

division of labour, and that there is no need to set up any "principle of the change of function."

Many of the most important changes in the organic world, even the origin of whole classes of animals, may be traced back to the change of labour, or the metergy of the several organs. Thus, for instance, amphibious animals have originated out of fish, by the swimming-bladder of the fish (a hydrostatic organ) becoming a lung, and by its undertaking the work of changing the gas or breathing air; the transition from life in water to life on land was the first inducement to do so. Birds have originated out of lizard-like reptiles by the flying movement having taken the place of creeping from place to place. The fore legs of the latter became changed into wings. Perhaps the chief cause of the origin of mammals out of reptile-like primary forms was the change of labour of the skin-glands on the belly side; for by these secreting glands (perspiring and fatty glands) changing into milk-glands, and thus becoming the chief organ of nutrition for the new-born individuals, they gave rise to a series of the most important variations. The first cause that led to the change was probably a habit contracted by the new-born individual of licking the ventral skin of its mother; the nutritive stimulus caused by this would in the first place lead (quantitatively) to the enlargement of the skin-glands, and subsequently (qualitatively) to their transformation into the important mammary glands; all the problems of civilization (especially of art) that are connected with the female bosom may be phylogenetically traced back to that proceeding. But the change of labour has also been of great importance for the origin of the human