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Temal Wakhish:

A Desert Cahuilla Village

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EDITOR'S NOTE: Mrs. Ruby E. Modesto is the granddaughter of Francisco Nombre, one of William Duncan Strong's principal Desert Cahuilla informants. A fluent Cahuilla speaker and ceremonial practitioner, Mrs. Modesto is a member of the A'wilem 'dog' clan, who has worked with both ethnographers and archaeologists in helping preserve the culture of her people. Information provided directly by Mrs. Modesto is so credited in this text.

AN environmental impact survey of property on the Riverside County Airport at Thermal, California, has recently revealed the remains of a major Desert Cahuilla village. Instead of the ethnographic summary drawn from published sources which usually accompanies environmental impact reports, it was decided to undertake an ethnohistorical investigation of the site.¹ This paper represents a collaboration between the authors aimed at providing a brief ethnography of the village of *Temal Wakhish* on the Thermal Airport property. (For an explanation of English and Cahuilla placenames in the Coachella Valley, see Table 1.) The data presented here were obtained from a review of ethnographic sources, the junior author's extensive knowledge of oral history of the village and the surrounding area, and as the result of a walkover survey of the site.

We hope this paper will demonstrate the value of collaboration between Native Americans and anthropologists. Archaeologists sometimes pass up a potentially valuable source of data in interpreting the archaeological record by ignoring living Native Americans. Ethnohistorical investigations of the sort presented here not only permit more detailed inferences in interpreting archaeological remains, but also preserve important ethnographic data that might otherwise be lost. Such a collaboration may also reduce the mistrust many Native Americans have for the motives behind archaeological research and environmental impact surveys. As Mrs. Modesto puts it:

Archaeologists dig things up and don't tell people anything and carry them away sometimes. This is the reason people don't want archaeologists to come to the reservations. They don't want them because they don't tell the people anything. They just come and dig. I think they could get along much better. Probably there are still many people yet that know the old history and they could talk to the archaeologists. That way the archaeologists could get to know the Indian better. I have myself seen desecrated graves, bones scattered everywhere, and this is terrible; a sacrilege. If the archaeologists would only come and speak to the people it would be better.

Table 1
PLACENAMES IN THE COACHELLA VALLEY
(See Fig. 2)

Modern	Mrs. Modesto*	Barrows (1900)**	Strong (1929)
Torres	<i>Maulma</i> 'among the palms'	no mention	<i>Maulmii</i> (p. 52) (no translation given)
Martinez	<i>Soqui Menyily</i> . (<i>soqui</i> 'deer', <i>menyily</i> 'Lady Moon' [figure in creation myth])	<i>So-kut Men-yil</i> (p. 33) (<i>sugat</i> 'deer', <i>menily</i> 'moon')	Sokut-Menyil (p. 44 map) (no translation given)
Thermal	<i>Telmuva</i> 'dark resin or sap from mesquite tree'	no mention	(?) <i>Tuikiktumhemki</i> (p. 54) "halfway between Thermal and Mecca"; <i>Awel Pitcava</i> (p. 54) "three miles east of Thermal"
Cabezon Reservation (near Mecca)	<i>Palsetish</i> 'settled water', (<i>pal</i> 'water', <i>setish</i> 'settled')	<i>Pal Se-ra</i> (p. 33) (<i>pal</i> 'water', <i>setaxat</i> 'salty')	<i>Palsetahut</i> (p. 55) ('salt water')
Indio	<i>Paltewat</i> 'discovered water' (<i>pal</i> 'water', <i>tewat</i> 'discovered')	<i>Pal te-wat</i> (p. 33) (<i>pal</i> 'water', <i>tevat</i> 'pine tree')	<i>Paltewat</i> (p. 56) ('water found')
Agua Dulce	<i>Pa'aknyiwet Heki</i> (<i>pa'aknyiwet</i> 'water baby' [mythological figure inhabiting springs], <i>heki</i> 'home')	<i>To-va</i> (p. 34) (<i>Tuva</i> , no translation given)	<i>Tuva</i> (p. 49) (no translation given)
Alamo	<i>Avasily Hilwineva'a</i> 'where the willow stood' (<i>avasily</i> 'willow', <i>hilwineva'a</i> , 'where [it] stood')***	<i>La-wil-van</i> (p. 33) (<i>lavalvanat</i> 'cottonwood')	<i>Palpunivikiktum hemki</i> (p. 50) ('water circling over, living at, territory' ("two miles east of Alamo"))
La Mesa	<i>Temal Wakhish</i> (<i>temal</i> 'earth', <i>wakhish</i> 'dry')	<i>Temal-wa-hish</i> (p. 33) (<i>temal</i> 'earth', <i>wakhish</i> 'dry')	<i>Itcuñaloñi</i> (p. 52; see text of present article for discussion)
Indian Wells	<i>Palkavinish</i> (<i>pal</i> 'water', <i>kavinish</i> 'well')	<i>Ka-vi-nish</i> (p. 34) (no translation)	<i>Kavinic</i> (p. 53) (no translation)

* Mrs. Modesto's dialect, Desert Cahuilla, is not in all respects the same as that used by Bright or others.

** Items in parentheses are in Bright's (1967) orthography based on Mountain Cahuilla dialect obtained from Mrs. Katherine Siva Saubel.

*** Strong (p. 24) places *Awisilhiwiniva* 'the willow tree' ¼ mile east of the Martinez Reservation, which would be near Martinez Canyon. Mrs. Modesto registered some confusion over the names for Alamo and Martinez Canyon. One was named *Lavalwener Hilwineva'a* (*lavalwener* 'cottonwood tree', *hilwineva'a* 'where [it] stood'), and the other was named *Avasily Hilwineva'a* (*avasily* 'willow tree', *hilwineva'a* 'where [it] stood'). It is possible that Alamo was 'where the Cottonwood Stood'.

THE VILLAGE SITE

The site designated CA-Riv-148 encompasses the western half of Section 20, Township 6 South, Range 8 East, USGS Indio 7.5' Quadrangle. This site is almost certainly part of a larger village complex that included part of Section 19 and possibly also part of the adjacent Section 29. The cultural history of this locality must also include discussion of nearby Section 18, labelled as the Augustine Indian Reservation.

The village site in the area of Sections 19 and 20 was commonly known by the Spanish name of La Mesa. In his description of Cahuilla village locations, David Prescott Barrows (1900:33) noted: "Southward and in the very center of the plain [of the Coachella Valley] is La Mesa, hidden in the mesquite and with splendid, typically dug wells." The Cahuilla name for La Mesa is disputed by two classic sources which discuss the Desert Cahuilla, Barrows (1900) and Strong (1929). Barrows (1900:33) gave the Cahuilla name of La Mesa as ". . . *Temal-wa-hish* ('the dry ground', a name often used by the mountain Indians for the desert in general). . . ." This orthography was corrected by Bright (1967: xxviii) in his essay on the Cahuilla language to read *Temal Wakhish* 'dry earth'. Strong (1929: 52) gave another name for the village at La Mesa and made reference to Barrows (1900) also:

At La Mesa, to the west of the highway was a village named *Itcuñaloñi*. This was its later name, its original name being *kelewutkwikwinut* (Wood Hanging Down).

