

*infinitely manifold and complicated physical and chemical properties of the albuminous bodies to be the real cause of organic or vital phenomena.* All the different forms of organisms are simply and directly the result of the combination of the different forms of cells. The infinitely manifold varieties of form, size, and combination of the cells have arisen only gradually by the division of labour, and by form-separation of the plastidules or mi-cells; by the molecular selection of those simple homogeneous corpuscles of plasson, which originally alone formed the body of the plastids. From this it follows of necessity that the fundamental phenomena of life—nutrition and generation—in their highest manifestations, as well as in their simplest expressions, must also be traced to the material nature of that albuminous formative substance the plasson. The other vital activities are gradually evolved from these two. Thus, then, the general explanation of life is now no more difficult to us than the explanation of the physical properties of inorganic bodies. All vital phenomena and formative processes of organisms are as directly dependent upon the chemical composition and the physical forces of organic matter as the vital phenomena of inorganic crystals—that is, the process of their growth and their specific formation are the direct results of their chemical composition and of their physical condition. The *ultimate causes*, it is true, remain in *both* cases concealed from us. When gold and copper crystallize in a cubical, bismuth and antimony in a hexagonal, iodine and sulphur in a rhombic form of crystal, the occurrence is in reality neither more nor less mysterious to us than is every elementary process of organic formation, every self-formation of the organic cell. In this respect we