

But in the Yoredale rocks which come on above, the drift which is still most prevalent in the north,—there yielding thick sandstones, shales, coal and ironstone between the limestones,—is abundant in Ingleborough and farther south. It is however more argillaceous, less arenaceous, and yields much less trace of coal,—circumstances which agree with the view that the land was to the north, the deeper ocean to the south. The plants which accompany the coal are for the most part of terrestrial growth. None of them are known to *stand erect in place and attitude of growth*, so as positively to mark the fact of the elevation of land in any part of the Yorkshire district of mountain limestone.

The life of the Period was still for the most part marine, and consisted, beside a few fucoids, of many Zoophyta, Crinoidea, and Mollusca, a few Annulosa and Trilobites, with a small number of rather large cartilaginous fishes. A few land plants are found in some of the alternating shales and sandstones, but not in their place of growth.

Marks of the existence of *neighbouring* land grow stronger continually as we ascend through the next mass of Palæozoic strata—the millstone grit—which contains more abundant remains of plants and greater variety of sediments, such as rivers might transport, especially quartz gravel beds in great thickness, for such is really the basis of our millstone grit. In the next class of deposits, or the Coal formation, we have proof of *land* in Yorkshire, for among these deposits are certain strata of sandstone in which the stems of trees *stand erect*, and beneath several of the coal-seams are the *roots of trees* extended in their natural positions. The coal beds are certainly composed of terrestrial plants, probably accumulated round the trees and above their roots, often by the agency of water, which has left parts of its living tenants even in the substance of the coal, as the defensive fin-bones of cartilaginous fishes (*Gyracanthus*) and estuary shells (*Unionidæ*). But there is no reason from these facts to infer that the land was greatly elevated. A low and even swampy region only just raised above the flow of waters may be admitted

*Clayton*