important contributions. The research projects in the field of biostratigraphy and sedimentation of the Western Himalaya are rather thinly spread-out and certainly no new ground is covered excepting in the Krol belt where there seems to be some progress. What we need at this stage is not mere reporting of some fossils from already known fossiliferous belts which is a routine work, but a sustained and intensive problem-oriented research.

The programme of study of biostratigraphic usefulness of stromatolites offers good scope. It is time we look at stromatolites from an evolutionary point of view and also prepare a catalogue based on their occurrences particularly from the Himalayan region. The programme appears impressive and earth scientists look forward to important results. The Himalaya offers unique scope for the study of trend of biological evolution through geological time. We should not remain content with mere comparison of fossils from Himalaya with known ones elsewhere but try to understand the evolution of life as revealed by the whole range of fossils from the Himalaya. The Wadia Institute should undertake the palaeontological and biostratigraphic study of the entire sequence from uppermost Precambrian to Eocene in the various Tethyan belts, by section measurement and inch by inch collection of samples. A whole lot of sedimentological studies can be combined with such a work. The boundary problems need a systematic approach. A combination of palaeontology, sedimentary and geochemical studies would be most authentic and set a new pattern of investigation. Geological maps prepared by the Geological Survey of India should provide a good base for selecting sections for study. The emphasis should be on the Tethyan belts and on the Precambrian-Cambrian sequences of the Lesser Himalaya. The Permian and Cretaceous sequences of the Lesser Himalaya need special attention.

The formation of the Indus Suture Zone is receiving considerable importance. But the geological maps based on systematic strike mapping by the GSI have hardly been used and most of the palaeontological work is based on faulty classifications where no distinction is made between tectonically displaced units and normal units. Palaeontological boundaries have been taken across regional tectonic discontinuities. All biostratigraphic work in Indus Suture Zone should be based on good geological maps based on strike mapping or else it would result in stratigraphic disaster.

The projects on tectonic analysis include the study of overthrust belts. It is time a three-dimensional approach to tectonic study is attempted. It is necessary to properly correlate various structural belts.

The work carried out on the Higher Himalaya in Zanskar with the stress on transect, is yet in a preliminary stage. The project on metamorphic and granitoid belts in the Himalaya in relation to evolution in space and time and associated metallogenesis appears impressive and offers great scope particularly in the light of good laboratory facilities.
There is a separate project on geomorphological and environmental studies encompassing a variety of disciplines. The environmental study of the Himalaya should receive the highest priority.

The programme of work identified by Wadia Institute is too varied and naturally it would dilute the overall effort. In order to achieve excellence and to have an impact, the Institute should concentrate on selected fields like palaeontology, geochronology, geochemistry, petrology, deformation and environment, because these are the fields where other organisations have certain limitations. There should be greater interaction between Geological Survey of India and the Wadia Institute. When our resources are limited, we should share the facilities in order to obtain the maximum benefit. It is necessary to have joint geological projects in the Himalaya so that the infrastructural field facilities available in G. S. I. can be combined with laboratory facilities at the Wadia Institute. This aspect should receive attention at the highest level. Excellent facilities are created in the Wadia Institute at Dehra Dun. In the final analysis, the Institute should become better known for its contribution to the geological knowledge on the Himalaya.

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COMПЕNDIUM ON UPDATED AND REVISED GEOLOGY OF JHARIA COALFIELD (excluding TISCO and IISCO Properties). By Dr. R. P. Verma, A. M. Jaipuriar and Dr. P. R. Paul, Central Mine Planning Design Institute Ltd., Gondwana Place, Ranchi 834 008, 282 pp; 1989, Price not mentioned.

The Jharia coalfield is the most important coalfield in India, because it is the storehouse of prime coking coal and the maximum production of coal is from this coalfield. After the publication, 'A revision of the geology and coal resources of the Jharia coalfield' in a Memoir of the Geological Survey of India, in 1957, by D. R. S. Mehta and B. R. N. Murty, this coalfield has been further explored by means of drill holes. The drilling data, however, remained scattered. In the present publication, the authors have compiled the results of subsurface data and attempted to produce a comprehensive geology of the coalfield. In this context the CMPDIL has done a good job in taking the initiative to publish the compendium.

There is, however, one shortcoming in the book which cannot be overlooked. Geological map has been presented at plate II without giving a linear scale. From the longitudes given in the map one has to infer the scale. Even so, it would appear that the outcrops of various seams as presented in the map are much exaggerated.

On the whole, the book will be useful for future planning and development of the coalfield.

The get-up of the book is good, particularly the colour-composite of satellite imagery making the book on Jharia coalfield very attractive.

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