

ably upon a platform composed of two layers, of which the uppermost is a dark band of seemingly structureless rock, while the lower is formed of dark slate-coloured tilted strata.

It is only when one lands on the island of Hoy, and examines the cliffs in detail, that the true nature and history of the three bars of the Old Man can be made out. The yellow and red sandstones of the column and the cliff behind it are then found to present the ordinary characters of the Upper Old Red Sandstone, to which they are with probability referred, though as yet they have yielded no fossils. Irregularly alternating in thick and thinner beds, they are rent by innumerable perpendicular joints. By means of these divisional lines, slice after slice falls away from the face of the cliffs, which thus maintain their precipitous front towards the Atlantic. Except in regard to their scenic features, these sandstones, however, are less full of interest than the two bars comprising the Old Man's pedestal. The upper bar consists of a band of dark amygdaloidal lava with a slaggy surface. The same rock appears elsewhere, rising out from beneath the sandstones of the precipices, particularly at the north-western headland, where it consists of three or more distinct bands with well-stratified volcanic tuffs. To the north-east of that headland, on a tract of lower ground intervening between the base of the hills and the edge of the sea, several well-marked volcanic "necks" or pipes occur, representing some of the vents from which the streams of lava and showers of ash were poured. The complete interstratification of the beds of erupted material with the lower portion of the sandstones proves that the volcanic action showed itself at the beginning of the deposition of the Upper Old Red Sandstone in this region. Another little vent may be observed on the Caithness coast, near John o' Groat's