To this Strong appended the following footnote:

Barrows' *Temalwahish* (Dry Earth), which he gives as the village at La Mesa, was said to be a dry brushy area one mile south where the La Mesa people hunted rabbits.

The disagreement between Strong and

Barrows over the placename for the Thermal Airport site can best be settled by information from the U.S. Land Office township plat for Township 6 South, Range 8 East, San Bernardino Meridian (1856) and the surveyors' field notes of the exterior lines and subdivisions of the same area.²

Mrs. Modesto identified the name of the village in the area of site CA-Riv-148 as *Temal Wakhish* 'dry earth' (*temal* 'earth', *wakhish* 'dry'). This corresponds exactly to Barrows' name for the village, especially to Bright's corrected orthography. The description of the village as being hidden in mesquite and having typically dug Indian wells is corroborated by the previously mentioned U.S. Land Office map and surveyors' field notes (Fig. 1). The map itself shows an Indian *rancheria* in the NE corner of the SE $\frac{1}{4}$ of Section 19, bordering on Section 20, and also shows an Indian well in the SE corner of the NE $\frac{1}{4}$ of Section 19. Furthermore, the surveyors' field notes accompanying the 1856 map describe two Indian trails running east-to-west through Section 19, as well as dense mesquite in Sections 20, 29, 30, and 31, and scattered mesquite in Section 19 (U.S. Land Office 1856). The surveyors' field notes reported arrowweed and sage brush (probably saltbrush [*Atriplex*]) vegetation, especially in Section 19.

The description given by Barrows of the village of *Temal-wa-hish* is corroborated by the surveyors' report. The *rancheria* was observed and recorded by the surveyors as occurring in dense mesquite brush and having a well nearby. Furthermore, the presence of two Indian trails running east-to-west through Sections 19 and 20 provided further indication of habitation and use. Bean (1972:75) reported that Cahuilla villages were "connected by a complicated but well-defined trail complex making movement from village to village relatively easy; these trails also connected the villages to hunting and gathering areas." The trails in Section 19 may have been visiting trails leading to the Indian *rancheria* on the eastern

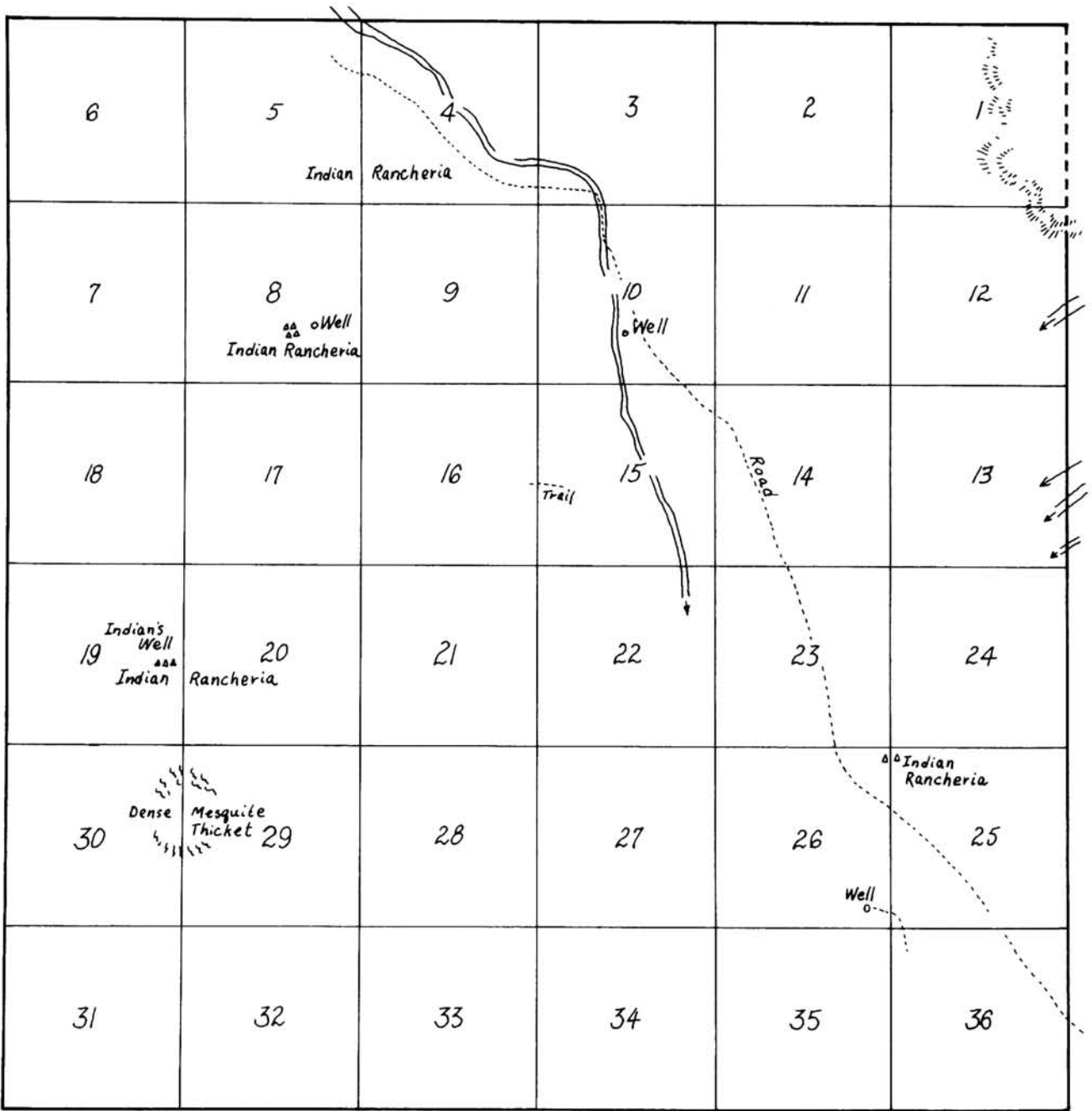


Fig. 1. Location of *Temal Wakhish* in Section 19, Township 6 South, Range 8 East, SBM. Adapted from original plat of John LaCroze, 1856.

