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this, in the upper portion of the Laurentian, we have regularly bedded rocks, quartzites, limestones, and quartzose, and graphitic and ferruginous gneisses, evidently altered aqueous sediments; but intermixed with other rocks, as diorites and hornblendic gneisses, which are plainly of different origin. Lastly, on the bottom of all, we have nothing but coarse crystalline gneiss, representing perhaps the earliest crust of a cooling globe. Broadly, and without entering into details or theoretical views as to the precise causes of formation and alteration of these rocks, this is the structure of the Archæan or Eozoic system in Canada; and it corresponds with that of the basement or foundation stones of our continents in every country that I have been able to visit, or of which I have trustworthy accounts.

In the lower or fundamental gneiss, and in the igneous beds which succeed it, we need not look for any indications of living beings; but so soon as the sea began to deposit sand, mud, limestone, iron ore, carbon, there would be nothing to exclude the presence of some forms of marine life; while, as land must have already existed, there would be a possibility of life on it. This, therefore, we may begin to look for so soon as we ascend to those beds of the Laurentian in which limestone, iron ore, and quartzite appear; and it is precisely at this point in the Laurentian of Canada that indications of life are supposed to have been found. Certain it is that if we cannot find some sign of life in the Laurentian or Huronian, we shall have to face as the beginnings of life the swarms of marine creatures that appear all over the globe at once, in the early Cambrian age.

Is it likely, then, that such rocks should afford any traces of living beings, even if any such existed when they were formed? Geologists who had traced organic remains back to the lowest Cambrian might hope for such remains, even in the Laurentian; but they long looked in vain for their actual discovery.