

Reviews

ADVENTURE IN VICTORIA LAND

THE LONELIEST MOUNTAIN. Hall, Lincoln. 1989. Brookvale, NSW, Simon & Schuster Australia. 232p, illustrated, hard cover. ISBN 0-7318-0051-6. £19.95.

Subtitled 'the dramatic story of the first expedition to climb Mt Minto, Antarctica', this is the story of the Bi-Centennial Antarctic Expedition 1988, a small-scale privately-sponsored Australian mountaineering party of six climbers led by geologist Greg Mortimer. Its objective was to achieve the summit of Mount Minto (4165 m), highest and loneliest mountain in the Admiralty Range of Victoria Land. Two of the mountaineers, Mortimer himself and Lincoln Hall, author of this book, were professionals with experience on Everest's North Face. The remaining four were all well-versed in mountain craft and in addition combined medical, film-making and photographic experience.

An ex-fishing trawler, the *Allan and Vi Thistlethwayte* was chartered to transport the expedition to Antarctica, being skippered by Don Richards and a crew of four including one woman, Margaret Werner, who signed on as cook. Lincoln Hall's narrative, which Thomas Keneally in his introduction describes as 'a ripping yarn', is written in a daily journal style with an immediacy that commands the reader's attention throughout.

Departing Sydney on 31 December 1987 the *Thistlethwayte's* voyage south proved relatively uneventful excepting a case of chronic seasickness and trouble with the vessel's extremely temperamental engine. Cape Hallett, where the climbers planned to make use of the former IGY buildings as base headquarters, was reached on 1 February. On 3 February a skidoo-hauled sled train set off for the Tucker Glacier, the plan being to attack Mount Minto from its north side via the Man O' War Glacier. It was already late in the season and the climbing party needed to be back at base within six weeks to avoid an involuntary overwintering. The loss of the skidoo early in the proceedings put the outcome in some doubt, but by dint of much relaying and depot-laying the mountain was successfully climbed on 18 February and dedicated as 'the cornerstone in an Antarctic World Park'.

On the return a case of dangerous frostbite forced a reluctant decision to accept a helicopter lift to Hallett offered by 'Greenpeace'. By 23 February the climbers were safely on board *Thistlethwayte*, braving some very dirty weather homeward bound for Sydney. This book contains much of value to any planner of a private expedition to Antarctica, including some informative appendices dealing with organization, food, medicine, photography and navigation. The high price is amply justified by

Jonathan Chester's superbly reproduced photographs. The book is available direct from Cordee, 3a De Montfort St, Leicester LE1 7HD: include £2.50 for surface postage and packing. (H. G. R. King, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER UK.)

MANUAL OF ANTARCTIC HISTORY

CHRONOLOGICAL LIST OF ANTARCTIC EXPEDITIONS AND RELATED HISTORICAL EVENTS. Robert K. Headland. 1990. Cambridge, Cambridge University Press (Studies in Polar Research). 730 p, illustrated, hard cover. ISBN 0-521-30903-4. £65.00

Many years ago Brian Roberts of the Scott Polar Research Institute began compiling lists of Antarctic voyages and expeditions, and found himself unable to stop. A first list published in *Antarctic Pilot* (1948) was replaced by a fuller one in *Polar Record* (1958), which remained definitive for many years. Roberts continued to assemble information on Antarctic excursions until his death in 1978, when his papers, including some 800 index cards, passed to SPRI. At the request of the administrators of the B. B. Roberts Fund, Robert Headland took up where Roberts left off, and for several years has been attempting to complete and update the listing. The result at last is this very impressive book.

Headland interprets 'Antarctic voyages and historical events' liberally; his geographical area includes all the Southern Ocean and the peripheral islands, and he has beaten the tussock for his events, creating a long but surprisingly entertaining catalogue. There are 3342 entries, of which most by far are individual voyages; the rest are happenings of all kinds, some only remotely connected with Antarctic exploration but nevertheless relevant. Data include the year, the occurrence, names of commanders and ships, and brief, informative notes. Entry No. 1 is an Phoenician expedition of c.700 BC which, according to Herodotus, rounded Cape Agulhas and entered the Indian Ocean, upstaging Bartholomeu Diaz de Novaes by 11 entries and well over 2000 years. No. 9 is a three-line memo of the Venerable Bede, who in 729 postulated not only that the poles were regions of eternal cold, but that the north held a great ocean and the south a great land. The Treaty of Tordesillas gets five lines at No. 14, and the expedition of Fernão de Magalhães (the author is a purist over names) at No. 21 gets well over half a page. Entry 1000 has reached 1869 with the opening of Suez Canal. Entry 2000 covers the 1950 establishment of the Falkland Islands and Dependencies Meteorological Service, and No. 3000 is a brief statement of the 1980-81 annual

