

# P R I N C I P L E S

OF

# G E O L O G Y,

BEING

AN ATTEMPT TO EXPLAIN THE FORMER CHANGES  
OF THE EARTH'S SURFACE,

BY REFERENCE TO CAUSES NOW IN OPERATION.

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BY

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“The inhabitants of the globe, like all the other parts of it, are subject to change. It is not only the individual that perishes, but whole species.”

“A change in the animal kingdom seems to be part of the order of nature, and is visible in instances to which human power cannot have extended.”

PLAYFAIR, *Illustrations of the Huttonian Theory*, § 413.

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VOLUME THE SECOND.

LONDON:

JOHN MURRAY, ALBEMARLE-STREET.

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MDCCCXXXII.

LONDON:  
Printed by WILLIAM CLOWNS,  
Stamford Street.

TO

WILLIAM JOHN BRODERIP, Esq., B. A.

*BARRISTER AT LAW,*

F. R. S., F. L. S., ETC.,

VICE PRESIDENT OF THE GEOLOGICAL SOCIETY OF LONDON.

MY DEAR FRIEND,

IN dedicating this volume to you, I am glad of an opportunity of acknowledging the kind interest which you have uniformly taken in the success of my labours, and the valuable assistance which you have afforded me in several departments of Natural History.

I am,

My Dear Friend,

Yours, very sincerely,

CHARLES LYELL.

*London, December 8th, 1831.*



## P R E F A C E

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THE author has found it impossible to compress into two volumes, according to his original plan, the wide range of subjects which must be discussed, in order fully to explain his views respecting the causes of geological phenomena. As it will, therefore, be necessary to extend the "Principles of Geology" to three volumes, he prefers the publication of the present part without delay, because it brings to a close one distinct branch of the inquiry, the study of which will be found absolutely essential to the understanding of the theories hereafter to be proposed. Considerable progress has already been made in the remainder of the work, which will shortly be laid before the public.

*London, December 8th, 1831.*



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## ERRATA.

- Frontispiece, *for* Montagnola *read* Montagnuola.  
 Page 39, line 2 from the bottom, *for* exclusively *read* exclusively.  
 131 — 14 — top — Hypnum — Sphagnum.  
 147 — 21 — top, *dele* of.  
 178 — 8 — top, *for* even *read* ever.