

## NOTES ON THE GEOLOGY OF THE ASSYNT DISTRICT.

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From a geological point of view, the Assynt district is one of the most interesting in the north-west Highlands. The various rock formations which enter into the geological structure of the region are there splendidly developed, and the evidence in proof of those great terrestrial displacements of post-Cambrian date may be studied in detail in the mountainous region that runs southward from Glas Bheinn by Ben More Assynt and Breabag to the Cromalt Hills.

Beginning with the Archæan gneisses (A on map), which may be said to form the foundation-stones of that region, they are unquestionably older than the succeeding great development of Torridon Sandstone and overlying Cambrian strata. On referring to the geological map, it will be seen that they occupy a belt of ground from 6 to 9 miles broad, extending along the western coast-line between Enard Bay and Stoer, thence inland to the base of the grand escarpment of Torridon Sandstone that stretches southwards from Quinag to the Coigach mountains. These crystalline gneisses give rise to a type of scenery that is characteristic of a large part of the western seaboard of Sutherland and Ross, which seems to be typical of Archæan areas. Bare rounded knolls and bosses of grey gneiss follow each other in endless succession, and in the hollows there are numerous pools and lochs occupying rock-basins. The whole tract occupied by these crystalline gneisses is singularly destitute of drift. The rocky knolls do not rise much above one general level, which does not as a rule exceed a few hundred feet in height, save near the base of Quinag, Canisp, and Suilven, where the elevation of the old gneiss plateau is about 1000 or 1250 feet.

The Archæan rocks of the Assynt district, west of the great escarpment of Torridon Sandstone, consist largely of pyroxene gneisses and ultrabasic rocks (pyroxenites and hornblendites), which still show in a marked degree their original characters. Their behaviour in the field and their appearance under the microscope have led to the conclusion that they have affinities with plutonic igneous products. All over that district, where the original characters have not been effaced by later mechanical stresses, it is possible to trace the imperfect separation of the ferro-magnesian from the quartzo-felspathic constituents, the gradual development of mineral banding, and the net-like ramifications of acid veins (pegmatite) in the massive gneiss. Whatever be the origin of the mineral banding in these Archæan gneisses, it is