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2003 Some Observations on the Material Culture of the Nicoleño. Paper Presented at the Sixth California Islands Symposium, Ventura, California; Dec 3, 2003.

### Introduction

The plight of Juana Maria, the ‘Lone Woman of San Nicolas Island’, is well known to the academic community through the writings of Heizer and Elsasser (1961, 1963, 1973) and to the general public through the writing of Scott O’Dell’s (1960) novel “Island of the Blue Dolphins”. Little attention, however, has been paid to the descriptions of Nicoleño material culture which appear in the accounts of Nidever and Dittman during their searches of San Nicolas Island to locate the Lone Woman. During their searches they noted a number of standing structures, located a basket filled with artifacts, and noted several artifacts and how they were made. When they found the woman they described her campsite and the articles that she choose to bring with her. There are also a few disparate notes on historic era material culture located in various sources which have been ascribed to the Lone Woman which provide some additional first-hand observations.

The ‘Lone Woman’ was left abandoned on San Nicolas Island in 1835 when the rest of the islanders were removed to the mainland. There are a variety of stories describing how and why she was left behind. The earliest first-hand accounts simply state that she was mistakenly left behind when the ship sailed away in light of a storm. After a number of years, most had supposed that she had died, and no concerted effort was mounted to locate her until after 1852 when rumors of her existence continued, and evidence on the island pointed that she might still be alive. George Nidever and his crew searched the island twice in 1852 (spring and fall), and again in the summer of 1853 when they found her in a campsite in the sand dunes on the west end of the island. During these searches, his crew discovered a number of structures, artifacts, and lifeways that are of interest to archaeologists working on the Channel Islands.

The purpose of this paper is to present information collected during Nidever’s visits to San Nicolas Island into a more readily accessible format. We have virtually no ethnographic information on the Takic speaking groups which occupied the southern Channel Islands, so even these small details are of critical importance in trying to piece together the lifeways of these people.

### Main characters

There are first hand accounts which describe events leading up to the discovery of the Lone Woman from two sources. The first is George Nidever, a Santa Barbara otter hunter and entrepreneur. He headed up three otter hunting parties which searched the island for the Lone Woman (Ellison 1937). The second source is Carl Dittman (aka. Charley Brown) who was second in charge of Nidever’s Fall 1852 trip, and was the one who actually located the Lone Woman on the 1853 trip. Both of these men, later put down their versions of the story in 1878 (Nidever 1878, Dittman 1878). I have also included a third source, L. Norton Dimmick a medical doctor in Santa Barbara who interviewed Nidever about 1880 (Mason 1993) and a few details not

noted in Nidever's personal account. These are considered the best first-hand accounts of the story. After the turn of the century, J.P. Harrington, interviewed various Chumash informants and gleaned some additional information from their perspective (Hudson 1978a, 1978b, 1980, 1981).

