

more complicated kinds of fruit are later inventions, but the additions in these consist mainly of accessories. The essentials of vegetable reproduction were as well provided for from the first.

The same principle applies to many of the leading forms and types of life, considered as genera or species. While some of these are of recent introduction, others have continued almost unchanged from the remotest ages. Such creatures as the *Lingulæ*, some of the Crustaceans and of the Mollusks, the Polyzoa and some Corals have remained with scarcely any change throughout geological time, while others have disappeared, and have been replaced by new types.

We began this chapter with a consideration of the permanence of continental areas, and may close with a reference to the same great fact in connection with the continuity of life. Whether with some we attach more importance to the support of the continents by lateral pressure and rigidity, or with others to what may be termed flotation, by virtue of their less density, as compared with that of the lower parts of the earth; there can be little doubt that both principles have been applied, and that both admit of some vertical movement. Thus the stability of the continents is one of position rather than height, and their internal plateaus as well as their partially submerged marginal slopes have undergone great and unequal elevations and depressions, causing most important geographical changes. Among these are the formation of connecting bridges of shoals, islands, or low land, connecting the continental masses at different periods, and permitting migrations of shallow-water animals and even of denizens of the land. The facts adduced in previous pages are sufficient to show connections across the north of the Atlantic at intervals reaching from the Cambrian to the Modern.

The conclusion of the whole matter is that there is a fixity and unchangeableness in determinations and arrangements of