

to gothic wind and thunder storms that provide a Dr. Frankenstein-like atmosphere to the opening of John Torrington's coffin, the account is informative and effectively structured.

This remark about "spooky" storms providing cinematic atmosphere deserves some clarification. The issue is not whether such a storm occurred. Geiger does not give a weather report for all the other days of the expedition; consequently, when he selects this particular stormy night as one of the meteorological events to include in his account of several years' worth of research, and especially when he quotes a field assistant's reference to horror films — likely an observation offered in a jocular or ironic vein — Geiger implies a causal relationship between storm and exhumation. Such an implication denies the very empiricism on which this entire scientific expedition is based. To suggest that the relationship is anything but coincidental is an appeal to the same popular fascination with "other-worldliness" that made Bela Lugosi, Lon Chaney, and Boris Karloff household names. Beattie, we are reminded many times, maintained a respectful and analytical attitude in his examination of these human remains, but his ideal is surely cheapened by such manipulations. I suppose those readers who pick up the book solely through their fascination with looking into the eyes of men dead for over 140 years would have no objection to such theatrics. Nevertheless, I would have preferred to see these adolescent and "eerie" allusions cut out. They mar what is otherwise a very fine account of an important undertaking.

In many respects, this book reassuringly confirms what we already know, while bringing us new information at the same time. Although we have all grown up with the notion of scientists making wondrous discoveries through momentary flashes of insight (Newton and his apple or Archimedes and his bathtub come to mind as paradigms of the myth), education and experience tell us that scientific discovery grows out of long and arduous enquiry. The many summers that Beattie's numerous parties spent in the field are but one brief manifestation of such a lengthy enquiry. Of greater substance is the century-long investigation that began in the 1850s and with which Beattie's work has great continuity. For as *Frozen in Time* reveals, many of the very hypotheses on which Beattie's researches have been conducted have been drawn from the thoughts of 19th-century men who had also sought to determine the fate of Franklin.

Beattie's motivating hypothesis, of course, is that Franklin's party suffered the debilitating effects of lead poisoning, brought on by the high level of lead present in the solder used to close tins of preserved meat, which constituted the core of the expedition's food stores. In fact, Captain Erasmus Ommanney, after consulting with other searchers for the missing Franklin, concluded that something had gone awry with the expedition's food supply. This conclusion was drawn after the three graves on Beechey Island had been found. Ommanney reported to the British government in 1852 that it was likely Franklin's "preserved meats were of an inferior quality." Hence, the cornerstone of Beattie's hypothesis had been laid some 130 years before his own analysis began.

Similarly, the very notion of exhuming the bodies in hopes that they would provide a clue to what happened was also well aged. Dr. Peter Sutherland had made precisely this suggestion in the decade immediately following Franklin's disappearance. Sutherland, surgeon aboard ship with whaling captain William Penny, had in fact observed that such an examination would present no difficulty for the very reason that the bodies would have been frozen solid in the permafrost of their arctic graves. Two years later, under Commander Edward A. Inglefield, Sutherland was able to exhume seaman John Hartnell's body. His prognosis: Hartnell had died neither from scurvy nor any other malignant disease, but had died from consumption. The biggest surprise to Beattie's expedition, however, was yet to come. When Beattie removed the clothes from Hartnell's body, preparatory to performing the autopsy, he discovered that not only had an exhumation already been performed, but an autopsy had been conducted to determine the cause of death, probably by Dr. Harry Goodsir, assistant-surgeon aboard the *Erebus*.

What Beattie did, then, was continue probing at a series of hypotheses and possible methods conceived long ago. The exhumations, the autopsies of well-preserved corpses, the suspicions of food supplies — these were the products of a century and a half of enquiry.

I take special pleasure with *Frozen in Time* because it does not push the lead poisoning hypothesis. Rather, it presents the evidence as intriguing, but accepts that it is also far from conclusive. But in the process, the book presents information and benefits growing out of this research that no one seemed to anticipate when the project got under way. And those discoveries are what is truly important about this most recent effort to determine what happened to John Franklin and the 128 officers and men under his command.

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JOURNAL OF AN ALEUTIAN YEAR. By ETHEL ROSS OLIVER.
Seattle: University of Washington Press, 1988. 284 p., maps, illus.,
appendices. Hardbound, US\$25.00; Softbound, US\$12.95.

