

Archaeology of the sacred and the secular at Cerro El Almacén, Baja California

Eric W. Ritter

Archaeological research at Cerro El Almacén in Bahía de los Ángeles in Baja California has revealed a diverse array of probable Comondú-period prehistoric sites and features. These remnants appear to reflect a landscape-based fusion of activities and their resultant cultural remains derived from both day-to-day domestic activities and apparent sacred/spiritual pursuits.

One of the advantages of a broad-scale, landscape-based archaeological sample inventory is the ability to begin to fathom the interrelationships of the cultural and environmental settings. Such is the case with the joint Instituto Nacional de Antropología e Historia (INAH)-University of California, Berkeley Bahía de los Ángeles locality studies of the 1990s under the author's stewardship (Figure 1). Of particular relevance to this paper is the apparent conjunction of various archaeological phenomena on Cerro El Almacén, an inselberger or erosional outlier of some 45 hectares within the bajada bordering the southwest side of Bahía de los Ángeles (Figure 2). The hill is about 900 m from the coastline. Much of the discussion that follows was taken from Ritter (1994, 1995, 1997).

While a good deal of the hill exhibits at least a light scatter (< 1 cultural item per 5 m^2) of basalt debitage and shellfish remains, particularly important are those closely spaced specialized and concentrated locations of cultural remains, including places labeled as burial rock shelters, residential and special-use rock shelters, aligned cairns, a pictograph cave, a double trail and ending rock enclosures and additional rock enclosures of various sizes. Several of these features were test-excavated. These various sites are all within relatively close proximity on this small hill, hundreds of meters or less apart. Each site is described below in order of documentation.

Cuevas Almacén (UC-BC-9)

A staircase of three small tuff breccia or volcanic agglomerate rock shelters with prehistoric habitation debris was documented on the northwest side of Cerro El Almacén, beginning by an arroyo at the base of the hill and continuing for a short distance up the hillside (Figure 3). All shelters appear to have prehistoric refuse, including shellfish remains (*Cardita* sp., *Protothaca* sp. and *Glycymeris* sp. dominate), up to 1 m in depth and composing some 50-75% of the ashy matrix, as well as basalt and quartz flakes, cores and presumed core tools. Manos and metates of volcanic rock and charcoal and animal bone fragments were also observed. Of particular interest on a nearby arroyo interfluvium is a possible large oval rock enclosure measuring 6 x 3 m (Figure 4). Observations during late June revealed a rich cover of annuals on the hillside in addition to the array of larger plants such as cacti and legumes.

Cuevas Quebradizas (UC-BC-10)

Farther up the slope of Cerro El Almacén occur two low escarpments of tuff-breccia

