

## THE RIDDLE OF THE UNIVERSE

We assume that these movements are hereditary and unconscious, because they are always determined in the same fashion by heredity from the earlier protist ancestors. The sensations also fall into two groups: (1) the sensations of the individual cells, which reveal themselves in the assertion of their individual independence and their relation to neighboring cells (with which they are in contact, and partly in direct combination, by means of protoplasmic fibres); (2) the common sensation of the entire community of cells, which is seen in the individual formation of the *blastula* as a hollow vesicle.

The causal interpretation of the formation of the *blastula* is given us by the biogenetic law, which explains the phenomena we directly observe to be the outcome of heredity, and relates them to corresponding historical processes which took place long ago in the origin of the earliest protist-cœnobia, the blastæads. But we get a physiological and psychological insight into these important phenomena of the earliest cell-communities by observation and experiment on their modern representatives. Such permanent cell-communities or colonies are still found in great numbers both among the plasmodomous primitive plants (for instance, the paulotomacea, diatomacea, volvocinæ, etc.) and the plasmophagous primitive animals (the infusoria and rhizopods). In all these cœnobia we can easily distinguish two different grades of psychic activity: (1) the cell-soul of the individual cells (the "elementary organisms") and (2) the communal soul of the entire colony.

III. *The tissue-soul (histopsyche)*: third stage of phyletic psychogenesis.—In all multicellular, tissue-forming plants (*metaphyta*) and in the lowest, nerve-