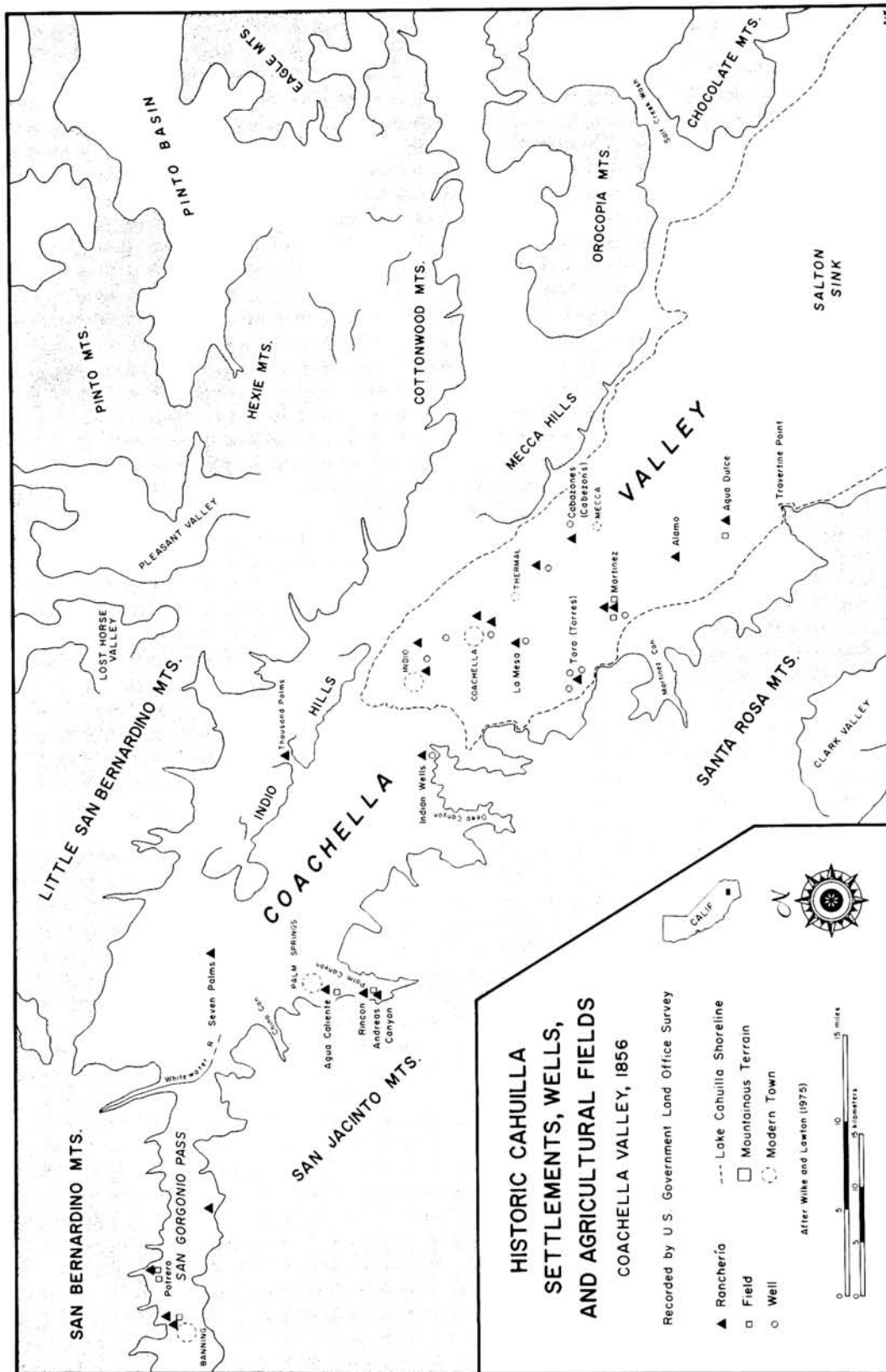


Fig. 2 Historic settlements in the Coachella Valley. Copyright © 1976 by P. J. Wilke.

limit of the map in the NW corner of Section 25 (see Fig. 1).

Bean's descriptions of the nature of Desert Cahuilla villages would indicate that the area of Sections 19 and 20 was well suited to a typical and extensive village site:

A third arrangement was adopted in the desert areas where houses and other buildings were grouped around a spring in a two- to three-square mile area, the houses some thirty to sixty feet apart.

In the eastern desert a slightly different pattern occurred. Here the villages were located at the lower end of alluvial fans where a sufficiently high water table enabled the Cahuilla to dig shallow wells to reach a dependable water supply and also to be near the large clumps of mesquite [Bean 1972:71, 74].

As indicated above, the area around Sections 19 and 20 had dense mesquite when observed by the U.S. Land Office surveyors. The second requirement mentioned by Bean, a sufficiently high water table, was also met:

The quality of the land in this township is mostly first rate, with the exception of sections 32 & 33 . . . Good water can be obtained anywhere in this township at the depth of 10 or 12 feet [U.S. Land Office 1856].

Section 18 was also inhabited, although the chronology of occupation cannot be determined with any certainty, nor the village site to which any of the ethnographers of the Cahuilla were referring when they spoke of La Mesa. Mrs. Modesto related an event which sheds light on the chronology of occupation of the area, as well as the disagreement between Strong and Barrows about placenames.

At some point around the turn of the century, the water table rose and the ground around the village of *Temal Wakhish* became swampy. The people who lived there moved to Section 18 from the area of CA-Riv-148 and the village noted in Section 19. Mrs. Modesto said that the site ceased to be known as *Temal*

Wakhish and became known as *Pavasish* 'damp' or 'wet'. What may also be significant in determining the location of *Temal Wakhish* is the space of time between the field researches of Barrows and Strong. Barrows' contact with the Cahuilla began in 1891, and his field research was undertaken as early as 1895. His manuscript, *The Ethno-botany of the Cahuilla Indians*, was accepted as a Ph.D. dissertation in 1897, and Barrows himself noted that fieldwork undertaken immediately afterward made it necessary to revise the work before publication (Lawton 1967:vi; Barrows 1900:4). Therefore, Barrows probably made his brief observation of La Mesa, known to him in Cahuilla as *Temal-wa-hish*, between 1895 and 1899. William Duncan Strong conducted his field research in 1924-25 (Strong 1929:2). As already reported, Strong indicated that Barrows' site of *Temal Wakhish* was an area where the inhabitants of La Mesa hunted rabbits. He also described it as one mile south of the village of *Itcuñaloñi*. Between the period of Barrows' and Strong's fieldwork, the Salton Sea was formed (1905-07), which could have caused the water table in the surrounding area to rise. The surveyors' report accompanying the township plat of the area in 1856 indicated that the water table at that time was only 10-12 feet below the surface. Any major change in the water table would probably have altered the nature of the land significantly. The move from Sections 19 and 20 to Section 18 probably occurred between the period in which Barrows worked and that in which Strong made his observations.

Mrs. Modesto did not recognize either of Strong's placenames for La Mesa. The name *Itcuñaloñi* was completely unfamiliar. She indicated that if the older name of the village given by Strong (1929:53) were correct, it could not be *Kelewutkwikwinut* 'wood hanging down', but would have to be *Kelawat Wiwaywinet* (same meaning). She agreed that *Kelawat Wiwaywinet* could have been the name of one of the small extended family or

minimal lineage settlements within the larger village territory. Strong reported that the area of *Temal Wakhish* was one mile to the south of the village of *Itcuñaloñi*. This would locate *Itcuñaloñi* in the middle of Section 18 if *Temal Wakhish* were situated in Sections 19 and 20.

