

Merguerian, Charles; and Sanders, J. E., 1994a, Danbury anticline of Sanders (1960) revisited: post-depositional structural explanation for northeast end of Newark basin, Rockland Co., NY.

Polar-opposite interpretations have been proposed for why the Newark basin ends towards the NE in Rockland Co., NY. According to the isolated-basin (or "shelving-basin") viewpoint, the basin ends because the NE-striking strata lap out against a paleogeomorphologic bedrock high underlain by a pre-Newark basement complex. In this view, the curving Palisades ridge becomes a dike that cuts across most of the strata to connect with the nearly horizontal Ladentown extrusives high in the Newark succession.

According to the transverse-fold interpretation, the pre-Newark basement has been postdepositionally elevated along the Danbury anticline that is transverse to and ends on the NW against the basin-marginal Ramapo fault. In this view, the curving Palisades ridge is a folded sill; both it and the strata change strike from NE-SW to NW-SE and the regional dips change from NW to SW. The nearly horizontal Ladentown extrusives are inferred to occupy a block separated by a fault from the NW-striking, SW-dipping strata on the SW limb of the Danbury anticline.

To Cite This Abstract: Merguerian, Charles, 1994a, Stratigraphy, structural geology, and ductile- and brittle faults of the New York City area, p. 49-56 *in* Hanson, G. N., *chm.*, Geology of Long Island and metropolitan New York, 23 April 1994, State University of New York at Stony Brook, NY, Long Island Geologists Program with Abstracts, 165 p.