

## THE RIDDLE OF THE UNIVERSE

sensations may leave a permanent trace in the psychoplasm, and these may be reproduced by memory. In more than four thousand kinds of radiolaria, which I have described, every single species is distinguished by special, hereditary skeletal structure. The construction of this specific, and often highly elaborate, skeleton by a cell of the simplest description (generally globular) is only intelligible when we attribute the faculty of presentation, and, indeed, of a special reproduction of the plastic "feeling of distance," to the constructive protoplasm—as I have pointed out in my *Psychology of the Radiolaria*.\*

II. *Histic presentation*.—In the cœnobia or cell-colonies of the social protists, and still better in the tissues of plants and lower, nerveless animals (sponges, polyps, etc.), we find the second stage of unconscious presentation, which consists of the common psychic activity of a number of closely connected cells. If a single stimulus may, instead of simply spending itself in the reflex movement of an organ (the leaf of a plant, for instance, or the arm of a polyp), leave a permanent impression, which can be spontaneously reproduced later on, we are bound to assume, in explaining the phenomenon, a histic presentation, dependent on the psychoplasm of the associated tissue-cells.

III. *Unconscious presentation in the ganglionic cells*.—This third and higher stage of presentation is the commonest form the function takes in the animal world; it seems to be a localization of presentation in definite "soul-cells." In its simplest form it appears at the sixth stage of reflex action, when the tricellular reflex organ arises: the seat of presentation is then the intermediate

\* E. Haeckel, "General Natural History of the Radiolaria"; 1887.