

locality the Magnesian Limestone,—the formation with which the long-derived and darkly-antique Palæozoic systems end, and on whose upper platform the first of the Secondary systems begins. A strange shifting of scenes took place on that rough stratum at our feet; but it would seem as if the theatre had been darkened when the alterative process was going on. The lamps burnt low, and concealed the machinery of the stage. In the long course of geologic history there have been many medals struck,—many previous to the time of this revolution, and many after it; but none records the nature of the revolution itself; nor is there geology enough in the world to fill up the gap. It yawns in the middle of the forum, and no one has dared to fling even a plausible conjecture into it. Up till the deposition of that Magnesian stratum had taken place, all the fish of which we possess specimens sufficiently well-preserved to indicate the fact were characterized by the heterocercal tail,—the vertebral column was prolonged into the upper lobe of the caudal fin;* but with that stratum the peculiarity ceased, and fishes with the homocercal tail of our common osseous varieties took their place. In that Magnesian formation, too, just ere the occurrence of the revolution, we find the first trace of reptiles. The long drama of the Palæozoic period, with all its distinct acts, ended with the dethronement of the huge sauroid fish,—for untold ages the master existence of creation;

* At the annual general meeting of the Geological Society, held in February last (1846), it was stated by the president, Mr. Horner, in his admirable address, that certain highly characteristic genera of the fishes of the Old Red Sandstone, such as the *Coccosteus* and *Pterichthys*, do not possess the heterocercal tail. It should have perhaps been added, however, to prevent misconception, that neither do they possess tails of the homocercal type. The form of tail in both cases is quite as unique among the ancient Ganoid order, as that of the tail of the Ray family among existing Placoids.