REPORTS

An Archaeological Cucurbit from Coachella Valley

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A small, modified bottle gourd rind, *Lagenaria siceraria* Standl. (Mol.),[1] was recently found cached in a rockshelter (tentatively designated site CV-107) 14 km. southwest of Indio, Coachella Valley, California. This shelter is located within 2 km. of the historic Cahuilla rancheria of Toro (Toros, Torres), and is also within 300 m. of the shoreline of former Lake LeConte. Recent rockfall caused runoff water from an adjacent slope to enter the shelter, with the result that the contents, which may have previously been dry, were exposed to moisture, seriously disturbed, and largely washed away. From these disturbed deposits were later recovered plain buff sherds, red-on-buff sherds, and a fragmentary ceramic pipe. In consideration of these materials and the exceedingly low ceiling of the shelter, it is doubtful whether it was ever actually occupied, and it appears more likely that it was a storage site. The gourd itself was cached under several small rocks in a dry, protected crevice well above the floor of the shelter, and escaped damage by water and falling rock. Since it was not in direct association with other materials of known or determinable age, the gourd may date from either the historic period, having been cached in the shelter by Cahuillas, or from the prehistoric period, having been cached by persons resident on the nearby shore of Lake LeConte, a large freshwater body which is thought to have dried some 400-500 years ago.

The specimen (Fig. 1) is 13.4 cm. long and about 8 cm. wide. The rind is about 2.5 mm. thick, badly compressed out of shape, and torn in several places as an apparent result of the weight of the rocks which concealed it. Further damage occurred through the gnawing of rodents. The peduncle (stem) has been carefully removed as if to form a small bottle-shaped container. The opening, which is not stoppered, is 15 mm. in diameter, and the lip is smoothed, suggestive of much use. All internal contents have also been carefully removed.

Castetter and Bell (1951:116) note that among the Yumans when gourds were to be used for water containers it was essential to thoroughly scrape out the interior "else the contents would have a bitter taste." We therefore suggest that the Coachella Valley specimen represents a gourd container, although not necessarily one for storage of water, given its small size. It is worth noting, however, that ethnographic examples of gourds in southern California were usually manufactured into rattles, which would have also required removal of the peduncle and interior contents. Rattles were provided with pebbles or seeds of the *Washingtonia* palm, and often a wooden handle; the rind was sometimes perforated with many small holes to improve resonance. Both gourd containers and gourd rattles were sometimes decorated by carving, scraping, or painting. The present specimen was first thought not to have been

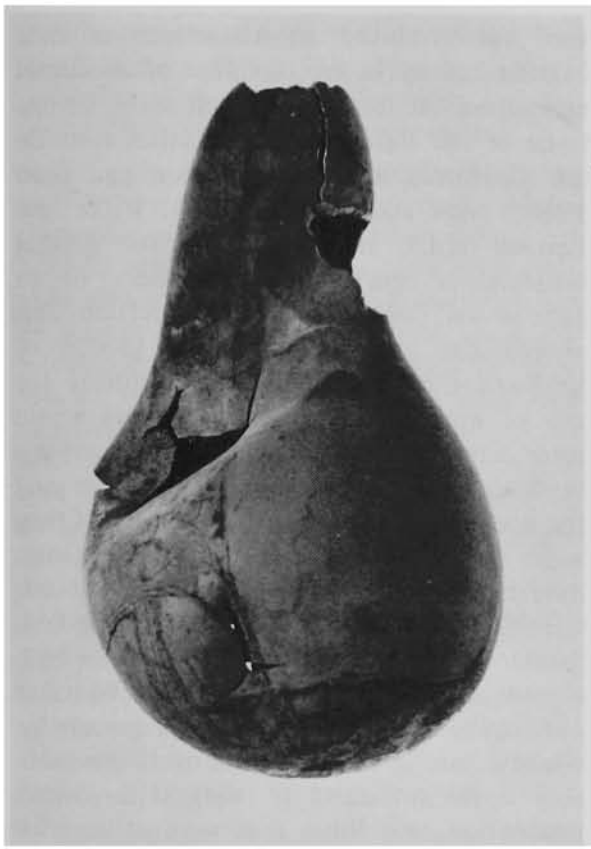

Fig. 1. Rind of bottle gourd, probably used as a container, from Coachella Valley, California. Length: 13.4 cm.

decorated, but careful brushing revealed an apparently incomplete pattern wrought by incising and scraping. Part of the epidermis also appears to have been removed in rendering the design.