As already noted, the physiographic description of Section 19 in 1856 corresponds to Barrows' brief description of *Temal Wakhish*. Section 18 was not reported to have such dense mesquite as the sections farther south and no well was noted (U.S. Land Office 1856). The vegetation in Section 18 could have changed radically in the 40 or more years between the time surveyors John La Croze and Henry Washington made their field notes and observations and the time that Barrows observed the village. The move itself was certainly final. Mrs. Modesto reported that when the move took place the ceremonial house in the village site in Sections 19 and 20 was burned and a new one erected in Section 18. Despite the move, the inhabitants of Section 18 continued to exploit the former village site in Sections 19 and 20 for hunting and gathering. Strong (1929:52) noted that the inhabitants of *Itcuñaloñi* used the site of *Temal Wakhish* for hunting rabbits. This was in accordance with the ethnographically recorded Cahuilla custom: "When a village was moved to a new location, the people continued to claim ownership and exploit the biotic resources of their former land for a considerable time" (Bean 1972:71).

The lineages that lived at *Temal Wakhish* were correctly reported by Strong. Those listed by Strong (1929:53) as living at La Mesa, whether using his village name of *Itcuñaloñi* or *Temal Wakhish*, were the *Sewahilem* and the *Telkiktum*. Mrs. Modesto corroborated Strong and indicated that the lineages resident at *Temal Wakhish* specifically were the *Sewaxilyem* and the *Telkiktem*. She also said that the *Nonhayem* lived in the area. Strong (1929:53) noted that the *Nonhiam* moved to La Mesa at "a comparatively late date" from Indian Wells to the northwest of La Mesa.

At the time of Strong's fieldwork, there was only one member of the *Telkiktem* lineage resident at La Mesa, while there were six families of the *Sewaxilyem* lineage in the village. Mrs. Modesto also reported that there were three other lineages in the area, the *Aykunikiktem*, the *Alymukatem*, and the *Wakaykiktem*.

For ease of reference, the various lineages are arranged according to moiety affiliation in Table 2.

Since Mrs. Modesto's information corroborates Strong, it is most probable that the two lineages living at *Temal Wakhish* were the *Sewaxilyem* and the *Telkiktem*. Strong indicated that the *net*, or ceremonial chief of the village, was of the *Sewaxilyem* lineage, which would imply that they were the owners of the ceremonial house. The single member of the *Telkiktem* lineage at Strong's village at La Mesa was acting as the *paha*, or assistant to the *net*. Strong was not certain whether this was an old custom or not. Usually the *net* and *paha* were of the same lineage, and each lineage had its own ceremonial house and functioned as a discrete ceremonial unit. Occasionally two or more lineages would split the ceremonial offices and cooperate as one ceremonial unit. Strong noted that the *Nonhiam* had been under another *net* at their former home at Indian Wells but appointed their own *net* and became an independent ceremonial unit when they moved to La Mesa. Before acculturation and depopulation took their toll of the Cahuilla, it is probable that the *Telkiktem* had their own ceremonial house and formed an independent ceremonial unit.

As indicated in Table 2, the majority of the lineages in the area were of the wildcat moiety, and it is possible that lineages came together along moiety lines for social functions. At one point, Mrs. Modesto referred to the Augustine people as the "*Tuktum* [wildcat] bunch":

They used to come here and we used to dance birds [*Wikikmalem* 'bird songs', a

Table 2
LINEAGES IN THE AREA OF
TEMAL WAKHISH

(Refer to Strong 1929)

Wildcat Moiety (*Tuktum*)

1. *Telkiktem* (no translation). Recorded by Strong as *telkiktum*, lived at *Temal Wakhish*.
2. *Wakaykiktem* 'heron', recorded by Strong as the *Wakaikiktum* 'night heron', at *Mauulmii*, near Torro. Mrs. Modesto gives *Maulma* 'among the palms' as the placename for Torres Reservation. Mrs. Modesto notes that several lineages moved to the reservation in the early 1900's.
3. *Nonkhayem* 'quarrelsome' (?). Strong indicates that the *Nonhiam* were of the coyote moiety. He gives no translation of their name. They were resident at *Temal Wakhish*.
4. *Aykunikiktem* 'curve people', i.e., people who live around the bend. Not listed by Strong. Lived at *Mechewel* (?).

Coyote Moiety (*Istam*)

1. *Sewaxilyem* (no translation). Recorded by Strong as *Sewahilem* 'mesquite that is not sweet'. Lived at La Mesa. Mrs. Modesto referred to them as the *Torronakhvichem* 'people of Torres', as they moved there sometime after the village of La Mesa was abandoned.
2. *Alymukatem* 'dead turtle', not recorded by Strong. Lived at *Mechewel* (?).

non-ceremonial song cycle sung for social dancing and festive occasions.] Not very long ago in the 1940's. They were the *Tuktum* bunch, and they used to come to our reservation here [Martinez], right here on these grounds. We used to dance all night every Saturday.

Mrs. Modesto indicated that the "Augustine people" married the "Torres bunch,"

which would also corroborate Strong. Those to whom she referred as the "Augustine people" were the *Telkiktem*, and the "Torres bunch" were the *Sewaxilyem*. Strong reported that there was intermarriage between the two lineages (1929:53). Mrs. Modesto said that the *Telkiktem* also married some of the "Alamo bunch." Strong lists no lineages at or near Alamo that were not of the wildcat moiety, which would have made marriage between the Alamo lineages and the *Telkiktem* impossible. However, Strong's (1929:41) placename for the area is *Palpunivikiktum Hemki*, which is the home of the lineage he designated *Palpunivikiktum* and two others, all of the wildcat moiety. Mrs. Modesto's placename for the area near Alamo is *Avasily Hilwineva'a* 'where the willow stood' (see Table 1), a village name unreported by Strong for Alamo, which would indicate that at some time lineages of the coyote moiety probably lived in the area of Alamo and may have intermarried with the *Telkiktem* lineage.

Ceremonial occasions brought together a number of associated lineages. In this sense, the people of the valley floor were *ikwanit* 'bound together':

Ikwanit is bound together, meaning that all of the people were bound together. For instance, if there is happiness or grief we were all together, we went together, and grieved with the people. You were bound in with this. If something happened (at *Temal Wakhish* for instance) the *net* [ceremonial leader] came over here to tell the others, and they went over there; they were bound in grief.

This kind of ceremonial cooperation was most common among geographically associated lineages. All of the people of Torres, Martinez, Cabezon, Thermal, Alamo, etc., would have been *ikwanit* with each other. The people of Agua Dulce, however, were *ikwanit* with the groups in the Santa Rosa Mountains, rather than with the people of the valley, since Agua Dulce was the farthest south of the

Coachella Valley villages and quite a distance from most of the *ikwanitem* 'those who are bound together' occupying the valley itself. For the *nukil*, the great image burning ceremony when the deceased of the village were honored, however, all of the lineages of the Valley and Palm Springs were invited and runners might be sent as far as Banning to invite guests.

