by itself, chiefly in comparatively soft Yoredale shales between the high-terraced hard moorland scarps of Millstone Grit, and the still harder grassy slopes of the Carboniferous Limestone.

When we come to the other rivers that enter the Humber north and west of the Trent, the case is more puzzling. The Oolites in that region were extensively denuded before the deposition of the Chalk; so that between Market Weighton and Kirkby-under-dale in Yorkshire, the Chalk is seen to overlap unconformably the Oolitic strata, and to rest directly on the Lower Lias, which there, as far as it is exposed, is very thin. The Chalk, therefore, overspread all these strata to the west, and lay directly on the New Red beds of the Vale of York, till, overlapping these, it probably intruded on the Carboniferous strata of the Yorkshire hills farther west. At this time the Oolites of the northern moorlands of Yorkshire seem also to have spread westward till they also encroached on the Carboniferous slopes, the denuded remains of which now rise above the beautiful valleys of Yoredale and Swaledale, the whole, both Carboniferous and Secondary, strata having gentle eastern and south-eastern dips. These dips gave the rivers their initial tendency to flow south-east and east; and thus it was that the Wharfe, the Ouse, and the Swale, cutting their own channels, formed a way to what is now the estuary of the Humber, while the escarpments of the Chalk and Oolite were gradually receding eastward to their present temporary positions.

That the Oolitic strata spread northward beyond their present scarped edges is quite certain; but whether or not they extended far enough north to cover the whole of the Durham and Northumberland coalfield I am unable to say. Whether they did so or not