

Reviews

LOBSTICKS AND STONE CAIRNS: HUMAN LANDMARKS IN THE ARCTIC. Richard C. Davis (Editor). 1996. Calgary: University of Calgary Press. xiv + 326 p, illustrated. Hard cover: ISBN 1-895176-88-3; \$Can44.95. Soft cover: ISBN 1-895176-69-7. \$Can29.95.

This book presents 100 profiles of persons active in the context of the North American Arctic, which were originally published in *Arctic* between June 1982 and December 1987 and which will be familiar to many readers of *Polar Record*. Richard Davis' conception was to use the profiles as 'The best resource to help us grasp both the human and geographical aspects of the North....' The title refers to the twin means of indicating landmarks, the lobster being a tree with all but the topmost branches removed, while, beyond the treeline, cairns are employed for the same purpose. The persons profiled are such landmarks in a historical sense.

The editor has not merely represented the profiles without any attempt at organisation, but rather has divided them into 16 units, each of which comprises three to eight profiles with a map and a brief introductory comment. The general principle behind this organization is that of shifting from one geographical area to another. There is, of course, no such scheme that is not open to objection on the grounds of artificiality: one might, for example, consider that George Strong Nares sits more easily with Robert E. Peary and Frederick Cook than with William Penny and Otto Sverdrup. But in this context, it is a most effective means of dividing the profiles into manageable groups. The editor contributes an interesting and informative introduction to the profiles and suggests that this is a book 'made for browsing.'

In this he is perfectly correct, and it would be difficult to envisage a book more attractive for that purpose for the polar enthusiast. When the profiles were originally published, they appeared somewhat as petit fours after the solid menu included in each issue of *Arctic*. Seen as a whole, they represent a major assembly of biographical information that is imposing both in bulk and in quality. Each reader will have his own preference. For this reviewer (and it is necessary to include a modest disclaimer here since he was the author of two profiles), it is not those of such figures as Franklin, Back, and McClintock that have most appeal but those of such famous persons as Ernest C. Oberholtzer, John Hornby, and Albert Faillie. One would suggest that, however well informed a reader might be, there would be few who would not gain from a perusal of this work. Not only explorers are included, but there are also 'government geologists...romantic adventurers, whalers beside anthropologists, English ladies with Inuit guides,' not to mention, of course, members of the RCMP.

The quality of the profiles is uniformly high, as indeed one would expect when one looks at the names of the authors. Each consists of between two and three pages of biographical information plus illustrations, usually portraits, but in cases where none exist (for example, Richard King), there is an appropriate map or picture of a vessel.

Within such a short compass, it is difficult to include much more than the mere outlines of a person's life. But the authors have very frequently introduced astute comment, while some of the prose is of the highest quality. This reviewer will not soon forget, for example, the description of Warburton Pike's suicide when, at the age of 54, he was rejected for service in the British Army during the First World War.

Because of the unequal length of the profiles, it was necessary for the editor to devise some means of filling up the pages. This he has done most effectively by the use of illustrations from *Hudson Bay* by R.M. Ballantyne (himself profiled) or from W.F. Butler's *The great lone land*. These serve to lighten the text, and to assist in furthering the editor's intention: to produce a book for browsing.

In format, the book is landscape and very attractively produced. There is a full index. Davis is to be congratulated for having undertaken the work of assembling the profiles into a single volume, for raising the requisite funding — from such sources as the Frederick A. Cook Society — and for carrying the whole project to such a satisfactory conclusion. (Ian R. Stone, Laggan Juys, Larivane Close, Andreas, Isle of Man IM7 4HD.)

THE POLAR REGIONS: A POLITICAL GEOGRAPHY. Sanjay Chaturvedi. 1996. Chichester: John Wiley. xviii + 306 p, hard cover. ISBN 0-471-94898-5. £35.00.

At last, a major study on the international politics of the polar regions has been written by an academic with a SPRI affiliation, since Sanjay Chaturvedi, although based at the Panjab University at Chandigarh, researched and wrote this book during a lengthy period resident in Cambridge. Despite its unparalleled library resources and the sterling work of *Polar Record*, SPRI-based authors have not featured prominently in studies on the contemporary politics, economics, law, and conservation of the polar regions published since the late 1970s. However, we must hope that John Heap, SPRI's Director, will soon put pen to paper, given his central role in polar questions during recent decades.

Readers familiar with Chaturvedi's previous research will not be surprised to learn that, despite the book's nominal title, his prime concern is to apply what are described as the 'new geopolitics' to the polar regions, a theme linking up to his earlier work with Professor Puri at Panjab University and paralleling the publications of Klaus

Dodds and Jack Child. In reality, the new geopolitics should really have featured in the title, but one suspects was omitted for marketing reasons in favour of a title promising to meet the needs of a less specialised readership.

