

matical, typographical and stylistic errors. Though his view that 'All the world loves a conflict' influences his approach, he concludes that the Consultative Parties do seem to be moving towards a successful conclusion of a minerals regime.

'The Antarctic Treaty Regime' is an altogether more solid work, excellently edited, and packing a vast amount of factual information and well-informed comment into one succinct volume, since each chapter is written by an expert in the particular field. It consists of the proceedings of a conference that addressed the question 'Whither Antarctica?', held in 1985 at the British Institution of International and Comparative Law. This brought together a number of people with serious and informed interests in all aspects of Antarctica. The standard of presentation and discussion was very high, and the editor has made use of the discussion in a novel way which illuminates each chapter and whets the reader's appetite; the points arising are given *before* each chapter, not in the more usual form of a somewhat incoherent verbatim record at the end.

The book is divided into six parts. Part I includes impressive papers by Drewry and Laws on Antarctica's physical environment and the many opportunities it provides for scientific research. In Part II the subtleties of the legal issues are discussed in some depth by Trolle-Anderson, Orrego Vicuña, Triggs and Lady Fox. Conservation of Antarctic resources and protection of the marine environment are dealt with by Gulland, Holdgate, Bonner and Barnes in Part III. Bonner pungently attacks both the recent Convention on Conservation of Marine Living Resources as 'a philosophical scientists' convention' (of whose successful practical outcome non-quiche-eating scientists apparently despair), and the well-intentioned activities of Greenpeace which he sees as likely to destroy the existing regime. Barnes puts a strong case for establishing an Environmental Protection Agency, wilderness areas, reserves free of krill fishing and a moratorium on mining, with NGOs (non-governmental organizations) as the watchdogs. Triggs and Watt grapple in Part IV with the thorny legal problems of negotiating a minerals regime, despite Larminie's pessimistic assessment of minerals prospects. Part V asks 'Whither Antarctica?' Heap gives the treaty parties' answer, Zain-Azraai the very different view of most non-treaty parties, including developing states, which want the regime to be more accountable to the international community. Rowlands canvasses the idea that Antarctica could become a World Conservation Area.

Summing up in Part VI, Triggs points out that the subtle internal accommodation of some parties' sovereignty claims, that has been effected by the Antarctic Treaty Consultative Parties, has no legal effect on the rights of the international community. She reminds us that the ATCPs, as they struggle externally to accommodate the latter, include all five permanent members of the Security Council, and that the UN still holds a watching brief while the

ATCPs struggle to defuse demands for a 'universal' regime by opening up the system to ensure responsible management. Even this worthy work cannot, however, predict precisely where Antarctica will stand in the 21st century. (Dr Patricia Birnie, Law Department, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, UK.)

BRIEF REVIEWS

THE ICE: A JOURNEY TO ANTARCTICA. Pyne, S. J. 1986. London, Arlington Books. 428 pages, illustrated, hard cover. ISBN 0-85140-709-9. £12.95.

The UK edition of a book by a US historian who, after several months in Antarctica, has reviewed the influence of the frozen continent on mankind through the ages. 'This unusual combination of scientific, historical and literary aspects of Antarctica is successful and well worth reading'; for a full review see *Polar Record* 23(146): 605-06 (1987).

CANADA'S SUBARCTIC UNIVERSITIES. Adams, P. and Parker, D. (editors) 1987. Ottawa, ACUNS. 282 p, illustrated, soft cover. ISBN 0-921421-01-X. Can \$17.50 or Can \$20.00 outside Canada.

The product of an ACUNS-sponsored meeting in 1986, this is a compendium of papers covering the northern research and teaching of four Canadian universities; Lakehead, Chicoutimi, Laurentian and Abitibi-Témiscamingue. The Yukon and NWT, being territories, have no higher education at university level, and Canada's northernmost campus (Alberta) is not represented here. However, these four institutions muster a deal of northern interest between them, as the 33 papers (in English and French) clearly show.

CAMERA IN CONVOY. Saul, I. 1987. Royston, Ellisons' Editions. 92 p, illustrated, soft cover. ISBN 0-946092-52-4. £10.00.

A slim volume of World War II reminiscences by one who served as a signalman in HMS *Inglefield*, a destroyer involved in many lively runs, including Murmansk convoys. One of a series of limited editions representing unofficial, individuals' views of stirring events, this records a view from the lower deck during historic voyages in Arctic waters, 1941-42; includes many photographs.

BIBLIOGRAPHY OF WHALE KILLING TECHNIQUES. Mitchell, E. D., Reeves, R. R. and Evely, A. 1986. Cambridge, International Whaling Commission (Reports of the IWC Special issue 7). 161 p, illustrated, hard cover. ISBN 0-906975-14X. £12.00: obtainable direct from IWC, Red House, Histon, Cambridge, postage and packing £5.00.

