

source of information. But the interpretations of the account of the creation have gone further beyond the limits of sound philosophy : and when we look at the arbitrary and fantastical inventions by which a few phrases of the writings of Moses have been moulded into complete systems, we cannot doubt that these interpretations belong to the present Section.

I shall not attempt to criticize, nor even to enumerate, these Scriptural Geologies,—*Sacred Theories of the Earth*, as Burnet termed his. Ray, Woodward, Whiston, and many other persons to whom science has considerable obligations, were involved, by the speculative habits of their times, in these essays ; and they have been resumed by persons of considerable talent and some knowledge, on various occasions up to the present day ; but the more geology has been studied on its own proper evidence, the more have geologists seen the unprofitable character of such labors.

I proceed now to the next step in the progress of Theoretical Geology.

### *Sect. 3.—Of Premature Geological Theories.*

WHILE we were giving our account of Descriptive Geology, the attentive reader would perceive that we did, in fact, state several steps in the advance towards general knowledge ; but when, in those cases, the theoretical aspect of such discoveries softened into an appearance of mere classification, the occurrence was assigned to the history of Descriptive rather than of Theoretical Geology. Of such a kind was the establishment, by a long and vehement controversy, of the fact, that the impressions in rocks are really the traces of ancient living things ; such, again, were the division of rocks into Primitive, Secondary, Tertiary ; the ascertainment of the orderly succession of organic remains ; the consequent fixation of a standard series of formations and strata ; the establishment of the igneous nature of trap rocks ; and the like. These are geological truths which are assumed and implied in the very language which geology uses ; thus showing how in this, as in all other sciences, the succeeding steps involve the preceding. But in the history of geological theory, we have to consider the wider attempts to combine the facts, and to assign them to their causes.

The close of the last century produced two antagonist theories of this kind, which long maintained a fierce and doubtful struggle ;—that of Werner and that of Hutton : the one termed *Neptunian*, from its