Before Russian fur hunters arrived in the Aleutian Islands in the mid-1700s, Atka Island was centrally located in a region occupied by an estimated 12 000 to 15 000 Aleut people. However, as the economic potential of the archipelago waned during the Russian period and as hostilities, disease, and resettlement reduced Aleut population to some 2000 - 3000, few villages remained. Village consolidation continued in the American period, so that by the outbreak of World War II, the only villages in the entire central and western Aleutian chain (a span of some 1300 km) were those on Atka and Attu islands respectively, with a combined population of fewer than 150.

In June 1942, Attu village was overtaken by Japanese troops and its Aleut residents were taken to Japan, where only half survived their imprisonment until the end of the war. In the same month, U.S. troops evacuated the Atkans from their village, which was under threat of Japanese bombing and occupation. As in several other Aleut villages, the evacuation was carried out with little planning and even less advance warning to the Aleuts, who had only hours to prepare for their departure. To keep the Japanese forces from finding useful shelter should they land on Atka, almost all of the buildings, including homes and the Russian Orthodox Church, were burned to the ground by the U.S. troops.

Following their internment in southeastern Alaska, the Atkans were returned to their island in 1945, where they quite literally had to rebuild their village and their lives. The Attuans, likewise, were compelled to settle in Atka, since the government would not allow them to return to their prewar home. One year later, Ethel Ross Oliver and her husband, Simeon Oliver, arrived on the island, she to teach school and he to act as a liaison between the government, including military personnel stationed on Atka, and the community.

The book begins with a foreword by Moses Dirks, an Atka Aleut and a specialist in the Aleut language. Dirks puts Oliver's Atka of the postwar years in perspective by giving an informative present-day overview of life in the community, of communication and transportation to the rest of Alaska, and of services and facilities available to Atka residents. Following this, Oliver's preface outlines the circumstances leading to her and her husband's journey to Atka.

An introduction by anthropologist Margaret Lantis summarizes Aleut prehistory and the Russian and American periods, with special attention given both to education and to the wartime internment of Aleuts in southeast Alaska and the subsequent attempts for reparations (for which federal legislation has been enacted since the publication of this book).

As its title suggests, this book is based on the journals kept by Oliver during her Atka sojourn. The chapters follow chronologically the 13 months from her arrival in June 1946 through her departure in June 1947. Primarily an account of her own experiences — of the sights and events she witnessed and the friendships she made on Atka, Oliver's chronicle is at the same time a record of Aleut life in Atka and of the strength and resourcefulness of the people of that village in re-establishing their community. Though not an anthropologist, Oliver presents valuable ethnographic information on an important yet poorly documented period of Aleut history. Accounts of sea mammal and reindeer hunting, fox trapping, basket making, and a myriad of other activities are interwoven with the ebb and flow of Oliver's year in Atka, a village that was, as it remains today, perhaps the most isolated community in the United States.

Three appendices are of interest. The first two are autobiographical accounts of life on Attu and the imprisonment of the Attuans by the Japanese during World War II. They were both written or dictated by Aleut men from Attu during Oliver's stay on Atka. The third appendix is a census of Attu at the time of the Japanese occupation as well as of Aleuts born in wartime captivity.

In sum, this book provides a highly personal account of a year in the village of Atka, attempting no cultural or historical analysis. Oliver describes a crucial period in the history of Atka, and of the Aleut people generally, in a sensitive, enjoyable, and informative manner. *Journal of an Aleutian Year* is a thoroughly readable book, which will be of value to anyone having interest in the Aleutian Islands, Alaska Native history, education in Alaska, or Native-government relations.

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GLOSSARY OF PERMAFROST AND RELATED GROUND-ICE TERMS. BY THE PERMAFROST SUBCOMMITTEE OF THE ASSOCIATE COMMITTEE ON GEOTECHNICAL RESEARCH (S.A. Harris, H.M. French, J.A. Heginbottom, G.H. Johnston, B. Ladanyi, D.C. Sego, and R.O. van Everdingen). National Research Council of Canada Technical Memorandum No. 142, NRC Report No. 27952. Ottawa: National Research Council, 1988. 156 p., 24 figs., bib. Softbound. Cdn\$15.00. (Available in English and French.)

