

REVIEW

L.-E. HAMELIN and F. A. COOK. *Le périglaciaire par l'image: Illustrated glossary of periglacial phenomena*. Québec, Les Presses de l'Université Laval, 1967. xi, 237 p., illus. (Travaux et Documents du Centre d'Études Nordiques, 4.)

MANY glossaries are as tiresome to read as dictionaries, but not this one which is unusually interesting and useful. It deals with a group of fascinating ground phenomena whose terminology is prolific, chaotic and confusing. This difficult situation must be expected in a developing subject which involves many complex physical processes and which has not yet advanced significantly from the descriptive stage.

Term commentaries on facing pages are in French and English, but they are not translations. The French is written by Hamelin and the English by Cook, whose untimely death occurred before the completion of the work. Thus the texts often supplement each other, reflect different experiences in many countries, and sometimes show differences in opinion. One needs a knowledge of both languages to get the best out of the glossary. Each commentary gives a physical description of the phenomenon or feature, aided generally by an excellent photograph or diagram, and it gives an explanation of the possible origin, its age, its distribution and its influence on human activity.

The book is arranged conveniently into three parts. Part 1 gives forms and processes of periglacial origin and is subdivided into ground ice, congelifraction (frost-shattering in common English), nivation and floating ice. Part 2 deals with fluvial and aeolian processes which take characteristic forms in cold climates, and Part 3 takes in patterned ground, solifluction and congeliturbation (or cryoturbation or frost-churning!). Each subdivision has a helpful introduction, and the book concludes with a selected bibliography and indexes of the terms in both languages.

The glossary does not pretend to be complete or even rational, but makes use of most current terminology. Although it helps the student to get to grips with periglacial jargon, it also shows him how irrational it is and may not in some cases enable him to apply the terms. This seems to be the case particularly in the subsections on solifluction and congeliturbation. The authors undoubtedly had some difficulty in dealing with the term "head deposits" which seems to be no more than a dustbin term for late Pleistocene deposits of variable and unspecified genesis and might well include several phenomena such as "deranged stratigraphy", "congeliturbation" and "involutions".

The terminology of active patterned ground, which at one time was extremely confusing, is much more satisfactory due to the efforts of A. L. Washburn. Here the terminology simply describes the visible surface patterns on the ground with little pretence to understand their complex origin. In comparison the terminology of relic forms of frozen-ground phenomena seems to be very inadequate.

This glossary will interest not only the earth scientist working in the cold regions, but also those operating in areas such as lowland Europe which abound in relic periglacial forms. It will even interest construction engineers who are constantly revealing frost-deranged ground in their daily work.

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