

most ancient of Scottish lignites presents several peculiarities of structure. Like some of the Araucarians of the warmer latitudes, it exhibits no lines of yearly growth; its medullary rays are slender, and comparatively inconspicuous; and the discs which mottle the sides of its sap-chambers, when viewed in the longitudinal section, are exceedingly minute, and are ranged, so far as can be judged in their imperfect state of keeping, in the alternate order peculiar to the Araucarians. On what perished land of the early Palæozoic ages did this venerably antique tree cast root and flourish, when the extinct genera *Pterichthys* and *Coccosteus* were enjoying life by millions in the surrounding seas, long ere the flora or fauna of the Coal Measures had begun to be?

I may be here permitted to mention, that in a little volume, written in reply to a widely known and very ingenious work on the Development hypothesis, I described and figured this unequivocally genuine lignite, in order to show that a true wood takes its place among the earliest terrestrial plants known to the geologist. I at the same time mentioned,—desirous, of course, that the facts of the question should be fairly stated, whatever their bearing,—that the nodule in which it occurred had been partially washed out of the fish-bed in which I found it, by the action of the surf; and my opponent, fixing on the circumstance, insinuated, in the answer with which he honoured me, that it had *not* belonged to the bed at all, but had been derived from some other formation of later date. He ought, however, to have taken into account my further statement, namely, that the same nodule which inclosed the lignite contained part of another fossil, the well-marked scales of *Diplacanthus striatus*, an ichthyolite restricted, like the *Coccosteus* (a specimen of which occurred in a neighbouring nodule), to the Lower Old Red Sandstone exclusively. If there be any value whatever in palæontological evidence, this Cromarty lignite