Argentine relief expedition

So it goes on: there are all the major, classical voyages of exploration and all the minor ones, with and all the support and relief ships involved; so much we would expect for our money. But that is not the half of it. There are all the sealing voyages of the 18th and 19th centuries and the whaling voyages from 1904 onward. There are the annual visits to castaway depots on the southern islands of New Zealand and Australia, the voyages of the Discovery Investigations ships in the 1920s and '30s, British and German naval operations in World War II, the station-relieving voyages of all the modern expeditions, individual oceanographic cruises and, most recently, the tourist ship cruises. Who discovered Campbell Island? How far south did James Weddell penetrate, and what were the names of his ships? What took the Earl of Crawford to Tristan da Cunha in 1906? Who were the first women to visit Antarctica? When did the Australians start operations on Heard Island? When did the French fish-cannery start on Ile St. Paul, and when did it end? How many tourist ships have visited Antarctica since 1949? I do not know, but I think I could turn up answers to any these questions in about 10 minutes, with the help of this book.

I have left no room to enlarge on the 105-page index, the bibliography, the line-maps, the historic illustrations, the fifty-odd pages of introductory matter including information on SCAR, the Antarctic Treaty System, statistical information on ships and stations, the southern islands and... This is a good, solid reference book, strongly recommended for libraries, institutes, and as a retirement present for polar buffs from all disciplines. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER UK.)

SOUTHERN OCEAN RESOURCES

ANTARCTIC OCEAN AND RESOURCES VARIABILITY. Sahrhage, D. (editor). Berlin, Springer-Verlag. 304 p, illustrated, hard cover. ISBN 3-540-19294-8. DM 198.

Published late in 1988, sponsored by IOC and CCAMLR and supported by SCAR and SCOR, this volume is the report of a seminar held in Paris in June 1987. The theme was variability in the circulation of the Southern Ocean and its consequences for the ocean biota. This volume embodies 25 research papers plus the editor's summary and conclusions.

The papers are grouped in four sections: Meso/large-scale variability in the environment; Meso/large scale variability in the biota (related to the environment; krill variability in relation to the environment, and krill variability detected from predator studies. The first section includes discussions of variations in atmospheric circulation (Van Loon, Shea, Kaufeld) and ocean circulation (Gordon, Sievers, Nowlin, Stein, Nagata and others). The remaining sections include paper on variations in phytoplankton production in the open ocean (El-Sayed) and in such special areas as the marginal ice zone (Smith and

others) and pack ice (Ainley and others), and many on variations in krill population, estimated and measured in different ways.

Sympathies go out to the editor of such a volume, faced with so massive and heterogeneous a bunch of papers. Sahrhage's summing-up can only draw attention to the large range of variability in the Southern Ocean — seasonal, annual, local, regional, long-term and short-term — to the mass of data being collected, and the need to relate data more precisely to the needs of organisms. Climatic and oceanographic variations are large; so too are variations in biomass of krill; over most of the ocean these occur for reasons that we do not understand, though intensive work in the southwest Atlantic sector and around Antarctic Peninsula is offering glimmers of light. Lack of reliable methods of assessing krill stocks makes much of the modelling uncertain. Biological methods of monitoring, for example noting the performance of established krill predators, offer some hopes of accuracy, though results are puzzling and key elements of understanding seem still to be missing.

The problems these papers present are familiar to all ecologists the world over; what is the norm for the ecosystem we are trying to model, what the normal range of variation, and how reliable are our sampling methods? Working on titmice in nest boxes in an Oxfordshire woodland, David Lack concluded after more than a quarter of a century that he had not yet encountered a 'normal' year. What hope have ecologists to establish norms among widely-varying resource populations in a widely-varying Southern Ocean? By the evidence of this volume, the problem will keep many good folk out of mischief for a very long time. It is a worthy collection, full of good concepts both familiar and new, and probably representing fairly how Southern Ocean ecologists feel at present. (Bernard Stonehouse, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER UK.)

PERIGLACIAL MORPHOLOGY

ADVANCES IN PERIGLACIAL MORPHOLOGY. M. J. Clark (editor). 1988. Chichester, John Wiley. 481 p, illustrated, hard cover.. ISBN 0-471-90981-5. £70.00.

This international collection of papers by 'periglacial' specialists is informative and authoritative. Editorially the contributions are well-presented and easily read. In his introduction M. J. Clark seems unduly concerned with the inevitable limitations of such a compendium — the uneven coverage of the subject, a degree of overlap and, indeed, some contradiction. But these characteristics follow from bringing specialists together and should be seen positively, in fact as the essence of an account of 'advances' in research. The book will be of most value to those keeping abreast of the subject; in any case, the price of £70.00 militates against the book as a general or classroom text.

In Part 1 J-P. Lautridou gives a sound precise account of experiments on cryogenic weathering. Priesnitz writing