

calculated by thousands of years, but by palæontological or geological periods, each of which comprises many thousands of years, and perhaps millions, or even milliards, of thousands of years. It is of little importance how high the immeasurable length of these periods may be approximately estimated, because we are in fact unable with our limited power of imagination to form a true conception of these periods, and because we do not as in astronomy possess a secure mathematical basis for fixing the approximate length of duration in numbers. But we most positively deny that we see any objection to the theory of development in the extreme length of these periods which are so completely beyond the power of our imagination. It is, on the contrary, as I have already explained in one of the preceding chapters, most advisable, from a strictly philosophical point of view, to conceive these periods of creation to be as long as possible, and we are by so much the less in danger of losing ourselves in improbable hypotheses, the longer we conceive the periods for organic processes of development to have been. The longer, for example, we conceive the Permian period to have been, the easier it will be for us to understand how the important transmutations took place within it which so essentially distinguish the fauna and flora of the Coal period from that of the Trias. The great disinclination which most persons have to assume such immeasurable periods, arises mainly from the fact of our having in early youth been brought up in the notion that the whole earth is only some thousands of years old. Moreover, human life, which at most attains the length of a century, is an extremely short space of time, and is not suitable as a standard for the measure-