CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

MEMORANDUM
(Confidential)

Date: November 18, 2022
From: Bai "Tom" Tang, M.A., Principal, CRM TECH
To: Luis Gomez, GoUrban Development
Subject: Summary and Update: Cultural Resource Studies on Assessor's Parcel Nos. 604-521-013 and -014, City of La Quinta, Riverside County, California (CRM TECH Contract No. 3939)

Dear Mr. Gomez:

At your request, we have completed a systematic review of and an update to past cultural resources investigations on the property referenced above, which consists of approximately 5.1 acres of vacant land in the northwestern portion of the City of La Quinta. The property is located on the west side of Jefferson Street and to the south of Fred Waring Drive, in the northeast quarter of Section 20, T5S R7E (Figs. 1, 2). The purpose of this study is to provide a synopsis of all cultural resources investigations carried out on the property and provide current recommendations on compliance with the mandates of the California Environmental Quality Act (CEQA) and the City of La Quinta Historic Preservation Ordinance regarding "historical resources," as defined by (CEQA).

As you are aware, the previous studies involving the project area resulted in the identification and recordation of a small portion of a prehistoric—i.e., Native American—archaeological site, 33-001769 (CA-RIV-1769), in the northwestern corner the current project area. Consisting mainly of a human cremation, the site was first identified in 1971, evaluated in 1979, and determined at that time to be eligible for nomination to the National Register of Historic Places (Brown 1979:7, 40). However, several subsequent archaeological studies were unable to relocate much of the cultural materials and features that were initially recorded at the site, and it was reported that local relic-hunters or concerned individuals may have removed artifacts from the site (Apple 1980:11-14; Desautels 1982; Brock and Smith 2000:21-22).

Despite the negative or near-negative findings of these subsequent studies, due to the high sensitivity of the area for buried cultural materials, a 2000 study that included both a Phase I survey and Phase II subsurface testing procedures recommended that archaeological monitoring be carried out during any grading or trenching activities in the project vicinity (Brock and Smith 2000:27). The recommendation was adopted by the City of La Quinta, and a monitoring program was undertaken during earth-moving operations for the Jefferson Square Shopping Center project in 2008-2009, which encompassed the current project area in its entirety (Smallwood 2009).

The monitoring program resulted in the discovery of an isolated pottery sherd and possible human cremation remains (Smallwood 2009:6-7). The sherd was found near the eastern boundary of the current project area, well outside of the boundaries of any previously recorded sites in the vicinity, and was determined not to qualify as a "historical resource" (Smallwood 2009:6, 10). Therefore, it required no further treatment.

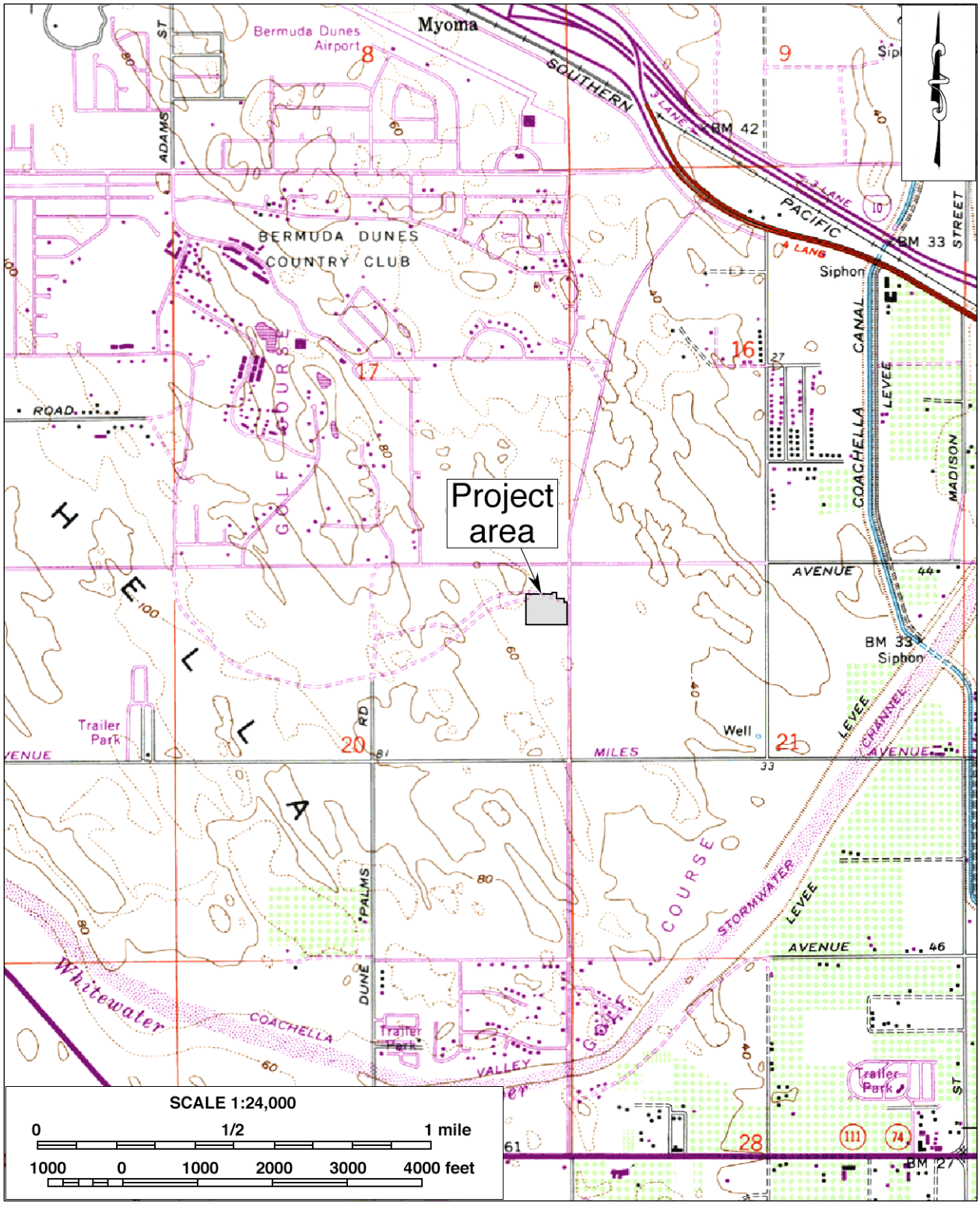


Figure 1. Project area. (Based on USGS La Quinta, Calif., 7.5' quadrangle)

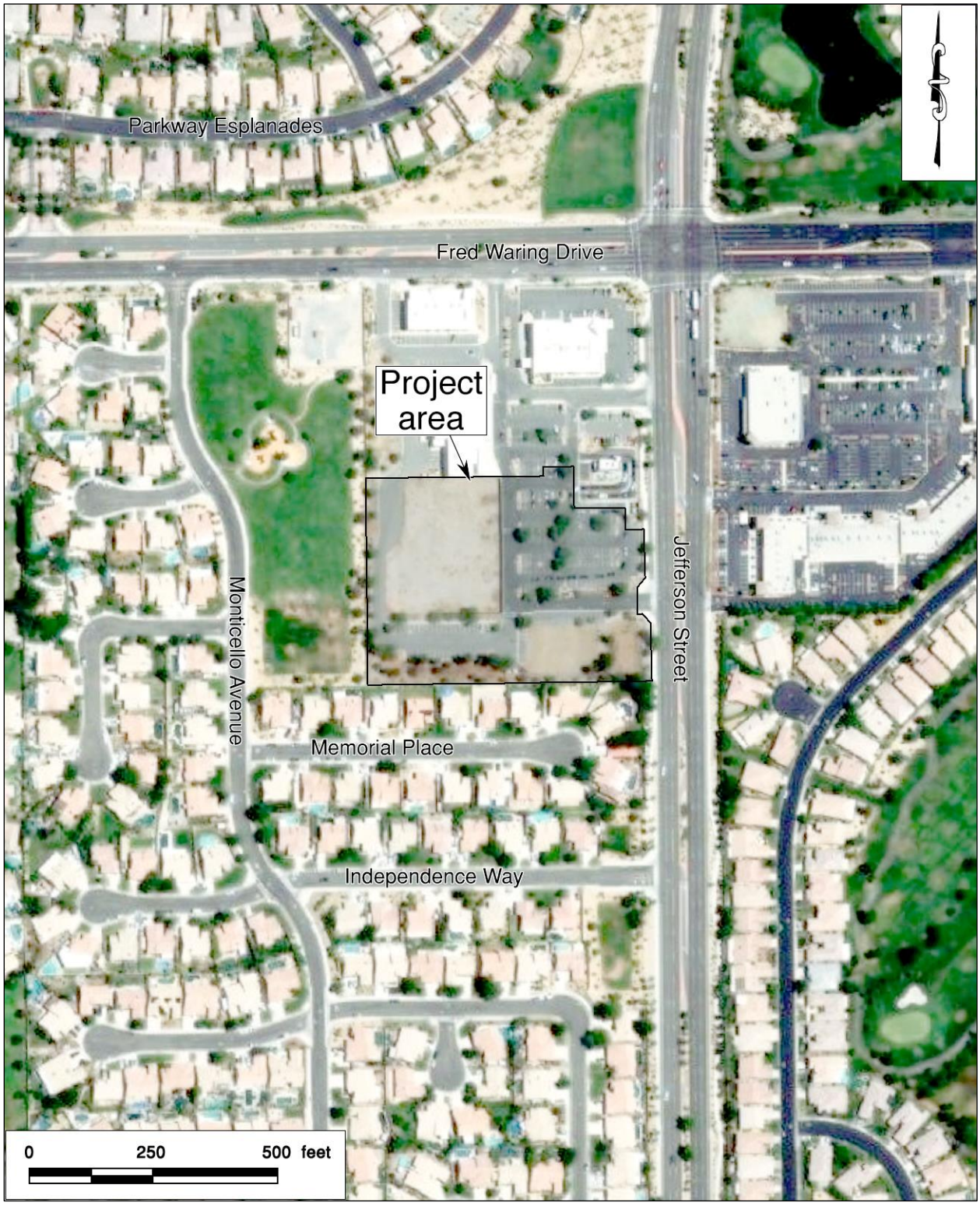


Figure 2. Satellite image of the project area.

Figure 3. Current condition of the project area. (Photographs taken on November 15, 2022)

The cremation remains were originally discovered to the north of the current project area but within the boundaries of Site 33-001769 (Ballester 2008:3; Smallwood 2009:6). In consultation with the nearby Cabazon Band of Mission Indians, the remains were reinterred in the southwestern corner of the current project area at a depth of approximately eight feet below the surface, in an area designated for landscaping at the time (Ballester 2008:3; Smallwood 2009:7).

At the conclusion of the monitoring program, the portion of Site 33-001769 impacted by the Jefferson Square Shopping Center project at the time was determined not to qualify as a "historical resource" due to the lack of further archaeological data potential (Smallwood 2009:9). However, the possible cremation remains were found to constitute a "historical resource" independently of the site because of the unique cultural significance of human remains to the local Native American community (*ibid.*:9-10).

On November 15, 2022, CRM TECH archaeologist Daniel Ballester, M.S., conducted a field inspection of the project area. At that time, no historical/archaeological features or artifact deposits were encountered on the ground surface, which has been extensively disturbed by past grading, excavation, and other development activities. Currently an asphalt-paved parking lot occupies the northeastern and southwestern portions of the project area, with engineered earthen pads making up the rest of the acreage (Figs. 2, 3).

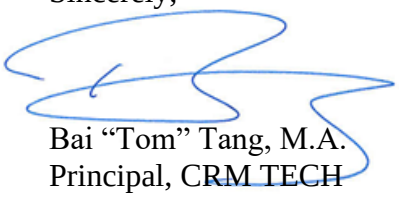
In summary, while no significant cultural resources were previously discovered within the current project area, the possible human cremation remains that were reburied in the southwestern corner of the property meet the statutory/regulatory definition of a "historical resource" and thus require proper protection under CEQA provisions. Therefore, CRM TECH recommend that ground disturbances that may reach the depth of eight feet be avoided at and around that location (see Appendix 2 to Attachment E; further information on the precise location is available from CRM TECH and the Cabazon Band of Mission Indians).

Preferably, the area at and around the location of the reinterred cremation remains in the southwestern corner of the property should be reserved for the least intrusive part of the proposed project, such as landscaping per developments plans formulated in 2008-2009. If disturbances to

that location—and potentially to the depth of eight feet—cannot be avoided, it is recommended that further consultation be carried out with the Cabazon Band of Mission Indians regarding the possibility of moving the cremation remains to a different portion of the project area. Under these conditions, CRM TECH further recommends that the proposed development of the project area may be cleared to proceed in compliance with CEQA provisions on cultural resources.

Thank you for this opportunity to be of service. If you need any further information regarding the findings of this study, please do not hesitate to contact our office.

Sincerely,



Bai "Tom" Tang, M.A.
Principal, CRM TECH

References Cited:

Apple, Steven A.
1980 An Archaeological Assessment of the Bermuda Dunes Property, Tract 13986, Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside. (See Attachment B)

Ballester, Daniel
2008 California Historical Resources Inventory record update, Site 33-001769 (CA-RIV-1769). On file, Eastern Information Center, University of California, Riverside. (See Appendix 2 in Attachment E)

Brock, James, and Brenda D. Smith
2000 Phase I and Phase II Archaeological Assessments for the Proposed Monticello Project, West Side of Jefferson Street between Fred Waring Drive and Miles Avenue, La Quinta, California. On file, Eastern Information Center, University of California, Riverside. (See Attachment D)

Brown, M.A.
1979 Cultural Resource Assessment for the Desert Palace Project, Tentative Tract 13986, near Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside. (See Attachment A)

Desautels, ?
1982 California Historical Resources Inventory record update, Site 33-001769 (CA-RIV-1769). On file, Eastern Information Center, University of California, Riverside. (See Attachment C)

Smallwood, Josh
2009 Archaeological Monitoring Report: Jefferson Square Project, Jefferson Street and Fred Waring Drive, City of La Quinta, Riverside County, California. On file, Eastern Information Center, University of California, Riverside. (See Attachment E)

ATTACHMENT A

1979 SURVEY

RI-0579
1080618

CULTURAL RESOURCE ASSESSMENT for the DESERT PALACE PROJECT, Tentative Tract 13986, near Indio, Riverside County, California

prepared by:
M. A. BROWN, ARCHAEOLOGICAL CONSULTANTS
5437 Central Avenue
Riverside, CA 92504
(714) 688-0460

Prepared for:
Desert Palace, Inc.
Don Young, President
73349 Palm Dreams Parkway
Palm Desert, CA 92260

May, 1979

ABSTRACT

Through the utilization of a required survey of private lands to comply with the California Environmental Quality Act (PRC §21000 et. seq.), the prehistory and history of portions of an 80 acre tract (Tentative Tract 13986), located in the east one half of the northeast one quarter of Section 20, Township 5 South, Range 7 East, near the city of Indio, Riverside County, California, was addressed. The research designs sought to identify the periods of occupation most likely to be represented archaeologically. Based on the occurance of prehistoric sites recorded for the general area of the project, information concerning prior usage of the area from ethnographic and ethnohistoric reports, and the usage during the historic eras, it was suggested that: material of the late Shoshonean and American Developmental periods might occur with some regularity; that materials of the earlier Pinto/Campbell prehistoric period were less likely to occur; and materials from the earlier prehistoric periods and historic periods were not expected to occur. The results of the survey substantiate the prediction of Shoshonean and American Developmental period occupation or usage. No indications of an artifactual nature were found to indicate the usage during the remaining periods. The remains of at least 5 occupation or activity areas were located in addition to numerous isolated artifacts of the Shoshonean period. Evidence of lake exploitation, food preparation, tool manufacture, and a possible house structure were located. The occurance of fragments of fired clay and fire affected rock in close proximity to an artifact concentration and a cremation suggested a scenario for further testing. In addition, the occurance of artifactual material at or just above

what appears to be Holocene or Pliestocene lake silt deposits suggested the possibility that artifactural material may exist at the lower levels of a large active dune.

Finally, the American Developmental Era was found represented by surface modifications resulting ~~in~~ from the recreational use of off-road vehicles and by modern beverage containers that had been discarded within the past several years.

MANAGEMENT SUMMARY

In response to a request for additional information in connection with a proposed Tentative Tract, an archaeological survey of approximately 80 acres of private lands was undertaken by the firm of M. A. BROWN, ARCHAEOLOGICAL CONSULTANTS. The archaeological survey was accomplished utilizing two team members visually examining all surfaces except where vegetation obscured vision. The standard 80% visual coverage was achieved. The survey technique did not provide for the discovery of isolated artifacts but did insure discovery of areas of concentration of artifacts.

The field survey located four instances of isolated finds and five areas of artifact concentrations. Of these five, three are thought to be associated use areas. The fourth and fifth are thought to be lakeshore exploitation campsites. One of the areas of patterned activity represents the remains of a human cremation with associated artifacts.

In the opinion of the consultant, these five areas or sites meet the criteria for nomination to the National Register due to the existance of data which would be important to the prehistory of the Coachella Valley.

A program of salvage testing is suggested as the most feasible method for preservation of the data contained in the sites. A program of total recovery of the cremation and reburial is suggested with concurrance by the Native American Community.

A total of four artifacts were collected for analysis purposes, including three projectile points (two of which were isolated finds) and a shell bead found in association with the cremation. With the exception of the bead, these materials will be donated to Malki

in trust for the appropriate Native American group, pending their demonstration of adequate storage and display facilities. The shell bead is to be returned to the cremation remains following analysis.

It is the opinion of the consultant that the project, if redesigned to include the suggested mitigation measures, would meet the requirements of a California Environmental Quality Act Negative Declaration. A possible budget for the salvage program is attached as Appendix II.

The Native American Community was approached and concurred in the recommended salvage program in addition to approving the removal and reburial of the cremation. The notes from that consultation are appended as Appendix I.

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INTRODUCTION

In response to a request for additional archaeological information in connection with the proposed development of 80± acres by the sponsor, Mr. Don Young, and his associates, an archaeological survey of private lands was undertaken by M. A. BROWN, ARCHAEOLOGICAL CONSULTANTS.

This report is being prepared to conform to professional requirements for a scientific research document, as specified in The Airlie House Report (McGimsey & Davis, 1977) and by Riverside County Planning Department Archaeological Assessment Report Format, received March 3, 1978 by the consultant.

In addition to the report copies supplied to the County (2) and to the sponsor (4), the following distribution will be made: one copy to the California Archaeological Site Survey Regional Office located at the University of California, Riverside; One copy to the Society for California Archaeology Riverside Area Clearinghouse; One copy to the California Native American Heritage Commission, Commissioner Jane K. Penn; and one copy to the Cabazon Band Tribal Office to the attention of Alfred Alvarez, Vice Chairman.

The sponsor's purpose in requesting the survey was to locate any and all surface indications of cultural resource material to allow for evaluation of expected impacts to resources from the proposed land use changes to allow for effective planning to lessen (mitigate) those impacts and to comply with the California Environmental Quality Act (CEQA) requirements.

The obligations of the archaeological consultants begin with the sponsor's purposes, but expand to include the assumption that

all archaeological contract work performed must be oriented toward conservation of the non-renewable resource, must increase the basic store of archaeological knowledge, must advance the archaeological research attempts of the scientific community, and must provide where possible the technical knowledge needed to develop the necessary techniques for retrieval of an otherwise lost resource, in addition to considering those values present that may be of significance for ethnic, educational or aesthetic reasons.

The property is located approximately three and one half miles west of the City of Indio, Riverside County, California. The property lies generally south of I-10 and north of state Highway 111, being south of Avenue 44, west of Jefferson Avenue, and north of Miles Avenue, and is a regular shaped parcel of 80± acres being the east 1/2 of the NE 1/4 of Section 20, Township 5 South, Range 7 East, San Bernardino Baseline and Meridian, and is contained wholly on the La Quinta, California Quadrangle, 7.5 minute series, U.S.G.S. photorevised 1972 topographic map. (See Figure 1)

The specific project, Tentative Tract No. 13986, is a proposal to subdivide the property into 187 building lots with accompanying grading, access road construction and utilities installation being assumed. The proposed land use impact to the possible resource is higher than that expected by the simple development into rural residential lots of 5 or 10 acre size, and less than would be expected from the development of the land use for utility siting or flood control or water storage. Major portions of the property will be graded but only to the depth of the surrounding access roads, and to the depth necessary for utility delivery systems.

OF CALIFORNIA
OF WATER RESOURCES

LA QUINTA QUADRANGLE
CALIFORNIA-RIVERSIDE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

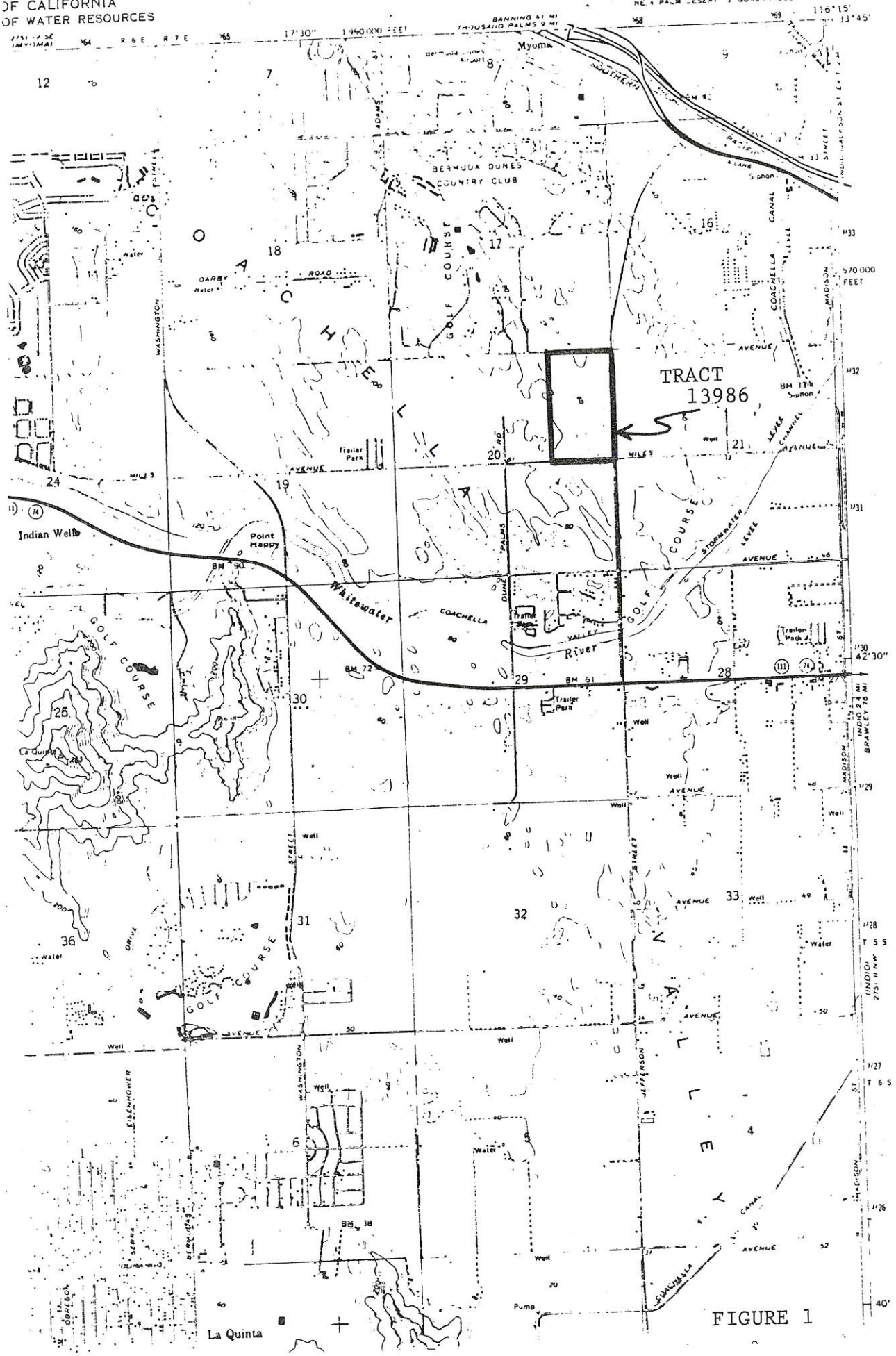

FIGURE 1

The property is now unoccupied and in a more or less natural state with the exception of several off-road vehicle trail crossings. The terrain ranges from low (+36') "sink" areas of interior drainage to steep, active, sand dunes, and contains no identified water courses of either seasonal or constant nature. Adjacent property land uses are identical to the parcel except to the northwest where several home sites have been developed.

The project cultural resources evaluation began with a records search and consideration of available literature concerning the resources of the area, from which was drawn a research design. The field team was aquainted with the design prior to the commencement of field work. Essentially, this design investigates the environmental locations of sites and the inferred land use during the past 10,000 years in the Coachella Valley. The amount of work done in this portion of Riverside County is regrettably small and, except for one notable instance, has not always been done with sufficient documentation to allow for reconstruction of past lifeways. Consequently, further research is required to increase our knowledge and understanding of prehistoric and historic cultures in this area.

The survey team located and evaluated all cultural resources for the purpose of the assessment document and the future planning needs of the sponsor. In addition, the team attempted to assign all resource material of a diagnostic nature to prehistoric or historic periods of occupation. All archaeological resources were recorded when discovered unless part of a greater concentration which would necessitate evaluation at a later phase of development or investigation. In a few cases artifacts of a diagnostic nature

were collected for purposes of identification by specialists. The survey was accomplished utilizing two persons, both of whom have considerable prior archaeological field experience, traversing, on foot in a series of systematic transects, the entire area of the subject property. Ground visibility was extremely good owing to the creasote scrub vegetation. The team expended a total of 24 hours in the actual survey of the property. One member of the survey team, Mr. William Pink, also served as the Native American liaison for the project. Mr. Alfred Alvarez, Vice Chairman of the Cabazon Band consulted with the team in the field concerning acceptable mitigation measure suggestions following the actual survey. Mr. Alvarez' comments are attached as Appendix I.

EFFECTIVE ENVIRONMENT

The subject parcel is located on the margins of the ancient Lake Cahuilla (+42' contour). The predominant soil types are of wind blown Myoma Fine Sand and lake bed deposition. This bedding appears to be fine sand mixed with extremely fine grained silt.

Vegetation is of the creasote scrub variety. Predominant in this area, as one would expect, is creasote. Observed on the subject property were also: dye weed; Indigo bush; pickleweed; and mesquite. Although this is by no means an exhaustive list of the plants occurring on the property, these are some of the native plants utilized by aboriginal and early anglo inhabitants of the area. Also observed, painfully at times, was the introduced European Russian thistle.

The climate of the Salton Basin and the project area is characterized by low relative humidity, low rainfall, high summer temperatures and mild winters with occasional frosts. Just east of the project area in Indio, precipitation averages 3.2 inches annually. The majority of this precipitation falls during the winter months, with the minority, of approximately 1 inch, falling in conjunction with tropical thunderstorm fronts in late summer.

Due in part to the sandy nature of the soil of the valley, and in part to the aridity, surface running water is scarse in the valley. What moisture falls in the nearby mountains reaches the floor of the valley and is quickly evaporated or, more commonly, seeps into the loose detrital material at the foot of the mountains to enter the valley water table. Prior to the advent of large scale extraction for agriculture, the table in the valley was high enough to allow excavation of 20-30'deep walk-in wells.

