

Anyone who wonders how the authorities could ship Inuit to the High Arctic in such a cavalier manner, "for their own good," as one would take a pet animal to the veterinarian, need only read this quotation.

The hardships the Inuit families suffered in their new homes have become fairly well known through recent media interest in this episode. Hunting was not good, the climate and topography were different from what they were used to, and worst of all, they had been taken far north of the Arctic Circle, where winters were much darker than in the latitudes where they had been born. Because only a few families moved, the young people suffered a drastic shortage of potential marriage partners, a problem one would think would have occurred to the government. Most though not all survived, however, including, ironically, John Amagoalik, now one of the best-known leaders of the Inuit of Nunavut.

Considering the subject, this is a remarkably even-tempered book, which though not long, outlines the main facts of the episode in a fair and temperate manner. The only thing that it lacks, I think, is an adequate explanation of the context in which this removal took place. In 1952 the federal government was reeling from the revelation of the events in which the Inuit of the Keewatin interior had been found to be starving, a story vividly recounted by Farley Mowat in *The People of the Deer*. Critics of government are fond of recounting its many failings: insensitivity, slothfulness, reluctance to change, self-absorption. Some people think that the Canadian government is evil rather than sluggish and negligent, though I am inclined to disagree. One great motivating force in government and the civil service, however, is the fear of exposure to public criticism.

The episode exposed by Farley Mowat was a great embarrassment to the St. Laurent government, which found its aboriginal policy compared to that of the worst European colonialists and had to explain the presence of actual starvation in a country enjoying the prosperity of the post-war boom. When Ottawa learned through the RCMP that the Inuit of Port Harrison and Pond Inlet were in a difficult situation for food, they must have feared a new onslaught of bad publicity. Although the other reasons for the "experiment" cited by Marcus — the sovereignty question, the wish to "protect" the Inuit, and the desire to save on welfare payments, for instance — undoubtedly were important, official fear of another scandal surely must have had some weight. Such a contextual framework would not have excused this sorry episode, but it would perhaps have made it more understandable. This aside, however, *Out in the Cold* is a good survey of the question and a valuable addition to the IWGIA series.

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THE GEOMORPHOLOGICAL SETTING, GLACIAL HISTORY AND HOLOCENE DEVELOPMENT OF "KAP INGLEFIELD SØ", INGLEFIELD LAND, NORTH-WEST GREENLAND. By WESTON BLAKE, JR., MARY M. BOUCHERLE, BENT FREDSKILD, JAN A. JANSSENS and JOHN P. SMOL. Copenhagen: The Commission for Scientific Research in Greenland, 1992. Meddelelser om Grønland, Geoscience 27. 42 p., tables, figs., plates in pocket. Softbound. DKr125.

Inglefield Land is perhaps best known as the resting place of the Swedish botanist Thorild Wulff. He succumbed in 1917 to the hardships of the Second Thule Expedition to the North Coast of Greenland. His companions, the geologist Lauge Koch and Nasaitordluarsuk and Inukitsoq from Thule, had to abandon him as he was too feeble to go on. What a contrast to the modern field work by W. Blake, Jr., that was carried out with helicopter support. Today the major problem of doing field work in such remote areas is budgetary.

The monograph presents the results of reconnaissance field work by W. Blake, Jr., from the Geological Survey of Canada, air photo interpretations and detailed work on a core raised from a lake near the westernmost point of Greenland. In a time of economic constraint and more and more emphasis placed on applied science, it is encouraging to see that the Geological Survey of Canada can still support research programs aimed at unraveling the history of the Earth — even outside Canada.

In the past years several Canadian Quaternary geologists have extended their work into Greenland. In view of the enormous land area of Canada that may seem strange. However, the main question that they have pursued is whether Nares Strait between northern Canada and Greenland was glaciated during the global maximum of the last glacial period (about 18 000 to 20 000 years ago). This is a very controversial question among glacial geologists. One school envisages that the glaciers of the region were only slightly more expanded than at present, whereas another school envisages a much more heavy glaciation than today.

Blake belongs to the second school, and one of the results of his work in Inglefield Land is that raised, postglacial sediments up to 80 m above the present sea level have been documented. Had this been a local phenomenon it could perhaps have been explained away by some local anomaly in the crust of the Earth, but it certainly is not. Therefore the conclusion arrived at by Blake, that this emergence followed from the melting away of substantial masses of glacier ice, appears fully justified to me.

