

Two Sea Otter Effigies and Three Pinniped Effigies: Illustrations, Descriptions, and Discussions

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Abstract

This article illustrates and describes five animal effigies fashioned in stone by coastal southern California Native artisans. Two are whole body figurines, one representing a California sea otter and the other representing a Pacific harbor seal, and three are body part mimics that had stood for flippers—their animal referents being otter, earless seal, and eared seal. Pondering possible motivations behind creation of these miniature works of art begs interesting questions, among them: If crafting these effigies or applying them to ritual practice had drawn inspiration from otters' and pinnipeds' contributions to human economy, would such have revolved more on procurement of pelts than on procurement of flesh?; What roles might pelts, fur/hide manufactures, and the effigies themselves have played in abetting wealth distinctions and status identification?; With reference to the sea otter symbols, had some incentive for their production turned at all on sympathies and emotions expected for a species so easily anthropomorphized? To help address these questions and other food for thought, there is selected information drawn from taxonomy, natural history, and the anthropology of regional hunting, goods production, and trade.

Introduction

Evidence of sea otter (family Mustelidae) and seal (includes sea lions) (order Pinnipedia) imagery in coastal southern California spiritual landscapes is limited.¹ Neither ethnographic nor ethnohistoric sources identify mustelids or pinnipeds or their symbolic representations as having had high profile roles in magico-religious practice or identify any of these animals as having enjoyed notable mythological standing. However, rare archaeological discoveries involving effigies

indicate that sea otters, seals, and their imageries were connected with ritual and belief.

The author's interest in the animals' infusion into sacred realms was piqued especially by recent, direct acquaintance with burial-associated, carved stone mimics of a California sea otter (*Enhydra lutris*) (Figures 1 and 2) and a Pacific harbor seal (*Phoca vitulina*) (Figures 3 and 4) recovered in 1932 at the Palmer-Redondo site (CA-LAN-127). These specimens are curated with the Los Angeles County Museum of Natural History. This article showcases not only these two whole body effigies but also three body part specimens, all representing flippers (Figures 5 and 6), that are curated elsewhere.

The raisons d'être for such symbologies likely initiated from the significant material contributions of otters and seals. Accordingly, this article provides data bearing on procurement of the animals' pelts and manufactures from such and on the regional and long-distance sea mammal fur trades.

Ethnographic and ethnohistoric sources demonstrate that differential access to these pelts and hide products provided markers for social status. Social distinctions and occupational distinctions were likely reflected in the differential provisioning of graves with carved stone effigies.

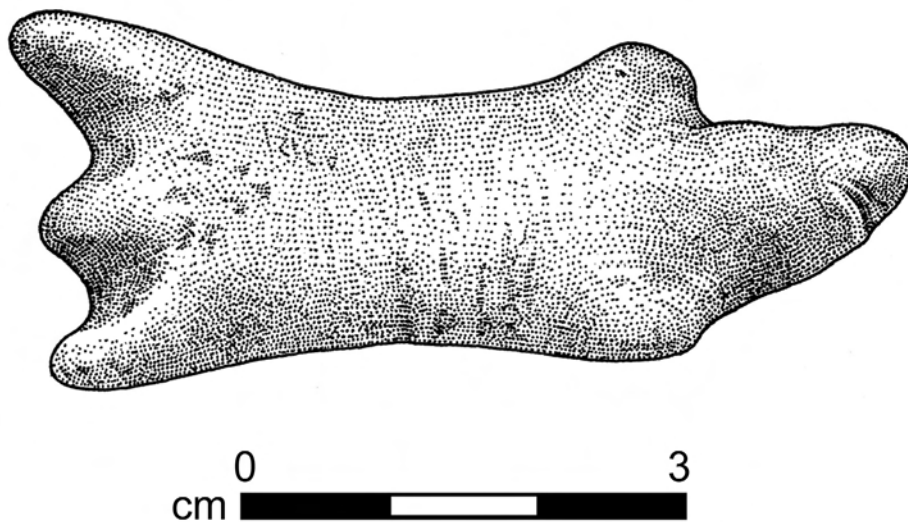


Figure 1. Ventral view of a sea otter effigy from the Palmer-Redondo site, or CA-LAN-127. This steatite carving (Catalog No. A-3121-32-22/2) is housed in the collections of the Natural History Museum of Los Angeles County.



Figure 2. Dorsal view of the Burial 2 sea otter effigy from the Palmer-Redondo site. From the collections of the Museum of Natural History of Los Angeles County.

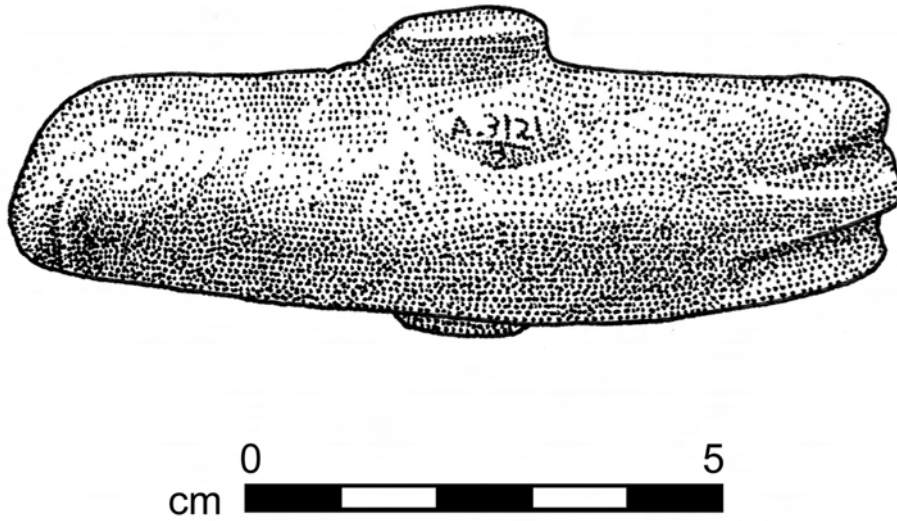


Figure 3. Ventral view of a Pacific harbor seal effigy from the Palmer-Redondo site, or CA-LAN-127. This stone carving (Catalog No. A-3121-32-23/2) is housed in the collections of the Natural History Museum of Los Angeles County.



