NORTHERN ECOLOGY AND RESOURCE MANAGEMENT.

This impressive volume is subtitled “Memorial Essays Honouring Don Gill,” a captivating, energetic professor at the University of Alberta and director of the Boreal Institute there until his accidental death in 1979. (Its editors were his graduate students at the time of his death.) Following a warm appreciation of Gill by Professor Emeritus of the University of British Columbia J. Ross MacKay, it contains 17 invited essays arranged in four groups: Abiotic Components, Communities, Plant Communities and Land Use.

Seven of the 17 essays could best be described as review articles. One is a comprehensive update on snow ecology and terminology by William O. Pruitt. Another, by J. Stan Rowe, examines aspects of lichen woodland ecology. Four are extensive accounts of prominent wildlife species: E.S. Telfer on moose, D.E. Russell and A.M. Martell on caribou, Manfred Hoefs on Dall sheep, and Ian Stirling, Wendy Clavert and Dennis Andriashek on polar bears. The seventh is on the impact of hydrocarbon exploration in northern Yukon, by H.M. French.

Of the remaining ten, four are essentially research papers, presenting original data on recent projects. These are C. Tarnocai on soil temperatures in the Inuvik area, Matti Seppala on deflation (removal of surface materials by wind) in esker country in Finnish Lapland, W.R. Archibald and R.H. Jessup on pine marten populations in Yukon, and G.P. Kershaw on floristic characteristics of disturbed CANOL Project sites. M.C. English’s paper on the Slave River delta is a concise descriptive analysis and a prediction of impacts if an impoundment is built upstream.

The other five are commentaries: one by W.A. Pettapiece a scientific commentary on soil development processes in northwestern Canada; then three historical commentaries — by George W. Calef on the growth of a wood bison population introduced into an area north-west of Great Slave Lake in 1963, by William C. Wonders and Heather Brown on the recent history of Akivak, and by Edgar L. Jackson on resource conflicts in Iceland. Finally, there is a policy commentary, on the initiation of a land use planning program in the Northwest Territories, by Norman M. Simmons, John Donhee, and Hugh Monaghan.

The editors state that the book is meant “to present information that will enable us to proceed in a manner that does not seriously compromise the fragile and unique northern ecosystem,” implying that industrial growth is the basis of their concern. Kershaw’s studies of disturbance sites from the CANOL Project are relevant to and indeed focussed on this objective. So are those reported by French, on hydrocarbon exploration in the Yukon. Jackson’s observations on Iceland also relate. Stirling et al. provide a description of over three pages on possible impacts on polar bears, and English discusses the potential impacts of a Slave river hydro project. In a somewhat different area, the management of renewable resources rather than the regulation of industrial resource projects, Seppala’s work offers guidance to reindeer grazers, Hoefs’ to managers of trophy hunting, Archibald’s and Jessup’s to managers of a furbearer, and so on.

With regard to industrial impacts, what can be concluded? Where oil was spilled, gravel excavated and roads built, on the CANOL, impacts are discernible after four decades; the original plant communities are not re-established. More lightly disturbed sites show varying degrees of recovery. In the northern Yukon, prior to imposition by the Department of Indian Affairs and Northern Development of the Territorial Land Use Regulations in 1971, industry’s operational procedures were not such as to protect the landscape from long-term alteration: since then, the situation has improved. Polar bear populations have been seen to recover already from one serious (but natural) reduction in arctic Canada, and, though individuals are demonstrably killed by exposure to oil, populations can probably recover, in time, from local catastrophes.

As the volume lacks a synthesis, one may be tempted to read one in the less narrowly scientific, more broadly ranging papers. For example, the lesson to be learned from Akivak. “The Town that did not Die,” is that residents must be “involved before the fact.” The development of a land use planning process for the Northwest Territories must include planning for full participation by local publics. On a perhaps more equivocal note, “pragmatism and compromise are the key characteristics of nature conservation in Iceland.”

This wide-ranging volume will be a useful reference to scientists interested in northern ecosystems. The review papers, such as on snow ecology, moose and caribou, will prove of great interest to northern naturalists. The impact papers, on the CANOL revisited, and on exploration in northern Yukon, will directly advance the aims espoused by Don Gill and his commemorators.

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If we were to bring back one of the Greenland and Davis Straits whaling masters of a century or more ago, all our questions would be answered in an hour. Lloyd’s List sometimes gave details of sailing and return, and perhaps speakings and catches, with occasional comments about ice and weather. Otherwise, apart from The Arctic Regions, 1820, by William Scoresby, Jr., and his account of his exploration of Scoresby Sound in 1822, there is little printed material. The ultimate source now is the log books or journals kept by the masters at the time, and they are few enough in Britain. In 1916, the Explorers Club, New York, published facsimiles of 14 logs kept by William Scoresby, Sr., from 1786 to 1823. When the facts are extracted, tabulated and analysed, they provide an account of weather, ice, fishing grounds, and catch that cannot be found elsewhere, showing the differences between one season and another, besides recounting the events usual to such voyages. The 1806 log of William Scoresby, Jr., mate under his father in the Resolution, a successful voyage in spite of an unfavourable season, was published in 1981, and that is equally informative.

