RELATIONSHIP BETWEEN OPHIOLITES AND GOLD-QUARTZ VEINS IN THE NORTH AMERICAN CORDILLERA

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Left photo: Crystalline lode gold, Eureka mine, Tuolumne County, Mother Lode Belt, measures 15 x 33 cm and weighs 2.1 kilograms (67 troy ounces). This sample currently resides in the Smithsonian Institute (Photo courtesy of Bruce Ballantyne).

Right photo: Placer gold nugget from the Atlin camp (Photo courtesy of Bruce Ballantyne).
Johnston (1940) wrote the following preceding a discussion on the origin of gold veins at Grass Valley, California and is worthy of consideration by deposit model proponents:

“The principal characteristics of the rock formations, fracture systems, vein materials, and wall rock alteration have been set forth. From this body of fact must come a large part of the evidence upon which any explanation of the origin of the deposits is based. But, as much of that evidence is fragmentary and incomplete, it must be supplemented by evidence from other geologically similar districts and interpreted in the light of our broader geological concepts. Thus genetic hypotheses, in a large measure, are a synthesis of knowledge and belief, and it is imperative that they be so regarded”
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