SUMMARY OF CURRENT KNOWLEDGE

On the basis of archaeological research in southern California, four major prehistoric complexes or periods have been proposed for the past 10,000 years of habitation: the San Dieguito (8,000 - 5,500 B. C.); the Encinitas (5,500 - 3,500 B.C.); the Campbell or Pinto (3,500 B.C. - A.D. 1000); and the Shoshonean (A.D. 1000 - 1769). (J. Oxendine 1978)

The current knowledge concerning this specific area archaeologically is minimal. A records check of known and recorded sites was performed at the Regional Office of the California Archaeological Site Survey (CASS). Essentially, the records check determined that the project parcel was within the area recorded originally in 1951 by Dr. Hal Eberhart. He noted that "(m)ost of Indio (has been) built of (the) site", and that the site has been "(m)ostly destroyed, in all probability". Also "(m)ore than one site may be represented in this area although, according to Post (C. C. Post, Untitled MS) identical material is found throughout". (Figure 2)

In recent weeks, since the original records check, the inclusion of information gathered in 1971 by Steven McWilliams and reported in a student paper (Miscellaneous Manuscript #1016) has been entered on the CASS maps. This information indicates that the subject property contains a portion of a site (McWilliam's Site 4A). This site has not yet been given a numerical number in the state system, however, one site concentration (Site 4) is recorded as CA-RIV-1638. McWilliams states in his report that he feels Site 4A to be an extension of Site 4, located approximately one half mile to the north of the project property and McWilliam's Site 4A. (Figure 2)

F CALIFORNIA
F WATER RESOURCES

LA QUINTA QUADRANGLE
CALIFORNIA–RIVERSIDE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 PALM DESERT 15' QUADRANGLE

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(LOST HORSE MTN.)
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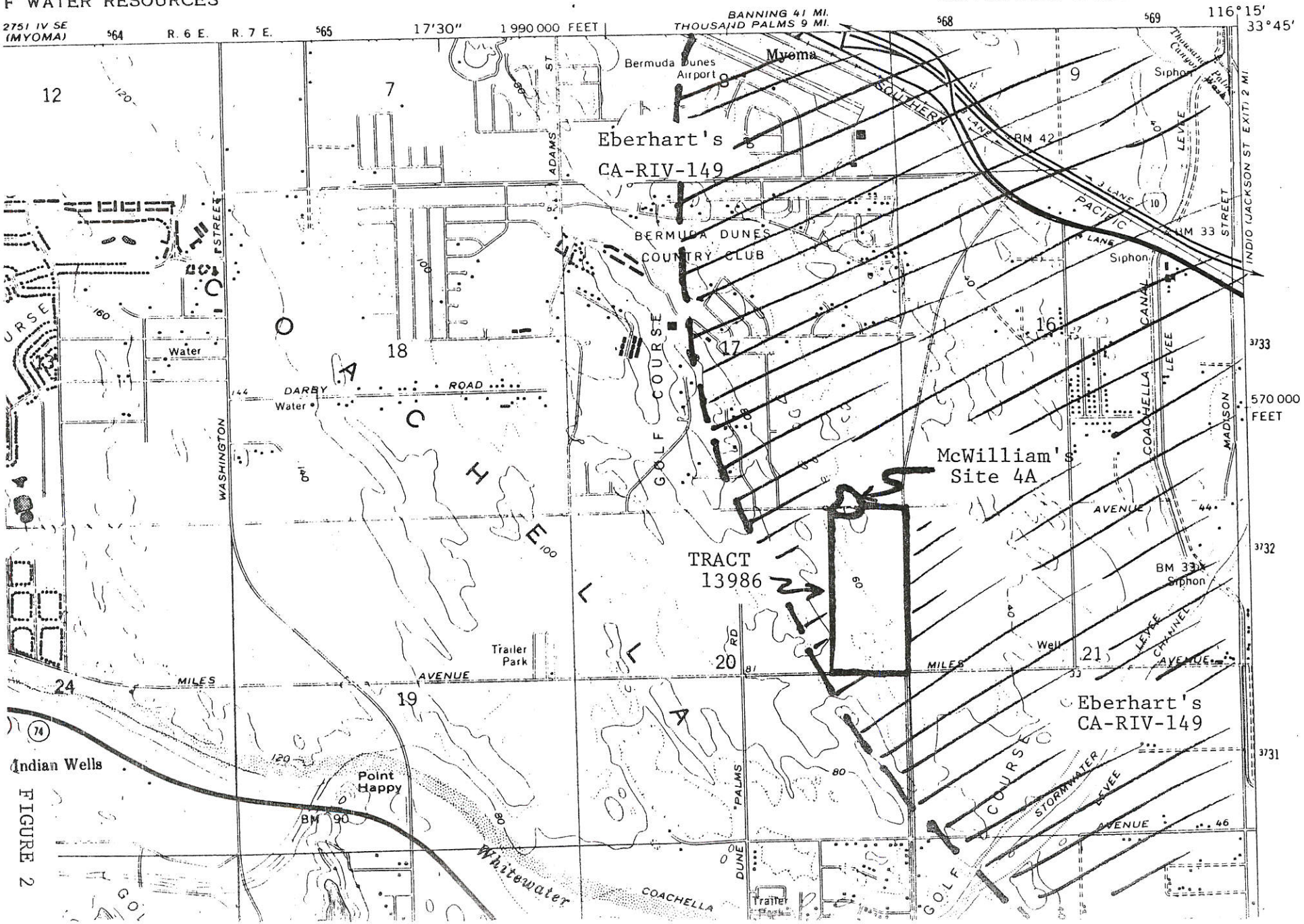

FIGURE 2

REPORTED ARCHAEOLOGICAL SITES

Both Eberhart and McWilliams note the existance of a lakeshore within the vicinity of the sites reported. This lake, referred to variously as Lake LeConte, the Blake Sea, and Lake Cahuilla, is generally accepted to be a freshwater lake formed by deltaic fluctuations of the Colorado River at various times throughout geologic history. The last high stands of the lake are dated at 900 A.D. thru A.D. 1500, when changes in the lower delta caused the river to again flow directly into the Gulf of California. The last high stand is recorded as having reached a maximum surface elevation of +42'. A remnant of a much lower stand of water in the Salton Sink, resulting from the accidental change in the river flow, is the present Salton Sea.

By far the most exhaustive work on the cultural history of the Coachella Valley has been performed by Dr. Philip J. Wilke, of the University of California, Riverside, in his doctoral dissertation. (Wilke, 1976) This extensive investigation of the valley, including the general area of the subject property, drew primarily from oral traditions of the Native Americans and early Anglo accounts of the history of the valley for the basic research questions. Wilke's investigations centered around the subsistance pattern of late prehistoric peoples and the response of those people to the deterioration of their environment resulting from the recession of the freshwater lake.

Wilke states:

> Prehistoric human lifeway in the desert regions of southeastern California has long been a neglected area of study. Those who have speculated upon it have generally concluded that with the drying of pluvial lakes and the onset

> of arid conditions in the early Holocene the desert assumed its characteristic low biomass, and the human populations that frequented the ancient water courses and lakeshores dispersed;

and,

> Unlike that of the Mojave, the natural environment of much of the Colorado Desert has undergone marked change throughout the Holocene. This has resulted not from climatic changes, but rather as a consequence of the successive stands of Lake Cahuilla.... Because of this marked change in the character of the natural environment, historic patterns of Cahuilla and Kamia Indian (Colorado Desert inhabitants) adaptation... are of limited value as analogs for a reconstruction of prehistoric cultural adaptations in the Colorado Desert during periods when the lake existed.

The reports dealing with local surveys and test excavations obtained through the CASS Regional Office indicate that only the latest occupation period, the Shoshonean, is represented in the valley with any degree of regularity.

SUMMARY OF CURRENT KNOWLEDGE - HISTORIC

What follows is a summary of knowledge taken from various sources and presented here as a skelectal outline of the Valley history. From this outline, the development of a regional framework for future anthropological research could be developed.

....

....

The Coachella Valley, long the home of the Cahuilla Indian, entered the Historic age in the early 1800's. By this time, the earlier historic period of the Explorer (1500 - 1769) had virtually passed the Valley by. With the advent of the Colonial Spanish/ Mission period, the Valley was being discovered. By 1815, the Mission at San Gabriel obtained salt from the Salton Sink. In 1823, with the attempted expedition from San Bernardino to Tucson by Romero, which failed due to a lack of water and feed one day's travel from the Colorado River, we have written accounts of happenings in the Valley. During the Romero Expedition, Lt. Estudillo recorded the growing of crops by the inhabitants of the Valley. These crops included corn, pumpkins, melons, and watermelon. (Wilke 1976) "The Cahuilla of (the) Coachella Valley were clearly involved to a considerable extent in agricultural pursuits in early historic time and apparently were so in the late prehistoric period as well. There were also extensive irrigation facilities at Tahquitz Canyon at present Palm Springs and down the Valley at Agua Dulce. (Wilke 1976) In 1850, O. M. Wozencraft, of Louisiana, was appointed as one of three Indian Agents for California. Their task was to "settle" the disputes arising from Indian/Anglo confrontations over the land. In 1852, the representatives of the Cahuilla Indians of the Valley joined with others to sign the Treaty drawn up by Wozencraft. Although little research has been done on the results of the signing, according to Phillips (1975) the hostilities and unrest of earlier periods did not cease with the signing. Of course, it is only hindsight that suggests that perhaps things would have been different if the Congress of the U.S. had ratified the Treaty of Temecula.

In 1853, while surveying for the Transcontinental Railroad under the direction of Williamson, Blake recorded the agricultural aspects of Indian subsistance and the past existance of the ancient lake, Lake Cahuilla. 1853 also saw Colonel Henry Washington create a wagon road through the valley. Two years later, in 1855-56, the Valley again was host to surveyors, this time from the U. S. Government Land Office, who recorded the locations of Cahuilla settlements, wells, and agricultural fields in the Valley. In 1859, Dr. O. M. Wozencraft, the Indian Agent responsible for the unratified Treaty of Temecula, was granted sixteen hundred square miles of the Salton Sink by the California legislature contingent upon getting Federal approval to divert waters from the Colorado River for irrigation. Wozencraft was unsuccessful in getting the Federal approval, however. By 1862, Gold had been discovered and the rush was on. The Bradshaw Trail road was constructed to assist the migration of prospectors. By 1876, the Railroad had reached Indio, which became a division point, and a report by Wheeler and Bergland considering the feasibility "of diverting the waters of the Colorado River of the West for purposes of irrigation". This was the same year in which the U. S. Congress enacted the Mission Indian Act which set up permanent reservations for the Cahuilla Indians of the Valley. The Cabazon Band of Mission Indians was granted the reservation lands near Indio, which today comprise 1461.53 acres.

The advent of the railroad in the Valley led to a huge increase in Anglo population in an area that until now had seen only small survey parties and traveler parties and the few people necessary to maintain the stage route stops. With the railroad came the road crews, depots, sidings, housing for crews and wells for the

steam engines. By 1877, the railroad bridge crossing the Colorado River at Yuma was completed. In 1880, W. E. Van Slyke and M. Byrne bought an Indian ranch near Palm Springs, becoming the first permanent white residents of the Valley. In 1885, A. G. Tingman, the station agent at Indio, resigned to open a provisioning place in Indio. This was the year the Valley was opened for homesteading and Patrick H. Gale took up land in Section 23, near the present Jackson Street overpass in Indio. Tingman later, in 1888 founded the Indio post office in his store, and in 1891 purchased and in 1894 laid out the original Indio townsite. Subsequent development of the land around Indio was hampered by the lack of sufficient water to irrigate. In 1894, a rotary rig was used to drill for water in Mecca. This rig was much more efficient and was later used to drill many of the argicultural wells in the area. The ensuing development of agriculture was still held in check by the amount of water available in the watertable for pumping. It was not until 1948 that the first water flowed through the Coachella Valley branch of the All American Canal.

With the delivery of a permanent source of water, the Valley saw a tremendous boom in population. Combined with techniques for artificial cooling, and abundant water, the development of winter resorts was on the way. These resorts, and vacation residential developments have increased the growth rate of the Valley in astronomical measure. The associated service and supply businesses have also contributed to the year-round population growth in the Valley.

RESEARCH DESIGN - PREHISTORIC

This survey will serve to increase knowledge of previously minimally addressed land usage in the Coachella Valley. On the basis of archaeological research in southern California, four major prehistoric complexes or periods have been proposed for the past 10,000 years: the San Dieguito (8,000 - 5,500 B.C.); the Encinitas (5,500 - 3,500 B.C.); the Campbell or Pinto (3,500 B.C. - A.D. 1000); and the Shoshonean (A.D. 1000 - 1769). These periods have been generated from a synthesis of data and have been tentatively offered as a scheme for all of southern California. Local research indicates that occupation during one of these periods has occurred; however, the remaining three major periods have not been located locally.

Sites belonging to each complex or period are recognized through variations in artifact assemblages and by environmental differentiations. Artifacts diagnostic of the San Dieguito include leaf-shaped knives, small leaf-shaped points, stemmed and shouldered points, crescents, engraving tools, ovoid large domed scrapers, and rectangular end and side scrapers. In the desert, the sites of this period occur around pluvial lakes, suggesting that the San Dieguito sites may occur in the Coachella Valley.

Artifacts associated with the Encinitas Complex include manos, metates, cogstones, discoidals, stone balls, crescents, large crude scraper planes, scrapers and choppers of various forms, core scrapers, leaf-shaped blades, cobble hammers, engraved pebbles, and shell beads. These sites are generally located on knolls above bodies of water or areas where bodies of water formerly existed. As with the earlier San Dieguito sites, no Encinitas sites have

been located in the Coachella Valley; however, the environmental conditions would seem to indicate the possibility of their occurrance.

Artifacts of the Campbell or Pinto period include manos, metates, core tools, side-notched, contracting stemmed, lozenge and foliate points, knives, incised stone objects, hammerstones, and scraper planes. In addition, mortars and pestles may have been implemented during this period. The Campbell tradition is not well understood, but it does appear that the occurrence coincides with the locational occurrance of later Shoshonean sites. Village sites are usually located between water courses, at the mouths of canyons, and at springs. Because of the nearness of the later Shoshonean period sites, as well as the possibility of the occurance of standing fresh water, there is a higher probability of this period being represented on the subject property.

The Shoshonean artifact assemblages include a wide range of flaked stone tools, and such tools as mortars, pestles, manos, metates, Desert Side Notched and Cottonwood Triangular points, pottery, and shell beads. Shoshonean period villages are usually found to have temporary camps nearby, which in turn are surrounded by food processing camps or stations.

Sites of the Shoshonean period have been identified for the Coachella Valley area, and locational data would indicate a high probability of occurrance on the subject property. In addition, because of the nearness of some of those occurrances, (within 1 mile to the north on portions of the Bermuda Dunes development) we would also expect to see isolated finds and/or subsidiary temporary camps and food processing stations.

RESEARCH DESIGN - HISTORIC

(After T. F. King, 1974)

Traditionally, historical archaeology in the United States has stressed particular reconstructions of the scenes of spectacular events or activities (eg. Colonial Williamsburg, Sutters Fort), documentation and correction of written accounts, or the detailed resurrection of extinct lifeways for their own sake. At a glance, at least, it appears unlikely that the Coachella Valley has a great deal to offer for this kind of archaeology. Historical archaeology can also be looked at more anthropologically, however, as one means of looking at change in human social and economic systems. Significant sites for this kind of historical archaeology might well occur in the Coachella Valley. The long history of Indian-White contact in the area suggests the potential for studying acculturation - the processes of change within two or more cultures in contact. It should also be possible to study the effects of the growth and ramification of the changing patterns of land-use, population distribution, and ethnic composition, and the effects of 20th century population growth and the advent of irrigation agriculture and refrigeration upon the social structure of the Valley. The potential significance of an historic site can be judged by considering its possible pertinence to such questions. Again, this consideration is made difficult by the lack of a good regional framework within which to compare one site against another.

The survey in the Coachella Valley will serve to document the past land use patterns of this portion of Riverside County during the historic periods, which, in turn, will provide a basis for more in depth anthropological research.

Although it is reasonable to expect that the population of this area was impacted by the Explorer period (A.D. 1500 - 1769), because of the small amount of time and the small amount of land modification usually undertaken by the explorer parties, few indications of this period are expected to be represented in an archaeological context. This historic period is often included in the termination phase of the Shoshonean prehistoric period.

The Colonial Spanish-Mission period (1769 - 1830) might be expected to be represented by the occurrance of metal implements, mission pottery, trade beads, etc., in addition to the artifact assemblages of the Shoshonean prehistoric period. Mexican Ranch/Landless Indian occupation and land usage is not expected to be represented in the archaeological record unless the immediate activity location is involved. This rancho era was predominantly one of cattle raising and processing, with large areas utilized in a manner which did not modify the ground surface to any significant extent, and which has not been reported to have extended into the Coachella Valley except in a secondary way through trade or isolated ventures by individuals which have gone unrecorded. The final period, the American Developmental/Reservation era, contains a wide diversity of poly-ethnic cultures and is therefore the least documented and is, conversely, the most necessary to understand due to its wide-spread impact upon the land. Due to the categorization of the subject land as "vacant" we would expect to find abandoned material from earlier phases of this period, and surface modification of the land resulting from the use of off-road vehicles and other recreational uses.

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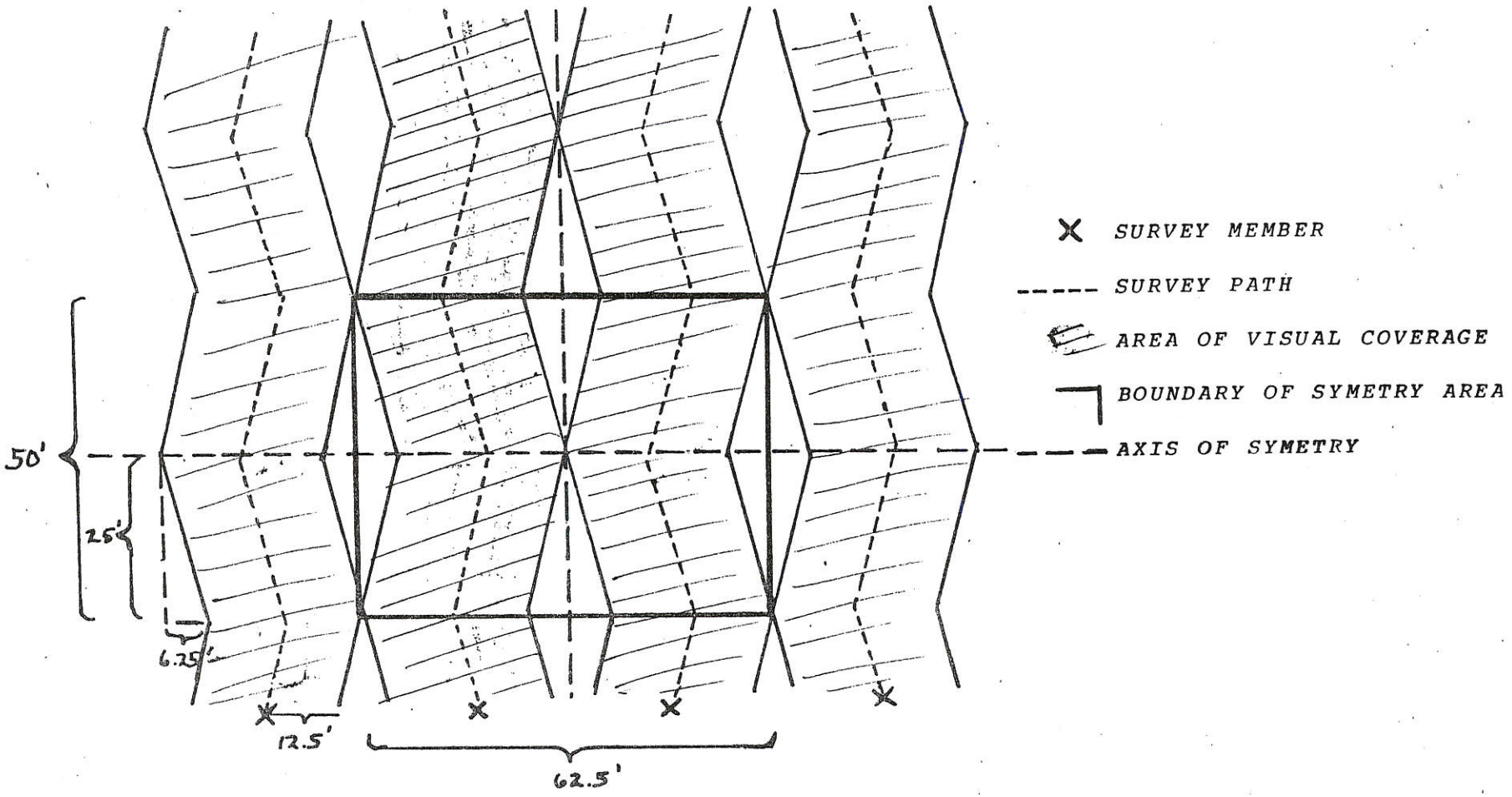
Should any historic materials be found on the subject property, the data base will be greatly enlarged. By the same token, should no material be located for these periods, the data base will grow as well. (This is known as negative evidence, scientifically, and is of significance to the researcher as well as to the advanced planning divisions of local government.)

METHOD OF DATA COLLECTION AND ANALYSIS

The survey of the subject parcel was accomplished utilizing two team members, both of whom have had extensive field experience. The team walked a survey line at approximate 50 foot intervals, and visually examined all ground surfaces except where obscured by occasional vegetation. This sampling method was not designed to locate isolated material. A schematic of the survey transects is shown as Figure 3. Visual coverage is estimated at better than 95% and the total area surveyed at 80%.

The locations of individual artifacts and artifact concentrations discovered were plotted on the tentative tract map provided by Mr. Young and prepared by Wallach & Associates. These locations were later transfered to an orthographic map of the parcel and the locations of the major concentrations were verified by Mr. Fitch, of Wallach & Associates, utilizing a transit and chaining distances. A portion of that orthographic map is included as Figure 4. Artifacts were sketched when diagnostic, and in a few instances collected for further examination. The sketches show the morphology of the tools, and, if they exist, flake scars left by the manufacture of the tools. Tentative inferences were made by the team and are presented in this report, however, consultation with specialists in the appropriate areas should be undertaken for substantiation.

As stated previously, diagnostic artifacts were collected for further study. It is the intent of this consultant that all materials, which belong to the owner of the property, be deposited with Malki Museum, in trust for Cabazon Band or other suitable Native American group, pending their demonstration of adequate storage and display facilities with the exception of one artifact,



TOTAL AREA OF SYMETRY 50' X 62.5' = 3,125 sq. ft.

AREA OF AN UNSURVEYED TRIANGLE .5 X 6.25' X 25' = 78.125 sq. ft.

TOTAL UNSURVEYED AREA WITHIN SYMETRICAL AREA 78.125 sq. ft. X 8 = 625 sq. ft.

TOTAL SURVEYED AREA (AREA OF SYMETRY - UNSURVEYED AREA)/ AREA OF SYMETRY (or)

(3,125 sq. ft. - 625 sq. ft.)/ 3,125 sq. ft. = 8/10 (or) 80 %

FIGURE # 3

THEORETICAL OPEN AREA SURVEY DIAGRAM

a shell bead, collected by the Native American team member to assist in dating the cremation with which it is presumed to be associated. This artifact will, upon recordation and study, be returned to the cremation remains.

RESULTS OF SURVEY

Archaeological survey finds take two distinctive styles. The first, and primary goal of the science, is the concentrated material remains of cultural activity. These sites may be economic, aesthetic, or occupational remains. They are indicative of a patterned usage of the land. This is the meat of archaeology. The scientist analizes the distribution of material and its relationship to the associated materials to determine the usage represented and the subtle as well as the obvious patterns of culture.

The second style of find is the "isolated artifact". This small find has no discernable association to a patterned activity that can be addressed with certainty. Only when the isolated material is scattered over a wide area but no concentrations of the first type are found can the "isolated artifact" assist the archaeologist. At this point the archaeologist can say the area was used, evidenced by the isolates, however, the intensity of that use and the pattern of the use cannot be identified accurately. Using the meal analogy, the isolated artifact is the aroma wafting from the kitchen window. It makes everyone hungry but does not add caloric units. It does however tell the individual considering it that the meal will feature beef and is approaching the serving stage of preparation.

The following presentation is arranged and identified by the assigned temporary designations and are reflected on the orthographic map, Figure 5. Those concentrations or "sites" will be recorded at the California Archaeological Site Survey Regional Office and will receive Smithsonian system numbers. The isolated finds will also be recorded for future research purposes but no numbers will

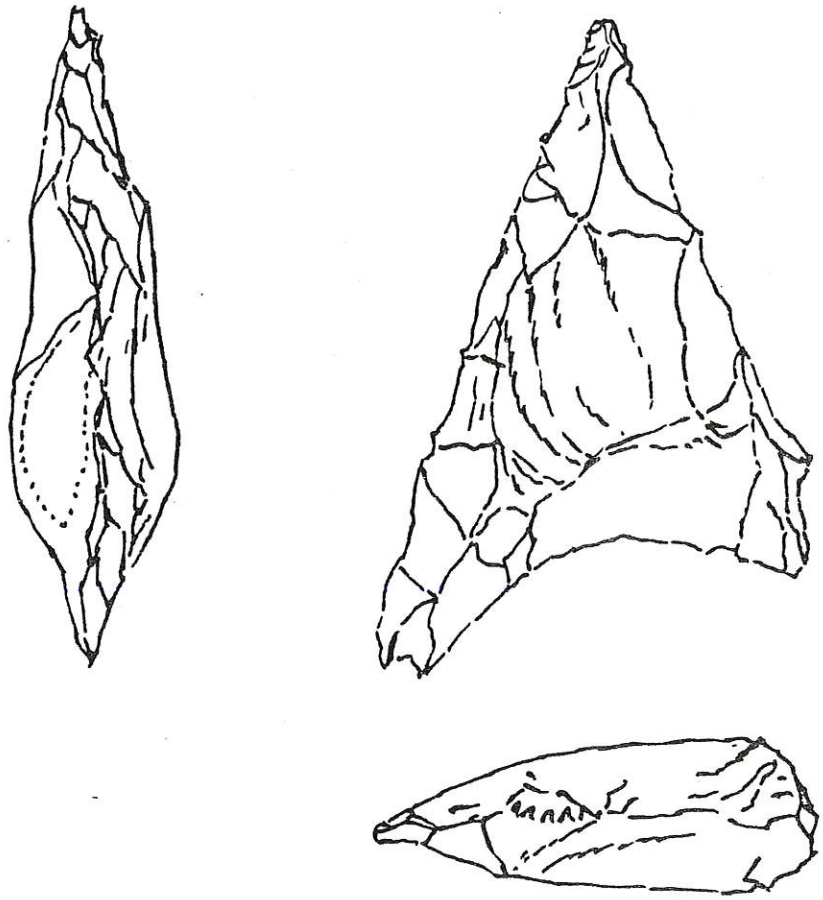
be assigned other than the accession number of the final institution.

Tract 13986 #1 An isolated find. Five (5) pottery sherds (or fragments) that appear to be from the same vessel. This material also appears to have been deposited in the present location in response to the deflation of the surrounding dune. The pottery is thought to be an example of the common type of pottery found in the Coachella Valley, however, the team members are not well versed in pottery typology. Consequently, the sherds from area #1 should be collected and evaluated (typed) by a specialist.

Tract 13986 #2 An isolated find. One pottery sherd. Location flagged for collection purposes. Collect and type.

Tract 13986 #3 An isolated find. A projectile point of black basalt. This item was photographed in situ (in place) and collected for evaluation by specialists. Initially, the team attributes this point to the Cottonwood Triangular series indicating usage of the property during the Shoshonean period. The isolated finds of pottery also date from this period. (See sketch Figure 5)

Tract 13986 #4 A site. Four (4) pottery sherds on the subject property. Investigation of the area surrounding these items disclosed the existance of a light scatter of material on the continuation of the lower levels of the dune across Avenue 44, to the north and east. This concentration included: Chert flaking waste material; a small chert core; pottery sherds; two manos (or handstones - used for grinding); bone fragments, including at least one aviarian specimen; and numerous modern trash deposits. Location #4 appears to be an area of habitation utilized during the late Shoshonean period. Because of its location in close



Actual Size

SKETCH OF ISOLATED PROJECTILE POINT

Tract 13986 #3

Basalt, tentatively identified as a Cottonwood Triangular with a concave base, of the Shoshonean period.

FIGURE 5

proximity to the shoreline of the last high stand of Lake Cahuilla, it may represent an occupation of short duration during exploitation of the marsh areas of the lake. No fish bone was observed, however, these fairly fragile materials may have deteriorated through weathering.

Tract 13986 #5 A site. Pottery sherds, sparse flaked chert, a projectile point of quartz with a portion of the base missing (Figure 6), and numerous fragments of bone (some burned) were located. In addition, the material was discovered to be resting on what appeared to be bedded silt of the type usually associated with standing bodies of water. A check of the topographic map for the area indicated that this bedding was above the last high stand elevation of Lake Cahuilla, generally reported as being +42. The range of error on topographic maps is wide enough to accept this find. Therefore, site #5 may be a late Shoshonean habitation area occurring after the recession of the lake. The team initially identified the projectile point as an example of the Desert Side-notched series which is generally attributed to the late Shoshonean period.

Tract 13986 #6 A point of interest. This area contains readily available mesquite root suitable for construction of such aboriginal items as cradle boards. The Native American team member collected one such specimen for experimental facsimile work. It should be noted that this resource would have been of interest to former residents of the area as well. It also documents the existance of mesquite in the area for an extended period of time and may have been the resource being exploited by inhabitants of sites #4 and #5.