CULTURAL FACTORS INFLUENCING THE NATURE OF ARCHAEOLOGICAL REMAINS

The settlement pattern described here as typical in the Coachella Valley conforms to that described by Bean (1972), Barrows (1900), and others. Each individual extended family generally built its own cluster of houses together so that a patriarch and his married sons or a group of brothers lived together. These settlements were separated from the others but were always near a water source. Each lineage in the area that functioned as a separate ceremonial unit also had its ceremonial house and dance enclosure as well. The extended families invited widows or other people without family connections to live with them. Each lineage also generally had its own sweathouse. If such a pattern were true for *Temal Wakhish*, the site was probably much larger than observed in the field survey. Bean (1972:71, 76) reported that Desert Cahuilla village sites often were two to three square miles in extent. He also noted that one estimate allows for 75 people per lineage. With at least two, and possibly three, lineages, if the *Nonkhayem* are included, *Temal Wakhish* was no doubt a populous village site in aboriginal and early historic times.

Besides observations in the surveyors' field notes that people resided in the area as early as 1856, observation during the field survey of cremation burials indicated residence that probably predates 1877. Mrs. Modesto said that the first Moravian missionary entered the Coachella Valley at about that time and per-

sueded the Cahuilla to stop cremating their dead. From then on, they buried the dead. Cremations and the customs attendant upon them would have had an influence on the composition of household groupings and the growth of the site and movement of population within it.

Houses themselves were not permanent structures. Barrows (1900:38) reported that houses were seldom inhabited more than two successive years without being dismantled and reconstructed on a site a few yards away. Furthermore, the property of the deceased was always burned, including his house, after the body was cremated, and the settlement was relocated. Because of these factors, individual extended family settlements would have moved slowly over the site as houses were relocated because of deaths or the need to construct new ones. New houses were also erected for the newly married. The ceremonial house at *Puichkiva*, Francisco Nombre's village, was burned and relocated five times in three generations because of deaths in the family. Mrs. Modesto also said that there was a cultural emphasis on producing many children, which undoubtedly influenced the growth of extended family settlements over time:

The more family you had, oh, the more honored you were, you were somebody. And they married, and maybe they had their houses built around you too. And that way they [the settlements] were bigger around. There you were, the grandfather with all of you around.

Cremation of the dead also had an impact on archaeological remains found in the site. Mrs. Modesto noted that there was usually a single area where the dead were cremated. However, if an individual asked to be cremated at death in a specific spot, his wishes were honored. Her detailed description of the ceremony indicates not only the social significance of death in bringing lineages together, but explains something about the surface

remains found in conjunction with cremations:

Takhchutwet, or *mechutwet*, it means the one that burns them. My great-grandfather was a *takhchutwet*. I was told about this, I didn't see it, but I was told about it by my grandfather. He saw it and told me about it. For instance, you are dying, you are an Indian and you are dying. You are lying in bed, you're dying, and they know for sure you are going to die . . . maybe not that very minute, but you are going to die, they know it. You're going . . . you're sinking. They tell the neighboring people around here [*Soqut Menyily* on the Torres-Martinez Reservation] and then the Augustines [people from *Temal Wakhish*] that you are sinking. So they come in their grief to be with your people—the singers, they come, each one of them, they all come to console the bereaved, your relatives. And they start singing—they sing. Like a group from Augustine would come and sing on you while you were lying there, all night. They would sing on you all night. If you're still breathing by the time the sun comes up, alright, they stop singing their songs and another group sings while you're still there—during the daytime. They feed them there—just like at a wake, they're there. And they sing all that day, and you're still alive. And another group sings. You might die when the *Maulma* people [people from Torres] are singing on you, you breathe your last. Alright. And my great-grandfather, in the meantime, he knows you're going to go, and he goes and gets his shovel. It's a shovel made out of ironwood. It isn't a beautiful shovel like you have with these modern shovels, but it's just a little . . . *ukhu ish yakhwil* [indicating something scoop-shaped with both hands] . . . like that he says. A little indentation like a shovel or scoop with a long handle. He goes over there, and he digs a hole about so deep [approximately one and one-half feet], maybe deeper if the ground is soft. And then he starts to put the wood in there. That's the hard part. He has to use all the woods of the ceremonial

song. There are different woods in this song:

Iv'ilmane kwanim, iv'ilmane kwanim . . . 'this will eat you'; he's talking about the body;

Kelawat . . . *kelawat* means wood . . . *hayuklawat* . . . that's the name of one [kind of] wood;

tapaqlawat, tapaqlawat . . . that's the name of another kind of wood;

mumu'klawat, mumu'klawat;

pa'kumawat, pa'kumawat;

avika', avika';

kelawat uulviswet, kelawat uulviswet;

kelawat qalwiswet, kelawat qalwiswet.

These are all the [kinds of] woods that would eat [the body]. And he had to find all these woods. You don't just dump a bunch of arrowweed or a bunch of mesquite in the hole. You have to have those woods in the hole, and then you have to have some more over here, a pile of it. You have that all ready and as soon as that person stops breathing, the *takhchutwet* [ceremonial cremator] has a net, a real long one made, and he puts the body in there, brings it to that place, and puts it down there. And they come and they sing right by it. And then he burns the body. It burns and burns and burns and burns. He used to tell me, my grandfather did, that the last piece to burn was the heart. It's the last thing. It's hard to burn. They have to poke it and turn it around and this and that. After they burn they throw the rest of the wood on you until you come to nothing . . . ashes. And then, of course, they'll throw their *olla* on you and break *ollas* on you or something—throw the *muqyawtem* [beads] on you. It all depends on what Indian you were, you know, high rank and you'll have *muqyawtem* on you. That's why you'll find some burnt *muqyawtem* on the graves. Some in their grief would just tear them apart, just throw them, scatter them. That's how you find white beads in the sites too.

Mrs. Modesto's description explains much

of what is found in surface remains of cremation burials. The shallowness of the grave in which the body was burned would permit the burial to rapidly be exposed by soil movement due to wind or water. The custom of destroying *ollas* and other property at the end of the cremation would also explain the high frequency of sherds and other artifacts in the area of cremation burials. Her statement about rank might allow inferences of differential status depending on the type of grave goods found in association with the burial.

GATHERING ACTIVITIES

As earlier writers have noted, the Cahuilla made extensive use of the plant and animal resources in their environment. This section centers specifically on plant resources available to and utilized by the people of the Coachella Valley. Much has been written on the importance of mesquite (*Prosopis glandulosa* var. *torreyana*) and screwbean (*P. pubescens*) to the Desert Cahuilla (Bean and Saubel 1963, 1972: 107-117). Recounted here first is Mrs. Modesto's information specifically about the use of mesquite and screwbean in the Coachella Valley.

