region of the world ocean. The complexity of the region is illustrated by several well-chosen satellite images. The Nordic Seas is one of the few regions in the global ocean where deep and bottom waters are formed; this aspect forms the basis of J.H. Swift’s chapter, “The Arctic Waters.” B.G. Hurdle’s chapter, “The Sound-Speed Structure,” provides a different way of looking at the oceanographic structure of these basins. Sections illustrating the changes of sound-speed structure between summer and winter graphically illustrate the possibility of the acoustical monitoring of seasonal changes in the larger oceanographic structure of these basins.

H.G. Gade’s chapter, “Features of Fjord and Ocean Interaction,” discusses in a very general way the principal circulation features of a typical fjord and how they respond to changes in the oceanic waters outside. This chapter is so brief that a reader interested in the fjords of Norway, Svalbard and Greenland will certainly have to look elsewhere. Unfortunately, the reference list provided is equally brief. The final physical oceanographic chapter, E.W. Schwiderski’s “Tides,” provides a brief overview of the historical development of tidal theory, discusses the importance of knowledge about tides to the marine community and maps the amplitude and phase of the principal semidiurnal (high waters twice per day) and diurnal (once per day) tidal constituents within the Nordic Seas.

R.K. Perry’s chapter, “Bathymetry,” is based on a chart of the region that he and his co-workers published in 1980. It is unfortunate that a copy of this chart was not included in a pocket at the rear of this volume rather than the reduced colour plate of this chart, which is virtually unreadable. The 12 line-drawing blowups of particular bathymetric features to accompany commentary about these features would be more useful if the figure captions contained information about the projection used.

The final two-thirds of the volume is occupied by two long chapters on the geology and geophysics of the entire region written by P.R. Vogt, “Seafloor Topography, Sediments, and Paleoenvironments” and “Geo-physical and Geochemical Signatures and Plate Tectonics.” A geophysical colleague whose interests are in the arctic rather than the Nordic basins, has told me that these chapters were a valuable and useful review of all of the relevant work and ideas concerning this dynamic and geophysically active region. While the chapters are long and difficult to read from start to end, a good index makes them an effective reference source. As a reader, I wished that an editor had persuaded the author that brevity was more important than his supplementary asides. I don’t need to know that Caledonia was the Roman name for Scotland (p. 356), that the Heerland Seismic zone is so named because it is in Heerland (p. 443), or the names of collaborating institutions in seismic refraction experiments (one-third of p. 466), among many such asides.

There is also a long aside (p. 568-570) in a section on heat flux through the sea floor that discusses changes in the measured heat profiles in the sediments in terms of imputed changes in the temperature of the overlying waters. Such material should have been incorporated into the physical oceanographic chapters, where it could be placed in the context of the existing current meter records of temperature and velocity that exist for these overflows.

In a collection of chapters by different authors, there is always some unevenness in their approach and range of materials. This makes it a little difficult to identify the intended readership for this book. Some of the chapters, such as those on geology and geophysics, are comprehensive reviews of all relevant work that has been done in the area. Other chapters are more in the form of extended research papers presenting previously unpublished data. The volume as a whole is a valuable review of the physical, chemical, and geological oceanographic research in the Nordic Seas up to the early 1980s and should be useful to researchers in all these fields working both in the Nordic Seas and in similar adjacent regions. The book is well printed, with a number of colour and black-and-white prints. The indexing of the volume is very well done, with the key words chosen being those that come naturally to the reader. While I felt that some of the authors were trying to write for a broader audience, I think that the volume is most successfully a reference book for the research community.

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Nastawgan — the title is an Anishinabai word meaning “the way or the route one must take to get through the country” — is an excellent collection of essays about Canada’s northern wilderness. As the title suggests, Nastawgan is a guidebook, but it is a guidebook of the spirit. It leads us over the height of land that separates modern urban society from its roots in the past, a past when man was more intimately bound to the land. And through the process of that spiritual journey, the reader better apprehends the intangible allure that wild lands and waters still hold for twentieth-century man, even in the apogee of his urban technology.

