

the Lanceolate Animals, or Amphioxus, there first develops out of the Morula (Frontispiece, Fig. 3) a ciliated larva (planula). Those cells, lying on the surface of the homogeneous mass of cells, extend hair-like processes, or fringes of hairs, which by striking against the water keep the whole body rotating. The round many-celled body thus becomes differentiated, in that the external cells covered with cilia differ from the non-ciliated internal cells. (Frontispiece, Fig. 4). In Man and in all other Vertebrate animals (with the exception of the Amphioxus), as well as in all Arthropoda, this stage of the ciliated larva has been lost, in the course of time, by abbreviated inheritance. There must, however, have existed ancestors of Man in the early Primordial period which possessed the form value of these ciliated larvæ (Planæa, p. 125). A certain proof of this is furnished by the Amphioxus, which is on the one hand related by blood to Man, but on the other has retained down to the present day the stage of the planula.

FIFTH STAGE: Primæval Stomach Animals (Gastræada).

In the course of the individual development of Amphioxus, as well as in the most different lower animals, there first arises out of the planula the extremely important form of larva which we have named *stomach larva*, or *gastrula* (p. 126; Frontispiece, Fig. 5, 6). According to the fundamental law of biogeny this gastrula proves the former existence of an independent form of primæval animal of the same structure, and this we have named primæval stomach animal, or Gastræa (pp. 127, 128). These Gastræada must have existed during the older Primordial period, and they must have also included the ancestors of