Figure 4. Dorsal view of the Burial 2 Pacific harbor seal effigy from the Palmer-Redondo site. From the collections of the Natural History Museum of Los Angeles County.

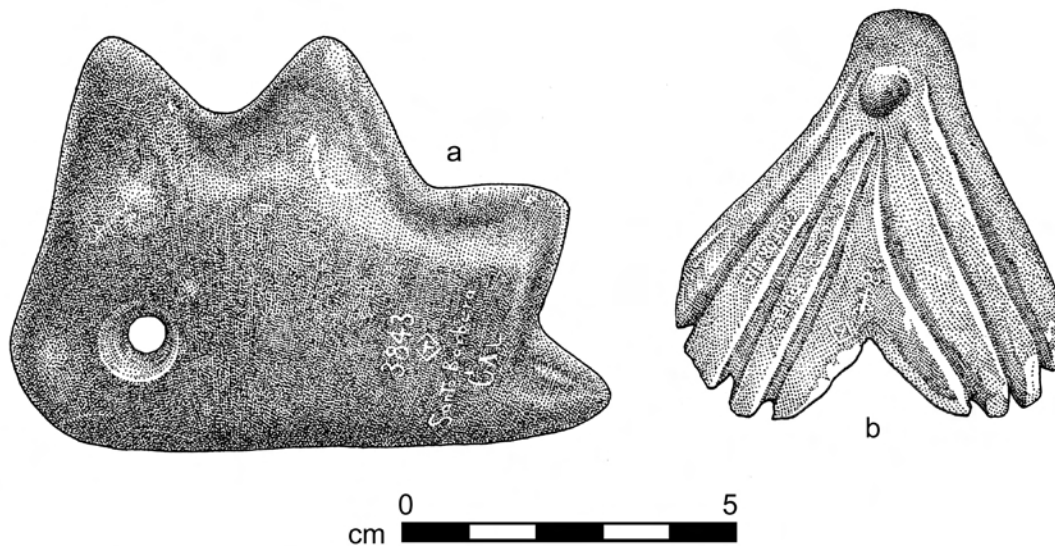


Figure 5. Pendants collected by Steven Bowers in 1878 in Santa Barbara County. (a) Sea otter hind foot (flipper) effigy. From the collections of the American Museum of Natural History, New York (Catalog No. AMNH T-3843). Image after a photograph provided by the museum; (b) Earless seal hind flippers effigy. More probably an elephant seal than a harbor seal. From the collections of the American Museum of Natural History, New York (Catalog No. AMNH T-3844). Illustration after photograph in Hudson and Blackburn (1985:Figure 283-9).

The Palmer-Redondo Whole Body Effigies

Introduction

In 1932 the Late Prehistoric (Del Rey Tradition [see Sutton 2010]) Palmer-Redondo site, at the coast and near the northern terminus of Palos Verdes Peninsula, yielded a large number of grave goods. They were excavated from seven of nine burials. Additional carved stone objects were recovered from an offertory area and from “miscellaneous fill.” Burial 2 produced the greatest array of objects, including a sea otter effigy (Figures 1 and 2) and a harbor seal effigy (Figures 3 and 4). The author and Dr. Mark Sutton are presently preparing an article on the varied burial goods recovered in the October 1932 excavations at Redondo Beach.

Otter Figurine

The comparatively realistic sea otter symbol (Catalog No. A-3121-32-22/2) (Figures 1 and 2) was crafted of

a light gray steatite. It weighs 32 g. Its length is 61.1 mm, and maximum width, which occurs at the rear end, is 26.6 mm. Red ochre prominently occupies the grooves at the neck region and near the small rounded front feet. There is also a thin coating of red ochre on the underside, especially notable along the tail and near the hind feet. Red colorant is less conspicuous across the backside. In the living animal the hind feet and tail are proportionally larger than what is indicated in this carving, and the hind feet are webbed, that is, clearly flipper-like, a trait not apparent from the miniature sculpture.

This rendering recalls the laid-back look readily associated with this species (*Enhydra lutris*), which characteristically swims on the surface abdominal side up, a position also assumed when the animal grooms its exceedingly dense fur. Most of its activities take place in kelp beds in shallow waters (6 m to 46 m deep); kelp beds occur along the coast and ring the Channel Islands (see Kenyon and Scheffer



Figure 6. Eared seal flipper effigy (two views) excavated at Las Llagas Canyon, Santa Barbara County. From the collections of the Santa Barbara Museum of Natural History (Catalog No. NA-CA-81-7a-3). Illustration after photographs courtesy of the Santa Barbara Museum of Natural History.

1955:4). Much of the animals' time is spent foraging in kelp, diving usually no more than 20 m (Kenyon 1969) to capture marine bottom animals such as crabs, sea urchins, and molluscs (Ingles 1965; Estes 1980). They also eat fish. Otters occasionally go ashore to sun but at times also to shelter themselves from high surf or storms.

