

THE LAND THAT NEVER MELTS — AUYUITTUQ NATIONAL PARK. EDITED BY ROGER WILSON. Toronto: Peter Martin Associates, 1976. 7 x 5 inches, 212 pages, illustrated, map. Paperback, \$5.95; hard cover, \$15.00.

This publication is a welcome attempt by Parks Canada to produce for the general reader a serious, illustrated handbook on an Arctic national park. It contains four main chapters: the shaping of the land — geology, climate, and ice age history, by Gifford H. Miller and Raymond S. Bradley; the history of human occupation, by Peter Schledermann; the living landscape by Patrick Baird; and aids to the park visitor, also by Patrick Baird.

There are two major aspects of the work that deserve special praise: (1) a series of magnificent illustrations, including colour photographs and landscapes, plant communities, and flowers, and colour reproductions of Jean-Luc Grodin's bird paintings; and (2) a text written on the assumption that the reader will understand an intelligent and scientific account of the natural history and archaeology of this national park. The text has been written by a group of scholars well acquainted with the area and with their subjects, and incorporates much recent research. It provides a much-needed counter-balance to the usual pseudo-scientific pap that publishers and editors so frequently consider necessary for a general readership. Writing for the latter is usually a much more ambitious and difficult undertaking than one might at first suppose. It is nevertheless vital that more scientists make such attempts at a time when special habitats are under threat as much because of the persistence of an uninformed public as for any other reason. For Canadians and citizens of all Arctic lands, therefore, the present work is an important one, and it is in consequence appropriate to offer a critical appraisal of the degree of success achieved by its authors and editor.

Schledermann has produced a brief masterpiece of archaeological writing, amply founded on a review of current knowledge concerning the development of Arctic cultures and their extension eastward from the Beringian spring-board for the peopling of North America. This is the most successful part of the book; very few slips have occurred in the transition from academic to general writing. There is one unfortunate ambiguity on p. 63 where it is stated that "while the Wisconsin ice sheets still covered most of northern North America their [early peoples'] cultures advanced and diversified throughout

the remaining regions of the New World". There is surely some doubt that the migrations out of Beringia were delayed until opening of the corridor between the Rockies and the Laurentide Ice Sheet in late-Wisconsin time. Also, the caption to fig. 34 gives the impression that the Beringian land-bridge was submerged as late as 4,500 B.P., which is too long after the melting of the ice sheets. Finally, there is a surprising lack of reference to the Distant Early Warning (DEW) Line that must have had some impact on the people of Cumberland Peninsula.

Miller and Bradley, while also producing a highly effective chapter, have not accomplished the transition from the academic mode of writing as well as Schledermann. There are a number of sloppy constructions that make for misleading circular arguments, such as: "With the coming of the ice age, the climate of the Arctic deteriorated . . ." (p. 4). There is a nice account of lichenometry (pp. 29-32) but no information on the mode and problems of constructing the lichen-growth curve (fig. 17) which forms the basis of the method's application. Visitors to the park are invited to date their own substrates, yet the scale of fig. 17 defies effective use. An improvement would have been to reproduce it with one centimetre representing 1,000 years. Even then, the *R. geographicum* thallus diameters on p. 33 are somehow seriously in error: to match ages of 3,200, 1,650, 800, 400, and 70 years, as near as can be gauged from the growth-curve, we need 96, 55, 35, 22, and 10.0 mm, not 54, 56, 35, 25, 10.0 mm provided in the text.

Tundra polygons are given as examples of frost sorting, when they are in fact non-sorted patterned-ground phenomena; and solifluction lobes are accredited to frost creep, which is only one of the two major component processes involved (p. 36). The climatic tables and diagrams could have included mean annual air temperature and precipitation data; and was there *no* sea ice in Foxe Basin in August-September during the nineteen fifties and sixties (fig. 27)?

Baird's contribution on the living landscape is far less ambitious, and is held together more by the superb illustrations than by the somewhat nondescript text. Some element of modern ecosystem research from a practising ecologist would have helped make this chapter more nearly match the preceding two. "Arctic ecology" as a sub-heading, would have been infinitely preferable to "Boreal ecology".

The chapter on aids to the park visitor is a useful account of the equipment and mental

attitudes required by intending hikers and mountaineers. It also serves to highlight a general, and perhaps major, short-coming of the entire book. Where is this park located? This is not such a foolish question as it may appear, since there are many people who do not know the location of Baffin Island. There is no location map! A statement that visitors can use commercial flights to Pangnirtung without any indication of the name of the airline or point of departure deepens the mystery. When careful examination of all the sketch maps failed to reveal even the label "Baffin Island", and the fold-out map was seen to lack any inset, and the names "Broughton" and "Pangnirtung" were in microscopic print, the answer dawned. There is a conspiracy amongst the authors, editor and Parks Canada to preserve the "fragile" environment of this beautiful park by making sure that only the most persistent can find it! To aid this purpose, the park has been given an unpronounceable and unspellable name. Does "Auyuittuq" mean "the land that never melts"? This may be implied, but it is certainly not stated.

These criticisms may indicate that this book is a worthy achievement with some unfortunate flaws, yet the illustrations alone justify the price (\$5.95). Parks Canada are to be congratulated on producing a good scientific account for the layman. Hopefully, it will sell so well as to permit a new edition, 50 pages longer, to include animal photographs, modern ecology, and, especially, a location map.

Jack D. Ives

Books Received

ECOLOGICAL IMPACTS OF SNOW-PACK AUGMENTATION IN THE SAN JUAN MOUNTAINS, COLORADO. EDITED BY HAROLD W. STEINHOFF AND JACK D. IVES. *Boulder, Colorado: Institute of Arctic and Alpine Research, University of Colorado, 1976. 11 x 8½ inches, 489 pages, illustrated. Soft cover, no price indicated.*

ENERGY FLOW — ITS BIOLOGICAL DIMENSIONS: A SUMMARY OF THE INTERNATIONAL BIOLOGICAL PROGRAM IN CANADA, 1964-1974. EDITED BY THOMAS W. M. CAMERON AND L. W. BILLINGSLEY. *Ottawa: Royal Society of Canada, 1975. 9 x 6 inches, 330 pages, illustrated. Soft cover, \$5.00 postpaid.*

QUATERNARY GEOLOGY OF ALASKA. BY TROY L. PÉWÉ. *Washington: U.S. Government Printing Office, 1975. 11¼ x 9 inches, 145 pages, 45 illustrations and maps, 14 tables. Soft cover, no price indicated.*

STORIES FROM PANGNIRTUNG. ILLUSTRATED BY GERMAINE ARNAKTAUYOK, FOREWORD BY STUART HODGSON. *Edmonton, Alberta: Hurtig Publishers, 1976. 6 x 8½ inches, 100 pages, 12 full colour illustrations. Hard cover, \$5.95.*

THE NORTH IN TRANSITION. EDITED BY NILS ØRVIK AND KIRK R. PATTERSON. *Kingston, Ontario: Centre for International Relations, Queen's University, 1976. 8½ x 11 inches, 168 pages. Soft cover, no price indicated.*