This book is a revised version of the 1974 publication *Permafrost Terminology*, prepared by R.J.E. Brown and W.O. Kupsch. In 1982 the Permafrost Subcommittee of the Associate Committee on Geotechnical Research, National Research Council of Canada, decided that this publication should be updated to reflect current usage and the list of terms expanded to include additional terms relating to engineering, ground ice and periglacial phenomena. The authors state in the introduction that: "The primary objective is to present terms that enjoy common usage in the current literature, with special reference to Canada and Canadian conditions." They note that this glossary is intended to be a list of pertinent definitions, not an encyclopedia concerning the permafrost regions of Canada.

The glossary lists 596 terms, with definitions being provided for 201 of them. Each definition where appropriate includes references to related terms, gives the French (or, in the French version, the English) equivalent, defines the term (in some cases with illustrations), gives comments that explain the term in more detail, lists synonyms for the term and concludes with a list of references. The work is well organized, the terms are easy to find and the definitions are easily understood. As a result, this is a good reference work for a wide range of people, including students and scientists working in various disciplines. The references used, which include the classic,

benchmark and pioneer papers, are pertinent and easily available. In addition, the included diagrams and photographs provide excellent illustrations for some of these terms.

There are, however, some points that should be considered. The terms defined are drawn from many disciplines and often somewhat varying definitions are commonly used for the same term. The definitions in use have been developed to answer the requirements of specific disciplines. This work attempts to standardize these definitions, but in doing so the authors have made little allowance for the needs of some disciplines. Much of the weakness in this glossary originates from this attempt at standardization.

Some terms given in the glossary are identified as "not recommended." This was done "to clarify thought and to achieve more precise language; to standardize terminology; to avoid the use of transliterations; . . ."

The reader should be cautious, however, about relying on the "not recommended" label. For example, the use of the term "Cryosolic soils" (p. 23) is listed as "not recommended," in spite of the fact that it is commonly used and widely accepted in the soil science literature (equivalent to accepted terms such as Luvisolic soils or Podzolic soils). The reader should refer to the discipline from which the term originated to determine which terms are deemed acceptable within that particular discipline.

The use of the terms "frozen" and "unfrozen" in reference to soils or rock in this work presents another problem. The 1974 publication, *Permafrost Terminology*, indicates that two definitions of these terms were being used, one temperature-based, the other based on the presence or absence of ice. Brown and Kupsch agreed with the position of those who used a temperature-based definition. In this volume, however, the authors have chosen to define these terms on the basis of the presence or absence of ice. This definition may satisfy the engineering community and some scientific disciplines, but it is inadequate for the needs of many of the scientific disciplines. Temperature, not the presence of ice, is the main controlling factor in biological productivity, soil development and weathering. With the removal of temperature dependency from the definition of the terms "frozen" and "unfrozen," the authors have also removed the ability of scientists to express the distinction between soils capable of sustaining biological productivity (unfrozen) and those incapable of sustaining such productivity (frozen).

Perhaps it should be emphasized here that the stated primary objective of this glossary is to present terms that enjoy common usage in the current literature. With this objective in mind, it is therefore inappropriate for the authors to select one definition of a term over another when both are commonly used in the literature and both fill obvious needs of the disciplines using them.

The definitions of the terms "peat" and "peatland" are also not well handled, especially since this glossary presents the currently used terms, with special reference to Canada. The definition given for "peatland" is ambiguous and does not reflect the accepted national definition regarding minimum peat thickness, which is 40 cm. In addition, defining "peat" by referencing it to peatland is very poor. There is a nationally accepted definition for peat in Canada, and this should have been included since peat material is so common in the permafrost regions.

Other terms presented in this glossary originate from a number of scientific disciplines. It is therefore important when compiling a permafrost glossary and selecting definitions that members of these disciplines be consulted. The authors of this glossary have done this to a certain extent, as shown by the long list of reviewers. In spite of this, some weaknesses still remain in the definitions of the terms and some of their definitions are controversial.

Despite these limitations, the glossary is an important publication both nationally and internationally. The Brown and Kupsch publication, which was published in English and French in Canada, was also translated into German, Russian and Chinese. The current glossary is intended to provide the basis for an international glossary of permafrost terms to be compiled by the Working Group on Ter-