As the vegetation reports from the surveyors' notes indicate, the area around *Temal Wakhish* had vast groves of mesquite at one time. Mrs. Modesto remembered that there were "forests of mesquite" on the valley floor, but that they had mostly been cut down. The gathering area claimed by the people of *Temal Wakhish* must have been several square miles in extent. Mrs. Modesto recalled that the area of claimed mesquite trees for her grandfather's settlement in the 1920's was two to three miles in diameter. Boundaries existed and were determined by individual mesquite trees. *Pe'hiwinet pen pe'hiwinet pen pe'pika* 'that one there and that one there and those over there' was an expression defining the mesquite-gathering boundary of a single lineage. Within the gathering territory, each family had individual trees which were theirs exclusively. Mrs.

Modesto stated that her grandmother, Amelia Nombre, had 25 or 30 trees of her own within the *A'wilem* territory which produced the sweetest beans. People always deferred to her as the eldest of the lineage and wife of the *net*. The mesquite did not produce abundantly from year to year, and if an individual's crop failed in one year, neighbors would invite the person to pick from their own. Gathering rights were guarded, and Mrs. Modesto reported that if intruders were found in another person's territory, it could result in fights between the women. Mesquite groves were not tended in any way. Older trees might be cut so that the sap, which was collected, would run. The sap was made into a medicinal wash for the eyes.

Mesquite beans were pounded while still green and a drink could be made of them, or the beans were dried and pounded into mesquite meal (Bean 1972:109). Mrs. Modesto remembered:

We ate early then, and we would go out to pick mesquite. I'd pull the limb down while my grandmother was picking the mesquite, or she would pull the limb down while I picked the mesquite, the lower down beans. We always went to certain mesquite trees, the ones she said were hers. We'd work at picking and, ah, we'd take them home to dry. They're kind of damp, some of them, when they're fresh. That's another thing, she'd get some of the fresh ones. She'd say, "let's pick this fresh yet." Pound them, she'd pound them, and then make a drink out of them. "*Menyikish pishpakhatem*," she'd say, 'we're going to drink *menyikish* [mesquite bean]'. The fresh juice is creamy some way and that is delicious. Especially if the mesquite is fresh.

Mrs. Modesto emphasized that in taking plant resources the women apologized to the plants for gathering them and explained the needs of the people. Medicinal plants were taken only in as great a quantity as required, and an effort was made not to kill the entire

plant. The following words might be said while gathering mesquite or screwbean:

Ne pishkal 'I have come' *henyekawish* 'to gather' *etu'i* 'your fruit'. *Penwenik* 'I will store' *pa'ipa* '[for] later on' *peshkwa'iktem* 'something to eat'. *Metewet* 'Plentiful' *etu'i* 'your fruit' *tawpakhichi* 'this year'. *'Amna'a* 'God' *hiwkal* 'lives'; *alawa* 'thank you'.

Mrs. Modesto did not report any regular trading relationships for the exchange of staple foods. Strong (1929:40) noted that a number of the desert lineages originated in the Santa Rosa Mountains and maintained gathering rights to acorns and pinyon pine nuts there. The *Sewaxilyem* lineage at *Temal Wakhish* had "gathering territories around the village, and up in the mountains to the west where they went in the spring" (Strong 1929:53). Mrs. Modesto spoke of the custom of never visiting other families empty-handed, and when people came from the mountains for ceremonial visiting or other occasions, they often brought roasted agave or pinyon nuts. "Grandma used to give them mesquite bean powder in return—the cakes—and oh, they treasured that up in the hills because they didn't have any up there."

The desert people also utilized the other two staple foods of the Cahuilla, acorns (*Quercus*) and pinyon (*Pinus*). Families or lineages would make seasonal trips to their gathering territories in the Santa Rosa Mountains. Mrs. Modesto reported that the trips to get acorns and pinyon would last as long as two weeks. While the women gathered the plant foods, the men hunted deer. Both the dried meat and the gathered plant foods were carried down from the mountains in burden baskets.

Besides these staple foods, the people of the Coachella Valley utilized many other seed foods. Mrs. Modesto reported that among the most common seed foods were *huat* and *isal pa'nengve*. *Huat* was a species of glasswort (*Salicornia*), according to Bean and Saubel

(1972:135), available from June to October. It commonly grew in alkali sinks or on the salt flats of the valley floor. *Isal pa'nengve* is not identified in any source, and Mrs. Modesto did not know the English gloss for the term. She described the plant as follows:

And then there is another . . . a kind of flower that has seeds in it. I don't know what you call them in English. They'd take that seed and use a *takish* [mano] to mash them. They'd make a paste and eat it; that was good. *Isal pa'nengve*—they grow about this high [6 in.] and then the flower grows like this [bending down] and the meadowlark used to build his nest under them.

Paloverde (*Cercidium floridum*) seeds, *u'uwet hepush*, were taken both dry and green. Bean and Saubel (1972:52) reported that the beans were available in July and August. Mrs. Modesto said that the seed pods would be opened while they were still green and the seeds eaten "like peas in a pod." After the seed pods were dry, the seed was pounded into a flour. The barrel cactus (*Ferocactus acanthodes*) also provided both fresh food and seeds. Bean and Saubel (1972:67) noted that the barrel cactus buds were gathered before blossoming and parboiled and eaten fresh or dried for later use. Mrs. Modesto said that the buds were gathered in spring and prepared as described above. In this century, some people began canning the buds like domesticated vegetables. What is not reported by published sources is the fact that the barrel cactus also provided a seed food. Mrs. Modesto said that *kupash hepush* 'barrel cactus seeds' were taken from buttons left after the blossoms had dropped off. The small black seeds were ground with a mano and "had a nut-like flavor." The seeds of the California fan palm (*Washingtonia filifera*) were also eaten. They grew in abundance at *Maulma* 'among the palms' (Torres). The seeds were difficult to crack, but good to eat. *Pasal*, or chia (*Salvia columbariae*), was not particularly abundant in the desert. People liked it, and it was

gathered from places where it grew in the foothills and added to other seed flours as a flavoring, rather than being eaten as a staple. Mrs. Modesto said her grandmother liked to add chia to *pa'chisal* 'wild oats'. Bean and Saubel (1972:46, 142) reported that *pachosal* was the Cahuilla name for wheat which is mentioned in myths and also reported as being grown in the early historic period. It was ground into a flour and mixed with the flour of wild seeds, such as chia, to form a staple mush. They also noted that the wild oat, an introduced plant, was also gathered, parched, and made into a seed flour, but they gave no Cahuilla name for it. Mrs. Modesto consistently glossed *pa'chisal* as 'wild oats' and recalled a gathering song concerning it:

This is talking to the bug, two kinds, though; they eat the *pa'chisal* and stuff like that:

En meknan kuai kavi' (4X)

I will kill you *kavi'* [type of insect]

Pa'chisal ne ki'way pishne hengyukal

Wild oats I am waiting for; I am guarding (watching over)

En meknan kuai ti'al (4X)

I will kill you *ti'al* [type of insect]

Pa'chisal ne ki'way pishne hengyukal

That's it. I've seen *kavi'* in the arrowweed. They're a grey bug about that long [1 in. or less] and have a ridged back. They're grey and have a nose like an anteater. I have *pa'chisal*, you know that's wild oats, and I'm watching them carefully, waiting for them to ripen. *Pa'chisal ne ki'way* 'wild oats', *ne ki'way* 'I'm waiting for it'. *Pishne hengyukal* 'I am watching over'. I am jealously guarding something. You're waiting for the oats to ripen and you don't want those things to come and eat the oats so you kill them. You sing this while you gather the oats and you're looking for bugs, you're looking for *kavi'* or *ti'al*, and if you see them, you smash them.

