

of the earth's history during which organic life existed. Just as so-called "universal history" falls into larger and smaller periods, which are characterized by the conditions of development of the most important nations at the respective epochs, and are separated from one another by great events, so we also divide the infinitely longer organic history of the earth into a series of greater and less periods. Each of these periods is distinguished by a characteristic flora and fauna, and by the specially strong development of certain vegetable or animal groups, and each is separated from the preceding and succeeding period by a striking change in the character of its animal and vegetable inhabitants.

In relation to the following survey of the historical course of development which the large animal and vegetable tribes have passed through, it will be desirable to say a few words first as to the systematic classification of the neptunic groups of strata, and the larger and smaller periods corresponding to them. As will be seen directly, we are able to divide the whole of the sedimentary rocks lying one above another into five main groups or periods, each period into several subordinate groups of strata or *systems*, and each system of strata again into still smaller groups or *formations*; finally, each formation can again be divided into stages or sub-formations, and each of these again into still smaller layers or beds. Each of the five great rock-groups was deposited during a great division of the earth's history, during a long *era* or *epoch*; each system during a shorter *period*; each formation during a still shorter *period*. In thus reducing the periods of the organic history of the earth, and the neptunic strata containing petrifications deposited during those periods, into a connected system, we proceed exactly