

on 'Cryoplanation' is more traditionally geomorphological, as is Thorn on 'Nivation'. 'Rock glaciers' is a review, with a lengthy bibliography, by Barsch. Questions of sedimentology are considered by DeWolf. The eclectic nature of the book is already apparent.

In Part 2, 'Frozen ground and active layer processes', Harry writes well on 'Ground Ice and permafrost', French on 'Active layer processes' and Vandenberghe on 'Cryoturbations'. Harry, and French, deal to some extent with the geotechnical and process (physical science) questions. These aspects have the greatest practical significance and these authors could well have written more. While the near-total absence of even simple equations may make the book superficially attractive, it reflects the continuing all-too-frequent absence of the necessary scientific rigour in periglacial studies.

'Seasonal frost mounds' (Pollard), 'Earth hummocks (thufur)' by Schunke and Zoltai, 'Palsas and related forms' (Seppälä) are placed with a review of pingos (by Pissart) and of pingo scars (de Gans) to make up Part 3: Process and form — the example of frost mounds' (do we really call pingos 'frost mounds?').

The final group of papers, 'Perspectives on the Periglacial System' has 'Slope processes' by Lewkowitz, Harris on 'The alpine periglacial zone', and two papers which are somewhat philosophical and about periglacial topics rather than on them. Perhaps both authors thought they were writing 'concluding' comments for the volume. If so, they should have mentioned pressing issues such as the effects of climate change in the periglacial regions, or the application of materials science to frozen soil behaviour. A broader vision in selection of topics might, after all, have improved this useful volume. (P. J. Williams, Carleton University, Ottawa, Canada)

#### BRIEF REVIEWS

ICELAND: VOLCANOES: GLACIERS, GEYSERS. Münzer, U. 1985. Luzern, Atlantis Verlag. 182 p, illustrated, hard cover. ISBN 095-148-38-03. £27.50.

Published originally in Germany, translated by Ellen Sallet, now available through a UK distributor, this is a most elegant illustrated account of Iceland's geography and structural geomorphology. The text is clear and intelligent, outlinging the history and social background of the people and giving a detailed account of the glaciers and volcanic areas. The pictures include stunning aerial photographs, satellite images and occasional down-to-earth photographs of remarkable quality. Available from Cordee3a De Montfort Street, Leicester LE1 7HD: add £2.50 for surface mailing.

WHEN THE WHALERS WERE UP NORTH. Eber, D. H. 1989. Kingston, McGill, Queen's University Press. 187 p, illustrated, hard cover. ISBN 0-7735-0702-7. £26.95.

Subtitled 'Inuit memories from the Eastern Arctic', this is an account of late 19th and early 20th century commercial

whaling, by Inuit who became involved with the UK and US whalers operating off Baffin Island, Cumberland Sound and Hudson Bay, accurately billed as '... a story drawn from oral memories ... which will soon disappear with the last Inuit generation to have seen the whalers.' A fascinating mix of history, folk-lore and gossip, well illustrated with contemporary photographs and Inuit prints.

HYDROLOGY OF ICE CAPS IN VOLCANIC REGIONS. Björnsson, H. 1988. Reykjavik Societas Scientiarum Islandica, University of Iceland. 139 p, maps, illustrated, hard cover. ISSN 0376-2599.

Results of 15 years' studies of glaciology and hydrology on the Vatnajökull and Hofsjökull ice caps of Iceland, especially the drainage of water and ice from Icelandic glaciers, with emphasis on jökulhlaups from subglacial water reservoirs. The text includes a historical overview of Icelandic glaciology, and accounts of water drainage at the glacier bed, formation of subglacial reservoirs and locations of glacial lakes, the ice surface and bedrock topography of Hofsjökull and western and northeastern Vatnajökull, delineation of ice catchment basins, the triggering of jökulhlaups, the mass balance of Grímsvötn basin, and the estimation of area and location of other water-drainage basins from bedrock and surface topography, with a summary and conclusions. 21 maps are boxed separately.

ANTARCTIC CENOZOIC HISTORY FROM THE CIROS-1 DRILLHOLE, McMURDO SOUND. Barrett, P. J. (editor). 1989. Wellington, DSIR Publishing. (*DSIR Bulletin* 245). 254 p, illustrated, soft cover. ISSN 0077-961X. NZ\$29.95.

Presenting results of a wide range of studies on core material from a hole drilled between 16 October and 14 November in the Transantarctic Mountains of Victoria Land, Antarctica. Individual sections include papers covering scene-setting geophysical surveys, data from the down-hole logs and from seismic reflection surveys, basic stratigraphy, sedimentology studies, palaeontology, strontium isotope ages, palaeomagnetic stratigraphy, petrology and geochemistry, organic chemistry, biostratigraphy and chronology, and a synthesis by the editor and associates. The core material represents sediments accumulating from 36 to 34.5 Ma and 30.5 to about 22 Ma in a shore environment and a regime of temperate glaciation.

THE TRAVELLERS: CANADA TO 1900. Waterston, E., Easterbrook, I., Katz, B and Scott, K. (editors). 1989. Guelph, University of Guelph. 321 p, illustrated, hard cover. ISBN 0-88955-170-7. Can\$49.00.

Subtitled 'An annotated bibliography of works published in English from 1577', this focuses on travel books written about Canada, including a few of regional flavour. Over 700 are represented, in chronological order, starting with an account by Dionyse Settle of Frobisher's expedition to Greenland and eastern North America, and ending with William Barr's 1987 translation of Klutschak's classic