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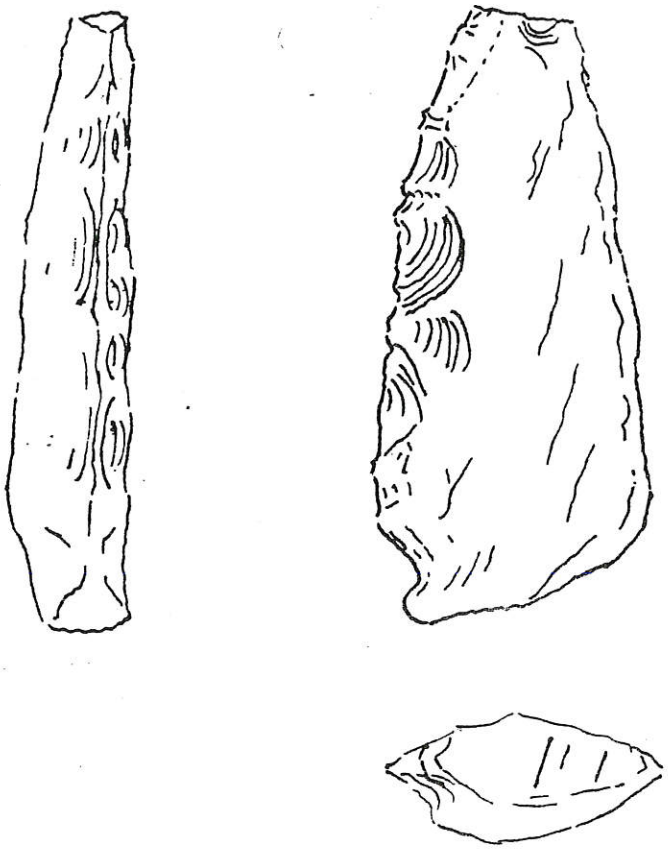


Actual Size

SKETCH OF PROJECTILE POINT

Tract 13986 #5

Clear to milky quartz, base broken prior to discovery, tentatively identified as a Desert Side-notched of the Shoshonean period.

FIGURE 6

Tract 13986 #7 A site. Three (3) pottery sherds; small fragments of bone; small fragments of shell (probably freshwater clam Anodonta dejecta Lewis [Wilke, 1976]); and a few instances of fire affected rock. Although the evidence from the initial survey is sparse, this appears to be representative of a temporary campsite, which possibly was inhabited while the lake resources were being exploited, during the Shoshonean period as evidenced by the pottery.

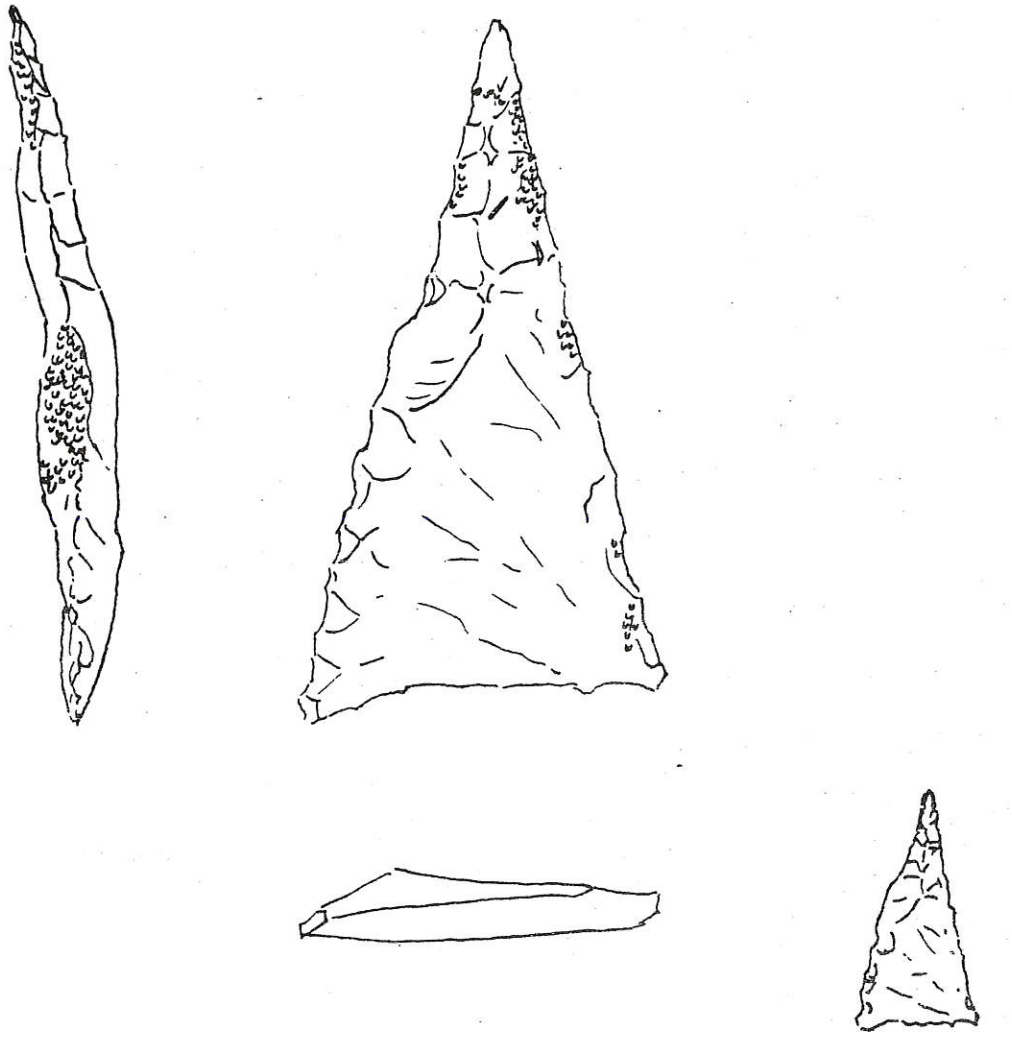
Tract 13986 #8 A site. This concentration seems contiguous with, if not an extension of, item #7. It is represented of the surface by a concentration of unshaped fired clay and fire affected rock. The team initially could not explain this concentration although both members were familiar with the material found, having observed other instances of like material on other property in the same general area as the subject property.

Tract 13986 #9 A point of interest. This location contains the remains of lake bottom bedding similar to that found on location #5. However, in this instance, the beds are free-standing, having been erroded on all sides. The location contains two such beds, the second or more southerly apparently several feet lower than the upper bed. Again, as with location #5, the beds appear to be above the expected lakeshore elevation of +42'.

Tract 13986 #10. An isolated artifact. On the surface of the lower bed recorded in #9, the team found an isolated chert projectile point embedded in the topmost layers of silt. The same layer of silt contains lake aquatic shell, probably of the genus Physa (Oxendine, 1979). Photographs were taken of the point in situ, and the point was freed of the surrounding silt and collected. It would appear that the point is of the Cottonwood Triangular series,

which would indicate Shoshonean occupation in the area. (Figure 7)

Tract #11 A site. This area contains a few instances of artifact materials, however, those artifacts are in direct association with what appears to be a human cremation. Numerous fragments of burned bone are in evidence. Also associated with the cremation was a shell bead. The bead was collected for study by a specialist in bead chronology, with the intention of its return to the cremation material following study. The shell bead appears to be a spiral lopped Olivella, however, the time indication of this item must remain for specialized examination to determine. (Figure 8)

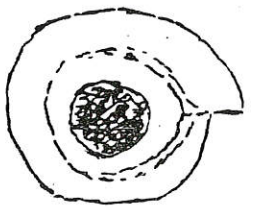


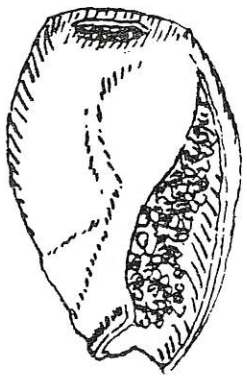
SKETCH OF ISOLATED PROJECTILE POINT

Tract 13986 #10

Pink Chert with calcium deposit, tentatively identified as Cottonwood Triangular of the Shoshonean period. Note: the similarities between this point and Rogers photo of Amargosa II item g, Plate 16, page opposit 62 are remarkable.

FIGURE 7





Actual Size

SKETCH OF SHELL BEAD

Tract 13986 #11

Found in association with cremation material. Tentatively identified as Olivella, with spiral removed.

FIGURE 8

DISCUSSION OF RESULTS

Upon the return from the field, the team began the task of ascertaining the accuracy of the field evaluations. To these ends, Dr. Philip J. Wilke, as well as many others with experience in the Valley, was consulted. In addition, a second field trip was initiated to ascertain the exact elevation of the lake bedding and artifact concentrations associated with the beds. Mr. Bob Fitch, of Wallach and Associates, was most helpfull in this regard.

The problem of the lake bedding has been generally accepted by all consulted. The existance of numerous other high stands of the lake referred to as Lake Cahuilla is mentioned in Wilke's Dissertation text. For an estimate of the date of the beds, further scientific research will be necessary; however, Dr. Wilke did suggest that the beds could be of Holocene or Pliestocene age. The Holocene age is generally thought of as that period following the recession of the great glacial ice sheets. In this area of southern California, the accepted age would be the last 10,000 years, or the estimated time span of solidly proven aboriginal occupation in the desert areas of the western United States. The ramifications of this find are the expansion of the possibility of finding evidence of much earlier occupation of the Valley due to the existance of abundant aquatic resources in addition to the generally occurring desert flora and fauna. The existance of the shell remains of aquatic life which generally exist in shallow water suggests that the former Holocene high stands may not be much higher than that of the last stand at +42'. The work done in the Coachella Valley to date has addressed the occupation of the Valley by peoples of the Shoshonean periods. The possibility of earlier occupation has

not been eliminated in the published works used as models for the research designs being implemented for large amounts of contract work such as this report; however, the omission of the possible occurrance of earlier sites could lead to wrong intrepretations by those contractors not totally aware of the range of possible time periods expected. When questioned, Dr. Wilke stated that he had, in fact, found evidence of earlier Pinto period occupation in the Valley at Myoma Dunes, in the form of a collection in the keeping of Douglas Fain of Indio. In as much as Dr. Wilke's research was what is sometimes referred to as "pure" research as opposed to "contract" research performed for legal reasons and for financial gain, it is understandable that the publication of the information was not included in his dissertation report.

When an overall view of the findings is pursued, the fact that most of the finds are in close proximity to the newly discovered lake bedding suggested to the team that perhaps the flat surface of the silt beds was utilized by the former occupants of the project area for habitation locations as well as the exploitation of the lake resources during the last high stand. This supposition will require excavation to support or disprove.

In the considerations of prior work in the area of the project, the acquisition of a copy of the student paper by McWilliams (1977) became necessary. When consulted by telephone for his field observations, Mr. McWilliams stated that he did not perform a thorough investigation of the subject parcel, but rather, concentrated his efforts on less detailed recording, for the more productive area considerations which his research design called for. Again, since this field investigation was designed to address specific problems,

McWilliams is not to be castigated for not addressing the higher silt beds which he observed in the deep channel to the west of the artifact concentrations of importance to his research. McWilliams did not remember observing material to the east at the foot of the large dune upon which his Site 4A is located, nor down the channel between the dunes. This is explainable by the geomorphology of the area. The horror stories of archaeologists returning to a heavy concentration site to map and collect the thousands of artifacts observed, only to discover the blowsand has covered all but a few are legion.

A review of the various reports pertaining to this area of the Valley disclose the recordation of what is recorded in this report as "unshaped fired clay". L. L. Bowles, in his Environmental Assessment for ATO Development reported the discovery of 77 areas of discrete artifact concentrations. Of those 77, 27 were reported to contain what Bowles refers to as "fired clay". Consultation with Bowles established that, in fact, we were recording the same phenomena. Bowles recorded 4 areas containing <u>only</u> fired or broken rock and fired clay, similar to Tract 13986 #8. Because of a field trip concerning evaluation of a property prior to submitting a bid, one member of the team was aware that the site known as CA-RIV-150 also contained this type of material. The report generated by this contract (not prepared by the team members) was consulted. The report, "an Archaeological Assessment of Washington Square Development, Indian Wells..." by Don Lipp and James Swenson of the Archaeological Research Unit, University of California, Riverside (UCRARU #256) referred to the material remembered as "burnt silt". Lipp and Swenson reported a heavy scatter of

burnt silt in their Area 3, and large amounts of burnt silt in both Area 1 and Area 2. No attempt was made in either report to address the origin of this material. Personal communications with Bowles revealed that he has not observed this phenomena outside the archaeological context with the possible exception of a small amount of material around the roots of a burned tree in another area of the County. Consultation with Dr. Wilke revealed that he had encountered the phenomena in his investigations and thought perhaps the material resulted from the paving of house ~~structures~~ floors with clay. Communication with California Heritage Commissioner, Jane K. Penn revealed that she had seen houses with this type of floor in her childhood, during visits to the Coachella. (Penn, 1979)

Armed with the above information the team then approached the occurrance of "unshaped fired clay" in Tract 13986 #8. Using the house floor explanation, the team reconstructed a possible scenario for the material found. Ethnographically, the Cahuilla, upon the death of a family member, immediately took the body and his personal possessions and cremated them. The remainder of the family gathered their personal possessions and moved to a newly constructed house. The old house was then burned. At this point we have a clay floor, with no artifacts, burned by the high fast heat of the dryed palm frond structure. The fired and broken rocks then presented the next problem. This was explained by the supposition that since the rocks were possibly discards in the firepit, having been used in the preparation of food, they may not have been regarded as personal possessions, and therefore were left behind. This leaves us with a fired clay floor associated with burned and broken rock, and the remains of the structure. Our scenario then calls

for a high wind to remove the heavy concentration of charcoal resulting from the fire. This can easily be imagined in the subject property area. With the high wind would naturally come the deposition of blowsand arount the edges of the clay floor, and the charred remains of the heavier framing of the structure. Given continued use of the area, or perhaps the erosional force of the wind, our floor breaks up into smaller pieces, or perhaps the high heat firing would explain the fragmented pieces. At this point we can predict what would be evident in the archaeological record if our scenario were accurate: pieces of unshaped but probably layered fired clay with burned or broken rock possible, and the remnants of the pole frame used to construct the house.

Taking our scenario one step farther, the lack of artifactual material presents a problem. Wilke suggests that since the clay floor, if present, was probably to aid in housekeeping, no artifact material would be present. While the team agrees with the statement as far as it goes, we suggest that the result of a clean floor in one living area will result in a trash heap in close proximity. With this thought, we can tie in the existance downwind a few feet of Tract 13986 #7. Generally archaeologists working in southern California expect to see discrete patterns in the material resulting from daily habitation. Some of these discussions involve the sex assignment of work roles, as seen in the deposition of the material where it is used. For instance, the flaking material left after a projectile point has been manufactured, presumably by the male of a family will generally occur in an area separate from the artifacts usually associated with the processing of food such as the mano and metate. With the advent of the clay floor and trash heap

pattern, the likelyhood of finding the usual patterns of discard would change markedly. Perhaps this is one explanation for the lack of discrete concentrations of artifacts within some sites which, for all intent and purpose, appear to be habitation areas. Other ideas which occur to the team but for which we have no data at this time are: The possible correlation between the fired clay material and the appearance of a cremation in close proximity; and the possibility that the use of clay floors, if in fact that is what is represented, ~~as~~ maybe a time sensative indicator.

RESULTS OF SURVEY IN RELATION TO RESEARCH DESIGNS

Prehistoric materials discovered in the course of the survey would indicate that the subject property was in fact utilized during the Shoshonean period. Time sensative artifacts were recovered from four areas of concentration as well as from several isolated locations. Assignment of the material within the Shoshonean period, and within the historic periods on aboriginal habitation, depend on the further study by specialists and the possible examination through archaeometric dating techniques such as thermoluminescence.

The discovery of an unrecorded lake stand at a slightly higher elevation than the last high stand occurring at approximately A.D. 900 to 1500, would suggest the strong possibility that earlier periods of occupation exist in the Coachella Valley, although, no evidence was discovered to substantiate those period uses on the subject property.

The discovery of Anodonta shell in one location, and the occurrance of mesquite suggests the use for exploitation of the resources of both the later dry dunes and the resources of the lake to be possible explanations for habitation in this area.

Historic material was in distinct scarcity. Aside from the occasional expended ammunition and various wind blown paper, the material and effects of modern land usage was restricted to the tracks of off-road vehicles and associated liquid beverage containers. No evidence of any but the most recent periods within the last American Developmental era was found.

PROPOSED PROJECT IMPACTS

The proposed project is a subdivision and development of 80± acres of desert bolwsand dune area. The plans include grading the parcel to a mean elevation, street construction and utility delivery system burial. The impacts to archaeological resources are therefore expected to be total destruction of most resources and/or the burial of material under residential structures. These impacts would require mitigation prior to implementation of the project.

Positive impacts are those which aid in the preservation or retrieval of data. Provided the mitigation measures are implemented, this project could have positive impact of the cultural resource data base. This is especially true in as much as most of the material now on the surface is subject to destruction by off-road vehicle activity and will remain imperiled until the land is no longer vacant. Of particular sensitivity is the cremation which has already sustained damage from the ORV.

RECOMMENDATIONS

The alternatives possible for adequate treatment of the cultural resources threatened by the proposed development range from the no project decision, to the salvage excavation program. It is the opinion of the consultant that the research value of the sites is extremely high, and because of the occurrance of the cremation combined with research value, the resources on the subject property do meet the criteria set out in 36 CFR 60.6 for nomination to the National Registry of Historic Places as an archaeological site likely to yield information important to prehistory. It should be noted that this statement alone will not hamper the development of the subject property provided adequate mitigation measures are identified and pursued.

The first alternative, that of no project, in most instances is the most efficient protection for the resources. However, in the case of Tract 13986, the resources are being impacted daily due to the use of off-road vehicles on the dune areas. The decision of no project would not effectively stop this loss of the resource.

The second alternative, that of redesign of the project to insure the protection of the resource, is not feasible due to the geomorphology of the project lands. The sand dune areas are so extensive as to prohibit construction should they be set aside for the protection of resources occurring along their perimeters and possibly beneath the large dune in the northern half of the property. The economically feasible methods do not exist for the burial of the material on the surface by sterile soil, due to the extreme softness of the sandy surface. Any attempt to dump or spread the

covering soil would result in the additional churning of the material and loss of context.

The third alternative seems to be the best approach for all parties concerned. That is, the retrieval of sufficient data to allow for reconstruction of the past lifeways pursued on the property. The retrieval of this data is of critical importance in other locations in the Valley, as well as being the only feasible means to free the property for development. The approach used in Federally reviewed projects is that the cost of cultural resource mitigation will not acceed an amount that is one percent of the total costs of the project. It is also worth noting here that the cost of artifact and data retrieval is a PROJECT COST, rather than an amount to be subtracted from project profits. That is to say, the cost of data recovery is a business expense and is therefore deducted prior to assignment of profit margins.

Based on the above discussions and in full communication with Native American peoples (see Appendix I, Native American Statements) the following recommendations for a program of data and material retrieval are made along with a notation of the recommended time frame for implementation:

1. Analysis of the material collected during the survey by specialists in bead chronology, pottery typology and projectile point typology. This should be undertaken immediately so as to provide the necessary data for construction of research designs.

2. The collection of Tract 13986 #1, 2, and 4, and the analysis of the material by a specialist in pottery typology. This should be undertaken following receipt of a determination of elegibility from the Keeper of the Register, and following the

filing of a Negative Declaration and the lapse of the appeal period.

3. The surface mapping and collecting of location #5, and the analysis of resulting collection. In addition, at least one pottery sample should be sent to the L. A. Art Museum, for purposes of obtaining a thermoluminescence date. This should be performed following the public review period of the Negative Declaration.

4. The surface and sub-surface collection of the cremation remains, in such a manner as is acceptable to the locat Native American peoples, and in such a manner as to assure the complete recovery of all portions of the remains; and the reburial at a place acceptable to those Native American people. Provided it is acceptable to the Native Americans, a sample of the pottery found in association with the cremation should be analized by the L.A. Art Museum using the thermoluminescence process (TL). This task should be accomplished following the issuance of the Negative Declaration and lapse of the appeal period.

5. The extension of the excavation necessary to retrieve the cremation remains, utilizing a 2 meter by 10 meter trench running along the edge of the dune in a northwesterly direction, with at least 2 spurs of 2 meter by 2 meters, into the dune in a northeasterly direction. Two samples of charcoal should be C_{14} dated and two samples should have TL dates run. This should necessarily be accomplished following the completion of the 4th recommendation.

6. Upon completion of the field analysis of the data retrieved by recommendation 5, the decision should be made to explore the east side of the large dune, in the area of Tract 13986 #5. If the material is seen to extend into the dune, the east side of the dune should be trenched utilizing a 2 meter by 10 meter northerly trending trench, augmented by an east-west running trench of the

same dimensions, in the shape of a "T". At least 2 C_{14} and 2 TL samples should be sought.

7. The surface mapping and collecting of Tract 13986 #7 and #8, and the area surface scraped to a depth at which no artifacts occur. This may be done in conjunction with the excavation of recommendation 5. Adequate charcoal and fired clay samples should be taken, and at least 2 charcoal dates and 2 TL dates should be secured.

8. The preparation of a professional quality synthesis of the results of the previous seven undertakings should be performed and the resulting report published in a local archaeological journal.

9. A popular article should also be prepared for publication in a local interest type magazine.

10. The entire undertakings of 1. through 7. should be performed with provisions made for the inclusion of intrepretive public participation, in such a manner that visitors to the property are given an awareness of the past lifeways being explored, the techniques being used and the significance of the research being undertaken. (See Figure 9)

FUTURE SITE
OF
DESERT PALACE
ESTATES
GUIDED TOURS
OF
ARCHAEOLOGICAL
DIG

FIGURE 9

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APPENDIX I

Native American Comments

Notes from a conversation with
Cabazon Band Vice Chairman, Fred Alvarez

The survey team of M. A. BROWN, ARCHAEOLOGICAL CONSULTANTS met with Mr. Alfred Alvarez, Vice Chairman of the Cabazon Band, in early May, to discuss the findings and suggested recommendations being proposed in connection with a survey prepared for Desert Palace, Inc., on Tentative Tract 13986, 80± acres, between Avenue 44 and Miles Avenue, west of Jefferson St., near Indio. The following comments were recorded during the visit to the property and afterwards, over coffee.

RE: Cremation

"You should take everything out and put it in a museum until you can bury it."

RE: Development plans to grade

"There should be an observer (Native American) to work with the heavy equipment to extract any materials found."

RE: Archaeological Excavations

"You should study the material all you can."

RE: Disposition of material collected

"They should be placed in Malki Museum IN TRUST for the appropriate Reservation." (Emphasis in conversation)

RE: Thoroughness of excavations

"The archaeologists should get out all they can learn."

APPENDIX II

BUDGET PREPARED for

ARCHAEOLOGICAL TEST EXCAVATIONS

AND MITIGATION PROGRAMS

DESERT PALACE, INC.,

Tentative Tract No 13986

near Indio, California

May 1979

BUDGET

The following budget is offered to give an idea of the cost of implementing the recommendations suggested. The budget has been prepared utilizing the slowest work performance, highest amount of work possible and most time needed to perform the tasks. Therefore, the figures given are the maximum amount in all cases.

PHASE I: includes Recommendation 1.

Bead typology analysis	25
Point typology analysis	25
Total for Phase I	$50.00

PHASE II: includes Recommendations 2, 3, 4, 5, and 7.

PART A Recommendations 2, 3, 4, and 7.	
Pottery analysis	100.00
T L analysis	175.00
Map & collect Tract 13986 #5	
3 crew at $50 for 2 days	300.00
Retrieval of Tract 13986 #11	
2 crew at $50 for 2 days	300.00
Surface collection and scraping of	
Tract 13986 #7 and #8.	
2 crew at $50 for 4 days	400.00
2 C_{14} dates	400.00
2 TL dates	350.00
Part A Subtotal	$1925.00

PART B Recommendation 5.	
Extension of cremation to estimated depth of 2 meters	
4 crew at $50 12 days	2100.00
Column Sample analysis	
70 samples at 10 a day	
7 days at $50. per day	350.00
2 C_{14} dates	400.00
2 TL dates	350.00
Part B subtotal	3200.00
Total for Phase II	5125.00

PHASE III: includes Recommendation 6.

Excavation of Tract 13986 #11 extension	
4 crew at $50 per day for 15 days	3000.00
Column samples	
10 days at $50	500.00
2 C_{14} dates	400.00
2 TL dates	350.00
Total for Phase III	4250.00

Project Costs:

Field Director for 31 days at $100	3100.00
Visitor's Guide for 30 days at $50	1500.00
Equipment	400.00
Crew housing and subsistance	3400.00
Report Generation	2000.00
Phase I	50.00
Phase II	5125.00
Phase III	4250.00
Administrative costs (10 %)	2057.50
Desert Palace Archaeological Mitigation	22632.50

COUNTY OF RIVERSIDE
SURVEY AND ROAD DEPARTMENT
RIVERSIDE, CALIFORNIA

B. DOUGLAS POWELL, COUNTY SURVEYOR AND ROAD COMMISSIONER

SECTION 20
T.5S., R.7E.
SBB & M

FIGURE 4

ATTACHMENT B

1980 SURVEY

RI-0580
1080619

AN ARCHAEOLOGICAL ASSESSMENT

OF THE

BERMUDA DUNES PROPERTY

TRACT 13986

INDIO, RIVERSIDE COUNTY, CALIFORNIA

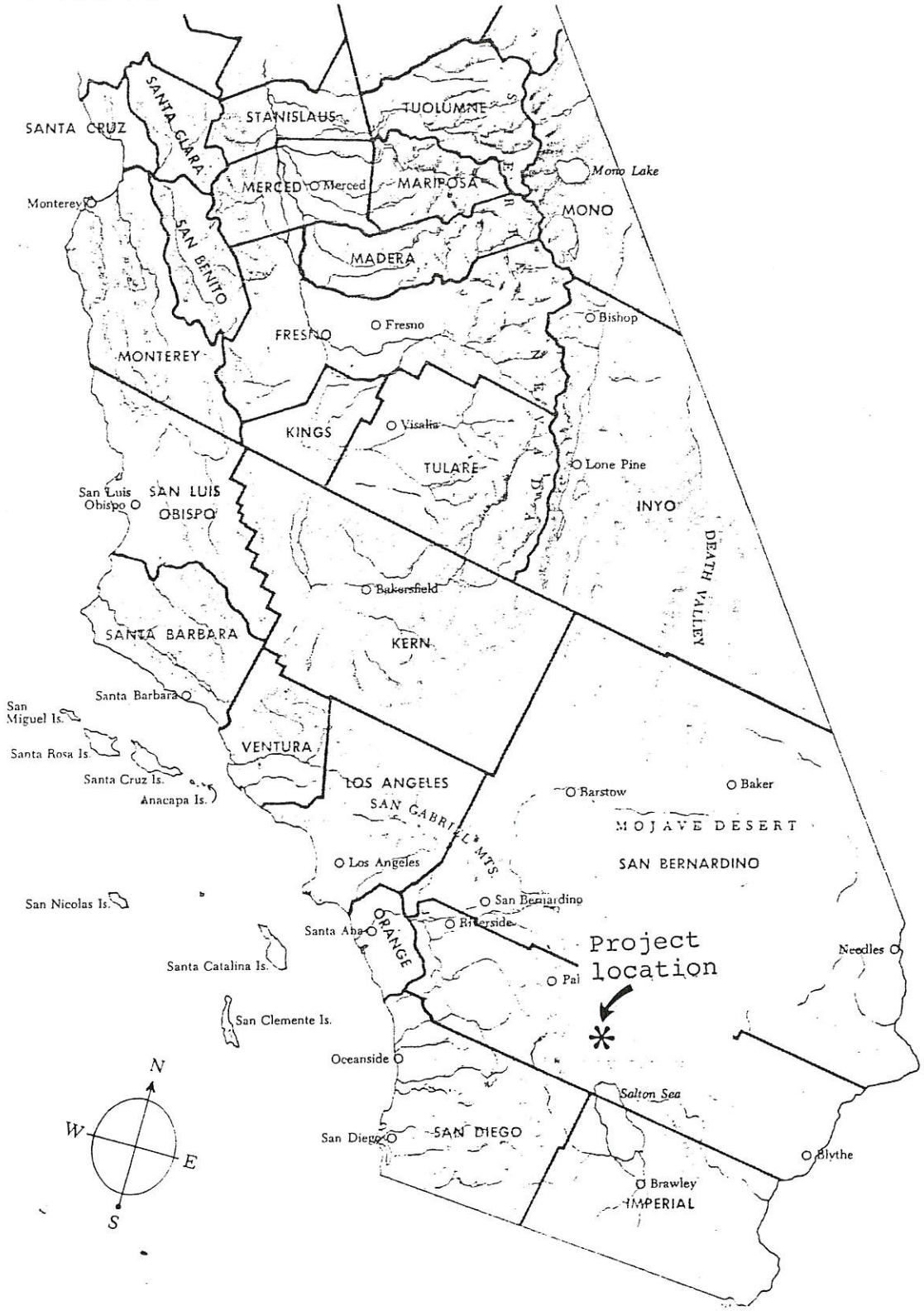
Steven A. Apple

Project Archaeologist
Steven A. Apple

Technical Adviser
R. Keith Olmo

MSA, Inc.
7343 Ronson Road
Suite H
San Diego, CA 92111
for
Covington Bros. Technologies, Inc.
P.O. Box 3128
Fullerton, CA 92634

October 31, 1980



Map of the lower half of the State of California showing the site's regional location

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LIST OF FIGURES

I. INTRODUCTION

In August, 1980, Covington Bros. Technologies, Inc. contracted with MSA, Inc. to provide an updated assessment of aboriginal cultural resources within their Bermuda Dunes property, Riverside County, California. The Bermuda Dunes property, an eighty-acre parcel, is tentatively slated for subdivision into 187 building lots, with associated utilities emplacement, grading and road development.