There is very strong geomorphological evidence along the coast of Nares Strait for a southward-flowing glacier between northwest Greenland and Ellesmere Island in the form of glacial striae and other glacial sculptures and in the form of a system of lateral meltwater canyons described in detail and shown on a map in pocket that greatly facilitates reading the geomorphological description. The map is excellent, but it is bewildering that the north arrow points towards southwest.

The question is, however, what is the age of the features? According to Blake, and convincingly documented on excellent photos, the features are very well preserved, and Blake concludes that they date from the last glacial maximum. I consider this correct, but it is impossible to prove. Another argument for the young age of the glacier between Canada and Greenland is that amino acid analyses on shell fragments from till deposits in the area have yielded low ratios, also indicating a young age for the till. Amino acid analyses are based on aspartic acid, which racemizes about four times faster than isoleucine, which has been used in all other analyses of amino acids in Greenland. This should have been noted by Blake.

In order to date the disappearance of the glacier in Nares Strait, a lake in Inglefield Land was cored and the basal organic sediment in the core radiocarbon dated at 7210 years before present. It is a bit unclear to me if this date is taken to represent the timing of the local deglaciation. From a regional consideration of available radiocarbon dates, I think that the deglaciation probably occurred at least 1000 years earlier.

Although the main object of the lake coring was to date the basal organic sediments, the core has been utilized for an integrated study of sediments, pollen, algae, mosses and invertebrate animal remains. These studies have resulted in a wealth of information about the history of the lake itself and the surrounding vegetation. Changes in the vegetation of the area are deduced from pollen analyses performed by Fredskild. Not surprisingly, the pollen content of the sediments is extremely low, but nevertheless about 100 pollen grains were identified and counted per sample. The pollen diagram reflects changes from a pioneer vegetation rich in grasses to a fairly rich vegetation with abundant arctic willow. At ca. 4000 years ago this vegetation changed to a much poorer vegetation dominated by purple saxifrage — undoubtedly a result of colder summers.

At the same time the lake also underwent a major change. Smol has studied diatoms (algae with a shell of opal), Fredskild has studied green algae, Janssens has studied mosses and Boucherle has studied small

animals. Each study is represented in a separate section. Most notable is the extremely low species richness of the different groups throughout the core samples. Thus two closely related diatom species account for more than 90% of the diatoms present, and water fleas are represented by only three species, of which one was recovered in only one sample. At ca. 4000 years ago the concentration of diatoms, water fleas and mosses falls abruptly. Among the green algae, a drastic change in the species composition is documented in a very detailed study using 2 mm thick, very small samples. These changes in the biota of the lake are thought to represent a change from seasonally open water to almost permanently frozen water, another response to colder summers. After this event deposition of lake mud almost stopped.

Although the reports are not concerned with taxonomy, it would be very helpful for future workers if more of the fossils had been figured. This applies especially to the green algae that are ignored by most pollen workers or not preserved. It is also strange that the chydorid water flea found is referred — although tentatively — to *Chydorus sphaericus*, since the only species of that genus currently recognized in Greenland is *Chydorus arcticus*. A few notes would be appropriate to explain this. There is also some minor confusion about place names. "Kap Inglefield SØ" is put in quotation marks because it is an unauthorized name, but another unauthorized name (Cache Point) is not. Some Greenlandic place names are spelled in the current orthography, while others are spelled in the old orthography.

It is the first time that a core from a high arctic lake has been utilized for such an integrated study. The record obtained will undoubtedly serve as a reference for years to come, and it is hoped that the study will serve as a future standard for paleoecological and paleoclimatological works on lake cores from the Arctic. It is also to be hoped that the work on the glacial geology will be extended to other areas of Inglefield and Washington Land in western North Greenland, from which only very scanty information exists. Blake presents a few notes about the marine geology of Nares Strait. Perhaps the key to the understanding of the late Quaternary glacial history of the region lies under the sea floor, waiting to be recovered. Marine geological work in other controversial areas, such as the Barents Sea, the shelf west of Spitsbergen and the fjord complex of Scoresby Sund in East Greenland, have shown beyond doubt that these areas were glaciated during the global maximum of the last glacial period.