Otters also sleep reclined on their backs, often with some kelp wound around their body to keep from drifting away (Landberg 1965:59). It is in this position that the female nurses her pup and rocks it to sleep (Booth 1968:77), and further, in this position an anvil

stone might be laid across the chest for the purpose of smashing exoskeletons of certain shellfish (tool-using behavior) to extract a meal. Feeding on its back, the sea otter holds edibles using its front feet. With these various behaviors, it is unlikely that parallels with many human actions had gone unrecognized, one factor, beyond the species' material worth, that had perhaps motivated an Indian carver to immortalize the animal in stone.²

Figurines standing for the sea otter are quite rare in the Southern California Bight. Wallace and Wallace (1974:Figures 1i, 2) pictured "a comparatively faithful

portrayal of a sea otter” that had emerged with a Palos Verdes cache. The specimen was described thusly:

A point of particular interest is the treatment of the otter’s underside...Details of the mouth, fore- and hind-limbs, and tail are all reproduced. Another feature consists of an encircling groove, evidently for suspension. The upper surface is rounded but presents a rough appearance. It has been polished but not particularly well and scrape marks remain visible. The otter carved from dark-blue gray steatite, is quite small, with measurements of 43 mm long, 13 mm wide, and 12 mm thick [Wallace and Wallace 1974:63].

The author is aware of one soapstone carving said to represent an otter that appears to be a modern fantasy piece. It resides in the Southwest Museum collections and was pictured in an article by Charles Amsden (1929:36, also 1930:27) who took it to be genuine.

Harbor Seal Figurine

More conventionalized in execution is the representation of a Pacific harbor seal shown in Figures 3 and 4 (Catalog No. A-3121-32-23/2). Its yellowish-green stone is harder than that of the otter effigy; the type of stone has not been identified. It weighs 134 grams. Length is 93.1 mm, and width measures 37.8 mm (distance between the most lateral points at the right and left flippers). This effigy shows red ochre in places.

As indicated, the piece is not so conventionalized as to preclude species identification. Had the specimen sported pinnae, or external ears, it would have been categorized as an eared seal (family Otariidae), that is either a fur seal or a sea lion, thus disqualifying it as a harbor seal (*Phoca vitulina*) which, like the northern elephant seal (*Mirounga angustirostris*), is an earless seal (family Phocidae); phocids are also known as hair seals and “true seals” (Orr and Helm 1989:80).

Parenthetically, sea lions lack abundant underfur, unlike, as the reader might guess, fur seals.

The front flippers of the effigy are proportionally small, quite distinct from the proportionally larger front appendages of otariids. The artifact’s short muzzle and comparatively rounded head are consistent with the look of the Pacific harbor seal but inconsistent with most regional seal species. The hind flipper, although abstract in the stone carving, is prominently displayed, and in the actual animal it is fairly large (see Orr and Helm 1989:80-82). Incidentally, it is the male elephant seal that possesses a huge proboscis-like structure, probably the single most distinguishing trait among all of the regional pinnipeds.

Overall, the small sculpture admirably captures the fusiform, or torpedo-like, shape of the harbor seal, the sleekest of all pinniped species on the southern California coast. Parenthetically, Landberg (1965:73) supposed the artifact had represented either an otter or a baby sea lion.

Authentic regional carvings symbolizing seals (again, includes sea lions) are rare. Cameron (2000:Figure 12.4) speculated that a biconically perforated pendant from Eel Point, San Clemente Island, may have been fashioned to mimic an elephant seal. The piece lacks detail necessary for such a call, and with equal imagination one might speculate that it had stood for a cetacean dorsal fin. The author and Dr. A. N. Desautels-Wiley are currently preparing a study on cetacean dorsal fin effigies.

Inauthentic steatite seal carvings abound. Of those phony seals familiar to the author, most if not all had at one time passed through the hands of Arthur Sanger. A drawing of one such fake from the Rose Dugan Collection, Southwest Museum (Anonymous 1946:174) sports shell bead inlay eyes, a typical signature for Sanger associated figurines. In Burnett (1944:Plate XXXV) there are three very oddly shaped seals, their

craftings typical of the many “grotesques” sold to the Heye Foundation by Sanger. Plate XXXVI shows not only a seal (Catalog No. 20/3728) but, incredibly, a steatite walrus that Sanger claimed he found on San Nicolas Island. Walruses are arctic and subarctic pinnipeds (family Odobenidae) and would never have been near the Channel Islands. Walruses may have visited California during the Pleistocene, but probably only in winter (Orr and Helm 1989:66). Equally ridiculous is a soapstone carving of an American bison that Sanger claimed to have found on San Nicolas Island (see Bryan 1930:222).

A phony seal from the Desenberg Collection is shown in Carl Dentzel’s (1971:Figure 281) book cataloging Indian art that had been on exhibition at both the Newport Harbor Art Museum (March 3, 1971–April 11, 1971) and the Pasadena Art Museum (May 4, 1971–June 20, 1971). Other pieces, undoubtedly ones with Sanger’s fingerprints, were included in these showings that would be the grifter’s last hurrah, as he passed away in the fall of that year (Los Angeles Times, 5 October 1971:Part II, 4).

Hudson and Blackburn (1986:Figures 318.9-32 and 318.9-33) pictured two phony seal carvings that are with the Clarence Ruth Collection, Lompoc Museum. Another dishonest seal effigy is pictured in Hoover (1974:37); it resides in the collections of the Santa Catalina Island Museum.

All but three of the fake seals noted here appear to have come out of the same workshop (see Koerper and Chace 1995). The three fantasy pieces in Plate XXXV in Burnett (1944) reveal the hand of a different artist. Thus, at a minimum, the fraudulent pieces handled by Sanger were coming from two directions. The author and PCASQ Coeditor Sherri Gust are presently preparing an article on additional Sanger shenanigans, these involving human skulls doctored with projectile points.