This song is of interest because it indicates

that the Cahuilla practiced selective environmental manipulation in protecting stands of wild food from pests. Mrs. Modesto's grandmother also picked corn silk worms from the growing corn to protect it.

Mrs. Modesto's grandmother also planted a number of wild plants in her irrigated garden at Martinez. She specifically remembers that her grandmother grew chia and one of the necessary grasses for basket making, deer grass (*Muhlenbergia rigens*), called in Cahuilla *suulem*. The materials for basket making did not normally grow on the valley floor, and the women had to go to the washes and canyons in the foothills where there was sufficient water for the plants to grow. Basket making was made difficult with the advent of cattle herding in the mountain canyons, since the cattle trampled the plants underfoot or ate them. Mrs. Modesto mentioned that selling baskets to the early White settlers in the valley was one of the few economic activities open to Cahuilla women.

The possibility of aboriginal agriculture among the Cahuilla has been discussed by a number of authors.³ In the retelling of the Palm Springs creation myth in William Duncan Strong's *Aboriginal Society in Southern California* (1929), a number of cultigens are mentioned as growing from the cremation ashes of the creator Mukat. We can neither settle the question of aboriginal agriculture, nor discuss it at length in the space available. Mrs. Modesto reported that irrigation was carried out by hand at the original settlement of *Puichkiva*, the water being carried in containers from the step well. The cultigens common in Francisco Nombre's garden were those mentioned in the creation myth. Mrs. Modesto asserted that the practice of agriculture was of some antiquity among the Cahuilla and that the plants were received directly from Mukat. Tobacco was also cultivated. The tobacco "belonged to the ceremonial house" and care of it was the responsibility of the *net* 'ceremonial leader'.

Table 3
COMPARISON OF CROPS MENTIONED IN
DESERT VERSIONS OF THE CREATION MYTH

Palm Springs Creation Myth (Strong 1929:142)	A'wilem Lineage Creation Myth (Mrs. Modesto)
Tobacco—grew from Mukat's heart; to be smoked in the big house to drive away evil spirits.	<i>pivat</i> —'tobacco'—Mukat's breath; intended as an offering to 'Amna'a to accompany prayers. [Amna'a = 'Supreme Spirit'].
Yellow squash—grew from Mukat's stomach.	<i>nyashlyam</i> 'pumpkin'—grew from Mukat's stomach.
Watermelon—grew from the pupils of Mukat's eyes.	<i>estu'ish</i> 'watermelon'—grew from Mukat's head.
Corn—grew from Mukat's teeth.	<i>loti</i> [Sp.] 'corn'—grew from Mukat's teeth. <i>loti tam'a</i> 'corn teeth' from Mukat.
Beans—grew from Mukat's semen.	<i>tevinmalyem</i> 'beans'—grew from Mukat's ear lobes.
Wheat—Mukat's lice eggs.	----- <i>chakal</i> 'squash' ("green like summer squash")—grew from the flared part of Mukat's nostrils.
-----	<i>awaktem</i> 'black-eyed peas'—grew from Mukat's eyes.

There are some interesting correspondences and differences between the cultigens mentioned in the Palm Springs creation myth, those parts of Mukat's body from which they grew, and cultigens mentioned in the creation myth of the A'wilem lineage (Table 3).

Each of these cultigens is mentioned in the song cycle known as *henek mu've*, which tells the story of the death of the creator Mukat. The songs tell about each plant, how it will grow, and how it should be used and cared for. Mrs. Modesto paraphrased part of the song cycle:

When I die you cremate me, he [Mukat] says, don't be afraid of it. From my ashes will grow . . . he told them that something will come out of the ground like that . . . he said it will grow tall, and the ear will come out . . . something will grow out of it, he said, and watch it, let it grow, keep

watering it, and it will come, white things will come out. Those are my teeth, he said, you eat them and save some seed to grow more later on. Those are my teeth, that's what you will eat to live. Eat some and save some, and grow some more, that for you, he said. For generations to come keep on saving them and plant them.

Some of the cultigens mentioned in the creation myth were introduced by the Spanish from the Old World, but it is significant that their use in the Cahuilla agricultural complex is sufficiently old to have been included in the version of the creation myth learned by Mrs. Modesto and in the version told Strong more than fifty years ago. Of special interest is the mention in the song of Mukat's instructions to the people to save seed for planting and to water the corn, as well as Mrs. Modesto's own memory of pot irrigation. Pot irrigation would

have allowed the maintenance of modest gardens in Cahuilla settlements in the Coachella Valley without an elaborate system of ditch irrigation. Only the step wells, which were the primary source of water for villages in the desert, would have been needed for crop-growing. What percentage of the diet may have been derived from agriculture in pre-contact times cannot be determined. However, the practice of agriculture among the Cahuilla appears to have been sufficiently established to add new cultigens (such as wheat and watermelon) as they were introduced after European contact, and ancient enough to incorporate these new cultigens into the oral literature of the Cahuilla.

In the spring, a number of greens were eaten. Mrs. Modesto said that people ate dandelion (*Taraxacum*) leaves and a number of other greens at that time. The bottom parts of the tule (*Scirpus*), called *pa'ulem* in Cahuilla, were edible and could be eaten the year round. Trips were made to the mountains to gather, roast, and eat agave (*Agave deserti*). The ocotillo (*Fouquieria splendens*), *utushem* in Cahuilla, was gathered for firewood or the thorny stalks were used to make garden fences. The blossoms of the ocotillo were prepared as a vegetable. Mushrooms were also eaten. Bean and Saubel (1972:106) gave two Cahuilla names for mushrooms, *saqapish* and *yulal*, fungi that grew on cottonwood and oak. Mrs. Modesto said mushrooms were called *tivilyem*, and were only available in the rainy season. The *tivilyem* mushroom looked like mushrooms available in stores today and grew under the mesquite after a rain. The *saqapish* mentioned by Bean and Saubel was a pinkish wood fungus which grew on cottonwood trees and was good eating if obtained while young.

HUNTING ACTIVITIES

The major game animals available to the Cahuilla of the Coachella Valley were the deer and mountain sheep. The deer (*Odocoileus hemionus*) was known in Cahuilla as *soqut*, or

figuratively as *qawish ku'a* 'mountain's head-lice'. The mountain sheep (*Ovis canadensis*) was called *pa'at*. The deer and mountain sheep provided the major source of storable protein and were the subject of concentrated hunting. Bean (1972:57) reported that mule deer could be found in fall, summer, and spring in open forested areas and meadows of the mountains, and in the chaparral canyons in winter. The people of the valley hunted deer both in the Little San Bernardino Mountains to the northeast and the Santa Rosa Mountains to the west. Mrs. Modesto recalled that at certain seasons before the installation of modern irrigation canals the deer used to cross the valley floor.