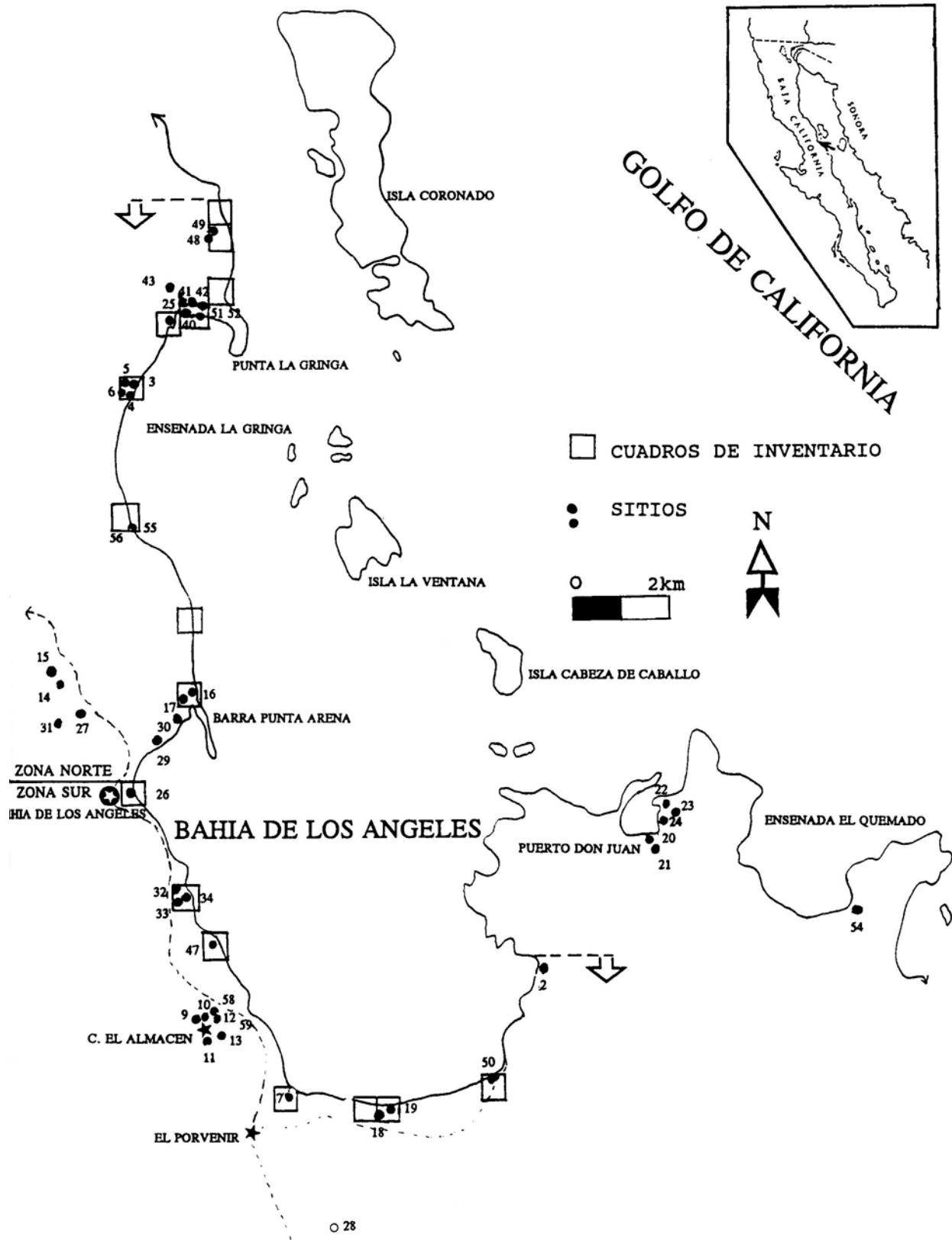


Figure 1. Archaeological inventory of Bahía de los Ángeles.



Figure 2. View southwest of Cerro El Almacén and Cuevas Abraham.



Figure 3. Cuevas Almacén.



Figure 4. Large rock enclosure.

containing 11 closely grouped small caves or rock shelters designated Cuevas Quebradizas (Figure 5). A light scattering of shellfish remains and a few basalt flakes occur throughout the complex. Three of the shelters contain human bone, and a loose wall of small boulders originally blocked the entrance to one of these shelters. Two rock cairns of basalt boulders about 30 cm in height occur within another shelter. The human remains from one of the shelters represent either a disturbed primary or a secondary inhumation. Apparent associations with one burial include a possible carnivore scapula, small pieces and one large piece of coral, a cryptocrystalline silica flake, and two *Laevicardium elatum* valves. The best explanation for this site is that it served as a burial area or ossuary, much like similar sites in the region.

Dos Corralitos (UC-BC-11)

Two conjoined rock rings or enclosures were found on a flat on a ridge near the top of the main hill. These features are each 1.8 m in diameter, composed of basalt boulders about 30 cm high. No artifacts or ecofacts were found in association. The high ridge location entertains a broad view of the bay and coalescing fans to the north.

Piedras Alineadas (UC-BC-12)

At the Piedras Alineadas site there are eight elongated to ovoid cairns with well-developed rock coatings on the stones (Figure 6). A detailed discussion of the archaeological approach to



Figure 5. Cuevas Quebradizas.



Figure 6. Piedras Alineadas cairn.

these cairns can be found in Ritter (1997:47-49). These cairns are irregularly spaced between three and 23 m for about 100 m along the seaward or northeast base of Cerro El Almacén, on the alluvial fan adjoining the rocky hill. The individual cairns range in length from 1.6 to 2.5 m (mean = 2.0 m, standard deviation = 0.3 m.) Widths vary between 0.8 and 1.6 m (mean = 1.0 m; standard deviation = 0.3 m). The height of these cobble and boulder cairns varies between 20 and 50 cm, with a mean of 40 cm (standard deviation = 0.1 m).

A single cairn, the third from the west, was test-excavated to aid in determining its possible function. The cairn was divided into fourths, and the southeast quadrant was excavated. This excavation included initially displacing the rocks, whereby no bone, artifacts or ecofacts were discovered. Larger rocks embedded in the alluvium were removed and the gravelly sand alluvium excavated to about 10 cm in depth. No variation between surface and subsurface sediments was observed. Four shellfish fragments were noted, but these may have washed in from nearby scatters up the arroyo or hillside.

The testing and observations around the other cairns suggest these are not “cowboy graves” as called by local residents, nor are they prehistoric burial features or features with associated cultural remains purposely placed here. This assumes that the sample is representative of the other seven cairns.

Cuevas Abraham (UC-BC-13)

Four closely adjoining granitic boulder rock shelters/caves with differing cultural remains compose this site complex. One cave contains red geometric pictographs on its ceiling and little cultural refuse. The nearby shelters include an extensive midden complex, a deposit that was test excavated as discussed below (Figure 7).

The pictographs at Cuevas Abraham include three small red (Munsell 10YR 4/6, 10R 5/6) panels. These hidden panels are situated on the upper walls and ceiling of the boulder shelter. The largest panel (48 x 27 cm) consists of vertical rows of dots or dashes interspersed with several vertical lines (Figure 8a). One series of dots or dashes forms a circular cluster. The second panel (25 x 20 cm) embodies a vertical and horizontal row of dots or dashes that cross, along with some smearing and a curvilinear element (Figure 8b). The final panel, (30 x 15 cm), is painted within a natural bowl within the wall and consists of a dot and two nested curved lines integrated with a zigzag pattern (Figure 8c). Local inhabitants reported visiting the shelter on the summer solstice to see if there was any interplay of light and shadow and the figures, but they failed to find any. Further explanations are presented later in this paper.

Cerro de los Dos Senderos (UC-BC-58)

This site is approximately 100 m from Piedras Alineadas and is composed of two parallel trails or pathways manufactured by clearing the loose cobbles and boulders from the lower hillside to form these linear features which are about 1.0 to 1.5 m in width and less than 30 m apart. These paths head in a linear direction from near the northeast base of Cerro El Almacén west-northwest gently side-sloping up the hill for about 180 m until terminating in rock rings, one 2.7 x 2.5 m across and the other 4.0 x 3.5 m across, each one course high (ca. 40 cm). Two additional small rock enclosures or rock rings (ca. 2-4 m across) are within 50 m. It is also possible that the near proximity to the ossuary site is more than coincidental.



Figure 7. Cuevas Abraham, showing unit excavation.