Project archaeologists Steven A. Apple and Rebecca McCorkle Apple, professionals by training and by demonstrated expertise in Southern California prehistory, expended a 19-man-hour field effort in locating and identifying aboriginal cultural resources on the Bermuda Dunes Property. Their reconnaissance benefited from an additional 3-man-hour field review by Mr. Apple and the geoarchaeologist, Dr. Emma Lou Davis. Since there was some discrepancy between the findings of the two surveys, those sites not common to either were emphasized during the review by Apple and Davis.

This report has been prepared in accordance with the needs and requirements of the California Environmental Quality Act (CEQA). Standards contained within the guidelines for a Cultural Resource Assessment Report from the Archaeological Research Unit, University of California at Riverside, and the Riverside County Planning Department Archaeological Assessment Form, have been incorporated as guidelines for the preparation of this report. At a minimum, copies will be provided to Covington Bros. Technologies, Inc., and the Archaeological Research Unit, U.C. Riverside.

II. ENVIRONMENTAL SETTING

A. LOCATION

The Bermuda Dunes property is bounded on the north by 44th Avenue, on the east by Jefferson Street and on the south by Miles Avenue, all in the city of Indio, Riverside County, California. The project property occupies the Northeast 1/4 of the Northeast 1/4 of Section 20, Township 5 South, Range 7 East of the La Quinta 7.5' U.S.G.S. Quadrangle (see Figure 1).

B. PHYSICAL ENVIRONMENT

Native Americans of Southern California were greatly influenced in their daily lives by their environment. Dependent upon natural resources for their survival, they were quite sensitive to water sources, natural protection and material resources. An understanding and appreciation of the environment is important in any proper analysis of cultural resources.

The project area is contained within the Coachella Valley. This area is characterized by low, fairly stable sand dune

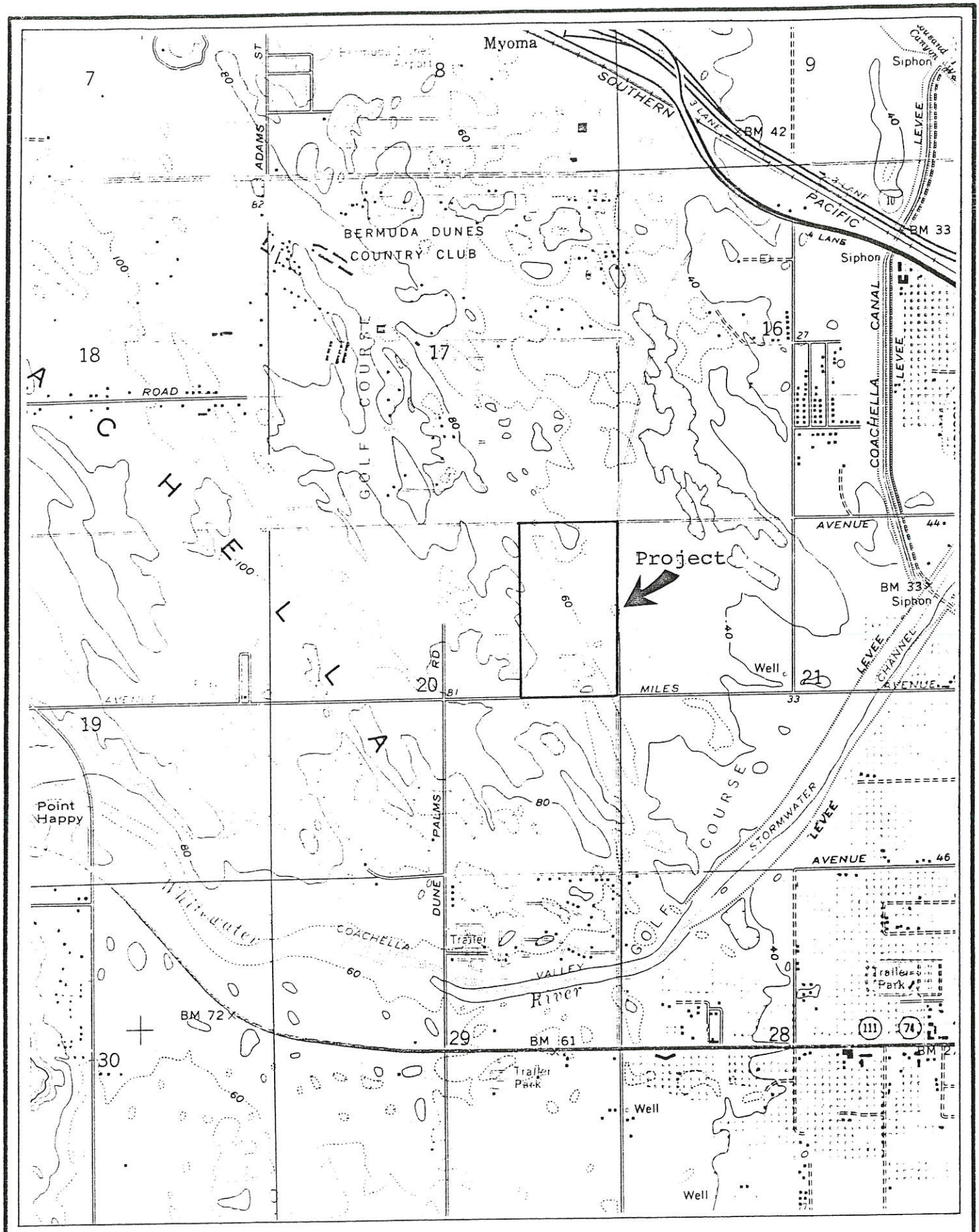

Figure 1. Project location on La Quinta 7.5' U.S.G.S. Quadrangle

systems exhibiting soils in the Myoma fine sand and silt category. The Coachella Valley ranges in elevation from 232 feet below mean sea level to 1500 feet above, with the majority of the project area ranging between 40 feet and 80 feet above mean sea level.

The ancient Lake Cahuilla, at one time, played a vital role in the daily lives of the inhabitants of this area as indicated by the occurrence of shell and the presence of silt suggesting lake bed deposition. During its last stand, Lake Cahuilla reportedly followed the 42-foot contour level (Wilke, 1978). Early reports indicate it was not present in A.D. 1540, but was shortly before (see Figures 1 and 2).

Aboriginal cultural resources encountered are assumed to be associated with those times when intervals of high lake stand occurred.

C. BIOTIC COMMUNITIES

The present biotic community reflects those associated with the Salton Basin. The predominant vegetation is creosote bush followed by mesquite, pickleweed and Russian thistle. The biotic communities over the years have been drastically altered and affected by the various stands of Lake Cahuilla. In his 1978 publication, Late Prehistoric Human Ecology at Lake Cahuilla, p. 44, Wilke states:

> " . . . the incursions of the Colorado River into the Salton Basin brought about profound changes in the natural environment. Lake Cahuilla inundated the lower portion of the basin to an elevation of about 42 feet above sea level. This largely eliminated the Alkali Sink plant community and a portion of the Creosote Bush Scrub. In their place appeared broad stretches of open water and a Freshwater Marsh plant community with economically important wetlands plants, shellfish, fish and aquatic birds . . . The disappearance of Lake Cahuilla saw a re-establishment of low desert conditions on the floor of the Salton Basin . . . the (re)appearance of productive and economically important desert perennials, such as mesquite and screwbean, on the bed of Lake Cahuilla may have required at least several decades."

Wilke also suggests that the presence of the lake probably did not affect the indigenous desert vegetation more than 1/4 of a mile from the lake stand. The location of habitation sites close to these different ecozones, within this ecotone, would provide a much more adaptive and effective exploitation of the natural resources available. Hence we may expect to find an abundance of similar sites along the paleo-shoreline associated with the ancient Lake Cahuilla stands.

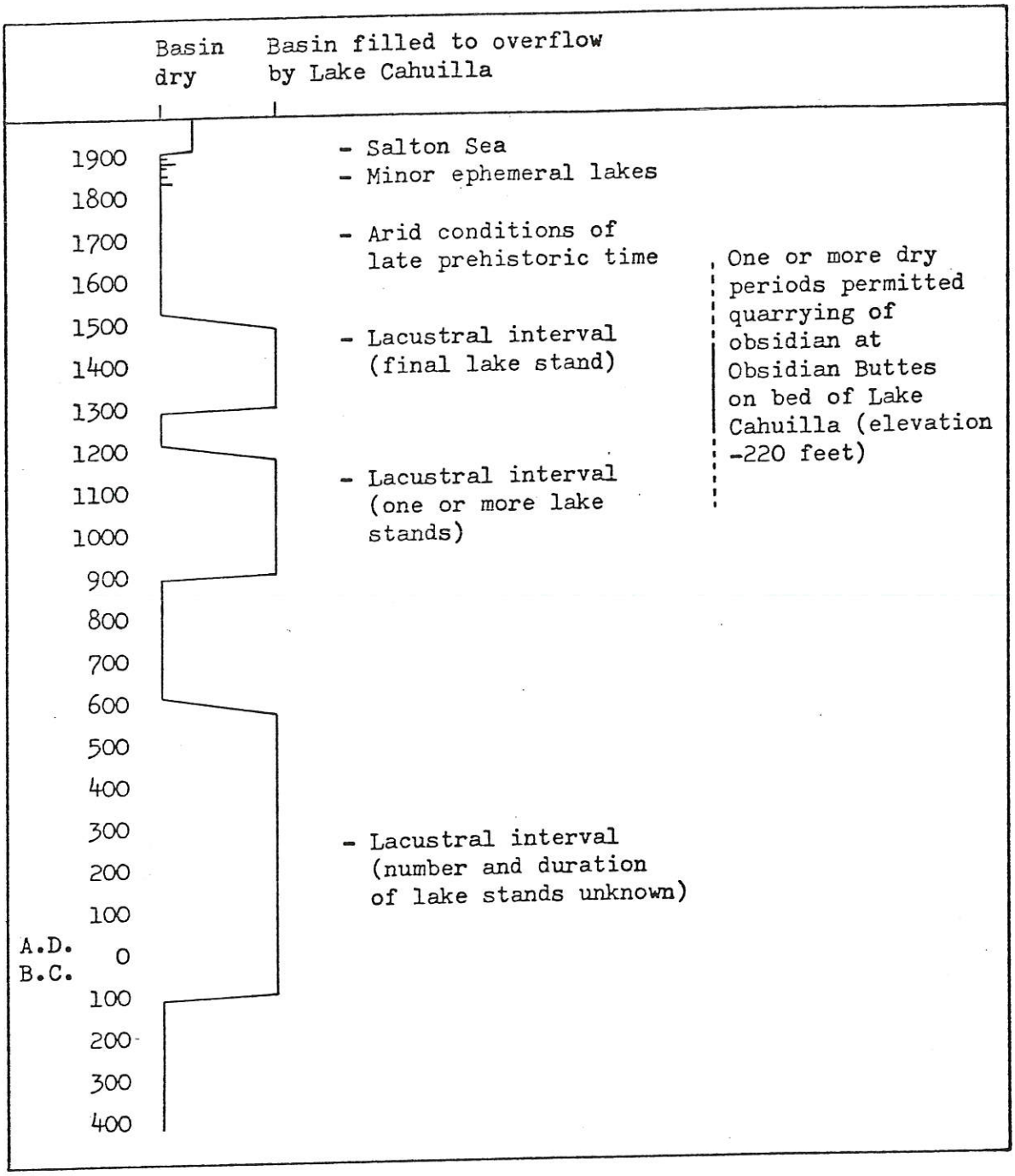

Figure 2. Hydrologic history of the Salton Basin as reconstructed by Wilke (1978)

III. CULTURAL RESOURCE INVESTIGATION AND BACKGROUND

A. CULTURAL HISTORY

The earliest well-defined and accepted cultural tradition occurring in Southern California is the San Dieguito (Rogers, 1939). These early hunter-gatherers made stone tools which consisted of percussion-flaked scrapers and planes, large blades and projectile points, hammerstones, and distinctive chipped stone crescents. Also attributed to the San Dieguito are trail shrines and stone sleeping circles (Rogers, 1966). This tradition has been divided into four phases: San Dieguito I, occurring in the California desert east of the Laguna Mountains; San Dieguito II, the first phase well documented in San Diego County from 10,000-11,000 years ago; San Dieguito III, in evidence in this County until approximately 7500 years ago (Warren and True, 1961); and San Dieguito IV, known only from Baja California. Through time, an evolution within the San Dieguito Tradition occurred which included the abandonment of the sleeping circle and the increased use of finer lithic (stone) materials for tools (more cryptocrystalline material). In addition, there was a shift in the use of land with San Dieguito III camps occupying the valleys of the major rivers instead of the mesas and ridges where the San Dieguito II camps were located.

Following the San Dieguito Tradition is the Encinitas or La Jolla Complex, an extensive Milling Stone Horizon in Southern California (Wallace, 1955). These sites are often encountered near marshes, bays, lagoons, and areas where bodies of water were formerly located. Artifacts associated with this Milling Stone Horizon include manos and metates, small pressure retouched flakes, scrapers, choppers, and in some instances flexed inhumations.

To date, no San Dieguito or Milling Stone Horizon sites have been recorded within the Coachella Valley (Brown, 1979). However, their undocumented existence does not eliminate the likelihood of their presence.

The Pinto or Campbell Tradition occurred approximately 1,000 to 4500 years B.P. and is not well understood. Possibly the tradition represents very early intrusions of Shoshonean culture. In addition to the Milling Stone Horizon artifacts, side-notched points, mortars and pestles appear.

The only period positively identified within the Coachella Valley area is that of the Shoshonean, a late prehistoric peoples dating back only 1,000 years. Diagnostic artifacts include pottery, shell beads, and Desert Side-Notched and Cottonwood Triangular points.

Dr. E. L. Davis has suggested redefining cultural traditions utilizing "morfs" and "teks," or morphologies and technologies. Davis points out that

> "Criteria for a Master Chronology are that it should combine time, environmental changes, the San Dieguito successions designed by Rogers and Hayden for the southern deserts; the Campbells' Pinto Basin and Lake Mojave complexes of the central desert, Warren's expansion (1967) of the San Dieguito taxon to include Lake Mojave, Pahomet Valley, etc. All these systems, however, fail to recognize and discuss western Clovis morfs and teks."

A chronological system for desert floor archaeology in California has been extracted from the Evaluation of Early Human Activities and Remains in the California Desert (Davis, 1980) and included within this report (see Figure 3).

B. RECORD SEARCH

A record search conducted by the Archaeological Research Unit, University of California, Riverside, utilizing their site records, manuscripts and maps revealed that seven archaeological sites have been recorded within one mile of the project area. The "typical" site profile is characterized by sherd and lithic scatters, fish and small mammal bone and human cremations. Several of these sites also exhibit shell identified as Freshwater Clam (Anodonta dejecta) and Olivella shell beads. The presence of Olivella indicates some type of contact, probably in the form of trade, with coastal areas.

As discussed earlier in this report, only the Shoshonean occupation period has been recorded within the entire Coachella Valley.

The presence of an archaeological site, CA-RIV-1769, had been previously established, in 1979, within the property boundaries. Brown (1979) reports that this site was identified at least as early as 1971 by Steven McWilliams as Site 4A (California Archaeological Site Survey). This site extended north, off the property boundaries, across 44th Avenue onto the adjacent property. Unconfirmed rumors of a University of California, Riverside archaeological testing program within this vicinity have been heard by the author, but no documentation is available.

C. NATIVE AMERICAN INPUT

The 1979 M. A. Brown, Archaeological Consultants field survey utilized Mr. William Pink as the Native American liaison. At this time additional Native American input was achieved

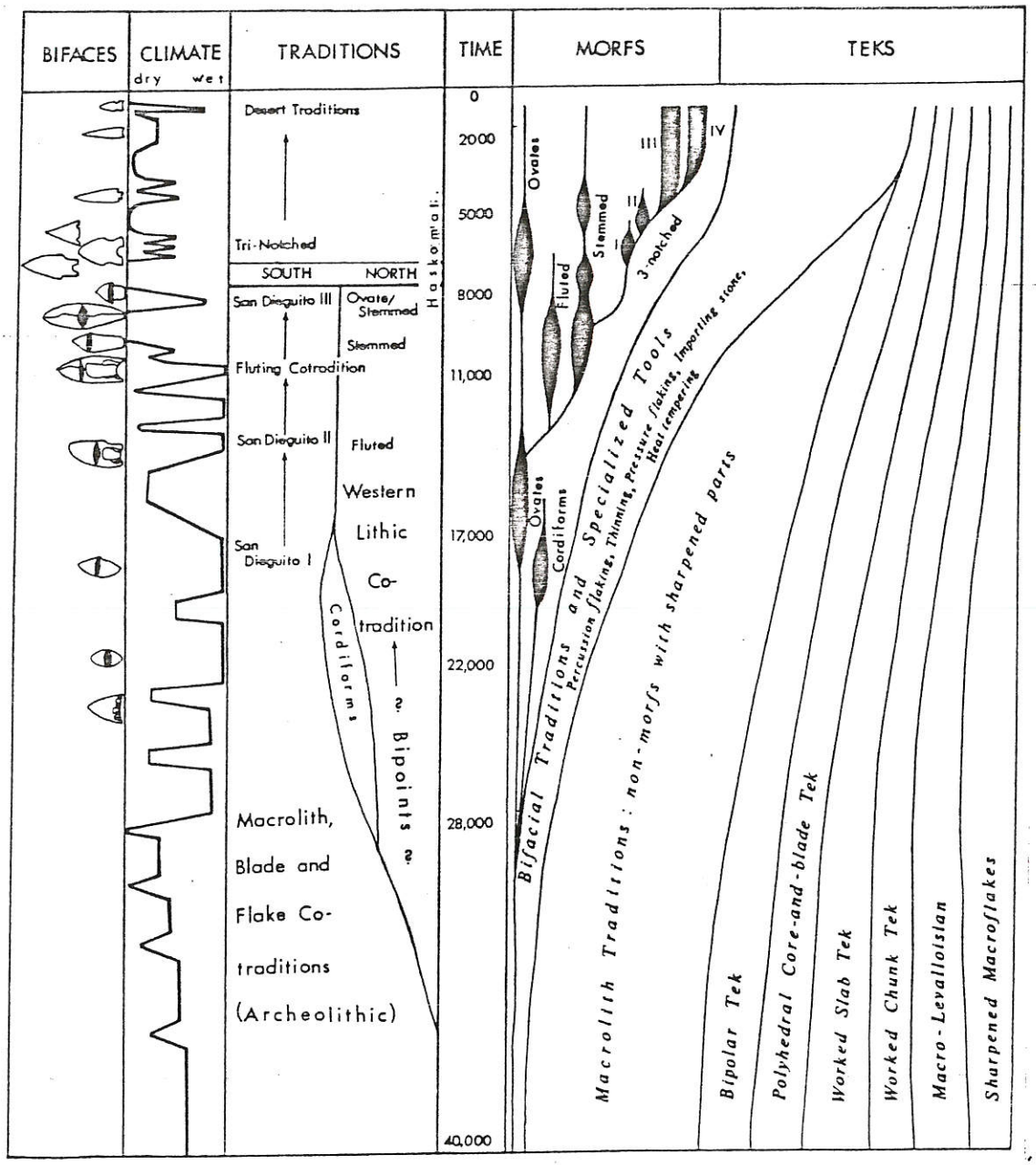

Figure 3. A chronological system for desert floor archaeology in California (Davis, 1980)

through interactions with Mr. Alfred Alvarez, Vice Chairman of the Cabazon Band of Mission Indians. As recorded by M. A. Brown, Mr. Alvarez's comments included

> "You should study the material collected . . . You should take everything out [cremations] and put it in a museum until you can bury it . . . they [artifacts recovered] should be placed in Malki Museum in trust for the appropriate Reservation."

He also expressed interest in having a Native American present during developmental activities, in particular grading, to observe and "extract any materials found."

Mr. Mark Nichols, Cultural Preservation Coordinator of the Cabazon Band of Mission Indians, supplied MSA, Inc. with copies of his Bands' Tribal Resolutions 3-80, 4-80, 5-80 and 6-80 in September, 1980. He was informed that his input was most readily appreciated, especially if new developments were to arise.

IV. ARCHAEOLOGICAL TESTING

A. GOALS

In 1979, Covington Bros. Technologies, Inc. retained a local archaeological consulting firm to identify and locate cultural resources likely to be directly and/or indirectly subjected to adverse impacts as the result of proposed development. Contract archaeological assessments of cultural resources are usually conducted at the request of local governmental agencies and the Riverside County Planning Department initially requested this assessment.

In 1980, MSA, Inc. was contacted to perform an additional assessment of the same property. The goals of this survey team were to independently and without bias locate and identify manifestations of potential cultural resources. After the August, 1980 survey effort, results of the 1979 and 1980 surveys were compared for possible discrepancies. In this manner, a more comprehensive assessment of the project area may be ascertained.

Even though archaeological investigations best enhance the data base utilizing explicit deductive research questions, the nature and intent of this subsequent investigation precluded any additional testable hypotheses.

B. METHODS

The project property was initially visited on the evening of August 19, 1980 and subsequently surveyed during the following day. The survey team consisted of Archaeologists Steven A. Apple and Rebecca McCorkle Apple, both of whom have considerable desert survey experience, including participation in an 80-mile-long survey transect from Palm Springs to Desert Center, passing through Indio during late 1979. During the survey, parallel transects were maintained at an average distance of 15 meters. Those areas exhibiting a higher potential for cultural resources, i.e., sand dunes and salt beds, were investigated at a higher level of intensity.

Upon encountering cultural resources, their visible extent was determined, mapped and photographed. This data was then compared to the 1979 data and a subsequent field review utilizing Dr. Emma Lou Davis and Steven A. Apple was effected. The data generated from this 3-hour field review was then assimilated and included within this report.

C. RESULTS

As the result of this program, cultural resources were encountered and additional information has been offered to update the archaeological data base. The field efforts during August, 1980 identified three specific loci exhibiting definite cultural remnants (see Figure 4).

As recorded in an update with the Archaeological Research Unit, University of California, Riverside, Locus 1 corresponds with a previously recorded cultural remnant #5, contained within Cultural Resource Assessment for the Desert Palace Project by Brown (1979.

The updated site description defines Locus 1 as covering an observable 30 by 35 meters containing at least 34 pottery sherds, marine and freshwater shell, probably Olivella and Anodonta, respectively, 3 chert flakes and an associated bone scatter.

A low level analysis suggests the bone fragments and Anodonta shell represent remnants of food gathering and processing activities related to late prehistoric, Shoshonean peoples. The presence of pottery utilized as a vessel in the gathering or storing of natural resources is a time-sensitive artifact substantiating the indicated time period. The relatively large size of the chert flakes suggests the manufacturing of some type of lithic tools, such as scrapers or choppers. The presence of a previously recorded projectile point in this same locus shows hunting small game played a role in these people's subsistence strategy.

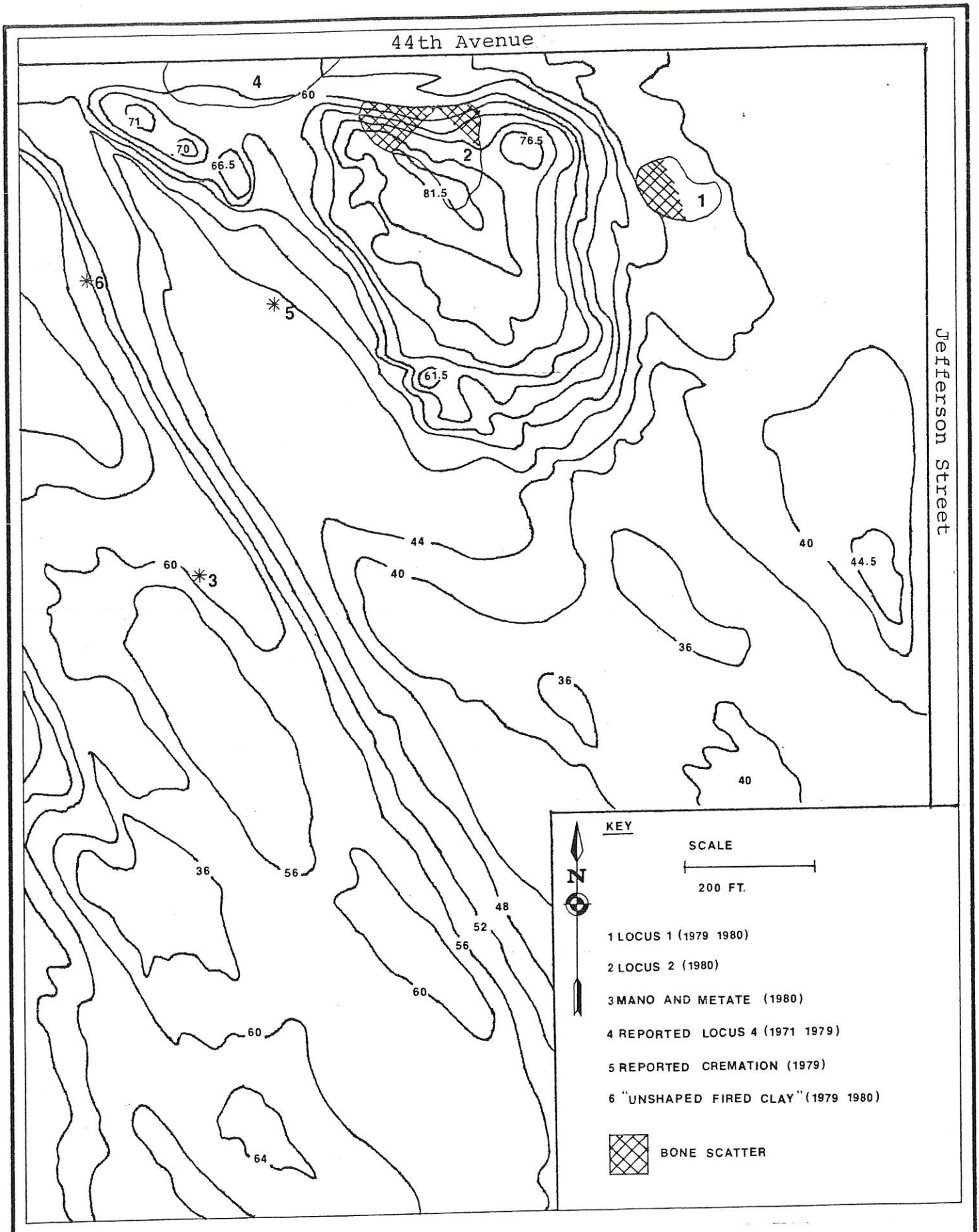

Figure 4. Contour map of northern portion of project area showing locations of cultural resources

The site area is located on a silt bed, probably initially associated with the ancient Lake Cahuilla. Its presence suggests a lakeside margin activity area whose inhabitants exploited both aquatic and terrestrial resources.

Locus 2 was encountered approximately 80 meters west-northwest of Locus 1 and the observed similarities between artifact inventory indicate a relationship between these two loci. Ten pottery sherds, freshwater iridescent shell fragments, a few flakes, one piece of quartz debitage and one undiagnostic tool fragment exhibiting flake removal were encountered. This locus is close to the 1979 recorded site #4. It appears that Loci 1 and 2 of the 1980 survey and Loci 4 and 5 of the 1979 survey represent different fractions or components of the same cultural resource.

These cultural resources have been covered by sand, and as the dunes deflated, artifacts within different levels were mixed. As the result of wind patterns and the movement of sands, different portions of the same cultural deposit will appear and disappear during different times. Many artifacts encountered in this vicinity are noted on the leeward side of dunes in blow-outs.

Locus #3 contained a whole mano and metate in situ, probably left in its present location upon its last utilization by a Shoshonean individual (see Figure 5). Two pottery sherds were also noted 12 meters to the northwest. The mano and metate indicate that the processing of natural resources, most probably foodstuffs, occurred at this spot. As a time-sensitive indicator, the Shoshonean and Encinitas Traditions are implied, while the nearby pottery substantiates a Shoshonean affiliation. It seems highly likely additional cultural material may be encountered upon any subsequent subsurface testing. As this very noticeable cultural remnant was not recorded during any previous surveys, the observation that shifting sands obscure and protect artifacts is substantiated.

