

addition should be considered in any reprinted or updated versions. In this way, the data can become even more useful to the many Native people who, in Moerman's words, "provided the fountain of human knowledge from which we are privileged to drink" (p. ix).

Moerman has made an excellent start in presenting these data for our use. Furthermore, in his introduction, ethnobotanists are invited to enquire about the development of computer-generated sub-lists that may be useful to them as research tools. I am pleased to see Moerman's continued interest in the area. Perhaps all of us who have data on Native botanical medicines, either through field research, ethnohistorical studies, or examination of secondary sources, should send these data along to Moerman. Such data would be easily entered into his data-base, and perhaps up-dates could be made available to researchers. In so doing, we all could contribute to Moerman's efforts, to our mutual benefit.

James B. Waldram

Robert Page: Northern Development: The Canadian Dilemma. Toronto: McClelland and Stewart, 1986. 360 pages.

This is the first comprehensive evaluation of the debate that has raged for the past two decades regarding the future of Canada's north. Professor Robert Page writes from an unusual vantage point, that of an academic historian who actually participated in the controversial events of the mid-1970s. It was a deliberate decision on his part to wait a number of years before putting the proverbial pen to paper in an attempt, as he states, "to allow some of the fires of controversy to cool." The result is an outstanding study, marked by careful

scholarship, and it is essential reading for both specialists and the general public interested in this region's future and curious about its past.

The book was not designed as a definitive work on northern pipelines and northern development; rather, it fulfills its acclaimed purpose of dealing with these issues in a wider perspective so that they can be appreciated and better understood in an overall national context. This is particularly important since a further series of projects for this region are already under consideration or soon will be. As Page points out:

Given these future needs it is useful to probe the strengths and weaknesses of the process applied to decision-making on northern pipelines in the 1970s. Also, we approach public policy issues like northern development with a series of attitudes and assumptions. But these are conditioned by our perception of what has happened in the past (p. xi).

It is especially in this respect that Page's book could be of great assistance to government officials and policy-makers for the north.

In writing the book Page has made use of a wide range of sources and documentation. By being an active participant in the 1970s pipeline hearings, he was in a position to meet most of the people involved in these proceedings. In addition to making use of his notes and correspondence relating to many of the events that he observed, he managed to talk at one time or another with most of the major participants, including both corporate and government personnel. The two companies involved, Canadian Arctic Gas and Foothills Pipelines, provided Page with copies of their filed testimony and allowed him to visit their northern installations and question their personnel. He also made use of the Berger Inquiry Papers at the Public Archives of Canada. In addition, his research includes materials and information from the National Energy Board, Energy, Mines and Resources, Imperial Oil, Canadian Arctic Resources Committee,

and the Arctic Institute of North America. Moreover, as would be expected, the author benefited from consultations with a wide range of people with expertise on the north. Each chapter is scrupulously documented and the book contains a thorough and useful index.

The first chapter presents a fascinating account of the historic legacy of Canada's north--not inappropriately referred to as the myth of the north. The chapter presents an analysis of the mythology which envelopes the region and which helps to account for the southern response to northern development. Equally important as essential background in understanding recent northern development is the second chapter which deals with the historic evolution of extra-parliamentary public interest groups and the emergence of an environmental ideology in Canada. In this section the author analyzes the intellectual ideas and the events which unified the different public interest groups into a uniquely Canadian coalition. The existing literature on the topics discussed in these first two chapters is rather limited; consequently the author's thorough and balanced analysis of these issues is significant in itself.

To complete the necessary background for the events of the 1970s, Chapter 3 deals with what Page refers to as "the Northern sense of grievance." Page presents a concise but thorough analysis of the Native peoples' perceptions of their history and the aboriginal rights issue.

Chapters 4, 5 and 6 focus on the Mackenzie Valley Pipeline controversy of the 1970s. Chapter 4 analyzes the emergence of two rival pipeline companies--the first, Canadian Arctic Gas, a giant consortium dominated by US multinationals, and the second, Foothills Pipelines, consisting of two small Alberta companies. Throughout most of this period Foothills Pipelines was not

considered to have the slightest chance of success, and by way of example an oil executive remarked that, "It was like David facing Goliath without even a slingshot." Chapter 5 presents an engaging account of the Berger Inquiry, and Chapter 6 is an almost equally interesting account of the National Energy Board hearings.

The next four chapters go on to consider the issues within four main areas of concern: geotechnical, biological, social, and economic. Although the author admits that he is not an expert in all these areas, his approach is admirable because of his great efforts to present the scientific evidence in considerable detail as it was debated in public. This allows the reader to obtain a reasonable perspective on the substance of the debate and the degree of complexity and the uncertainties that faced the experts in these four fields. These four chapters show that,

In each area northern development was straining our existing knowledge and systems in ways often not evident even to the participants. Also, it shows the confusion of motives and priorities involved at every step for the government and, to a lesser extent, for the corporate applicants (p. xii).

