

tubuli and canals is in principle similar to that involved in the canals, cells, and canalicules of bone. The Amœba, of course, knows neither more nor less of this than the average Englishman. It is altogether a matter of unconscious growth. The process in the Protozoa strikes some minds, however, as the more wonderful of the two. It is, says an eminent modern physiologist, a matter of "profound significance" that this "particle of jelly [the sarcode of a Foraminifer] is capable of guiding physical forces in such a manner as to give rise to these exquisite and almost mathematically arranged structures." Respecting the structures themselves there is no exaggeration in this. No arch or dome framed by human skill is more perfect in beauty or in the realization of mechanical ideas than the tests of some Foraminifera, and none is so complete and wonderful in its internal structure. The particle of jelly, however, is a figure of speech. The body of the humblest Foraminifer is much more than this. It is an organism with divers parts, and it is endowed with the mysterious forces of life which in it guide the physical forces, just as they do in building up phosphate of lime in our bones, or indeed, just as the will of the architect does in building a palace. The profound significance which this has, reaches beyond the domain of the physical and vital, even to the spiritual. It clings to all our conceptions of living things: "quite as much, for example, to the evolution of an animal with all its parts from a one-celled germ, as to the connection of brain cells with the manifestations of intelligence." Viewed in this way, we may share with the author of the sentence I have quoted his feeling of veneration in the presence of this great wonder of animal life, "burning, and not consumed," nay, building up, and that in many and beautiful forms. We may realize it most of all in the presence of the organism which was perhaps the first to manifest on our planet these marvellous powers. We must, however, here also, beware of that credulity which makes too many