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Journal of California and Great Basin Anthropology

Title

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Permalink

<https://escholarship.org/uc/item/7dm32971>

Journal

Journal of California and Great Basin Anthropology, 2(2)

ISSN

0191-3557

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Publication Date

1980-12-01

Peer reviewed

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Death Valley Indian Farming

WILLIAM J. WALLACE

By the last quarter of the nineteenth century some Death Valley Indians had incorporated small scale farming into their subsistence economy. First to report native crop raising was Lieutenant Rogers J. Birnie, Jr., who led a United States Army exploring party into the desert country in 1875. After departing the silver mining camp of Panamint, the lieutenant and his contingent of seven soldiers traveled through a canyon in the Panamint Mountains on their way to Death Valley. While passing down the canyon, Birnie noted that:

... grass and a short running stream were found, also a small cultivated piece of ground where vegetables were raised with facility by irrigation [Wheeler 1876:132].

Without doubt, this was the place now called Hungry Bill's Ranch, named for a well-known local Indian who maintained a small farm thereabouts. Hungry Bill's is located near the head of Johnson Canyon on the east face of the Panamint Mountains.

Sixteen years later Frederick V. Coville, botanist for the United States Department of Agriculture's 1891 "Death Valley Expedition," remarked upon plant propagation at the same spot as well as in Hall Canyon that feeds into Panamint Valley.

At the mouth of Hall cañon, near Hot Springs, at the west foot of the Panamint Mountains and in Johnson cañon, on the eastern or Death Valley slope of the same range, the Indians have under crude irrigation and cultivation two or three acres of ground. The crops commonly raised are corn, potatoes, squashes, and watermelons. Of the last they are especially fond, fully as much as the African and the desert climate is admirably suited for their growth [Coville 1892:352].

Edward W. Nelson, one of the expedition's biologists, added the following details:

On the east side of the Panamint mountains, at a place marked 'Johnson's R.', is a series of three or four little patches of soil along the course of a steep rocky cañon leading down into Death Valley, just south of Bennett's mills.

There a couple of families manage to live by raising corn, melons, squashes, and a few peaches and grapes, with pine-nuts and grass-seed in their season [Nelson 1891: 371-372].¹

Hungry Bill's Ranch was not the only locality farmed. Five families living in Grapevine Canyon at the far northern end of Death Valley also cultivated plots of ground (Steward 1938:89).² A survey map of "Scotty's Old Ranch" prepared in 1924 shows "Indian Gardens" at two places in the vicinity of Grapevine Springs. These springs water a green patch

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on the slope of the Grapevine Range a short distance north of the canyon of the same name and their overflow feeds into ephemeral Little Grapevine Creek. Since arable land here is severely limited, garden plots must have been quite small. As at Hungry Bill's the growing plants depended upon irrigation rather than upon the sparse and uncertain rainfall for needed moisture.

Garden plots were family-owned and family members of both sexes helped in the tilling. Planting took place in the early summer at Hungry Bill's and the crops matured rapidly under the hot sun. Less severe growing conditions in Grapevine Canyon, which lies at a lower elevation (ca. 2700 vs. 5000 feet), allowed for an earlier sowing. Crops were planted in February and harvested in July. Until shovels were obtained from prospectors, loosening and breaking up the soil was done with hardwood digging sticks, the same ones employed by women for prying up roots and digging rodents out of their burrows. Seeds of different plants were set out in the same plot, with those of each species or variety sown in a separate row. Other than occasional irrigation and casual weeding, the developing plants received little attention. So far as is known, gardens were not fenced to keep out marauding rabbits or other animals. Nor do traps seem to have been set for ground squirrels that might dig up seeds or uproot plants.

Both native American and Old World domesticates were cultivated. According to an aged Grapevine Canyon inhabitant, corn (variegated), pumpkins, squashes, two kinds of beans, sunflowers, watermelons, muskmelons, tomatoes, and wheat were raised (Steward 1941:232). By contrast, a Furnace Creek villager recalled the growing of only corn, beans, and yellow field pumpkins (Driver 1937:65). To these can be added potatoes (Coville 1892:352), peaches, and grapes (Nelson 1891:372). Tobacco was not propagated, though the brush was burned to

improve growth of wild plants (Steward 1941:291).

Rewards from the small patches of land were not great. As Coville (1892:352) pointed out: "The cultivation of plants furnished them [the Indians] neither a sure nor an adequate food supply." Quite probably, a good part of the harvest was consumed on the spot by a gathering of relatives and friends. By the end of summer, a few months after reaping, the Grapevine Canyon people had eaten the entire yield of their gardens, leaving nothing for the lean winter months ahead (Steward 1938:89). Possibly, too, as with the lower Colorado River tribes, corn was gathered at all stages of ripeness. Wheat, corn, and squash that had not been promptly eaten was stored away in pits (Driver 1937:65), and seeds, of course, had to be put aside for the next season's planting. Usually, when a man died, his crops, even if ready for harvesting, were destroyed and his field allowed to lie idle for a year or two (Steward 1938:89).