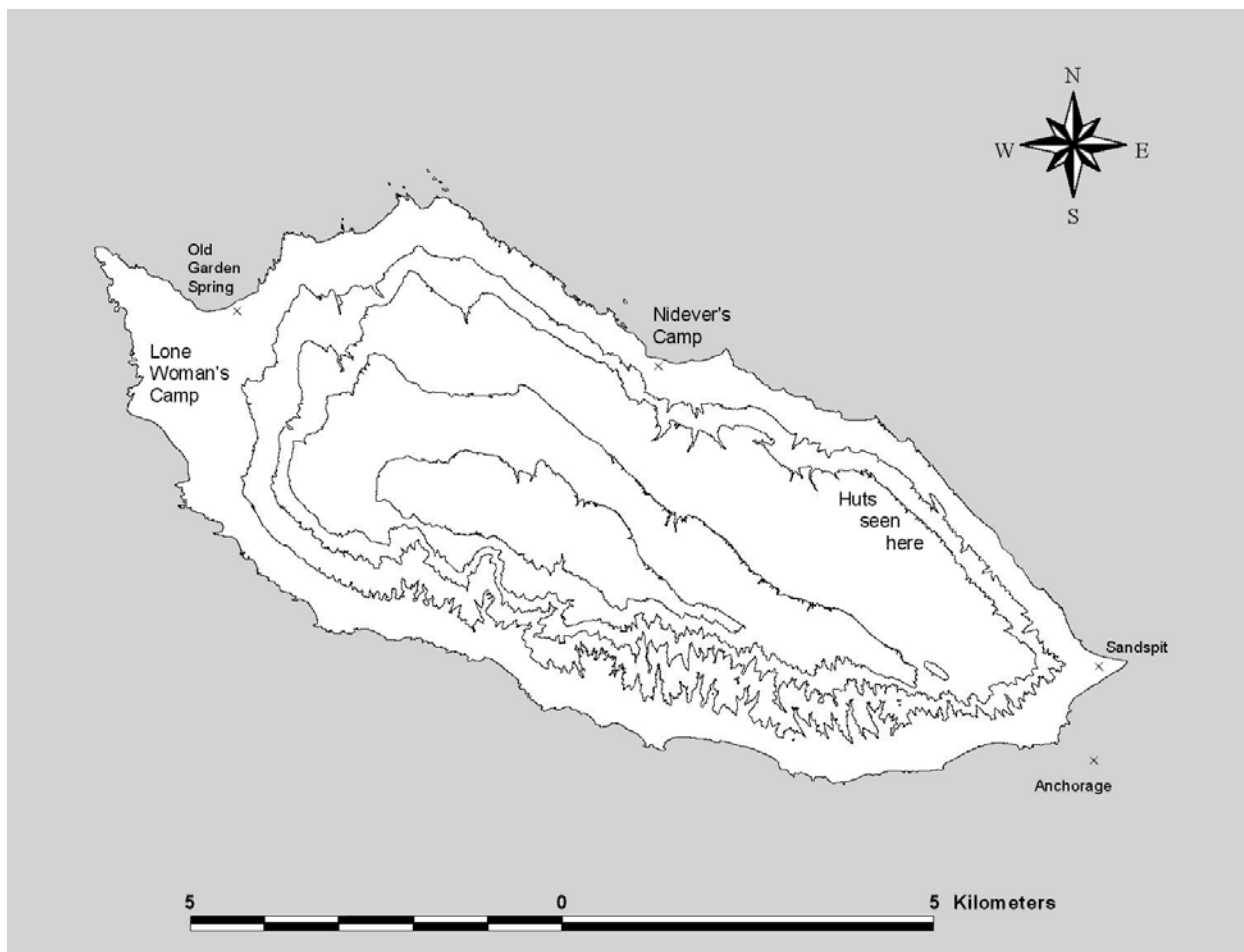


Figure 1. Map of San Nicolas Island showing locations mentioned in the text.

## STRUCTURES

When searching the island Nidever's group anchored off the east end under the protection of the sandspit (Figure 1). From there, they made their way west along the north shore where they observed three structures they classified as wind-breaks. These were located a few hundred yards from the beach and spaced about 3 km apart. They all occupied slightly rising ground and were described as:

They were circular in shape, six or seven feet in diameter, with walls perhaps five or six feet high, made of brush. ... there was nothing about the inclosures, or, as I call them, wind-breaks, that indicated that they had been occupied for years (Dimmick in Mason 1883).

We found 3 small circular enclosures, made of sage brush. Their thin walls perhaps 5 feet high, and the whole enclosure 6 feet in diameter, and with a small narrow opening on one side. (Nidever 1878).

Around each of these structures a number of wooden poles been placed in the ground and used for drying meat:

Around each hut and a short distance from it were several stakes or poles, usually from 4 to 6, some 7 or 8 feet high, which were standing upright in the ground, and pieces of seal blubber stuck on the top of each.... (Nidever 1878).

Near the huts or inclosures, there were stakes of drift-wood stuck in the ground, and suspended upon them, at a height of five or six feet, were pieces of dried blubber (Dimmick in Mason 1883).

The Lone Woman's camp was found on the northwest end of the island in 1853. Nidever's group observed three other huts in the immediate vicinity:

From this point he saw further up the ridge three huts. Upon reaching them he found them made of whale ribs, covered with brush, although they were now open on all sides. (Dimmick in Mason 1883).

