

a long historical process of contact, one that intensified with the exploitation of oil. Despite social stratification, the importance of a wage economy, threats to kin-based ties, and the decline of the Inupiat language, there is a growing emphasis on Inupiat cultural distinctiveness. This finds an expression through whaling and sharing. It has the effect of acting as a symbolic boundary between the Inupiat and the outside world, signalling cultural identity at a time when such identity needs to be strong enough to counter internal tensions. The author considers cultural identity and the persistence of kin-based networks as necessary for articulating the relationship between Inupiat and their ancestral lands. This has a particularly strong significance in the light of recent environmental disasters, such as *Exxon Valdez*, and atmospheric pollution.

Chance succeeds in his aim of demonstrating the need to re-evaluate where human societies stand in relation to their utilization of nature. By so doing he gives his book a wider application beyond Alaska and the Arctic. We can understand development and culture change in relation to historical connections only in a wider world system. The Inupiat, while unique in their own right, share compelling similarities and problems with other aboriginal peoples. Development means social and psychological dislocation in many parts of the world. This book should be read as an example of what one group of people have undergone, where they now stand, and the prospects they face for the future. (Mark Nuttall, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER UK.)

### HOT CONFLICTS, COLD REALITIES

**THE AGE OF THE ARCTIC.** Osherenko, G. and Young, O. R. 1989. Cambridge, Cambridge University Press (Studies in Polar Research). 316 p, illustrated, hard cover. ISBN 0-52136451-5. £37.50, US\$59.50.

Scientists who expect from this title a geological or palaeo-glaciological treatise will be disappointed, for this is a book on Arctic politics. No-one else need be disappointed, for it is a good book, and anyone who works in or thinks about the Arctic would benefit from reading it. The subject matter, more accurately expressed in the subtitle 'Hot conflicts and cold realities', concerns scientists as much as anyone else. The book is about conflict in the Arctic — conflict of all kinds from parish-pump to regional, from national to international — which in one way or another characterizes Arctic affairs. Military and civil powers, scientists, politicians, doctors, lawyers, and certainly Indian chiefs: all are involved as protagonists. The authors, a political scientist and a lawyer, write of conflicts between states over national security, conflicts in Arctic economics and industrial developments, conflicts involving native interests, and conflicts over ecological matters, all issues on which ding-dongs of varying intensity are currently raging.

Accounts of these problems occupy the first half of the book: the second half, under the section title 'Handling Arctic conflicts' applies conflict theory to the issues and

deals where possible with remedies and solutions. The writers draw heavily on North American examples and data, but are sufficiently pan-Arctic to make the book of universal interest. This is a solid, well-considered work, one to be recommended strongly to anyone concerned with courses in polar studies, and to postgraduate students in any field of Arctic enquiry. The writing is sometimes heavy-going, with an old-fashioned textbook *gravitas*, but thorough and worth the effort of reading. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

### SOUTH PACIFIC SECTOR

**ANTARCTIC SECTOR OF THE PACIFIC.** Glasby, G. P. (editor). 1990. Amsterdam, Elsevier. (Elsevier Oceanography Series 51). 396 p, illustrated, hard cover. ISBN 0-444-88510-2. US\$97.50, Dfl 190.00.

The Southern Ocean is usually treated oceanographically as a circumpolar entity. This book reminds us that it can instead be regarded as a series of adjoining sectors, and sets out to summarize what is known of the sector immediately south of the Pacific Ocean. Containing some of the world's roughest seas, and bounded in the south by some of the most ice-bound stretches of Antarctic coasts, much of this sector has understandably been neglected. The exception is the Ross Sea region, immediately south of New Zealand, which in contrast is among the most hospitable of all polar oceanic regions in summer, usually allowing safe access by ship to 78°S.

This book covers the region from New Zealand east to South America and Antarctic Peninsula, to an indefinite northern boundary in about 45°S. It comprises 11 papers, mainly by New Zealand and US authors. An historical overview by the editor is followed by papers on Meteorology (Mullan and Hickman), Physical oceanography (Patterson and Whitworth), Ice (Keys), Structure and tectonics (Davey), Hydrocarbon exploration and potential (Cook and Davey), Sediments (Anderson), Plankton (El-Sayed), Marine mammals (Baker), Seabirds (Harper, Spurr and Taylor), and Environmental and pollution aspects (Gregory).

This is not an original formula for an Antarctic book, and there is an air of inevitability over a few of the chapter titles and names — haven't we seen just such a paper by that author before? However, everyone manages some degree of originality, and the overall impression is refreshing: these workers find interest and uniqueness in their sector and are generally up-to-date in telling us about it. The final chapter on pollution is a welcome innovation: I should have welcomed also a chapter on fish, including industrial fishing, which may be becoming more prominent in the area, and is clearly responsible for a deal of harmful debris in the ocean. Editing is to a high standard, all references are together in a single listing at the end, and there is an adequate index.

Should this book pay its way, I wonder if the publishers would consider similar regional accounts of the Atlantic and Indian Ocean sectors? *Antarctic sector of the Pacific* is available in Europe from Box 211, 1000 AE

Amsterdam and in North America from Box 882, Madison Square Station, New York NY 10159 USA. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

### BRIEF REVIEWS

**THE MANX SHEARWATER.** Brook, M. 1990. London, T. A. Poyser and Academic Press Ltd. 246 p, illustrated, hard cover. £17.00.

