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# HILLSLOPE FORM AND PROCESS

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CONTENTS

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PREFACE	<i>page vii</i>
ACKNOWLEDGEMENTS	viii
INTRODUCTION	
1 Geomorphic systems and models	1
2 Starting points: systems of reference	11
PART ONE: FORCE AND RESISTANCE	
3 Force: sources of energy for debris transport	27
4 Resistance	62
PART TWO: PROCESS: THE INTERACTION OF FORCE AND RESISTANCE	
5 Process: introduction	99
6 Instability processes in rock masses	111
7 Instability in soil masses	148
8 Surface water erosion	188
9 Sub-surface water erosion	231
10 Soil creep	272
PART THREE: FORM: COMPARISON OF REAL FORMS WITH PROCESS-RESPONSE MODELS	
11 Humid temperate areas	301
12 The periglacial landscape	324
13 Semi-arid and arid landscapes	338
14 Tropical landforms	356
PART FOUR: SYNTHESIS	
15 Slope profiles	369
16 Slopes in drainage basins	390

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---

*Contents*

Appendix A	Derivation of slope stability formulae	425
Appendix B	Derivation of characteristic form equations	433
Appendix C	Conditions for profile convexity or concavity	437
Appendix D	Notations used	440
Bibliography		443
Index		468

## PREFACE

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The study of hillslopes has attracted geomorphologists for a long time and it is viewed by many as the most central single theme in the subject. Much research has been directed to the topic over the past two decades, but, to date, no attempt has been made to produce a comprehensive survey of it in the way that Leopold, Wolman and Miller's *Fluvial processes in geomorphology* did for stream channel form and process. A similar survey for hillslopes has been our aim in writing this book. It is directed at the graduate level, but it should also be readily understood by any final-year undergraduate with a basic science background. We have clearly drawn heavily on the work of others, often geomorphologists or pedologists, but equally engineers working in the fields of rock mechanics, soil mechanics or hydraulics. We feel strongly that slope studies and geomorphology generally must be approached from an inter-disciplinary point of view.

Although we have both done our best to give a balanced account of the topics on which we have written, there remain minor differences in viewpoint between the sections which the two of us have written. In a subject where few, if any, conclusions are final, we have felt it honest to retain such differences and leave the reader free to accept either or neither version. At the same time it may assist him to distinguish these intended differences if we list our responsibilities for individual chapters, as follows:

M. A. Carson: Chapters 2, 4, 6, 7, 11, 12, and 15;

M. J. Kirkby: Chapters 1, 3, 5, 8, 9, 10, 13, 14, and 16.

However, we would like to affirm that we consider this book to be a joint venture, with responsibility equally shared between us: our names appear in the title in alphabetical order according to bibliographical practice.

Parts of the manuscript have been critically reviewed by our colleagues, especially J. B. Bird, R. J. Chorley, D. Ingle Smith and Eiju Yatsu, to all of whom we owe a large debt. Similarly we would like to thank the Editorial Board of the Cambridge Geographical Studies for their advice and continued patience in the preparation of the text. Lastly our thanks go to our wives for their constant assistance in reviewing, proof-reading and living with the manuscript during the last two years.

April 1971

M. A. CARSON M. J. KIRKBY

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