gard the supposed stigmaria-like roots as really stems, and the supposed rootlets as short, spine-like rudimentary leaves. All such comparisons must, however, in the mean time be regarded as conjectural. We seem, however, to have here a type of tree very dissimilar to any even of the later Palæozoic age, which existed throughout the Silurian, and probably further back, which ceased to exist early in the Erian age, and before the appearance of the ordinary coniferous and lepidodendroid trees. May it not have been a survivor of an old arboreal flora extending back even to the Laurentian itself?

Multitudes of markings occurring on the surfaces of the older rocks have been referred to the Algæ or sea-weeds, and indeed this group has been a sort of refuge for the destitute to which palæontologists have been accustomed to refer any anomalous or inexplicable form which, while probably organic, could not be definitely referred to the animal kingdom. There can be no question that some of these are truly marine plants; and that plants of this kind occur in formations older than those in which we first find land-plants, and that they have continued to inhabit the sea down to the present time. It is also true that the oldest of these Algæ closely resemble in form plants of this kind still existing; and, since their simple cellular structures and soft tissues are scarcely ever preserved, their general forms are all that we can know, so that their exact resemblance to or difference from modern types can rarely be determined. For the same reasons it has proved difficult clearly to distinguish them from mere inorganic markings or the traces of animals, and the greatest divergence of opinion has occurred in recent times on these subjects, as any one can readily understand who consults the voluminous and well-illustrated memoirs of Nathorst, Williamson, Saporta, and Delgado.

The author of this work has given much attention to these remains, and has not been disposed to claim for the