It may have been one of these structures that Arthur Woodward discovered in 1939 (Morgan 1979, Coleman and Wise 1994). Woodward used Nidever's account to locate Juana Maria's camp site. He did locate the remains of a whale bone structure on the west end of the island in the vicinity of where she was found. Unfortunately, it is not possible to state with certainty that the site he investigated was in fact the same spot; especially in light of the other whale bone structures that were mentioned in the accounts and the uncounted numerous other huts which undoubtedly existed on the island through time. Woodward describes the site:

When we reached the spot I had indicated, there on the windswept summit were some nineteen pieces of whale-bone, pieces of ribs and scapulae which were scattered on the ground in a rough circle. Since it was the only evidence of any shelter on the site which corresponded to Nidever's description, it seemed logical that there could be only one answer, this was the wreckage of the whale-bone and brush shelter once occupied by the lost woman of San Nicolas." (Woodward 1957).



Figure 2. Arthur Woodward's reconstruction of whale bone hut.

He recorded a few other details about the site:

At Juana Maria's site ... I found a chert knife blade almost inside the hut ring. We also found a number of shell fish hook blanks. I found a queer steatite bead." (Woodward 1940). "I found a weathered bone barb for a fish harpoon a trifle N.W. of the hut site." (Woodward 1939). "The Juana Maria midden site was characterized by the huge heaps of red abalone shells - pure shell with very little admixture of sand or other debris. (Woodward 1939).

Paul Schumacher may have observed one of these structures still partially standing in 1875:

The superstructure of the hut was fitted without doubt to the earth-wall, was circular, and ended like a cone at the top. On San Nicolas Island we found ... that the sides of the hut consisted of huge ribs of a whale. The natural bend of the ribs was faced in such a way that the super-structure became a hemisphere and looked like a beehive. We noticed that whale bones were substituted for wood only on the islands (Schumacher 1960:21).

## LONE WOMAN'S CAMP

The Lone Woman was discovered in the great sand dunes which cover the western end of the island. This area is close to what currently supports rookeries of California sea lions (*Zalophus californianus*), western gulls (*Larus occidentalis*), and Brandt's cormorants (*Phalacrocorax penicillatus*). Also nearby is a prolific spring known as the "Gardens" or "Old Gardens" located in the middle of a large sandy beach now known as Redeye Beach (Figure 1).

Nidever describes the hut as:

was not far from the best springs of water, near to the best point for fish and seal, and it commanded a good view of the greater portion of the island. Just outside the inclosure or wind break, as I should call it, was a large pile of ashes and another of bones, showing that this had been her abode for a long time. Nearby were several stakes with blubber on a them, as we had seen around the others (inclosures) [*sic*]. There was blubber also hanging on a sinew rope, similar to the one already described, which was stretched between two stakes. Near the inclosure were several baskets, some in process of construction, also two bottle-shaped vessels for holding water; these, as well as the baskets, being woven, and of some species of grass very common on the Island [*Phyllosdapix* sp.?]. There were also several other articles, as fishhooks made of bone, and needles of the same material, lines or cords of sinews for fishing and the larger rope of sinews she no doubt used for snaring seals on the rocks where they came to sleep (Nidever 1878).

Dittman describes the scene:

She was seated cross legged on the ground and was engaged in separating the blubber from a piece of seal skin which was lying across one knee and held by one hand. In the other hand she grasped a rude knife, a piece of iron hoop thrust into a rough piece of wood for a handle and held so that the back of the hand was turned down, scraping and cutting from, instead of towards her. Just outside of the inclosure there was a high pile of ashes and bones showing that she had lived in this place some time. Baskets of grass [*Phyllospadix* sp.?] and vessels of the same material made in the shape of a flagon and lined with asphaltum, used to hold water, were scattered about. On a sinew rope stretched between two poles, several feet above the ground were hanging pieces of seal blubber, while near her was the head of a seal from which the brains, already putrid were running (Dittman 1878).

Dimmick further records:

She was seated cross-legged on some grass that covered the ground within the inclosure, and which no doubt served as a bed....She was engaged in stripping the blubber from a piece of seal skin, which she held across one knee, using in the operation a rude knife made of a piece of iron hoop. Within the inclosure was a smoldering fire, and without a large pile of ashes and another of bones, which would indicate that this had been her abode for a long time (Dimmick in Mason 1883).

