THE ARCTIC: ENVIRONMENT, PEOPLE, POLICY. Edited by MARK NUTTALL and TERRY V. CALLAGHAN. Amsterdam: Harwood Academic Publishers, 2000. 647 p., maps, b&w and colour illus., bib., index. Hardbound. US$118.00; £78.00.

The Arctic has long held a fascination for those living in more temperate regions of the world. At one time, the Arctic was a remote place where little changed. This is no longer true. The world has come to the Arctic, altering its environment and local societies. The Arctic is now a resource frontier for the global economy as well as a homeland for its indigenous peoples. The central question posed by Mark Nuttall and Terry Callaghan is, Can these two visions co-exist? Their fear is that industrial development will severely damage the fragile Arctic environment and, in doing so, destroy the land-based economy of Arctic peoples.

The Arctic: Environment, People, Policy is a rich and varied collection of articles cast within a deep sense of urgency: namely, that unsustainable economic development serving the global economy degrades the Arctic environment and, coupled with state policies and programs that intrude on Arctic citizens by suppressing their traditional cultures and spiritualities, endangers both the Arctic ecosystem and its indigenous peoples. To avoid such a calamity, the editors call for research that "not only encompasses perspectives from the natural and social sciences, but incorporates the knowledge, experiences, and perspectives of local people and their communities" (p. xxvii).

The editors have selected 35 scholars who attempt the seemingly impossible task of providing a baseline of the existing physical and human dimensions of this natural region that will allow future changes to be measured. With both editors based in the United Kingdom, it is not surprising that over half the authors are from European institutes or universities. Scholars from Canada and Russia, which together contain most Arctic land, are badly underrepresented.

The complexity and diversity of the Arctic is revealed in 22 chapters. In one sense, each chapter stands alone, representing a comprehensive statement on a particular topic. In another sense, each chapter leads to a fuller understanding of the concept of holism. This concept, based on the notion that the whole is greater than the sum of its parts, provides a central theme. Nuttall and Callaghan have skillfully focused the reader's attention on the importance of holistic Arctic research. Accordingly, Arctic research must deal with the impact of natural and social changes on northern peoples and their environment. While the natural scientists have presented classical accounts of the physical environment, the social scientists have stressed the interconnected nature of the Arctic environment and its people. In Chapter 13, for example, Nuttall raises the spectre of environmental degradation as a consequence of modernity and the idea that the creation of social institutions by nation-states has "circumscribed" the lives of indigenous peoples. In Chapter 22, Nuttall's solution to modernity lies in Arctic peoples' adopting an environmental/political strategy, based on their special land-people relationship, to apply political pressure on nation-states and thus gain a measure of control over the impact of the outside world on their lives, environment, and culture.

The main divisions of the book reflect four scientific subject areas: physical structure and associated natural processes, life sciences, social and political dimensions, and anthropogenic impacts on this natural but delicate environment. Part 1 contains six chapters that deal with the physical structure and processes found in the Arctic. The first chapter focuses on Arctic geology, and the subjects of the remaining five deal with the natural processes affecting the Arctic: glaciology, permafrost, oceanography, upper atmosphere physics, and climate. While all the chapters were well done, Professor Woo's chapter on permafrost and hydrology was particularly outstanding. As Woo points out, permafrost is present under all Arctic lands and even below the seabed of continental shelves, and reaches depths of over 1000 metres in Siberia. Many photographs and diagrams made his text all the more understandable. No doubt many professors will require their students to read Woo's succinct account of permafrost

Part 2, entitled "Life Sciences in the Arctic," contains six chapters dealing with marine biology, ecology, biodiversity, ecosystems, medical sciences, and physical anthropology. I was drawn to Chapter 11, in which Bent Harvald and the late Jens Peder Hart Hansen discussed Arctic medical science. Harvald and Hart Hansen concentrate on three themes: (1) the properties of the Arctic peoples in their status of genetic and cultural isolates; (2) the characteristic disease patterns of Arctic peoples, developed in the interplay between genes and environment; and (3) the special health problems connected with industrialization, modernization, and acculturation, with stress on such public health issues as alcoholism and suicide, which have attained extraordinary dimensions in Arctic communities. In more recent years, the number of Arctic people affected by diabetes has risen sharply, especially among Indians. According to Harvald and Hart Hansen, predisposition to diabetes has an important genetic component. They go on to state on page 322 that "diabetes in Indian tribes is associated with hypertension, obesity, arterioselerotic [sic] heart disease, stroke and stones in the gall bladder."

