

Reviews

ANTARCTIC SOILS

ANTARCTICA: SOILS, WEATHERING PROCESSES AND ENVIRONMENTS. Campbell, L. B. and Claridge, G. G. C. 1987. Amsterdam, Elsevier (Developments in Soil Science 16). 368 p, illustrated, hard cover. ISBN 0-444-42784-8. Dfl 220.00, £73.60.

Of the remarkably few Antarctic pedological studies, many have been made in the Dry Valleys of Victoria Land. To these Campbell and Claridge have contributed greatly in over 20 years' extensive work. Their research has culminated in this book, the most detailed and comprehensive account of soils of this formidable continent, where weathering and soil-forming processes are unique. The first four chapters introduce the continent, its environment and biota as they relate to soils; thus the geology, geomorphology, climate and biology of soils, with particular regard to development, are admirably summarized. There follow chapters on physical weathering and rock disintegration, and chemical weathering. Detailed coverage is then given to the soils themselves and to soil properties, followed by soil distribution and factors influencing soil pattern, the salts in Antarctic soils, and soil weathering and glacial history. The penultimate chapter discusses schemes of Antarctic soil classification; the final chapter sets the soil ecosystem in a conservation context, outlining the uniqueness of Antarctic soils, their value in the study of global pedology, the fragility of the soil ecosystem, its vulnerability to human impact, and the ease with which it can be damaged and polluted.

This excellent account is largely a personal record of the authors' extensive and detailed research. It includes a bibliography of over 400 references, though the relatively small number relating directly to soils and weathering processes illustrates how little work has actually been carried out in Antarctica. Only half of the 50 post-1979 references relate to soils, but unfortunately several important recent publications, particularly on the maritime Antarctic, are not included. This suggests that the book has had a rather long gestation period, and that the few 1983 and 1984 references were slipped in at the last minute. The book is profusely illustrated with black and white photographs and line illustrations, and 25 colour plates, all of sites in Ross Dependency. If it has a weakness it must be the inadequate coverage of regions beyond the Dry Valleys, in particular of the maritime Antarctic and its relatively diverse soil types. Typographic errors are very few. This is an invaluable addition to Antarctic scientific

literature, greatly expanding and updating J. C. F. Tedrow's 'Antarctic soils and soil forming processes' (1966, Antarctic Research Series 8, American Geophysical Union, Washington DC) and 'Soils of the polar landscapes' (1977, Rutgers University Press, New Brunswick). Because of the dearth of pedological research currently being undertaken in Antarctica, 'Campbell and Claridge' will be the standard reference for a long time to come. Unfortunately the cost will make it prohibitive for many individuals and restrict its purchase mainly to libraries. (R. I. Lewis Smith, British Antarctic Survey, Madingley Road, Cambridge CB3 0ET.)

SIBERIA: STRATEGIC IMPORTANCE AND DEVELOPMENT

SIBERIA: PROBLEMS AND PROSPECTS FOR REGIONAL DEVELOPMENT. Wood, A. (editor). Beckenham, Croom Helm. 233 p, maps, hard cover. ISBN 0-7099-3655-9. £30.00.

SIBERIA AND THE SOVIET FAREAST: STRATEGIC DIMENSIONS IN MULTINATIONAL PERSPECTIVE. Swearingen, R. (editor). Stanford, Hoover Institution Press. 298 p, maps, hard cover ISBN 0-8179-8361-9 US\$32.95; soft cover ISBN 0-8179-8362-7 US\$16.95.

Siberia—a storehouse of non-renewable resources awaiting technological cooperation from, and exploitation by, industrial powers? A Soviet way-in to the Pacific Rim Community? Home to a growing component of the USSR's military forces? Two new collections of essays look at Siberia as all of these, and evaluate its past, present and future roles in the Soviet and global economies. These works offer much in common. Both include a general overview of the geography and history of Russia east of the Urals (Siberia in its broadest definition); both offer chapters on transportation and communications, energy industries, strategic factors, and relations both commercial and political with neighbouring Asian countries. As the subtitles imply, Wood intends a broader survey than Swearingen, but complementary material and the occasional disagreement in analysis are there as well.

The two initial chapters in Wood's book, by D. Shaw and A. Wood, gracefully lay out the geographical and historical context in which current developments are rooted. Economic resources are summarized with characteristic thoroughness by T. Shabad; D Wilson describes in more detail the oil and gas industry, the foundation of the