From a sack or bag made of grass she took some roots, known among the Californians as the *carcomites* (cacomites; *Dichelostemma capitatum*), and another root whose name I did not learn, and placed them in the fire. When they were roasted she offered them to us to eat (Dimmick in Mason 1883).

The group motioned for her to collect up her possessions and come with them. To which she gathered up several of her possessions:

She had considerable dried blubber of the seal and sea elephant. This was all carefully collected. There was also a seal's head, in such a decayed condition that the brains were oozing out. At her desire this was also taken along. She seemed desirous of preserving everything that would sustain life.... When all was ready she took a burning stick in one hand and left her camp (Dimmick in Mason 1883).

Dittman adds:

She filled her baskets and in the larger one she placed the seal's head after replacing the putrid brains and tearing from it bits of adhering flesh. This basket she raised to her back and secured it with straps passing over her shoulders and under her arms. She took other articles in her hands and started off towards the beach with a load that seemed heavy enough for a mule (Dittman 1878).

After leaving her hut, the Lone Woman led the party to a nearby spring. This is most certainly the spring called the "Gardens", and later the "Old Gardens", by the later sheep ranchers (Woodward 1957). This spring is prolific and still runs today. It is located on Redeye beach just above the high tide line.

She...led us to a spring of good water, which came out under a shelving rock near the beach. Here we found a store of bones in the clefts of the rocks. It would seem that in time of scarcity she would come here and suck the bones as long as any nutriment could be obtained from them. Here, also, were pieces of dried blubber hung on stakes, above the reach of the foxes and dogs which inhabited the island (Dimmick in Mason 1883).

Dittman adds:

Around this spring were several poles erected and on them we hung the things we had brought from the old woman's place... In the cracks and fissures of the rocks that formed the mound we found thrust numbers of bones which we afterwards came to the conclusion had been placed there by the old woman, to furnish her with food in time of need. I afterwards noticed that she always saved the bones contained in her food, placing them in her baskets, to be taken out at intervals and sucked until they were cleaned of every particle of meat. She also saved the scraps of food that were left and ate them when she felt hungry (Dittman 1878).

## BASKETRY

During their search of the island in the Fall of 1852, the group came upon a basket perched in a tree or bush. This was probably located near the Old Garden Spring near the west end of the island.

Here among some bushes or small trees called by the Californians *Malva Real* [*Lavatera* sp?], placed in a crotch or fork of one of the trees we found a basket woven of grass, oblong in shape, 3 ft. long, 1-1/2 ft. wide and about 14 in. deep and covered with a piece of seal skin. Its contents we found were a dress or gown made of the skin of the shag [cormorant], several skins of the same kind cut in a square shape, bone needles and knives, fish-hooks made of abalone shell, and a rope made of sinews, about 1/2 in. in diameter and fully 25 ft. long (Dittman 1878).

As previously noted, when the Lone Woman was departing from her camp site, she gathered up several items and stowed them in a burden basket for transport: "This basket she raised to her back and secured it with straps passing over her shoulders and under her arms" (Dittman 1878).

### Basket Sealing

The native islanders fashioned water bottles from sea grass (*Phyllospadix* sp.) which was then sealed with asphaltum to make them water tight (Heizer 1960a). The Lone Woman was observed in the process of sealing such a water bottle:

Her vessels for carrying water were quite unique. They were woven of grass, shaped somewhat like a demijohn, except they had wider mouths, and were lined with a thin coating of asphaltum. The process of lining them was rather ingenious. She put several pieces of the asphaltum, which is found in great quantity along the beach, in the bottom of the basket, and then on the top of them some hot pebbles. When the asphaltum was melted, by a quick, rotary motion, she would cover the inside of the basket with an even coating, after which the surplus, with the rocks, was thrown out. These baskets were water-tight, and would last a long time. She had several of these baskets in process of construction when we found her. She would work at one a few minutes, abandon it, and try another. I am not aware that she ever completed one when with us (Dimmick in Mason 1883).