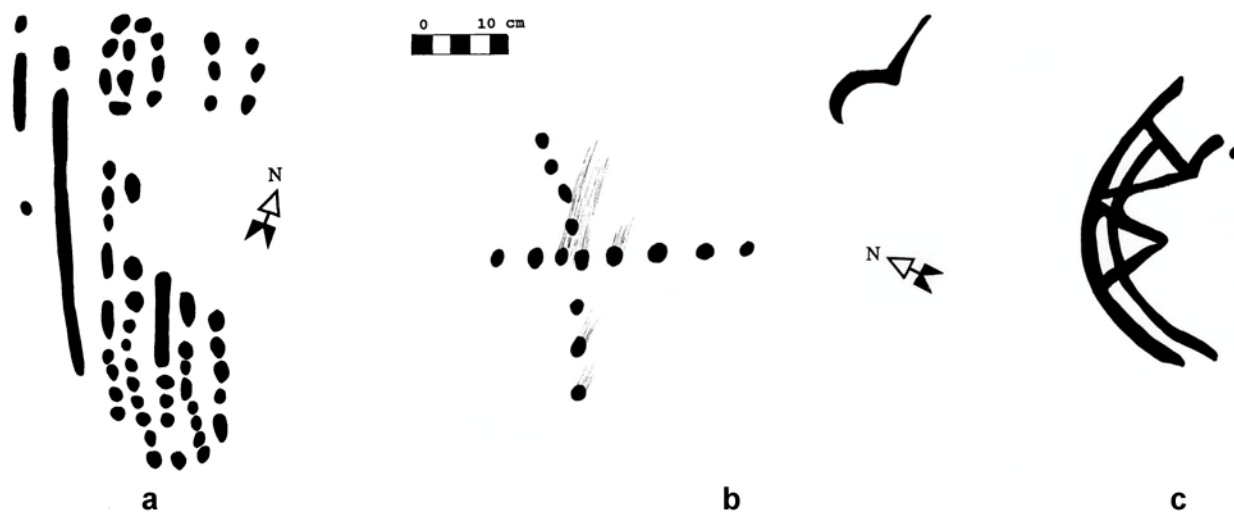


Figure 8. Pictographs at Cuevas Abraham.

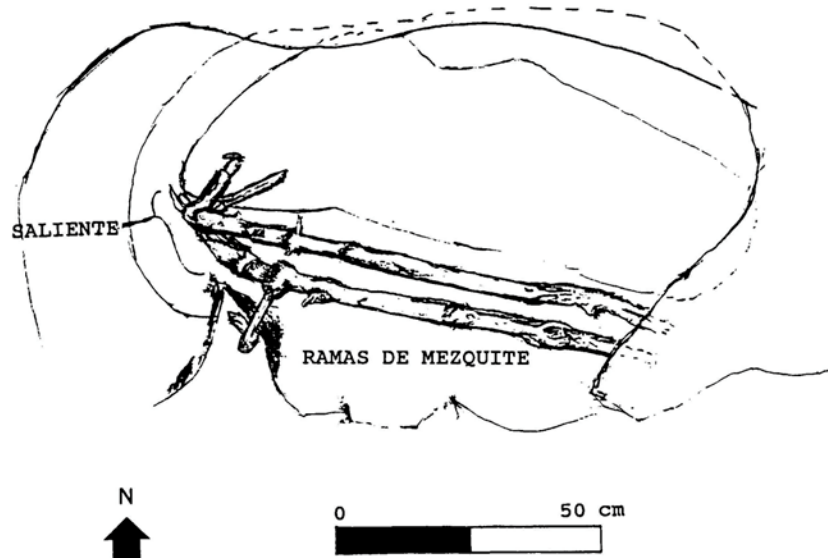


Figure 9. Wooden branches at Cueva Cata.

Cueva Cata (UC-BC-59)

Approximately 50 m north of Cuevas Abraham within the deep recesses of a massive granitic outcrop/escarpment occurs a cave or small rock shelter hidden within the fissures of the outcrop. A pit approximately 1 m wide and 2.5 m deep is located directly behind the shelter entrance. Two wooden branches have been laid across a small recess from ledge to ledge (1 m) in such a fashion that they form a rack that could have been used for hanging food or other items (Figure 9). The branches are about 40 cm from the back wall of the recess.

Excavations at Cuevas Abraham

Cerro El Almacén early in the fieldwork was considered to have potential importance in both Indian habitation and ritual-spiritual related activities. In this regard, it was considered profitable to conduct test excavations of midden deposits. The author hypothesized that such excavation could yield useful information on such aspects of prehistoric life as diet, technology, occupational history, seasonality of use, demography, trade, human health and burial practices, ceremonial behavior, etc.

At the main residential shelter, which primarily includes a midden apron in front of the shelter opening, two spaced 1x 1 m test units were excavated using arbitrary 10 cm levels, with the sampled deposit checked using 3 mm mesh screens. The gray-brown to dark grayish brown (Munsell 10YR 5/2-10YR 4/2), alkaline, loamy sand contained abundant pebbles, rocks and charcoal and 15-45% shellfish remains. Both units bottomed out in sterile materials at 40 cm in depth. The sample represents about 2-3% of the deposit and is likely representative of the deposit as a whole when coupled with surface material observations.

Dating

A single radiocarbon date was obtained from a hearth in the 20-30 cm level of Unit 1. The

resultant age, ^{14}C years before present, is 450 ± 40 , with $\delta^{13}\text{C}$ of -22.9% (UCR-2845). Two pieces of Ángel de la Guarda obsidian yielded obsidian hydration bands of 2.3 and 4.6 microns. The first reading is from near the base of Unit 2, and the second is from a surface artifact, perhaps scavenged from an earlier site.

