Preface

Our aim in this book is to examine the nature of landforms, soils and geomorphological processes in deserts. Since deserts comprise over twenty per cent of the earth's land surface, the task is important and the prodigious literature shows that its significance has long been realized. But the extent and variety of deserts and their geomorphological literature present a formidable challenge to those who wish, as we do, to make generalizations in a survey of the field. Perhaps this is why there are few volumes covering the subject of desert geomorphology. Walther's classic *Das Gesetz der Wüstenbildung* (1924) has been followed only by Cotton's shorter survey in his *Climatic Accidents in Landscape Making* (1942) and by Tricart and Cailleux's review, *Le Modèle des Régions Sèches* (1961). Since we began to write this volume, the study of desert geomorphology has been advanced by the publication of the University of Arizona's bibliographic compendium, *Deserts of the World* (1968), and by the appearance of K. W. Glennie's monograph, *Desert Sedimentary Environments* (1970). Both of these books are complementary to our own—the first as a source of further reading, the second as a guide to ancient and modern desert sediments.

We cannot claim that our study is comprehensive or impartial. We have drawn on our own experience of deserts in North America, Chile and Peru, North Africa and Pakistan, and from time to time we have included some of our own previously unpublished research. Although we have reported material written in French, German, Russian and Spanish, we have used English-language material most extensively. We have also been selective in the themes we pursue, since our aim has been to consider landforms and soils and the processes currently at work in deserts in the context of geomorphological systems at different scales. In adopting this approach, we believe we are reflecting much contemporary thinking in geomorphology; but a consequence of our emphasis on present conditions is that we have found little space for much of the work on regional chronologies of landform development in deserts.

Many desert geomorphologists still feel that they are working in a field as bizarre as medieval cosmology. Much of the literature is less concerned with field evidence than with the cumulated speculations of generations of workers who were intent on validating vaguely conceived hypotheses. Perhaps the best-known of these march hares is the idea of parallel slope retreat, but others include notions of pediment development, the concept of pervasive wind erosion and the view that temperature change is important in rock weathering. We hope this book may provide acceptable generalizations concerning some of these ideas and that it may illuminate others; but at least we hope that we may have asked some useful questions and established a baseline from which subsequent research may proceed.

Various parts of the volume have been reviewed for us by Dr C. Vita-Finzi, Dr I. G. Wilson, Dr D. Yaalon and Professor T. J. Chandler. We have adopted many of their suggestions, and we greatly appreciate their help. We are most grateful for the financial support of many organizations which has allowed us to work in deserts: the American Council of Learned Societies, the U.K. Ministry of Overseas Development, The Royal Society, University College London, and the Central Research Fund of the University of London. Our thanks are also due to the staff of the Drawing Office, Department of Geography, University College London, for their skilful execution of the diagrams. Dr C. Vita-Finzi, Mr D. N. Hall, Dr I. G. Wilson, Dr E. C. F. Bird, Hunting Aerosurveys Ltd, and the Institut Géographique National kindly allowed us to reproduce photographic material. Finally, there are colleagues and friends too numerous to mention individually who have helped in so many ways to make our field work in deserts a success: we extend our sincere thanks to them all.

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