

and these again to new races approximating gradually more and more nearly to those which now inhabit them, and at length comprehending species which have their counterparts existing.

(317.) These wrecks of a former state of nature thus wonderfully preserved (like ancient medals and inscriptions in the ruins of an empire), afford a sort of rude chronology, by whose aid the successive depositions of the strata in which they are found may be marked out in epochs more or less definitely terminated, and each characterized by some peculiarity which enables us to recognise the deposits of any period, in whatever part of the world they may be found. And so far as has been hitherto investigated, the *order* of succession in which these deposits have been formed appears to have been the same in every part of the globe.

(318.) Many of the strata which thus bear evident marks of having been deposited at the bottom of the sea, and of course in a horizontal state, are now found in a position highly inclined to the horizon, and even occasionally vertical. And they often bear evident marks of violence, in their bending and fracture, in the dislocation of parts which were once contiguous, and in the existence of vast collections of broken fragments, which afford every proof of great violence having been used in accomplishing some, at least, of the changes which have taken place.

(319.) Besides the rocks which carry this internal evidence of submarine deposition, are many which exhibit no such proofs, but on the contrary hold out every appearance of owing their origin to volcanoes or to some other mode of igneous action; and in every part of the world, and among strata of all ages, there occur evidences of such action so abundant, and on such a scale, as to point out the volcano and the earthquake as agents which may have been instrumental in the production of those changes of level, and those violent dislocations, which we perceive to have taken place.

(320.) At all events, in accounting for those changes, geologists have no longer recourse, as formerly, to