

can no longer draw a fundamental distinction between organisms and anorgana, a distinction of which, formerly, naturalists were generally convinced.

Let us, secondly, examine the agreements and differences which are presented to us in the *formation* of organic and inorganic natural bodies. Formerly the simple structure of the latter and the composite structure of the former were looked upon as the principal distinction. The body of all organisms was supposed to consist of dissimilar or heterogeneous parts, of instruments or organs which worked together for the purposes of life. On the other hand, the most perfect anorgana, that is to say, crystals, were supposed to consist entirely of homogeneous matter. This distinction appears very essential. But it loses all importance through the fact that twenty-five years ago we became acquainted with the exceedingly remarkable and important Monera.¹⁵ The whole body of these most simple of all organisms—a semi-fluid, formless, and simple lump of plasson—consists, in fact, of only a single chemical combination, and is as perfectly simple in its structure as any crystal, which consists of a single inorganic combination, for example, of a metallic salt or of a silicate of the earths and alkalies. Of course we assume that even the homogeneous plasma of the simplest Monera has a very complicated molecular structure; however, this is not demonstrable either anatomically or microscopically; and besides, the same must be assumed in the case of many crystals.

As naturalists believed in differences in the inner structure or composition, so they supposed themselves able to find complete differences in the external forms of organisms and anorgana, especially in the mathematically determinable