

were not upheaved during the Cretaceous period. Consequently, another range of mountains, at the base of which cretaceous rocks may lie in horizontal stratification, may have been elevated, like the chain A, Fig. 7., during some part of the same great period.

There are mountains in Sicily two or three thousand feet high, the tops of which are composed of limestone, in which nearly all the fossil shells and zoophytes agree specifically with those now inhabiting the Mediterranean. Here, as in many other countries, the deposits now in progress in the sea, must inclose shells and other fossils specifically identical with those of the rocks constituting the contiguous land. So there are islands in the Pacific, where a mass of dead coral has emerged to a considerable altitude, while other portions of the mass remain beneath the sea, still increasing by the growth of living zoophytes and shells. The chalk of the Pyrenees, therefore, may at a remote period have been raised to an elevation of several thousand feet, while the species found fossil in the same chalk still continued to be represented in the fauna of the neighbouring ocean. In a word, we cannot assume that the origin of a new range of mountains caused the Cretaceous period to cease, and served as the prelude to a new order of things in the animate creation.

To illustrate the grave objections above advanced, against the theory considered in the present chapter, let us suppose, that in some country three styles of architecture had prevailed in succession, each for a period of one thousand years; first the Greek, then the Roman, and then the Gothic; and that a tremendous earthquake was known to have occurred in the same district during one of the three periods — a convulsion of such violence as to have levelled to the ground all the buildings then standing. If an antiquary, desirous of discovering the date of the catastrophe, should first arrive at a city where several Greek temples were lying in ruins and half engulphed in the earth, while many Gothic edifices were standing uninjured, could he determine on these data the era of the shock? Could he even exclude any one of the three periods, and decide that it must have happened during one of the other two? Certainly not. He could merely affirm that it happened at some period after the introduction of the Greek style, and before the Gothic had fallen into disuse. Should he pretend to define the date of the convulsion with greater precision, and decide that the earthquake must have occurred after the Greek and before the Gothic period, that is to say, when the Roman style was in use, the fallacy in his reasoning would be too palpable to escape detection for a moment.

Yet such is the nature of the erroneous induction which I am now exposing. For as, in the example above proposed, the erection of a particular edifice is perfectly distinct from the period of architecture in which it may have been raised, so is the deposition of chalk, or any other set of strata, from the geological epochs characterized by certain fossils to which they may belong.

It is almost superfluous to enter into any farther analysis of the theory of parallelism, because the whole force of the argument