Locus 4 was previously recorded by McWilliam (1971) and Brown (1979). At these times, chert flakes, bone, two mano fragments, a small chert core and four pottery sherds were recorded. The 1980 survey team recorded a total of 3 pottery sherds in this area with no visible associated material. Again, the problem of desert surveys within sand dunes is exemplified.

Locus 5 was reported as being the location of a cremation by the 1979 survey. Numerous pieces of burned bone and an olivella shell bead were reported. This shell bead again demonstrates the occurrence of contact with marine areas. The 1980 survey team could find no traces of this cremation. Personal communication with the 1979 survey leader, Mary A. Brown, revealed she also could not relocate this cremation during the summer of 1980. It is suggested that shifting wind patterns have reburied this feature, pot hunters or Indian relic

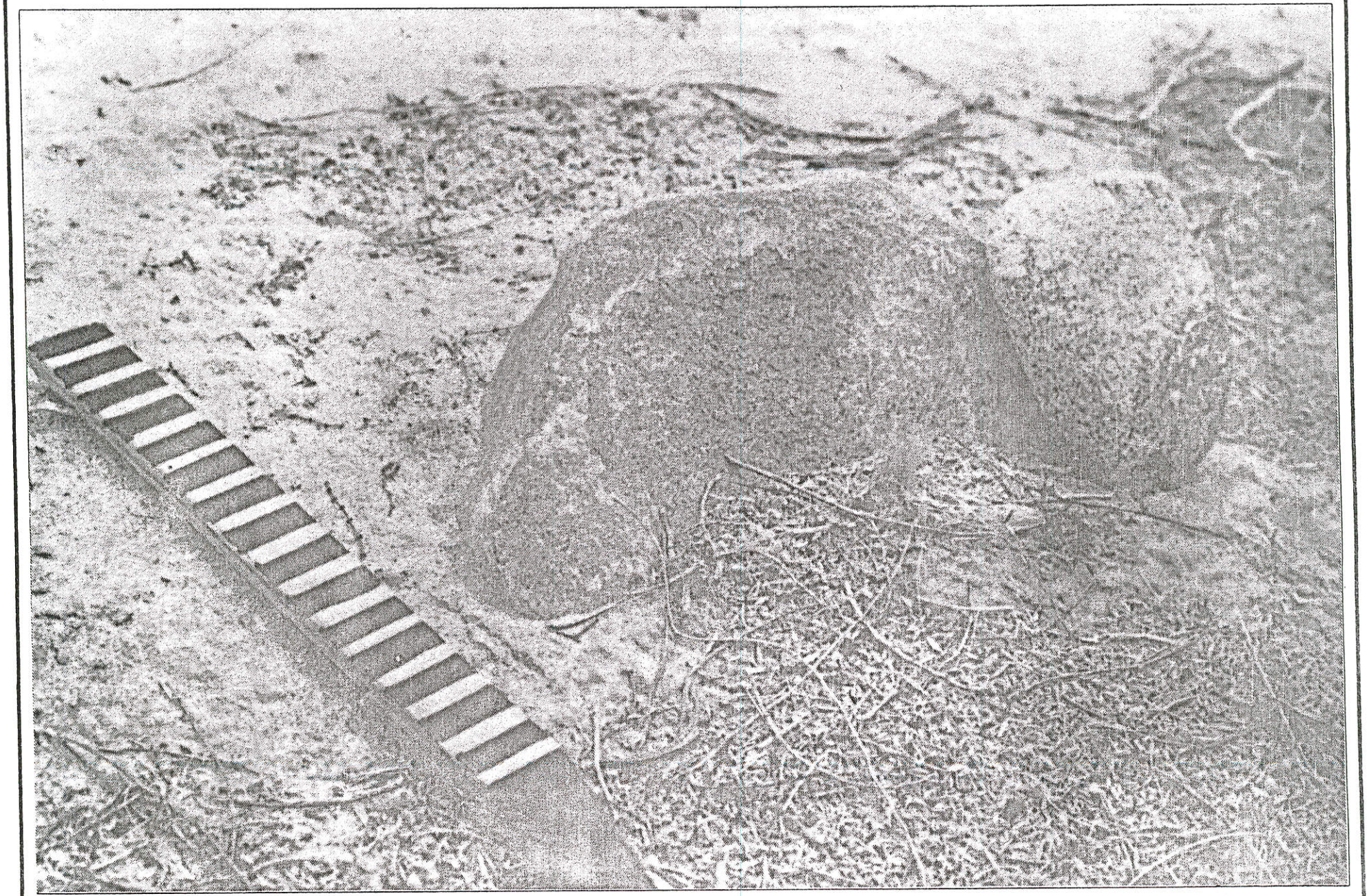

Figure 5. Photograph of "in situ" mano and metate. North arrow marked in 1 centimeter increments

seekers have removed this or concerned individuals have reburied this cremation elsewhere.

Locus 6 was recorded as containing "unshaped fired clay" and fire-affected rock. Some researchers in this area have suggested this phenomenon represents remnants of burned Shoshonean dwellings, the unshaped fired clay occurring as the heat fires clay floors. The 1980 survey team did not initially recognize this phenomenon as possibly related to cultural activities. A reinvestigation of this area by Dr. Emma Lou Davis and Steven Apple disclosed its presence. The true nature of this phenomenon is not fully understood.

The majority of all of the cultural resources encountered are located in the upper northern 1/4 of the project boundaries. However, three instances of isolate finds were reported during 1979. One isolate, a projectile point, was identified as belonging to the Cottonwood Triangular series. This was reportedly photographed and collected. Another isolate contained a single pottery sherd, while a third exhibited 5 sherds. Although it appears the majority of cultural activities are centered near the larger sand dunes, varying quantities of cultural remnants probably litter the entire ancient Lake Cahuilla shoreline.

Isolated examples of bone and shell were located within several areas south and west of Locus 2. A chert projectile point was recovered and collected during the 1979 survey within this general vicinity and was also identified as representative of the Cottonwood Triangular series.

V. SIGNIFICANCE OF ENCOUNTERED CULTURAL RESOURCES

The significance of cultural resources can only be evaluated in terms of the potential a phenomenon exhibits in adding to the archaeological data base. As problem-oriented, explicit, deductive research designs presently are making the most valuable contributions to cultural resource evaluations, their significance can only be judged by the quality and type of research questions that the data (site) can answer.

The activities conducted within this area are those associated with hunting, food gathering, food processing, coastal trade, production of tools and the possible occurrence of a dwelling structure and cremation. The presence of such a wide range of cultural remnants associated with Shoshonean Lake Cahuilla shoreline occupation presents the opportunity to conduct many different types of investigations, only limited by the innovation and knowledge of the researchers.

Some investigators might concern themselves solely with dietary patterns of the native inhabitants, concentrating on

pollen analysis, molluscan paleontology, paleoecology, coprolite studies and the like. Another investigator might prefer examining chronological patterns utilizing typology studies, Carbon 14 and thermoluminescence dating. The project area offers the potential to answer many research questions. As additional work is completed within the Coachella Valley, this data may be compared to other sites and utilized in the generation of a more concise understanding of regional land use patterns and aboriginal adaptation.

The potential for inclusion on the National Register of Historic Places is difficult to ascertain. The importance of this site as a multiactivity prehistoric representation of past lifestyles cannot be underestimated. However, inclusion on the National Register utilizing suggested criteria for its acceptance are unfortunately vague.

VI. IMPACTS

Presently planned development entails the grading of the area for the construction of dwelling units and the installation of subsurface utilities. As presently proposed, direct impacts would occur to cultural resources as the result of the implementation of this plan. This major displacement and disruption of cultural resources would result in an irreversible loss to the data base.

VII. MITIGATIONS

Mitigation measures are those actions that alleviate adverse impacts, in this case to cultural resources. The County of Riverside Planning Department considers such actions as project redesign and modification of grading plans as two of the several viable mitigation options. Another viable mitigation option entails a preservation of the data through a total salvage program. This involves an archaeological investigation and analysis of the project area. Combinations of various preservation techniques may also be utilized.

Several options are open to the developers of this property. One is to protect the resources through the continuation of present land use and thereby not develop the property. This is probably not in accordance with the owner's plans and, as the cultural resources are being partially disrupted by Off-Road Vehicles, is not in the best interest of cultural resource management.

Preservation through project redesign is another option, possibly acceptable to the developer. The northern 1/4 of the project area could be left in open space as a preservation/

mitigation measurement if no indirect impacts could be demonstrated. However, impacts of an increased population density and additional ORV activity would quite likely create significant impacts so that a strategy to cover the site with sterile material combined with an open space easement would be preferable.

A third mitigation option entails an archaeological investigative program. A testing program is recommended to determine the extent of cultural resources present and, if necessary, to determine the validity of requiring a larger scale archaeological investigation. A testing phase, followed by additional work as individual circumstances dictate, insures a proper level of investigation being accomplished and protects both the interests of the developers and those of the California Environmental Quality Act (CEQA).

A surface mapping and collection is recommended for Locus 1. Standard laboratory analyses to answer the researchers' explicit, deductive research questions should be conducted. Subsurface testing within this locus is also highly recommended. A 1-meter by 1-meter hand-excavated and screened unit would provide a greater understanding of cultural and ecological factors.

Loci 2 and 4 should also be surface-mapped and a collection effected. Subsurface testing should play a much greater role in these loci as compared to Locus 1.

Locus 3, the mano and metate and the associated pottery sherds should be mapped and collected. Subsurface testing within the vicinity of this feature, and appropriate analyses, might reveal remnants of grinding processes associated with the mano and metate. Such a course of action is highly recommended, taking samples for pollen, macrofossils and similar analyses.

An investigation of Locus 5, a reported cremation, should be undertaken utilizing subsurface testing methods. Appropriate mapping, collecting, analyses and Native American interaction should be conducted.

Locus 6, containing what some researchers refer to as "unshaped fired clay" and fire-affected rock should be further examined. If indeed this feature is a result of aboriginal activities, mapping, collecting and subsurface investigations are recommended. Isolates encountered during subsequent investigations should be mapped, and previously collected artifacts analyzed. Provisions for the curation of these artifacts, as mandated by CEQA, should be made.

Final responsibility for the construction of a Research Design lies with the archaeologist chosen to conduct the work. As the nature of the questions directly affects the specific

character of the testing program, these investigative measurements should not be viewed as an all-inclusive list of testing/mitigation stipulations. These investigative measurements are offered as guidelines in determining an appropriate range of viable, responsive techniques.

VIII. PERSONS AND ORGANIZATIONS CONSULTED

James D. Swenson	Archaeological Research Unit University of California, Riverside
Dr. Emma Lou Davis	Great Basin Foundation
Ronald V. May	Environmental Analysis Division County of San Diego
Mary A. Brown	Previous Archaeological Consultant for Project Area
Mark Nichols	Cultural Preservation Coordinator Cabazon Band of Mission Indians

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ATTACHMENT C

1982 SITE RECORD UPDATE

33-001769 (CA-RIV-1769)

University of California, Riverside

Scientific Resource Surveys, Inc.
2770-F South Harbor Blvd.
Santa Ana, CA 92704

ARCHAEOLOGICAL SITE SURVEY RECORD

SITE NO. Riv-1769 UPDATE

COUNTY Riverside

1. USGS QUAD. La Quinta (7½') _____ (15')

2. UTM GRID ZONE 11 : 567550 mE . 3732130 mN

3. Twp. 55 Range 7E ; ___ ¼ of ___ ¼ of ___ ¼ of NE ¼ of NE ¼ of Sec. 20

4. Location Approximately 300' west of Jefferson St., immediately north of Fred Warring Road.

5. Contour 50'

6. Owner S.H. Bulmer 7. Address 4558 Sherman Oaks Ave.

8. Site Description northern portion of Locus 2 has been destroyed.

9. Prehistoric X Ethnographic _____ Historic _____

10. Area - 11. Depth -

12. Vegetation Mesquite, grasses

13. Water White water River 1 mile south

14. Site Soil desert sand 15. Surrounding Soil same

16. Previous Excavation none

17. Previous Site Designation, Published References survey by M.A. Brown Rebecca/Steven Apple

18. Destruction Possibility Housing Development

19. Features none

20. Burials none

21. Artifacts none

22. Remarks No artifacts were observed north of Fred Warring Road. The southern portion of Locus 2 was checked for artifacts 3 pieces of pottery and some bone was observed

23. Accession No. _____ 24. Site Sketch Map none

25. Date 2-24-82 26. Recorder Desautels 27. Photos none

ATTACHMENT D

2000 SURVEY AND TESTING PROGRAM

Phase I and Phase II Archaeological Assessments for the Proposed Monticello Project, West Side of Jefferson Street Between Fred Waring Drive and Miles Avenue, La Quinta, California

Prepared for:
Century Homes
1535 South D Street, Suite 200
San Bernardino, CA 92408

Submitted to:
City of La Quinta
78-495 Calle Tampico
La Quinta, CA 92253

Prepared by:
James Brock, MA, RPA
and
Brenda D. Smith, MA, RPA

November 2000

USGS 7.5' Quadrangle: La Quinta
Acreage: Approx. 75
Key Words: Sites CA-RIV-1769, CA-RIV-3667, CA-RIV-3668. and CA-RIV-3795; Cahuilla Indians; Patayan Culture; Ancient Lake Cahuilla; Wesley Eugene Morgan Homestead
AAG Job Nos: 000817 and 001024

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MANAGEMENT SUMMARY

This report presents the results of a Phase I and Phase II archaeological survey and test excavation of an approximately 75-acre property located on the west side of Jefferson Street between Fred Waring Drive and Miles Avenue in the City of La Quinta, California. A combined residential/commercial development, the Monticello project, is proposed for the property. This study entailed a walkover field reconnaissance of the property, an archaeological records search, limited archival research, and a backhoe test excavation.

The records search indicated that the study area is in a region of high sensitivity for prehistoric archaeological resources. These resources primarily consist of sites associated with the shoreline of the ancient Lake Cahuilla. Four sites have been previously recorded on the subject property: CA-RIV-1769, CA-RIV-3667, CA-RIV-3668, and CA-RIV-3795. One of these sites, CA-RIV-1768, is a large habitation area. This site contained a human cremation that was apparently removed at some point in the past. The other three sites have been interpreted as minor specialized activity areas.

A number of studies have been conducted on the property and different opinions have been put forth regarding the potential significance of the cultural resources present--from highly significant to no further research value. Although hand unit test excavation has been conducted at three of the sites, no backhoe excavation to identify deeply buried resources has been conducted. UC Riverside recommended backhoe excavation in 1989 (McCarthy 1989) but did not conduct such excavation when they tested the sites later in the same year (Arkush 1990).

It has recently been demonstrated that deeply buried, significant sites are present in La Quinta on properties having similar natural settings to the current study area. Systematic backhoe trenching has proven to be the only cost-effective technique for identifying these resources prior to their impact by grading. Therefore, it was recommended that such trenching be conducted at previously identified site areas, as well as in areas that appeared to have the potential for buried resources, such as mesquite covered dunes (Brock 2000a).

Test excavation by backhoe was conducted on the subject property by Archaeological Advisory Group in October 2000. The test did not identify any potentially significant buried cultural deposits. However, given that four archaeological sites have been recorded within the study area and that testing of these sites did produce some evidence of deeply buried cultural materials, it is recommended that monitoring of rough grading and major trenching be conducted by a qualified archaeologist. This procedure should be undertaken to ensure that potentially significant archaeological resources are not inadvertently impacted by the project without proper investigation.

INTRODUCTION

This report presents the findings of Phase I (archaeological survey) and Phase II (test excavation) cultural resource assessments of an approximately 75-acre property in the City of La Quinta, Riverside County, California. Century Homes proposes to construct a commercial/residential development on the property. The study area is located on the western side of Jefferson Street, extending from Fred Waring Drive to Miles Avenue (Figures 1, 2, 3, and 4).

Fieldwork entailed systematic, intensive pedestrian survey of the entire project area, test excavation by backhoe, and documentation of identified resources. The project was conducted by Archaeological Advisory Group for Century Homes and was undertaken in compliance with the City's cultural resource requirements for development projects. These requirements are intended to fulfill those aspects of the California Environmental Quality Act of 1970 (as amended) which pertain to the management of cultural resources that may be impacted by development projects sponsored by state or local government agencies, or by private developments requiring a discretionary permit or license. Section 106 of the National Historic Preservation Act may also be applicable.

This report was prepared in accordance with the recommended contents and format described in the California State Preservation Planning Bulletin Number 4(a) (California Department of Parks and Recreation 1989). This study presents a combination of a previously prepared survey report (Brock 2000a), which required some modifications, and new data from the Phase II backhoe test.

The Principal Investigator and Field Director for this study was James Brock. The field crew consisted of Mr. Brock and Mary Anne Eason. Brenda D. Smith assisted with data analysis and preparation of this technical report. Qualifications of these individuals are presented in Appendix 1. All personnel met and exceed the Secretary of the Interior's and the City of La Quinta's qualifications for their staffing level.

Field notes and other materials pertaining to this study are on file with Archaeological Advisory Group (AAG Job Numbers 000817 and 001024). Artifacts, field notes, and other pertinent data will be curated by the City of La Quinta.

SETTING

NATURAL SETTING

The study area is an approximately 75-acre parcel located within the City of La Quinta at the southwest corner of Jefferson Street and Fred Waring Drive and the northwest corner of Jefferson Street and Miles Avenue in the Coachella Valley, Riverside County, California (Figures 1 and 2).

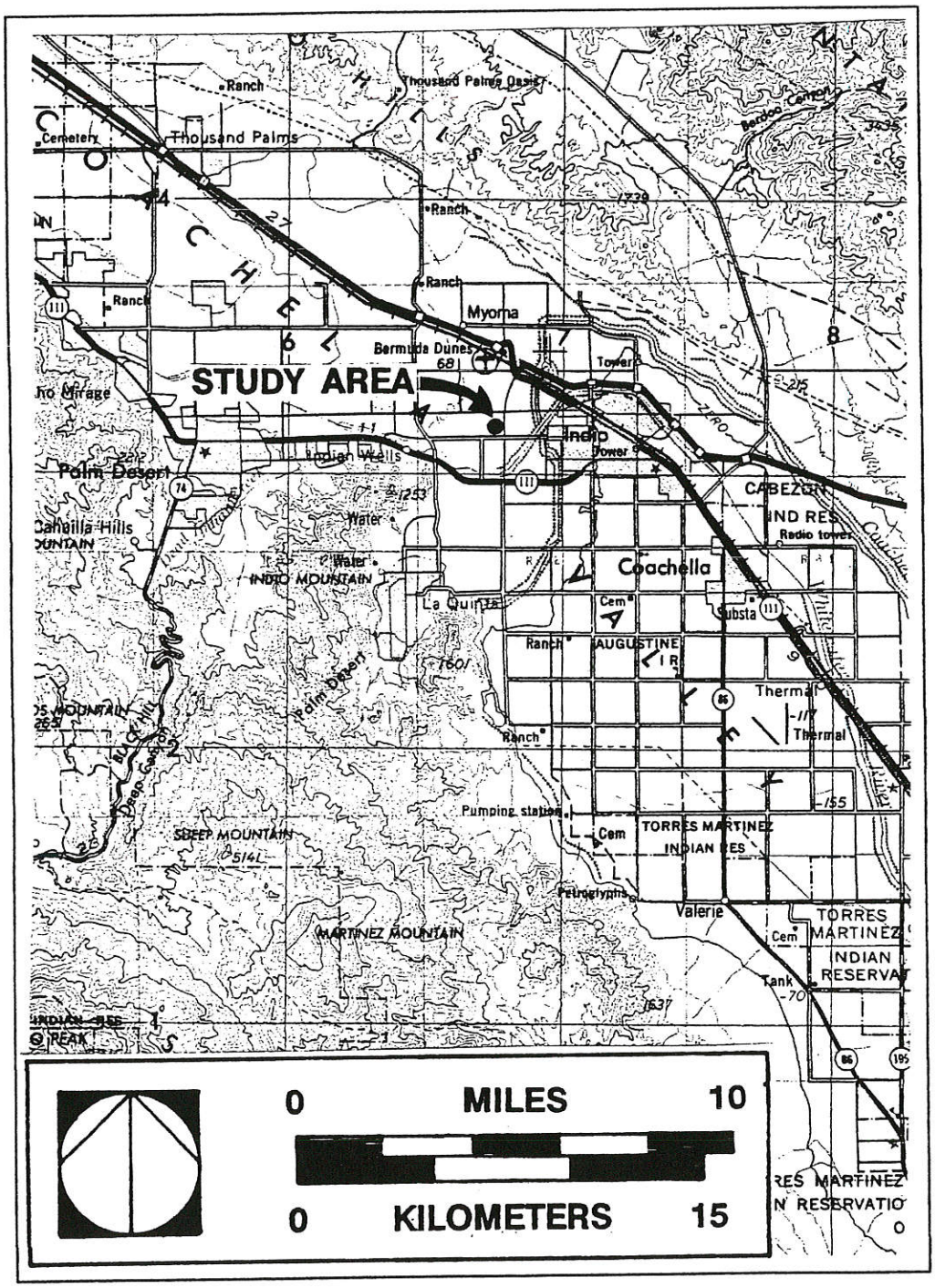

Figure 1. General location of the project area plotted on a portion of the USGS 1:250,000 Western United States Series Santa Ana, California map (1959, revised 1979).

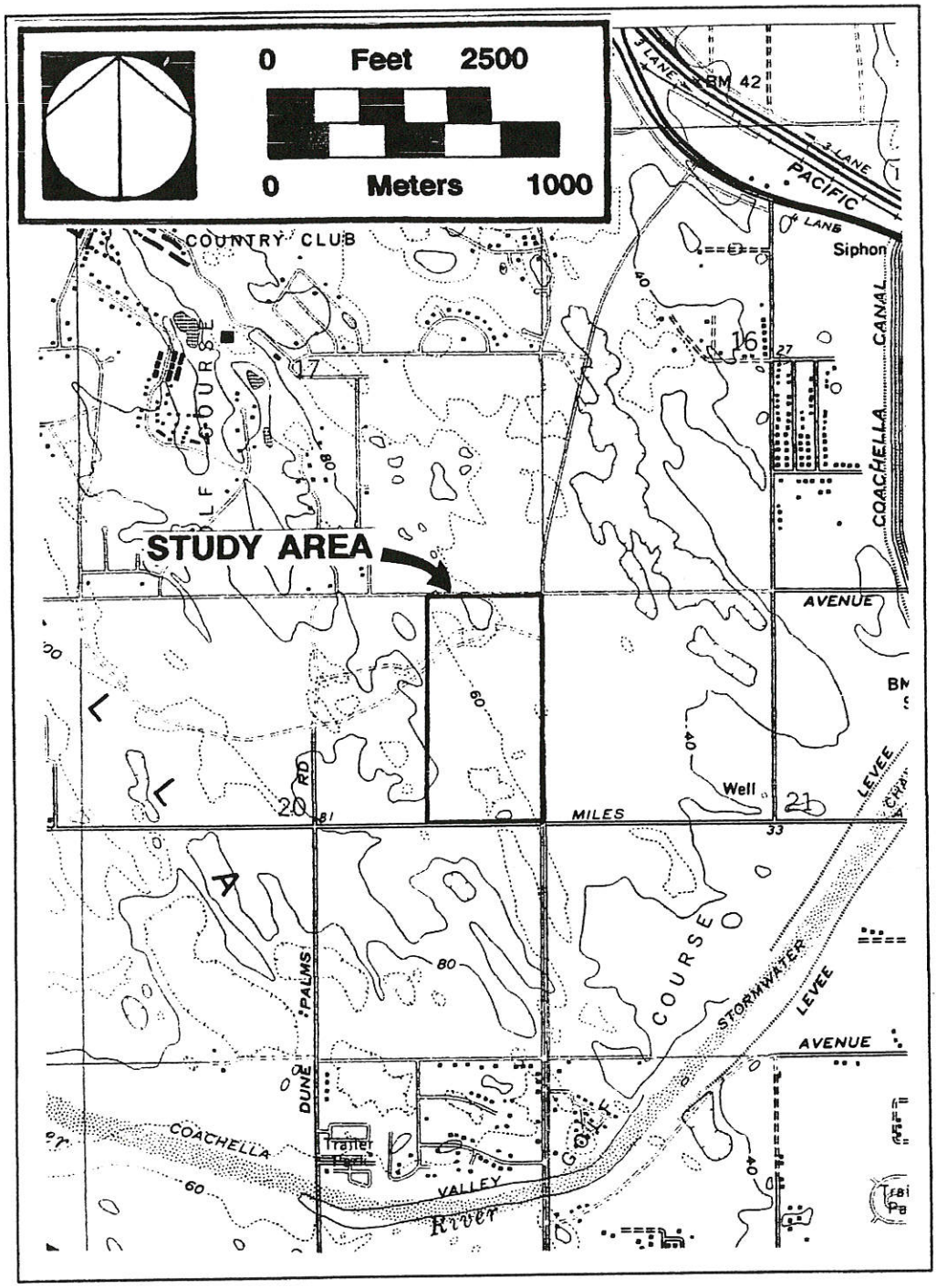

Figure 2. Specific location of the project area plotted on portion of the USGS 7.5' La Quinta, California topographic quadrangle (1959, photorevised 1980).

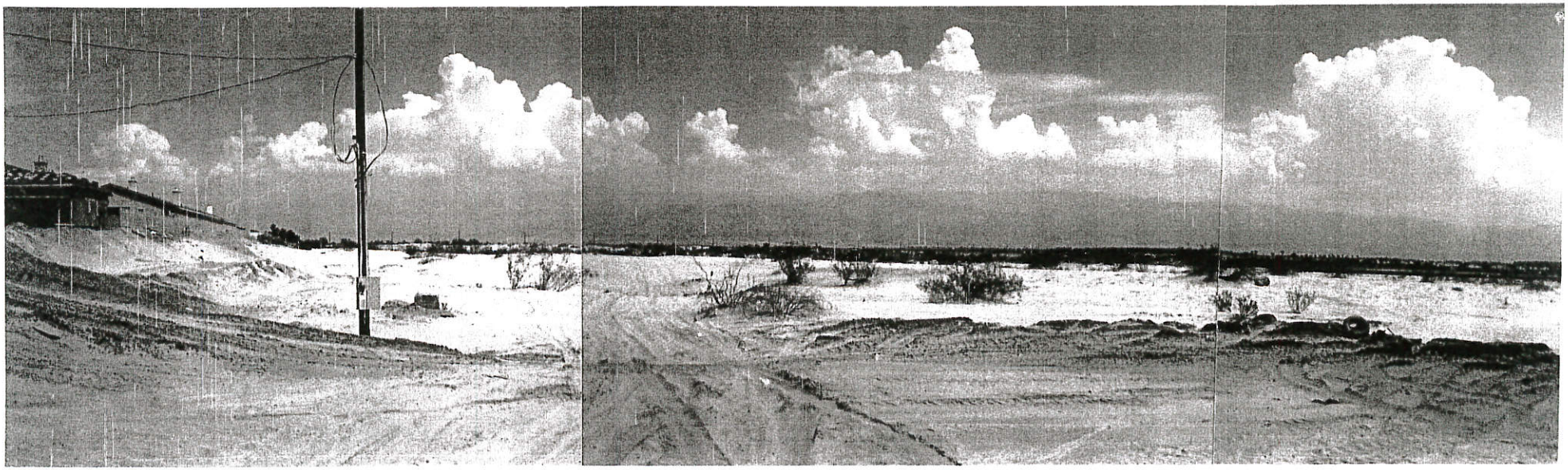

Figure 3. Panoramic view of the study area from the southwest corner looking north to northeast.