Here we have the journal kept by William Scoresby, Jr., on his voyage as master of the Baffin of Liverpool; it was his last voyage and it was not a success. The future for the trade was not promising, and he left the sea. It tells the story of a voyage of just over five months. It
is as Scoresby wrote it daily, with navigational details, changes of weather and ice, the occasional sighting of fish, and the few catches, as well as the difficulties he faced throughout. In many ways, it was the worst of his many voyages. The advantage of this facsimile is that it allows students to examine those parts of the story that are of special interest.

William Scoresby, Jr., became known for his scientific bent through his papers to the Wernerian Society and his Arctic Regions. Here, as they occurred, he observed rain, clouds, the effects of cold, crystals, refraction, the colour of the sea, natural history, and terrestrial magnetism. His Fellowship of the Royal Society was well earned, in a day when for some it was a social distinction.

The Whitby Literary and Philosophical Society have a mass of papers left by Scoresby on his death; they are fortunate in finding a publisher to make these two logs available to readers.


A Climate for Change is the product of work done from 1980-83 (funded by the Denner Canadian Foundation) by the Eastern Arctic Study research team, based at Queen's University's Centre for (mineral) Resource Studies. The purpose of the book is to "identify ongoing political forces" and to "avoid difficulties." The book suffers from three major problems, which reduce its usefulness significantly. (1) If it is directed at a general audience, nonexperts, there are very important pieces of background that are missing but which are critical if the public is to interpret the document. (2) If it is for experts, there is not enough detail for adequate assessment. (3) Most damning is the explicit exclusion of the two most important factors influencing change in the North: the drive for provincial status and the question of aboriginal title.

The document should state more explicitly that it has a very definite perspective (or bias). It is written with the interests and the perspectives of the mining industry and the federal government in mind. There is very little critical analysis of the roles of the federal government or industry. The document states that it is "inconceivable" that the federal government would give up its ultimate authority concerning ownership of nonrenewable resource and industrial development. Local people (i.e., Northerners) are characterized as not essential and consistent participants, bystanders, and as being mistaken about consultation (i.e., they expect to play an active role). It is not clear whether these statements are descriptive or normative. It is not clear who made them and what they are based upon. There is not the analysis that such statements require. When it is noted that the original co-principal investigator moved from the Centre to assistant deputy minister in Energy, Mines and Resources, that another researcher moved to the National Energy Board, and that two other authors once worked for C.M. Drury, the possible source of the bias becomes clear. Only those who embrace the heartland/hinterland model, which relegates the "outer" provinces and territories to colonial status, could have produced this document. To them is inconceivable that the federal government's role would be reduced, but they are able to describe a scenario in which the federal government's role would increase.

The federal government/mining industry bias and failure to address topics northerners should be concerned about is evident in the fact that environmental and social problems are only mentioned. The upheavals of the boom-and-bust nature of the mining industry never come up. Company officials and Ottawa bureaucrats suffer no personal trauma or financial loss when mining communities "die." The report does note that local employment does not seem to reach expectations. It is northerners who will have to live with, or in, pollution left after miners leave.

The book has not addressed the thorny problems of the morality and effectiveness of decisions made in remote areas (i.e., Ottawa) or the issue of maintaining native culture and local values while development proceeds.

The centralist perspective that dominates the book will leave the naive reader from central Canada totally confused when the national news describes what is happening in the North. Citizens of the West or the North will likely be bewildered or enraged.

For the more informed reader the document is frustrating because of its vagueness or lack of attention to detail or to the requirements for an adequate technical report. Methodology is not adequately described. That "... results of the case studies and other analysis were circulated to interested individuals ..." is far too vague. A document dealing with sensitive and controversial issues that leaves untouched two crucial factors (provincial status and aboriginal title) must go much farther than this one in describing and justifying approach and methodology. Why were crucial factors ignored (citing "terms of reference" is not an adequate excuse), and can a useful document be produced under that constraint? Is it as realistic to include a scenario in which federal (central) power and central increase? Was this included to "balance" the analysis by giving the impression that all possibilities have an equal probability? The document does not display the rigour and objectivity necessary to assist the informed reader in identifying ongoing political forces and in avoiding difficulties.

The document may also do a disservice to its most sympathetic readers, the Centre's clients. If the federal government and the mining industry believe what they read, their actions and attitudes will increase the distrust of Ottawa, and any communications will likely be acrimonious. If readers of this document are reinforced in their beliefs that colonial attitudes are acceptable in the '80s in Canada, that "high grading" of the hinterland is really in the longer term interests of the country, and that some citizens are less equal than others, then tensions, distrust, acrimony, and divisiveness will continue to increase. Unfortunately, this book will exacerbate rather than help correct the astigmatic myopia that plagues central Canada.

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The objective of this volume is to provide a series of interdisciplinary papers relating to the 1982 excavations of a unique prehistoric arctic archaeological site with remarkable preservation of artifacts, features, and human remains. The site is described as a catastrophically terminated Inupiat winter house and is located at Barrow, Alaska (BAR-2). An ice override is forwarded as the most likely explanation for the disaster, which is interpreted to have occurred between A.D. 1850 and A.D. 1500. This event not only sealed and preserved organic cultural materials, but also trapped and killed five people within the structure. At the time of discovery, two of these individuals still possessed considerable amounts of soft tissues, preserved by the nearly constant frozen conditions. These tissues allowed