This very well-documented book, which presents a lot of new evidence on the Quaternary history of the region, is highly recommended to Quaternarists. Major introductory chapters on climate, botany and limnology also make the book of value to students in these fields.

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THE FORGOTTEN NORTH: A HISTORY OF CANADA'S PROVINCIAL NORTHS. By KENNETH COATES and WILLIAM MORRISON.
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Cdn\$16.95.

In *The Forgotten North*, Kenneth Coates and William Morrison have cobbled together a much needed popular history of those lands lying between the territories and the Canadian ecumene. Consisting of seven provincial norths, these hinterlands have been carved out of Rupert's Land and the North-West Territories. While the seven provincial norths stretch from the shores of British Columbia to the Labrador coast, they are all resource hinterlands. Each serves the needs of its province, and each provincial government has attempted to fully integrate "its" provincial north into the provincial economy. This *lebensraum* strategy is most apparent in Quebec, where the development of hydroelectric energy in James Bay is designed to foster industrial development along

the St. Lawrence Valley. This political approach to regional development takes on the features of a classical heartland/hinterland relationship whereby the heartland benefits from the economic development of the hinterland.

Provincial norths are, in one sense, like the "lost" Atlantis. Submerged beneath the all-powerful provincial structure, the inhabitants of the Canadian Subarctic have no sense of place and regional identity — their allegiance is more to their province than to this other place called the forgotten North. Coates and Morrison offer another reason why provincial norths are forgotten lands. Canadians, they feel, consider the Northwest Territories and Yukon to be the "real" North. There is considerable truth to this statement. Most scholarly writers define the North as those lands lying beyond the 60th parallel. This more narrow definition of the North has some merit. First of all, it greatly simplifies the nature and scope of the discussion. Secondly, as each territorial government produces its own statistics, the task of assembling numerical data needed to bolster the text is greatly eased. Lastly, the territorial process of development is less complicated than that found in the northern provinces.

Long ignored by scholars, the impetus behind this book is to provide a modicum of historical information about this part of northern Canada. During the course of preparing this manuscript, Coates and Morrison joined the University of Northern British Columbia and they proudly state that their book is the first to be published by faculty members at this new university. Yet, like an iceberg, this book leaves most of the history of the provincial norths for others to tell.

The authors have divided their book into six chapters. The first chapter, "Sub-Arctic Fringe," sets the background to their discussions of historical events taking place since Confederation. It provides the reader with an overview of the first arrival of humans in North America, the coming of Europeans, the fur trade, and the Hudson Bay Company's surrender of its lands in 1870.

The next chapter is entitled "The Incorporation of Northern Regions." It deals with the establishment of provinces in the lands south of 60 degrees. With the federal government holding both Rupert's Land and the North-West Territories, it was only a matter of time before these lands were divided into new provinces or territories or ceded to the "old" provinces. This balkanization of the Subarctic destroyed any hopes of a subarctic territory.

Within this political setting, the authors then describe the colonization of the provincial norths prior to the Second World War. In this chapter, Coates and Morrison stress that there would be no single pattern to the unfolding of the frontier in the provincial norths. Since control of resource development was assigned to provincial governments, the process of core/periphery development/underdevelopment set in motion had a provincial "spin" to it. By unleashing provincial government resource programs designed to accommodate southern interests, each north was uniquely "colonized." Southern workers worked in the logging and mining camps, while Native peoples continued to pursue game and fur. But this forest/mineral economy resulted in neither a large, permanent non-Native population nor a stable resource economy. Unlike the agricultural settlement of the Prairies, the population of resource towns was subject to a boom-bust cycle, resulting in a much more mobile population. This combination of a primary economy and a large transient workforce did not provide a solid foundation for the development of a sense of place and the formation of a regional perspective.

But what was happening to the original inhabitants? According to the authors, not much. Resource development in the pre-World War II period was so limited that it had little effect on the aboriginal population. Similarly, the absence of much governmental presence left the Indians and Metis to their nomadic hunting and trapping ways. For all but a few, the fur trade remained the economic foundation of aboriginal life by providing economic security and cultural continuity. This is a romantic view of the past and it ignores a number of critical issues. One such issue is that the fur trade kept Indians in debt to the company, thereby preventing them from taking advantage of new economic opportunities that emerged in the early 20th century. Another is the