were formed by kinking of the *s*-surfaces in the primary mylonitic rocks (*S*) along surfaces that are parallel to the thrust and associated reverse faults.

The diagram also indicates the significance of the embayment in the outcrop of the Moine thrust in the Assynt region. The foliation planes in the mylonitic rocks in the northern and southern parts of the Assynt "bulge" are parallel to the Moine thrust and intersect in an axis plunging toward the east, parallel to *B;* thus the change in orientation of the thrust and the foliation is not related to folding about axes parallel to the general strike of the thrust, but to the east-southeast–plunging axis *B*. The foliation surfaces in the primary mylonitic rocks and the schists in the northern and southern parts of the bulge are analogous to the limbs of a large fold (about the axis *B*) with small amplitude. Thus the em-

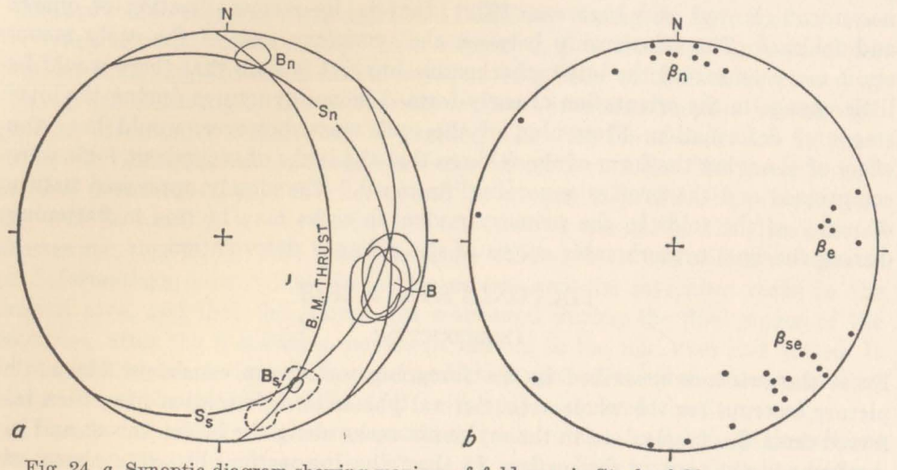

Fig. 24. *a*. Synoptic diagram showing maxima of fold axes in Stack of Glencoul area (B, B_n), Loch Ailsh area (B), and Cnoc a' Chaoruinn area (B, B_s). S_n and S_s represent the mean orientations of the foliation in the northern and southern areas, respectively. The mean orientation of the Ben More thrust is also shown. Full lines are 10 per cent contours, and the broken line is a 6 per cent contour. *b*. Synoptic diagram showing the orientation of β-axes in Cambrian and Torridonian rocks in zone of dislocation (from fig. 20, in pocket).

bayment of the thrust is not due to an "axial culmination," as claimed by Bailey (1935), but to an anticlinal fold of the thrust about the regional fold axis *B*. The width of the embayment reflects the low angle of plunge of the fold axis. The fold originated during the primary movements, when there was penetrative movement along the "movement horizon." The only modification of the structure by the secondary movements was the slight displacement of the horizon at the Stack of Glencoul and Cnoc a' Chaoruinn; these displacements (approximately 500 feet) are scarcely reflected in the outcrop of the Moine thrust.

The B_n- and B_s-folds in the secondary mylonitic rocks are genetically related to the Ben More thrust and the reverse faults associated with this dislocation, and there is also close connection between these reverse faults and the north-trending folds (fig. 24, *b*, β_n) in the zone of dislocation. Thus it is evident that folding about north-trending axes in the Torridonian and Cambrian rocks of the zone of dislocation was contemporaneous with the secondary deformation of the

rocks in the vicinity of the Moine thrust. The movement pictures inferred from the structures in the secondary mylonitic rocks above the Moine thrust and the north-trending folds in the zone of dislocation are similar; the Moine schists and the thrust masses were transported toward the west during the secondary deformation, and the movement was concentrated along the major thrusts in the zone of dislocation and in the pelitic layers near the Moine thrust.

It has been shown that the southeast- and east-plunging fold structures in the zone of dislocation (fig. 24, *b*, β_e, β_{se}) and the widespread east-southeast–plunging folds in the primary mylonitic rocks and the Moine schists (fig. 24, *a*, *B*) are earlier than the westward movements.

It is not clear whether the β_{se} and β_e groups of folds in the zone of dislocation date from different phases of deformation or were formed contemporaneously. In view of the parallelism of the β_e-folds and the eastward-plunging minor folds in the dolomite at Loch Ailsh (figs. 15; 16, *b;* 21, in pocket, D6, D15), these were probably formed contemporaneously. The minor folds in the Loch Ailsh dolomite are overturned to the north (p. 375), and it has been suggested (p. 384) that they, along with some small kink zones in the overlying mylonites, might represent a distinct phase of deformation during which the overlying rocks moved to the north.

The β_{se}-folds in the zone of dislocation must certainly have formed during the extensive movements that produced the east-southeast–plunging folds (*B*) in the primary mylonitic rocks and the Moine schists. The divergence of orientation between the *B*-folds above the Moine thrust and the β_{se}-folds below the thrust must be due to one of the following causes: (1) the folds in the zone of dislocation may have formed with their present orientation as a result of inhomogeneities in the movement; (2) the axes of the folds in the zone of dislocation may originally have been parallel to *B* and have been subsequently rotated during the later westward movement. The deformation in the zone of dislocation was extremely discontinuous, and there is wide variation in the physical properties of the rocks; under these conditions irregularities in the movement pattern are to be expected. The variation in the orientation of the folds probably stems mainly from this cause, but it is not impossible that the folds in the zone of dislocation were modified by the late movements.

The structural picture obtained from the analysis of the microscopic fabric of the Loch Ailsh dolomites agrees very closely with that obtained from the megascopic fabric. The *B*-axis determined from the grain orientation plunges toward the east, parallel to the axes of most of the folds in the area. The sense of rotation about the eastward-plunging axis in the dolomites is opposite to that indicated by the majority of the folds in the overlying primary mylonitic rocks. It has already been stated, however, that there may have been slight movement toward the north along the Moine "movement horizon" near the end of the primary deformation. It has tentatively been inferred from the microscopic and megascopic data that the dolomites were later affected by slight deformation about a north-trending *B*-axis. In view of the extensive development of folds with this trend elsewhere in the Moine thrust zone and in the zone of dislocation, there can be little doubt that the inhomogeneity of the fabric of the dolomites has indeed