

Problems with the book are as follows: Some of the gray scale photographs and figures (Figures 1.2 and 8.8) are overly dark and have low contrast. Some figures are at such a small scale that they are difficult to read. The Arctic Ocean bathymetry is a contour plot with labeled isobaths, while the corresponding Antarctic bathymetry is a poorly reproduced image, with depths identified by shades of gray. On Figure 1.4, the Yukon River is misidentified as the Yellow. The Arctic sea ice cycle is given twice, once in Figure 1.17 for 1978–88 to show the annual cycle, and again in Figure 8.10 for 1978–96 to show the long-term decrease in ice extent. Also, the analogous long-term Antarctic cycle, which remains constant, is discussed but not shown: thus, the author loses an opportunity to illustrate graphically this curious asymmetry between the hemispheres. In the bibliography, at least one reference (Untersteiner, 1987) is missing. Although annoying, these errors and omissions are minor compared with the overall scope of the book.

The audience for this book includes upper-level undergraduates and graduate students interested in sea ice processes. Other potential readers include researchers in biology, ice engineering, remote sensing, climate, and numerical modeling. If I were traveling to the polar regions, I would certainly carry this book in my duffel.

REFERENCES

- COLE, D.M., and SHAPIRO, L.H. 1998. Observations of brine drainage networks and microstructure of multi-year sea ice. *Journal of Geophysical Research* 103:21739–21750.
- WETTLAUFER, J. 1998. Introduction to crystallization phenomena in sea ice. In: Leppäranta, M., ed. *Physics of ice-covered seas*. Helsinki: University of Helsinki Press. 105–194.

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THE PALEO-ESKIMO CULTURES OF GREENLAND: NEW PERSPECTIVES IN GREENLANDIC ARCHAEOLOGY. Edited by BJARNE GRØNNOW and JOHN PIND. Copenhagen: Danish Polar Center, 1996. Publication No. 1. x + 334 p., maps, b&w illus., bib. Softbound. DKK190 + p&h. Cdn\$35.00.

This collection of papers from a symposium held on 21–24 May 1992 at the Institute of Archaeology and Ethnology, University of Copenhagen, represents the first attempt at a synthesis of Greenland archaeological research covering most of the major geographical regions. As such, it would be a valuable addition to the literature regardless of

its quality: that the submissions are uniformly interesting and individually well presented is a bonus. The book is an indispensable reference, at small cost, to the student of Arctic anthropology, and an interesting read for the arm-chair enthusiast. (To avoid frustration, arm yourself with a Greenland map or atlas before getting too comfortable.)

Contents are divided into sections covering the background (history of research and work currently underway), West Greenland, East and North East Greenland, the Tunit, the Paleo-environment, and Canadian contributions based on what might be described as “nearby and related research.” Here we run into the first minor complaint: the conference sessions were organized one way, the table of contents arranges them in a different order, and the introductory chapter and accompanying map arrange them in yet another.

References are compiled at the end of the volume instead of within each paper, and the publication ends with a useful list of contributors and their addresses. The principal weakness of the work is evident almost immediately: there is a dearth—indeed a total absence in some papers—of maps to place sites and regions in context. A more detailed “setting” map would have been a welcome addition. Even the general map on page 7 lacks an inset of the Canadian Arctic, which would have helped readers to place in context the papers by Helmer, Renouf, and Sutherland, as well as the frequent references to Canadian sites. The profusion of alternative names and spellings of places further exacerbates the map problem. Numerous typos are found throughout the book. However, these few minor issues do little to detract from the wealth of new knowledge provided. Note that we have used spellings as they are found in the volume (e.g., Tunit, Paleo-Eskimo).

The introductory section presents a description of current research into the Paleo-Eskimo cultures of Greenland by Bjarne Grønnow and a somewhat truculent analysis entitled “The Pioneers: The Beginning of Paleo-Eskimo Research in West Greenland,” by Jørgen Meldgaard. Although the memoir is interesting, we wished that Meldgaard had used his encyclopedic knowledge of the region to set the stage for the new constructions that follow.