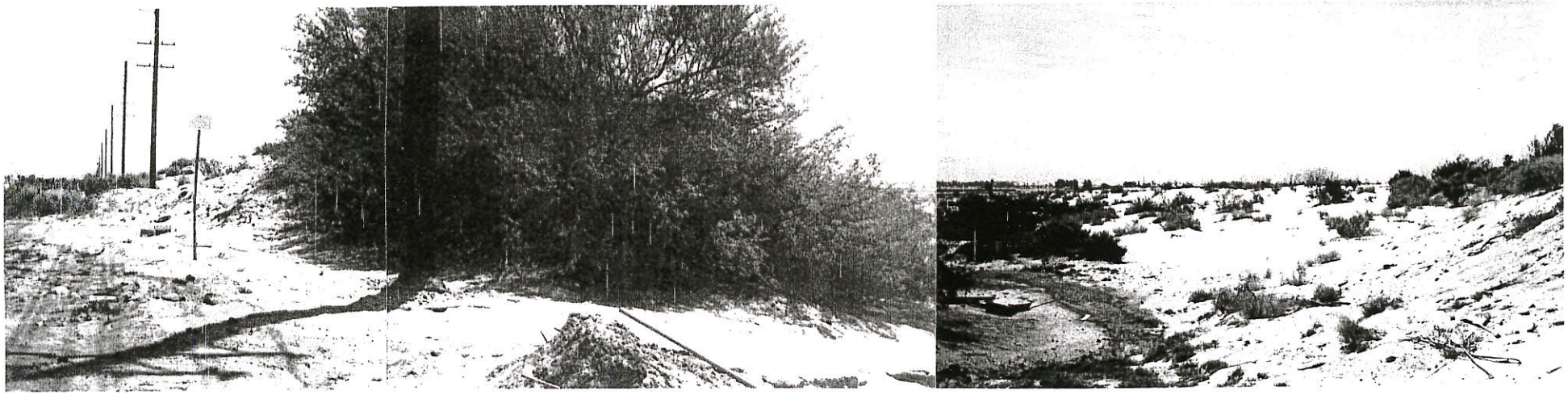

Figure 4. Panoramic view of the study area from the northeast corner looking east to south. Fred Waring Drive is on the left.

The project area comprises the eastern half of the northeast quarter of Section 20 of Township 5 South, Range 7 East, SBBM, as shown on the USGS 7.5' La Quinta, California topographic quadrangle sheet (Figure 2). Study area elevations range from slightly below 40 feet amsl at a sink at the southern end of the property to over 80 feet amsl at a high dune along the northern border.

The project area lies within rolling, semi-stable sand dunes containing intermittent blowouts. This type of landform is typical of the remnant shoreline of Ancient Lake Cahuilla, a large lake that once occupied the basin to the south and east of the project area. Soil of this area comprises a gray-tan aeolian sand that ranges from loose to well compacted.

Formation of the study area's natural setting was much like that of the nearby Myoma Dunes investigated by Wilke (1978). Production of sand dunes oftentimes occurs as a result of deposition of aeolian sand around and near stands of vegetation. Because many vegetation stands, particularly mesquite thickets, grew near the shoreline of Ancient Lake Cahuilla, sand dune fields were commonly located marginal to the lakeshore.

Native vegetation of the study area comprises a Creosote Scrub community. Plants typical of this community are creosote (*Larrea tridentata*), mesquite (*Prosopis glandulosa*), burrobush (*Ambrosia dumosa*), and dicoria (*Dicoria canescens*). *Schismus barbatus*, an evasive, non-native grass, is also common on contemporary sand dunes. Animal species of the area include cottontail (*Syvilagus audubonii*), jackrabbit (*Lepus californicus*), woodrat (*Neotoma* spp.), pocket mouse (*Perognathus* spp.), coyote (*Canis latrans*), scorpion (*Hadrurus* spp.), Western Shovel-nosed Snake (*Chionactic occipitalis*), Sidewinder (*Crotalus cerastes*), Desert Iguana (*Dipsosaurus dorsalis*), Side-blotched lizard (*Uta stansburiana*), Mourning Dove (*Zenaida macroura*), Say's Phoebe (*Sayornis saya*), Gambel's Quail (*Callipepla gambelii*), Common Raven (*Corvus corax*), Anna's Hummingbird (*Calypte anna*), Red-tailed Hawk (*Buteo lineatus*), Lesser Nighthawk (*Chordeiles acutipennis*), and American Kestrel (*Falco sparverius*).

The study area falls within the Lower Sonoran Life Zone, as does approximately 60% of Cahuilla territory (Bean and Saubel 1972:12). This zone extends from the desert floor (below sea level) to the pinyon-juniper belt (about 3,500 feet amsl). The Coachella Valley, due to its placement on the eastern side of the Peninsular ranges (San Jacintos and Santa Rosas), is blocked from receiving moisture moving eastward from the Pacific Ocean. This blockade results in low rainfall of generally less than 5 inches of precipitation annually. Not only does this region have little rainfall, but it also is one of the hottest deserts on the continent, having a mean maximum temperature in July that easily exceeds 100° (Bailey 1966:42).

At present the nearest natural water source is the Whitewater River, which lies approximately one-half mile to the southeast. As mentioned above, an ancient lake once existed near the study area. The shoreline would have been very close to the southeast corner of the study area. This lake, most commonly known as Ancient Lake Cahuilla (also called Lake La Conte or Blake's Sea), existed during periods of inundation of the area by the Colorado River. The River's usual course was to flow directly into the Gulf of California. Periodically, fluctuations in distributary

channels would create an accumulation of sediments at the river's mouth. This would result in the formation of a delatic barrier which restricted access to the gulf, causing the course of the river to shift. This diversion caused the Salton Trough, a geologic depression that extends northward 140 miles (225 km) from the gulf, to fill and form a fresh water lake. The high stand of this lake was 42 feet (12 m) amsl, with a maximum depth of 312 feet (95 m), and a surface area of over 2200 square miles or 5700 square kilometers (Wilke 1988; Waters 1983). Wilke (1978) and Laylander (1997) estimated that it would take 12-20 years to fill the basin to this level if the Colorado River emptied entirely into the lake. Eventually, the river's course would shift back to the gulf and desiccation of the lake would occur. It would probably take 55-60 years (Wilke 1978; Laylander 1997) for the lake to completely desiccate after flow was rediverted.

It is generally accepted that Lake Cahuilla has had at least three major lacustrine intervals in which the 42 foot amsl. level was reached (Wilke 1978; Waters 1983); each of these intervals probably lasted between 100-250 years. This chronology, originally presented by Wilke (1978), proposed that there was a high lake stand between 100 BC and AD 600, another between AD 900 and AD 1250, and a final one between AD 1300 and AD 1500. He based his argument on sequencing and clustering of radiocarbon dates obtained from charcoal, shell, and tufa deposits. These dates were corroborated with historical accounts of the region. Waters (1983) argued for yet another highstand occurring within Wilke's timeframe. He suggested that the first inundation was around AD 700 and the final desiccation occurred circa AD 1580. Waters' chronology was based on radiocarbon dates of stratified shell and charcoal deposits. His dates were also supported by historical accounts. Recently, researchers (Quinn 1997; Gurrola and Rockwell 1996; Rockwell 1995; Schaefer 1994) have proposed additional stands of Lake Cahuilla. The latest archaeological and geological research in the Coachella Valley has produced evidence which leans toward a last highstand occurring in the seventeenth century. A summary of highstand dates consistent with the most recent data is as follows: 1) AD 1600-1677, 2) AD 1425-1500, 3) AD 1200-1395, 4) AD 950-1150, and 5) AD 885 (Laylander 1997; Quinn 1997; Waters 1983; Wilke 1978; Gurrola and Rockwell 1996; Rockwell 1995; Schaefer 1994). As is evident, three major recessions, lasting 50 years or longer, have occurred since AD 900. A smaller recession, lasting approximately 30 years also took place during the latter part of the fourteenth and early fifteenth centuries.

Inundation of the lake would have produced a rich marshland environment that could have been exploited along with the lake and desert resources. Many useful plants grow in this community and were used by the precontact inhabitants of the area—the ancestors of the Cahuilla as well as the Patayan peoples. The marshland would have also drawn in many birds, mammals, and herptiles. Undoubtedly, these people also took advantage of such faunal resources.

CULTURAL SETTING

While the regional ethnography of the study area is fairly well accounted for, its precontact history is poorly understood. Archaeologists have struggled for years to put together comprehensive chronologies for what is referred to as the Prehistoric Period (time preceding contact with Europeans) of Native American history. The sequence of prehistoric habitation

presented here is based primarily on the concordance of sequences presented by Warren (1984) and Warren and Crabtree (1986). Warren's timeframe divisions were based on technological changes in lithic use (i.e. millingstones and projectile points). His model was originally devised for the Mojave desert region, but because of basic technological similarities in southern California Indian cultures it is also applicable to the Colorado desert peoples.

Lake Mojave Period

This period probably represents the earliest phase of human occupation in southern California. It began by at least 10,000 BC and lasted until around 5000 BC. This period is characterized by hunting of larger games animals using spears and articulated spear-throwing devices termed "atlatls." Spear points of this period initially were quite large, lanceolate in shape, and were oftentimes fluted, having a longitudinal groove along the central portion of the body for attachment to a spear. Other projectile points such as Lake Mojave, Parman, and Silver Lake points, were somewhat smaller (though still large in comparison to later arrow points) and foliate in shape. Crescents, specialized scrapers, leaf-shaped knives, drills, and some choppers/ hammerstones are other tools which have been identified with this period. Millingstones typically are not present. The artifact assemblage of this period is indicative of a generalized hunting and gathering subsistence economy.

Archaeological sites from early on in this period were generally associated with Pleistocene lake shorelines. As the Altithermal (a warmer and drier climatic period that lasted from 6000 BC to 900 BC) set in, sites began to concentrate around desert oases, away from receding lakes that were becoming too brackish for consumption. This movement likely spawned the technological change that would lead to the Pinto Basin complex.

Pinto Period

The Pinto Period dates from around 5000 to 2000 BC, corresponding roughly to the Millingstone Horizon in the coastal areas of California. Although desert and coastal peoples shared cultural traits during this period, desert peoples probably did not have the same dependence on millingstones as coastal peoples. Seed grinding does not appear to be an important economic activity yet to the peoples of this period, but the presence of flat slab and occasionally shallow-basin metates along with manos, indicates growing importance that plant seed resources were beginning to have. Presumably these peoples were still maintaining a large and small game hunting and vegetal gathering economy during this period. Pinto points, as defined by Campbell and Campbell (1935), are the distinctive lithics of this period. These are usually found in association with heavy-keeled scrapers, and millingstones.

Pinto Basin complex sites are generally found in association with ephemeral lakes, stream channels, and springs, which to some suggests a break in the Altithermal warming. Presumably there was a reoccupation of lakeshore areas around 4500 BC and then a retreat back to desert oases by 3500 BC. This time period is known as the Little Pluvial.

Gypsum Period

The Gypsum Period is believed to date from around 2000 BC to about AD 500. Again, primary artifacts indicative of this period are projectile points of various types, including Gypsum Cave, Humbolt series, and Elko series points. The early Gypsum period is characterized by larger projectile points when use of the dart and atlatl were still common. Later, with the introduction of the bow and arrow, smaller points become prominent. Manos and metates become more common, and the mortar and pestle come into use--indicating a developing reliance upon fleshier seed foods such as mesquite pods and acorns. Presence of *Haliotis* and *Olivella* shell beads in sites of this period provide the earliest evidence for contact between desert and coastal peoples.

Saratoga Springs Period/Patayan I

The Saratoga Springs Period lasts from about AD 500 to 1200. The Patayan I Period lasts from about AD 700 to 1000 (Waters 1982:281). During this period the southern desert region, in which the Coachella Valley lies, deviates from the rest of the desert region due to heavy cultural influence by the Patayan, a lower Colorado River group. The Patayan influence brings drastic technological change to the peoples of this region. Buffware and Brownware pottery, made using the paddle and anvil technique, are introduced and reliance on the bow and arrow increases which leads to a new projectile point type called Cottonwood Triangular. Millingstones, including manos, metates, pestles, and mortars are also present in this time period.

Shoshonean Period/Patayan II and III

The Shoshonean Period spans from AD 1200 to contact with Europeans. The Patayan II Period lasts from about AD 1000 to 1500. The Patayan III Period lasts from about AD 1500 to European contact. It is characterized mostly by continuing regional development, which causes groups to differentiate technologically, ethnographically, and linguistically. In the Coachella Valley region, Patayan influence continues, with Colorado Buffware and Tizon Brownware still present. There are a number of changes in the Patayan ceramic traits, such as the disappearance of the Colorado shoulder, red clay slip, and incised decoration (Waters 1982:287). New ceramic traits include recurved rims and stucco finish. Desert Side-notched points have become the dominant point type.

Proto-Historic Period

The Desert Cahuilla are the Native Americans ethnographically associated with the Coachella Valley region. The Cahuilla influence in the Coachella Valley appears to have increased with the departure of the Patayan people upon the desiccation of ancient Lake Cahuilla. They are a Takic speaking people who are more closely culturally tied with coastal and Colorado River groups than with most Mojave desert peoples. The Cahuilla inherited much of their material culture from the Patayan people however they were linguistically different, being Shoshonean rather than Yuman, like the Patayan. Where the Patayan end and the Cahuilla begin presents an interesting research area.

First known contact with the Cahuilla by a European was during the Juan Bautista de Anza expedition in 1774-1776. They were largely ignored by the Spanish until the establishment of the Asistencias San António de Pala (1816), Santa Ysabel (1818), and San Bernardino (1830). Through these mission outposts the Spanish managed to indirectly influence Cahuilla religious beliefs and culture. During the Mexican occupation of California, the Cahuilla were largely left alone by intruders. It was not until 1853 when the Southern Pacific Railroad began surveying the Coachella Valley for a possible railroad route that the Cahuilla were again bothered. By this point the lands inhabited by the Cahuilla had become desired by Americans. In response to this, President Ulysses S. Grant began allotting Cahuilla lands in 1875 to give to American settlers. It was during this period when the removal of the Cahuilla to government reservations began. Ten reservations were created that affected the Cahuilla; of these, four are in the Coachella Valley.

Ethnography

Many studies of Cahuilla culture have been conducted over the years. Among the most informative accounts are Bean (1972, 1978), Strong (1929), Hooper (1920), and Kroeber (1908). Four excellent ethnobiological studies also exist (Ebeling 1986, Barrows 1900, Kroeber 1925, and Bean and Saubel 1972), as well as archaeological accounts of prehistoric Cahuilla adaptations to the desiccation of ancient Lake Cahuilla (e.g. Wilke 1978).

The Cahuilla are divided by anthropologists into three subgroups, the Desert Cahuilla of the Coachella Valley, the Pass Cahuilla of the San Gorgonio pass area, and the Mountain Cahuilla of the Santa Rosa and San Jacinto mountains. These divisions were based on geographic separation and dialect differences, but they were not necessarily recognized by the Cahuilla themselves. Actually, the Cahuilla did not consider themselves to be of one tribe as western anthropologists have designated them to be. Bean (1972:85) reported that "the maximal level of social identification among the Cahuilla was the *?ivi?lyu?atum*, a linguistically and culturally defined group . . . [which] refers to persons speaking the Cahuilla language and recognizing a commonly shared cultural heritage . . . [but] a more precise membership criterion existed at the next level of group identity." A person's inclusion in his or her moiety and lineage (or clan) was primary to any tribal affiliation.

The two moeities, or main divisions, of the Cahuilla were the *Istam* (coyote) and the *Tuktum* (wild cat). Moieties were patrilinear and exogamous, meaning that lineage was followed through the father and that members of one moiety had to marry into the other. Clans were numerous and were named after or associated with the villages they comprised. Individual clans claimed ownership over their village and the territories in which they hunted, gathered, and camped. Territories could be several square miles in extent and were only for the use of a specific lineage. Mesquite grove boundaries, for instance, were drawn to include specific trees. Everyone knew who those trees belong to so that if someone from another lineage was found trespassing, a fight could ensue. But in times of need, areas were shared with other clans. This allowance occurred regularly with mesquite because these groves do not produce bountiful crops each year. In the case of crop failure, a neighboring clan would invite the misfortunate person into their territory to gather.

A number of villages were located near the study area; any one of them could have owned this fishing camp and gathering site. *Cow on vah al ham ah*, located at Point Happy to the west of the subject property, was one such village. Gifford (1918:188-189) recounts the story of *Cow on vah al ham ah* as:

> The eagle *Aswetsi* was the mythical leader of the *Sewakil* clan of the coyote moiety. In the mountains to the west of Coachella is a rock where this deity rested. The marks in the rock show the position of his chin, elbows, and feet. The marks of his feet have been damaged by white people.

Strong (1929:102) related the story as told by Alejo Patencio, "then *aswitsei* came up to the mountains at *kavinic* where he leaned against a rock leaving the marks of his elbows and knees. He looked toward *maulmii* (Toro), then he climbed up the mountain and lay down watching the people, leaving the marks of his elbows and ribs. As he came down he slipped leaving the print of his hand in the soft rocks. Near *kavinic* was a palm with which he talked." *Aswitsei* is believed to have married the beautiful daughter of a man named *kauicwikil* and then settled at a nearby village called *Kotevewit* (Strong 1929:86).

RECORDS AND LITERATURE RESULTS

Archaeological Records Search

An archaeological site record review of the study area was conducted on August 28, 2000 by James Brock at the Eastern Information Center of the California Historical Resources Information System at UC Riverside. As was expected, the records search indicated that the study area was in an area of high archaeological sensitivity because of its association with the shoreline of the ancient Lake Cahuilla. At least 35 sites have been recorded within a one-mile radius of the study area. These consist of prehistoric habitation sites, specialized procurement/processing sites, ceramic scatters, and historical refuse deposits.

The study area itself has been the subject of considerable previous archaeological research and four prehistoric sites have been recorded on it: CA-RIV-1769, CA-RIV-3667, CA-RIV-3668, and CA-RIV-3795.

Brown Study–1979

The property was first studied by M.A. Brown in 1979 for the proposed "Desert Palace Project" (former Tentative Tract 13986). Brown located five "sites" and four isolates on the property. These sites and isolates were recorded as "loci" of the overall property. One human cremation was noted (Locus 11). It is unclear what later became of this cremation. No site numbers were assigned to the resources during this study. Brown concluded:

> ...the research value of the sites is extremely high, and because of the occurrence of the cremation combined with research value, the resources on the subject property do meet the criteria set out in 36 CFR 60.6 for nomination to the

> National Registry [sic] of Historic Places as an archaeological site likely to yield information important to prehistory [Brown 1979:40].

Brown recommended a salvage program focusing primarily on the deposits in the dune at the northern end of the property, later designated CA-RIV-1769. Interestingly, the cost for the program presented at that time (1979) was $22,632.50.

Another study was apparently conducted for the property in 1980 by S.A. Apple, but no copy of the report was on file at UC Riverside. This study appears to have been a survey of the area.

McCarthy Study--1989

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: CA-RIV-1769, CA-RIV-3667, and CA-RIV-3668 (McCarthy 1989).

CA-RIV-1769 combined Brown's Loci 4 through 11. This site consists of various deposits of habitation debris in the dune at the northern end of the property (for the location see Figure 5 below). Materials noted on this site consist of pottery scatters, mano and metate fragments, animal bone scatters, charcoal, and possible hearth features. Also noted by Brown, but not mentioned by McCarthy, are thermally affected clay fragments. McCarthy looked for, but could not relocate, the cremation noted by Brown.

CA-RIV-3667 was defined based on Brown's Locus 3. It is located on a long, low ridge in the center of the property (see Figure 5). It was originally defined by Brown as consisting of an isolated Cottonwood Triangular projectile point. McCarthy noted brownware pottery in the same vicinity and therefore upgraded the locus from isolate to site (McCarthy 1989:2-3).

CA-RIV-3668 was recorded by McCarthy based on Brown's designation of Locus 1, which was noted as a deposit of five pottery sherds (Brown 1979). McCarthy could not relocate this deposit in the field. The reported location of this "site" is shown in Figure 5.

McCarthy noted the potential significance of the sites on the property and noted that further evaluation of significance through test excavation was required at sites CA-RIV-1769 and CA-RIV-3667. He recommended a combination of two methods for the test. First, hand excavation of 1 x 1.5 meter units. Second, "...a series of backhoe trenches within the site area in order to locate any buried or older deposits" (McCarthy 1989:4). The trenches were to be dug to a depth of two meters.

Arkush Study--1989

In November of 1989, in apparent response to McCarthy's recommendations, UC Riverside's Archaeological Research Unit conducted test excavations at sites CA-RIV-1769, CA-RIV-3667, and CA-RIV-3795 (Arkush 1990).

Despite the recommendation of backhoe testing, the testing conducted at CA-RIV-1769 consisted only of surface collection, 11 hand excavation units, and a surface scrape. A considerable amount of material was recovered from CA-RIV-1769 including ceramics, debitage, ground stone fragments, a bone awl, a shell bead, and a 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 CA-RIV-1769 was a shallow deposit that had its research potential exhausted by the test excavation (Arkush 1990). Apparently none of the units exceeded 80 centimeters in depth. Most artifacts were recovered from the surface or the top 20 centimeters (as might be expected when units are excavated in surface artifact concentrations), although faunal remains extended to a depth of 80 centimeters. The potential for buried deposits at this site was not addressed despite the recommendations given earlier that year by McCarthy (i.e. backhoe testing).

CA-RIV-3667 was investigated by surface collection and hand excavation of three units. Again, no backhoe work was conducted. Only 23 brownware pottery sherds were recovered. It was concluded on the basis of the hand units that the deposit did not exceed 30 centimeters. It was further concluded that the site had no further research potential.

CA-RIV-3668 was not test excavated during the Arkush testing program, probably on the basis of McCarthy's negative findings (McCarthy 1989).

CA-RIV-3795 was first noted during the Arkush (1980) study. This is situated on a low ridge north-northwest of CA-RIV-3795. Two units were dug and a surface collection were conducted at the site. One small feature, comprising a metate and two manos, was found on the ground surface. No cultural material was found below 10 centimeters. In addition to the ground stone specimens, two sherds and one piece of debitage were recovered. Again, no backhoe testing was conducted. It was concluded that the site had no further research potential.

Archival Research

Archival research for this study was conducted by James Brock on August 28, 2000 at the Bureau of Land Management (BLM) office in Riverside and the Rivera Library and Science Library (Map Room) at UC Riverside. Supplemental information was provided by the BLM State Office in Sacramento.

The US General Land Office plat map from 1856 shows no cultural activity in the vicinity of the study area. The General Land Office plat map for 1914 also shows no cultural activity in the vicinity of the study area. The USGS 1904 Indio map (1:125,000) shows no activity on, or adjacent to, the study area. The US Army Corps of Engineers 1941 Toro Peak quadrangle (1:62,500) shows a dirt road running east to west across the central portion of the study area. This was not noted by previous archaeological researchers, nor was it observed during the fieldwork for the present study.

The BLM research indicated that homestead patents were attempted on the study area on three different occasions between 1909 and 1916. These were all subsequently cancelled. Finally there was a patent issued to Wesley Eugene Morgan on July 12, 1928 (BLM Serial File No. 1017477). This comprised 160 acres (the easternmost one-quarter of Section 20), of which the study area made up the northern half. There is no evidence that Morgan ever had a dwelling on the portion of this grant that comprises the study area. Therefore, it appears that there have never been any buildings constructed on the 75-acre study area.

As a further step in the research, the following "heritage property" registers were checked for this tract: the National Register of Historic Places (American Association for State and Local History 1991), California Historical Landmarks (California Department of Parks and Recreation 1990), and California Inventory of Historic Places (California Department of Parks and Recreation 1976). Additional registers were checked during the records search at UC Riverside. No historical resources listed in these publications were found to be specific to the study area environs.

The records search and background research indicated that the study area is in a location that is of very high sensitivity for prehistoric resources and moderate sensitivity for historical resources.

RESEARCH DESIGN

INTRODUCTION

A research design is a guide document to organize research and interpret findings. It provides a structure from which the evaluation of significance can be made. A research design is usually regional in scope and based on some type of statistically-based sampling program (see Binford 1964). A research design generally has the following elements: (1) a theoretical orientation, (2) research areas, or domains, under which come (3) specific research hypotheses or questions which have (4) test implications for interpretation of field data.

THEORETICAL ORIENTATION

The theoretical orientation which structures this research design is cultural materialism. Cultural materialism assumes that decision making by people and groups is based upon economic considerations. It assumes that behavior, at least in the long term, is rational and therefore adaptive. It recognizes that people and groups have not and do not always behave in a rational manner but from the relatively gross temporal perspective of archaeology, such behavior is not statistically significant.

RESEARCH DOMAINS

The research domains, or topics, which will be considered are chronology, subsistence practices, settlement systems, exchange systems, and site structure and formative processes. Discussions of these domains are provided below.

Chronology

Chronology is the backbone of archaeology. Establishing the sequence of cultural change through time is a fundamental concern in archaeology. Unless a site can be placed in a temporal context, its ability to address the evolution of a cultural system is seriously limited. Fortunately, datable material (e.g. charcoal) is relatively abundant on sites in the La Quinta area, including those investigated during the current project. From this data, it is clear that abundant Late Period sites are present in the La Quinta area. A major concern in the region's archaeology is establishing changes in Late Period settlement and subsistence patterns in relation to the fluctuations in the water level of ancient Lake Cahuilla. Furthermore, since evidence for temporally earlier sites is lacking, any data helping to establish an Archaic Period chronology for the area is extremely valuable.

- Does the site(s) contain sufficient material for absolute or relative dating?

  Test implications: presence of carbon in sufficient quantity to provide absolute dates, presence of temporally-sensitive artifact types (e.g. ceramics, projectile points).

- Is there any evidence for an archaic period use of the site(s)?

  Test implications: absolute (e.g. carbon) date of pre-AD 900 or presence of artifacts (e.g. projectile points, beads) dated to pre-AD 900.

- Can the site(s) be tied in to one or more of the postulated stands of ancient Lake Cahuilla (see e.g. Waters 1983)?

  Test implication: absolute date(s) that corresponds to a postulated stand of Lake Cahuilla.

  Is there any evidence for a post-Lake Cahuilla use of the sites?

  Test implication: absolute or relative date of post-AD 1650, presence of historical artifacts.

Settlement Systems

Information on settlement patterns should be present in the data from the site. Data may present evidence of changing settlement patterns with the different lacustral episodes of ancient Lake Cahuilla and those caused by the final desiccation of the lake.

- Can settlement location be related to a particular stand of ancient Lake Cahuilla?
- Is there evidence of a change in settlement patterns pertaining to the desiccation of Lake Cahuilla?
- Was shoreline occupation at Lake Cahuilla primarily seasonal or year round (Wilke 1978:14)?

Subsistence Practices

Presence of a good-sized faunal assemblage from any of the sites should provide a good range of evidence for exploitation of faunal resources. Examined with other sites in mind that are located in the vicinity, this assemblage also presents a regional look at resource exploitation. Reconstruction of ceramic vessel forms and the types of ground stone implements present could provide information on the types of resources being exploited by the site's inhabitants.

- Is there evidence of a change in subsistence strategies resulting from the desiccation of Lake Cahuilla?

  Test implication: change in frequencies of particular faunal species in stratigraphically discrete contexts dating to the last stand and later periods.

- Are there ceramic forms and ground stone implements present that are indicative of certain types of resource exploitation activities?
- Is there evidence of agriculture? If so, does it relate to changing subsistence practices forced by the desiccation of Lake Cahuilla?

Exchange Systems

Patterns of exchange should be evidenced in artifactual material from the site. Such things as lithic types, ceramics, and beads present could indicate trade relations with other groups (e.g. Colorado River or coastal California). The following research questions have been developed to address this domain:

- Are exotic resources present at the site? Do these represent direct procurement or exchange mechanisms?
- Is there evolution through time in the types or quantities of non-local resources present?
- Is the local catchment area sufficiently diverse in natural resources to discourage trade relations?
- Is there evidence of the exchange of technologies or ideas, rather than material objects?

Site Structure and Formative Processes

The aeolian sand dune environment is atypical of southern California archaeological contexts. Some assumptions that are taken for granted in California archaeology may not necessarily apply to the special environment under consideration. Recent work in the La Quinta area (Brock and Smith 2000) has lead us to put forward the following hypotheses:

- Because of soil deflation in the aeolian sand environment, sites with the most abundant surface material will generally be shallow.

  Test implication: cultural deposits in such scenarios will generally be less than 10 centimeters in depth.

- Surface sites will generally evaluate as non-significant for two primary reasons: (1) relic seekers will have picked the diagnostic artifacts from the surface and, (2) they will be largely undateable because surface charcoal will have blown away or will be contaminated and diagnostic artifacts will be gone.

- Buried sites will be present in the aeolian sand dune environment and they will have the greatest research potential. What goes up must come down. 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.

  Test implication: discovery of archaeological sites with no, or minimal, surface indicators.

METHODS

FIELDWORK AND ANALYSIS TECHNIQUES

Survey Methodology

A systematic pedestrian survey of the project area was conducted on August 25, 2000. The property was walked in 5- to 10-meter north-south transects, beginning at the northeast end of the study area and terminating at the northwest corner. Standard archaeological survey procedures were utilized. The field crew consisted of James Brock and Mary Anne Eason. The survey required 12 person hours to complete. One adverse condition existed during the fieldwork—it was very hot, with the temperature over 105° by the end of the fieldwork (at noon).

Test Excavation Methodology

Fieldwork for the Phase II test excavation was conducted on October 20, 21, 23, and 25, 2000 by James Brock and Mary Anne Eason. The backhoe was used on the latter two dates. Prior to excavation a Research Plan was submitted to the City of La Quinta (Brock 2000b).

