

that "some considerable portion of the deep sea bed of the mid-Atlantic has continued submerged since the period of our chalk, and although the more adaptable forms of life may have been transmitted in unbroken succession through this channel, the immigration of other and more recent faunas may have so modified the old population, that the original chalk element is of no more importance than is the original British element in our own English people. As well might it have been said in the last century that we were living in the period of the early Britons, because their descendants and language still lingered in Cornwall, as, that we are living in the Cretaceous period, because a few Cretaceous forms still linger in the deep Atlantic. Period in geology must not be confounded with 'system' or 'formation.' The one is only relative, the other definite. A formation is deposited or takes place during a certain time; and that time is *the* period of *the* formation; but a geological period may include several formations, and is defined by the preponderance of certain orders, families, or genera, according to the extent of the period spoken of; and the passage of some of the forms into the next geological series does not carry the period with them, any more than would any particular historical epoch be delayed until the survivors of the preceding one had died out. Period is an arbitrary time division. The chalk on the 'London clay' formations mark definite stratigraphical divisions. We may speak of the period of the London clay, or we may speak of the Tertiary period. It merely refers to the 'time when' either were in course of construction. The occurrence of Triassic forms in the Jurassic series, of Oolitic forms in the Cretaceous series, and of Cretaceous forms in the Eocene, in no way lessens the independence of each series, although it may sometimes render it difficult to say where one series ceases and the other commences. The land and littoral faunas are necessarily more liable to change than the deep-sea fauna, because an island or part of a continent may be submerged and all on it destroyed; while the fauna of the adjacent ocean would survive; and as we cannot suppose the elevation of entire ocean beds at the same time, the maritime fauna of one period must be in part almost necessarily transmitted to the next."

In accordance, therefore, with the principles here laid down, we may conclude that it is not correct to say that we are "living in the