Deer hunting required a certain amount of ceremonialism and preparation. The men refrained from contact with women for three days before hunting and went through a series of sweat bath purifications with medicinal herbs to remove the human scent. A ceremonial song cycle called simply "the deer songs" was sung in the sweathouse describing the movements of the deer and asking for good luck in hunting. Dressing the kill and drying and preparing the meat was women's work. Women did not accompany men on hunting trips. In order to maintain avoidance of women, hunters would set smoky fires next to a kill to signal to the women where it was, and then continue to hunt. Meat from deer or mountain sheep was cut into thin slices and hung on strings to dry in the sun. It might be parboiled first and perhaps salted. When it was ready for eating, it was stored in the *ikat*, or net bags. Deer hunting occurred throughout the year, whenever meat was needed, but was intensively carried on during seasonal trips to the mountains to gather pinyon nuts or acorns.

Small game was hunted on the valley floor. Rabbits abounded in the valley and were hunted in a variety of ways. Bean (1972:59) mentioned communal hunts using nets whenever a great deal of game was needed in preparation for a ceremony. Mrs. Modesto

remembered only individuals hunting, using the bow and arrow or the rabbit stick, called *vukiva'al*. The rabbit stick, carved like an Australian boomerang from a hard wood such as desert ironwood (*Olneya tesota*), was accurate at distances up to 50 feet in the hands of a skillful hunter. A hunter might go out in the early morning and fast until he had returned with a sufficient kill. The rabbits were given to women for skinning and cooking. They were stewed or roasted and could also be dried and stored like deer meat. Sometimes the rabbits were cooked whole. Mrs. Modesto's grandfather would

. . . select one rabbit. The rest my grandmother cooked for stews. The coals of the fire were always burning there on the ground, and he'd throw it there, fur and all; he never took the entrails out or anything, he just threw it on there. The ears would get all singed. He'd cook it and turn it over and over. It cooked that way, and after a while he took it out of the coals with a stick. He'd take it out and knock the ashes off of it and peel the skin back and there would be beautiful white meat. And then he'd take his fingers and open the stomach up. All of the entrails were dried up, they'd burn or something, I guess, steamed up. He'd take them out, take the liver out and stuff like that, and he'd eat it. That was his meal for the whole day when he went hunting.

Both *tavut* 'cottontail' (*Sylvilagus*) and *su'ish* 'jackrabbit' (*Lepus*) were mentioned.

Another small animal that was commonly taken was the *qawal* 'wood rat' (*Neotoma*). Children hunted it with small bows and arrows for practice in archery or it was taken in other ways. When mesquite trees were burned, children searched the larger limbs for the carcasses of wood rats trapped in their holes and cooked by the fire. These were considered a delicacy. A small rodent called *sisil* 'ground squirrel' (*Citellus*) was also hunted with bow and arrow or taken with noose traps built near their burrows.

Children hunted *qaxal* (California quail,

Lophortyx californica) with bows and arrows in the mesquite groves. People also went up into the hills to hunt chuckawalla lizards, called *chakhwal*. One of the defensive strategies of the chuckawalla was to wedge itself into a crevice in the rocks and puff up its body so that it could not be dislodged. The Cahuilla hunter pierced its eye with an arrow, which deflated it, making it possible to capture it. They were commonly roasted.

Bean (1972:62) mentioned a number of insects and larvae that were commonly eaten by the Cahuilla. His report that a worm "called *piyatem*—possibly an army worm—was a favorite treat of the Cahuilla" is corroborated by Mrs. Modesto. She remembered that her grandmother went out in the spring towards the hills, and they would gather these worms, killing them by pinching off the heads. The worms were roasted on a *comal* (Sp.) 'griddle' and either eaten immediately or stored. Sometimes they were parched over hot coals, which dried them out and allowed them to be stored longer without turning rancid. Grasshoppers, locusts, and cicadas were also roasted and eaten. They were also stored for future use like prepared meat in small net bags. Another type of worm or caterpillar called *ewinchem* was taken in November or December. It was found among the roots of the saltbush (*Atriplex lentiformis?*) and was a pinkish insect larva approximately two to three inches long. This larva was prepared like army worms and also parched or sun dried for storage.

FURTHER NOTES ON FOOD PREPARATION

The Cahuilla commonly prepared their major plant staples as gruel or cake, whether *wiwish* 'acorn mush' or *menyikish* 'mesquite bean mush or gruel'. The gruel was eaten plain, and meat for the meal, if there was any, was prepared as a condiment and eaten separately. As the Cahuilla adapted to White food habits, they mixed traditional food items from gathered foods with purchased staples and garden

produce. Mrs. Modesto remembers a typical meal of the 1920's might be *sawish* 'flour tortillas' for breakfast with jerked meat cooked with tomatoes, onions, and beans. The typical evening meal might be black-eyed peas, *wilypa* 'sawish' 'fry bread', and a rabbit stew cooked with onions and chiles. Other traditional plant and animal foods described above were also eaten in season.

SOURCE OF CLAY FOR POTTERY MAKING

Materials for one of the other important feminine economic activities, pottery making, were also not available on the valley floor. Women would go to a place in the Mecca Hills to the east of the valley called *Qawish Yulish* 'clay mountain' to obtain clay. When viewed from the valley floor, these hills appear red, especially at sunset or sunrise. According to the creation myth of the *A'wilem* clan, when Coyote stole the heart of the creator Mukat from the cremation pit, he ran to the Mecca Hills to eat it. That is why those hills are stained red.

* * * * *

The data presented here provide a clearer picture of some aspects of aboriginal and post-contact Cahuilla life in a single village than most of the previous literature that deals with the Coachella Valley. This paper is only a beginning, since more detailed information about the Desert Cahuilla can still be obtained. We hope we have demonstrated that understanding the ethnographic past can be useful in interpreting the archaeological record of an area, particularly in providing information on remains such as cremation burials, or the movement of house locations in a village site. More such studies need to be undertaken in this time of rapidly increasing contract archaeology and a fading generation of older Native Americans who are still knowledgeable about the history of their people. During our collaboration, Mrs. Modesto recalled the words of her grandfather to the pioneer

Cahuilla ethnographer William Duncan Strong:

My grandfather, Francisco Nombre, told Strong . . . he was talking to him at that time years ago when he was here [1924-25] . . . "This is wrong that the Indian didn't want to talk to the white man. After I am dead and gone, all that I tell you here, all these words will be written. These are my words and what I am saying is the truth. I want this written down so that others that come later on can read this."

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NOTES

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2. We are indebted to Opal Slone, U. S. Department of the Interior, Bureau of Land Management, Sacramento, for providing us with access to notes and maps. Her continued interest and support in California anthropological research is sincerely appreciated.

3. See especially Lawton and Bean (1968), and Lawton (1974), and Wilke and Lawton (1975), and papers cited in these works.

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