Two Body Part Specimens from Santa Barbara County

Introduction

The body part effigies shown in Figure 5 were collected by Stephen Bowers in Santa Barbara County in 1878. These artifacts are curated with the American Museum of Natural History in New York. Both are pictured in Hudson and Blackburn (1985:263, Figure 283-9).

Otter Flipper

The object of Figure 5a (Catalog No. AMNH T-3843) was crafted out of dark, dense steatite and polished to a high shine. Its maximum dimension is 9.0 cm. The specimen was clearly carved to represent the rear foot, or flipper, of a sea otter, the essential equipment for ambulating rapidly through water.

Morphologically it is quite distinct from the animal’s forepaw, and it would not be confused with the fore or hind appendage of any regional pinniped. The otter’s hind legs and webbed feet are specialized for swimming. The largest and longest toe is the fifth toe, and the great toe is the smallest toe; this seemingly odd set up makes for maximum sculling surface and greatest arc of motion (Bailey 1979:39). When the toes are spread for propulsion through water, the skin webbing spreads greatly, resulting in a foot (flipper) with double the surface area of the resting foot (Bailey 1979:38-40; also see León 2005). This flipper effigy obviously captures the swimming position.

The biconically drilled hole indicates it was probably worn as a pendant, perhaps directed to some protective, or apotropaic, purpose or perhaps for increase magic or for luck magic in hunting the creature it had stood for. This soapstone carving was almost certainly produced in Late Prehistoric or contact times.

Phocid Hind Flippers Effigy

The specimen of Figure 5b (Catalog No. AMNH T-3844) was also fashioned of steatite, most probably in either the Late Prehistoric period or in contact times. Biconically drilled at its apex, the piece was presumably worn as adornment. It too is likely to have had some charm/amulet function. The dimensions of the artifact are approximately 6.0 cm by 5.7 cm.

The closest body part likeness of this pendant to any of the animals considered in this article is the back appendage arrangement of the northern elephant seal. It appears to mimic the laterally expanded hind flippers that are in full exhibit when the animal swims rapidly. If the referent had not actually been the elephant seal, then it would have been the harbor seal, unless the symbol had stood for both phocids. It is the closeness of the right and left flippers to one another and the depth of the grooves that give the nod, if only slightly, to the interpretation of elephant seal over harbor seal according to Richard Evans (personal communication 2011), who is the Medical Director at the Pacific Marine Mammal Center, Laguna Beach.

An interesting observation regarding the earless seals is that the rear appendages cannot be brought up under the hind part of the body to facilitate locomotion out of water. In other words, the flippers extend straight back (Orr 1972:55, 56-57). Phocids, then, will use their fore flippers to drag themselves when hauling out. This contrasts with the otariids (fur seals and sea lions) which have the capability to turn their rear flippers forward and downward, thus allowing added support for their bodies when on land. Indeed, otariids when ashore can lift their bodies clear off the ground and walk on all four legs.

An Otariid Hind Flipper Effigy from Las Llagas Canyon, Santa Barbara County

In Figure 6 there are two views of what Hudson and Blackburn (1986:178, Figure 318.9-34) called a

“flipper-like effigy.” It resides in the collections of the Santa Barbara Museum of Natural History (Catalog No. NA-CA-81-7a-3).

This siltstone artifact was biconically drilled as if intended for suspension as a pendant. However, Dr. Ray Corbett’s examination of the artifact turned up no evidence of use-wear (personal communication 2011). It was excavated by David Banks Rogers at the narrow mouth of Las Llagas Canyon, which is 27 km west of Santa Barbara and close to the sea (see Rogers 1929:213-224). It was most likely a burial good from Las Llagas 1, a relatively late, yet pre-contact, Chumash site.

Hudson and Blackburn believed that this artifact represented a front limb since they called the knob (see Figure 6) an “elbow.” If it is a forelimb effigy, the knob would seem to be at the wrist position, sitting between the front flipper/hand and the forearm. Perhaps, however, the prominent knob is an ankle (see Orr and Helm 1989:64, 65). Thus, the foot with digits indicated (flipper) sits proximal to the rounded eminence, and proximal to this ankle is the shank. The hind flippers of eared seals are relatively long (Orr and Helm 1989:66). Dr. Corbett recently informed the author that a curator of vertebrate zoology at the Santa Barbara Museum of Natural History viewed the artifact and assessed it as “more likely depicting a forelimb than a hind limb.”

The artifact bears absolutely no similarity to sea otter appendages or to the hind flippers of either of the two regional earless seals (harbor seal and northern elephant seal). Had there been a particular species referent, any one of the otariids, or eared seals (fur seals and sea lions alike), would be a reasonable candidate: Guadalupe fur seal (*Arctocephalus townsendi*); northern fur seal (*Callorhinus ursinus*); Stellar’s sea lion (*Eumetopias jubata*); California sea lion (*Zalophus californianus*). Perhaps the carving of Figure 6 was meant to stand for eared seals generally, or perhaps

artistic license or the unknown Native taxonomic perspective had allowed the symbol to represent all regional members of Pinnipedia.

Sea Otters: Procurement, Hide Manufactures, and Trade

Procurement

Langenwalter et al. (2001:52) observed that sea otter remains are documented from coastal southern California sites throughout the Holocene, “particularly those occupied after 2000 B.C. (c.f., Walker 1982).” Sea otter remains occurred at Level 1, Malaga Cove (CA-LAN-138) (Walker 1951:40), which dates to the early Holocene. Sea otter and seal bones occurred at CA-ORA-64 at Newport Beach (Koerper 1981:376-379). This site’s faunal data indicated that Millingstone peoples exploited a greater range of vertebrates than had previously been believed (e.g., Wallace 1955). Commenting on diversity of vertebrate remains at ORA-64, Erlandson (1994:220-221) pointed out that occupational debris spanning 4,000 to 5,000 years may have become mixed through rodent action and/or other site formation processes, thus making it “difficult to differentiate the attributes that might be associated exclusively with middle Holocene versus early Holocene occupations.”