Even though the material presented in these sections is complex, there is little jargon and it is possible for the reader to acquire a genuine appreciation and a basic understanding of the problems involved in northern development.

In Chapter 11 Page discusses the role of the Canadian Arctic as a factor in Canada's international relations, especially our relations with the USA. Part of the explanation for an increase in tensions between Canada and the USA is the fact that the North has brought to a head the intricate interrelationship between the environment, sovereignty, energy policy, and defence.

In his final chapter the author discusses the current role of the different actors on the northern scene and offers some projections for the future.

Whether Canadians realize it or not, the events of the 1970s produced irreversible changes in almost every aspect of life in the north and its relations with southern Canada. Robert Page's book constitutes a major reflective study of the nature and significance of these changes.

Several sections of the book are particularly outstanding. Among these are the chapters on the Berger Inquiry, the National Energy Board (NEB) hearings, and the limitations of technology. Although the Berger Inquiry created controversy, it undoubtedly will be considered as one of the half dozen most important public inquiries since Confederation. Page's scholarly analysis clearly shows the reader why the Inquiry has been so significant. For example, it was Berger's public hearings that uncovered major design flaws in the proposed pipeline. It got to the point where as soon as Arctic Gas managed to supposedly bury a previously unforeseen problem, two or three new ones came to the funeral! By way of contrast, Page's analysis shows that the structure and procedures of the NEB have some significant limitations. In comparing the two inquiry processes, Page reveals that,

One of the great strengths of the Berger Inquiry as opposed to the NEB was that it had the time, the determination and the available expertise to unravel complex technical problems. Counsel for the inquiry viewed their role as that of active participant and, unlike the NEB, they could bring in their own witnesses to challenge the applicants (p. 163).

Without the detailed environmental analysis from the Berger Inquiry, the NEB would not have understood the technical weaknesses of the deep burial design and the additional capital costs of several hundred millions (p. 323).

In his concluding chapter Page makes some very sensible recommendations regarding changes to the structure and procedures of the NEB.

With respect to the technical problems faced by the pipeline companies, Page makes the point that Arctic Gas "seemed intent on confronting nature rather than adapting to the physical forces at work" (162). Earlier he makes the comment that:

The Soviet Union had attempted to cope with some of the same conditions through using a variety of techniques in constructing a smaller line. In ice-rich soils they had elevated the pipeline rather than chill the gas; in well-drained, sandy soils they had successfully buried it; and in soil conditions between the two they had placed the pipe on the ground with a soil mound or berm over top of it. The Russians had attempted to limit the potential forces involved; Arctic Gas chose to challenge them directly. Because of the differences in the projects and in local conditions, the Soviet experience was of limited usefulness to the Berger and the NEB hearings; yet it constituted the only related experience anywhere in the world (p. 159).

Page provides no further explanation, yet it is not at all clear why the Soviet experience was apparently disregarded. Moreover, Page makes no reference to the recently completed gigantic large-diameter pipeline project in the USSR extending from northern Siberia to Western Europe. It is difficult to understand this omission.

Fortunately for us, many of the mega-projects of the previous decade have been delayed or abandoned. In effect this has given us some breathing space to resolve some crucial problems. As Page says,

In the lull before the development resumes we must upgrade our capabilities to cope with geotechnical problems such as permafrost; to unravel more of the mysteries of northern ecosystems; and to settle native land claims. The chances of a comprehensive and amiable settlement will be much higher if the negotiating environment is not poisoned by mega-projects about to be approved or even under construction (p. 315).

Page concludes, however, that the future may be dominated by the same ad hoc approaches of the past, and that "Canadians are still hung up in their dilemma about the north--that ambivalent mixture of greed and idealism." The recent abysmal failure of the conference in Ottawa on aboriginal rights is a further indication of Canada's current political malaise. What the conference revealed, however, is the steadfast resolve of the Native people and a greater degree of unity than ever before. It is to be hoped that some day we may elect governments that will be prepared to recognize aboriginal rights and to participate in the kind of northern development that will be in the interests of the people who live there.

In summation, this is a book that should be read by every thoughtful person who is concerned not only with Canada's north, but also about the future of our country.

John Ryan

Jean Barman, Yvonne Hebert and Don McCaskill, editors: *Indian Education in Canada. Volume 1: The Legacy.* Nakoda Institute Occasional Paper No. 2. Vancouver: University of British Columbia Press, 1986. 172 pages.

This book will meet an important need in university faculties which involve themselves in aspects of Indian history and education. It provides insights into the historic framework which enhances our understanding of the processes of education which many Indian people have undergone. Most papers are painstakingly documented and will serve as models to students undertaking similar research. The eight essays, each in its own way, show how powerful the legacy of the past has been.