

THE RIDDLE OF THE UNIVERSE

the analogy that we find in the life of all cells—whether plasmodomous plant-cells or plasmophagous animal-cells—justifies the inference that the further course of organic evolution on these other planets has been analogous to that of our own earth—always, of course, given the same limits of temperature which permit water in a liquid form. In the glowing liquid bodies of the stars, where water can only exist in the form of steam, and on the cold extinct suns, where it can only be in the shape of ice, such organic life as we know is impossible.

The similarity of phylogeny, or the analogy of organic evolution, which we may thus assume in many stars which are at the same stage of biogenetic development, naturally opens out a wide field of brilliant speculation to the constructive imagination. A favorite subject for such speculation has long been the question whether there are men, or living beings like ourselves, perhaps much more highly developed, in other planets? Among the many works which have sought to answer the question, those of Camille Flammarion, the Parisian astronomer, have recently been extremely popular; they are equally distinguished by exuberant imagination and brilliant style, and by a deplorable lack of critical judgment and biological knowledge. We may condense in the following thesis the present condition of our knowledge on the subject:

- I. It is very probable that a similar biogenetic process to that of our own earth is taking place on some of the other planets of our solar system (Mars and Venus), and on many planets of other solar systems; first simple monera are formed by spontaneous generation, and from these arise unicellular protists (first plasmodomous primitive plants, and then plasmophagous primitive animals).