

sometimes losing whole families, which are replaced by new ones, have pervaded the entire range of fossiliferous formations.

The most prolific source of organic remains has been the accumulation of the shelly coverings of animals which occupied the bottom of the sea during a long series of consecutive generations. A large proportion of the entire substance of many strata is composed of myriads of these shells reduced to a comminuted state by the long continued movements of water. In other strata, the presence of countless multitudes of unbroken corallines, and of fragile shells, having their most delicate spines, still attached and undisturbed, shows that the animals which formed them, lived and died upon or near the spot where these remains are found.

Strata thus loaded with the exuviae of innumerable generations of organic beings, afford strong proof of the lapse of long periods of time, wherein the animals from which they have been derived lived and multiplied and died, at the bottom of seas which once occupied the site of our present continents and islands. Repeated changes in species, both of animals and vegetables, in succeeding members of different formations, give further evidence, not only of the lapse of time, but also of important changes in the physical condition and climate of the ancient earth.

Besides these more obvious remains of Tes-