

parts of the Arctic: for instance, Soviet nuclear icebreakers of 150 000 hp have been spoken of but not, as far as is known, ordered; and there is no Canadian production of hydrocarbons in the high Arctic yet.

These sections serve as an introduction leading up to three chapters on strategic matters. Much has already been written about the importance of the North Atlantic in east–west relations, but the focus of this presentation is the effect of the changing political relationship between Denmark and Greenland (Greenland remains part of the Danish kingdom despite the home rule it has had since 1979). In particular, the authors underline the need for more action by Denmark, if Danish rights are to be protected and international obligations met in such matters as pollution control, fisheries regulation, and provision of weather and ice forecasting services. Special attention is given also to the possible effects of changes in the law of the sea.

BRITONS IN ANTARCTICA

[Review by Ann Savours* of Sir Vivian Fuchs's *Of ice and men: the story of the British Antarctic Survey 1943–73*. Oswestry, Anthony Nelson, 1982, 383 p, illus, £13.95.]

There can be no better beginning to this review than to quote the author's own first paragraph:

This book is an account of the first thirty years of an Antarctic expedition which has been continuously at work since 1943, first as a rather impromptu naval operation, then as a politico-scientific exercise, and finally dedicated solely to the interests of science. Yet the men who have served in it have found great adventure. For them it was exploration in its true sense, new lands, wild country and extreme conditions. Whatever part they played, every individual has enjoyed the sense of battle with nature, the wonder and beauty of an unknown world, and the achievements of survival and success. There are few places left today where young men can experience these things and learn the art of self-reliance. But Antarctica is one of them. There both a man's character and his physical strength are tried to the full and, having survived the test, each looks back and remembers with nostalgia only the enjoyable experiences.

Sir Vivian's largely chronological account could not be bettered. It is broad in its scope and yet careful of detail. With considerable literary skill and historical perception, he has spun a thread of strong narrative which runs clearly through the book—no mean achievement when covering a period of 30 years, and involving 1 250 men.

The present British Antarctic Survey, now based in Cambridge, is a scientific body working under the 'umbrella' of the Natural Environment Research Council. In the Antarctic it operates between the meridians of 80°W and 20°W, including South Georgia, the South Shetlands, South Orkney and the South Sandwich islands. The Survey began in the wartime naval Operation Tabarin of 1943–45 (mounted to deny harbours to enemy vessels). It later developed into the Falkland Islands Dependencies Survey (FIDS), 1945 to 1962, which in turn became the British Antarctic Survey (BAS). The author writes (needless to say) with great knowledge and authority from his own experience with FIDS and BAS, both in the field and as scientific and administrative director. Drawing on BAS archives and on personal diaries, Sir Vivian offers the book to his readers as a 'polar odyssey'. The emphasis is naturally on operations in the field: the ships and their masters, the setting up of the various shore establishments, sledging journeys and their objectives, transport by dog, vehicle and aircraft. However, the development of the administrative and scientific organization in Great Britain and the Falklands is not forgotten. The appendices summarize work done to 1973 (when the author retired) in the earth, life, and atmospheric sciences and in medical research; they also provide a list of stations and of wintering parties. There is an interesting last chapter entitled 'Isolation', which tells of selection procedures and of the stresses and strains to which isolated groups are subject in the Antarctic. 'Despite every care in selection, in the end it is the quality of the man himself which makes him a success or failure as a FID. They are all ordinary chaps. We do not seek, or find, supermen. To be acceptable a

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man must behave naturally, without affectations, he must be helpful to others and capable of self control, and of course it is essential that he is efficient at his particular job' (p 120).

Brief character sketches in the narrative bring many survey members, ship's captains and others to life—indeed many a Husky dog, especially Darkie, whom I remember tied up at the back door on Saturday mornings during Sir Vivian's visits to the Scott Polar Research Institute in the 1950s. In the space of a short review it is impossible to do justice to such a splendid book, which can be welcomed as a true record of the BAS and its predecessors from 1943 to 1973. It also reveals the author's sense of humour and his common touch, and yet too his ability to convey calamity and even death with regard and respect. Much of the writing is memorable. As an example, here is a quotation from the author's journal of December 1949 when he went down on a rope into a crevasse to rescue a sledge dog 20 feet down:

. . . Mutt stood quietly without so much as looking round, amidst a shower of tinkling icicles which plunged on past, and speaking gently to him, I fixed the rope to his harness. Then Ray [Adie], who had tied my life line firmly to the sledge, began to haul the 100 pound dog slowly upward. . . . While this was going on I had the opportunity to study the magnificent sight of the narrow cavernous place in which I found myself. Everywhere hung huge icicles 10 to 15 feet long, with bases as much as 18 inches thick. Of these I had to be careful, for a piece could easily be dislodged and could have knocked me out. . . . The walls were hung with an amazing lace-like curtain of ice crystals, the individual crystals being an inch in diameter and linked together to form glittering pendants (p 128–29).

The quotation goes on to describe the technique of Darkie, the lead dog, in crossing crevassed areas, cautiously advancing 'somewhat in the fashion of an heraldic lion or leopard, each paw extended as far as possible to test the surface in front of him'.

The work is illustrated with fine photographs. The maps on end papers and in the text are helpful, but a detailed folding map at the end would have been even more so. It is good to see Greater Antarctica and Lesser Antarctica used as place-names, rather than 'East Antarctica' and 'West Antarctica'. A few misprints have crept into the place-names on the cover and in captions and text. However, I am convinced that *Of ice and men* will be bought and borrowed not only by Survey members and their families but by the British taxpayer, to whom it is dedicated and for whom it was written. It is a 'must' for all concerned with the polar regions whether in the field or at a desk.

SUB-ANTARCTIC ISLAND ECOLOGY

[Review by W. Nigel Bonner* of *Colloque sur les écosystèmes subantarctiques, Station Biologique de Paimpont (Université de Rennes) 1–4 July 1981*. Published under the direction of P. Jouventin, L. Massé and P. Tréhen. Paris, Comité National français des recherches antarctiques 51, 1982, 540 p. Softcover.]

Ecologists are fascinated by islands, and for good reason. The spatial isolation of oceanic islands means that they have simpler biotas than continental land masses. In these less complex communities, ecological relationships may be clearer, and adaptive and evolutionary trends more conspicuous. Islands where environmental pressures are extreme have a special role. Their systems are likely to show responses to these pressures, whether adaptive or otherwise, and their study will throw light on the phenomenon of biological response. The sub-Antarctic islands dotted around the Antarctic Convergence in the Atlantic and Indian ocean zones are specially interesting candidates for research. Few, if any, are pristine, but none has been affected by man for much more than a couple of centuries, and in general they constitute a relatively undisturbed part of the world's surface. This provides an opportunity to study natural ecosystems and relate them to their environment. At the same time, the

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