

and from the vertical penetration by various organic species through several strata of different composition, which thus indicate long periods of succession and different conditions of deposition, it is an inference highly probable, if not certain, that there never was a period when the surface of the globe was continuous dry land ; nor entirely covered with water or any mixture of detrital matter in water. In other words ; the stratified structure of the earth presents evidence that there have never been universal contemporaneous formations, but that, from the period of the production of the igneous rocks, and the commencement of the stratified, the surface has always consisted partly of limited areas depressed and holding water, and partly of lands rising up from the boundaries of those depressions.

To this fact in the former periods of the earth, its present condition affords a clear resemblance. The actual Zoology and Botany of its surface exhibit several distinct regions, in each of which the indigenous animals and plants are, at least as to species and to a considerable amount as to genera, different from those of other zoological and botanical regions. Natural agency (such as that of winds and currents) and artificial means have done something towards confounding the distinctions of characters ; but in the case of countries widely separated, the plants and animals proper to each region so differ from those of every other, as to impress us with the conviction that they have not been derived from a common ancestry for each species, in any one locality upon the face of the earth. They are respectively adapted to certain conditions of existence, such as climate, temperature, mutual relations, and no doubt other circumstances of favourable influence which men have not yet discovered, or which never may be discovered in the present state. These conditions cannot be transferred to other situations.