

dioxide; friend or foe?' the present volume is much more detailed, but less well printed and presented. Over 2000 references fill one third of the volume, of which over half refer to work dated 1985 or later. So many references in such a controversial field make one suspect that one can find an authority to support any point of view. However, in contrast to the earlier volume, Idso expresses the view that the wide range of scientific questions that need to be solved are now being asked and are being tackled, although the answers are still distant. (G. de Q. Robin, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

A CONTINENT UNSPOILED?

THE EXPLORATIONS OF ANTARCTICA: THE LAST UNSPOILT CONTINENT. Fogg, G. E. and Smith, D. London, Cassell. 224 p, illustrated, hard cover. ISBN 0-304-31813-2. £16.95.

This is an unusual book, far removed from run-of-the-mill polar coffee-table fare. Dedicated to British Antarctic Survey, it is written by a biologist who has had much to do with the Survey over many years. Fogg's text is mainly a historic account of the unfolding of Antarctica and its assimilation into science. The story has been written often enough, but rarely by a scientist who perceives so clearly where each small tile of information fits into the overall mosaic. There is also a deal of comment, based on the author's summer working visits to Antarctica with the Survey, and broad background knowledge of the continent's curious politics. The black and white pictures are a carefully-chosen mixture of historic drawings, photographs and illustrations from early works, that embellish and enlarge on the text.

But this is not primarily a history book. As a very substantial bonus comes a selection of reproductions of contemporary oil and water-colour paintings by David Smith, one of Antarctica's most distinguished living artists. Some are lovely, some magical, some garish: all are interesting and evocative of Antarctica in its range of moods. Smith's work reproduces well, though I am not sure if he will be delighted with the quality of some of the printing. This is a fireside book for browsing. I wish I could agree with the implication of the subtitle: to those who knew it before IGY, Antarctica is a continent already badly spoilt by decades of insensitive mismanagement. Nowhere is there a greater need for cherishing than in the peninsula sector that these authors know and depict so well. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

ASSESSING WHALE STOCKS

THE COMPREHENSIVE ASSESSMENT OF WHALE STOCKS: THE EARLY YEARS. Donovan, G. P. (Editor). 1989. Cambridge, International Whaling Commission. (Reports of the International Whaling Commission, Special Issue 11). 210 p, illustrated, hard cover. ISBN 0-

906975-22-0. £25.00 (\$45.00) plus £5.00 (\$8.00) postage and packing.

The 1982 meeting of IWC introduced into the Schedule to the Convention a promise to itself to undertake, by 1990 at the latest, a comprehensive assessment of the effects on stocks of a pause in commercial whaling, and a further comprehensive assessment of the effects of new management schemes on aboriginal subsistence whaling. As the editor of this volume points out, they neglected only to say what the term 'comprehensive assessment' entailed, leaving the responsible Scientific Committee to decide for itself. In 1986 the Committee determined that a Comprehensive Assessment (now dignified by capitals) was '... an in-depth evaluation of the status of all whale stocks in the light of management objectives and procedures [including] the examination of current stock size, recent population trends, carrying capacity and productivity', and identifying three major areas of work, 'to review and revise current knowledge concerning methodology, stock identity and data availability; to plan and conduct the collection of new data; and to examine alternative management regimes.'

Comprehensive indeed, and making it clear that whale management, while still requiring field biologists and others to provide new data, has for many years required substantial inputs from mathematicians and modellers. This volume starts with reports on four Comprehensive Assessment workshops held in Cambridge April 1986, Reykjavik March 1987 and Lowestoft 1989. There follow three reports on specially-funded reviews and studies; 'Survey techniques for estimating abundance of cetaceans' (Hiby and Hammond — an evaluation of standard methods of stock size assessment from ships, shore and aircraft, with a guide to non-specialist observers), 'Molecular techniques for examining genetic variation and stock identity in cetacean species' (Hoelzel and Dover) and 'Analysis of southern hemisphere minke whale mark-recovery data' (Buckland and Duff). The final section includes five papers on management modelling: 'Simulation studies of two whale stock management procedures' (Cooke), 'Further simulation studies on management procedures' (De la Mare), 'A feedback strategy to regulate catches from a whale stock' (Magnusson and Stefansson), 'Results of first-stage screening trials for a proposed whale stock management procedure' (Punt and Butterworth) and 'A simulation study on management of whale stocks considering feedback systems' (Sakuramoto and Tanaka).

Whales are notoriously difficult to count and their stocks are almost impossible to evaluate accurately. Here we see gallant attempts to provide useful models for management. For the sake of the whales, let us hope that the biologists, mathematicians, modellers and managers find a common language, and that research funding is available not only to develop models, but to test them adequately by field observations. This volume is obtainable from the International Whaling Commission, The

Red House, Station Road, Histon, Cambridge CB4 4NP. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

SOVIET ARCTIC CONFERENCE

ARCTIC RESEARCH: ADVANCES AND PROSPECTS. Kotlyakov, V. M. and Sokolov, V. E. 1990. Moscow, Nauka. 2 vols, p 366 and 447. ISBN 5-02-007269-9.

