

the northern parts of Canada, has recently been issued under the auspices of the Association Committee on the National Building Code.

This northern Code is based on the Short Form of the National Building Code with the inclusion of special provisions to cover the somewhat unusual requirements for building in northern regions. As with the National Building Code itself, this document is advisory only and has no legal standing until and unless it is adopted or enacted for specific use by a local regulating body.

An important feature of this Northern Building Code is the special provisions for foundations in areas where permafrost is encountered. The document contains guides to simple foundation design in such areas and stresses the need for detailed studies of site conditions for any large building or special structure prior to the preparation of foundation designs.

The document was prepared at the request of the Commissioner, Northwest Territories, for use in the Northwest Territories of Canada. It should also prove of value in the Yukon Territory and the northern parts of those provinces in which permafrost is encountered.

The extent of permafrost in Canada is shown on the permafrost map of Canada, prepared by the Division of Building Research of the National Research Council and published jointly with the Geological Survey of Canada, a copy of which is enclosed in the specially compiled supplement to the Code. This Supplement contains information on

permafrost and related subjects to aid the user of the Code.

Copies of the Northern Building Code and its Supplement, may be obtained from The Secretary, Associate Committee on the National Building Code, National Research Council, Ottawa, Canada. Order No. NRC 9945; price \$1.00.

Donations to the Archives and the Institute Library

The Executive Committee decided at its meeting on 14 October 1967 that the Institute's records not currently required would be consigned to the Public Archives of Canada in Ottawa. The Archives are very generous to institutions such as ours in that they recognize the value of preserving information on their founding and activities.

It seems timely to remind Associates that one of the main functions of the Institute is to preserve records of all kinds relating to northern matters. From time to time we have received gifts of books and manuscripts from people who have made collections and these are, of course, very welcome indeed. Everything thus received is either catalogued and held in the library, where it is generally available or, in the case of correspondence and documentation of the Institute's past, it will be sent to the Archives.

In certain circumstances, the value of book collections donated to the Library may be deductible for income tax purposes.

Reviews

LIFE, LAND, AND WATER: PROCEEDINGS OF THE 1966 CONFERENCE ON ENVIRONMENTAL STUDIES OF THE GLACIAL LAKE AGASSIZ REGION. Edited by William J. Mayer-Oakes. *Winnipeg: University of Manitoba Press, 1967. 6 x 9 inches, 414 pages, including 94 figures. \$4.00.*

Lake Agassiz, the largest Pleistocene proglacial lake in North America, covered at its maximum extent a vast area in south-central Canada and adjacent parts of the United States. Evidence pointing to the former existence of the lake was recognized

as early as 1825, and by the beginning of the present century a considerable body of data bearing on its extent and genesis had accumulated. Warren Upham's impressive monograph on Lake Agassiz, published in 1896, was an important milestone which marked the culmination of early studies of the lake. Research carried out during the present century has added much detail to our knowledge of the history and physical environment of the lake basin. In 1966, following preliminary discussions during the VII INQUA Congress in Boulder, an interdisciplinary conference was held at the University of

Manitoba to survey the present status of Lake Agassiz studies. The outgrowth of that meeting was an attractive volume of papers, ranging over a variety of subjects, which illustrate the effectiveness of a multi-disciplinary approach to the investigation of Pleistocene problems.

The proceedings of the conference are divided into three principal parts which deal with the physical, biological, and archeological history of the lake basin. Approximately half the book consists of nine papers on the geology of Glacial Lake Agassiz; of these, two deserve special mention. The longest, and what many will find to be the most useful paper, is an extensive summary of the geology by John Elson which emphasizes contributions made since Upham's work was completed and attempts to place the geologic history of the lake in a chronologic framework. The literature on postglacial uplift is concisely surveyed in a review paper by Walter Kupsch who discusses the evidence for uplift in the Lake Agassiz basin and draws analogies between the Laurentide Ice Sheet and the Scandinavian, Greenland, and Antarctic ice sheets. Other papers, which are more local in emphasis, deal with the geology in the vicinity of the principal lake outlets, with subsurface geology, and with present and former drainage.

The contributions of paleoecologic studies to the environmental history of the Lake Agassiz region are presented in seven papers which are concerned largely with the paleontological record. Although considerable data has been accumulated on the fossil floras and faunas, the difficulties in correctly interpreting the evidence are repeatedly emphasized. These difficulties arise primarily because ecologic factors influencing modern populations are as yet poorly understood. To quote one author: "If, with inadequate ecologic information, we insist upon detailed paleoecologic-paleolimnologic reconstructions we can be assured of failure. We can and should attempt to reconstruct the fossil populations, but we should not attempt to go beyond the limits of our knowledge of Recent ecologic information." The degree to which certain paleoecologic information can be used in reconstructing past climates is effectively demonstrated in a paper by Reid Bryson and Wayne Wendland who propose some "tentative climatic patterns for some late glacial and post-glacial episodes in central North America." On the basis of geologic evidence, fossil pollen, vertebrate fossils, and archeology they have reconstructed the pattern of atmospheric circulation for the critical periods of 13,000 to 10,000, c 8000,

and 5000 to 3500 years ago. Such attempts at synthesis are to be applauded not only for bringing together a voluminous mass of data, but for pointing out areas where additional information is needed.

The final section of the symposium volume includes two papers on the human population of the Lake Agassiz region. A review of the prehistory of the lake basin by William Mayer-Oakes provides the reader with a concise history of archeological work and with the framework within which the present research is being carried on. Archeologists are among the greatest beneficiaries of interdisciplinary research, for all aspects of the environment relate to man. Although when compared with geologic studies archeologic work in Manitoba is still in its early stages, the potential for fruitful environmental archeologic research is obvious when one reviews the list of titles in this symposium volume.

The success of the Conference can be measured to a large degree by the stimulus it provided for these workers to publish the results of their current research collectively, thereby providing scientists in many different disciplines with a most-welcome and up-to-date survey of Glacial Lake Agassiz. Hopefully this volume will serve to encourage the organization of similar environmental conferences on selected geographic regions.

Stephen C. Porter

LE PÉRIGLACIAIRE PAR L'IMAGE — ILLUSTRATED GLOSSARY OF PERIGLACIAL PHENOMENA. BY LOUIS-EDMOND HAMELIN and FRANK A. COOK. Québec: Les Presses de l'Université Laval, 1967. 7 x 10 inches. 237 pages, 121 illustrations. \$10.00.

The scientific study of landforms and sediments in the contemporary periglacial regions and in the periglacial zones of the cold phases of the Pleistocene, has made great progress in the last two decades. Major developments followed the establishment of a 'Commission on Periglacial Morphology' by the International Geographical Union in 1949, including the creation of a scientific journal, *Biuletyn Peryglacjalny*, in 1954. A characteristic of research in the period has been the close contacts between central European (particularly Polish), Scandinavian, French, and Anglo-American field workers. Despite this development of international contacts, serious problems of terminology have occurred, inherited largely from the