

THE MONTICELLO DUNE SITE, LA QUINTA

JAMES BROCK AND BRENDA D. SMITH-PATTEN

The Monticello Dune site (CA-RIV-1769) demonstrates the research potential of, and difficulties inherent in, the investigation of cultural deposits in large aeolian sand dunes. The site provides good examples of pre-contact deposits along the ancient Lake Cahuilla shoreline in the La Quinta area of Riverside County—from the Archaic period to Patayan III. The history of research on the site parallels the evolution of investigation techniques for sand-dune sites.

INTRODUCTION

Developers have been eyeing the 75-acre property at the southwest corner of the intersection of Jefferson Street and Fred Waring Drive in La Quinta for a long time. Only within the last year did one company, Century Homes, have the wherewithal to make a project happen. However, the previously proposed (but aborted) development projects have left behind a 22-year legacy of archaeological research on the property, which contained one large aeolian dune at its northern end. While there were three other minor sites on the property, most of the research has focused on a large precontact site, CA-RIV-1769, that covered the dune area. We have named this the Monticello Dune site after the name of the development that is being constructed there. This site was a mesquite-covered aeolian dune ranging in elevation from 40 to 80 feet above mean sea level (12.2 m high). It was right at the shoreline of ancient Lake Cahuilla.

This paper follows-up, in many ways, on one presented three years ago in Sacramento entitled "Digging in Desert Dune Field: Methodological Considerations" (Brock and Smith 2000). In that paper we argued that desert-surface sites in this area will generally evaluate as insignificant due to deflation, collector activities, and a lack of high-quality dateable material. Conversely, we put forward that sand accumulation will occur in the dune environment, particularly in regenerative vegetation contexts (e.g. mesquite dunes). This will result in cultural deposits being sealed and buried through time. These deposits will have good integrity and research value. We concluded that the best way to find these buried sites, short of monitoring, was through systematic backhoe testing. We followed, and continue to follow, the

prime directive: preservation of significant sites. Given the rate of site destruction in the La Quinta area, preservation of some sites for future research is critical. If people keep writing off sites as "just another lakeshore camp site," soon there won't be any left, and the bigger picture will never be known.

The study of these sites is in its infancy. For instance, has anyone been able to differentiate sites based on particular stands of Lake Cahuilla? Only through a proactive approach of locating significant sites prior to development plans being carved in stone, can sites be preserved. Buried sites have to be found early in the planning process, and systematic backhoe testing holds the best promise at present for such discoveries.

PREVIOUS RESEARCH AT CA-RIV-1769

BROWN STUDY—1979

Our property was first studied by M. A. Brown in 1979 for the proposed Desert Palace Project. Brown located five "sites" and four isolates on the property; these were recorded as "loci" of the overall site. One human cremation also was noted, though it is unclear what later became of this. No site numbers were assigned to the resources during this study. Brown concluded that the research value of the sites was extremely high and that the resources on the subject property did meet the criteria set out for nomination to the National Registry of Historic Places, as an archaeological site likely to yield information important to prehistory (Brown 1979:40).

Brown recommended a salvage program, with public interpretation, focusing primarily on the

deposits in the dune at the northern end of the property, later designated RIV-1769. The drawing of the proposed project, presented in the Brown report, certainly takes us back to days of innocent and enthusiastic cultural resources management.

McCARTHY STUDY—1989

With the Desert Palace Project having gone defunct, a new subdivision plan was devised in the late 1980s. In 1989 Daniel McCarthy of UC Riverside's Archaeological Research Unit conducted a reevaluation of the previous work at the study area and defined three archaeological sites on the property, which were assigned official State trinomials: RIV-1769, -3667, and -3668 (McCarthy 1989).

The major site, RIV-1769, combined some of Brown's loci. This site consisted of various deposits of habitation debris in the dune at the northern end of the property. Materials noted on this site comprised pottery scatters, mano and metate fragments, animal bone scatters, charcoal, and possible hearth features. McCarthy noted the potential significance of the sites on the property and stated that further evaluation of significance through test excavation was required. He recommended a combination of hand-excavation units and backhoe testing.

ARKUSH STUDY—1989

In November of 1989, in apparent response to McCarthy's recommendations, UC Riverside's Archaeological Research Unit, under the direction of Brook Arkush, conducted test excavations at RIV-1769 and other, smaller sites (Arkush 1990).

The testing undertaken at RIV-1769 consisted of a surface collection, 11 hand-excavation units, and one surface scrape; none of the units exceeded 80 cm in depth. A considerable amount of material was recovered, including ceramics, debitage, ground stone fragments, a bone awl, a shell bead, and a fairly large assemblage of fish, bird, and small mammal bone. On the basis of the hand units placed in areas of surface artifact concentrations, it was concluded that RIV-1769 was a shallow deposit whose research potential was

exhausted by the test excavation (Arkush 1990). Due to budgetary constraints, the potential for buried deposits at this site was not addressed, despite the recommendations for backhoe testing made earlier that year by McCarthy.