In effect, the polar regions, viewed in the broader international political context, are used to illuminate and test the new geopolitics. Roughly speaking, the latter are defined to emphasise collective rather than individual state goals, with priority being assigned to conservation and sustainable development over territorial aggrandisement and national sovereignty: 'Whereas the old geopolitics focused on the segments which make up the global totality, the new geopolitics focuses on the totality itself' (page 5). Thus, the old geopolitics, centred on 'spatial control and dominion' have been challenged, even supplanted, by the new geopolitics, which are engaged in a 'search for ecologically sustainable and socially equitable sustainable development and management of space and resources' (page 11).

Despite this conceptual focus, readers looking for an up-to-date bipolar study, taking due account of Arctic–Antarctic contrasts and similarities and acknowledging their status as 'exceptionally important ecological regions' (page 36), should not be deterred by Chaturvedi's focus on a newfangled term. Nor should readers who distrust conceptual approaches skip the early chapters setting out the geopolitical background. They are advised to persevere, given the useful perspectives contained therein on the Cold War and post-Cold War periods, and the way in which the book, characterised by both descriptive and analytical tendencies, provides a useful contemporary history of the polar regions viewed in a broad geopolitical framework.

The Arctic became a central theatre in the Cold War, and its resulting militarisation meant that 'ecological concerns were conspicuous by their total absence or relative neglect in the national priorities and calculations of the Arctic states' (page 100), as illustrated by, say, the dumping of radioactive waste in Arctic seas. The Cold War, although not entirely irrelevant, made less impact in Antarctica. Indeed, the Antarctic Treaty, bringing together a diverse range of countries, including the two major east–west protagonists, was negotiated during its midst: 'In sharp contrast to the Arctic, in the Antarctic the Cold War led to politicization rather than militarization' (page 107).

By contrast, the post-Cold War period witnessed an increased preoccupation with conservation and sustainable development, alongside moves to look beyond the national stage towards multilateral collaboration. Among aspects catching the reviewer's eye was a sympathetic appraisal of CRAMRA (pages 125–126) in terms of its capacity to link together resource management and conservation. If accepted, Chaturvedi feels that CRAMRA would have been a 'significant contribution' (page 126) to the Antarctic Treaty System (ATS), even if, as he reminds us, its spirit survives in the Protocol on Environmental Protection (page 207). Naturally, the Protocol, adopted in

1991, occupies centre stage, for it signified the introduction of a 'new environmental ethic' (page 210) and priority into the operations of the ATS.

Another ongoing issue is that of legitimacy and accountability, particularly since the question of to whom, why, and how are the Antarctic Treaty parties responsible has preoccupied the UN for the past decade. However, Chaturvedi, having examined the early phase (1983–1990) of UN debates on the 'Question of Antarctica,' tends to stop circa 1990 (pages 127–132), even if he assumes ongoing confrontation when looking forward to future developments (pages 132, 141). All one finds for the post-1990 period is a brief reference to the possible restoration of consensus (page 262). Readers will need to look elsewhere for UN developments in the 1990s, including the 1994 and 1996 sessions responsible for the restoration and continuation of consensus. The 1994 UN session might have come when this book was in the press — this is a problem for all books dealing with ongoing issues — but this does not excuse the omission of the 1990–1993 sessions, particularly given their environmental focus.

Today, one suspects that Antarctica, although still significant for scientific research and conservation, is returning to the margins of international affairs after a brief period of major public visibility. Despite the impression of Antarctic activity conveyed by Chaturvedi, it is difficult to deny that the 1990s, having started briskly in 1991 with the adoption of the Protocol and concern about the growth of Antarctic tourism, have proved a quieter period, a trend reinforced by consensus at the UN. By contrast, the past decade has proved a period of transformation for the Arctic, whose leading role in the east–west conflict meant that the end of the Cold War accelerated an ongoing process of change. Once again, this trend, carried forward on several fronts (for example, IASC), culminated in another event that came too late for inclusion, that is, the fact that in September 1996, eight Arctic countries, meeting at Ottawa, signed a declaration inaugurating the long-awaited Arctic Council for 'regular intergovernmental consideration of and consultation on Arctic issues' (preamble).

One other major bi-polar development largely overlooked concerns the evolving interaction between the Arctic and Antarctica, as highlighted by recent Antarctic Treaty Consultative Meetings (ATCM), including the most recent ATCM held at Christchurch in May 1997. The ATCM, guided by a Norwegian information paper (ATCM/INF 76), 'agreed on the need to facilitate the exchange of information on scientific and logistic activities in the polar regions,' even if support for links was qualified by the usual reference to the fact that 'the Meeting noted that the legal situations of the Arctic and Antarctic are quite different' (ATCPs 1997: 21). Nevertheless, Chaturvedi offers readers a useful background regarding these more recent developments.