Otters clearly served Indians’ subsistence needs (e.g., Amsden 1929:37, 1930:25; Heizer 1968:22),³ but it is generally believed that otters’ most important material contribution was their high quality fur (Bennyhoff 1950:304; Landberg 1965:63). Incredibly, the adult male body might have as many as 800,000,000 fur fibers (Scheffer [1958] cited in Orr and Helm 1989:58); the juvenile coat might have as many as 650,000 fur fibers per square inch (Bailey 1979:34).⁴

Otter hides, incidentally, are larger than what one might expect from viewing the live animal. It hardly seems possible that an average sized (45 kg) adult

male could yield a 15 square foot (1.4 m²) pelt (minus appendages, tail, and head), but then consider that the animal’s skin is like an oversized slip cover, so loose that filling it out would require close to a 50 percent increase in body bulk (see Bailey 1979:31-40; see also León 2005). This necessary looseness is one consequence of an unusually evolved thermoregulatory system that compensates for the otter’s lack of an insulating layer of blubber that serves seals and sea lions so well. To stave off the life threatening coldness of ocean waters, the otter must repeatedly blow air in-between its outer and inner layers of fur to effect a kind of insulation, and it must constantly groom itself to prevent the undercoat from becoming wet. The grooming, or cleaning, to help keep the body warm, necessitates that nearly all surfaces be squeezed and the seawater licked away from the outer layer of fur. Even the seemingly hard-to-reach places, like the lumbar area above the tail, can be accessed, since the loose skin there can be tugged well forward between the legs (see Bailey 1979:32; León 2005:7).

Kroeber (1925:634), referring to otter capture on San Nicolas Island, made the case for the importance of these creatures. He wrote, “Sea otters were to be had in comparative profusion, and, to judge from the habits of other tribes, their furs formed the most prized dress and the chief export in a trade on which the San Nicoleño must have depended for many necessities.”

Most sea otters were hunted on water rather than on land (McCawley 1996:123), thus requiring watercraft. Evidence bearing on boat technology occurs at Eel Point, San Clemente Island and dates to around 6000 cal B.C.; Cassidy et al. (2004:118-126) discussed a tool kit comparable to that employed by Chumash in construction of the tomol, or planked canoe (see also Fagan 2004). Tule boats would have been adequate enough; Baja California peoples successfully killed otters from such simple craft.

There are ethnographic and ethnohistoric accounts that connect sea otter capture using watercraft. Fr. Luis Sales' late eighteenth century observations of sea otter hunting in Baja California (Rudkin 1956:19-20; also Landberg 1965:60) are possibly instructive with regard to otter hunting in the Southern California Bight since José Longinos Martínez stated that Chumash otter procurement relied on the same hunting methods found in "Old California" (Simpson 1938:44, 1961:54).

Fr. Sales wrote:

[The hunter possessed] a club and a long cord with two hooks, and when he discovers an otter he draws near it. The otter ordinarily swims carrying its young ones, teaching them to paddle with their little paws. Seeing the canoe she dives under the water and leaves her young on the surface. The Indian comes up immediately and ties the cord to a leg of the little otter so that one hook lies close to the foot and the other a span away. This done the Indian retires with his canoe, paying out the cord, and when a little way off jerks the cord so as to hurt the otter, and it cries out because of the pain. At its call the mother comes and sees the Indian is far away, she approaches it, clasps it and tries to take it away, but since the Indian holds tightly to the cord she cannot. Then the big otter tries by kicking its feet to get the cord off its baby and usually gets entangled with one of the hooks. Now that it is caught the Indian comes up in his canoe with a club in his hand, gives it a blow on the head, and it is his. I have seen how much this operation requires of the poor Indians; sometimes in a whole day they get none, sometimes only one, and sometimes they lose all to a sudden surge of sea and are drowned. They also hunt them when they are asleep on the water or when they come upon the beach to rest. [Rudkin 1956:19-20]

Chumash informant Fernando Librado provided J. P. Harrington with information on equipment used to take sea otters (Hudson and Blackburn 1982:189-190, 207, 209). According to Librado, the islanders had at one time used the harpoon (a composite spear with a barbed point and retrieval line) to take otters. The huntsman would position himself at the middle of the tomol. The animal was more likely to have been hit using a stone tipped rather than a bone tipped point (Hudson and Blackburn 1982:209). At some period of time, after learning of the success of mainlanders in dispatching otters with fletched harpoon arrows, islanders are said to have turned to arrow technology which was likewise characterized by a detachable foreshaft with a barbed point (see also Robinson 1933:150; Woodward 1941; Bennyhoff 1950:304-305).

The optimal target was at the center of the front of the otter's neck. Librado had never actually seen sea otter hunting, but from the older generation he had learned that the animals would swim about a tomol; ironically they were drawn out of curiosity to the very ones who would do them harm.

Parenthetically, Langenwalter et al. (2001) reported on a sea otter femur with an embedded stone projectile fragment. This unique specimen was excavated from site CA-LAN-2616 on the upper reaches of Anaheim Bay, Long Beach.

As noted above, sea otters do not have blubber, but between the skin and muscle a healthy animal does have a layer of subcutaneous adipose tissue that stores nutrients vital to energy production. This tissue makes skin removal easy using a stone knife or even, at times, just the edge of the hand.

