BOOK REVIEW

J.S. Aber, D.G. Croot & M.M. Fenton, 1989. Glaciotectonic landforms and structures. Dordrecht, Boston, London (Kluwer Academic Publishers), 200 pp., 5 tabs, 157 figs, hard cover. ISBN 0792301005. Price: Hfl. 155.—.

This book is the fifth item in the series Glaciology and Quaternary Geology, edited by C.R. Bentley of the University of Wisconsin-Madison. It is unique in its kind in being a textbook and reference source which systematically and comprehensively deals with the subject of glaciotectonism. To illustrate various glaciotectonic features, the authors have used exemplary case studies from both North America and Europe.

The first chapter briefly reviews historical developments in the two major regions of interest, defines the concept of glaciotectonism and introduces a classification of glaciotectonic landforms. The term glaciotectonism, as conceived by the authors, refers to deformations of pre-existing substratum material resulting from glacier-ice movement or loading. Deformations within the glacier ice are excluded from the definition and this, perhaps, is the reason why the important work of G.S. Boulton is nowhere quoted in the book.

Chapters two through six discuss and exemplify the geomorphological classification already mentioned above. Since the scheme is of american origin, its application to glaciotectonic surface features in various parts of Europe is an interesting new contribution. Whereas these landforms are due to active-ice movement in the first place, their internal structure may have been codetermined by intrusion processes which are dealt with in chapter seven.

Chapters eight and nine consider the engineering aspects and distribution pattern of glaciotectonic phenomena. With respect to the latter subject, the question arises why Germany has been treated as a glacial *terra incognito*. In fact, it is the heartland of glaciated Europe and its geologists have gone to great lengths to unravel the glacial history of the country. Yet, virtually nothing of their work is found in the book and this inexcusable omission is felt almost every page.

Chapter ten discusses the dynamics of glaciotectonic deformation and, essentially, is on the level of a first lesson in soil mechanics.

Chapter eleven is on glaciotectonic analogues. In this attractive concluding chapter, the nonglacial equivalents of ice-pushing and ice-loading structures are reviewed and the basic similarity of the two categories is emphasised.

Despite the shortcoming noted above, the book is recommended for its wide scope and systematic approach to the subject. The quality of its printing and figures is good but the price might have been somewhat lower.

J. Schwan,
Institute for Earth Sciences,
Free University, Amsterdam.