

touched, and therefore unfit for living beings, comprised about 35,000 years.

The Second Epoch was characterized by the consolidation of the molten globe, and the appearance of hollows and ridges, gaps and swellings, over its surface, and cavernous spaces in its interior, such as may be seen in a globe of fused metal after it has cooled. These inequalities in the crust of granite, gneiss and other ancient crystalline rocks, gave rise to the earliest or primitive mountains and valleys of the higher portions of the land. During the process of consolidation, cracks arose in which metalliferous veins were formed by sublimation or fusion. Up to the end of this period, the globe remained intensely hot and its water still existed only among the vapours of the atmosphere.

The Third Epoch, which began about 35,000 years after the birth of the earth, included the time when the waters were condensed so as to descend and remain on the sufficiently cooled surface of the globe. So vast was the sea at first that its surface stood from 9000 to 12,000 feet higher than it does now, as was supposed to be indicated by the heights at which marine organisms are found in the rocks of the mountains. The waters were at first boiling, and as they cooled, animal life was introduced into them. This life must have been in many ways different from that of our present seas. The oldest species, which are nowhere now to be found alive, flourished during the first ten or fifteen thousand years after the seas had been gathered together. If a collection of fossils were made from the highest parts of the mountains, Buffon