

Ca, Mg, N, P and K) plant nutrient elements and three siderophiles (via. Cr, Co and Ni), the main chemical criteria of serpentine soils, i.e., elevated siderophile and lower nutrient status remain intact, is to be noted. The genesis of serpentine soils is discussed. However, the analyses of available data is hardly sufficient to solve the serpentine factor. This must await multi-disciplinary studies involving analytical chemists, biochemists, plant-physiologists, botanists and biosystematists.

Another important aspect of the book is the emphasis on serpentine superphosphate fertiliser. 'It is made by mixing one part of ground serpentine rock with 3 parts of hot, freshly prepared superphosphate'. The problems of mine dumps and tailings are then discussed. They are viewed from two angles: one for rendering the environment aesthetically more attractive and second, combating the risk to human health posed by dumps containing carcinogenic asbestos. The scene of S.E Quebec where reclamation of asbestos tailings by the treatment of saw dust, diary manure and sewage sludge has made the steep slopes of the Eastern Township region of Quebec develop a thick grassy cover is described. 'Reclamation of Serpentine waste is an extremely expensive business' states the author. He also observes that with the decline of Canadian asbestos mining the scene has shifted to S. Africa in the vicinity of the great dyke of Rhodesia supporting extensive chrome and asbestos mining. This may be an eye opener for Indian mining industry with asbestos, magnesite, nickel etc. mines in Salem, Tamil Nadu, Mysore, Karnataka; Cuddapah, A. P; Sukinda, Orissa and other places.

In an interesting chapter on 'Animals and Serpentine' the author observes that literature on serpentine animals is rather restricted. He says that the insects are highly dependent on the food supply by serpentine environ than fish and reptiles. The author, however, has not made any observation on the beneficial effects of lizardite serpentine in defluoridising human systems affected by fluorosis, even though a volume exists (Indian Academy of Geoscience. Hyderabad, A.P. India) of papers presented at a multi-disciplinary seminar on 'Fluorosis' (1974).

The book 'Serpentine and its Vegetation' is well documented and well brought out with good illustrations of several case histories.

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**'PEOPLE'S PARTICIPATION ON HIMALAYAN ECOSYSTEM DEVELOPMENT'** By M. L. Dewan. Concept Publishing Co., New Delhi. Rs. 250.

Written in an oratorical style by a person long associated with NGOs and the Centre for Policy Research, this work is a sort of report on eco-development efforts. It comprises several disjointed chapters, a multiplicity of tables and appendices, and many dull photographs clustered towards the end, Chapter 3, written by Prof. Savitri Burman, deals with the state of the environment of the Himalaya (with very little new information). Kowasa's maps of Garhwal are reproduced without reference to them in the Bibliography. Tables 2-3 on forest areas do not indicate the sources of information.

The middle-part chapters recount efforts made by different government and voluntary organizations, with articulation of issues and exhortation for reorientation of outlook. The strategy for conservation and development given in but one chapter (7) spells out, in the manner of a manifesto, methodologies of planting trees

and regenerating springs and ponds—quite well-known, and oft-tried but with little success.

Half the book comprises appendices (numbering 14, pp. 159-239), tables and photographs—much of them superfluous and irrelevant. The appendices include disparate and unconnected matters such as notes sent to the Prime Minister and presented at international meetings, a self-composed poem, lecture notes, project proposals, memorandum of association of an Institute, excerpts from annual report of a Ministry, etc.

Published by Concept Publishing Company, New Delhi, and priced Rs. 250/-, this publication is not an inspiring work.

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**RESEARCH METHODOLOGY: A HAND BOOK** By Prof. R. P. Mishra, Concept Publishing Co., New Delhi 110 059, 1989, 89 pages, Rs. 75.

This handbook is mainly intended for those in pursuit of research for a degree or a profession. The author has been candid to admit that this is not an original contribution, but only a compilation from different sources. This slim volume is organised into six chapters, including a brief introduction. The chapters on Scientific Method and Hypothesis, Theory and Law, provide a historical and theoretical background to scientific research. The discussion is, however, abstruse at places. It is disappointing not to find the names of great Indian savants who advanced the frontiers of science in ancient times. The last three chapters deal with methodology which includes Sampling, Preparation of Research Project and writing a Research Report. These are the more mundane and useful parts of the handbook. On the whole, the text appears to be disjointed and jerky because of piecing together from a variety of sources. This handbook is yet another addition to the host of new publications on the subject. Price is not attractive to the target audience, but this could have been somewhat remedied by a paperback rather than the present hard cover edition.

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**ATLAS OF STRUCTURES AND TEXTURES IN SOME ROCKS OF SOUTHERN INDIA.** Miscellaneous publication No. 55, 1991, Geological Survey of India, Calcutta.

The Geological Survey of India, Calcutta, for the first time has brought out an Atlas of Structures and Textures in some rocks of Southern India. The Atlas is the outcome of a Project initiated by the then Deputy Director-General of Geological Survey of India, J. Swami Nath, to bring to light spectacular geological features from various localities, which seldom found place in the text books of Petrology and Structural Geology. It presents some of the important structures found in igneous, sedimentary and metamorphic rocks. The photographs depicting the structures are quite good. However, there are a few structures which are left uncovered (e.g. spinifex structure), for which examples are present in southern India. This volume should be of interest to all those who are involved in research and teaching of earth science. We welcome this new publication.

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