

Fig. 13. Style of folding in the Cnoc a' Chaoruinn area. *a-b*. Profiles of folds in Cambrian quartzite below the Moine thrust, near the river Oyke. *c-e*. Profiles of folds in primary mylonitic rocks, Cnoc a' Chaoruinn. *f-g*. Profiles of folds in Moine schists, in the river Oyke approximately 2 miles below Loch Ailsh.

The only two folds observed in the Moine schists are shown in figure 13 (*f-g*). They are medium-scale, open folds, overturned toward the south-southwest.

The style of the folding in the quartzites, the primary mylonitic rocks, and the schists is so similar that they must reflect similar conditions of deformation. From the parallelism of the fold axes and the similarity in style, I infer that most of the folds in all these rocks date from the same phase of deformation. Of the folds in which it is possible to determine the direction of overturning, either from the form of the complete fold or the orientation of the axial plane, approximately 80 per cent are overturned toward the south-southwest and the remainder toward the north-northeast.

The folds in the zones of phyllonite (B_s and B'_s) are closed and angular, similar to those in the B_n -zones, with axial planes dipping consistently toward the east. The structures in plate 4 show the characteristic style of folding. The diagrammatic section in figure 14 illustrates the relationship between the zones of B_s -folds and the major thrusts and faults in the area. The B_s -zone is situated above the zone of imbrication associated with the Ben More thrust. The axial planes of the folds are subparallel to the underlying reverse faults, suggesting that the folding is probably related to movements on the Ben More thrust and the reverse faults in

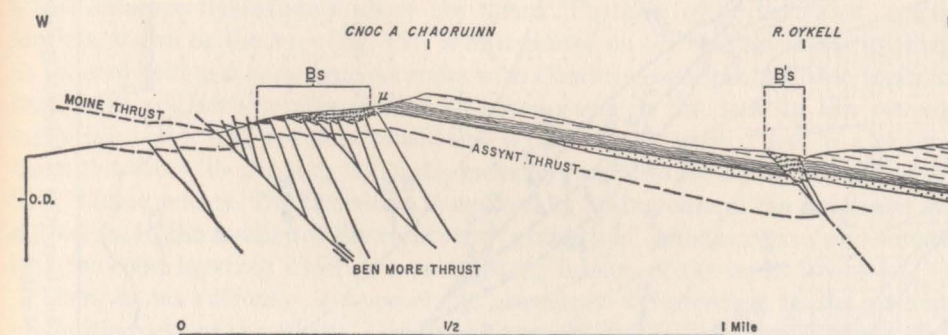


Fig. 14. Diagrammatic section across the Cnoc a' Chaoruinn area, showing relationship between zones of south-plunging folds (B_s) and the major thrusts and faults in the area.

the same way as the B_n -folds in the Stack of Glencoul area. It is probable that the smaller zone of phyllonite (B'_s), which also contains B_s -folds, overlies another thrust or reverse fault which is not exposed west of the Moine thrust.

The Moine thrust is displaced by the Ben More thrust and associated reverse faults west of Cnoc a' Chaoruinn; it is at a considerably higher level on the hill to the east of the Ben More thrust than to the west. It is not possible to estimate the displacement accurately, because the Moine thrust is so poorly exposed, but the amount is less than 500 feet.

THE LOCH AILSH AREA

General description of the area.—The structural relationship of the rocks in the Loch Ailsh area is shown in the map (fig. 15). The outcrop of the Moine thrust extends from the northeast extremity of the loch with a northeasterly trend. The thrust gives rise to a marked topographic feature, the resistant mylonitic rocks and schists to the east forming a scarp of considerable height, and the calcareous rocks to the west giving low-lying ground. The thrust is poorly exposed, as the hollow at the base of the scarp is largely peat-filled, but the unexposed belt is sufficiently narrow for the position of the thrust to be determined within a few feet along most of the outcrop. Exposures are common in the calcareous rocks and the mylonitic rocks, but much of the Moine schist in the area is covered with peat and few exposures are available.

The calcareous rock is, for the most part, yellowish crystalline dolomite. Near the center of the outcrop are lenticles, a few feet in thickness, of dark, micaceous marble. The low-lying ground, in which the dolomite is exposed, is traversed by