

the Cambrian system, repeated by folds and reversed faults, and overlaid by slices of Archæan gneiss, which resemble portions of the old floor on which the Cambrian strata rest unconformably west of Loch Eriboll and the Kyle of Durness.

East of these displaced masses there is a great succession of crystalline schists stretching eastwards to Strath Naver, which, in the north of Sutherland, are everywhere separated from the rocks to the west by a powerful line of disruption, termed the Moine thrust. They consist of two main types—flaggy quartzose granulites and garnetiferous muscovite-biotite schists with intermediate varieties—the whole evidently representing an altered sedimentary series. Bands of garnetiferous hornblende-schist are intercalated in these granulitic schists, which are, without doubt, deformed intrusive sheets of igneous material. The lithological characters of the strata, the order of succession, and the peculiar system of folding are magnificently displayed on Ben Hope (3040 feet), where the divisional planes generally dip to the east-south-east at angles varying from 12° to 30° . But in addition to these members of the Moine series, which are now generally regarded as altered sediments, there are belts of massive, hornblendic, and micaceous gneisses resembling the Lewisian types in the north-west of Sutherland. The precise relationship of these two divisions of the crystalline schists has not been definitely ascertained in this district, but it is sufficiently clear that they have been affected by a common system of folding, and in certain localities by common planes of schistosity. From the north coast, these massive basic and acid gneisses of Archæan type stretch southwards along the west side of the Borgie valley to Loch Creagach, near Loch Laoghal, and another belt of somewhat similar materials has been traced from the village of Tongue northwards by Ribigill to Loch an Dithreibh.

After the eastern schists had assumed their present crystalline characters, they were pierced by intrusive masses of granite, which form a picturesque group of peaks on Beinn Laoghal, south of Tongue. The mapping of that area leads to the conclusion that the granite there forms a great sill-like intrusion, which, on the north-east side of the loch of that name, branches off into minor sheets, or apophyses.

On the east side of the Kyle of Tongue there are various small outliers of Old-Red Sandstone, largely composed of conglomerate, as, for instance on Cnoc Creagach, on Beinn Bhreac, and on Cnoc an Fhreicheadain, which rest unconformably on the crystalline schists. They contain fragments of the various component members of the underlying platform, together with blocks of Cambrian quartzite and limestone.

Loch Hope.—The lower portion of this lake, measuring about 2 miles in length, is floored by thrust masses of Lewisian gneiss and deformed schistose rocks affected by the Post-Cambrian movements, while the