

GRANITES OF HIMALAYAS, KARAKORUM AND HINDU KUSH. Editor: F. A. Shams (1983). Institute of Geology, Punjab University, Lahore, Pakistan. 456 pp., Pak. Rs. 400.00.

This is a volume of 24 research papers contributed by 32 active scientists belonging to nine countries of Asia and Europe and is dedicated to Professor Ardito Desio (Italy) in recognition of his pioneering researches in Himalayas, Karakorum and Hindu Kush. The publication of this book has also coincided with the completion of the first century of the existence of the University of Punjab, in 1982.

The present volume is essentially a historical review of previous work and includes information on petrography, major and trace element chemistry, isotope geochemistry, absolute dating of minerals and rocks, and mineralization in granites of Himalayas, Karakorum and Hindu Kush. It is well illustrated with a large number of new geological maps and sections, photomicrographs and illustrations. It contains in addition a coloured geological map of the Mount Everest region on 1 : 25,000 scale by Riccarino Polino and a compiled geological map of the Himalaya showing granitoid belts by Kewal K. Sharma (kept in pocket at the end).

Although no section-wise categorization has been made in the book, the papers have been arranged into six sections by the editor.

The first set of nine papers provide a critical review of current knowledge regarding the gneisses and granites of Himalayas; most of the gneisses are considered to be vestiges of Precambrian granitic rocks of the northern margin of the Peninsular shield which was actively involved and remobilized during successive phases of tectonism. Post-tectonic granites occupying the highest peaks of the Himalaya are considered to be products of anatexis. The alkaline granites, syenites and carbonatites of the Alkaline Igneous Province of the Peshawar Plain formed from quartz trachytic liquid produced by partial melting of crustal material of the northern margin of the Indo-Pak Craton. The last paper of the section makes interesting conclusion based on strain analysis of the Manshera Pluton that the deformation (finite distortional strain) is highest near Indus Suture Line and decreases southward.

The next set of five papers give detailed description of granitic complexes of various sub-sectors, like Eastern Nepal (Everest region), Western Nepal, Eastern Kumaun, Western Kumaun, Himachal and Kashmir Himalaya.

The next three papers deal with the occurrence of uranium, tin and tungsten mineralization in the collision related Himalayan granites (remobilized Cambrian granites). Potential for sapphire, aquamarine and spodumene in pegmatites and pegmatitic granites of the Higher Himalayan Crystallines have been discussed in the light of plate tectonics.

Another set of five papers deal mainly with granitoids from Trans-Himalayan and the Karakorum and a single paper on the granitoids of Tibet from structural, textural, mineralogical, geochemical and geochronological points of view provide a good deal of new data. The Trans-Himalayan granites (Kohistan-Ladakh-Gangdese granitoid complexes) with associated volcanics running for more than 2500 km in length along the zone of collision between India and Eurasia have been produced from a calc-alkaline magma generated by anatexis of the subducted oceanic crust and the overlying sediments with some contributions from continental crustal material of the active margin. On the contrary, the granitoids of the Karakoram-Pangang Tso area which emplaced into the continental rocks of the southern margin of Eurasia have

originated by the melting of continental crust and have plutons of different ages. One of the papers (Marussi) using data from deep seismic sounding and gravity profile from Nanga Parbat-Haramosh massif and Karakorum orogen proposes that Nanga Parbat-Haramosh tectonic event might have been genetically related to the Karakorum Axial Batholith and the former might represent a large diapir structure.

The paper on granitoids of Tibet besides providing data on Gangdese granitoid furnishes new and interesting data on Nyainquen-Etanglha Batholith Zone.

The granitoids of the western Hindu Kush-Badakhshan (Afghanistan) are described in the last paper. An intensive study of 200 geochemical samples from 17 plutons shows typical calc-alkaline to sub-alkaline and tholeiitic affinities. Rb-Sr whole-rock isochron gives  $234 \pm 12$  m.y. age, close to the Permo-Triassic boundary with initial ratio of 0.7044 suggesting mixing of oceanic and continental crust.

The Editor has done justice to his job by ensuring that the information contained is well presented. The short summary of each paper at the beginning of the book is a real help to the reader. There is one defect which we have noticed in printing. Figures and Tables on the left hand page of the book are not properly oriented causing much inconvenience while referring. But for this shortcoming the book is otherwise well printed and bound. Figures are very well drawn and reproduced. The book is sure to be of value to all those concerned with the Geology of the Himalaya.

*Wadia Institute of Himalayan Geology  
Dehra Dun-248 001*

KEWAL K. SHARMA

## Announcements

### NOMINATIONS FOR 'MYSORE GEOLOGISTS' ASSOCIATION MEDAL'

The 'Mysore Geologists' Association Medal' instituted for the award once in two years, to a geologist who has made significant contributions on any aspect of the geology of Karnataka State, is due to be awarded at the Annual General Meeting in March 1986. Nominations accompanied by detailed description of the work of the nominated candidate should reach the Secretary before **31st December, 1985**.

### NOMINATIONS FOR 'THE S. NARAYANASWAMY AWARD'

The Narayanaswamy award has been instituted to be given once in two years to a young Earth Scientist whose work resulted in important paper(s) in the area of economic geology. This is due to be awarded at the time of the Annual General Meeting to be held in March 1986.

Fellows are requested to send nominations supported by biodata, list of publications and a set of reprints of the nominee before **31st December, 1985** addressed to the Secretary.

R. H. SAWKAR  
*Secretary*  
GEOLOGICAL SOCIETY OF INDIA