**Schweickert, R. A.; Girty, G. H.; and Merguerian, Charles, 1983, The Shoo Fly Complex - a profile of early Paleozoic sedimentation, plutonism, and deformation in the Sierra Nevada of California.**

The Shoo Fly Complex (SFC), 330 km long x 6-20 km wide, the most extensive terrane of lower Paleozoic metamorphic rocks in the SW Cordillera, forms the exposed basement of a Devonian-Permian magmatic arc that collided with North America during the Sonoma orogeny. We now recognize four stacked, thrust- bound structural divisions in the SFC that were juxtaposed prior to the Late Devonian. Units 1, 2, and 3 occur north of lat. 38°30'N, and Unit 4 extends the entire length of the outcrop belt (although it may be composite). Unit 1, structurally highest, is a chaotic mixture of arc-derived, immature, lithic and arkosic sandstone, chert, shale, minor limestone, and scattered ultramafic and mafic rocks. Unit 2 is an intact sequence with alkalic basaltic pillow lava, chert, and limestone overlain by 2 km of continentally-derived quartzose sandstone and shale. Unit 3 is mainly rhythmically-bedded radiolarian chert with shale and minor sandstone. Unit 4, structurally lowest, contains extensive quartzite (locally feldspathic) and shale of continental derivation, minor marble and chert. Meager faunal data suggests all rocks are early Paleozoic. Although all units show evidence of pre-Devonian deformation and thrusting, Unit 4 is most intensely deformed, with metamorphic grade and structural complexity increasing from N to S. Paleozoic granitoid rocks occur widely in the SFC. A Devonian granodiorite-trondhjemite batholith intrudes Units 2, 3, and 4 near lat. 39°30’N, Paleozoic(?) quartz diorite orthogneisses occur near lat. 38°30'N, and extensive early to mid-Paleozoic (Sharp et al., 1982) granodioritic, syenitic, and gabbroic orthogneisses intrude Unit 4 between lat. 38°30’ and 38°30'N. Possibly correlative or related terranes are: central metamorphic belt of Klamath Mts. -- Unit 4; Trinity ultramafic sheet -- parts of Unit 1; Roberts Mts. Allochthon -- parts of Units 1, 2, 3, and 4. Broad similarities also exist with lower Paleozoic rocks of the Kootenay arc in southern British Columbia. The SFC may record long periods of early Paleozoic subduction and mid-Paleozoic plutonism and collisional deformation and metamorphism of sedimentary rocks deposited near the North American margin, but many scenarios are possible.

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