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## *The Archaeology and Rock Art of Swordfish Cave*

Clayton G. Lebow, Douglas R. Harro, and Rebecca L. McKim, Utah: University of Utah Press, 2016 [*University of Utah Anthropological Papers* 129], 237 pp., ISBN 9781607814573, \$50.00 (paper).

### **Reviewed by David Robinson**

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Research in Chumash rock art over the last decade has moved towards finding ways to articulate the rock art with the archaeological record (see Robinson and Sturt 2009; Robinson et al. 2010; see also Wienhold 2014). This excellent monograph, presenting the results of excavation of the important site of Swordfish Cave, is a major contribution toward this goal. Located on Vandenberg Air Force Base in south-central California, this locally well-known cave has figured in wider discussions of Chumash rock art due largely to the pictographs on the ceilings and walls, but it has also been significant to discussions of the Chumash view of sea animals because of the presence of a polychrome swordfish pictograph (which also lends the site its name; see Davenport et al. 1993). The site is also famous for its linear petroglyphs, including historical graffiti perhaps attributable to mission or post-mission period Chumash. As it turns out, the excavations engender intriguing hypotheses for both the pictographs and petroglyphs at Swordfish Cave.

The opening chapter explains how the motivation for the excavations stemmed from consultations with the Tribal Elders Council of the Santa Ynez Band of Chumash, due to potential damage caused by visitors and the need to create a better viewing area to separate viewers from the rock art. Excavations therefore were deemed necessary within the cave to lower the standing level and create more head space. The introduction also sets the project in context in the archaeological record of the Vandenberg region, which is one of the best studied Chumash areas. Chapter 2 details the field work and post-excavation approaches. It usefully explains the stabilization procedures which now allow long-term management of the site. Importantly, the next chapter goes into depth on the stratigraphic make-up of the deposits and its constituents, including important features such as hearths and a small

cairn containing a skull fragment (the latter found on the bedrock and therefore at the beginning of the sequence). Based upon the stratigraphy and the character of the deposits, four analytical units (or AUs) are proposed which structure the subsequent chapters. Chapter 4 carefully unpacks the chronology of the site, thus defining the temporal positioning of the AUs. This is achieved by means of eleven radiocarbon dates, diagnostic finds, and of course the stratigraphy itself. Three periods of occupation are suggested by these data—two phases in the Early Period (1,755–1,385 cal B.C. and circa 790 cal B.C.), with the earlier being AU3 and the later AU2—plus a terminal phase (AU1) perhaps starting at the end of the Late Period but certainly falling within the historical period (surprisingly, only two beads were found at Swordfish cave, one of which was glass). The next chapter is an excellent analysis of the lithics. The astute analysis reaches a number of important conclusions, the most important of which involved the discovery of edge-wear on the sides of spent projectiles and utilized flakes which—after cross verification with experiments—appear to have been used as gravers in the making of petroglyphs

The following chapters go into further analyses of faunal remains, archaeobotanicals, fire-affected rock, asphaltum, historical items, and ochre. Again, these topics are all expertly covered and begin to suggest patterns of occupation and site use; however, the ochre here is the most interesting. The quantity involved was the largest amount of ochre so far discovered in the Vandenberg landscape, it was associated with a hearth feature containing evidence of *in situ* processing, and the vast majority of it was found within AU3 and the earliest deposits. All of the material culture recovered is thoroughly explored in chapter 9, utilizing excellently presented spatial organization and distribution analyses. As the authors explain, the ochre clearly clusters around a hearth (Feature 1) within AU3, while the gravers used to make petroglyphs likewise cluster near the petroglyphs. Clear changes can be seen in overall distributions through time, especially during the historical period, clearly showing different patterns of site use. The level of interpretative value offered by the authors here is commendable. This section is followed by a well-illustrated and well-presented section written by Rick Bury on the rock art of Swordfish Cave, before the final two chapters bring all the evidence to bear to interpret the site.

