

to make it seem almost as though the book has been written by the people it depicts. Through the use of first-hand accounts, reminiscences, and stories, she has made the voice of the native people themselves central to the book — in many ways, this is a story of the Indians told through their own words. Dorothy Smith of Ross River tells how her people decided to have a common trapline rather than go along with the officials who wanted individual registered lines:

This is the last place they still have a group trapline. All the other places have individual traplines. Ones who still trap here, they don't care. You can go anywhere you want, and nobody will say anything. That's why we want to keep it that way. The game warden wanted to make it individual, but we had a meeting and we just told him no! Because if it's individual, some of the people would probably sell out, and then the Indian people would have nothing. . . . Whoever wants to trap can go out and trap, can have their traps any place. . . .

This is a remarkable book in other ways as well. It is beautifully produced, with copious illustrations, including some stunning colour photographs, courtesy of the Yukon government. The typeface is handsome, the margins more than generous, the binding sturdy, and the physical appearance of the book bespeaks a quality unusual in a book aimed partly at schoolchildren. It must be one of the most elegant textbooks ever published, and probably one of the most expensive.

There is, however, a serious caveat to be issued about this book from the point of view of an historian. The book in some ways does not seem to be a history at all. Not only is its organization only loosely chronological, but it leaves huge gaps in the historical record; in particular, the history of the Yukon Indians after the arrival of outsiders and their relations with these outsiders is dealt with only very briefly. The history of the twentieth century is covered in a 19-page chapter entitled "It's a Long Way to Ottawa: Yukon Indians and the Government" — the entire modern history of a people occupying less than six percent of the text. Hints of this story are given — we are told something about the casual day labour performed by Indians during the gold rush, but there is no coherent analysis of native employment patterns. Nor is there any analysis of the effects of imported diseases, or of alcohol. There are only two paragraphs on the building of the Alaska Highway, an important episode in native history. One of the most traumatic experiences of many Yukon natives now living — education at a mission school — is not covered at all. Surely some of the author's informants told her of being beaten for speaking native languages in school, but this aspect of Indian history is for some reason lacking.

The result is that many of the darker episodes in the history of Yukon Indians are glossed over or ignored. Reviewers are often accused of criticizing an author for not writing the book that the reviewer would wish to see, but a history, particularly a wide-ranging one that is meant to serve as a school text, must cover its subject as completely as possible, or leave itself open to such criticism. *Part of the Land, Part of the Water*, while a handsome book and sensitive to its subject, is not wholly satisfactory as a history of the Yukon Indians.

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ANTARCTICA: THE NEXT DECADE. Report of a study group chaired by SIR ANTHONY PARSONS. Cambridge: The Press Syndicate of the University of Cambridge, 1987. 164 p., maps, appendixes, notes, refs., index. Hardbound. Price not indicated.

The continent of Antarctica, which constitutes approximately 10 percent of the earth's land surface and about 10 percent of its oceans, has long remained hidden in obscurity. Only in recent years has Antarctica achieved much recognition of its role in international affairs. Exploration, research, and in the *de facto* sense administration of the continent remained with the largely developed nations that had a long history of activity in the region. In the early 1980s, a group of develop-

ing nations led by Malaysia began to call for a re-evaluation of the present Antarctic Treaty system, with the objective of involving non-treaty members in the affairs of Antarctica. These nations presented a challenge to the present regime, one that is not likely to disappear or be easily resolved. Hence, the present volume comes at a particularly appropriate time and is important reading for anyone interested in the administration and development of the last remaining no-man's land on the planet.

The present work does not attempt to explore all aspects of Antarctic affairs within a single volume. Instead, the book focuses on the future of the Antarctic Treaty regime and on the implications of the disputes between the established treaty members and the developing nations that have hitherto taken little interest in the continent. The companion volume to this study, *The Antarctic Treaty Regime*, edited by Gillian Triggs (and reviewed in *Arctic* 41(2) June 1988), provides the background to the treaty and the details of its many components. Together these works will constitute a definitive study of political affairs in the Antarctic.