A comprehensive, well annotated bibliography of whale killing methods from aconite poisoning to explosive har-

poons. For good measure the book includes an introductory summary, a fascinating appendix on pre-war German electric harpoons, a further appendix on the IWC's involvement in promoting humane killing methods, and author and subject indexes.

THE ICE-BOUND WHALERS. Troup, J. A. (editor). 1987. Kirkwall, The Orkney Press. 129 p, illustrated, soft cover. ISBN 0-907618-15-4. £4.95.

Celebrating the 150th anniversary of the Orkney Natural History Society and foundation of the excellent Stromness Museum, this attractive little book traces the origins of the 19th century whaling connexion with Orkney and Shetland and gives a brief history of the museum. Subtitled 'The story of the *Dee* and the *Grenville Bay*, 1836-37', it includes two narratives from logs kept aboard whaling ships beset in Davis Strait during the hard winter of 1836. Well produced and beautifully illustrated with maps and contemporary prints; available also in hard cover.

COAL POTENTIAL OF ANTARCTICA. Rose, G. and McElroy, C. T. 1987. (Resource Report 2, Bureau of Mineral Resources). Canberra, Australian Government Publishing Service. 19 p, illustrated, soft cover. ISBN 0-644-05617-7.

Published for the Australian Bureau of Mineral Resources, Geology and Geophysics, this is a useful summary of current thoughts on the coal mining potential of the Antarctic continent. The writers conclude that more exploration is needed before 'a first approximation of the potential of coal as a resource can be obtained', and believe on balance that 'the many logistic, environmental, political, sociological and marketing problems would negate the economic mining of coal in Antarctica in the

foreseeable future, certainly until well into the next century.' Still, they provide a useful bibliography.

A GUIDE TO THE OTOLITHS OF SOUTHERN OCEAN FISHES. Hecht, T. 1987. South African Journal of Antarctic Research 17(1): 1-87.

A complete issue of this useful and often overlooked journal, devoted to a guide to otoliths of 120 species of fishes. Will be received with great interest by the many research workers who are currently interested in the messy business of identifying fish remains from stomach contents of predators.

ANTARCTICA, CAMBRIDGE, CONSERVATION AND POPULATION: A BIOLOGIST'S STORY. Bertram, Colin. 1987. Published by the author. 208 p, soft cover. ISBN 0-9512519-0-2. £8.00 including postage, obtainable from the author, Ricardo's, Graffham, Petworth, Sussex GU28 0PU.

This is the autobiography and memoirs of a biologist, well known in marine circles for his research on seals and sirenians, who in his own words was '... fortunate enough to sail beyond both polar circles before he was twenty five'. Bertram voyaged also to many other interesting places in pursuit of biology, notably to the Middle East for fisheries studies and to the tropics generally for work on sirenians. Between-whiles he spent many profitable years in Cambridge, including a spell (1949-56) as Director of the Scott Polar Research Institute. One long chapter of this book is of polar interest, covering expeditions both pre- and immediately post-World War II. The book is also for biologists, conservationists, historians and devotees of Cambridge University, packed with civilized thought on a host of topics from eugenics to pigeon towers.

In Brief

BAY OF WHALES DISAPPEARS. A massive ice island almost 160 km (100 miles) long with an area of over 6200 km² (2450 square miles) has broken away from the Ross Ice Shelf, Antarctica, and is drifting westward in the Ross Sea. Its point of departure was Bay of Whales, a recurring feature of the ice cliff where an embayment and dip allowed easy access to the ice shelf. Named by Shackleton in 1908, the bay was used by Amundsen in his polar expedition three years later, and by US expeditions from 1928 onward to establish successive 'Little America' stations. The breakaway of the new ice island, B-9, was detected by remote sensing from McMurdo, the current US station in McMurdo Sound, and its movements are recorded by the NOAA-10 meteorological satellite from the monitoring centre in Suitland, MD, USA. The island represents two to three times the normal annual ice dis-

charge of the entire Antarctic continent, and contains, according to a US National Science Foundation spokesman, 'all the water needs of Los Angeles for the next 675 years'. (Source: National Science Foundation news release, 29 October 1987.)

ALBERT P. CRARY PROFESSORSHIP OF PHYSICS. The Regents of the University of Wisconsin have established the Albert P. Crary Professorship of Geophysics, 'in honour of one of the outstanding pioneers in polar geophysics and glaciology'. Dr Crary's polar research, which spanned 25 years, began in 1951, when he was chief scientist for US Air Force research on T-3 or 'Fletcher's Ice Island' in the Arctic Ocean. From 1955 he set up the Glaciological Headquarters of the US National Committee for the International Geophysical Year, and in 1957-59