Manufactures

In 1769 there were several documentations of the sea otter's contributions regarding human comfort,

modesty, vanity, and social dynamics. Pedro Fages (Priestly 1937:32) wrote that Chumash males wore large cloaks that reached to the waist, with the exception of the “captain” whose cloak reached to the ankles. This was said to be the man’s only mark of distinction in apparel. Cloaks might be made of rabbit, hare, fox, or sea otter. Unfortunately, Fages seems to have overlooked the specific fur or furs used to fashion the captain’s cloak. Elsewhere, Fages (Priestly 1937:51) mentioned that cloaks were decorated by women using shells and mineral colorants (black, white, and red). One is left to wonder whether different patterns of surficial embellishments correlated with the type of animal hide employed for clothing.

Costansó recorded size distinctions between the longer woven otter hide capes worn by Chumash men and the shorter versions owned by the women (Hemert-Engert and Teggart 1910:45; see also Brandes 1970:91). Men wore their long capes of “tanned” otter skins when they were cold, otherwise they went about naked. Men also had mantles made of otter skins cut in long strips which were twisted so that the fur faced out. These strands were interwoven forming a weft (Hemert-Engert and Teggart 1910:45; Brandes 1970:91).

Fr. Juan Vizcaino described such apparel in some detail, noting that black and brown fur strips alternated vertically in island Gabrielino “robes” (Woodward 1959:12). Parenthetically, Woodward (1959:xxx-xxvi) recovered some sea otter fur in strips from Big Dog Cave, San Clemente Island. Perhaps these were all that was left of a blanket or cape.

José Longinos Martínez recorded that Indian women might wear a “tapaló” (colloq. Sp. = “cover it up”) of otter or other fur. He wrote, “Tying the opposite corners together, they thrust their head and one arm through the upper aperture, arranging it gracefully so as to cover their flesh” (Simpson 1938:43, 1961:53).

Question 21 of the Interrogatorios of 1812-1813 asked about burial and mourning customs. The responding priest at Mission San Fernando wrote that one funerary offering might be an otter skin. Perhaps this had actually been an article of clothing (Geiger and Meighan 1976:97). At Mission San Buenaventura a sea otter cape might be consumed on a funeral pyre (Geiger and Meighan 1976:98).

In the late Mission Period at least some Native people continued to weave together strips of otter skins to produce blankets (Forbes 1937:113). Harrington left only the briefest mention of blankets used for both sleeping and wearing that had been constructed of woven strips of skin. Most were manufactured of rabbit skins, but they might be made of otter, fox, bear, etc. (Hudson and Blackburn 1985:44). Lorenzo Yates (1891:375) mentioned that his informant, Justo, had recalled otter skin blankets worn by islanders.

In drawing a distinction between the women’s buckskin skirts worn inland and the sea otter versions worn at the coast, Hugo Reid (Heizer 1968:23-24; or see Taylor 1863:161) somewhat obscured the fact that wealth and status distinctions played a role in who wore what. Hudson and Blackburn (1985:34-35) drew on Harrington’s notes to caution that differences in dress reflected wealth, not geography. This may overstate the case a bit as distance between inland places and the coast would have affected value, considering that geography would have influenced differential distributions of the product. María Solares, an Ineseño Chumash informant to Harrington, recalled that sea otter skins made up the aprons of richer women who wore this modesty apparel with the hair facing away from the women’s skin (Hudson and Blackburn 1985:35). Sewn sea otter skins made up the back apron used by several divisions of Chumash peoples (see Harrington 1942:19). Other kinds of skins marked special individuals. Pedro Font (Bolton 1931:252, 259) was told that a

small bear skin cape signaled that a man was an owner or master of a tomol.

José Longinos Martínez (Simpson 1938:52-53, 1961:60-61) sent two Indians to Santa Catalina to gather high ranked products traded from that island. One man was a Chumash, and the other, acting as interpreter, was a Gabrielino. The Spanish naturalist wrote:

The interpreter did very well with the chief, assuring him that I was sent by the Great Chief (which is their way of expressing their conception of our king). The chief, with his native intelligence, sent me everything which his way of thinking was valuable in the dominions of his island. This came to two sealskins, two sea-otter skins...[Simpson 1938:52, 1961:60]

Sea otter pelts brought from Catalina Island to the mainland were traded inland to the Serrano (Kroeber 1925:630; Davis 1961:22, 36). Some of these skins were transferred much further east. Father Garcés, the “Trails Priest,” placed the following entry into his travel record on February 29, 1776, when he was in Mohave territory: “I was visited by some two thousand persons. Common here are blankets made of woven [strips of] rabbit fur, and of otter which they get from the west and northwest since they are on friendly terms with the people who live there” (Galvin 1967:34; see also Davis 1961:30). Many coastal goods acquired by Mohave traders ended up with Southwestern peoples (see Koerper and Hedges 1996:213-214; Koerper and Desautels 2002:102-103). Could the list of items have included sea otter pelts or manufactures?

Longinos Martínez (Simpson 1938:45, 1961:54) observed that “those of the mountains” received in trade dried fish and beads from coastal Indians while giving up seeds, fox skin shawls (tápalos), and “a kind of blanket made of the fibers of a plant which resembles

cotton.” Interestingly, the coastal folks reportedly preferred such blankets to the ones they themselves manufactured of sea otter. One strongly suspects that the origin of the fiber blankets was the Southwest culture area and that any preference may have reflected status attaching to ownership of exotic imports.

On August 20, 1769, Portolá and his party made camp near Mescaltilán Island, where they were visited by friendly Barbareños from three settlements who urged the visitors to eat gifts of food. Members of the Spanish party gave their hosts glass beads, ribbons, and “other trifles” and in return received “various curios”—baskets, plumes, and furs (not further described) (Teggart 1911:201). Quite possibly some of the furs were those of otters.

