

the relative geological dates of their upheaval. It explains the causes on which local differences of scenery depend, and shows under what very different circumstances, and at what widely separated intervals, the varied contours, even of a single country, have been produced.

BOOK I

COSMICAL ASPECTS OF GEOLOGY

BEFORE geology had attained to the position of an inductive science, it was customary to begin all investigations into the history of the earth by propounding or adopting some more or less fanciful hypothesis, in explanation of the origin of our planet or of the universe. Such preliminary notions were looked upon as essential to a right understanding of the manner in which the materials of the globe had been put together. To the illustrious James Hutton (1785) geologists are indebted, if not for originating, at least for strenuously upholding the doctrine that it is no part of the province of geology to discuss the origin of things. He taught them that in the materials from which geological evidence is to be compiled there can be found "no traces of a beginning, no prospect of an end." In England, mainly to the influence of the school which he founded, and to the subsequent rise of the Geological Society (1807), which resolved to collect facts instead of fighting over hypotheses, is due the disappearance of the crude and unscientific cosmologies of previous centuries.

But there can now be little doubt that in the reaction