

**THE CENTURY SCIENCE
SERIES: CHARLES LYELL
AND MODERN GEOLOGY**

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The Century Science Series: Charles Lyell and Modern Geology by T. G. Bonney & Sir Henry E. Roscoe

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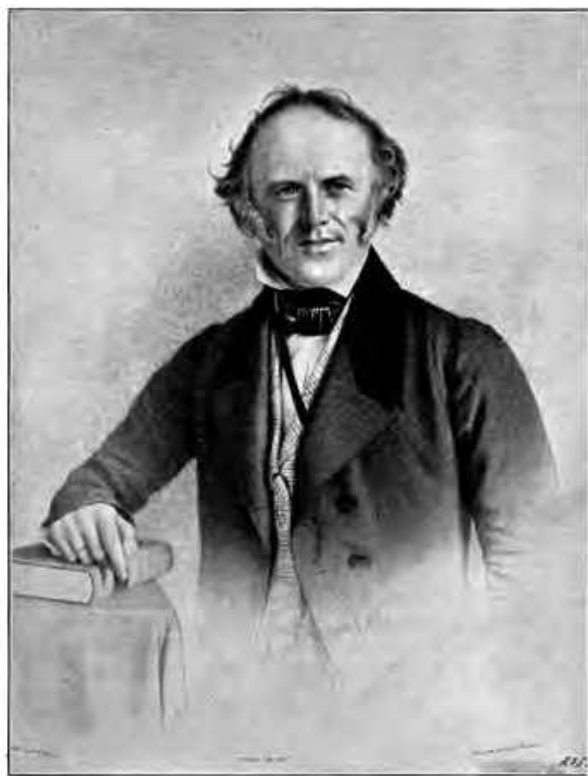
T. G. BONNEY & SIR HENRY E. ROSCOE

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EDITED BY SIR HENRY R. ROSCOE, D.C.L., LL.D., F.R.S.

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CHARLES LYELL
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BY

PROF. T. G. BONNEY

D.Sc., LL.D., F.R.S., etc.

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P R E F A C E .

THE life of Charles Lyell is singularly free from "moving accidents by flood and field." Though he travelled much, he never, so far as can be ascertained, was in danger of life or limb, of brigand or beast. At home his career was not hampered by serious difficulties or blocked by formidable obstacles; not a few circumstances were distinctly favourable to success. Thus his biography cannot offer the reader either the excitement of adventure, or the interest of an unwearied struggle with adverse conditions. But for all that, as it seems to me, it can teach a lesson of no little value. Lyell, while still a young man, determined that he would endeavour to put geology—then only beginning to rank as a science—on a more sound and philosophical basis. To accomplish this purpose, he spared no labour, grudged no expenditure, shrank from no fatigue. For years he was training himself by observation and travel; he was studiously aiming at precision of thought and expression, till "The Principles of Geology" had been completed and published. But even then, though he might have counted his work done, he spared no pains to make it better, and went on at the task of improvement till the close of his long life.

My chief aim, in writing this little volume, has been to bring out this lesson as strongly and as clearly

as possible. I have striven to show how Charles Lyell studied, how he worked, how he accumulated observations, how each journey had its definite purposes. Accordingly, I have often given his words in preference to any phrases of my own, and have quoted freely from his letters, diaries, and books, because I wished to show exactly how things presented themselves to his eyes, and how ideas were maturing in his mind. Regarded in this light, Lyell's life becomes an apologue, setting forth the beneficial results of concentrating the whole energy on one definite object, and the moral grandeur of a calm, judicial, truth-seeking spirit.

In writing the following pages I have, of course, mainly drawn upon the "Life, Letters, and Journals," edited by Mrs. Lyell; but I have also made use of his books, especially the "Principles of Geology," and the two tours in North America. I am under occasional obligations to the excellent life, contributed by Professor G. A. J. Cole to the "Dictionary of National Biography," and have to thank my friend Professor J. W. Judd for some important details which he had learnt through his intimacy with the veteran geologist. He also kindly lent the engraving (executed in America from a daguerreotype) which has been copied for the frontispiece of this volume.

T. G. BONNEY.

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