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978-0-521-08128-3 - The Making of Geology: Earth Science in Britain, 1660-1815

Roy Porter

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# THE MAKING OF GEOLOGY

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Earth science in Britain  
1660-1815

ROY PORTER

*Director of Studies in History  
Churchill College, Cambridge*

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*To my parents*

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## Preface

In writing this book, I have benefited from the help, and received the advice, of far more people than can individually be mentioned here. I must, however, single out debts of gratitude where these are greatest. To the constant encouragement, criticism and example of Professor J. H. Plumb and Quentin Skinner I owe so much of my training and outlook as a historian. From 1967 Robert M. Young fired me with an enthusiasm for a history of science which would come to grips with the central concerns of human history. Martin Rudwick in part supervised my Ph.D. research, and has since then been a constant source of expert help and criticism in the difficult business of transforming a thesis into a book. He has helped me to appreciate the intrinsic patterns and problems of the practice of geology, and by his own scientific expertise has saved me from countless technical errors.

Many people have read parts or all of this work in its various stages, and I should particularly like to thank Dr V. A. and Mrs J. M. Eyles, Dr Charles Webster, Dr Hugh Torrens and Mr Jack Morrell for detailed comments, correcting errors and offering bibliographical advice. Over the last few years, Bill Bynum, Ludmilla Jordanova and Mike Neve have been constant sources of friendly personal encouragement and general historical stimulus. Responsibility for the overall interpretation and for remaining errors must, however, rest firmly with myself alone.

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*Preface*

upon-Tyne; the National Library of Scotland; the Royal Geological Society of Cornwall; the Royal Society of London; the Royal Society of Edinburgh. I should like to thank the staffs of these and other institutions for their courteous help and advice throughout work on this book.

Much of the original research was made possible by the kindness of the Master and Fellows of Christ's College, Cambridge, in electing me to a research fellowship in 1970. I have subsequently been able to write up this book in the friendly and sympathetic atmosphere of Churchill College, Cambridge.

*June 1976*

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Which Subject, if we consider as it is thus represented, doth look very like an Impossibility to be undertaken even by the whole World, to be gone through within an Age, much less to be undertaken by any particular Society, or a small number of Men. The number of Natural Histories, Observations, Experiments, Calculations, Comparisons, Deductions and Demonstrations necessary thereunto, seeming to be incomprehensiv and numberless: And therefore a vain Attempt, and not to be thought of till after some Ages past in making Collections of Materials for so great a Building, and the employing a vast number of Hands in making this Preparation; and those of several sorts, such as Readers of History, Criticks, Rangers and Namesetters of Things, Observers and Watchers of several Appearances, and Progressions of Natural Operations and Perfections, Collectors of curious Productions, Experimenters and Examiners of Things by several Means and several Methods and Instruments, as by Fire, by Frost, by Menstruums, by Mixtures, by Digestions, Putrefactions, Fermentations, and Petrifications, by Grindings, Brusings, Weighings and Measuring, Pressing and Condensing, Dilating and Expanding, Dissecting, Separating and Dividing, Sifting and Treining; by viewing with Glasses and Microscopes, Smelling, Tasting, Feeling, and various other ways of Torturing and Wracking of Natural Bodies, to find out the Truth or the real Effect as it is in its Constitutions or State of Being.

(ROBERT HOOKE, 1705: 279)

No Stone hath been left unturned.

(J. WOODWARD, 1695: 44)

Indeed, if the face of the earth were divided into districts, and accurately described we have no doubt that, from the comparison of these descriptions, the true theory of the earth would spontaneously emerge without any effort of genius or invention.

([J. PLAYFAIR], 1811: 209)

If only the Geologists would let me alone, I could do very well, but those dreadful Hammers! I hear the clink of them at the end of every cadence of the Bible verses.

(JOHN RUSKIN, letter of 24 May 1851 to HENRY ACLAND.  
*The works of John Ruskin*, xxxvi: 115.)