Conflicting views are held as to how and when the Death Valley Indians learned the rudiments of farming. Julian H. Steward (1938:72, 89; 1941:231) has suggested that their knowledge of horticulture was acquired in the early post-contact period, partly from the Southern Paiute of Ash Meadow (Nevada) who practiced cultivation in aboriginal times,³ and partly from Whites. An opposing idea is that the stimulus for raising crops came earlier and from the Colorado River Valley. Supporting evidence for this view is a Furnace Creek Indian's claim that his grandfather visited the Mohave and brought back seeds of the various domesticated plants (Driver 1937:113). The date of this alleged event has been calculated at about 1840.

Though the possibility of an introduction from the Colorado River Valley cannot be altogether dismissed, particularly since the Mohave word for melon (*kamito*) is nearly identical to the Death Valley designation

(*kamitu*) for muskmelon, a stronger case can be made for a Southern Paiute-White derivation. Proximity, a close correspondence in the combination of crops, plus an apparent similarity in farming methods hints at a Southern Paiute connection as does the sharing of names for at least three cultivated plants. From Death Valley Indian terms for corn (*maic*), beans (*piholes*) and tomatoes, it can be guessed that these plants were taken over directly from Mexican prospectors. The aforementioned Grapevine Canyon resident thought that corn, crooked neck squash, pumpkins, beans and tomatoes were procured from miners during the Lida, Nevada boom of the 1870's and that striped squash, watermelons, wheat and sunflowers came from the Ash Meadow Paiute (Steward 1941:232). Certainly he was wrong in regards to the last-mentioned; for the Ash Meadow people did not cultivate the sunflower. The plant could have been obtained from the Mohave, the only Colorado River tribe to grow it.

Whatever its source, crop raising made no great impress on Death Valley Indian life and culture. To be sure, its introduction meant a little more food and a more diversified diet. But native gardens did not produce enough to allow for abandonment of or even substantial alteration in the foraging-hunting pattern of subsistence that had endured for centuries. Nor did the addition of horticulture to the native economy result in a sudden elaboration of technology. Mostly, implements and techniques already in use were adapted to the needs of farming and the processing of its products. Mention has already been made of the digging stick's taking on the added function of planter; mills and handstones, long employed for wild seeds, were pressed into service for grinding corn and wheat into flour, and so on. Even irrigation had its antecedent in the aboriginal practice of channeling water from springs or temporary streams into artificial ponds for attracting migrating waterfowl

(Wheeler 1876:133; Miller 1919:62). Moreover, there is nothing to suggest that the acceptance of farming led to greater stability of residence. Not until their way of life gave way entirely to Western civilization did Death Valley's native inhabitants finally give up the habit of moving seasonally from locality to locality in search of wild plant and animal foods.

NOTES

1. Nelson (1891), additionally, noted that the Indians living at the mouth of Hall Canyon grew corn, beans, melons, and squashes and were starting a small orchard of peaches and figs. Of a different order was the farming he observed near the mouth of Hunter Canyon in Saline Valley. Here the native people had 100 acres under irrigation and the land was cultivated with the aid of four American plows. An opportunity to sell alfalfa, barley, and wheat to the Borax Works led to this development. They also grew melons, squashes, corn, and beans (Nelson 1891:371-372).

2. According to Steward (1938:89) two of the same families also maintained farms at nearby Mesquite Spring.

3. The emigrant party that strayed into Death Valley in the winter of 1849 came across a Southern Paiute garden at Cane Springs, Nevada. In his account of the 49ers' ill-fated trek set down many years later, William L. Manly observed that, "By the aid of a warm spring they had raised some corn here, and the dry stalks were standing around" (Manly 1894:128). As a friendly gesture, an Indian living nearby presented Manly and his fellow scout, John Rogers, with a handful of corn. While Manly was away on another scouting trip, members of the overland party, now encamped at the springs, discovered "a pile of squashes probably raised upon the place, and sufficient in number so that every person could have one" (Manly 1894:133). The shooting of arrows into three oxen some days later was interpreted by Manly as an act of revenge for stealing the stock of squashes.

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A Wooden Artifact from Santa Cruz Island

JANICE TIMBROOK

Santa Cruz Island, lying some 30 km. south of Santa Barbara, was occupied by the Chumash and their ancestors for several thousand years, up until about 1815. More recently, the island has been privately owned and it is currently operated as a cattle ranch. A private club allows hunting of feral sheep and pigs, which range over most of the island. A few years ago, one of these hunters found an unusual wooden object in the course of unauthorized hunting for Indian artifacts. The purpose of this paper is to describe the object and to consider archaeological, historical, and ethnographic evidence which can shed light on its possible age and function.¹

Following a discussion of the find, the object itself is described. Comparisons are then drawn between this object and several types of historically and ethnographically known artifacts. It is argued that the object was probably not made and used in historic times. Assuming that Chumash material culture was similar in the late prehistoric era, possible Indian uses are discussed: canoe paddle, talisman, toy, digging implement, and mush stirrer. The evidence indicates that this object probably functioned as a mush stirrer, a conclusion further supported by the fact that paddle-shaped stirring sticks were used by many other California Indian groups.

ARCHAEOLOGICAL CONTEXT

In January, 1976, a businessman named Bill Miller flew to Santa Cruz Island along with several other people for a few days of hunting. The hunt club provides accommoda-



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