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REINTERPRETATION OF BASEMENT-CORED NAPPES IN THE EAST-ERN BASAL GNEISS COMPLEX, CENTRAL NORWEGIAN CALEDONIDES | No 68485

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The Basal Gneiss Complex (BGC) of the western-central Norwegian Caledonides forms the core of the Silurian orogen, exposing deep crustal structures formed during continental convergence. Compilation of the geology of the eastern BGC in the Oppdal District by Krill (N.G.U.) and correlations by other workers have shown that units mapped here are equivalent to thrust-nappes exposed in Sweden along the eastern front of the orogen. This tectonostratigraphy of thrust-nappes has been infolded into the felsic basement gneisses forming complex interference patterns. Detailed mapping and computer-aided analysis of 180 km<sup>2</sup> in the southern closure of a major trumpet-shaped infold, the Grövudal area of the northern Dovrefjell, has shown that the structure is a tight north-facing near-recumbent fold-nappe refolded by an east-verging antiform. Meso- and microstructures, including sheath folds, indicate high strain, transposition and flow; in contrast to correlative units 30 km east which show well preserved primary structures.

These observations suggest that basement gneisses to the east in the Lonset area, and other basement gneisses in the eastern BGC, are underlain by near-recumbent isoclinal infolds of thrust-nappes. The geometry is that of two major east-verging sheath-like basement nappes, N to S: the Trollheimen nappe and the Lonset nappe. These antiformal 'sheath-nappes' are bounded by 3 synformal 'sheath-nappes', N to S: the Surnadal, Grövudal and Lesja fold nappes. The geometry of regional low-angle sheath-folds with superposed steeper folds has produced type 2 and 3 interference patterns. Displacements of the basement fold-nappes exceed 50 km. Possible correlation of these isoclinally folded thrust-nappes with a low velocity layer at 12-14 km reported in the Møre area would further extend this interpretation.