

PROICHTHYAN? PERIOD.—It is to the sea that the oldest trace of life which geology has discovered belongs. There is no mark of the existence of land in any part of the area now occupied by Yorkshire in all the older palæozoic period. It was then part of the sea-bed, continually growing upward by additions of argillaceous and arenaceous sediment, and the exuvæ of fucoid plants, Zoophyta, Mollusca, Annulosa, and Crustacea. Singular to say, we have not yet found in the strata of this period any sure traces of the race of fishes. This negative character may, however, fail under further and more fortunate research.

The monuments of this period which exist in Yorkshire are the slaty and flaggy rocks of Hougill Fells, the slaty rocks of Ingleton, and the flags of Ribblesdale. Of these, possibly the greenish slate of Ingleton may be counted oldest,—may be of the same age as the slate of Coniston Fells, in which I have found some traces of life. The flaggy series of Hougill and Ribblesdale may in a large sense be regarded as of like age, but the group of strata in each is so thick, that the lowest part approaches in age to the limestone of Coniston Water Head, and the upper to the arenaceous and argillaceous beds some thousand feet above it*. By Murchison they are called Lower Silurian, by Sedgwick Upper Cambrian. Life-remains are plentiful in the Ribblesdale flags, but difficult to extract in good condition. By the help of Sedgwick's last memoir †, and some notes of my own, it appears that the earliest Yorkshire forms of life included only the natural marine groups of Zoophyta, Brachiopoda, Cephalopoda, and Trilobites, in all about seventeen species.

PALICHTHYAN PERIOD.—Of the calcareous, argillaceous and arenaceous strata which, in a beautiful order of succession, are enriched with multitudes of ancient forms of life, along the borders of Wales, there constituting the Upper Silurian series of Murchison, we have in Yorkshire no ascertained trace. Had the county now extended to its old Brigantian limit,—had it even stretched a few miles westward to the Lune, at Kirkby

* Sedgwick, in Geol. Proceedings, 1851.

† Ibid.