Eight papers on West Greenland provide a neat picture of the limited situation of Greenland archaeology: the section might better be titled “the south-west coast from Disko Island to Nuuk.” Two papers on “inland” sites located between Nordre Stromfjordi and Søndre Stromfjordi illustrate the limited hinterland in a country covered mainly by an ice cap. The paper by Bjarne Grønnow describing the Saqqaq tool kit from Qeqertasussuk on Disko Island contains exquisite line drawings of a site plan, profile sections, and magnificently informative tools and utensils of stone, wood, antler, ivory, whale bone, baleen, bird bone, and seal bone, as well as several composite tools. The detailed descriptions of the site, tool kit (including useful metric analyses), chronology, and economy are well summarized in the concluding statement: “The Saqqaq people hardly changed their tool kit for

over a millennium, although this picture is not repeated further south in the Sisimiut district, where more diversity in raw material preferences is shown through time, suggesting an interesting research topic" (p. 31). Koch et al. follow with a description of some human skeletal material from a midden at the same site, which represent the only known human Paleo-Eskimo remains from Greenland to that date and appear to date to the earliest period of the Saqqaq culture. An interesting find was the presence of haematite on one of the bones, tempting the reviewers to compare this with the contemporaneous use of the same material in Maritime Archaic burials across the strait at Nulliak Cove in northern Labrador (Fitzhugh, 1981).

Kramer begins his report, entitled "The Paleo-Eskimo Cultures in Sisimiut District, West Greenland: Aspects of Chronology," with this statement: "It is of fundamental importance for the arctic archaeologist to be able to provisionally date Paleo-Eskimo finds in the field" (p. 39). While this sentiment is aimed at the need to be able to immediately fit surface finds into a chronology and thus, if necessary, shift a survey focus, we wish that such a chronology had been available for readers, both those who skim the surface and those who wish to dig more deeply.

Studies of East and North East Greenland are represented by five papers. These include three surveys covering the northern tip of the continent, the Scoresby Sund fiord complex, and most southerly, the Skjoldungen Fiord region. Jensen's argument on the importance of accurate location recording and painstaking collection of retouch flakes for "establishing behavioral organization within the dwelling" (p. 158) should be noted and appreciated by aspiring and practicing field archaeologists. Conversely, a rather sloppy map (p. 162) that omits a number of the sites mentioned in the text detracts from Sandell and Sandell's otherwise interesting limited survey of sites in the huge Scoresby Sund area. Three very handy appendices complete this report. The enormous potential of northern East Greenland is evident from Claus Andreasen's survey of this region, although a lack of artifact photos and patchy translating and editing compromise the value of his paper. Andreasen raises several intriguing local problems, such as the failure to associate access to the beach with settlement location and the resulting impossibility of correlating site dates with height above sea level. He does not, however, speculate on what factors other than proximity to the sea might have determined settlement location. The final two papers in this section discuss cultural and biological factors in the area's prehistory. Henrik Elling effectively argues for elimination of the distinctions between the earliest Paleo-Eskimo cultures of the region. Anders Koch addresses the biological evidence for the interesting question of whether Dorset admixture can account for cultural and linguistic differences between the Ammassalik Inuit and those occupying the West Coast.

The Tunit section, consisting of two papers, represents an interesting attempt to synthesize some of the existing ethnological evidence with archaeological remains to solve

the great mystery that, according to Gulløv, "still obsesses archaeologists" (p. 201): namely, what happened to the Dorset culture? Although Gulløv and Kleivan are, like those who have gone before, unable to arrive at the final answer to the question, they offer new evidence of contact between Dorset and Thule people.

"The Paleo-environment" offers four papers on scientific analysis of site materials, including C14 dating, climatic change, fossil insects, and ice cover and sea level changes, that will be of interest to those conducting studies in other Arctic areas. Finally, two papers on Canadian sites on Ellesmere and Little Cornwallis Islands, and comments by Canadian archaeologists, discuss regional Paleo-Eskimo problems relating to Greenland, and the opportunities for sharing research and results.

In summary, this compilation of papers represents a huge contribution to Arctic prehistory, and the authors and editors must be commended for their commitment to achieving its publication. If you don't have it already, we recommend it highly.

REFERENCES

- FITZHUGH, W.W. 1981. Smithsonian archaeological surveys, central and northern Labrador, 1980. In: Sproull Thomson, J., and Ransom, B., eds. *Archaeology in Newfoundland and Labrador 1980. Annual Report 1*. St John's, Newfoundland: Historic Resources Division, Department of Culture, Recreation and Youth. 26–47.

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- INUKSUIT: SILENT MESSENGERS OF THE ARCTIC.
By NORMAN HALLENDY. Vancouver: Douglas & McIntyre Ltd., and Seattle: University of Washington Press, 2000. ISBN 0-295-97983-6. 128 p., 2 maps, 52 colour photographs, b&w illus., bib., index. Hardbound. Cdn\$45.00. US\$35.00.

From where I stand, it seems that wide-format "coffee-table" books filled with sumptuous Arctic photography must sell passing fair, given the great number of them in the mass-market bookstores. Whether the publishers of Norman Hallendy's new volume think of it as one more example I can't say, but my guess is you'll find it displayed