

have been driven westwards for miles. In other words, the rocks in that region behaved like brittle, rigid bodies which snapped across, were piled up, and thrust westwards in successive slices.

These great displacements were accompanied by differential movement of some of the rocks, which resulted in the development of new structures. These features are especially developed at or near the Moine thrust-plane, which is the most easterly of the powerful lines of disruption. There we find that the Lewisian Gneiss, Torridon Sandstone, and Cambrian quartzite are sheared and rolled out, presenting new divisional planes parallel to that of the Moine thrust.

Regarding the age of these post-Cambrian movements, it is obvious that they must be later than the Cambrian dolomites and limestones, and older than the Old Red Sandstone; for the basal conglomerates of the latter rest unconformably on the Eastern Schists, and contain pebbles of quartzite, dolomite, and limestone derived from the Cambrian rocks of the North-West Highlands.

METAMORPHIC ROCKS EAST OF THE MOINE THRUST-PLANE

East of the Moine thrust-plane, whose outcrop runs from the eastern shore of Loch Eireboll S.S.E. to Loch Alsh, we enter the wide domain of the metamorphic rocks of the Highlands, which extend to the Highland border. Two prominent types of crystalline schists (Moine Series of the Geological Survey) have been traced over wide areas in the counties of Sutherland, Ross, Inverness, and across the Great Glen to the Grampians. These consist of granulitic quartzose schists and muscovite biotite schists which appear to be of sedimentary origin. They are associated with recognisable masses of Lewisian Gneiss, which present many of the structures so characteristic of the fundamental rocks along the western seaboard of Sutherland and Ross. From the relations which these rock-groups bear to each other in the field, the inference has been drawn that the Moine schists represent a sedimentary series resting unconformably on the Lewisian Gneiss, the latter being brought to the surface along inverted folds and exposed by denudation. In the east of Sutherland, foliated and massive granites appear which are intrusive in the Moine schists and produce contact metamorphism.

In the Eastern Highland belt, ranging from the counties of Banff and Aberdeen through Perthshire to Argyll, the Moine series is replaced by metamorphic rocks, undoubtedly of sedimentary origin, which have been termed the Dalradian series by Sir A. Geikie. These have been divided into certain lithological groups which have been traced more or less continuously from Banff and Aberdeen to Kintyre. There seems to be an apparent order of superposition in these sub-