

size.* In the silurian epoch, as well as in that in which the Cycadeæ flourished in such abundance, and gigantic saurians were living, the dry land, from pole to pole, was probably less than it now is in the South Pacific and the Indian Ocean. We shall see, in a subsequent part of this work, how this preponderating quantity of water, combined with other causes, must have contributed to raise the temperature and induce a greater uniformity of climate. Here we would only remark, in considering the gradual extension of the dry land, that, shortly before the *disturbances* which at longer or shorter intervals caused the sudden destruction of so great a number of colossal vertebrata in the *diluvial period*, some parts of the present continental masses must have been completely separated from one another. There is a great similarity in South America and Australia between still living and extinct species of animals. In New Holland fossil remains of the kangaroo have been found, and in New Zealand the semi-fossilized bones of an enormous bird, resembling the ostrich, the *dinornis* of Owen,† which is nearly allied to the present apteryx, and but little so to the recently extinct dronte (dodo) of the island of Rodriguez.

The form of the continental portions of the earth may, perhaps, in a great measure, owe their elevation above the surrounding level of the water to the eruption of quartzose porphyry, which overthrew with violence the first great vegetation from which the material of our present coal measures was formed. The portions of the earth's surface which we term plains are nothing more than the broad summits of hills and mountains whose bases rest on the bottom of the ocean. Every plain is, therefore, when considered according to its submarine relations, an *elevated plateau*, whose inequalities have been covered over by horizontal deposition of new sedimentary formations and by the accumulation of alluvium.

* [These movements, described in so few words, were doubtless going on for many thousands and tens of thousands of revolutions of our planet. They were accompanied, also, by vast but slow changes of other kinds. The expansive force employed in lifting up, by mighty movements, the northern portion of the continent of Asia, found partial vent; and from partial subaqueous fissures there were poured out the tabular masses of basalt occurring in Central India, while an extensive area of depression in the Indian Ocean, marked by the coral islands of the Laccadives, the Maldives, the great Chagos Bank, and some others, were in the course of depression by a counteracting movement.—Ansted's *Ancient World*, p. 346, &c.]—Tr.

† [See *American Journal of Science*, vol. xlv., p. 187; and *Medals of Creation*, vol. ii., p. 817; *Trans. Zoolog. Society of London*, vol. ii.; *Wonders of Geology*, vol. i., p. 129.]—Tr.