Overall, the meager evidence suggests a single, late prehistoric (Comondú) deposit, probably dating in the range of 400 to 1,000 years ago or so. Sporadic earlier use cannot be ruled out, but this proposition gains no support from the artifact evidence nor the ^{14}C date and depth of deposit.

Edge-modified flakes and cores/core tools

The artifacts recovered include four presumed hand-held cutting/scraping tools with edge modifications (Figure 10). Three are cryptocrystalline silica, and one is schist. Obviously the numerous flakes from the deposit without obvious edge modification could have functioned similarly and, as discussed below, there is a corpus of flaked shell tools. Three cores/core tools of basalt and quartz were also found.

Biface

A single quartz biface is a middle-stage specimen that is likely a rejected blank or preform. Surprisingly, no projectile points were found at the site. Overall, projectile points are not common in this coastal locality.

Debitage

There were 107 flakes and flake fragments found in the two units. The most abundant materials are basalt and rhyolite (Figure 11). These relatively large (0.7-7.1-cm-long) flakes are derived from small to medium-sized cores, and the absence of small flakes suggests initial reduction occurred elsewhere. Quartz and quartz crystal flakes are second in frequency and are also relatively large (0.8-6.0 cm in length), derived from core reduction activities generally undertaken away from the recovery units. Only about 10% of the recovered flakes are cryptocrystalline silica. These likely local silicified or baked tuff flakes are smaller than the above flakes (0.4-3.2 cm long). One flake may represent heat treatment, and these recovered flakes appear to have been derived from small core reduction and/or middle- to late-stage biface thinning. Three small obsidian flakes were also found, one from a pebble that had been reduced using the bipolar technique and the other two from further reduction of larger flakes.

Overall, there is a variety of reduction techniques represented whereby at least flakes and bifaces were produced and/or trimmed. While the flaked stone inventory is neither complicated nor extensive, it certainly was expedient and functional in concert with the flaked shell artifacts in terms of various cutting/scraping activities requiring sharp or obtuse, durable edges.

Pumice

Four pieces of pumice were found, several exhibiting possible ground facets. These are all less than 7.0 cm in length. Pumice can be found along the current shore, and it is listed as an artifact in the Palmer collection from a nearby burial complex (see Massey and Osborne 1961:342). It is

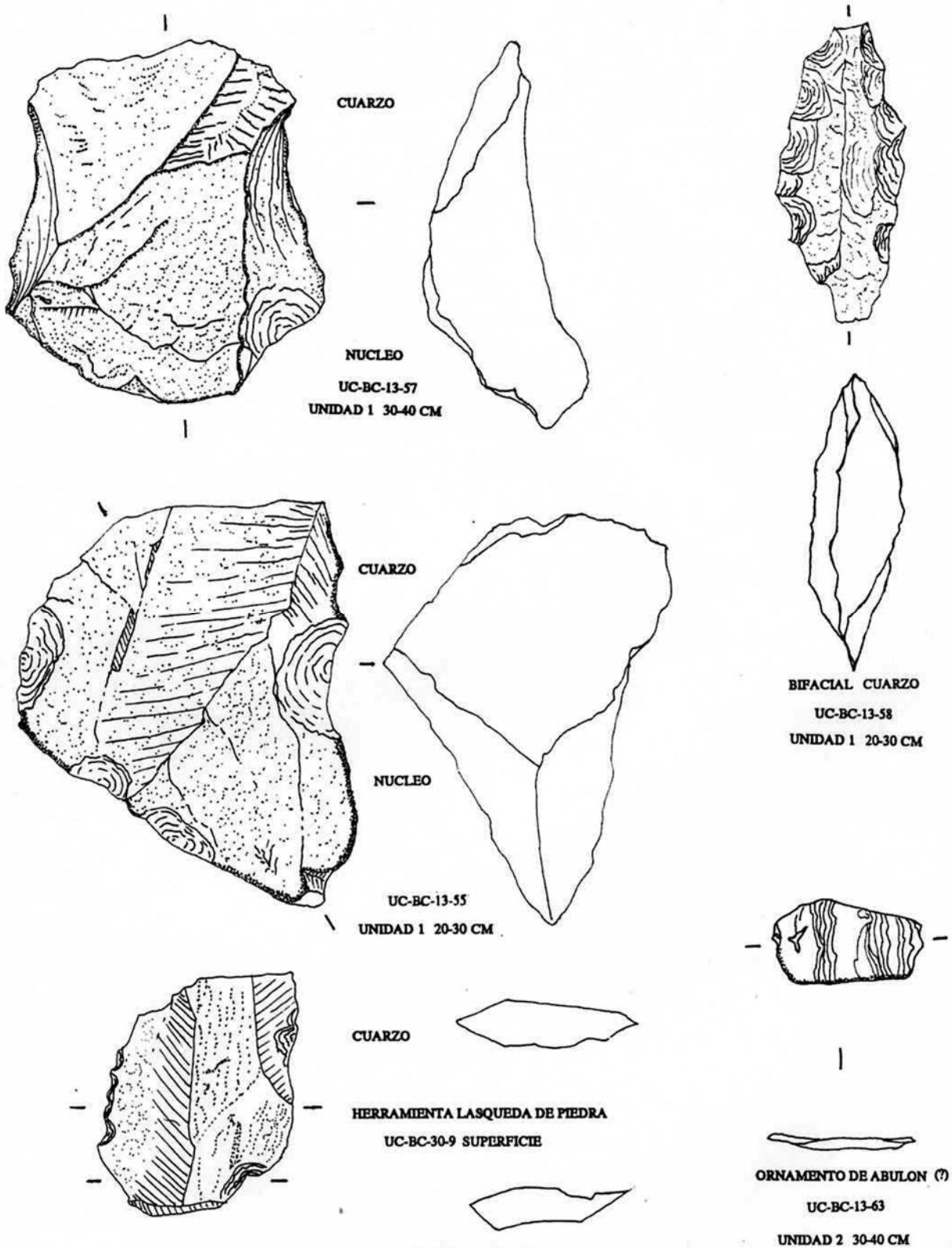


Figure 10. Edge-modified stone and shell tools at Cuevas Abraham.