A Tübatulabal informant, Stevan Miranda, stated that his people received no sea otter capes through trade (Voegelin 1938:22). He had, however, witnessed such capes worn at Ventura.

Seals and Sea Lions: Procurement and Hide Manufactures

Procurement

Procurement of sea mammals, including seals and sea lions, occurred in the Southern California Bight as far back as the Early Holocene, this based on evidence from San Clemente Island (Garlington 2000; Porcasi and Fujita 2000; Porcasi et al. 2000; Byrd and Raab 2007:219). Seals and sea lions were identified in Level I at Malaga Cove (CA-LAN-138) (Walker 1951:40). Roger Owen and his colleagues (1964:492) reported seal and sea lion captures by hunters who lived at the Glen Annie site during the eighth millennium BP. It is uncertain whether seal bones from CA-ORA-64 at Newport Beach (see Koerper 1981:376-379), a Millingstone Horizon site (see Wallace 1955), belonged to the Early or Middle Holocene (see Erlandson 1994:200-201). Parenthetically, Erlandson

(1994:271-272) had once characterized the regional pre-Altithermal period as virtually absent of evidence for the hunting especially of those sea mammals that haul out on accessible shorelines. Seals and sea lions along with dolphins were heavily exploited at Santa Catalina Island and San Clemente Island during the Middle Holocene (Raab 1997:27-28, 2009; also Sutton 2011:142). Archaeological evidence (e.g., Lyon 1937) and some ethnohistoric accounts attest to continued focus on these animals into late times.

There is one Catalina Island account, that of Fray Antonio de la Ascensión, who attended the Sebastián Vizcaíno Expedition to California in 1602-1603, that documents the harpooning of seals from boats run close along rocky shores (Wagner 1929:236). There is the strong suggestion that the type of harpoon used would have been stone-tipped (Hudson and Blackburn 1982:209). According to Ascensión, a line was employed to draw a seal or fish into the plank canoe subsequent to harpooning, unless the prey was very large and heavy, in which case the line was paid out, the impaled animal then played toward the shallow offshore where it was dispatched. Subsequently it would be drawn onto land. Incidentally, after anchoring at Santa Catalina on November 24, 1602, the Spaniards traded for pelts (see also Mathes 1968:92). Undoubtedly, the pelts were those of sea otters and/or seals.

Citing Wagner (1929:236), Vizcaíno (1959:16), and Landberg (1965:61-62), McCawley (1996:123) explained that killing seals would be easy on land as the prey could be run down and clubbed. Landberg's (1965:60-64) treatment of seals and their procurement drew on knowledge about the natural history of the animals coupled with knowledge of how nineteenth century commercial sealers made their livings. Landberg's study remains the most pithy anthropological description of this kind of hunting in southern California waters; much of his exposition is paraphrased below.

Seals would have been taken more easily on land, with the breeding season offering the optimum time to hunt. For the eared seals and the harbor seal, breeding occurs between late spring and early fall. The northern fur seal, however, would have been left out of the mix during that period as it visits the Southern California Bight mainly in winter. Northern elephant seals congregate to breed from December until February, but they can be found in other species' rookeries in summer. For the reader who wants detailed information on the habits of the regionally encountered phocids (earless seals—the harbor seal and northern elephant seal) see King (1983:84-85, 124-128), Reeves et al. (1992:130-142, 227-234) and Bonner (1999:96-100, 125-135). For equally useful information on the otariids (eared seals—northern fur seal, Guadalupe fur seal, Stellar sea lion, and California sea lion), see King (1983:20-27, 37-39, 61-65), Reeves et al. (1992:50-61, 93-109), and Bonner (1999:44, 50-51, 59-61, 66-69). In Cunningham (2010:66-69) there is a succinct statement regarding impacts to seal population numbers from Native predations versus impacts occasioned by European exploitations.

Greater advantage went to hunters who faced the rookery with the ocean to their backs and had at the same time winds moving seaward. Panicked by the hunters' screams and yells, individual seals generally headed toward the ocean, but some in the herd would have frozen in place. When awakened from their slumber, many seals retreated in the same direction as their heads were pointed at that moment. Those animals headed inland soon exhausted their energies. In the ensuing panic and chaos, lancing or clubbing was easy business. Bunched together seals often scrambled over one another, suffocating their compatriots and in turn becoming suffocated (see Allen 1880:756). Woodward (1949) expressed his opinion that Gabrielino peoples clubbed and stoned seals as they lay asleep at their rookeries in the night time.

There seems to be a consensus that land hunting of seals trumped harpooning from plank canoes. Thus, most kills were probably by spearing and/or blunt force trauma using clubs or, if Woodward (1949) was correct, also using heavy stones. At least some seals may have been taken primarily for their coats (e.g., Landberg 1965:62, 63). California sea lions, particularly the pups, may have been valued more for their flesh (Lyon 1937:166; see also Landberg 1965:63).

Hide and Other Manufactures

Sealskin clothing receives less notice in the literature than otter fur clothing. Fray Ascensión recorded Santa Catalina Island women wearing sealskin coverings that reached from the breasts downward (Wagner 1929:236); this priest was with the Sebastián Vizcaíno expedition in 1602-1603. The Spaniards' landing was probably at Avalon. The expedition leader himself provided useful comment, writing that, "The clothing of the people of the coast-lands consists of the skins of the sea-wolves abounding there, which they tan and dress better than is done in Castile" (Griffin 1891:72; also Bolton 1908:84). See also Hudson and Blackburn (1987:145). The Reverend Stephen Bowers (1878:317-318) stated that Santa Rosa Island Chumash "had canoes made from the skins of sea-lions" as well as from pine and large redwood logs that washed up on the beaches.