The test excavation was conducted as three tasks: (1) the establishment of a staked, systematic grid over known site areas and areas that appear to have the potential for buried deposits, (2) systematic backhoe test excavation over the grid areas to discover and evaluate potential subsurface deposits, (3) analysis/write-up of recovered data.

Task 1

A grid of 50 meter intervals was established, by transit, over known site areas and areas that appear to have the potential for buried deposits. This grid area is indicated on the attached map (Figure 5). This grid was used for locating backhoe trenches and will be used for datum points during future archaeological monitoring. Limited surface collection of diagnostic prehistoric artifacts/ecofacts was proposed during Phase II however this was not the primary objective of the research and no diagnostic surface specimens were identified during the fieldwork.

Task 2

This consisted of the subsurface evaluation of the areas laid out during Task 1 through the excavation of a systematic grid of backhoe trenches. This evaluated the overall potential of the designated areas to yield buried prehistoric resources. Trenches were approximately 60 by 200 centimeters and dug to a minimum of two meters in depth. Side wall collapse occurred frequently. All soil was screened through ¼-inch mesh for cultural material. A minimum of 20 trenches were proposed to be dug. A total of 31 trenches were actually excavated. Views of work in progress are shown in Figures 6 and 7.

Task 3

Task 3 consisted of artifact/ecofact cataloging and analysis, site evaluation, and the production of the present report on the project. Analysis was initiated with the completion of Task 2. The artifacts/ecofacts recovered, along with notes and other pertinent material, will be deposited with the City of La Quinta.

In accordance with State Historic Preservation Office guidelines, all cultural materials over 45 years in age were considered for potential cultural resource value during both phases of the field research.

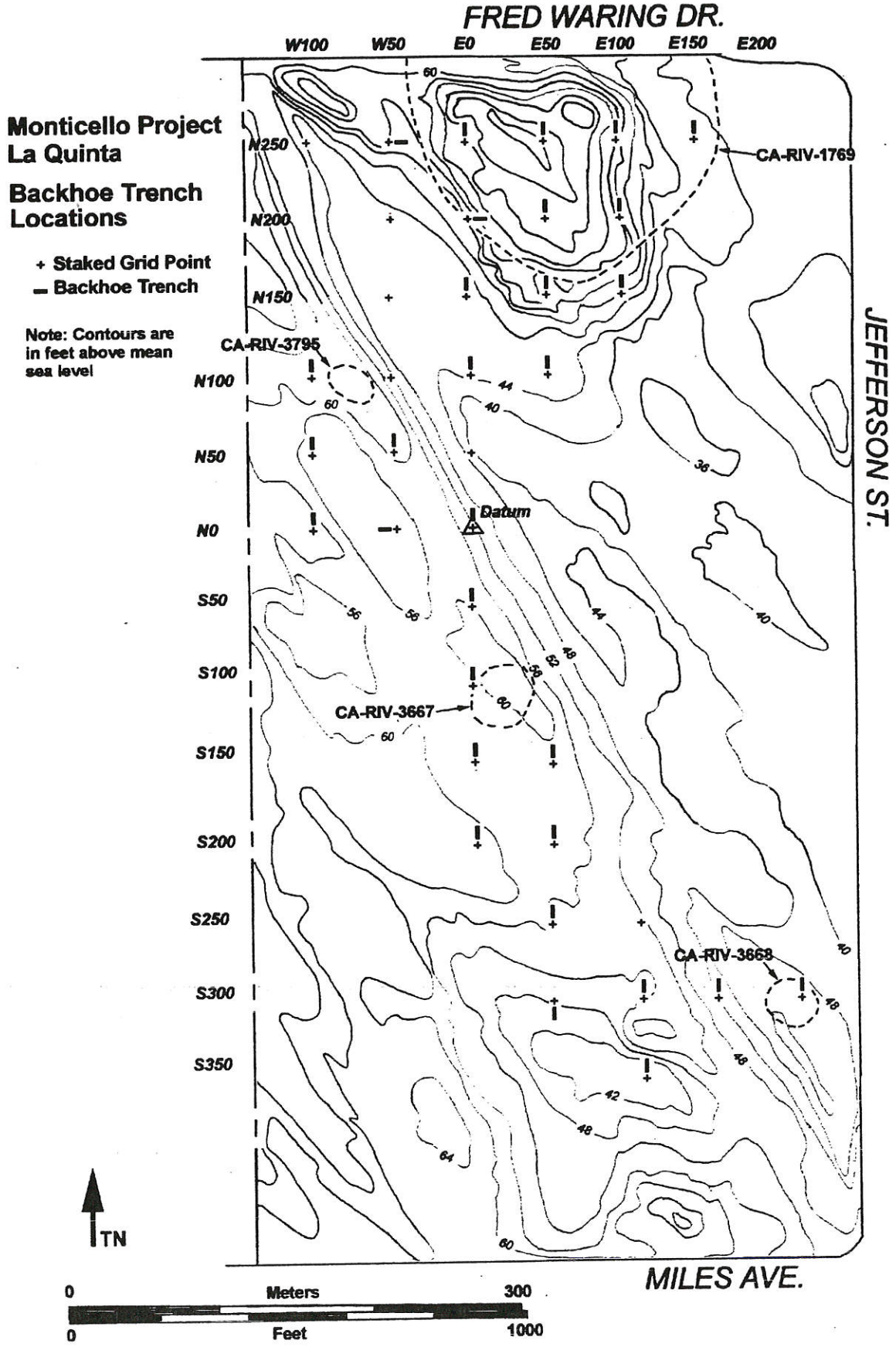

Figure 5. Locations of backhoe trenches and previously recorded sites.

Figure 6. View of backhoe trenching in progress on CA-RIV-1769. The intersection of Jefferson Street and Fred Waring Drive is in the background.

Figure 7. View of screening in progress.

FINDINGS

PHASE I SURVEY RESULTS

The results of the Phase I investigation were presented in a previous report (Brock 2000a) and are reiterated here. No new archaeological sites or isolated finds were observed during the fieldwork. All cultural material noted was located in areas previously designated as site locations. Resources found at the previously recorded sites are described below.

> CA-RIV-1769: Various deposits of cultural material were noted in this large dune area despite the fact that it had been surface collected in 1989. Sand movement in the last decade has exposed a considerable amount of new material. Much of this material is eroding out of the faces of the dune. Materials observed during the survey included 30+ pottery sherds (primarily brownware), 20+ fragments of thermally affected clay, 100+ fragments of bone, two chipped stone fragments, charcoal, and thermally affected rocks. As was noted by previous researchers, the cultural material appears to be in clusters.
>
> CA-RIV-3667: Three brownware sherds were observed in the recorded area of this site. Two were body sherds and one was a rim sherd.
>
> CA-RIV-3668: No cultural material was noted in the location of this previously recorded site during the Phase I investigation.
>
> CA-RIV-3795: One brownware body sherd was observed in the recorded location of this site during the survey.

The initial Phase I survey report (Brock 2000a) recommended an additional Phase II backhoe test based on the recommendations of McCarthy (1989) and recent developments in La Quinta archaeology. In the past few years it has become standard operating procedure to conduct systematic backhoe testing on dune field properties adjacent to the former shoreline areas of ancient Lake Cahuilla. The presence of significant buried sites in such contexts—with only minor surface indications— has been demonstrated on at least three occasions. At the Burning Dune site (CA-RIV-4754) there was a major cultural deposit located over a meter below the ground surface (Brock, Smith, and Wake 1999). The deposit was only discovered because it was exposed in a road cut (Adams Street). At the Miraflores project a major, significant deposit was discovered at CA-RIV-6059 using systematic backhoe testing in an area where hand excavated test units had produced very little material (Brock and Smith 2000). Another example of an important site found by backhoe trenching consisted of a buried component of CA-RIV-2936 at the La Quinta Corporate Centre project (Love et al. 1999).

PHASE II TEST EXCAVATION RESULTS

No potentially significant cultural deposits were located during the backhoe testing. No new sites were located on the property. Table 1 present a breakdown of the data from the various trenches. Appendix 2 presents the artifact/ecofact catalog of the recovered material.

CA-RIV-1769: The test excavation produced a light volume of material from this site consisting of three body sherds of brownware pottery, 15 small baked clay fragments, four fragments of debitage, one possible projectile point fragment (Cottonwood Triangular?), and nine small bone fragments (2 fish, 7 small mammal). Of note was that the debitage recovered was found near the bottom of Trench 7, indicating deeply buried material.

Given the volume of soil excavated at CA-RIV-1769, the artifact density is very low. No stratigraphically distinct cultural deposits were observed.

CA-RIV-3667: Three pieces of small mammal bone were recovered from the bottom of Trench 17 (S100/E0) during the test excavation at this site. This may not represent cultural activity. No artifacts were recovered.

CA-RIV-3668: No cultural material was noted in the location of this previously recorded site during the Phase II investigation.

CA-RIV-3795: No cultural materials were recovered during the test excavation at this putative site location.

Also of some interest here is the fact that a modern human cremation was discovered on CA-RIV-1769. This was four meters south of Datum Point N200/E100. This was identified as modern due to the presence of metallic/porcelain tooth crowns in the cremation matrix. The Riverside County Coroner's Office was immediately notified upon discovery of this deposit on October 20, 2000. Their reference number is 2000-5698. Deborah Gray and Michael Werk of the Coroner's Office removed the cremation on October 21, 2000.

DISCUSSION

The Research Design predicts 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. This property fits this predictive model and consequently the discovery of archaeological sites with no, or minimal, surface indicators is a distinct possibility.

Trench #	Site	Grid Location	Depth (m)	Findings		Stratigraphic Observations	Notes
				Precontact	Modern		
1	CA-RIV-1769	N250/E150	2.0	Freshwater univalve shell	None	Alternating loose and compacted sand; charcoal fragments	
2	CA-RIV-1769	N250/E100	2.3	Possible project point fragment, bone	Bullet (spent)	Loose sand; charcoal fragments	
3	CA-RIV-1769	N200/E100	2.0	None	Glass, plastic	Loose sand; charcoal fragments	
4	CA-RIV-1769	N200/E50	2.0	Brownware body sherd, baked clay, bone	Glass, plastic, nails, 22-caliber bullet shell, shotgun shell	Moist loose sand; charcoal and freshwater shell fragments	
5	CA-RIV-1769	N250/E50	2.0	None	22-caliber bullet shells	Loose sand; charcoal and freshwater shell fragments	
6	CA-RIV-1769	N250/E0	2.0	Brownware body sherd, baked clay, bone	Styrofoam	Loose sand; charcoal and freshwater shell fragments	
7	CA-RIV-1769	N250/W50	2.1	Debitage	Plastic	Loose sand; sparse charcoal	Artifacts recovered from trench bottom
8	CA-RIV-1769	N200/E0	2.0	Brownware body sherd, baked clay	Glass, plastic, metal can fragments	Loose sand; charcoals and freshwater shell fragments	
9	None	N150/E0	2.0	None	Glass, cigarette butts	Loose sand with layers of compacted silt; charcoal and freshwater shell fragments	
10	None	N150/E50	2.0	None	Marble, glass, spent bullet, clay pigeon fragments	Loose sand with dead root fragments	
11	None	N150/E100	2.0	None	Glass, plastic	Loose sand; charcoal and freshwater shell fragments	
12	None	N100/E50	2.0	None	Pocket knife	Loose sand; charcoal and freshwater shell fragments	Knife found on surface

Table 1. Results of backhoe trenching.

Trench #	Site	Grid Location	Depth (m)	Findings		Stratigraphic Observations	Notes
				Precontact	Modern		
13	None	N100/W100	2.0	Clay fragment	Glass, plastic, asphalt, sheeting fragments, styrofoam	Loose sand with gravel	Disturbed
14	None	N50/W100	2.0	None	Glass, plastic, 22-caliber bullet shell, nylon belt fragment	Loose sand	Disturbed
15	None	N0/W100	2.0	None	Glass, plastic	Loose sand	
16	None	N0/W50	2.0	None	None	Loose sand; charcoal fragment	
17	CA-RIV-3667	S100/E0	2.2	Bone	None	Loose sand; charcoal fragments	Bones recovered from trench bottom
18	None	S150/E0	2.0	None	Pellet, metal washer	Loose sand; freshwater shell fragment	
19	None	S200/E0	2.0	None	Plastic sheeting fragments	Loose sand with fine aeolian layering; sparse charcoal	
20	None	S200/E50	2.0	Bone	None	Loose sand; charcoal fragments	
21	None	S250/E50	2.0	None	Plastic	Loose sand	
22	None	S300/E50	2.0	None	None	Loose sand	
23	None	S300/E100	2.2	None	Plastic wrap	Loose sand with roots	Within mesquite patch
24	None	S350/E100	2.0	None	Glass	Loose sand; sparse charcoal	
25	CA-RIV-3668	S300/E200	2.0	None	None	Loose sand with orange compacted silty sand from 70-120 cm	

Table 1 (continued). Results of backhoe trenching.

Trench #	Site	Grid Location	Depth (m)	Findings		Stratigraphic Observations	Notes
				Precontact	Modern		
26	None	S300/E150	2.0	None	None	Orange-tan compacted silty sand with 3 cm organic lens at 47 cm; sparse charcoal	
27	None	S150/E50	2.0	None	Plastic	Loose sand	
28	None	S50/E0	2.0	None	Plastic, foil	Loose sand	
29	None	N0/E0	2.0	None	Spent bullet	Loose sand; charcoal fragments	
30	None	N50/W50	2.0	None	Foil, wrapper fragments	Loose sand; sparse charcoal fragments	Disturbed
31	None	N100/E0	2.0	Bone	22-caliber bullet shell	Loose sand; charcoal and freshwater shell fragments	

Table 1 (continued). Results of backhoe trenching.

No buried, stratigraphically-intact, cultural deposits were identified during the test excavation. Given the research questions presented above in the Research Design it is concluded that none of the sites present on the property have meaningful research potential based on the results of the work to date.

The possibility still exists that buried cultural deposits are present at the study area. Given the size of the property (approximately 75 acres), 31 backhoe trenches is still a comparatively small sample.

Although the test program did not yield a large amount of data to support the presence of buried deposits, there are indications that buried deposits may be present at CA-RIV-1769 and CA-RIV-3667. Trenches at both of these sites produced small quantities of artifacts or possible cultural material at, or near, trench bottom.

The backhoe trenching has been helpful in that it indicates that it is unlikely that any large, highly significant, buried archaeological sites are present on the property.

MANAGEMENT CONSIDERATIONS

SITE EVALUATION

Under the California Environmental Quality Act (CEQA) an archaeological resource is significant if it meets one of the following criteria: (a) it is associated with an event or person of recognized significance in California or American history, or recognized scientific importance in prehistory; (b) it can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions; (c) it has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind; (d) it is at least 100 years old and possesses substantial stratigraphic integrity; or (e) it involves important research questions that historical research has shown can be answered only with archaeological methods.

Additional criteria of significance is found in eligibility for the California Register of Historical Resources (CRHP), which is based upon the criteria used for Federal undertakings whereby resources are evaluated for their eligibility for inclusion in the National Register of Historic Places:

A. Association with events that have made a significant contribution to the broad patterns of history.

B. Association with the lives of persons significant in our past.

C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction.

D. Have yielded or may be likely to yield information important in history or prehistory.

Research to date has not identified any potentially significant archaeological sites on the study area. It is still possible--although given the backhoe test results unlikely--that significant buried deposits are still present on the property.

RECOMMENDATIONS

All reasonable efforts have been made to identify potentially significant cultural resources on this property. The property has been surveyed at least three times and the sites previously identified have been subjected to both hand and backhoe excavation. Potential site areas have also been tested by backhoe. The possibility for an unexpected discovery of a major buried cultural deposit during grading has been greatly lessened.

Archaeological monitoring of rough grading and major trenching is recommended for this project. This monitoring should be conducted by, or under the direct supervision of, a Registered Professional Archaeologist (RPA), or equivalent. The person on-site should meet the City of La Quinta's monitor requirements. This archaeologist should be empowered to halt or redirect earthmoving activities around any discovered resources until such resources have been examined and evaluated. This principal investigator for the archaeological monitoring should have the discretion to decide when sufficient monitoring has occurred for the project. A report on the results of the monitoring should be submitted to the City of La Quinta, along with materials recovered, if any.

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APPENDIX 1: PERSONNEL QUALIFICATIONS

James Brock (Principal Investigator)
- BA (Anthropology), UC Santa Barbara
- MA (Archaeology), University of Durham, Durham, England
- Registered Professional Archaeologist (RPA), i.e. listed on Registry of Professional Archaeologists, formerly the Society of Professional Archaeologists (SOPA). SOPA certifications in field research, theoretical/archival research, and historical archaeology.
- 20 years of experience as a Principal Investigator on cultural resource management (CRM) projects throughout southern California

Brenda D. Smith (Research Associate)
- BS (Anthropology) UC Riverside
- MA (American Indian Studies) UCLA
- Registered Professional Archaeologist (RPA), i.e. listed on Registry of Professional Archaeologists.
- 9 years of cultural resource management experience in California and Arizona

Mary Anne Eason (Crew Member/Surveyor)
- BA (Anthropology), CSU San Bernardino
- MA (Anthropology), UC Riverside
- 4 years of CRM experience in southern California

APPENDIX 2: ARTIFACT/ECOFACT CATALOG

Site	Grid Location	Catalog Number	Artifact Type	Description	Type	Material	Color	Marks	Other	Count	Min Count	Weight (g)
None	N100/E0	1	Faunal	Small mammal					burnt	2	1	0.2
None	N100/W100	2	Clay	Baked	tabular					1	1	0.5
CA-RIV-	3667 S100/E0	3	Faunal	Small mammal	tooth					1	1	0.1
CA-RIV-	3667 S100/E0	4	Faunal	Small mammal	long bone					1	1	0.1
CA-RIV-	3667 S100/E0	5	Faunal	Small mammal	vertebra					1	1	0.1
None	S200/E50	6	Faunal	Small mammal	vertebra					3	1	0.1
CA-RIV-	1769 N200/E0	7	Ceramic	Sherd, body	brownware				burnt	1	1	5.2
CA-RIV-	1769 N200/E0	8	Clay	Baked	globular				burnt	1	1	0.5
CA-RIV-	1769 N200/E50	9	Clay	Baked	globular				burnt	1	1	4.9
CA-RIV-	1769 N200/E50	10	Clay	Baked	tabular				some burnt	7	1	0.5
CA-RIV-	1769 N200/E50	11	Ceramic	Sherd, body	brownware				burnt	1	1	1.5
CA-RIV-	1769 N200/E50	12	Faunal	Small mammal						1	1	0.1
CA-RIV-	1769 N200/E50	13	Faunal	Fish?						1	1	0.1
CA-RIV-	1769 N250/E0	14	Clay	Baked	tabular				some burnt	6	1	10.0
CA-RIV-	1769 N250/E0	15	Ceramic	Sherd, body	brownware				burnt	1	1	36.0
CA-RIV-	1769 N250/E0	16	Faunal	Small mammal						3	1	0.1
CA-RIV-	1769 N250/W50	17	Chipped Stone	Debitage		chert	grey-tan			3	1	1.4
CA-RIV-	1769 N250/W50	18	Chipped Stone	Debitage		chert	rose			1	1	0.1
CA-RIV-	1769 N250/E100	19	Chipped Stone	Point Fragment, poss		wonderstone				1	1	0.4
CA-RIV-	1769 N250/E100	20	Faunal	Small mammal, cf	skull frag?					1	1	0.1
CA-RIV-	1769 N250/E100	21	Faunal	Fish	vertebra					1	1	0.1
CA-RIV-	1769 N250/E100	22	Faunal	Small mammal	long bone frag					2	1	0.1
										39	21	62.1

ATTACHMENT E

2008-2009 MONITORING PROGRAM

RI-08213

ARCHAEOLOGICAL MONITORING REPORT

JEFFERSON SQUARE PROJECT

Jefferson Street and Fred Waring Drive
City of La Quinta, Riverside County, California

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April 8, 2009
CRM TECH Contract No. 2263

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

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Date: April 8, 2009

Title: Archaeological Monitoring Report: Jefferson Square Project, Jefferson Street and Fred Waring Drive, City of La Quinta, Riverside County, California

For Submittal to: Planning Department
City of La Quinta
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La Quinta, CA 92253
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USGS Quadrangle: La Quinta, Calif., 7.5' quadrangle (Section 20, T5S R7E, San Bernardino Base Meridian)

Project Size: Approximately 11 acres

Keywords: City of La Quinta, County of Riverside; Coachella Valley region; archaeological monitoring of grading activities; Assessor's Parcel No. 604-521-005; Site 33-001769/CA-RIV-1769 (prehistoric habitation debris); possible human cremation remains; no substantial adverse effect on a "historical resource"

MANAGEMENT SUMMARY

Since August 2008, at the request of Regency Realty Group, Inc., CRM TECH has completed an archaeological monitoring program during earth-moving operations for the Jefferson Square project, a commercial development in the City of La Quinta, Riverside County, California. The project area, Assessor's Parcel No. 604-521-005, is located on the southwest corner of Fred Waring Drive and Jefferson Street, in the northeast quarter of Section 20, T5S R7E, San Bernardino Base Meridian. It encompasses a portion of Site 33-001769, a prehistoric archaeological site that was first recorded in the 1970s and subsequently studied through a series of Phase I and Phase II investigations.

The monitoring program was required by the City of La Quinta, as Lead Agency for the project, pursuant to the California Environmental Quality Act (CEQA) and the City's Historic Preservation Ordinance. The purpose of the monitoring program is to assist the City and Regency Realty Group, Inc., in identifying, evaluating and, if necessary, protecting any subsurface archaeological resources encountered during grading, trenching, and other earth-moving operations, as mandated by CEQA and the City ordinance. In order to accomplish these objectives, CRM TECH conducted a field inspection of the site area prior to earth-moving activities, provided on-site monitoring throughout the grading and excavation process, and completed salvage excavations where prehistoric archaeological remains were encountered.

The monitoring program resulted in the discovery of a possible human cremation and an isolated pottery sherd, which were encountered at different locations within the project area. The sherd was found near the eastern boundary of the project area, well outside of the boundaries of any previously recorded sites in the vicinity. The cremation remains were found within the recorded boundaries of Site 33-001769.

While Site 33-001769 may have once contained an abundance of prehistoric archaeological remains, the portion of the site that is present within the project area has yielded very little information that would be considered important to the study of the prehistory of the area. With its complete removal, the portion of Site 33-001769 in the project area has no further archaeological data potential. Therefore, the portion of Site 33-001769 in the project area, in general, does not appear to meet the criteria for listing in the California Register of Historical Resources, and does not qualify as a "historical resource," as defined by CEQA.

However, the possible human cremation remains found at the site are of great cultural importance to the local Native American community and do appear to qualify as a "historical resource" under CEQA guidelines. With the repatriation and reinterment of the remains during this study, however, the project has not caused a substantial adverse change in the traditional cultural value of the cremation remains. Therefore, the cremation remains, as well as the portion of Site 33-001769 located within the project boundaries, require no further treatment under CEQA or the City ordinance. The isolated pottery sherd, found with no other cultural materials and with no potential to yield important scientific information, is not considered a potential "historical resource," and requires no further consideration.

In light of the results and findings of the monitoring program, CRM TECH presents the following recommendations to the City of La Quinta:

- The earth-moving operations monitored during this study have not had a substantial adverse effect on any "historical resources," as defined by CEQA.
- The project was carried out in compliance with CEQA provisions on cultural resources and with the City's Historic Preservation Ordinance, and no further archaeological investigations will be necessary within the project area.

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INTRODUCTION

Since August 2008, at the request of Regency Realty Group, Inc., CRM TECH has completed an archaeological monitoring program during earth-moving operations for the Jefferson Square project, a commercial development in the City of La Quinta, Riverside County, California (Fig. 1). The project area, Assessor's Parcel No. 604-521-005, is located on the southwest corner of Fred Waring Drive and Jefferson Street, in the northeast quarter of Section 20, T5S R7E, San Bernardino Base Meridian (Figs. 2, 3). It encompasses a portion of Site 33-001769, a prehistoric archaeological site that was first recorded in the 1970s and subsequently studied through a series of Phase I and Phase II investigations.

The monitoring program was required by the City of La Quinta, as Lead Agency for the project, pursuant to the California Environmental Quality Act (CEQA; PRC §21000, et seq.) and the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code). The purpose of the monitoring program is to assist the City and Regency Realty Group, Inc., in identifying, evaluating and, if necessary, protecting any subsurface archaeological resources encountered during grading, trenching, and other earth-moving operations, as mandated by CEQA and the City ordinance.

In order to accomplish these objectives, CRM TECH conducted a field inspection of the site area prior to earth-moving activities, provided on-site monitoring throughout the grading and excavation process, and completed salvage excavations where prehistoric archaeological remains were encountered. The following report is a complete account of the methods, results, and final conclusion of this study.

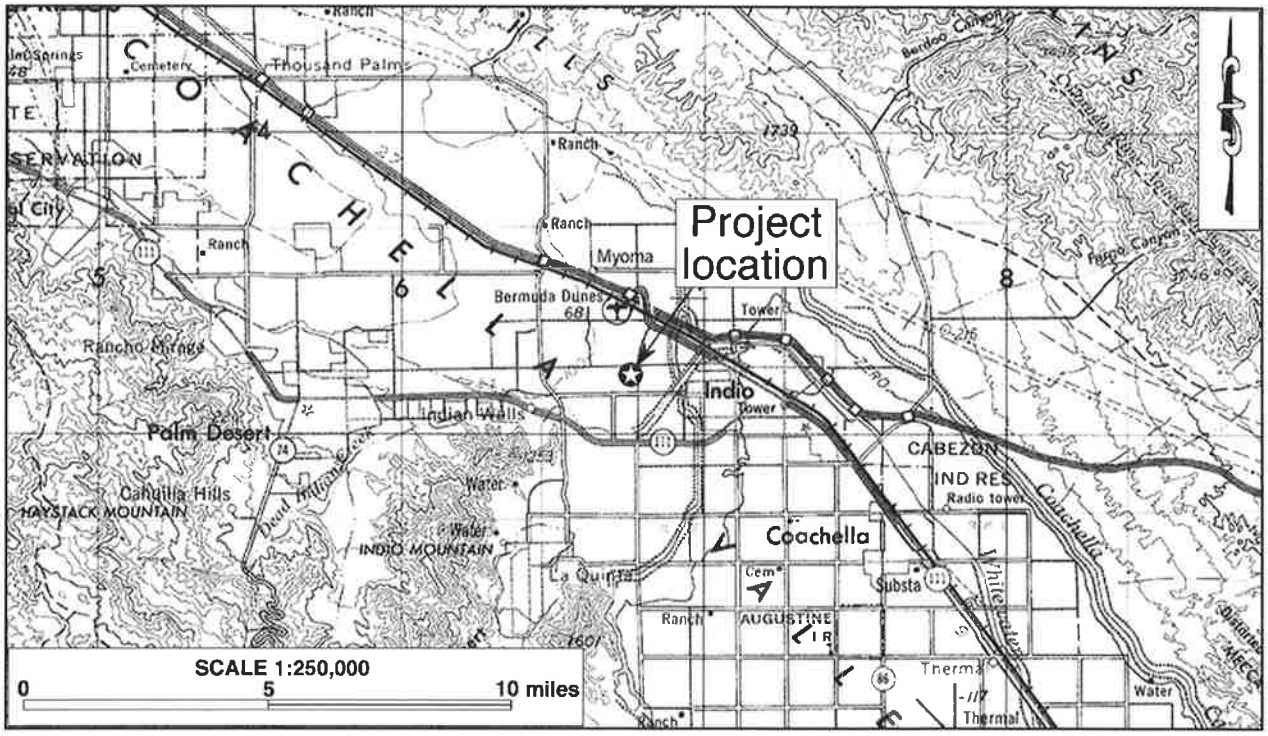

Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 1:250,000 quadrangle)

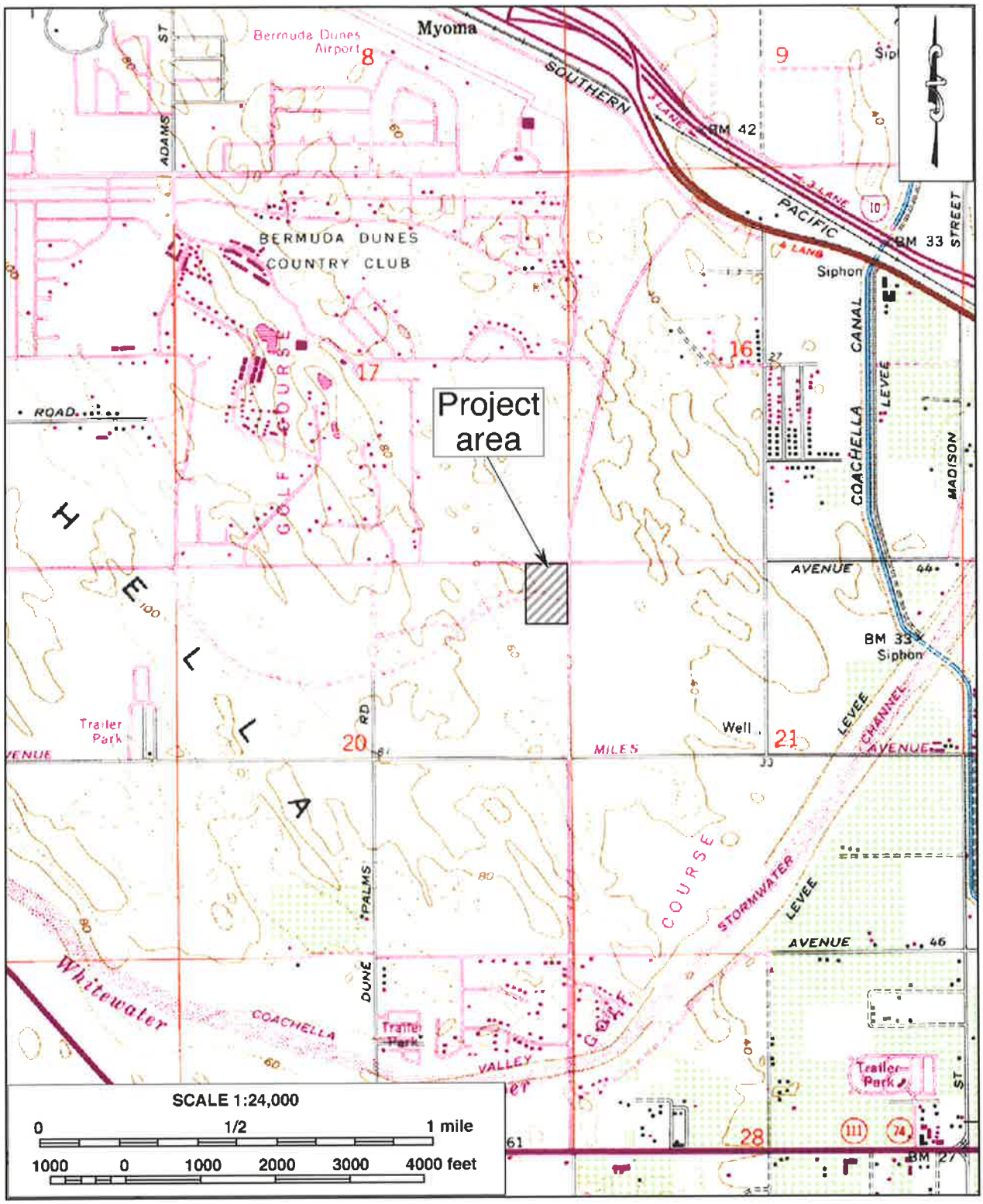

Figure 2. Project area. (Based on USGS La Quinta, Calif., 1:24,000 quadrangle)

Figure 3. Aerial image of the project area and vicinity. (Based on Riverside County GIS)

PROJECT BACKGROUND

As stated above, a portion of a prehistoric—i.e., Native American—archaeological site, 33-001769 (CA-RIV-1769), was previously recorded as lying partially within the current project area. The site was first identified in 1971, evaluated in 1979, and determined at that time to be eligible for nomination to the National Register of Historic Places (Brown 1979:7, 40). However, archaeological studies since that time have been unable to relocate much of the cultural materials and features that were initially reported on the property, and thus could not substantiate its eligibility for the National Register on the basis of what little data had been obtained from the site (Apple 1980:14; Brock and Smith 2000).