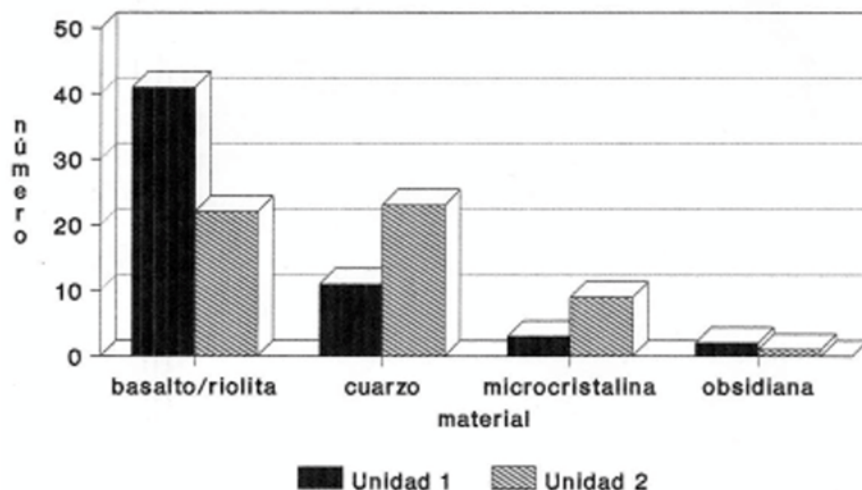


Figure 11. Lithic debitage at Cuevas Abraham.

likely that pieces of pumice were brought to the site to serve as abraders for wooden and bone artifact manufacture and possibly in flaked stone edge modifications. Among one group of coastal Australian aboriginal people (Gidjingali), pumice was used to sharpen bone for use in prying meat from shellfish (Meehan 1982:102).

Milling tools

A single flat-surfaced granitic metate was found on the surface near the shelter entrance. A possible basalt mano was recovered during the excavation. Overall in the region, milling tools are relatively abundant, both at locations with concentrated residential activities and as isolated occurrences.

Shell tools

Shell tools for presumed cutting and scraping activities and flaked shell debris (to the extent it was identifiable in a shellfish-rich environment) were relatively common in the excavated and surface materials (Figure 12). The large clam *Dosinia* sp. accounts for most of the artifacts, with suggestions that the durable valves of *Megapitaria* sp., *Glycymeris* sp. and possibly *Laevicardium* sp. and *Chione* sp. were employed for their useable edges. Shell implements include those with the umbo still present (Category 1), generally larger and more likely used in heavy cutting and scraping tasks with protrusions possibly used as gravers or piercing implements, and those that are edge-modified pieces lacking the umbo, akin to utilized flakes that presumably served less rigorous cutting and scraping functions (Category 2). Ten of the first category and 40 of the second category were recovered (see Tyree 1997 for a more thorough discussion).

Shell ornaments

Six flattish pieces of a nacreous, iridescent shellfish such as *Pinctada mazatlanica* were found in the units. Cut edges appear on some pieces that may have been the result of ornament manufacture; it is possible that these represent ornament production debris and/or ornament



Figure 12. Various flaked shell artifacts (*Dosinia ponderosa*) at Cuevas Abraham.

fragments. The use of mother-of-pearl ornaments by historic-era southern and central peninsula Indians is well documented (cf. Aschmann 1959:111; Mathes 1994; Wagner 1929:31).

Shellfish remains

The maritime focus of the occupants of Cueva Abraham is most evident in the abundant shellfish remains. There were 35 separate families or genera of seashells present. All but one possible Pacific-side *Haliotis* sp. shell appear to be from the nearby shore. The two most frequent genera are the bivalves *Cardita* sp. and *Protothaca* sp. (Figure 13). The former is most common in terms of shellfish weight and probably meat mass as well. Next in frequency are the gastropod *Collisella* sp. and the amphineura *Chiton* sp., both likely minor contributors to the daily diet. The fragmented nature of the shellfish remains suggests considerable trampling and possibly processing.

While less than 10% of the shellfish remains show evidence of burning, the cooking or steaming of the animals cannot be precluded since such practices would not necessarily reveal fire-related staining of the shell. The relatively high amount of ash and charcoal at this location does imply that substantial cooking activities occurred at this location.

Projections from sample counts suggest nearly one-quarter million marine mollusks present at this locus, with over 80,000 *Cardita* sp. and 80,000 *Protothaca* sp. animals consumed here. How many mollusks were processed elsewhere by occupants is, of course, unknown. Meehan's (1982) study of northern Australian "beach people" offers some comparative insights.

