

**THE PHYSICAL GEOLOGY AND
GEOGRAPHY OF GREAT BRITAIN.
SIX LECTURES TO WORKING
MEN DELIVERED IN THE ROYAL
SCHOOL OF MINES IN 1863**

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The Physical Geology and Geography of Great Britain. Six Lectures to Working Men Delivered in the Royal School of Mines in 1863 by A. C. Ramsay

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A. C. RAMSAY

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PHYSICAL GEOLOGY AND GEOGRAPHY
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SIX LECTURES

TO WORKING MEN

DELIVERED IN THE ROYAL SCHOOL OF MINES

IN 1863.

BY A. C. RAMSAY, F.R.S.

LOCAL DIRECTOR OF THE GEOLOGICAL SURVEY OF GREAT BRITAIN.

SECOND EDITION.

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~~180. b. 96.~~
188. b. 25.

TO
THE MEMORY
OF
SIR HENRY THOMAS DE LA BECHE
C.B., F.R.S.

TO WHOSE EARLY TEACHINGS IN
PHYSICAL GEOLOGY
I AM SO MUCH INDEBTED,
THIS LITTLE BOOK
IS
AFFECTIONATELY DEDICATED

PREFACE.

THE first edition of these Lectures was printed from the shorthand report of Mr. I. Aldous Mays, and published with my consent. At his request I read and corrected the proof-sheets; but being much occupied at the time with other necessary work, and not in perfect health, many imperfections and mistakes, and a few positive errors, escaped my notice. In this edition the whole has been thoroughly revised, corrected, and in parts almost rewritten, and a good deal of fresh matter has been added, including a map, reduced for England from my own geological map, and for Scotland from the map by Sir Roderick Murchison and Mr. Geikie.

My object in delivering the original course, and in publishing this edition, has been to show how simple the geological structure of Great Britain is in its larger features, and how easily that structure may be

explained to, and understood by, persons who are not practised geologists. Any one with a very moderate exertion of thought may thus realise the geological meaning of the physical geography of our country, and, almost without effort, add a new pleasure to those possessed before as he travels to and fro. The colours on geological maps will then no longer appear mysterious, but become easy to comprehend when associated with the geography of our island; and the little book may thus serve as a kind of condensed explanation of geological maps of Great Britain, and perhaps smooth the way for those who are just entering on the subject and feel alarm at its seeming difficulties.

ANDREW C. RAMSAY.

KENSINGTON: *January 1864.*

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Figure 10. The relationship between the magnitude of the cross-axis acceleration and the magnitude of the vertical acceleration.