

# PHYSICAL GEOLOGY.

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## CHAPTER VII.

### PROGRESS OF PHYSICAL GEOLOGY.

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#### *Sect. 1.—Object and Distinctions of Physical Geology.*

BEING, in consequence of the steps which we have attempted to describe, in possession of two sciences, one of which traces the laws of action of known causes, and the other describes the phenomena which the earth's surface presents, we are now prepared to examine how far the attempts to refer the facts to their causes have been successful: we are ready to enter upon the consideration of Theoretical or *Physical* Geology, as, by analogy with Physical Astronomy, we may term this branch of speculation.

The distinction of this from other portions of our knowledge is sufficiently evident. In former times, Geology was always associated with Mineralogy, and sometimes confounded with it; but the mistake of such an arrangement must be clear, from what has been said. Geology is connected with Mineralogy, only so far as the latter science classifies a large portion of the objects which Geology employs as evidence of its statements. To confound the two is the same error as it would be to treat philosophical history as identical with the knowledge of medals. Geology procures evidence of her conclusions wherever she can; from minerals or from seas; from inorganic or from organic bodies; from the ground or from the skies. The geologist's business is to learn the past history of the earth; and he is no more limited to one or a few kinds of documents, as his sources of information, than is the historian of man, in the execution of a similar task.

Physical Geology, of which I now speak, may not be always easily separable from Descriptive Geology: in fact, they have generally been combined, for few have been content to describe, without attempting in some measure to explain. Indeed, if they had done so, it is proba-