

Lonsdale, we should have had an instructive group of laminated Upper Ludlow rocks, and tilestones, with plenty of small littoral shells, Spongariæ, Aviculæ, Cypricardiæ, Orthocerata, &c. Such forms of life very probably existed over the sea-bed within the area which we are considering; they may have been imbedded in Upper Silurian strata, and have been raised from their place even to constitute land, but if so, they have been wasted away and removed by a process soon to be traced. The fishes of this period, so far as we know them, were very small\*, and belong to the upper strata of the series.

PTERICHTHYAN PERIOD.—No monuments of this period remain in Yorkshire, unless the sandstone beds, which I have described elsewhere† beneath the limestone of Moughton Fell in Ribblesdale, should be referred to it. But in the neighbouring valley of the Lune at Kirkby Lonsdale, we have the coloured marls and massive conglomerates which accompany the Old Red Sandstone series, the characteristic strata of this period round the English lakes and the Lammermuir hills, well exhibited.

When we proceed farther north and reach the Grampians and the great Caledonian valley, the Red Sandstone yields a considerable number of the strange fishes known as Pterichthys, Cephalaspis, Coccosteus, &c., which have furnished to Mr. Miller the theme of a pleasing and instructive volume‡. Mantell has recently described a reptile (*Telerpeton Elginense*) from these strata, and eggs of Batrachians are supposed to have been discovered in them. But though no monuments of the period, strictly so called,—rocks or fossils,—can be traced, there are some marks for its history in Yorkshire; for previous to it the older strata were uplifted by some great subterranean force, certain main features of our physical geography were sketched out, and it is probable that land was above the waves in a considerable part of what is now Cumbria, Scotland, and Ireland. One

\* Murchison's 'Silurian System.'

† Illustrations of the Geology of Yorkshire, Part II.

‡ 'The Old Red Sandstone.'