

dation of moral evidence—can be said to require or receive much additional support from physical arguments) a strong collateral testimony.

Without this auxiliary evidence it might have been, and indeed often has been, objected to the fact of an universal deluge, that such a convulsion involved supposed physical impossibilities; but no one can have attentively considered the monuments of the great changes with which Geology makes us acquainted,\* without at once perceiving that they prove the existence of an order of things, in which such convulsions not only might, but actually did, take place. Let us again quote the words of an author who has himself examined with the fullest precision the important phænomena to which we allude.

\* The geological appearances in which we are entitled to look for the traces of a catastrophe violent and transitory, are obviously not those presented by the original formation of the strata constituting the Earth's surface, but those connected with the accidents they have subsequently experienced, their partial destruction, the erosion and excavation of their surface, and the dispersion of fragments torn from them, under the form of water-worn pebbles, over the general face of the continents. In these phænomena, and the remains of terrestrial animals buried beneath these debris, the genuine geological evidence of this great convulsion resides, and not in occurrence of those marine remains which form constituent parts of all the vast series of secondary strata; for the agency of the deluge could not have been to form these immense deposits of which the greater part of the Earth's crust, as far as it is known, consists. On the contrary, it was evidently as far as it went a destroying agency, although limited in its effects. It was natural indeed that the earlier observers, while the phænomena of the distribution of these marine remains, and the depth of the masses formed by them, remained unknown, should refer them to this cause; but these points being ascertained, it is obvious that their hypothesis became untenable, for

1st. Had these remains been brought to their present situation by diluvial currents, they ought to be mingled confusedly together; we ought to have found the same genera and species in the lowest limestones and the highest beds above the chalk; and those remains of land animals which appear undoubtedly to be diluvial, should have been mixed amongst them; but the fact is notoriously otherwise, the organic remains being distributed in distinct assemblages, in such a manner that each formation is characterized by its peculiar assemblage, without confusion or intermixture. No transitory inundation can account for the circumstances of this distribution; they are such as indicate, beyond the possibility of reasonable doubt, that the animals imbedded in the strata lived and died in the spots where they are now found, while these continued for a long period under the waters of the ocean; and that they were there buried under successive deposits formed beneath those waters during the progress of many ages. The perfect state of many of the most fragile shells also proves that they could not have been drifted from a distance by any violent convulsion.

2dly. There is every reason, as we have seen, to ascribe the gravel debris derived from the partial destruction of the strata to the action of the deluge; but the strata must evidently not only have been formed, but also consolidated, before solid fragments, such as could have assumed the present form of the gravel pebbles, could have been torn off them. Now it does not seem within the limits of physical possibility to ascribe the formation of