One day, while out hunting, I came across her lining one of the vessels she used for holding water. She had built a fire and had several small stones about the size of a walnut heating in it. Taking one of the vessels, which was in shape and size very like a demijohn, excepting that the neck and mouth were much longer, she dropped a few pieces of asphaltum within it, and as soon as the stones were well heated they were dropped in on top of the asphaltum. They soon melted it, when, resting the bottom of the vessel on the ground, she gave it a rotary motion with both hands until its interior was completely covered with asphaltum. These vessels hold water well, and if kept full may be placed with safety in a hot sun (Nidever 1878).

One of these bottles was donated to California Academy of Sciences. The actual specimen was destroyed in the 1906 San Francisco earthquake and fire. However, a photograph of the specimen survived in the C. Hart Merriam collection at the University of California. Heizer (1960a) presents a description of the bottle based on his observation of the photograph. The bottle was made by the twining technique and was about 25 cm tall with a diameter of about 15 cm.



Figure 3. Photo of water bottle (Heizer 1960).

### CLOTHING

When the Lone Woman was found she was wearing a simple garment:

Her covering consisted of a single garment of the shag's [cormorant] skin, the feathers out and pointing downward, in shape resembling a loose gown. It was sleeveless, low in the neck and was girded at the waist with a sinew rope. When she stood up...it extended nearly to her ankles. She had no covering on her head; her hair which was thickly matted and bleached a reddish brown, hung down to her shoulders (Dittman 1878).



Sa. [Luisa Ygnacio] also had at the ranch two feather capes belonging to the last woman of San Nicolas... These were small (not big) and were made by sewing together seagull skins with [the] feathers still on, Sa. thinks. [The] feathers [were] on [the] outside [of the capes]. Used them [by wearing them] thrown over [the] shoulders. (Luisa Ygnacio to J.P. Harrington; quoted in Hudson 1980:109-110).

They said that the woman had a apron of fiber on underneath her duckskin cloak. The dress which she wore was of shag [cormorant], not duckskins. Feathers were all around the hem. They all faced the same way. The skins were neatly joined. They said it was a beautiful piece of work. The dress had holes for the arms. It reached almost to her knees. The one she wore appeared not to be finished (Del Valle to J.P. Harrington; quoted in Hudson 1980:111).

### SEWING

Nidever thought her manner of sewing was peculiar: “Placing her work across her knee she thrust the needle through the cloth with the right hand and pulled the thread tought [taut] with the left“ (Nidever 1878).

### OTHER ARTIFACTS

Additional artifacts were recorded, primarily by J.P. Harrington during his ethnographic and linguistic studies among the Chumash, and in a few isolated accounts and museum specimens.

Necklace. “She had a necklace.... Keystone [keyhole] limpets, shell cut round; perforated shells size of a quarter dollar. They laid flat. The lacing material was sinew....Merely a round chain-no broach or ornament on breast” (Hardacre to J.P. Harrington; quoted in Hudson 1981:196).



Figure 4. Limpet shell necklace (Hudson 1981:196).

A second necklace is described as: “The necklace made by this ingenious woman, was of slate, and although rude, it was prized by her as a great ornament...” (anonymous 1857).

Shell Beads. “Captain Nidever and an Indian named Malquiare [Melquides] found a woman on San Nicolas Island rolling silver [money?; definition unclear] in her hands to make abalarío [shell bead money]” (Hudson 1978b:151).

Stone Mortar. “Capt. R. [Russell] has paid a visit to Santa Barbara, and by Mr. George Nidever, the gentleman who discovered her, was presented with a water-bottle made of grass, and a stone

mortar, necklace and other things made by her. The water-bottle explains its own use. The mortar was used for pounding the aulone [abalone], the *Haliotis* of naturalists, and which was one of the principal articles of food among the Indians, and by whom they were dried for winter use, and afterwards pounded in a mortar before eating” (anonymous 1857).

Knife. “The San Nicolas Island woman had a bone knife... Fernando does not know what kind of bone the knife was made of. She used it for her defense, and not to cut things with” (Fernando Librado to J.P. Harrington; quoted in Hudson 1978a:24).

