Sometimes mountains and sometimes oceans separate these districts on the land. In the ocean they are sometimes divided by currents or shoals. But both on land and in the water, difference of climate forms the most effectual barrier to the migration of species; since it is but a few species that have the power of enduring any great change in this respect.

In some instances, organic remains are broken and ground by attrition into small fragments, like those which are now accumulating upon some beaches by the action of the waves. But often the most delicate of the harder parts of the animal or plant are preserved; and they are found to be grouped together in the strata very much as living species now are on the earth.

From these facts it is inferred that, for the most part, the imbedded animals and plants lived and died on or near the spot where they are found; while it was only now and then that there was current enough to drift them any considerable distance, or break them into fragments. As they died, they sunk to the bottom of the waters and became enveloped in mud, and then the processes of consolidation and petrifaction went slowly on, until completed.

So very quietly did the deposition of the fossiliferous rocks proceed in some instances, that the skeletons and indusiæ of microscopic animals, as we have seen, which the very slightest disturbance must have crushed, are preserved uninjured; and frequently all the shells found in a layer of rock, lie in the same position which similar shells now assume upon the bottom of ponds, lakes and the ocean; that is, with a particular part of the shell uppermost.

In the existing waters we find that different animals select for their *habitat* different kinds of bottom; thus, oysters prefer a muddy bank; cockles a sandy shore; and lobsters prefer rocks. So it is among the fossil remains; an additional evidence of the manner in which they have been brought into a petrified state.

From the researches of Prof. E. Forbes in the Egean Sea, it appears, first, that increase of depth has the same kind of effect upon the marine animals, as increase of height has upon those on dry land, that is, the animals become more and more like those of a colder climate. Secondly, that most marine animals and vegetables inhabit particular localities, which at length become unfit for their abode, and they emigrate or die out. Thirdly, that species ranging widest in depth range furthest horizontally. Fourthly, below 300 fathoms, deposits of fine mud are going on without organic remains, because animals do not live there. These con-