The Periglacial Environment
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Preface to First Edition

This book is intended for use by second- and third-year level geography students in universities or colleges of higher education in the United Kingdom. It is also suitable as a text for an undergraduate course on periglacial geomorphology at the honors level in Canada and the United States. On a more general level, the book may prove useful to high school teachers and other individuals interested or specializing in the physical geography of cold regions. I have assumed, however, that the reader will already possess some understanding of the physical environment, such as might be provided by a first-year physical geography or elementary geomorphology course.

In writing this book I had two aims in mind. The first was to give a realistic appraisal of the nature of the geomorphic processes and landforms in high-latitude periglacial environments. The second was to provide some guide to the recognition and interpretation of periglacial features in the now temperate regions of North America and Europe. The regional emphasis is oriented towards areas of which I have personal field experience, notably the western Canadian Arctic, central Siberia, southern England, and central Poland. Thus, the overall focus is more towards lowland, rather than alpine, periglacial conditions. Notwithstanding this comment, I have attempted to give a balanced world picture; important literature pertaining to other areas has been incorporated.

The reasons for writing this book are also twofold. First, the majority of students will never have the opportunity to experience, at first hand, high-latitude periglacial environments. However, since cold conditions prevailed over large areas of middle latitudes at several times during the last one million years, the appreciation of such conditions is essential for a balanced interpretation of these landscapes. Second, the vast northern regions of North America and Siberia are assuming an ever-increasing importance in man’s quest for natural resources. Their development will be possible only if we understand the terrain and climatic conditions of these regions. For both these reasons, I hope this book will serve a useful purpose.

I have divided the book into three parts. Part 1 is a general introduction to periglacial conditions in which the extent of the periglacial domain and the variety of periglacial climates are briefly considered. Part 2 presents a systematic treatment of the various geomorphic processes operating in present-day periglacial environments. Wherever possible, I have attempted to show the relationship between process and form and to stress the multivariate nature of many landforms. The sequence of chapters is important since they are planned to be read successively. Part 3 serves only as an introduction to Pleistocene periglacial phenomena. Emphasis in this part is upon forms rather than processes and their interpretation in the light of our understanding of similar phenomena in present-day periglacial environments.

I have not attempted to be comprehensive in my treatment of the literature. By selecting information, I have attempted to give a viewpoint. Inevitably, this viewpoint is biased to