The presence of bottle gourds, a cultivated crop plant, in southern California is usually attributed to trade with lower Colorado agriculturalists (e.g., Kroeber 1908:62). How long gourds and other crops were grown on the lower Colorado is not known, but Wasley and Johnson (1965:Figs. 55, 58b, 63) illustrate what appear to be bottle gourd effigy ceramic vessels from the Gila Bend region of southwestern Arizona, dated at A.D. 900-1150. Archaeological specimens from a cave designated Loreto-1 (B.C. 100) in the Comondú region of southern Baja California are assigned to the period A.D. 1697-1750 by the discoverer, William C. Massey (Whitaker 1957:144). This would be during the Mission Period, and the gourds are thought to have been derived from such missions as Comondú, San Xavier, or Purísima.

The only other archaeological examples of gourds from southern California and Baja California with which we are familiar are five specimens from San Diego County and northern Baja. These specimens are in the collections of the San Diego Museum of Man, and represent both containers and rattles, but are not from dated contexts, and have not been adequately described.[2]

The earliest observation of gourds in the southern California-Baja California area is apparently that of Alarcón on the lower Colorado River in 1540 (Hammond and Rey 1940:136; Castetter and Bell 1951:115).[3] More than 200 years later Garcés, with the Anza expedition in San Jacinto Valley not far from the present town of San Jacinto, noted in 1774:

> These Indians also use for their dance the calabash with pebbles inside, like the people of the [Colorado] river [Bolton 1930, II: 351].

Elsewhere, Bolton (1930, I:100) and other later scholars have often cited the Anza diaries as primary evidence that agriculture failed to extend beyond the Colorado River Agricultural Complex to interior southern California groups such as the Cahuilla. Since the Anza explorations of 1774-75 and 1775-76 were the first European expeditions to traverse interior southern California, the supposed lack of mention of crop-growing or crop plants has been viewed as decisive proof that interior groups were non-agricultural. Lawton and Bean (1968:19) challenged this view by pointing out that both Anza expeditions on their westward passage and return

journeys crossed mountain Cahuilla territory during months when crops would not normally have been grown. Apparently, the above reference to calabash gourd rattles in the Anza diaries has also been overlooked. The gourd rattles reported near San Jacinto by Garcés must have been either trade items from the Colorado River groups or locally grown. None of the wild indigenous species (*Cucurbita foetidissima* HBK, *C. palmata* Wats., or *C digitata* Gray) are satisfactory gourd rattle materials, nor do they fit Garcés' description of calabash rattles, *Lagenaria* sp., like those of the Colorado River.

In 1845, Wilkes (1845:186) observed of a group of Indians in the San Joaquin Valley:

> They do not appear to pay any attention to cultivation, and the only appearance of it was in a species of Cucurbita (mock orange) *planted near their village;* but what use they made of this was not learned [italics ours].

The term "mock orange" usually refers to wild species of *Cucurbita,* such as *C. foetidissima,* seeds of which are edible (Bean and Saubel 1972:57). Whether it was actually one of the wild species Wilkes observed cannot be determined, but the "mock orange" was so ubiquitous in early California that it seems unlikely Indians would have bothered cultivating it. If the plants in question were domesticated *Cucurbita,* then they were probably *C. moschata* Duchesne or *C. pepo* L., both of which were widely cultivated for food along with beans and maize in the Southwest. Alternatively, they may have been the bottle gourd, *Lagenaria siceraria,* typically grown for non-food use in much the same manner as tobacco was grown by various Indian groups.

These and other references to gourds in ethnographic literature for southern California remain difficult to evaluate as to whether trade items from the lower Colorado are represented, or whether they were grown indigenously. Careful combing of early literature has produced an abundance of data bearing heavily in the direction of aboriginal agriculture, at least on a small scale, among some of the Indian groups of interior southern California and Baja (Lawton and Bean 1968; Bean and Lawton 1973; Wilke and Lawton n.d.). Irrespective of the general problem of the possible existence of an agricultural complex, it seems certain that among the later ceramic-using groups of southern California and Baja California the use of gourds as storage containers would have largely given way to use of ceramic vessels. And while gourds may have been used for cooking with hot stones, their use (if they were available) in this capacity would also have been replaced at an early date. If gourds were ever used as food in aboriginal California, most likely only the seeds were consumed, and these rarely (Cutler and Whitaker 1961:483). Thus the demand for gourds for whatever use in southern California was probably never sufficient to warrant large-scale production, and those that were utilized for containers and rattles no doubt lasted a long time.[4] Castetter and Bell's (1951:115) Yuman informants probably summed up the situation accurately when they indicated (1951:115) that "on the lower Colorado . . . only very small numbers of gourds were grown in early times, actually about three hills by a family and even this only in occasional years."[5]

