

periods, and as their order of apparition corresponds to the various degrees of complication in their structure, and forms natural series closely linked together, this natural gradation must have been contemplated from the very beginning. There can be the less doubt upon this point, as man, who comes last, closes in his own cycle a series, the gradation of which points from the very beginning to him as its last term. I think it can be shown by anatomical evidence that man is not only the last and highest among the living beings, for the present period, but that he is the last term of a series beyond which there is no material progress possible upon the plan upon which the whole animal kingdom is constructed, and that the only improvement we may look to upon earth, for the future, must consist in the development of man's intellectual and moral faculties.¹

The question has been raised of late how far the oldest fossils known may truly be the remains of the first inhabitants of our globe. No doubt extensive tracts of fossiliferous rocks have been intensely altered by plutonic agencies, and their organic contents so entirely destroyed, and the rocks themselves so deeply metamorphosed, that they resemble now more closely eruptive rocks even than stratified deposits. Such changes have taken place again and again up to comparatively recent periods, and upon a very large scale. Yet there are entire continents, North America, for instance, in which the palæozoic rocks have undergone little, if any, alteration, and where the remains of the earliest representatives of the animal and vegetable kingdoms are as well preserved as in later formations. In such deposits the evidence is satisfactory that a variety of animals belonging to different classes of the great branches of the animal kingdom have existed simultaneously from the beginning; so that the assumption of a successive introduction of these types upon earth is flatly contradicted by well established and well known facts.² Moreover, the remains found in the oldest deposits, are everywhere closely allied to one another. In Russia, in Sweden, in Bohemia, and in various other parts of the world, where these oldest formations have been altered upon a more or less extensive scale, as well as in North America, where they have undergone little or no change, they present the same general character, that close correspondence in their structure and in the combination of their families, which shows them to have belonged to contemporaneous faunæ. It would, therefore, seem that even where metamorphic rocks prevail, the traces of the earliest inhabitants of this globe have not been entirely obliterated.

¹ AGASSIZ, (L.) *An Introduction to the Study of Natural History*, New York, 1847, 8vo. p. 57.

² AGASSIZ, (L.) *The Primitive Diversity and*

Number of Animals in Geological Times, Amer. Journ. of Science and Arts, 2d ser., vol. 17, 1854, p. 309.