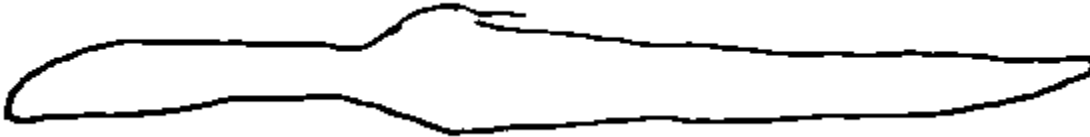


Figure 5. Bone knife (Hudson 1978a:24).

A bone knife was also mentioned as one of the items in the basket found in the *Malva real* bush (Dittman 1878). In addition, the Lone Woman had a wooden handled knife with a iron blade in her possession when she was discovered (Nidever 1878); undoubtedly a post-contact piece.

Bone Adze. “MS [Maria Solares] remembers...also that last woman of San Nicolas Island had a bone adze” (Hudson and Blackburn 1987:53).

Pry Bars. “At San Nicolas Island, FL [Fernando Librado] saw such sticks which were 3 or 4 feet long, 1-1/4 in. diameter. They were not weighted with a stone, as would be the case for a digging stick”. “One end of the abalone stick was shaped like a chisel” (Hudson and Blackburn 1982:253).

Bone Needle. “FL [Fernando Librado] saw the ones that the Yaqui got on San Nicolas Island. They were a little over an inch long with a good hole in them for threading the needle” (Hudson and Blackburn 1987:151). A bone needle was observed in the possession of the Lone Woman when she was discovered (Nidever 1878) and in the basket found in the *Malva real* bush (Dittman 1878).

Bone Awl. While examining the Terry Collection (see Nelson 1936), housed at the American Museum of Natural History in New York, Hudson and Blackburn came across a bone awl with a greasy, non-weathered texture (catalog T-14524). The specimen was acquired by James Terry from George Nidever; the catalog further states that the object came from San Nicolas Island. Given the condition of the awl and its association with George Nidever and San Nicolas Island, Hudson and Blackburn suspect that it belonged to Juana Maria” (Hudson and Blackburn 1987:245).

Wooden Tray. A wooden tray or shallow bowl in the Musée de l’Homme in Paris (catalog 84.91.2006) is described by Heizer (Hudson and Blackburn 1983:289): “Tray has several hole-

grooves over breaks or wood cracks for repair. Made of oak, anciently broken and repaired by crack lacing. No gnawing marks, but surface slightly weathered and checked. Possibly came from cave, or possibly historic piece (from Lone Woman? or her group?). No decoration visible at all". This piece appears to have been used as a bead-making anvil (John Johnson, personal communication, 2003).

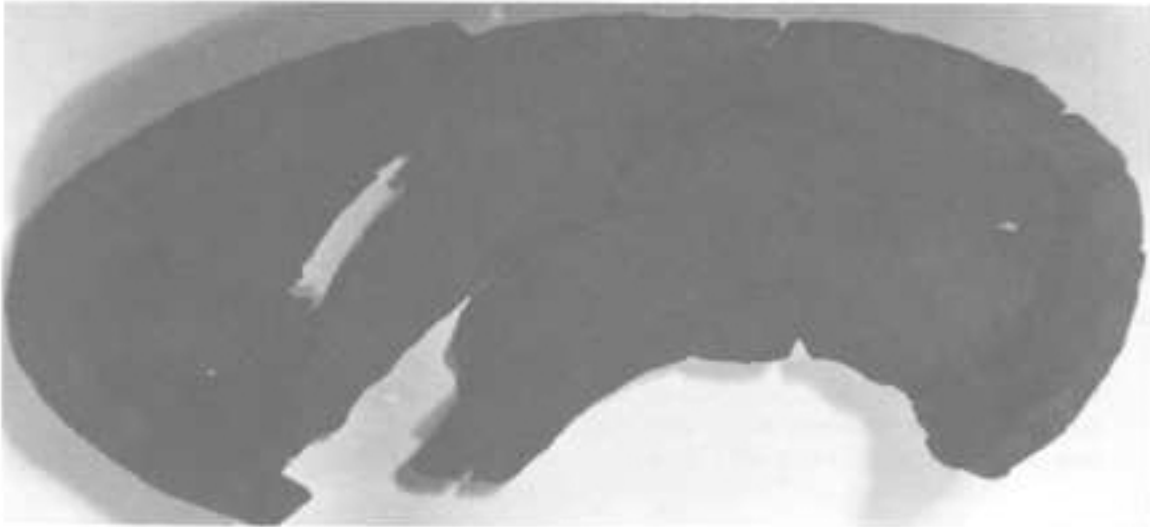


Figure 6. Wooden tray or shallow bowl (Hudson and Blackburn 1983: Figure 154-1).