The book is divided into three main parts. The first begins with a summary of the origins and purpose of the 1959 treaty and notes the success that the treaty has achieved in the international community. The treaty has been successful in protecting the Antarctic environment, in establishing scientific cooperation, and in circumventing political disputes over the territory. The success of the treaty has been challenged, however, by a bloc of smaller, newer nations that have had no previous experience in the region. These nations are resentful of the dominance exercised by the treaty members, which they perceive as an exclusive club of developed nations controlling a part of the earth's surface that should be used to benefit all of mankind. Their actions in the United Nations and other world fora stem from this perceived exclusion from decision making in Antarctica. Here it should be noted that although 80 percent of the world's population lives in nations that are members of the treaty, these nations constitute only 20 percent of the world's nations, leaving 80 percent of the nations unrepresented on the issue of Antarctica. These differences of opinion concerning the internationalization of the continent put considerable stress on the present treaty system and the current regime. Moreover, non-governmental organizations (NGOs) have also begun to play a larger role in the affairs of the Antarctic. Environmental organizations, especially, have exerted pressure on the developed nations to limit the development of the continent and to adopt more conservation-oriented policies. The impact of the actions taken by both NGOs and the non-treaty developing nations indicate the need for a reassessment of the present system.

Part Two of the book deals with the uses of Antarctica. Scientific research is one use that could be subject to changes if the treaty is reassessed. Present research in the areas of geology and geophysics, climatology and meteorology, and biological sciences could be subject to greater restrictions under a new treaty regime with a significantly enlarged membership. Biological resources themselves, as well as mineral resources, could also be affected. The authors of this text, however, are not enthusiastic about the development of mineral resources in the region. The difficulties of exploration, access, and cost preclude significant development from taking place. Present world prices are simply too low to justify immediate exploration and development, especially when other energy alternatives are more cost efficient. The military potential of Antarctica is also discounted, at least for the present, as the region is currently demilitarized, internationally administered, and is not strategically important at this time.

The third part of the book focuses on options for the future. After examining various scenarios, the authors make a strong case for affording the non-member developing nations greater participation in the administration of Antarctica. Some accommodation on the part of each side will need to take place, and the present treaty can serve as a basis for the development of a new regime. The review of the treaty, scheduled for 1991, will no doubt see greater involvement from more nations which have recognized the importance of Antarctica.

Antarctica is being transformed from an obscure continent with limited scientific interest into the focus of many of the world's nations.

Evidence of this includes the fact that since this book was published in 1987, five more nations have acceded to the treaty and one previous member was accorded consultative party status (Headland, 1988). Given the interest in this continent, there is a need for additional scholarship that addresses the political and developmental aspects of the Antarctic. This book, along with the companion volume mentioned above, answers this need. The book is highly recommended for anyone with an interest in the development or preservation of the frozen continent.

## REFERENCES

- HEADLAND, R.K. 1988. Signatory governments of the Antarctic Treaty. *Polar Record* 24(148):64.  
 TRIGGS, G., ed. 1987. *The Antarctic Treaty Regime: Law, Environment and Resources*. Cambridge: Cambridge University Press. 238 p.

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DETECTION AND CLASSIFICATION OF ICE. By EDWARD O. LEWIS, BRIAN W. CURRIE and SIMON HAYKIN. Letchworth, Hertfordshire, England: Research Studies Press Ltd.; New York: John Wiley & Sons Inc., 1987. 325 p., maps, figs., illus., index, bib. Hardbound. US\$77.95.

