

nate additions, more especially upon their edges and their hollows, so that while there has been a constant process of removal of material from the higher parts of the land, and deposition in the sea, and while there have been periodical elevations and subsidences, the great areas of land and water have remained substantially the same, and the main lines of elevation and folding have conformed to the directions originally fixed. Thus, in regard to the dry land itself, there has been fixity, on the one hand, and mutation on the other, of a most paradoxical aspect, till we understand something of the great law of constant change united with perennial fixity in nature. From want of attention to this, the permanence of continents is still a debated question, and it is difficult for many to understand how the frequent dips of the continental plateaus and margins under the sea, and their re-elevation, often along with portions of the shallower sea bottom, can be consistent with a general permanence of the position of the continents and of the corresponding ocean abysses ; yet, when this is properly understood, it becomes plain that the union of fixity with changes of level has been a main cause of the continuity and changes of organic beings. Only the submergence of inland plateaus under shallow and warm waters could have given scope for the introduction of new marine faunas, and only re-elevation could have permitted the greatest extension of plants and animals of the land. Thus, the continuity of life with continual advance has depended on the permanent existence of continental and oceanic areas ; and the continents that remain to us with all their diversity of elevation and outline, their varied productions, both mineral and organic, and their life, which is a select remainder of all that went before, have been produced and furnished by a succession of changes, modified by the most conservative retention of general arrangements and forms.

It is evident, however, that it is not merely permanence we