crystalline forms of the latter. Certainly crystallization is pre-eminently a quality of the so-called anorgana. Crystals are limited by plane surfaces, which meet in straight lines and at certain measurable angles. Animal and vegetable forms, on the contrary, seem at first sight to admit of no such geometrical determination. They are for the most part limited by curved surfaces and crooked lines, which meet at variable angles. But in recent times we have become acquainted, among Radiolaria and among many other Protista, with a large number of lower organisms, whose body, in the same way as crystals, may be traced to a mathematically determinable fundamental form, and whose form in its whole, as well as in its parts, is bounded by definite geometrically determinable planes and angles. In my general doctrine of Fundamental Forms, or Promorphology, I have given detailed proofs of this, and at the same time established a general system of forms, the ideal stereometrical type-forms, which explain the real forms of inorganic crystals, as well as of organic individuals ("Gen. Morph." i. 375-574). Moreover, there are also perfectly amorphous organisms, like the Monera, Amœba, etc., which change their forms every moment, and in which we are as little able to point out a definite fundamental form as in the case of the shapeless or amorphous anorgana, such as non-crystallized stones, deposits, etc. We are consequently unable to find any essential difference in the external forms or the inner structure of anorgana and organisms.

Thirdly, let us turn to the *forces* or the *phenomena of motion* of these two different groups of bodies. Here we meet with the greatest difficulties. The vital phenomena, known as a rule only in the highly developed organisms,

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