

can it predict anything as to the order or manner of their introduction.

Had we been permitted to visit the Laurentian seas, and to study Eozoon and its contemporary Protozoa when alive, it is plain that we could not have foreseen or predicted from the consideration of such organisms the future development of life. No amount of study of the prototypal Foraminifer could have led us distinctly to the conception of even a Sponge or a Polyp; much less of any of the higher animals. Why is this? The answer is that the improvement into such higher types does not take place by any change of the elementary sarcode, either in those chemical, mechanical, or vital properties which we can study, but in the adding to it of new structures. In the Sponge, which is perhaps the nearest type of all, we have the movable pulsating cilium and true animal cellular tissue, and along with this the spicular or fibrous skeleton, these structures leading to an entire change in the mode of life and subsistence. In the higher types of animals it is the same. Even in the highest we have white blood corpuscles and germinal matter, which, in so far as we know, carry on no higher forms of life than those of an Amœba; but they are now made subordinate to other kinds of tissues, of great variety and complexity, which never have been observed to arise out of the growth of any Protozoon. There would be only a few conceivable inferences which the highest finite intelligence could deduce as to the development of future and higher animals. He might infer that the Foraminiferous sarcode, once introduced, might be the substratum or foundation of other but unknown tissues in the higher animals, and that the Protozoon type might continue to subsist side by side with higher forms of living things, as they were successively introduced. He might also infer that the elevation of the animal kingdom would take place with reference to those new properties of sensation and voluntary motion in which the humblest animals diverge from the life of the plant.