Stone bladed skinning knives, bone or wood fleshers, jack frames, and rubbing stones would have been employed in preparing seal skins for leather manufactures (see Hudson and Blackburn 1987:138-144). The Indian method of turning hides into leather was not strictly speaking "tanning," as it did not employ tanbark, which can be obtained from oak, hemlock, or other sources and from which tannin is extracted. That is, in precise definition, a vegetable astringent, tannin, provides the active agent. Rather, it was in a "mixture consisting primarily of water and raw animal brain in which hides [were] macerated and kneaded during the

final stages of processing" (Hudson and Blackburn 1987:145). Harrington (1942:13) noted the mixture as containing brains as well as wood ashes. Chumash informants Fernando Librado, Juan de Jesús, and María Solares provided Harrington with information on turning hides to leather (see Hudson and Blackburn 1987:145-146).

Other useful parts obtained from pinnipeds are well documented. Harrington (1928:108, also Plate 19b) reported 10 sea lion rib implements, probably employed for knapping stone tools; these were excavated from the Burton Mound site, Santa Barbara (see also Heye 1921:81-82). He also noted nine sea lion radii that had been placed in graves at that site (Harrington 1928:109, also Plate 19b); none showed use-wear, and only one was complete. The Smithsonian ethnologist observed the hardness of their distal ends and supposed they would make good knapping implements. Abbott and Putnam (1879:Plate XI, 23) picture the distal third of a sea lion radius found in a grave at the Dos Pueblos site, Santa Barbara County (see Yarrow 1879:40-46).

Sea lion whiskers made good drills for manufacturing beads (Hudson and Blackburn 1986:124-126) as well as needles for sewing clothing. Sea lion teeth were perforated to make pendants (Orr 1947:129; see also Harrington 1928:137, Plate 23a; Hudson and Blackburn 1986:146-147), but it is reasonable to speculate that an adornment purpose had been secondary to some amulet/charm function directed perhaps to sea mammal hunting magic.

Final Discussions and Concluding Remarks

Beyond possible decorative/aesthetic applications, each one of the five miniature works of art (Figures 1-6) could have served as a fetish/talisman/amulet possessing some spiritual essence or magical potency to bring about, say, favorable hunting outcomes or perhaps species increase. The two whole body

Palmer-Redondo effigies occurred in a mortuary cache that included six birdstones, or dimorphic sexual symbols (see e.g., Koerper and Labbé 1987, 1989), and three phallic spikes, among other exotic offerings. The aggregation of Burial 2 goods was possibly guided, consciously or otherwise, by a fertility-fecundity thematic, and if so, the otter effigy and the seal effigy were likely fitted to an economy related subtext, which would not be surprising given the ethnographic/ethnohistoric testaments to otters' and pinnipeds' contributions to food fare, manufactures, and trade.

Pelts were clearly the higher ranked outcome of otter captures, rather than the animals' flesh, and thus, had considerations of economy provided inspiration for creation of the whole body sea otter effigy (Figures 1 and 2), fur imagery should easily have trumped that of meat. With reference to pinnipeds, there are not data enough to gauge relative importance of pelt procurement versus flesh procurement.

Ethnographic and ethnohistoric observations attest to the roles of mustelid fur in two closely related phenomena—wealth distinction and status identification. Apparel fashioned of otter skins communicated the prestige of the wearer, while the relatively mundane garments and accessories made of pinniped hide seem not to have conveyed a similar message. Stylistic attributes of clothing, whether of otter or seal/sea lion hide, did however mark gender status.

This study offers the thought that possession of prestige goods made possible through hunting may have been less persuasive regarding status/wealth than what was achievable through ownership of symbolic representations in stone of particularly important animals. Undetected so far in mythological landscapes, mustelid and pinniped imageries must have developed from the animals' contributions to economy. The imageries might then have been translated into steatite or some other kind of easily carved stone.

Taking wealth and status acquisition in tandem, one reasonably speculates that Burial 2 at the Palmer-Redondo site is the final disposition of a rich man, a trader perhaps or owner of a tomlol. Yet it is conceivable that there may have been more of a magico-religious than a material bent in this case, the deceased perhaps having been a shaman whose otter and harbor seal mimics had perhaps been applied to hunting and increase magic but whose steatite sucking tube, crystal, and large lump of red ochre had been employed in other kinds of ritual behavior involving, perhaps, curing or clairvoyance.

It is not unreasonable to suspect that some degree of anthropomorphism had attached to artists' play with form and message in the creations of the sea otter effigies (whole body and body part). Native peoples were keen observers of animal behavior, particularly of those animals they exploited. However, considerations of such will remain moot barring discovery, say, of some long sequestered manuscript with oral tradition content that would attest to Native perceptions of the animal as human-like.

Endnotes

1. As a convenience for this study, Pinnipedia is treated as an order. However, there has been a growing trend to place pinnipeds with the order Carnivora which includes the mustelid family (Mustelidae), the bears (Ursidae), the cats (Felidae), the dogs (Canidae), and other kinds of animals (see Reeves et al. 1992:3-4).
2. Other observations that had possibly fed some amount of anthropomorphizing include the otter's mating behavior (see Bailey 1979:53-54). Further, the baby otter will cry out to its mother with a sharp, shrill sound that has been compared to that of a human baby (Bailey 1979:42). The pups play behavior especially might easily remind one of the activities of human children (Bailey 1979:48). Also, when sea otters rest on waters surface they might recline with their paws behind their heads (León 2005:10).

3. Sea otter meat has received varied reviews, from “rank and distasteful” to “most edible, even tasty” (Bailey 1979:32).

4. Sea otter fur is twice as dense as any other furred mammal. The human head might have up to about 100,000 hairs (León 2005:7).

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