

Burch finds this behaviour inexplicable, although it can be explained in psychoanalytical terms.

Burch also attempts to explain that geronticide was rare and only practised "when necessary"; again, however, an alternative explanation based upon inconsistencies in child care is possible, and more likely. Burch also discusses nepotistic relationships (varied); in-law relationships (strained); siblings (normal rivalry and love), co-siblings (potential mates) and affinal (varied) relationships.

More important to Burch are the strategy and patterns of affiliation. He feels that by tradition Eskimos needed kin to survive, to gain wealth and power and, more recently, simply for affiliative needs, for "happiness".

Since kin affiliation was crucial, some aboriginal villages were almost entirely multi-generational "single" families. He described the household composition of several turn-of-the-century villages in detail. These cases support Burch's argument for the continuing importance of family ties in northwestern Alaska. He notes that to focus on the nuclear family alone would obscure the range and flexibility of kin ties used by Eskimos.

Burch's work, overall, is careful, detailed and useful. Information is presented in normative and behavioural terms. Care and objectivity are the most valuable aspects of this useful book. They impart, unfortunately, a somewhat lifeless flavour to excellent material. This may be because Burch's assumptions about motivation include no element of dynamic psychological thinking, and relate to commonsense terms such as "survival", "power", "wealth" and "affiliation". Why this is an essential part of Eskimo life, and how it evolved, is not explained, and a comparison with other cultures is not made. Because of this, details regarding motivation and affect, which are only sporadically distributed throughout this work, have a potentially different meaning to the psychologically sophisticated reader. All this would be irrelevant except that the title "relationships" implies some psychological aspects to this reviewer.

In fairness, this was not Burch's aim. Nonetheless, the reader might keep in mind that it is the structure and pattern of family relationships, rather than any significant affective information, which is meant by Burch's title. That structure and pattern are well defined.

Arthur E. Hippler

PERMAFROST TERMINOLOGY. PREPARED BY R. J. E. BROWN AND W. O. KUPSCH. *Ottawa: National Research Council of Canada, 1974. (Technical Memorandum no. 111). 5¾ x 8¼ inches, 62 pages, illustrated. Soft cover, \$3.00.*

This glossary of terms is designed to aid the increasing number of people in Canada who are interested in areas affected by permafrost. It is a very useful compilation of the terms in current use, and as such fulfils a real need. The major part constitutes a listing of 146 terms and their definitions, with additional clarifying comments and references where appropriate. Nearly 100 alternative terms and cross references are also given.

The glossary was compiled under the sponsorship of the Permafrost Subcommittee of the Associate Committee on Geotechnical Research of the National Research Council of Canada. At two stages in its compilation, opinions were sought from many people involved in permafrost research in Canada, and as far as possible a consensus was obtained. In some cases, however, the authors report "conflicting opinions", and in an attempt to resolve them have expanded the existing definitions in some cases, even to the point of introducing new qualifications that are probably not universally applicable. For example, solifluction is defined as "the process of slow, gravitational, downslope movement of saturated, nonfrozen earth material behaving apparently as a viscous mass over a surface of frozen material." While there is a strong trend towards the use of "solifluction" only with regard to cold climates (with the implication of freezing or thawing processes normally involved), a restriction to saturated flow "over a surface of frozen material" is probably further than some researchers will wish to go.

The authors also discuss the problem of the dual use of the word "frozen". On the one hand, "freezing" is thought of as a process which occurs when water changes from liquid to solid, and thus it might be thought essential that "frozen ground" contain ice. On the other hand, the term "frozen" can be taken as applying to all materials at a temperature of below 0°C, whether the water present is in liquid or solid state (for it is necessary to note that underwater sediments will not freeze at precisely 0°C). The authors have conformed to normal modern practice in using "frozen" in the last-mentioned sense in relation to permafrost. Following this policy, specimen sections in the glossary read:

"permafrost: the thermal condition in soil or rock having temperatures below 0°C

persisting over at least two consecutive winters and the intervening summer."

"COMMENT: permafrost or *perennially frozen ground* is defined purely as a thermal condition; moisture in the form of water and *ground ice* may or may not be present..."

"*seasonal frost*: seasonal temperatures causing frost (below 0°C temperatures) that affect earth materials and keep them frozen only during the winter."

"*active layer*: the top layer of ground above the *permafrost table* that thaws each summer and refreezes each fall". However, the "Comment" that follows suggests that "fall" was substituted in error for "winter".