Subsequent development within the established site boundaries has occurred to the north of Fred Waring Drive and to the west of the current project area, possibly removing or burying archaeological remains associated with 33-001769, and it is reported that local relic-hunters or concerned individuals may have removed artifacts from the site as well (Apple 1980:11-13; Desautels 1982). None of these, however, has been properly documented (*ibid.*).

The most recent archaeological study involving the subject property was conducted by the Archaeological Advisory Group (AAG) in 2000, which encompassed a total of roughly 75 acres, including the entire project area and adjoining land on the west and the south (Brock and Smith 2000). That study concentrated on identifying subsurface deposits at or near the recorded location of Site 33-001769 and other sites present within AAG's study area. Extensive test excavations were carried out by trenching with a backhoe in an effort to identify deeply buried archaeological remains and to investigate areas that appeared to have the potential for buried remains, such as mesquite-covered dunes (*ibid.*:1).

AAG's testing program identified a scant amount of cultural materials, suggesting that no potentially significant cultural deposits were present in buries deposits on the subject property. Given the highly sensitive nature of the project area and the probability of encountering cultural materials during future earth-moving activities, however, AAG recommended that archaeological monitoring be conducted during any grading or trenching associated with proposed construction (Brock and Smith 2000:1). The recommendation was adopted by the City of La Quinta, and the present study was undertaken as a result.

CULTURAL SETTING

PREHISTORY

In the history of the Americas, the term "prehistoric period" refers to the time prior to the arrival of non-Indians, when native lifeways and traditions remained intact and viable. In the vicinity of present-day La Quinta, foreign influences began to bring about profound changes to native lifeways around the late 1700s, which ushered in the "historic period."

The prehistoric period in the Coachella Valley is generally divided into the Late Prehistoric and the Archaic Periods. The transition between these two periods is generally considered to be around AD 1000, marked by the introduction of pottery into the region from the Colorado River cultures. For this reason, the Archaic Period is sometimes also referred to as the "pre-ceramic" period. Other important cultural changes in prehistoric times include the introduction of the bow and arrow, probably around AD 500, and the change from burial practices to cremations, perhaps around 500 BC. Students of historical linguistics propose a migration of Takic speakers sometime between 1000 BC and AD 500 from the Great Basin region of Nevada, Utah, and eastern California into southern California.

For purposes of this study, the introduction of pottery is used as the margin separating the Archaic Period from Late Prehistoric, although it would also be acceptable to use the other significant events in prehistory. As further archaeological work progresses, in part under the mandate of federal, state, and local historic preservation regulations, the important nodes marking cultural change over past centuries and millennia will become more clearly defined.

ETHNOHISTORY

The Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla

people, in the mid-19th century. The Cahuilla, a Takic-speaking people of hunters and gatherers, are generally divided by anthropologists into three groups, according to their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage or clan belonged to one of two main divisions of the people, known as moieties. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own, for purposes of hunting game, gathering food, or utilizing other necessary resources. They interacted with other clans through trade, intermarriage, and ceremonies.

Population data prior to European contact are almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons. During the 19th century, however, the Cahuilla population was decimated as a result of European diseases, most notably smallpox, for which the Native peoples had no immunity. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including Torres Martinez, Augustine, Cabazon, Agua Caliente, and Morongo.

HISTORY

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco, leading a series of expeditions in search of a route to Yuma, became the first noted European explorers to travel through the Coachella Valley. However, due to its harsh environment, few non-Indians ventured into the desert valley during the Mexican and early American periods, except those who traveled across it along the established trails.

The most important among these trails was the Cocomaricopa Trail, an ancient Indian trading route that was "discovered" in 1862 by William David Bradshaw and became known thereafter as the Bradshaw Trail. In much of the Coachella Valley, this historic wagon road traversed a similar course to that of present-day Highway 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River, until the completion of the Southern Pacific Railroad in 1876-1877 brought an end to its heyday.

Non-Indian settlement in the Coachella Valley began in the 1870s, with the establishment of railroad stations along the Southern Pacific Railroad, and spread further in the 1880s, after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws. Farming became the dominant economic activity in the valley, thanks to the development of underground water sources, often in the form of artesian wells. However, it was not until the completion of the Coachella Canal in 1948-1949 that farmers in the arid region obtained an adequate and reliable water supply.

The main agricultural staple in the Coachella Valley, the date palm, was first introduced around the turn of the century. By the late 1910s, the date palm industry had firmly established itself, giving the region its celebrated image of "the Arabia of America."

Starting in the 1920s, a new industry, featuring equestrian camps, resort hotels, and eventually country clubs, gradually spread throughout the Coachella Valley, and since then transformed it into southern California's leading winter retreat.

In today's City of La Quinta, the earliest settlement and land development activities did not occur until the turn of the century. In 1926, with the construction of the La Quinta Hotel, the development of La Quinta took on the character of a winter resort, typical of the desert communities along Highway 111. Beginning in the early 1930s, the subdivision of the cove area of La Quinta and the marketing of "weekend homes" further emphasized this new direction of development. On May 1, 1982, La Quinta was incorporated as the 19th city in Riverside County.

METHODS AND PROCEDURES

ARCHAEOLOGICAL FIELDWORK

A preliminary field inspection of the project area was performed prior to the commencement of grading activities. The original site maps on file at the Eastern Information Center, University of California, Riverside, were used to pinpoint the location of Site 33-001769. A reconnaissance-level re-survey was then carried out in and around the site area.

On-site monitoring of earth-moving operations was carried out between August and December, 2008, by CRM TECH field director Daniel Ballester and field technician Andrea Stella (see App. 1 for qualifications). The basic field monitoring procedure entailed close observation of grading and trenching activities while inspecting the ground surface as soils were removed and fresh layers were exposed.

ARTIFACT ANALYSIS

The only artifact collected and removed from the project area during the archaeological field procedures, an isolated pottery sherd found at a depth of approximately six feet below the surface, was transported to the CRM TECH laboratory for detailed analysis. It was examined by archaeologist Josh Smallwood (see App. 1 for qualifications) to determine clay type—e.g., brownware vs. buffware—and, if possible, functional classification—e.g., water jar, storage vessel, cooking pot, or bowl.

RESULTS AND FINDINGS

ARCHAEOLOGICAL FIELDWORK

During on-site monitoring of earth-moving operations, a possible cremation and an isolated pottery sherd were encountered at different locations within the project boundaries. The sherd was found near the eastern boundary of the project area, well outside the boundaries of any previously recorded sites in the vicinity. The cremation remains were found within the recorded boundaries of Site 33-001769. After their locations

were plotted onto project maps, the cremation remains and the sherd were collected, bagged, and labeled with the appropriate information.

The cremation remains were reintered at a nearby location, as discussed below, while the pottery sherd was collected for analysis. Following the completion of all field procedures, the resulting location map and a description of the finds was compiled into a standard site record update form and submitted to the Eastern Information Center (EIC) at the University of California, Riverside, for inclusion in the California Historical Resources Inventory.

Subsurface Excavation

On August 29, 2008, while scrapers were excavating a retention basin in the northwestern portion of the project area, Andrea Stella encountered an oval-shaped burned spot on the ground at the depth of one meter below the original ground surface. She commenced an archaeological excavation to investigate the feature as a possible cremation under the supervision of field director Daniel Ballester. On September 2, 2008, the excavation confirmed the presence of possible human bone, and the Riverside County Sheriff-Coroner's Office was contacted immediately, as required by standard procedures. Deputy Coroner Deborah Gray visited the site on that same day and identified the remains as non-diagnostic femur or tibia fragments of human size (Case #2008-063-351). She then contacted the Native American Heritage Commission in Sacramento regarding the find.

Reinterment of Cremation Remains

On September 10, 2008, Tribal Elder Joe Benitez of the nearby Cabazon Band of Mission Indians visited the site to help formulate the proper treatment of the possible human cremation remains. He requested reinterment of the remains on site at a depth below any future project-related disturbance. Mr. Benitez performed a small ceremony for the remains prior to the interment. Using an excavator, the cremation was reburied in the southwest corner of the project area at a depth of approximately eight feet below the surface, in an area designated for landscaping. The location was plotted onto project maps for inclusion in the site record update form.

ARTIFACT ANALYSIS

Ceramic analysis revealed that the isolated pottery sherd is of the buffware variety, pinkish in color, with very fine paste, and very fine-grain temper with almost no sand. It is a slightly curved rim sherd that appears to be from a bowl nearly six inches (approx. 15 cm) in diameter, with a recurved rim and rounded, overlapping lip. The lip was constructed using a pinch method. The sherd exhibits striations from shaping and finishing, and is smooth on the exterior but somewhat bumpy and crude on the interior, suggesting it was purely functional and not necessarily decorative. Based on its morphology and descriptions of pottery vessels in ethnographic literature, the sherd may be from a cooking or food serving bowl (Campbell 1999:120-121). The cultural material found during this study, including both the cremation remains and the isolated pottery sherd, was recovered from dune-sand deposits lying above the lakebed clay sediments of ancient Lake Cahuilla, and thus likely post-date the last high stand of the lake (ca. AD 1680).

SUMMARY

The possible human cremation was found within the recorded boundaries of Site 33-001769, at a depth of one meter below the original ground surface. The isolated pottery sherd was found near the eastern boundary of the project area, well outside the established boundaries of any previously recorded sites in the vicinity.

The sherd and the cremation have added no new information to existing knowledge of Site 33-001769 or of prehistoric lifeways in this part of the Coachella Valley. However, the possible human cremation remains are undoubtedly of great cultural importance to the local Native American community. The remains were properly treated and repatriated to the Cabazon Band of Mission Indians. Reinterment of the remains at a new location insures that they will be kept safe and undisturbed during any future construction activities associated with the project.

DISCUSSION

Based on the results of the monitoring program discussed above, the following sections present CRM TECH's conclusion on whether any "historical resources," as defined by CEQA, were impacted by the monitored earth-moving operations.

DEFINITION

According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 CCR §15064.5(a)(1)-(3)).

Regarding the proper criteria of historical significance, CEQA guidelines mandate that "a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

A local register of historical resources, as defined by PRC §5020.1(k), "means a list of properties officially designated or recognized as historically significant by a local

government pursuant to a local ordinance or resolution." For properties within the City of La Quinta, the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code) provides for the establishment of a historic resources inventory as the official local register. A property may be considered for inclusion in the historic resources inventory based on one or more of the following:

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering or architectural history; or
B. It is identified with persons or events significant in local, state or national history; or
C. It embodies distinctive characteristics of a style, type, period or method of construction, is a valuable example of the use of the indigenous materials or craftsmanship or is representative of a notable work of an acclaimed builder, designer or architect; or
D. It is an archaeological, paleontological, botanical, geological, topographical, ecological or geographical site which has the potential of yielding information of scientific value; or
E. It is a geographically definable area possessing concentration of sites, buildings, structures, improvements or objects linked historically through location, design, setting, materials, workmanship, feeling and/or association, in which the collective value of the improvements may be greater than the value of each individual improvement. (LQMC §7.06.020)

Pursuant to these statutory and regulatory guidelines, the isolated pottery sherd and the cremation remains encountered during this study are evaluated under both the criteria for the California Register and those for the City of La Quinta's historic resources inventory. The results of the evaluation are discussed below.

EVALUATION

Cremation Remains

As discussed above, the possible human cremation was found within the boundaries of Site 33-001769, which was previously determined to be eligible for nomination to the National Register of Historic Places (Brown 1979:7, 40). However, subsequent studies have been unable to substantiate the determination of eligibility on what little data had been obtained from the site (Apple 1980:14; Brock and Smith 2000), and a recent study suggests that no potentially significant buried cultural deposits were present within the current project area (Brock and Smith 2000).

While Site 33-001769 may have once contained an abundance of prehistoric archaeological remains, the portion of the site that is present within the project area today has yielded very little information that would be considered important to the study of the prehistory of the area. With its complete removal, the portion of Site 33-001769 in the project area has no further archaeological data potential. Therefore, the portion of Site 33-001769 in the project area, in general, does not appear to meet the criteria for listing in the California Register of Historical Resources, and does not qualify as a "historical resource," as defined above.

However, the possible human cremation remains found at the site are of great cultural importance to the local Native American community, as demonstrated by the participation

by the Cabazon Band of Mission Indians in the treatment of the remains during this study. Based on its traditional cultural value, the cremation feature found during this study, individually, qualifies as a "historical resource" under CEQA guidelines.

Isolated Pottery Sherd

As mentioned above, the isolated pottery sherd was discovered outside the boundaries of any previously recorded sites in the vicinity. It was found with no other associated cultural materials and within soils attributed to the last high stand of Lake Cahuilla and more recent dune formations. Occurring out of depositional context, an isolate by definition does not constitute an archaeological site, and is thus not considered a potential "historical resource," as defined by CEQA.

PROJECT EFFECT ASSESSMENT

Since the possible human cremation feature found within the boundaries of Site 33-001769 meets the statutory and regulatory definition of a "historical resource," CEQA mandates that any "demolition, destruction, relocation, or alteration" that would impair its significance or integrity be considered a "significant effect on the environment" (PRC §5020.1(q); §21084.1). During this study, the cremation remains were removed from their original location. However, the remains were repatriated to the appropriate Native American group, namely the Cabazon Band of Mission Indians, and subsequently reinterred at a location that will be safe from future disturbances. Since the traditional cultural value of the cremation remains has thus been preserved, CRM TECH concludes that the project has had no substantial adverse effect on this "historical resource."

CONCLUSION AND RECOMMENDATIONS

In conclusion, the earth-moving operations monitored during this study encountered a possible human cremation within the established boundaries of Site 33-001769. While the portion of the site within the project area, in general, does not constitute a "historical resource," the cremation feature does, individually, because of its traditional cultural value to the local Native American community. The current project, however, did not cause a substantial adverse change in the significance of the cremation remains. An isolate that was also discovered during this study, by definition, does not require formal evaluation as a potential "historical resource," and requires no further consideration.

In light of the results and findings of the monitoring program, CRM TECH presents the following recommendations to the City of La Quinta:

- The earth-moving operations monitored during this study have not had a substantial adverse effect on any "historical resources," as defined by CEQA.
- The project was carried out in compliance with CEQA provisions on cultural resources and with the City's Historic Preservation Ordinance, and no further archaeological investigations will be necessary within the project area.

REFERENCES

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1980 An Archaeological Assessment of the Bermuda Dunes Property, Tract 13986, Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

Brock, James, and Brenda D. Smith
2000 Phase I and Phase II Archaeological Assessments for the Proposed Monticello Project, West Side of Jefferson Street between Fred Waring Drive and Miles Avenue, La Quinta, California. On file, Eastern Information Center, University of California, Riverside.

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1979 Cultural Resource Assessment for the Desert Palace Project, Tentative Tract 13986, near Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

Campbell, Paul D.
1999 *Survival Skills of Native California*. Gibbs Smith Publisher, Salt Lake City.

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1982 California Historical Resources Inventory site record update, 33-001769/CA-RIV-1769. On file, Eastern Information Center, University of California, Riverside.

APPENDIX 1

PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA*

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	Section 106—National Historic Preservation Act: Federal Law at the Local Level. UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands.
1992-1998	Assistant Research Anthropologist, University of California, Riverside
1992-1995	Project Director, Archaeological Research Unit, U. C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U. C. Riverside.
1984-1998	Archaeological Technician, Field Director, and Project Director for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

Memberships

* Register of Professional Archaeologists.
Society for American Archaeology.
Society for California Archaeology.
Pacific Coast Archaeological Society.
Coachella Valley Archaeological Society.

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, UC Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, UC Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, UC Riverside.
1988-1993	Research Assistant, American Social History, UC Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Honors and Awards

1988-1990	University of California Graduate Fellowship, UC Riverside.
1985-1987	Yale University Fellowship, Yale University Graduate School.
1980, 1981	President's Honor List, Northwestern University, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (With Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

Membership

California Preservation Foundation.

HISTORICAL ARCHAEOLOGIST/REPORT WRITER
Josh Smallwood, M.A.

Education

2008	M.A., Historic Preservation, Savannah College of Art and Design, Savannah, Georgia.
1998	B.A., Anthropology, Humboldt State University, Arcata, California.
1997	Archaeological Field School, Fort Ross State Historic Park, Fort Ross, California.
	Archaeological Field School, Coastal Test and Mitigation Projects, Arcata, California.
1996	Archaeological Field School, Mad River Watershed Surveys, Blue Lake, California.
1994	A.A., Anthropology, Palomar College, San Marcos, California.
1993	Archaeological Field School, San Pasqual Battlefield, San Pasqual, California.
	Archaeological Field School, Las Flores Asisténcia, Camp Pendleton, CA.
1992	Archaeological Field School, Palomar College Campus Late Prehistoric Sites, San Marcos, California.
2002	"Historical Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base.
2001	"OSHA Safety Training for Construction Monitors," presented by OSHA and City of San Diego.
2000	"HABS/HAER Recording Methods for Historic Structures," presented by Robert Case, Historic Archaeologist, Mooney & Associates, San Diego.
1998	"Unexploded Ordinance Training," presented by EOD officers, Fort Irwin National Training Center, Barstow.
1997	"Obsidian Sourcing through Characterization," presented by Thomas Origer, Sonoma State University.
1994-	Extensive study of lithic resource procurement strategies, reduction technology, tool manufacture, and reproduction.

Professional Experience

2002- Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.

- Writer/co-author of cultural resource reports for Section 106 and CEQA compliance.
- Field director in archaeological fieldwork, historic-period building surveys and recordation, historic-period artifact and lithic analysis.
- Historical research using published literature, historic maps, oral interviews, archival records of public agencies, internet sources, and consultation with local historical societies.

1997-2002 Archaeologist for several cultural resource management/environmental consultants, Department of Defense subcontractors, and Humboldt State University.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources studies since 1997.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, B.A.

Education

1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.
2007	Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
2002	"Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

2002-	Field Director, CRM TECH, Riverside/Colton, California. • Report writing, site record preparation, and supervisory responsibilities over all aspects of fieldwork and field crew.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California. • Survey, testing, data recovery, monitoring, and mapping.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California. • Two and a half months of excavations on Topomai village site, Marine Corp Air Station, Camp Pendleton.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California. • Two weeks of excavations on a site on Red Beach, Camp Pendleton, and two weeks of survey in Camp Pendleton, Otay Mesa, and Encinitas.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside. • Two weeks of survey in Anza Borrego Desert State Park and Eureka Valley, Death Valley National Park.

PROJECT ARCHAEOLOGIST
Andrea Stella, B.S.

Education

2003	B.S., Anthropology, University of California, Riverside.

Professional Experience

2002-	Project Archaeologist, CRM TECH, Riverside/Colton, California.

APPENDIX 2

SITE RECORD UPDATE, 33-001769

Recorded by Daniel Ballester Date September 28, 2008 ___Continuation _√_Update
Affiliation: CRM TECH, Colton, CA 92324 Project No: CRM TECH 2263

Between August 2008 and April 2009, CRM TECH performed an archaeological monitoring program during earth-moving operations for a commercial development project known as Jefferson Square. The project area encompassed a portion of Site 33-001769, a prehistoric archaeological site that was first recorded in the 1970s and subsequently studied through a series of Phase I and Phase II investigations (Brown 1979; Apple 1980; Desautels 1982; Brock and Smith 2000). The monitoring program resulted in the discovery of a possible human cremation within the established boundaries of Site 33-001769, along with an isolated pottery sherd to the east of the site, well outside the boundaries of any previously recorded sites in the vicinity.

While Site 33-001769 may have once contained an abundance of prehistoric archaeological remains, the portion of the site that is present within the project area has yielded very little information that would be considered important to the study of the prehistory of the area. With its complete removal, the portion of Site 33-001769 in the project area has no further archaeological data potential. Therefore, the portion of Site 33-001769 in the project area, in general, does not appear to meet the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources (Smallwood 2009:9).

In contrast, the possible human cremation remains found at the site are of great cultural importance to the local Native American community and do appear to qualify as a "historical resource" under CEQA guidelines. With the repatriation and reinterment of the remains during this study, however, the project has not caused a substantial adverse change in the traditional cultural value of the cremation remains. Therefore, the cremation remains, as well as the portion of Site 33-001769 located within the project boundaries, require no further treatment (Smallwood 2009:9-10). The isolated pottery sherd, found with no other cultural materials and with no potential to yield important scientific information, does not qualify as an archaeological site, and requires no further consideration (*ibid.*:10).

References:

Apple, Steven A.
1980 An Archaeological Assessment of the Bermuda Dunes Property, Tract 13986, Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

Brock, James, and Brenda D. Smith
2000 Phase I and Phase II Archaeological Assessments for the Proposed Monticello Project, West Side of Jefferson Street Between Fred Waring Drive and Miles Avenue, La Quinta, California. On file, Eastern Information Center, University of California, Riverside.

Brown, M.A.
1979 Cultural Resource Assessment for the Desert Palace Project, Tentative Tract 13986, near Indio, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

References (continued):

Desautels, ?
1982 California Historical Resources Inventory site record update, 33-001769/CA-RIV-1769. On file, Eastern Information Center, University of California, Riverside.

Smallwood, Josh
2009 Archaeological Monitoring Report: Jefferson Square Project, Jefferson Street and Fred Waring Drive, City of La Quinta, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

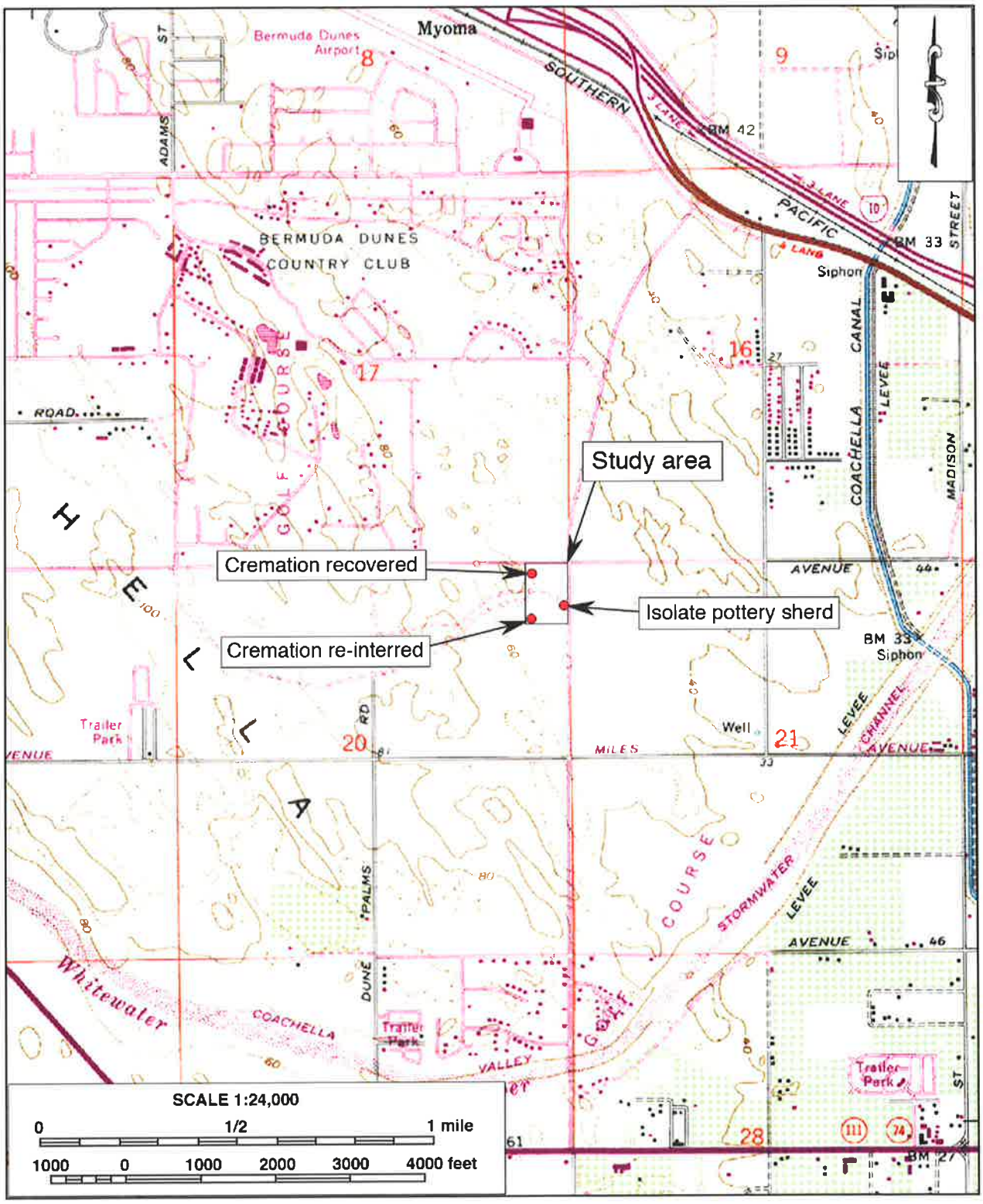
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 33-001769
HRI #
Trinomial CA-RIV-1769

Page 3 of 3 *Resource Name or # (Assigned by recorder)

*Map Name: La Quinta, Calif. *Scale: 1:24,000 *Date of Map: 1980



DPR 523L (1/95)

*Required information