

THE SEVENTH CONTINENT: ANTARCTICA IN A RESOURCE AGE. By DEBORAH SHAPLEY. Washington D.C.: Resources for the Future, Inc., 1986. 332 p., 35 photos, 33 maps, appendix, index. Hardbound. US\$35.00.

The purpose of this book is to present a comprehensive picture of the role of Antarctica in world affairs today, with a focus on the political questions. The author succeeds in these objectives to a large extent.

Antarctica had its heroic age of exploration during the first part of this century. Science became the main activity after World War II, especially following the International Geophysical Year. This was when the Scientific Committee on Antarctic Research (SCAR) and the Antarctic Treaty came into being. The treaty came into force on 23 June 1961, when it was ratified by the last of the original 12 consultative parties.

The Antarctic Treaty is a unique international legal instrument. It has provided for the peaceful cooperation south of 60°S between countries of very different political beliefs. A major aspect of the treaty is its ambiguity on sovereignty. The states that have made claims, those that maintain they have basis for claims, and those without claims have "agreed to disagree." Article IV of the treaty froze the positions, and the negotiations at the consultative meetings strive carefully to maintain this balance by what is commonly termed the "bifocal approach" — using language that can be interpreted to cover the positions of both claimant and non-claimant states.

The first 20 years of the Antarctic Treaty System was a period of gradual evolution, leading to measures for the conservation of Antarctic flora and fauna and conventions for conservation of Antarctic seals and Antarctic marine living resources.

The 1980s have seen profound and accelerating changes in Antarctica. Numerous nations have joined the treaty, and negotiations and consultations have become more intense. There are three main reasons for this: Firstly, Antarctica has become an issue at the UN General Assembly. Secondly, the parties are attempting to develop a mineral resources regime. Thirdly, 1991 will become a critical time for the treaty: Article XII states that 30 years after the treaty came into force any of the consultative parties may call for a conference to review the treaty. Following such a conference any signatory may opt to withdraw from the treaty as early as 1995.

It is against this background that Deborah Shapley sets her book. The main chapters cover U.S. and international history of the continent, the Antarctic Treaty, living and mineral resources, and the future of Antarctica. The book contains a great deal of information presented in a very readable form.

The strongest sections of the book are those discussing the role of the U.S. I found her descriptions of other nations less accurate and curiously uneven, seemingly based on scattered information. Pages 68-82, which describe the interests of other countries, are not balanced in relation to the size of their historic activities and interests, and in some cases important elements are not mentioned. Thus the description of the country I know best states erroneously that Norwegian claims to the islands Bouvetøya and Peter I Øy and to Dronning (Queen) Maud Land were based "on their occupation and use by its [whaling] captains," and the map of historic expeditions (p. 80) omits Larsen's expedition down the eastern side of the Antarctic Peninsula, which has not been repeated, and most of the Norvegia expeditions.

The author at times seems impressed by size rather than quality. This is of course difficult to judge, but it is surely unjust to say of New Zealand that its contributions down on the ice "have been slim" (p. 72) or to consider the U.K. effort "threadbare" (p. 71). In comparison, she devotes much space to efforts such as the U.S. Operation Highjump in 1946-47, which was truly the largest single effort undertaken by any nation up to now, but which also probably produced the fewest results per dollar spent of any postwar expedition.

Shapley, in company with many environmentally concerned persons, seems to believe that exploitation of hydrocarbons on Antarctica could take place this century. This is exceptionally unlikely. The negotiations for a mineral regime, which will enter the ninth round at

the end of 1986, are *not* driven by imminent prospects of resource exploitation. The main forces are political. The common desire of the treaty nations is to conclude these complex negotiations *before* any mineral resource is discovered, in keeping with the best traditions of Antarctic diplomacy of staying ahead of the problems. At present hydrocarbon deposits are unknown in Antarctica — which indeed makes negotiations much simpler. There is no evidence for her statement on p. 131 that the 1973 USGS estimates "were *probably* too low." Most geologists believe that hydrocarbon exploitation will not occur in our generation, if at all.

The book seems to have been completed in 1983, which could explain the view on mineral exploitation, with the then rising oil prices. Publication in 1986 underscores how rapidly the Antarctic scene is changing, because some of Shapley's comments on the future are already outdated. Thus her prediction of possible composition of the treaty membership in 1991 does not include nations such as Italy and Finland, which have already joined. Her discussions of international negotiations seem at times naive.

Even though the book contains various minor errors it serves as a useful reference, especially on U.S. involvement in Antarctica. Experts who negotiate Antarctica's political questions may find thought-provoking observations in her discussions of the Antarctic Treaty System and its future evolution. The book is well illustrated and referenced and has a good index. It is reasonably priced for its size, and I recommend the book to anyone interested in this fascinating continent and its future.

Olav Orheim
Head, Antarctic Section
Norwegian Polar Research Institute
P.O. Box 158
1330 Oslo lufthavn, Norway

THULE PIONEERS. Edited by E. BIELAWSKI, CAROLYNN KOBELKA, and ROBERT R. JANES. Occasional Papers of the Prince of Wales Northern Heritage Centre, No. 2, 1986. Softbound.

This publication is the second volume in the occasional paper series of the Prince of Wales Northern Heritage Centre in Yellowknife, N.W.T. As outlined by Robert Janes in the Foreword to the first volume published in 1985, the objective of the series is to provide northern residents and others who work in the North with the opportunity to share their knowledge of the North in a manner that "strike(s) a balance between sound research and broad appeal to a non-specialist readership." The second volume of the series admirably fulfills this mandate. The volume contains two papers, the first one entitled "In Search of the Thule Pioneers," by Charles Arnold, and the second one "Exhibiting 'In Search of the Thule Pioneers,'" by Charles Arnold and Wally Wolfe.

In the first paper, which comprises the major portion of the volume, Arnold tells the story of the prehistoric Thule culture and how he and members of the Banks Island Archaeological Project went about researching the origins of Thule culture in one area of the western Canadian Arctic. The story of Thule culture lifeways and our current interpretation of Thule prehistory is skillfully interwoven with a description of how arctic archaeologists carry out their field research. Arnold begins by explaining why Banks Island was chosen for study, how the study area of Nelson River was selected, how the initial survey for archaeological sites was conducted and what was found. The procedures involved in the excavation of a site and the nature of the house remains are well described in the text and through ample photographs complemented by line drawings illustrating how the excavated house was originally built and what it might have looked like when occupied.