

**THE STORY OF THE
EARTH IN
PAST AGES**

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The Story of the Earth in Past Ages by H. G. Seeley

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H. G. SEELEY

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EARTH IN
PAST AGES**

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VESUVIUS IN ERUPTION, 1872.

THE
STORY OF THE EARTH
IN PAST AGES

BY

H. G. SEELEY, F. R. S.

PROFESSOR OF GEOGRAPHY AND LECTURER ON GEOLOGY AND
MINERALOGY IN KING'S COLLEGE, LONDON

WITH FORTY ILLUSTRATIONS

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PREFACE.

I HAVE endeavoured to tell the story of the Earth so that its past history helps to explain its present condition.

Explanations are given of the nature of the common materials which form rocks, of the ways in which they rest upon each other, and of the means by which they may be distinguished.

The story of the Earth is divided into epochs by layers of rock which rest on each other and rise to the surface of the visible land, and to the floor of the ocean.

Geological time cannot be defined in years. The time occupied by an existing river like the Rhine or the Niagara river, in excavating the gorge through which it flows, dates back beyond the antiquity imagined for man by historians. Yet this incident in sculpture of the Earth's surface is subsequent to the newest of the regular layers of rock. It is convenient to forget the human standard of time, and think of a period of geological time as the age when some rock, such as coal, accumulated, or when an extinct plant or animal was dominant on the Earth.

Fossils are the remains of plants and animals by which each period of by-gone time is distinguished.

I. Many kinds of animals, which still live, date back to the beginning of the Earth's story, or to an early period.

II. Many groups of animals, such as Trilobites or Ichthyosaurs, endured on the Earth for long geological ages, varied in form and structure, and became extinct successively, leaving no survivor.

The life which now exists on the Earth is a survival of ancient types of life known from fossils, which have undergone substantially no change since first they became known in the rocks. They are associated now with groups, like the Mammalia, which are changing rapidly. The diversity of mammal orders in structure of the skeleton, is not unlike that which the ancient Saurians put on before they became extinct. Animals' orders which vary rapidly last for a relatively short time.

I have used some scientific names of these fossils in the story of the Earth, since names give the easiest identification for fossils as for our fellow-men. The characteristics or lives of fossil animals and of living men give interest to their names. Practical knowledge of fossils ensures this enduring interest, and is gained by collecting them in the sea-cliff, quarry, or pit, and by comparing such specimens with named examples in museums.

H. G. SEELEY.

KENSINGTON, W., 1895.

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