This is the English-language version of the proceedings of the conference of Arctic and Nordic countries on coordination in the Arctic, held in Leningrad, December 1988. After some introductory pieces on international cooperation and the world importance of the Arctic, articles fall into the following sections (wordy titles are paraphrased): Upper atmosphere and near-space; Air-sea heat exchange; Water circulation in the Arctic Ocean; Arctic sea ice; Arctic climate; Air and sea pollution and general problems of environmental protection; Geology and tectonics; Glacial and quaternary geology, glaciology and permafrost; Ecology, biological resource management and ecosystem conservation; terrestrial ecosystems; aquatic ecosystems; Flora and vegetation; Palaeoecology; Ethnic problems of indigenous peoples; New life for traditional economic activities; Health and medical research; Economic problems and priorities for research cooperation in all fields.

The volumes include a huge range of Soviet and foreign authors, many of them leading specialists in their fields. Despite obvious disadvantages of short programmatic surveys, this will be an indispensable work of reference for anyone concerned with Arctic research. The small print run (1000) will quickly make this English language version scarce. (Piers Vitebsky, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

BRIEF REVIEWS

THE ESKIMO DIET: HOW TO AVOID A HEART ATTACK. Saynor, R. and Ryan, F. 1990. London, Ebury Press. 192 p, illustrated, soft cover. ISBN 0-85223-809-6. £5.99.

Fish oil, say these authors, and the importance of oily fish in our diet, is one of the most significant nutritional discoveries of the century. The discovery arose from Hugh Sinclair's pioneering studies in the 1940s on Eskimo health and diet, and his conclusion, now backed by many other studies, that fish oils are beneficial in reducing risks of blood clotting, heart attacks, psoriasis and a wide range of other conditions affecting the developed world. In this book a chemist and a consultant physician explain in simple terms how fish oils enhance diet, and why everybody is the better for taking them. A generation of indoctrinating Grannies held similar views on cod liver oil in the 1930s and 40s, though for rather different reasons. The book reads well and should, perhaps rightly, do wonders for sales of fish and fish oils.

THE WORLD AT 18,000BP. Vol. 1. HIGH LATITUDES. Soffer, O. and Gamble, C. 1990. London, Unwin Hyman. 353 p, illustrated, hard cover. ISBN 0-04-445126-1. £45.00.

Volume 1 of a two-volume series covering the archaeology and anthropology of the Last Glacial Maximum. 'High latitudes' includes northwestern, southern, central and eastern Europe, eastern Eurasia and the New World; the 'low latitudes' of Volume 2 will cover north and sub-Saharan Africa, the Middle East, southern Asia, Sunda and Australia. The aim of the two is '... to show that it is appropriate and possible to assemble archaeological data on a global scale'. Papers in this volume deal with dating, climate and sea-level correlation problems, palaeogeography, ecology and hunter-gatherer man, in areas that were peripheral to the ice sheets just before the start of the current interglacial. A fascinating and useful compilation.

ARCTIC RESEARCH OF THE UNITED STATES. Vol 4, Spring 1990. Washington, National Science Foundation. 120 p, illustrated, soft cover. NSF 90-72.

Published twice annually by the NSF for the Interagency Arctic Research Policy Committee and Arctic Research Committee, this most useful publication includes summaries of current and planned research by federal, Alaskan and local governments and by private organizations and other nations in the Arctic. There are also reports on IARPC and ARC meetings, and a calendar of forthcoming local, national and international meetings. Edited from the Division of Polar Programs, Room 620, National Science Foundation, Washington 20550 USA.

POLAR LITERATURE IN THE UMBERTO NOBILE DOCUMENTATION CENTRE: A BIBLIOGRAPHY. Stolp, G. N. (compiler). 1990. Rome, Air Force History Museum. 115 p, soft cover. Available from Museo Storico-Aeronautica Militare, 00062 Vigna di Valle, Roma.

A bibliography of documents in the Umberto Nobile centre relating to polar research and exploration with airships and other means of transportation. Items are catalogued under three headings, Arctic regions, Antarctica, and polar periodicals.

WINDS OF CHANGE: LIVING IN THE GLOBAL GREENHOUSE. Gribbin, J. and Kelly, M. 1989. London, Headway, Hodder and Stoughton. 162 p, illustrated, soft cover. ISBN 0-340-51505-8. £9.95.

A popular account of world climate change, written to accompany a television documentary, 'Can polar bears tread water?', and bringing in ozone holes, acid rain, deforestation, greenhouse gases, excessive energy consumption, flooding, meat-eating, the Sahel, glacier melting and almost every other current environmental issue. Well-produced, well-marshalled facts and arguments, fully committed to the proposition that climatic warming is upon us and likely to accelerate. Those who dismiss this kind of book as green propaganda might consider producing the counter-arguments in no less readable form.