doctrine on embryology, we may refer to Hæckel's *Gastræa Theory* (1874). Here we have to distinguish between the observational basis and the inference drawn from it. The observational basis consisted in showing that one of the most frequent embryonic stages in animals is a two-layered sac,—the "gastrula"; it is very clearly seen in the development of sponge, star-fish, earth-worm, pond-snail, lancelet, and so on; in other cases its occurrence is disguised by the presence of a large quantity of yolk; in some other cases, *e.g.* mammals, it must be allowed that the gastrula is far to seek. At the same time it is certain that the gastrula is a very common embryonic stage, and Hæckel drew the inference that the ancestral form of multicellular animals was like a gastrula. He called this hypothetical ancestral type the Gastræa. For many years this theory was the centre of lively and fruitful discussion.

The Gastræa Theory.

The broadest generalization which has yet come from embryology is known as the Recapitulation Doctrine or biogenetic law, which expresses the conclusion that the individual development is in some measure a recapitulation of the racial history. The theory is an outcome of the *mutual influence* of evolution-theory and embryology.

The Recapitulation Doctrine.

In 1821 Meckel directed attention to the close similarity of the early embryonic stages in quite different animals, and spoke of "a correspondence between the development of the embryo and that of the entire animal series". The idea was also familiar to Oken, who gave it evolutionary significance, and did much to introduce it into biology.

Von Baer remarked on the close resemblances between the embryos of animals the adult forms of which are very different; a reptile-embryo, a bird-embryo, and a mammal-embryo are at certain stages very similar, and the illustrious embryologist confessed that he was unable to tell to which of these groups three unlabelled embryos before him really belonged. A careful examination of his "laws" shows, however, that he did not accept the recapitulation without many saving clauses.