

## ELEMENTARY LECTURE—PALÆONTOLOGY.

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A fossil (from *fossus* the Latin for "dug up") Lyell defines as "any body or the traces of the existence of any body, whether animal or vegetable, which has been buried in the earth by natural causes."

What these natural causes were is a question which has engaged the attention of thoughtful men from early historical times, and so far back as 5 centuries before Christ, Zenophanes of Colophon (500 B.C.), Herodotus, and Empedocles of Agrigentum (450 B.C.), followed somewhat later by Aristotle (384-322 B.C.), appreciated to some extent the true character of, and gave rational explanations concerning, the presence of these remains. They concluded that when the bottom of the sea had been in a soft condition that the remains were entombed, and that the sea, deserting some lands and invading others, had brought the earlier sea bottom within reach of easy inspection. Aristotle's opinions concerning the spontaneous generation of animals, which he believed could originate from moist earth or the slime of rivers was applied by his followers to fossils as well, for it seemed to them a much simpler way of accounting for the remains of animals in the rocks, than the marvellous changes of sea and land otherwise required to explain their presence, and this view later on obtained credence more readily, owing to its accordance with the Biblical theory of the creation of man out of the dust of the earth. The Romans merely repeated the ideas of the Greeks on this subject, some holding with the earlier writers, others with Theophrastus, the pupil of Aristotle, that they were produced by a certain plastic virtue latent in the earth until, near the close of the second century, we find Tertullian instancing the remains of sea animals on the mountains far from the sea as proof of the general deluge recorded by Moses.

During the thirteen or fourteen centuries onward from the close of the second century all departments of knowledge were enveloped in darkness, and no attention was paid to fossils excepting that occasional repetitions of the ideas of the ancients were made without appreciation or any special show of interest.