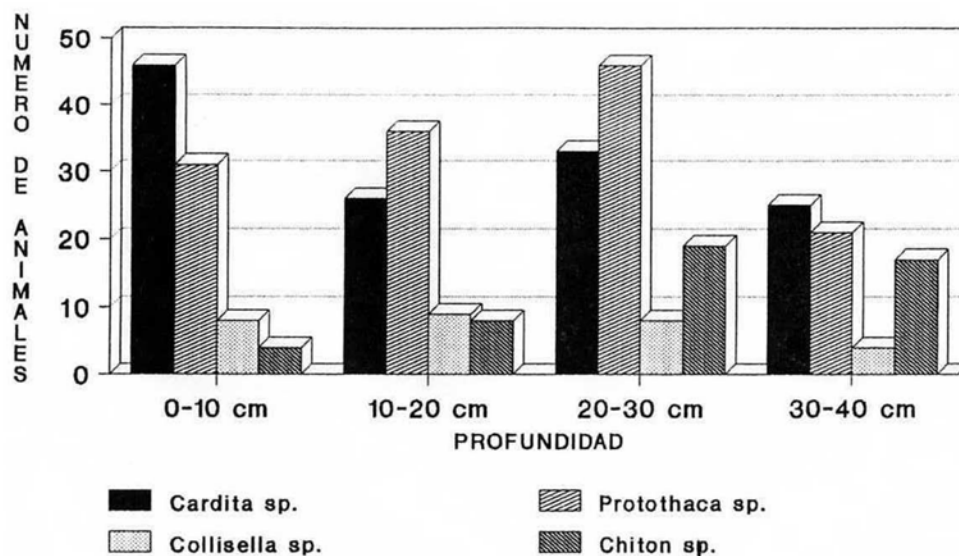


Figure 13. Mollusk remains at Cuevas Abraham.

For instance, these people eat shellfish during gathering, at “dinnertime camps” of a very temporary nature near the gathering beds, and back at the home base. Sometimes only the meats are returned to the home base. Furthermore, among these people just over one-half of the year involved shellfish gathering focused on the few favorable species and larger animals. With many factors unknown, such as length of site occupation, seasonality and periodicity factors as well as group size and composition and variation, it seems reasonable to conclude that shellfish provided partial dietary support for a small number of people (band size, 10-25) for a few centuries on a seasonal basis (see Ritter 1997 for further discussion in this regard). Aschmann’s (1959:103) estimate that 11% of the typical annual food intake for Central Desert Indians was shellfish may be a close approximation to the contribution that shellfish made to the dietary intake of this site’s occupiers.

Osteological remains

The osteological remains from the deposit are well preserved. Shark and ray-finned fish bone were found in all levels most frequently, and crab remnants occurred in three-fourths of the levels excavated. Bat ray remains (Myliobatidae) occurred in one-half of the levels. Reef and sandy shore fish remains were located in a number of levels. All fish remains appear to be from relatively small animals that can be found near the shore. None would weigh over 5 kg.

Other bones found in the excavated sample include those from a wood rat, hare, possibly mountain sheep or other artiodactyls; remains from one unidentified bird, and sea turtle. However, there is a distinct emphasis in the osteological remains on marine foods. The fish accountable at this site could have been procured by a number of means, including the use of hook and line, harpooning, small net casting and poisoning. Crabs would be easily obtained on the nearby shore. Land fauna are a minority of the species present, although one mountain sheep could account for a major caloric contribution to the diet.

Pollen analysis

Susan Smith of Northern Arizona University in Flagstaff, Arizona conducted pollen analysis in 2006 of a background sample and a sample of an ash lens from Unit 2, 30-40 cm. Forty-one percent of the pollen from the ash lens was degraded compared to 9% of the off-site dispersed sample. The highest percentages of pollen from both off-site and unit pollen are the grains from the Chenopodiaceae family and *Amaranthus* genus. Twenty-eight per cent of the off-site sample pollen fell within this category, compared to 43% of the unit sample. There was a slightly elevated count of Asteraceae pollen (7.2% compared to 4.4%) in the ash lens sample. Five percent of the Unit 2 pollen was from the Poaceae family, compared to none from the off-site sample. Samples analyzed at the same time by Smith from La Angostura rock shelter in the interior also show nearly twice the cheno-am count for inside the shelter versus the off-site sample with the cheno-ams being the most prevalent pollen here as well. These Cuevas Abraham pollen results imply rather weakly that various seed plants were being processed or somehow utilized in the shelter area.

Interpretations

At Cuevas Abraham, the data recovered from the excavated sample point toward late prehistoric (Comondú) use of the one excavated shelter and adjoining deposit as a bayside residential base for a few marine-oriented families. A nearby shelter (Cueva Cata) with a possible rack for drying or hanging items could be a special-use location related to the main occupation shelters here. Camp use was probably seasonal, possibly in the late summer through winter window when local *tinajas* would have provided fresh water, and various cacti fruits and legumes supplemented the dominant marine diet. Use of Cuevas Abraham (at least the shelter excavated in the complex) over a few centuries, perhaps a millennium, seems probable.

The pictograph shelter immediately adjoining the residential locus lacks a cultural deposit and offers evidence of apparent ritual activities beginning with the painting episode itself and later viewing by native peoples. The painted images could be entoptic depictions from a trance-state experience by a shaman or other individual under a shaman's tutelage (see Ritter 2007). That so little rock art is present here suggests that there were only a few painting episodes, especially when compared to the amount of art at interior sites such as Montevideo and La Angostura (Ritter 2007). The relatively hidden nature of the art further suggests it was specialized viewing, and its presence on Cerro El Almacén and absence in surveys so far conducted elsewhere in the bay locality add another line of evidence demonstrating the ritual and domestic importance of this hill. As discussed in a previous paper by the author (Ritter 2007), regional Northern Baja California Abstract style rock art and its mystical symbolism could have served a number of functions, including honoring the dead (as found in nearby shelters), life crises events (such as puberty) and education and first-fruit ceremonies.

There is definitive evidence of residential uses on this hill other than at Cuevas Abraham, such as at Cuevas Almacén. What are unique on this hill, other than the rock art shelter, are the relatively closely spaced features of an apparent non-domestic function.