BACKHOE TEST PROGRAM

Like the Desert Palace project, the subdivision project for which UCR did their testing never panned out. In 2000, the Monticello project was put forth. Archaeological Advisory Group was hired to resurvey the property and, at our urging, to conduct a systematic backhoe test. The survey confirmed previous findings. The backhoe test consisted of 31 trenches excavated to a minimum of 2 m.

Although the test program did not yield a large amount of data to support the presence of buried deposits, there were indications that such deposits might be present at RIV-1769 and RIV-3667. Trenches at both of these sites produced small quantities of artifacts and possible ecofacts (at or near the trench bottoms). At RIV-1769 the test excavation produced a low volume of material consisting of three body sherds of Salton Buff pottery, 15 small baked-clay fragments, four fragments of debitage, one possible projectile point fragment, and nine small bone fragments.

It was concluded that, when analyzed in the context of the questions presented in the Research Design, none of the sites on the property had demonstrated meaningful research potential. The study did note that the possibility still existed for buried cultural deposits and that, given the size of the property, 31 backhoe trenches was still a comparatively small sample (Brock 2000).

GRADING MONITORING

Last-ditch-effort research, otherwise known as grading monitoring, took place for the project from April through June of 2001. Most of the 75-acre property revealed nothing. This wasn't the case with RIV-1769. After grubbing, a number of new surface artifacts were found and collected. Prominent among these were a Desert Side-notched point, a baked-clay fragment with a twig impression (arguing for use as daub), and

diagnostic rim sherds representing at least five vessels, all of which were apparently bowls or cooking vessels with direct rims. Perhaps the lack of water-storage vessel rims can be attributed to the nearby presence of the ancient Lake Cahuilla shoreline.

As the grading of the large dune proceeded, six well buried, small, discrete features were located near the top of the dune. These fell evenly into two categories: three features (features 1, 2, and 4) were charcoal-lined pits, and three (3, 5, and 6) were charcoal-filled pits. They varied in depth below ground surface from 1.2 to 3.0 meters. Features 1 and 2 were very similar, adjacent, circular pits with charcoal lining a bowl-shaped depression and sterile sand in the interior. There was a distinct red-brown leach ring outside of the charcoal ring. The charcoal in Feature 1 was all burned twigs. No artifacts came from either Feature 1 or Feature 2. We are hypothesizing that these two features may have been used for cooking in pottery vessels. The forms and diameters of the sherds recovered from the site would be consistent with this interpretation. The charcoal ring at Feature 1 had a 30-cm diameter, while Feature 2 had a 24-cm diameter. Given the depths below surface (1.2 m and 1.5 m), we had hoped these two features might be of some antiquity. To our dismay, but not really to our surprise—given the calibration problems with carbon dating of late sites in the region—the date on Feature 1 came out at 130 ± 50 B.P., with a 2-sigma calibration date range of A.D. 1660 to 1950 (Beta -158250).

Feature 4, the other charcoal-lined pit, was larger and more oval in form, measuring 81 by 71 cm, with a depth of 22 cm. It was at a depth of 2.13 meters and contained thermally-affected rock and a possible mano/pounder in its charcoal matrix. The interior was filled with sterile sand. We don't have an easy interpretation for this feature.

Features 3, 5, and 6 were all oval-shaped, charcoal-filled pits. Features 3 and 6 are interpreted as cooking features. Feature 5 was very well defined, located at a depth of 1.5 meters, and consisting of a dense charcoal deposit measuring 96 by 43 cm, with a thickness of 22 cm. This produced 44 small bone fragments and no artifacts. What we had hoped might be an Archaic-period cooking feature turned out to be a juvenile