The glossary covers a range starting with *active ice wedge* and including such examples as *beaded drainage*, *bonding*, *cryoturbation*, *freezing index*, *frost susceptible soil*, *epigenetic ice*, *pingo ice*, *ice wedge*, (and 36 other entries under *ice*), *icing*, *muck*, *palsa*, 28 terms using the actual word *permafrost* (including *equilibrium permafrost*, *submarine permafrost*), *patterned ground*, *retrogressive thaw flow slide*, *sand wedge*, *string bog*, *talik*, *thermokarst* (and various allied terms), *tundra*, and ending with *zero curtain*. A further useful feature is the inclusion of terms not recommended (e.g. *fossil ice wedge*), together with provision of preferred alternatives. The 58 references include a general selection on permafrost, with emphasis on Canada, as well as many specialised terms. The 23 figures include a variety of very good photographs of massive ground ice features. This booklet should be on the shelves of anyone interested in areas where there is permafrost.

Frank H. Nicholson

Books Received

THE ARCTIC CIRCLE: ASPECTS OF THE NORTH FROM THE CIRCUMPOLAR NATIONS. Edited by William C. Wonders. Toronto: Longman Canada, 1976. 9 x 6 inches, 143 pages. Soft cover, \$3.95.

GABRIEL DUMONT. BY GEORGE WOODCOCK. Edmonton, Alberta: Hurtig, 1975. 8¾ x 5¾ inches, 280 pages, illustrated. Hard cover, \$8.95.

GLACIERS AND LANDSCAPE. BY DAVID E. SUGDEN AND BRIAN S. JOHN. London: Edward Arnold, 1976. 9¼ x 6¾ inches, 376 pages. Paperback, £5.95; hard cover £12.00.

GLOBAL CLIMATE. BY KEITH BOUCHER. New York: Halstead Press, 1975. 6¾ x 9½ inches, 326 pages. Hard cover, no price indicated.

MY OLD PEOPLE SAY: AN ETHNOGRAPHIC SURVEY OF SOUTHERN YUKON TERRITORY, PARTS 1 AND 2. BY CATHARINE MCCLELLAN. Ottawa: National Museums of Canada, 1975. 9¾ x 6½ inches, 637 pages. Paperback, no price indicated.

THE NESTING POPULATION OF LESSER SNOW GEESE IN THE CANADIAN ARCTIC: A PHOTOGRAPHIC INVENTORY OF JUNE 1973. BY R. H. KERBES. Ottawa: Information Canada 1975. 11 x 8½ inches, 47 pages, 19 figures, 9 tables. Soft cover, \$3.25 in Canada, \$3.90 elsewhere.

NORTHERN DEVELOPMENT AND TECHNOLOGY ASSESSMENT SYSTEMS. BY ROBERT F. KEITH, DAVID W. FISCHER, COLIN E. DE'ATH, EDWARD J. FARKAS, GEORGE R. FRANCIS AND SALLY C. LERNER. Ottawa: Information Canada, 1976. 9¾ x 6½ inches, 219 pages. Paperback, \$3.75 in Canada, \$4.50 elsewhere.

THE NORTHERN INTERIOR GRIZZLY BEAR — *URUSUS ARCTOS* L. BY A. M. PEARSON. Ottawa: Information Canada, 1975. 11 x 8½ inches, 86 pages, 30 figures, 17 tables. Soft cover, \$4.50 in Canada, \$5.40 elsewhere.

PEYTO GLACIER: GENERAL INFORMATION. MAP WITH ILLUSTRATIVE TEXT BY J. K. SEDGWICK AND W. E. S. HENOCH. Ottawa: Canada Map Office, 1975. 9 x 5¾ inches, 30 pages plus map. \$3.00 (\$2.50 for map only) plus 50¢ mailing and handling charges. Available in English and French.

THE POLITICAL ECONOMY OF NORTHERN DEVELOPMENT. BY K. J. REA. Ottawa: Information Canada, 1976. 9¾ x 6½ inches, 251 pages. Paperback, \$4.00 in Canada, \$4.80. elsewhere.

PREHISTORIC MARITIME ADAPTATIONS OF THE CIRCUMPOLAR ZONE. EDITED BY WILLIAM FITZHUGH. The Hague: Mouton; Chicago: Aldine, 1975. 9½ x 6 inches, 405 pages, illustrated. Hard cover, \$29.50.

WHALING AND ESKIMOS: HUDSON BAY 1860-1915. BY W. GILLIES ROSS. Ottawa: National Museums of Canada, 1975. 10 x 6½ inches, 164 pages, maps, tables and illustrations. No price indicated.