The title page announces Nastawgan is “A Collection of Historical Essays.” Certainly the volume is rich with historical fact, but its concern is with asserting the continuity between “then” and “now,” rather than with a historical analysis of another period. To be sure, many fine individual papers focus on historical events or periods in northern Canada: George Lute’s “History, Travel and Canoeing in the Barrens,” John Jennings’s “The Mounted Police in the Barren Lands: the Pelletier Expedition of 1908,” C.E.S. Franks’s “David Thompson’s Explorations of the Muskoka and Madawaska Rivers,” and Craig Macdonald’s “The Nastawgan: Traditional Routes of Travel in the Temagami District” are but four such essays. The primary concern of these essays, however, is not the past itself, but the continuity between past and present, an awareness of continuity that — the editors and contributors would maintain — comes to modern man, when, purged of the inessentials of twentieth-century technology, he enters into the northern wilderness. Other essays — notably William C. James’s “The Quest Pattern and the Canoe Trip” and John Wadland’s “Wilderness and Culture” — approach the atavistic cultural and psychological relationship between man and the natural environment more explicitly. They approach the universality of human experience in the natural world from a less historical but nevertheless equally effective perspective.

The political objective of the editors and contributors is no secret: this volume promotes the conservation of wilderness areas in the Canadian North. Published by Betelgeuse Books in cooperation with the Ontario Recreational Canoeing Association, the collection includes the following epigraph: “This volume is an acclamation of the northern wilderness. Let us strive for its survival.” Yet this is an acclamation not only of the wilderness, but of man’s interaction with the wilderness. The focus on human involvement perhaps accounts for why this is such a satisfying acclamation. I suppose it is ironic that the reason for protecting the virginal character and natural purity of northern regions is not for the sake of the wilderness itself, but for providing man with a place in which he can regain an essential sense of continuity with nature and with his universal cultural past.

But regardless of its role as a political nudge to preserve what is irreplaceable, the true success of this volume lies in its lucid articulation of what most of us can only sense when we step off into the remoteness of river and forest. One of the refreshing characteristics of the collection is that it voices those unconscious or half-conscious
thoughts all of us have had, whether canoeing in the Shield, hiking in the Rockies, or sleeping under canvas. I find it difficult even to talk about this book without falling back on the very clichès the volume so admirably avoids. In place of vague and hackneyed abstractions, the essays create something concrete and tangible. The collection demonstrates that, as long as some vestige of primeval wilderness remains, we can continue to participate ritually in a tradition that embraces man’s instincts to explore, to confront, to challenge, and yet to respect the natural world.

The volume is interdisciplinary, but unlike many such collections, Nastawgan does not merely pull together work by authors from different disciplines and call the collection “interdisciplinary.” Instead, each contributor breaks across disciplinary lines in his or her approach. The contributors come from such academic disciplines as religious studies, political science, history, physics, and geography, but their interests in the Canadian wilderness extend far beyond their academic boundaries. Nor are academics the sole contributors; librarians, government employees, and free-lance authors make substantial and significant additions to the volume. This broad base inevitably leads to a volume is excellent and would be seriously diminished if any individual contributions were missing.

Because the essays address a broad and amorphous audience, and because so many authors need to supply background information for their specific essays, an unfortunate amount of repetition arises. One does not, for example, need to be told more than once where and when Warburton Pike or J.B. Tyrrell journeyed, but each author who deals with the Barrens finds it essential to establish those benchmark explorations. The editors provide useful cross references to other essays in the collection; it would have improved a very fine volume had they been able to delete some of the repetition.

Nevertheless, Nastawgan is of the first order. It is attractively designed and illustrated, its scholarship is sound, and it comes to grips with the intricately complex attraction modern man has for his past and that can best be experienced away from the clutter of civilization.

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BOOKS RECEIVED


