

mian rocks are red. As with the thin pellicle of peroxide of iron that incrusts the grains of sand and mud of the Old Red Sandstone, so the colour of the red Permian sandstones and marls is due to a thin incrusting pellicle of peroxide of iron, such as I have elsewhere attempted to show is often characteristic of deposits in inland waters.

I now come to the main point:—What were the peculiarities of the Physical Geography of the British area in Permian times? To explain this I shall partly use the matter published in 1871, in the ‘Journal of the Geological Society,’ in my paper ‘On the Red Rocks of England of older date than the Trias.’

First, the plants found in our Permian strata are chiefly of genera, but not of species, common to the Coal-measures, viz., *Calamites*, *Lepidodendron*, *Walchia*, *Chondrites*, *Ullmannia*, *Cardiocarpon*, *Alethopteris*, *Sphenopteris*, *Neuropteris*, and many fragments of coniferous wood of undetermined genera. Inland waters would be likely to receive land plants borne into them by rivers, but this yields no certainly conclusive evidence, since land plants are not very uncommon in marine strata of the Lias and Oolites.

The evidence derived from the remains of Labyrinthodont Amphibia and of land reptiles, clearly points to the close proximity of land. First, there is the Labyrinthodont *Dasyceps Bucklandi* from the red Permian strata near Kenilworth, and next, *Lepidotosaurus Duffi*, found near the base of the Magnesian Limestone, where it gradually passes into the underlying marl slate, and from the marl slate itself were obtained *Proterosaurus Speneri* and *P. Huxleyi*, both, according to Huxley, true land Lacertilian reptiles. Further north, in the red sandstones of the Vale of Eden, Professor Harkness