

not *abolished* by the elevation of the European Cretaceous area, but was simply *transferred* to some other region. In this particular case we do not happen to know where this new area of deposition may have been situated. It is quite certain, however, that in whatever area the Cretaceous animals of Europe took refuge, there rock must have been deposited in course of time, though it does not follow in any way that the rocks of the new area should have any likeness in mineral composition to those of the later Cretaceous period. If we should at any time discover these rocks, it may be pretty safely predicted what we should meet with in the way of fossils. We should find, namely, some characteristic Cretaceous species, but with certain points of difference; in addition there would be a certain proportion of forms of life wholly unknown in the Cretaceous rocks, and more or less resembling those of later periods; and, lastly, there would be a marked absence of certain characteristic species of the chalk. In other words, such deposits as we have been speaking of, would contain an assemblage of fossils more or less intermediate in character between those of the Cretaceous period and those of the lowest tertiary beds (Eocene) which rest upon the chalk. In point of fact, we have actually traces of such deposits (in the Mæstricht beds of Holland, the Pisolitic Limestone of France, the Faxø Limestone of Denmark, and the Thanet Sands of Britain); and we find in these evident traces of such an intermixture of cretaceous with tertiary types.

It may be well here to consider for a moment how it is that we may never hope to find a complete series of deposits intermediate between any two great formations, such as the Cretaceous and Eocene rocks. In the first place, only a limited portion of the earth has as yet been properly examined, and we have therefore no right to wonder that we have not yet hit upon the area to which the process of rock forming may have been transferred at the close of the Cretaceous period in Europe. We have, however, every reason to expect that we shall ultimately find formations which will have to be intercalated in point of time between the white chalk and the Eocene rocks; and, as before said, traces of such are already known to us. Secondly, many of these intermediate deposits may have been destroyed at some time subsequent to their formation by "denudation." Thirdly, many of these missing deposits may have been