It is apparent that burial occurred away from the residential bases during late prehistoric times, both at Cerro El Almacén and at other places in the locality. However, such locations were not far away. Known places as discussed herein included small rock shelters, but interments also were incorporated into boulder-strewn hills and talus slopes where chambers could be easily constructed for single and multiple interments.

With regard to the hillside paths and cleared areas at their upper terminus, one can find comparable features in Arizona discussed by Masse and Rankin (2008:573). They believe what they term summit paths and associated rock circles on hills may have served as processional paths much like Mesoamerican temple stairways. Interestingly, the feature on Cerro El Almacén heads approximately toward the mortuary complex, and one can only wonder if they might be connected.

Rock cairns are a common feature of the desert west. For valuable comparative studies of such variable features in the California desert, western Papaguería, Baja California and the Gulf of California islands, see Ritter (1981), Bowen (2000), and Vanderpot and Altschul (2008).

There is an early ethnographic description of cairn construction in the central peninsula by Clavijero, who noted that at Indian public gatherings the shaman or *guama* imposed penalties or misfortunes on those who did not bring him “the best fruit” as payment or homage for his services:

Not only private individuals but even entire tribes were often subjected to these penalties. Likewise in the punishment of similar sins they were obliged frequently to open some new road in the mountains so that the spiritual visitor could descend with more ease and to erect on it at certain distances some heaps of stones on which he might rest [Clavijero 1937:115].

The roads discussed could be pathways like those mentioned above.

A number of alternative functions for the cairn construction and alignment can also be explored. Vanderpot and Altschul (2008:356-359) discussed possible cairn use to support nets, trip wires or other entanglement devices or as part of drive lines for animals like rabbits, bighorn sheep or deer. The Cerro El Almacén cairns do not appear to be arranged to drive animals into a trap nor are they big enough to have served as “dummy hunters”. That the cairns could have supported a rabbit net or the like at the base of the hill cannot be totally ruled out. But then why are the cairns irregularly spaced and why does this one feature seem unique in the greater locality, where most cairns are singular features?

Could these cairns be symbolic markers placed by individuals walking along the base of the hill, much like trail shrines (see Vanderpot and Altschul 2008:359-361 for a more detailed discussion of these western desert features) to commemorate special events or places? Some of these features would have artifacts in association, as discussed in Rogers (1966). Vanderpot and Altschul (2008:361) noted that “in the historical period, it was a Yuman and Tohono O’odham custom to toss a stone on a growing pile at significant points along a trail, such as passes or forks, for luck.” Bowen (2000:336) found evidence among the Seri that a stone or stick was placed by a prominent rock alongside a trail in order that the spirit of the rock would make some person give the traveler a gift. Bowen (2000:337) similarly related that Seri shamans have used rock clusters and cairns as a means of exercising power over others. According to Moser (1963), among the Seri, rock pile cairns represented the chief spirit of an area, and a shaman who built one might pronounce a curse on anybody who would tear it down.

Cairns marking graves are known throughout the desert west, and locally these cairns are known as “cowboy graves.” However, if the excavation of one of these serves as a representative sample, this is not the case here despite their elongated appearance (also see Bowen 2000:337 regarding a dismantled cairn on Tiburón Island lacking any cultural or osteological evidence).

Vanderpot and Altschul (2008:361, 374-375) noted that in the Western Papaguería there were many places regarded as sacred because of associated myths or suitability for propitiatory offerings, locations where ideologically based cairns could be placed. Among the O’odham, ethnographic information indicates cairns were placed to help medicine people find specific areas

of certain scheduled rituals, generally within specific mountain ranges, rituals suspected to be associated with origin myths and how the people are to live in this world.

The pattern of small shelter burial at Cerro El Almacén is relatively widespread in the greater Bahía de los Ángeles/ Bahía Las Ánimas locality as discussed previously by the author (Ritter 1994, 1995, 1997). It would appear that these burials were at least in part related to the Comondú complex, based on radiocarbon dates obtained from King (1997) on Bahía Las Ánimas burials of a thousand years or less and the results obtained by Massey and Osborne (1961) on burials near the major shell mound at the *aguaje* or spring by the town of Bahía de los Ángeles. Still, Hyland (1997) dated human secondary burial remains from a small cave in the Sierra de San Francisco that were middle Archaic in age (just over 3,000 years old). The radiocarbon date and one obsidian hydration reading obtained from Cuevas Abraham also fall in the Comondú period.

The previous locality research led to the documentation of 231 rock enclosures, likely variable in function and age. (Historic-period ceramics found in one such shelter point toward some of these as being contact-era in age.) It can be predicted that there are hundreds, perhaps thousands in the region. Yet the examples on Cerro El Almacén appear to represent features lacking a direct domestic association.

The rock enclosures on the hillside and ridge lack residential debris and are either associated with other problematic features such as pathways or at locations offering panoramic vistas and presumed solitude. Similar rock enclosures in a lofty position with commanding views occur on the nearby hill Cerro de los Angelitos. Bowen (1976:40) has found among the Seri that such features in these situations may have been for religious activities such as vision questing, a prerequisite to becoming a shaman. It is also noteworthy that several rock enclosures lacking habitation debris occur by two adjoining mortuary hills at Bahía Las Ánimas (Ritter 1995). As such, these clearings as well could be related to mortuary ceremonialism. Aschmann (1959:109) notes shelters for ceremonial objects built just outside campsites. Finally, the large rock enclosure without habitation debris could have functioned as a religious or ceremonial structure as described by Aschmann (1959:109).

