

result or condition of things is frequently capable of distinct representation by means of a series of quantities, unequal in value, and combined in different proportions; yet the origin, formation, and succession of this series of dissimilar combinations of unequal quantities may be perfectly simple, and often is perfectly known, though the series be demonstrably boundless in one direction. Now, in this case, the "theory" of that series is really known; and, in exactly the same sense, the "theory" of the series of dissimilar combinations of unequal phenomena, which succeeded one another in a certain order of time, upon and within the earth, appears attainable by the human intellect.

Every attempt to ascertain the *law of succession* among the phenomena manifested in the structure of the earth must entirely fail, unless, at least, the characteristic facts, and combinations of facts, belonging to each successive geological period be completely known, and these periods completely defined. It is therefore necessary, before noticing the attempts which have been made to establish a geological theory, to ascertain how far these indispensable preliminary conditions have been fulfilled. The historical view of the series of stratified rocks, contained in the first part of this work, will show to what extent the author has been able to reduce to rule and system the known phenomena occasioned by the action of water on the globe; in the succeeding part a similar attempt is made to unfold the parallel series of truths concerning the unstratified rocks, and other effects of heat. Though neither of these attempts ought to be taken as a measure of the progress made in similar inquiries by other individuals, and still less as a summary of the whole knowledge on the subjects, the intelligent reader will easily perceive that, with regard to the mechanical and chemical agency of water in depositing earthy sediments, and the changes of organic life on the globe at several successive epochs, the monuments of nature have been extensively collected, ranged in their real order, and in a great measure truly