Again, the results are placed in a wider Vandenberg context in these final chapters. Lebow et al. make the argument that the vast majority of the rock art was likely made in the Early Period (circa 1,625 to 1,540 cal. B.C.). There is good evidence for this. For example, some of the graveurs were found in Early Period deposits, which show that at least some of the petroglyphs likely date to this period. Similarly, the voluminous ochre in AU3 leads to the inference that the pictographs were also made in the Early Period. If true, and as the authors indicate, this clearly has profound significance in terms of traditional hypotheses that relegate Chumash rock art to the Late Period (i.e., after about A.D. 1300). Importantly, all periods of site occupation had evidence of seasonal short-term usage, but the most intense usage occurred in the same Early Period AU3. However, the final chapter explores the curious lack of Middle Period deposits. Several hypotheses are considered to explain the apparent abandonment of the site in this period; in the end, the authors decide that the most likely explanation involves ritual avoidance alongside shamanic/ceremonial use. This remains a viable hypothesis, but there is no actual evidence of any ceremonial activity occurring on-site during this period at all. While taking note of Hyder's (1989) excellent approach to modelling rock art and associated archaeology in Santa Barbara County, it would have been useful if the authors had addressed more recent literature detailing work within interior Chumash landscapes undertaken in the last ten years or so, and which has discovered Middle Period occupation at many rock art sites (e.g., Whitley et al. 2006). Could it be that the lack of Middle Period occupation within the cave involves a shift in where ceremonial activities took place? In other words, if ceremonial activity was a primary 'draw' for visiting Swordfish Cave in the Early Period, and the subsistence evidence there was mostly within the context of that 'draw,' then the abandonment of the cave could be explained as occurring due to ceremonialism becoming more important at Middle Period aggregation sites. I don't know how plausible this scenario may or may not be, as more detailed consideration of the Vandenberg archaeological record would be needed, but it is one that should be pursued, considering how land-use patterns occur elsewhere in Chumash-speaking areas in relation to pictograph sites. For instance, a series of studies have indicated that rock art was integral to land-use patterns linked intimately with middens and bedrock mortar sites

(Robinson 2010; Robinson and Sturt 2008; Robinson et al. 2010). Swordfish Cave does have an associated bedrock mortar station, but it appears to be associated with the Late/historical component.

However, the above criticism is minor considering the whole series of important discoveries laid out in this landmark account of the excavation of a Chumash rock art site. The excavation of almost the entire interior of the cave allows for a most comprehensive view of activities occurring through time and within the spatial confines of such a site. The detailed account of the excavations is superb, and the analyses offer rich interpretations of those activities. In particular, the lithic analyses are sophisticated and provide very important inferences which should be drawn to the reader's attention. Importantly, the discoveries open up a slew of as yet unexplored ramifications. I have not even touched upon the gender implications that the recycled bifaces, projectiles, and patterned flake tools have for long-standing assumptions concerning grooved petroglyphs. Nor have I mentioned the fact that the reuse of the site in the historical period bears strong similarities to the occupation of other rock art sites that were possible refuges across the south-central Californian region (Bernard et al. 2014). Issues such as these illustrate the fact that the excellent work performed at Swordfish Cave by Lebow et al. stands as an exemplar of how excavating rock art sites can transform our understandings of that art within spatial and temporal contexts.

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## *Yuki Grammar, with Sketches of Huchnom and Coast Yuki*

Uldis Balodis,

Berkeley: University of California Press, 2016,  
658 pages, ISBN 9780520292192,  
\$95.00 (hardcover).

### **Reviewed by Justin Spence**

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For nearly three-quarters of a century, *University of California Publications in Linguistics (UCPL)* has been one of the premier venues for publishing scholarship related to the indigenous languages of California. Beginning with Alfred L. Kroeber's *Classification of the Yuman Languages* in the inaugural volume in 1943, and especially after the establishment of the Department of Linguistics and the Survey of California Languages at U.C. Berkeley a decade later, dozens of important studies of languages of the region, and indeed the world, have been published under the auspices of *UCPL*. Sadly, U.C. Press has reportedly decided to discontinue this venerable series, no doubt a casualty of the many challenges currently facing the academic publishing world. While scholars of California's indigenous languages and cultures will therefore rightly mourn the end of an era, they can take comfort in the fact that Volume 151, Uldis Balodis' *Yuki Grammar, with Sketches of Huchnom and Coast Yuki*, is an eminently worthy conclusion to the series, embodying many of the best traditions of scholarship represented

in earlier volumes and of Americanist grammatical description more generally.

The overall organization of the volume is familiar and straightforward, making it easy to find information of interest—an important feature of any good reference grammar. Following a useful and engaging introduction, fourteen chapters address Yuki phonology and morphophonemics, the form and function of words belonging to various classes, switch-reference marking, and clause structure. Throughout the volume, Balodis' treatment of Yuki grammar is sophisticated and contemporary. His discussion of stress placement, for example, is tightly argued and grounded in instrumental measurements of the phonetic correlates of stress found in archival recordings of the language. The last two chapters covering grammatical phenomena above the level of the word are especially welcome, since many descriptive grammars of California's languages, written as they were in early or mid-century structuralist frameworks, are virtually silent on these topics. A minor criticism is that the coverage of the grammar is sometimes uneven: a chapter on quantifiers, for example, is a mere three pages long, describing only the three most common lexical items. Even so, the descriptions of major lexical categories are robust and provide genuine insights into the complexities of Yuki grammar.

One of the most remarkable achievements of this work is how much Balodis has managed to accomplish with challenging sources of information. Yuki has not had any fluent first-language speakers for several years now; the last one is believed to have passed away in the early