

and work together (as do the different parts of an artificial machine), in order to produce the action of the whole. But of late years we have become acquainted with *Monera*, organisms which are, in fact, not composed of any organs at all, but consist entirely of shapeless, simple, homogeneous matter. The entire body of one of these *Monera*, during life, is nothing more than a shapeless, mobile little lump of mucus or slime, consisting of an albuminous combination of carbon. We assume that this homogeneous mass has a very complicated and fine molecular structure; however, this has not been proved either anatomically or with the aid of the microscope. Simpler or more imperfect organisms we cannot possibly conceive.

The first complete observations on the natural history of a *Moneron* (*Protogenes primordialis*) were made by me at Nice, in 1864. Other very remarkable *Monera* I examined later (1866) in Lanzarote, one of the Canary Islands, and in 1867 in the Straits of Gibraltar. The complete history of one of these *Monera*, the orange-red *Protomyxa aurantiaca*, is represented in Plate I., and its explanation is given in the Appendix. I found some curious *Monera* also (in 1869) in the North Sea, off the Norwegian coast, near Bergen. Cienkowski has described an interesting *Moneron* from fresh waters, under the name of *Vampyrella*; Sorokin another, under the name of *Gloidium*; Leidy a third, as *Biomyxa*; Mereschkowski a fourth, as *Haeckelina*, etc. And similar genuine *Monera*, without a nucleus, have been observed recently by numerous other naturalists (Gruber, Trinchese, Maggi, Bütschli, etc.). Hence I set great value upon this discovery of mine, that has so often been called into question, for the proof of the existence