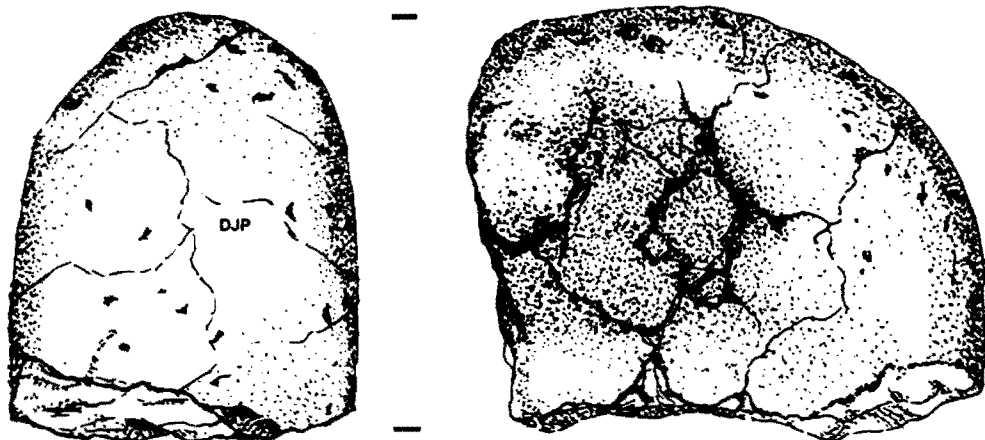
cremation burial, as identified by Dr. Wake at UCLA. We were thrown-off by the very low bone density and lack of calcification. To make matters worse, the Beta Analytic date on the charcoal came out at 60 ± 50 B.P., which is so modern that it is outside the calibration range. We thought we had a very good sample, but sometimes, as we all know, inexplicable results come back from radiocarbon dating.

Also during monitoring on the dune, at a depth of approximately 3 m, a fairly indistinct, thin charcoal lens was encountered. The deposit, termed Lens A, measured 12 by 6 m and was only 5 to 7 cm thick. Two massive, thermally-impacted, bifacial manos (Figure 1) and two metates (one slab and one apparently deep basin), along with thermally-affected rock, were collected from the lens. A 50-x-50-cm control unit, excavated to recover a charcoal sample, also produced one fragment of shell and two quartz fragments. No pottery or vertebrate faunal remains were noted in the deposit. Fortunately we had better luck with the dating of this deposit. The sample came out at 1940 ± 60 B.P., with a very consistent calibration line yielding a 2-sigma calibrated date of 50 B.C. to A.D. 220 (Beta-158252). From this we can conclude that the Monticello Dune site had an earlier, Archaic component buried deeply in the dune. This joins a list of Late Archaic sites in the vicinity that can be counted on one hand. It also makes this the second-oldest site discovered in La Quinta.

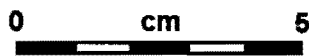
CONCLUSIONS

The various phases of archaeological work on the Monticello property followed fairly standard, up-to-date procedures for the periods when the research was conducted. Ultimately, a reasonable effort was made to identify potentially significant sites on the property—with preservation as a possible objective—prior to the finalization of plans and the start of grading.

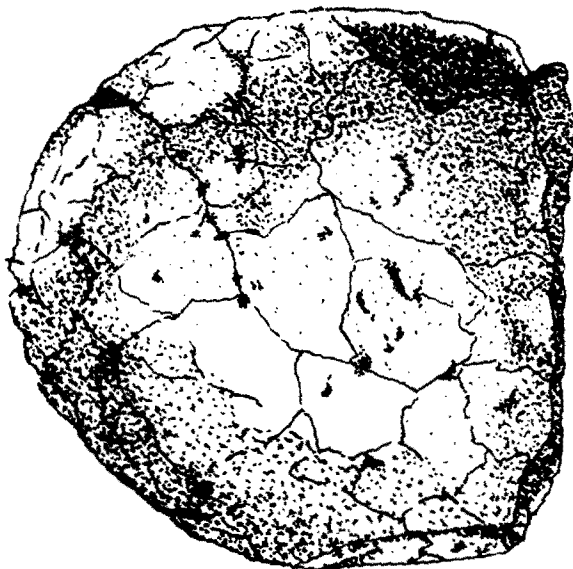
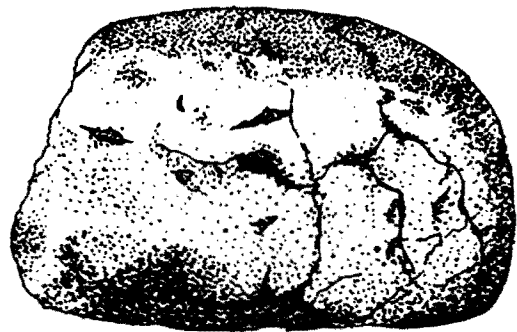
While testing for buried sites by systematic backhoe trenching has been used successfully in the La Quinta area on low dune fields and has resulted in the preservation of at least one major site (RIV-6059), this project shows that large dunes can contain deposits that are too deeply buried and sporadic to allow the successful use of this technique. At present the only reasonable



CA-RIV-1769
Cat. No. 46



DJP



CA-RIV-1769
Cat. No. 45



DJP



Figure 1. Manos from Lens A at CA-RIV-1769.

way to locate deeply buried deposits is through grading monitoring. Sites found in this scenario can be very ancient. Unfortunately, they are often disturbed upon discovery, there is too much pressure to investigate them quickly, and there will be no chance for their preservation.

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