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NOTES

1. The identification was made by Thomas W. Whitaker, U. S. Department of Agriculture, La Jolla, California. The specimen is now in the archaeological collections of the Torres-Martinez Band of Cahuilla Indians.

2. Personal communication from Ken Hedges, Curator of Archaeology, San Diego Museum of Man. A description of this material is desirable and forthcoming (Whitaker and Hedges, in preparation).

3. During the march of the Portolá expedition of 1769-70 from San Diego to Monterey, Father Juan Crespi (Bolton 1927:124) reported observing a "very beautiful valley, which when we saw it, seemed to us to be nothing less than a cultivated cornfield or farm, on account of its mass of verdure." On a small eminence in the valley (Soledad Valley near Sorrento), lay an Indian village. The verdure on closer inspection turned out to consist chiefly of "very leafy wild calabashes" and many Castilian roses (a major food source of California Indians). This is the first mention of gourds in southern California proper, but although Crespi notes that the valley gave an appearance of cultivation he fails to provide sufficient information on the gourds to determine whether they were wild or domesticated species.

4. Other functions of gourds recovered archaeologically in various parts of the New World include use as fish net floats, ladles, whistles, etc. (Cutler and Whitaker 1961:483).

5. We express our appreciation to Thomas W. Whitaker, Ken Hedges, Lowell Bean, and Harry Lawton for comments and suggestions.

REFERENCES

Bean, Lowell John, and Harry W. Lawton
1973 Some Explanations for the Rise of Cultural Complexity in Native California with Comments on Proto-agriculture and Agriculture. *In* Patterns of Indian Burning in California: Ecology and Ethnohistory, by Henry T. Lewis. Ballena Press Anthropological Papers 1. pp. v-xlvii.

Bean, Lowell John and Katherine Siva Saubel
1972 Temalpakh: Cahuilla Indian Knowledge and Usage of Plants. Banning: Malki Museum Press.

Bolton, Herbert Eugene, Ed.
1927 Fray Juan Crespi: Missionary Explorer on the Pacific Coast, 1769-1774. Berkeley: University of California Press.
1930 Anza's California Expeditions. Vol. I-V. Berkeley: University of California Press.

Castetter, Edward F., and Willis H. Bell
1951 Yuman Indian Agriculture: Primitive Subsistence on the Lower Colorado and Gila Rivers. Albuquerque: University of New Mexico Press.

Cutler, Hugh C., and Thomas W. Whitaker
1961 History and Distribution of the Cultivated Cucurbits in the Americas. American Antiquity 26:469-485.

Hammond, George P., and Agapito Rey
1940 Narratives of the Coronado Expedition 1540-1542. Coronado Cuarto Centennial 1540-1940, Publications 2. Albuquerque.

Kroeber, Alfred L.
1908 Ethnography of the Cahuilla Indians. University of California Publications in American Archaeology and Ethnology 8:29-68.

Lawton, Harry W., and Lowell John Bean
1968 A Preliminary Reconstruction of Aboriginal Agricultural Technology Among the Cahuilla. The Indian Historian 1(5):18-24, 29.

Wasley, William W., and Alfred E. Johnson
1965 Salvage Archaeology in Painted Rocks Reservoir, Western Arizona. University of Arizona Anthropological Papers 9.

Whitaker, Thomas W.
1957 Archaeological Cucurbitaceae from a Cave in Southern Baja California. Southwestern Journal of Anthropology 13:144-148.

Wilke, Philip J., and Harry W. Lawton
n.d. Early Observations on the Cultural Geography of Coachella Valley, California. Ballena Press Anthropological Papers. (In press.)

Wilkes, Charles, U. S. N.
1845 Narrative of the United States Exploring Expedition, During the Years 1838, 1839, 1840, 1841, 1842. Vol. 5. Philadelphia: Lea and Blanchard.