Volcaniclastic Quartzites

The Durwood pendant is notable for being composed of a near-vertically-dipping, moderately deformed sequence of (from bottom up) meta-semipelite, metavolcanic rocks (quartzite), marble, and quartzite. The metavolcanic sequence is composed of water-reworked felsic tuffs including at least one primary pyroclastic density current deposit (ignimbrite) with andesitic clasts, peperite, and andesitic sheet-like intrusions. The presence of volcanic lithofacies suggests that the Durwood pendant succession was deposited in the Mesozoic; possible correlatives exist along strike at the Mineral King caldera (north; Busby-Spera, 1986) and in the Eskine Canyon / Lake Isabella area (south; Saleeby & Busby, 1986; Saleeby et al., 2010).

Metased. Petrography

Structure

Each inlier is a steeply-dipping homocline with a steep or vertical stretching lineation.

The Rincon pendant, and adjacent Fairview pendant (not shown), appear to be partly structurally controlled by the reverse pseudo-Kern Canyon shear zone (Busby-Spera & Saleeby, 1990) because an asymmetric strain gradient increases in intensity towards the fault trace where it abuts batholithic rocks. The Kern Canyon fault (Moore & Du Bray, 1978; Nadim & Saleeby, 2010) is a dextral-normal fault developed along the older shear zone. The Durwood pendant hosts a 20 m-wide ductile shear with normal sense-of-shear within the middle marble unit (mylonitized) and may be bounded by a second major shear zone to its immediate east.

Summary

These metasedimentary pendants are typical of those mapped elsewhere in the central and southern Sierra Nevada batholith: narrow, steeply dipping sequences of often monotonous semipelite metabasites interbedded with marbles and quartzites. Regional metamorphism is typically lower greenschist facies except where hornfels facies contact metamorphism dominates.

Continuing studies of these inliers and their structural architecture will improve understanding of the assembly of the Sierra Nevada batholith and the role of arc-parallel shear zones in controlling down-warping of supracrustal successions.