

HIMALAYAN SHEARS: Editor: P. S. Saklani. Publisher: Himalayan Books, New Delhi, 1983, pp. 113; Price: Rs. 250/-.

Shear as a mode of deformation leading to dislocations is of fundamental importance in the study of tectonics of a folded belt and the Himalaya with its major dislocations has received considerable attention in this field of investigation. The book under review 'Himalayan Shears' was perhaps intended to focus on this important aspect. Saklani, has gathered 9 papers in this volume, confined to Garhwal-Kumaun sector and not all of them dealing with the specific topics related to the title of the volume. The Main Central Thrust (MCT), which is variously referred as an intracontinental or supracrustal dislocation, is discussed in three papers. Saklani and Bahuguna have concentrated their studies on a small sector in Chhatera area of Garhwal, where they have identified numerous imbricates associated with the MCT, a feature which is not uncommon in the realm of any folded belt. Though on a scale mapped by them accretion of horsts may be demonstrated, its application on a regional scale is doubtful. The steep angles of faults shown by the authors which post-date the thrust seem a little incongruent to the known scheme of progressive thrust sheet imbrication.

The delineation of MCT in the U.P. Himalaya by Pati and Rao broadly has acceptable parameters with truncation of many sub-thrust tectonic units. Many structural peculiarities in this sector may also be controlled by superposition of genetically different phases of deformation. The interpretation of Pati and Rao that the tectonic unit between the MCT and the Deoban Structural Belt is part of the Main Central Thrust Zone is open to question.

Thakur and Choudhury from their structural analysis in the eastern Kumaun Himalaya consider the MCT as a wide zone of imbricate thrust slices with the main thrust plane located at the contact between the imbricate zone and the Lesser Himalayan belt.

The paper by Fuchs is an attempt to restate his favourite thesis of the existence of Chail nappe system all along the Himalaya. The term Chail nappe system has infertile implication because of Fuch's insistence on certain improbable correlations (e.g., Shali = Krol) and thus remains a mythical tectonic system in the Himalaya.

In the Garhwal Himalaya, the Inner Krol Belt is exposed as a thrust sheet along the Tons-Chail folded thrust plane, though the term Krol Thrust is adopted for this sector. Saklani and Satendra are only confirming the existence of this thrust, first proposed by Auden five decades ago.

Surendra Singh and Malhotra have discussed some new data from the Arunachal Himalaya but, the tectonic dislocations have not received much attention, nor has a regional correlation with the adjacent Bhutan been attempted.

Gairola and Srivastava, based on strain analysis of clasts in conglomerate within the Garhwal Group, have concluded that deformation of conglomerate is related to shearing during late stages of the D₃ episode of deformation in the Lesser Garhwal Himalaya.

The Spongtang nappe (the name Spongtang nowhere appears on topographic maps where the nappe is located) or the Shilakong ophiolite nappe (Srikantia and Razdan, 1981, 1982) along the crest of the Zaskar mountains, south of the Indus Tectonic Zone has received considerable attention in view of its unique assemblage of ultramafics, mafics and sediments in two distinct nappe units representing the

highest allocthon of obducted ophiolite in the Himalaya. Ingrid Reuber and associates have carried out structural and petrographic investigations on the peridotites of this nappe to reveal three phases of ductile deformation. The recognition of ocean floor spreading as deduced from their work in the nappe has interesting implications, in view of similar suggestion by Srikantia and Razdan (1981) on regional geotectonic basis.

The paper by Sharma and others presents an exploration technique for uranium localized in shear zones within the Central Crystallines close to the MCT in Garhwal.

The title 'Himalayan Shears' demands a wider geographic coverage and more specific papers on the related subjects to enhance the value of the volume. The absence of subject index and author affiliations is a constraint for ready reference. Nevertheless, the publication adds to our growing knowledge on the geology of the Himalaya. The book is well printed, though the price is on the high side.

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NATURAL RESOURCE FORUM is a magazine published by Graham and Trotman Ltd., London, for the United Nations with the aim of presenting comprehensive studies and analyses of the major economic, technological and policy issues associated with Energy, Mineral and Water Resources exploration, development and management. Frequency of the publication is Quarterly and the annual subscription is £ 32 US \$ 64. Copies can be ordered from the publishers, Sterling House, 66, Wilton Road, London SW1V 1DE.

The first number for 1983 contains articles on topics like: 'Oil Market Forces; Water Resources Adequacy: illusion and reality; Long term price prospects for aluminium and copper; the future of Natural Gas in Europe; Deep Sea Mining: the consequences of failure to agree at UNCLOS III and the role of metallic resources for countries in the third world'. In the section on 'Short Notes' is a paper detailing the role of Small Nuclear Reactors in the Power Systems of Developing Countries. The Journal also contains a book review section.

These titles will serve to give the reader an idea of the types of topics of current interest covered by the Journal. The articles are all well-written and informative. Geologists in Survey organizations and Universities can hope to keep acquainted with problems arising out of resource development by going through the pages of the Journal. Since the writing is non-technical, the topics covered are sure to be of interest to administrators and executives in mineral industry also.

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