CONTENTS

PREFACE *page* vii

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

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