Chaturvedi, though concentrating on the recent past, does look forward in terms of offering words of advice derived from the new geopolitics, most notably, the view

that 'in an increasingly interdependent world, in both the economic and the ecological senses of the term, the idea of international cooperation is not just an ideal but an imperative' (page 37). But he is also cautious. Despite evidence of the 'growing ascendancy of environmental values over resource-driven geopolitical visions' (page 229) in the polar regions, 'old habits and attitudes die hard' (page 200). There is no guarantee, he advises, that governments will accept the assumptions underlying the new geopolitics. As a result, it is preferable to view ourselves as living not in a world dominated by the new geopolitics, but rather one in a process of geopolitical transition (page 201). (Peter J. Beck, Faculty of Human Sciences, Kingston University, Penrhyn Road, Kingston upon Thames, Surrey KT1 2EE.)

Reference

ATCPs. 1997. *Draft Report of the Twenty-first Antarctic Treaty Consultative Meeting, 19–30 May 1997*. Wellington: Department of Foreign Affairs and Trade.

VOICES IN STONE: A PERSONAL JOURNEY INTO THE ARCTIC PAST. Peter Schledermann. 1996. Calgary: Arctic Institute of North America (Komatik Series No 5). xvii + 221 p, illustrated, soft cover. ISBN 0-919034-87-X. \$Can25.00.

Peter Schledermann's archaeological research in the Smith Sound region of northern Ellesmere Island during the past two decades has been instrumental to an understanding of prehistoric population adaptations and movements in the Canadian High Arctic and Greenland. *Voices in stone* is intended for the non-specialist, although it will certainly appeal to specialists as well, and serves both as a summary of the results of his 12 seasons of field investigations in the Smith Sound area and as a personal narrative of these investigations.

The introductory chapters briefly summarize current archaeological approaches and methods, introduce the reader to the Polar Inuit (the historic inhabitants of Smith Sound), and describe the archaeological context of Schledermann's research. These are followed by a series of chapters describing successive Paleoeskimo (ca 4000–1000 BP) and Neoeskimo (ca 1000 BP to present) occupations. In addition, one chapter deals with evidence for, and influence of, contact with the Greenland Norse colonies, another with European and Euroamerican exploration and settlement, while the final chapter, entitled 'Lessons from the past,' is essentially a personal philosophical essay.

The book is very well written, and various anthropological concepts, such as cultural ecology — which Schledermann relies on as a unifying thread to explain most temporal changes in population levels and population movements in the region — are explained in a simple, clear manner and applied in a straightforward fashion. Furthermore, it presents an interesting 'history' of a long-term archaeological project, from the initial concept of the project through the various survey and excavation stages. In doing so, it illustrates not only the connections between

the various stages and the often heuristic nature of archaeological field projects, but also how logistical and climatic constraints can significantly modify such projects; many readers will readily identify with potentially important locations that are inaccessible, fog-bound landing areas, tents shredded by gale-force winds, and overly curious polar bears.

The book is richly illustrated with excellent colour and black-and-white photographs and a series of fine bird sketches by artist Brenda Carter. A few minor errors of historical fact occur (for example, McClintock met Qitdlarssuaq's group in 1858, not in 'the early 1860s'), but they do not detract from an otherwise very enjoyable book. (James M. Savelle, Department of Anthropology, McGill University, 855 Sherbrooke Street West, Montreal, Quebec H3A 2T7, Canada.)

PHYSICS OF THE UPPER POLAR ATMOSPHERE. Asgeir Brekke. 1997. Chichester: John Wiley and Sons. xi + 491 p, illustrated, hard cover. ISBN 0-471-96018-7. £29.95; \$US50.00.

Physics of the upper polar atmosphere is an excellent and comprehensive summary of present-day knowledge of this region of the Earth's environment, written by a well-known and widely acknowledged expert in the field. The study begins with a detailed account of the Sun as a source of radiation. This is an ideal approach to the subject, because it gives a good understanding of the solar–terrestrial relationships that are involved in determining the nature and properties of the upper polar atmosphere. Starting with the short-wave extreme ultraviolet emissions and working through to the long-wave radio emissions, the properties of these various radiations are described and their origins in the solar atmosphere specified. Two examples of these important solar–terrestrial relationships may be cited: firstly, the extreme ultraviolet emission (between 0.01 and 0.1 μm) from the solar chromosphere, which generates the Earth's ionosphere by photo-ionisation, and, secondly, the far-ultraviolet emission (between 0.1 and 0.2 μm) from the top of the solar photosphere, which produces thermal dissociation of molecular oxygen in the mesospheric and thermospheric regions of our atmosphere.

The second chapter leads on logically to a detailed study of the solar wind and the interplanetary magnetic field, as this region is involved in the transmission of solar particles and emissions to the Earth and its magnetosphere. This section deals with the Sun's magnetic field, the frozen-in field concept, the electric field in the solar wind, and the well-known 'garden hose' effect.

The third chapter deals with the atmosphere of the Earth — its nomenclature and composition, its temperature structure, its frictional drag on Earth satellites, its behaviour as an ideal gas, and its 'oxygen chemistry.' More topically, and perhaps of more general interest, it also deals with 'global warming' and 'ozone holes.' The former is attributed to increasing amounts of carbon dioxide and other 'greenhouse gases' trapping more heat in the