INTRODUCTION TO GEOLOGY

Volume 2 Earth History

Part II Later Stages of Earth History

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Part II Later Stages of Earth History

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Softcover reprint of the hardcover 1st edition 1975 978-0-333-17668-9

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First published 1975 by
THE MACMILLAN PRESS LTD
London and Basingstoke
Associated companies in New York Dublin
Melbourne Johannesburg and Madras

SBN 333 17668 5 (hard cover)
SBN 333 17669 3 (paper cover)

Typeset by
PREFACE LIMITED
Salisbury, Wilts
and printed by
COMPTON PRINTING
Aylesbury, Bucks
and bound by
PITMAN PRESS
Bath, Avon

ISBN 978-0-333-17669-6

ISBN 978-1-349-15613-9 (eBook)
DOI 10.1007/978-1-349-15613-9

Library of Congress Catalog Card No. 75-501

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Preface

When H. H. Read was asked by Macmillans to write an introductory text-book which would serve as the basis for a first University course in Geology, he originally hoped to cover the whole subject in a single volume. It soon became clear, however, that this could not be done unless much of the factual information needed by students was jettisoned. An enlargement of the project became necessary and as I was acting as his Research Assistant he invited me to join him. We decided to think in terms of a two-volume *Introduction to Geology*: Volume 1 (*Principles*) would deal with geological processes and with the rocks and structures produced by them, while Volume 2 (*Earth History*) would illustrate the effects of these processes by reference to the record of geological history. Volume 1 appeared in 1962 and we then began to make plans for Volume 2.

At this time, the scope of historical geology was being dramatically widened by new developments in the earth sciences. It seemed clear to us that if we were to provide the background which would be needed by students in the future we must deal with earth history on a world-wide basis and must cover the full span of geological time. This broad approach made it necessary to give the book a rather unusual balance and to scale down the treatment of some important topics usually favoured by stratigraphers and palaeontologists. The plan that we adopted allowed us to deal with the geological evolution of large crustal units over long time periods. The early stages in the history of these units are covered in Part I; the later stages, from a point in time about a thousand million years ago until the present day, are covered in Part II. Many of the themes introduced in Part I are developed in Part II, and I hope that the two Parts will be regarded for most purposes as an entity. The difficulties of producing a paperback as well as a hardcover version as a single large volume have made it preferable for Parts I and II to be published as separate but integrated books.

Soon after we had begun work on Volume 2, Professor Read suffered a severe illness which restricted his later activities. He pushed on, however, with undiminished enthusiasm and we kept in touch by means of innumerable letters and telephone conversations. About three-quarters of the manuscript had been written when he died in 1970, a few months after his eightieth birthday. Over the next year or so I completed the final chapters, revised the entire text and assembled material for the illustrations and bibliography. It falls to me, too, to thank the many people who have given us advice and information at many stages. In particular, I must mention my colleagues at Imperial College, many of them former students or colleagues of H. H. Read, who have helped to widen my horizons on many occasions. I also owe a debt of gratitude to Dr P. L. Robinson

who has allowed me to use a photograph from her collection, and to many geologists in Europe, Canada, Africa and Australia who have made field excursions both profitable and enjoyable. In writing a book of this scope it is impossible to keep within the limits of one's own experience and although I am, of course, entirely responsible for errors of detail, I know how greatly the book has benefited from the experience and interest of those with whom I have discussed it.

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and Technology,
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Acknowledgements

The authors and publishers wish to thank the following who have kindly supplied the originals of the photographs mentioned:

The Director, Grølands Geologiske, Undersøgelse: Plates I and VI.

The Director, Lanmaelingar Islands: Plate V

Aerofilms Ltd: Plates III and IV

Dr P. L. Robinson, University College, London: Plate II