

paratus of the *ornithorynchus paradoxus*, since the whole frame and organs of this animal imply that it is intermediate between mammalia and birds; it is placed in the list of edentata. It affords us another instance of the changes which the bones of the shoulder undergo with every new office, and in correspondence with the motions of the extremity; whether it be to support the weight in running, or to give freedom to the arm, or to provide for flying, or for performing equally the acts of creeping and of swimming.

Unprofitable as the enquiry may seem, there is no other way by which the geologist can distinguish the genera of those extinct and strangely formed oviparous reptiles which he finds imbedded in the secondary strata, than by studying the minute processes and varying characters of these bones, in the recent species. In the *ichthyosaurus*, and *plesiosaurus*, the inhabitants of a former world, we perceive a considerable deviation from the perfection of the bones of the arm and hand, compared with the frog and tortoise. But if strength be the object, there is a greater degree of perfection in the bones of the shoulder, in these extinct reptiles. The explanation of this is, that the ribs and sterno-costal arches, constituting the thorax, are more perfect than in the chelonian and batrachian orders; and the bones of the shoulder