

Glaciers and Landscape

A Geomorphological Approach

David E. Sugden

Department of Geography, University of Edinburgh

and

Brian S. John

Formerly of Department of Geography, University of Durham



Edward Arnold

A member of the Hodder Headline Group

LONDON NEW YORK MELBOURNE AUCKLAND

Contents

Preface	vii
1 Introduction	i
PART I Glaciers and glacier dynamics	
2 Glacier ice	15
3 Glacier systems	35
4 Glacier morphology	56
PART II Glacier distribution in space and time	
5 Spatial distribution of glaciers	81
6 Short and medium term glacier fluctuations	102
7 Long term glacier fluctuations	129
PART III Glacial erosion and its effects	
8 The processes of glacial erosion	151
9 Landforms of glacial erosion	168
10 Landscapes of glacial erosion	192
PART IV Glacial deposition and its effects	
11 The processes of glacial deposition	213
12 Landforms of glacial deposition	235
13 Landscapes of glacial deposition	258
PART V Meltwater: a glacial subsystem	
14 Meltwater as part of a glacier	279
15 Meltwater erosion and its effects	300
16 Meltwater deposition	318
References	337
Index	363