

## THE PHYLOGENY OF THE SOUL

II. *The communal or cenobitic soul (coenopsyche)*: second stage of phyletic psychogenesis.—Individual development begins, in man and in all other multicellular animals, with the repeated segmentation of one simple cell. This *stem-cell*, the impregnated ovum, divides first into two daughter cells, by a process of ordinary indirect segmentation; as the process is repeated there arise (by equal division of the egg) successively four, eight, sixteen, thirty-two, sixty-four such new cells, or “blastomeres.” Usually (that is, in the case of the majority of animals) an irregular enlargement sooner or later takes the place of this original regular division of cells. But the result is the same in all cases—the formation of a (generally spherical) cluster of heterogeneous (originally homogeneous) cells. This stage is called the *morula* (“mulberry,” which it somewhat resembles in shape). Then, as a rule, a fluid gathers in the interior of this aggregate of cells; it changes into a spherical vesicle; all the cells go to its surface, and arrange themselves in one simple layer—the *blastoderm*. The hollow sphere which is thus formed is the important stage of the “germinal vesicle,” the *blastula*, or blastosphere.

The psychological phenomena which we directly observe in the formation of the blastula are partly sensations, partly movements, of this community of cells. The movements may be divided into two groups: (1) the inner movements, which are always repeated in substantially the same manner in the process of ordinary (indirect) segmentation of cells (formation of the axis of the nucleus, mitōsis, karyokinesis, etc.); (2) the outer movements, which are seen in the regular change of position of the social cells and their grouping for the construction of the blastoderm.