

# ***The Periglaciation of Great Britain***

by **Colin K. Ballantyne and Charles Harris**, published by Cambridge University Press, ISBN 0-521-31016-4, 330 pages, 1995, \$39.95

## Review by **Christopher G. Kendall**

This great book is tightly written, well illustrated with numerous beautiful black and white photographs and clear line drawings. The authors have managed to combine in one book very complete descriptions of the structures produced during the glaciation of Great Britain. The text is illustrated with a mix of examples from features found in the United Kingdom to those formed in the periglacial areas of Canada. These various features are described in considerable detail and illustrated with block diagrams, cross sections and maps accompanied by extremely clear photographs. It's hard to overstate the quality of the workmanship in this book, it is so well put together and well illustrated. It represents a handbook to periglaciation which extends beyond the authors probable intention of a book for use by undergraduates as a useful reference within an introductory course. It summarizes at a very professional level how glaciations affected portions of the British Isles synthesizing the effects of periglaciation on the surface of these islands.

The book is divided into four parts, the first deals with a general introduction to periglacial research in Great Britain, and how Quaternary glacial events took place in Britain and their distribution. It describes the periglacial vegetation, soils, fauna, etc. It then discusses the periglaciation of lowland Britain, including ice-wedging, relict tundra polygons, pingos, cryoturbation, periglacial mass wasting and slope evolution, and landscape modification by fluvial and aeolian processes. Part three deals with upland Britain, focusing on frost weathering and mountain-top detritus, patterned ground on British mountains, solifluction landforms, talus slopes, and nival, fluvial, aeolian, and coastal features in upland Britain. Finally there is a discussion of periglacial environments past and present which focuses on periglacial effects that can be identified by the various sedimentary structures produced by these processes. The environmental conditions which were developed in the well established stadial periods of the late Devenzian, the Dimlington Stadial and the Loch Lomond Stadial are compared by considering the assemblages of features produced during these interglacial periods and the current active periglacial phenomena of the British mountains.

The authors write that it took them four years to assemble this book but it would be surprising if it had not taken longer. The work represented here probably stretched over many years, so just putting together the information presented, drawing the diagrams, writing the text and taking the photographs, were all major undertakings. The bibliography to the text is second to none, it is well referenced, and has a very fine index. The print is clear, the photographs are in focus, the diagrams are clear and professionally drawn. If you're a periglacial geologist this will be a great book to have. Whether your interests are the British Isles or elsewhere you will find this book helpful to you, since it describes so many features associated with periglaciation and if you're trying to unravel the glacial history of an area you'll find this text extremely useful to you. So not only does this book help geologists and geomorphologists who attempt to understand their local landscapes in the British Isles but it should be of use of specialists and novices working in other periglacial areas.