Manx shearwaters *Puffinus puffinus* breed as far north as Iceland's Westermann Islands and roam the length of the Atlantic Ocean to localities as far south as 49°S. This elegant book joins the short list of classical accounts of avian species, written, as it could only have been written, by one who knows his birds thoroughly from many years of devoted study, both in the field (mostly on small islands long after sunset) and in the library. Those looking for a model on which to base a seabird monograph need look no further. Delightfully written and beautifully illustrated by Dafila Scott and others.

**ENJOYING A LIFE IN SCIENCE: THE AUTOBIOGRAPHY OF P. F. SCHOLANDER.** Scholander, P. F. 1990. Fairbanks, University of Alaska Press. 226 p, illustrated, hard cover. ISBN 0-912006-37-4. \$22.95.

Those involved in polar ecology from the late 1940s onward are likely to have gained from the insights of botanist and physiologist Per Scholander (1905–80), whose Arctic research began in 1930 but bore its main fruit during the post-war years. Swedish by birth, American by adoption, probably best-known for his work on vascular exchanges and acclimation in polar homeotherms, he brought a light and faintly irreverent touch to many fields of polar natural history. As this autobiography discloses, he was also prominent as a policy-maker in US polar and global scientific circles. A most readable tale from a lively-minded scientist who lived through, and enjoyed, interesting times.

**ANTARCTICA: POLICIES AND POLICY DEVELOPMENT.** Hanmer, J. (editor). 1989. Canberra, ANU Centre for Resource and Environmental Studies. (Resource and Environmental Studies No. 1). 74 pages, illustrated, soft cover. ISBN 0-86740-346-2.

Arising from a conference held in April 1987, this is a collection of seven papers by leading Australian commentators (Lorne Kriwoken, Peter Keage, Jeremy Hearder, Richard Herr, Robert Hall, Alistaire Graham, Timothy Doyle, Andrew Constable, Bruce Davis) on Australia's evolving policies toward Antarctica: includes some vigorous and welcome antipodean inputs into Treaty issues, some already out-dated by events. Available direct from CRES, Australian National University, Canberra.

**CANADA'S MISSING DIMENSION.** Harington, C. R. (editor). 1990. Ottawa, Canadian Museum of Nature. 2 vols, 857p, illustrated, soft cover. ISBN 0-660-13054-8.

Subtitled 'Science and History in the Canadian Arctic Islands', these are the massive proceedings of the conference held in Ottawa on November 21–24 1987. The two

volumes include an introduction and 41 papers on all aspects of the Canadian archipelago, under the section headings Scientific research: support, conflict and the future; The earth: fossils and paleoenvironment; Freshwater, sea ice; The atmosphere; The Plants; Insects; Fishes, birds and mammals; Human prehistory; History and recent expeditions. Well illustrated, with a comprehensive index. Available from Publishing Division, Box 3443, Station D, Ottawa, Ont., Canada K1P 6P4.

**POLAR STUDIES OF THE JAGIELLONIAN UNIVERSITY, VOL 2. SPITSBERGEN EXPEDITIONS 1983–1987.** Czeppe, Z. (editor). 1990. Kraków, Nakładem Uniwersytetu Jagiellońskiego. 283 p, illustrated, soft cover. ISBN 83-233-0332-0.

A wide-ranging group of papers in English on aspects of Svalbard research, centred on Sørkapp Land and including studies in land geology and geography, hydrology, ornithology, archaeology of hunters' huts and graves, and archaeological chemistry. This is a reminder, should one be needed, of Poland's remarkable long-standing and continuing record of interdisciplinary studies in this corner of the Arctic.

**TURNING UP THE HEAT.** Pearce, F. 1989. London, The Bodly Head. 230 p, illustrated, hard cover. ISBN 0-370-31260-0. £12.95.

Subtitled 'Our perilous future in the global greenhouse' and described within as 'the first handbook to the greenhouse age', this book summarizes all the currently accumulating worries of environmentalists on what could happen, might happen, perhaps should happen, if we all go on adding to the greenhouse effect. Provides some insights into the role of polar regions in world climate; cheerful reading for the long winter nights.

**LIFE AT LOW TEMPERATURES.** Laws, R. M. and Franks, F. (editors). 1990. London, The Royal Society. 176 p, illustrated, hard cover. ISBN 0-85403-402-1. £40.00 (£42.60 overseas), including packing and mailing. Obtainable direct from The Royal Society, 6 Carlton House Terrace, London SW1 5AG.

Published also as *Philosophical Transactions of the Royal Society of London B* 326(1237): 515–692, this records a discussion meeting held on 1 and 2 June 1989. It is described as '... an attempt at an integrated multidisciplinary examination of the fundamental principles that govern the responses or organisms in countering the environmental cold stress inflicted upon them', in polar, alpine and laboratory environments. There are 11 papers on water temperature and life; protein structure and function at low temperatures; cold-induced lipid-phase transitions; lipid composition and cryobehaviour of plasma membranes of isolated protoplasts under cold acclimation; low temperatures as controlling factors in plant distribution; cold adaptations of microorganisms; cold tolerance of arthropods; biochemical adaptation for cold hardiness in insects; cold adaptation in marine organisms; mammalian hibernation; and technological synthesis (of environmental crop studies and cryopreservation).