

individual development (Ontogenesis) may in reality fall into two different groups. The first group comprises the primæval development or the recapitulative development (Palingenesis), and exhibits still all those primæval conditions which have been transmitted by inheritance from the primary forms (thus, for instance, in the human embryo, the gill-arches, the chorda, the tail, etc.). The second group, on the other hand, contains the disturbed or falsified development (Cenogenesis), and obscures the original figure of the individual development by the introduction of new and foreign shapes, which did not exist in the earlier forms, and were acquired by the embryo only by adaptation to the peculiar conditions of the individual development (thus, for instance, in the human embryo, the egg-coverings, the yelk-sack, the placenta, etc.).

Every critical investigation and estimation of the individual development has, therefore, first of all to distinguish how many of the embryonic facts are *palingenetic documents* (pertaining to the recapitulative development), and how many, on the other hand, are *cenogenetic variations* of those documents (pertaining to the disturbed history). The more that the original *palingenesis* is retained in the embryonic development of every organism by *inheritance*, the more faithful will be the picture it gives us of the history of its original development; but, on the other hand, the more that cenogenesis has influenced the germinal forms by adaptation, the more the primary image will be obliterated or altered.

The important parallelism of the palæontological and of the individual developmental series now directs our attention to a third developmental series, which stands in the