Part 3 deals with the social and political dimensions of the Arctic. The subjects range from self-determination to social anthropology, geopolitics, population, and renewable resource management. Of the five articles, Nuttall's presentation of the state of indigenous peoples and the Arctic environment captured the central theme of this book—the plight of indigenous peoples confronted by the ever-expanding modern industrial world. Nuttall supports his argument by employing Giddens' (1990) version of modernity with its double-edged offer: on the one hand,

greater economic opportunities and security are possible in the global village; on the other hand, modernity degrades the environment and encapsulates Arctic peoples within the administrative structure of modern states. Nuttall goes on to state that "…the case for indigenous peoples being in a position to protect the Arctic depends on them demonstrating that they *do* belong to environmentalist cultures, in which conservation ethics are fundamental" (p. 407).

The final section, Part 4, is concerned with human impact on the Arctic environment. Its five chapters discuss global climatic change, ozone depletion and UV-B radiation, industrial pollution, international co-operation, and indigenous peoples' organizations. In the concluding chapter, Nuttall directs the reader to matters involving indigenous organizations and environmental co-operation. He states: "In many parts of the Arctic, indigenous resource management is one of the most significant areas of public policy concern to have emerged since the last 1970s and early 1980s" (p. 623). Why? This concern reveals the fundamental connection between the well-being of the Arctic environment and Arctic peoples. This simple relationship of people to the land is the key to understanding their concerns over what they see as "uncontrolled" resource development by outsiders, resulting in damage to the habitat followed by a decline in wildlife. Not surprisingly, this long-standing relationship explains why indigenous peoples, in various ways, seek control over resource development through land-claim settlements, co-management arrangements, and alliances with the environmental movement. This special relationship has been used as a political lever to influence policymakers in circumpolar nation-states.

A book of this complexity and magnitude is indeed a bold undertaking. The range of topics presented was substantial. I was surprised, however, by the absence of three critical issues. The first is the impact of the rapidly growing Aboriginal population on the Arctic environment and its renewable resources (e.g., through harvesting pressure). The second is the cultural adaptation stemming from involvement in the economy and politics of their respective nation-states—a trade-off that Aboriginal peoples must accept, along with some environmental consequences, if they are to participate in the market economy. The third issue is the financial dependency of Arctic peoples on their nation-states: their capacity (or incapacity) to support their village and regional governments. As we look to the future, these three issues deserve attention. As for their claim of an original baseline study, the authors may wish to consider *The Geography of the Northlands* (Kimble and Good, 1955) and *The Arctic Basin* (Sater, 1963).

Given the scope of this book, as well as the number of authors, few inconsistencies occurred. Minor flaws include the failure to cite Smith (p. 395) in the references on p. 409. In a few places, the facts are a bit off, i.e., "the majority population of Nunavut is 80% Inuit" (p. 384). Canada's 1996 census indicated that the Inuit formed 83% of Nunavut's population (Bureau of Statistics, 1998:5). Dramatic statements reminiscent of the Club of Rome "doomsday" message, such as "the fate of our globe" (p. 517), could be omitted. More puzzling is why the population data for the circumpolar North in Dr. Knapp's chapter stopped at 1990 when the book was published in 2000.

In spite of these shortcomings, Nuttall and Callaghan have made a significant contribution to Arctic literature. Their book not only provides a baseline for future investigations, but also deserves to find a home in university libraries, where it can rightfully serve as a reference book for both students and their professors.

REFERENCES

BUREAU OF STATISTICS. 1998. Nunavut – 1998…by the numbers. Yellowknife: Government of the Northwest Territories.

GIDDENS, A. 1990. The consequences of modernity. Stanford, California: Stanford University Press.

KIMBLE, G.H.T., and GOOD, D., eds. 1955. Geography of the Northlands. New York: American Geographical Society.

SATER, J.E., ed. 1963. The Arctic Basin. Washington: The Arctic Institute of North America.

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THE PEOPLE OF DENENDEH: ETHNOHISTORY OF THE INDIANS OF CANADA'S NORTHWEST TERRITORIES. By JUNE HELM. Iowa City: University of Iowa Press, 2000. xx + 389 p., maps, b&w illus., bib., index. Hardbound. US$39.95.

The People of Denendeh must be considered as the essential Helm reader. With this work, anthropologist June Helm brings together her 50 years of research on the Athapaskan-speaking people of the Mackenzie River basin in the Northwest Territories of Canada.

Helm's choice of title builds on the common ancestry of the Aboriginal people of the Mackenzie basin and their dream of a common future. Collectively, the Athapaskan people of this region refer to themselves as *Dene* ('the people'). *Denendeh* ('the land of the people') has referred in recent years to a political goal that became popular in the 1970s and 1980s: a unified, self-governed Dene homeland made up of the Chipewyan-, Slavey-, Dogrib-, and Gwich'in-speaking people of the Northwest Territories. Following the collapse of the Dene/Metis Comprehensive Land Claim in 1989, and the advent of regional Dene and Metis land claims in the early 1990s, the prospects for that dream to become reality in the near term have slipped away. June Helm, however, was on the scene for the birth