This is a very informative book reporting the results of four experiments aimed at evaluating ice detection and potential for classification of a number of surface-based marine radar systems. Offshore drilling platforms in the Beaufort Sea and off Canada's east coast make extensive use of marine radar as a tool for ice detection and tracking and use airborne radar systems for ice detection and classification; during such times as aircraft systems are not available (e.g., bad weather, cost considerations) surface-based marine radar is the only tool available for use in monitoring of the ice surrounding the drilling platform. The book demonstrates that marine radar systems exist that, when properly configured, can be used for both ice detection and ice classification. Ice classification is an item of major importance that would greatly enhance the utility of marine radars; this would expand the "[yes/no] [X° at Y kms]" response to the query "Is there ice?" to include that most vital piece of information — the type of ice! The threat posed to a drilling platform by a floe of one-metre-thick first-year ice is minuscule when compared with that from a multi-year ice floe or an iceberg. A marine radar that could allow for differentiation of these targets would be of great value to both drilling and navigation operations in the ice-congested waters.

The book is unique in that it offers technical information to people who may require it (e.g., design engineers or people responsible for system selection) as well as to operators who end up actually using the apparatus. The book should be required reading in offshore installations operating in ice-covered waters. The language and presentation are such that most people can easily grasp the fundamentals and the details as they impact their particular operation (e.g., drillship, or caisson or navigating vessel).

The chapters preceding the discussion of the ice/radar experiments present two very valuable sections: one on the nature and structure of sea ice and glacier ice (Chapter 3), and the other on the theory of radar (Chapter 4). The section on ice structure in Chapter 3 very efficiently concludes with an extended discussion of the variations in dielectric loss rates between different ice types (e.g., an iceberg and a multi-year ice floe) that result in their having different radar signatures. The depolarization of radar signals is identified as a key aspect of ice-type differentiation. Though both of these chapters contain some complex

physical and mathematical concepts, they are written with sufficient clarity (and apparent concern for readers from the "soft" sciences) that the fundamentals are easily grasped. We found it rather refreshing to read a scientific book that begins at the beginning, rather than somewhere in the middle.

The authors of *Detection and Classification of Ice* concentrate on radar performance in ice-covered waters, although there was one experiment in open waters with X-band radar. The sea state and weather were relatively stable during the open water experiment, and it would be interesting to see the results of similar experiments carried out in adverse conditions with moving targets (the targets in the ice-covered water experiments were stationary). Although the authors achieved their objectives by demonstrating an ability to detect multi-year ice floes, icebergs and "berg bits" (in ideal conditions), the problem of detecting growlers has not been resolved. The authors do suggest, however, that the use of a coherent system may aid in the detection of smaller targets in open water conditions.

The authors of the book recommend the use of an S-band radar for detection of large targets and a dual-polarized (HH and HV) X-band radar for detection of multi-year floes and glacier ice targets. They also provide configuration data that would enhance the detection capabilities of existing X-band radar systems.

This book is a valuable resource for people who may be defining or developing system requirements for operations in ice-infested waters. It offers practical and useful suggestions on alternatives and trade-offs for various options. The book is also of use to people who operate the equipment or are in responsible positions (e.g., a vessel master) to appreciate the limitations and usefulness of X-band vs. S-band, X-polarization, and antenna height configurations. The book would also be of interest to students in electrical engineering or remote sensing.

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NORTHWEST TERRITORIES POSTAL CANCELLATIONS 1907-1986. By KEVIN O'REILLY. Toronto: The Unitrade Press, 1987. viii + 230 p., maps, facsimiles, etc. No price indicated.

The first impression a philatelist will likely derive from this book is probably highly misleading. The collector of postage stamps, air companies' mail stickers, or first-day flight covers with their colourful cachets will search in vain for these desiderata. Rather, this book restricts itself to reproducing the postal markings with which postmasters franked regular and registered mail and parcels originating in the Territories. The main sources for these were the Post Office Department's proof books at the National Postal Museum and the department's records in the Public Archives, both in Ottawa, supplemented by many covers from mail posted in the N.W.T. The postmarks identified, depicted and described prove surprisingly varied. They represent the outputs of some 92 official Canadian post offices and 9 United States Army post offices whose A.P.O. numbers on cancellations indicate they were used during the course of U.S. Cold War and Second World War military operations in the N.W.T.

The author has carefully researched the history of each office — when it was opened, closed, reopened, when and where it was relocat-