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PLEISTOCENE ART OF THE WORLD

Short articles



THE EARLIEST ROCK ART IN FAR WESTERN NORTH AMERICA

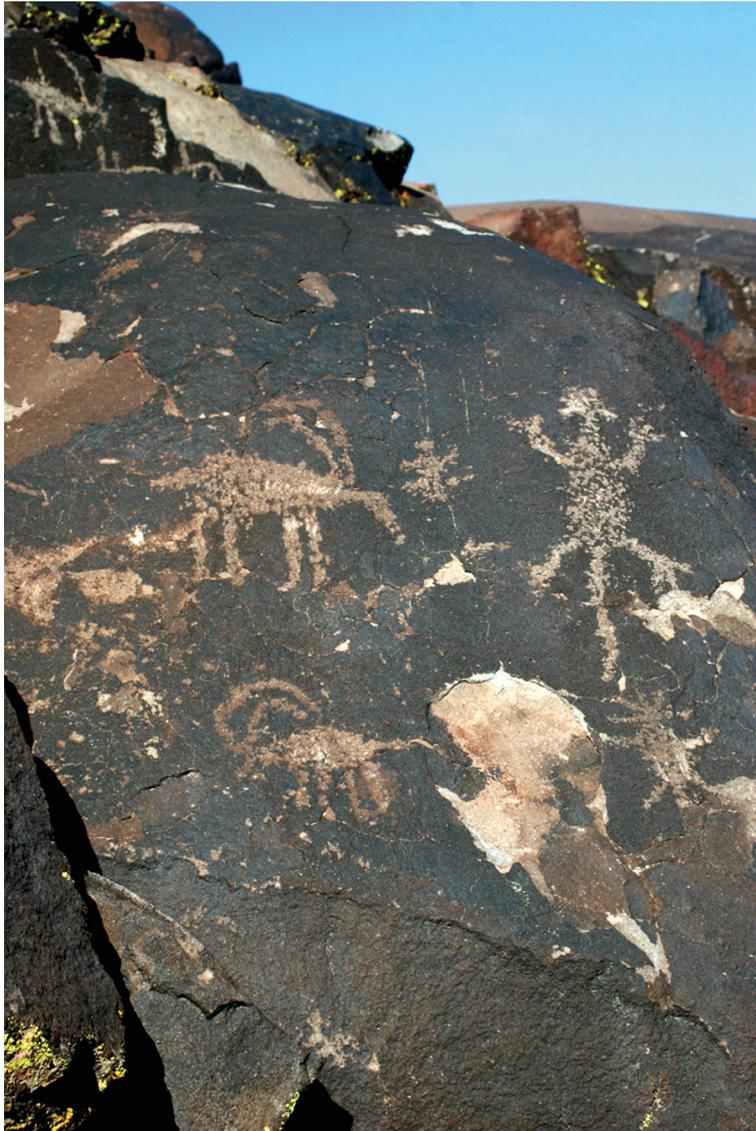
David S. WHITLEY, Ronald I. DORN

We have developed a suite of 67 chronometrically-dated rock engravings, based on 106 independent assays, from the Mojave Desert region of California, USA, including a series from the world renowned Coso Range. These ages have been obtained using the varnish microlamination (VML) and cation ratio (CR) dating techniques. We have evaluated this suite of ages by cross-checking, blind-testing, and re-sampling previous chronometric results, and through the preparation and independent analysis of VML samples by Tanzhuo Liu at Columbia University. Sixty of our sixty-seven dated engravings are interpreted as having reliable chronometric ages.

The most conservative interpretation of our results involves 16 engravings with fully concordant but independent CR and VML dates that were verified by two analysts. These indicate that the engraving sequence extends from 11 100 to 250 BP; that is, from Paleoindian to protohistoric times. Less certain evidence suggests that the tradition minimally may be 15 100 years in age. Fully 18% of our dates are greater than 9 000 years old (the Paleoindian period), indicating that the Native American rock art tradition extends back to the Terminal Pleistocene. The results for motif R96ST13 warrant special mention, as they provide plausible support for Pre-Clovis (> 12 000 BP) rock engravings. A blind-test identification of this motif, by a paleontologist specializing in Mojave Desert Pleistocene fauna, suggested that it is an extinct species of North American llama, thereby indicating that it should be early Holocene or earlier in age. The CR age on this engraving, 13 400 ± 2000 cal BP, is consistent with the VML date (17 150 cal BP) at two standard deviations, though one analyst qualified the VML readings as requiring additional sampling for full verification. An experimental AMS ¹⁴C age was obtained on a calcium oxalate layer interbedded in the rock varnish. This yielded an age of 11 860 ± 60 cal BP. It provides stratigraphic and chronological concordance to the minimum-limiting VML layer and age, and the CR results. Although additional sampling is required to verify this age with confidence, four lines of evidence support the possibility that it represents a Pre-Clovis aged petroglyph.

Two other observations concerning our early motifs are warranted. Three Pleistocene-dated representational motifs are present in this corpus, the llama, a bighorn, and a snake. Each of these species was present during the Pleistocene, although only the possible Pleistocene llama represents a species that suffered extinction during the Holocene. Bighorn engravings, in contrast, exhibit a temporal range that extends from 11 200 to 250 BP. The earliest art assemblage includes a mix of geometric and representational motif forms, and these are also represented in the later-dated motifs. This disproves claims for an evolution from abstract to iconic imagery in the region, and provides no evidence for significant stylistic change over time.

At the other end of the time scale, 45% of the ages are less than 3 000 years old, and 13% fall within the last 700 years, during the Numic phase (AD 1300-1850). These results confirm ethnographic accounts and evidence in the motif subject matter (horse and rider motifs) that indicate



Rock engravings from the Coso Range, California. Bighorn sheep engraving at lower left is dated to 11 200 BP; Lizard at top right to 6 100 BP.

that rock art production continued into the historical period. The dated Mojave Desert engravings can be compared to additional, early dated New World rock art corpora, including engravings from the northern Plains of North America, and cave paintings in Amazonian Brazil. This has three implications. By 10 000-11 000 BP, first, distinctive regional Paleoindian artistic styles had already developed across the Americas. Early rock art, in this case, provides evidence for regional cultural diversity that has been masked by undue emphasis on the analysis of projectile points types, as has characterized most Paleoindian archaeological research. Second, figurative and geometric art was being created even in this early period. Third, and finally, although the Mojave engraving dates demonstrate the depiction of Pleistocene fauna, there continues to no evidence for the illustration of now extinct Pleistocene megafaunal species, such as the Columbian mammoth, in the New World rock art, in contrast to other parts of the world, such as the Upper Paleolithic art of the Franco-Cantabrian region.





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