While the age of the various features and sites cannot be established with certainty, there is at least an indirect indication (late burials, dated occupation deposit) that these various locations in sum or in part are related. The spiritual/religious and domestic/economic conjunction is strongly suggested.

The occupation residue at Cuevas Abraham is rather commonplace in content. These occupants were relatively mobile people it would seem, using Cuevas Abraham for day-to-day living centered on the bay's bountiful resources (Figure 14). Trade/exchange or long-distance resource procurement is minimally evident in the obsidian and silicified tuff artifacts and one possible ornament.

The location of Cuevas Abraham provided residential-based shelter and security with an expansive view of the bay and nearby fans and hills. A number of similar-appearing sites occur on this hill and those relatively nearby, suggesting a very dispersed pattern of family groups at least seasonally occupying this southern part of the bay. The ritual activities evident from the various nonresidential sites on this hill, contemporaneous in whole or part, likely resulted from sacred/spiritual actions of the nearby base camp inhabitants. This hill may have been the focus of one band or local subgroup. Side-by-side, we have residential use, burial and burial-related ceremonialism, and possibly shamanism and its fundamentals such as the production of art and the seeking of visions or dreams. All of these activities found a landscape focus on Cerro El Almacén, a likely prehistoric cosmological marker not despoiled by the contemporaneous day-to-day living



Figure 14. View north from Cerro El Almacén toward the bay.

of families.

References cited

Aschmann, Homer

1959 *The central desert of Baja California: demography and ecology*, Iberoamericana 42, University of California, Berkeley.

Bowen, Thomas

1976 *Seri prehistory: the archaeology of the central coast of Sonora, Mexico*, University of Arizona Anthropological Papers 17. Tucson

2000 *Unknown island: Seri Indians, Europeans, and San Esteban Island in the Gulf of California*, University of New Mexico Press, Albuquerque.

Clavijero, Francisco Javier

1937 *The history of (Lower) California*, A. A. Gray, ed., Stanford University Press.

Hyland, Justin Robert

1997 *Image, land, and lineage: hunter-gatherer archaeology in central Baja California, Mexico*, dissertation, University of California, Berkeley.

King, Jay H.

1997 "Informe de mediciones de isotopes y de radiocarbono en huesos humanos de Bahía de las Ánimas, Baja California", in *Informe: investigaciones de ecología social y cambios entre culturas prehistóricas en la región de Bahía de los Angeles, Baja California (1995)*, by Eric W. Ritter, pp. 168-181, Instituto Nacional de Antropología e Historia, Mexico City.

Masse, W. Bruce and Adrienne G. Rankin

2008 "Draft recommended guidelines for the management of cultural resources in the western Papaguería", in *Fragile patterns: the archaeology of the western Papaguería*,

- Jeffrey H. Altschul and Adrienne G. Rankin, eds., pp. 581-592, SRI Press, Tucson, Arizona.
- Massey, William C. and Carolyn M. Osborne
 1961 "A burial cave in Baja California: the Palmer collection, 1887", *Anthropological Records* 16:339-364, University of California, Berkeley.
- Mathes, W. Michael
 1994 "Observaciones etnológicas sobre los primeros contactos europeos en la región de Bahía de los Ángeles, Isla Ángel de la Guarda y Adac, Baja California: 1539-1827", in *Informe: Investigaciones de Ecología Social y Cambios entre Culturas Prehistóricas en la Región de Bahía de los Ángeles, Baja California (1993)*, by Eric W. Ritter, Appendix 1, Instituto Nacional de Antropología e Historia, Mexico City.
- Meehan, Betty
 1982 *Shell beds to shell midden*, Australian Institute of Aboriginal Studies, Canberra.
- Moser, Edward
 1963 "Seri bands", *The Kiva* 28(3):14-27.
- Ritter, Eric W.
 1981 "The description and significance of some prehistoric stone features, south-central Baja California, Mexico", *Pacific Coast Archaeological Society Quarterly* 17(1):25-42.
 1994 *Informe: investigaciones de ecología social y cambios entre culturas prehistóricas en la región de Bahía de los Ángeles, Baja California (1993)*, Instituto Nacional de Antropología e Historia, Mexico City.
 1995 *Informe: investigaciones de ecología social y cambios entre culturas prehistóricas en la región de Bahía de los Ángeles, Baja California (1994)*, Instituto Nacional de Antropología e Historia, Mexico City.
 1997 *Informe: investigaciones de ecología social y cambios entre culturas prehistóricas en la región de Bahía de los Ángeles, Baja California (1995)*, Instituto Nacional de Antropología e Historia, Mexico City.
 2007 "An archaeological approach to the rupestrian images at La Angostura, central Baja California", paper presented at the VIII Encuentro Binacional, Centro INAH Baja California, Mexicali.
- Rogers, Malcolm J.
 1966 *Ancient hunters of the far west*, Union Tribune, San Diego.
- Tyree, Kathleen D.
 1997 "Implementos de concha modificada de los sitios de Bahía de los Ángeles", in *Informe: investigaciones de ecología social y cambios entre culturas prehistóricas en la región de Bahía de los Ángeles, Baja California (1995)*, by Eric W. Ritter, pp. 212-229, Instituto Nacional de Antropología e Historia, Mexico City.
- Vanderpot, Rein and Jeffrey H. Altschul
 2008 "Patterns of stone: ritual landscapes of the western Papaguería", in *Fragile patterns: the archaeology of the western Papaguería*, Jeffrey H. Altschul and Adrienne G. Rankin, eds., pp. 347-376, SRI Press, Tucson, Arizona.
- Wagner, Henry R.
 1929 *Spanish voyages to the northwest coast of America in the sixteenth century*, California Historical Society, San Francisco.