Shell Fishhook. "Sa. [Luisa Ygnacio] has never seen a shell fishhook, except the one that the last woman of San Nicolas had. It was a big shell fishhook, and [the] fishline [with it] was as thick as a lead pencil." (Luisa Ygnacio to J.P. Harrington; quoted in Hudson 1980:109). A shell fishhook was mentioned as one of the items found in the basket in the *Malva real* bush (Dittman 1878). And a bone fishhook was mentioned at the Lone Woman's camp when she was found (Nidever 1878).

Rope. Found in the basket in the *Malva real* bush was a: "rope made of sinews, about 1/2 in. in diameter and fully 25 ft. long. This sinew rope was twisted as evenly as the best rope I have ever seen" (Dittman 1878). In addition, the Lone Woman had: "...lines or cords of sinews for fishing and the larger rope of sinews" (Nidever 1878) at her campsite.

Otter Skin Toy. During the month that the Lone Woman spent in the otter hunter's camp before leaving the island, the hunters stuffed an unborn otter skin and presented it to Juana Maria. "She at once hung it by a string to the roof of her hut, and lying on her back under it would amuse herself for hours at a time by swinging it backwards and forwards" (Dittman 1878).

Sandals? It is unclear, but Juana Maria may also have had a pair of sandals: "The Indians made blankets, sometimes by using strips of grass woven together. They called this grass *gramma* in Spanish; it has long roots. As late as \_\_\_\_\_ [they still made them?]; Fernando still \_\_\_\_\_ of this stuff and the sandal from the San Nicolas woman" (Fernando Librado to J.P. Harrington; quoted in Hudson 1978b:152).

“The blanks are Harrington’s. What is meant by Fernando Librado in reference to the woman’s sandals is unclear; the meaning may have been that the woman’s sandals were made also from strips of grass woven together” (Hudson 1978b:153).

### SUMMARY

This paper has brought together all of the known first-hand accounts of material culture directly associated with the Lone Woman. As such, it is all associated with a discrete time period and a specific individual. Many of these objects have been recovered archaeologically from the island, but this information brings added detail to their specific use and manufacture.

Nidever and Dittman have provided us with first-hand descriptions of two types of structures – one with a wooden framework, the other with a framework of whale bone, both covered with brush. They actually saw one of these structures being occupied. I suspect all of these structures were used by the Lone Woman, who would have moved around the island over the 18 years she was alone. These are all relatively small –about two meters in diameter– and only loosely enclosed with brush. I would term all of these structures wind-breaks. They do not appear to be substantial enough to actually serve as houses. Given the climate on the island, I suspect that an actual house would be semi-subterranean and enclosed with seal skins. Malcolm Rogers (1993) excavated more house pits than anyone else on the island. These were all partially subterranean with whale ribs around the exterior. House pits excavated by Rogers varied from 2 meters up to 12 meters in diameter and about 60 cm deep; obviously much more substantial than the structures noted by Nidever and Dittman.

Also, consistently noted, was the presence of wooden posts outside of each structure. These wooden posts, with ropes perhaps suspended between them, were used for drying meat. Similar posts were also noted at one spring. Evidence of these features should be looked for in any excavations at structures.

Nidever has given us a first-hand description of the process of sealing a woven water bottle to make them water tight. Piles of asphalted pebbles are often found in archaeological sites on the island, and based on Nidever’s description, the last step in the process is to discard the pebbles on the ground. Based on this description, features such as these can be attributed to the sealing of water bottles.

Hopefully, these glimpses of the material culture of the Nicoleño will aid in the reconstruction of their lifeways and provide correlates for similar cultures.

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