

Cactus Stones: Symbolism And Representation In Southern California and Seri Indigenous Folk Art and Artifacts

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Ethnographic documentation of cactus use in Seri folk culture and the symbolic portrayal of cactus among these northern Mexican people provides a heuristic model for the interpretation of "cogged stones" and pictographic representations in Southern California.

Mystery surrounds the purpose, value, and symbolism of the so-called "cogged stones" of Southern California (Chace 1965; Eberhart 1961; Smith 1968). They are dispersed over a wide area of the historically recorded Uto-Aztecan language group of southern California. Some few are found within Chumashan (Hokan) territory, and at least one was recovered within the Yuman (Hokan) language landscape.

"Cactus stones" is perhaps a more accurate label for the artifact. Specifically, cogged stones may actually represent cactus slices. This hypothesis draws inspiration from ethnographic participant data regarding the Hokan speaking Seri Indians of northern Mexico and their continued symbolic valuation and employment of cactus slices, or cactus discs in play behavior.

Cogged Stones

Cogged stones generally have an underlying disc shape and ribbed edges fashioned into the sides. Ribs or "cogs" vary from 1 to 20, the normal range being between 8 and 13 (Herring 1968). Ribs are evenly distributed around the circumference of the stone giving some the impression of a gear or cogwheel with this terminology obviously reflecting an industrial age perspective (Fig.1). Some stones are slightly convex while others are slightly concave. Eberhart (1961) created a classificatory system for cogged stones employing four types: Class I. Land and Groove, Class II Intermediate, Class III Fish Vertebra and Class IV Other. The differences between these are based largely on circumferential edge modification. The presence or absence of center perforation is not a factor in assigning an artifact to one of the four classes. A subtype of Eberhart's Class I type is referred to as "summer squash" or "jelly mold." Their distinctive feature is cambering with one surface wider than the opposite (McKinney 1968). These "jelly mold" stones are found with less frequency.

Most often associated with the Santa Ana River drainage from Orange County into Riverside County, cogged stones are also reported for Ventura, Los Angeles, Riverside, San Bernardino, and San Diego counties with a single example from Chandler, Arizona (Dixon 1968; McKinney 1968:45). Topanga Canyon, Redondo Beach, Loyola, Baldwin Hills, Calabasas, Encino, Glendora, Whittier,

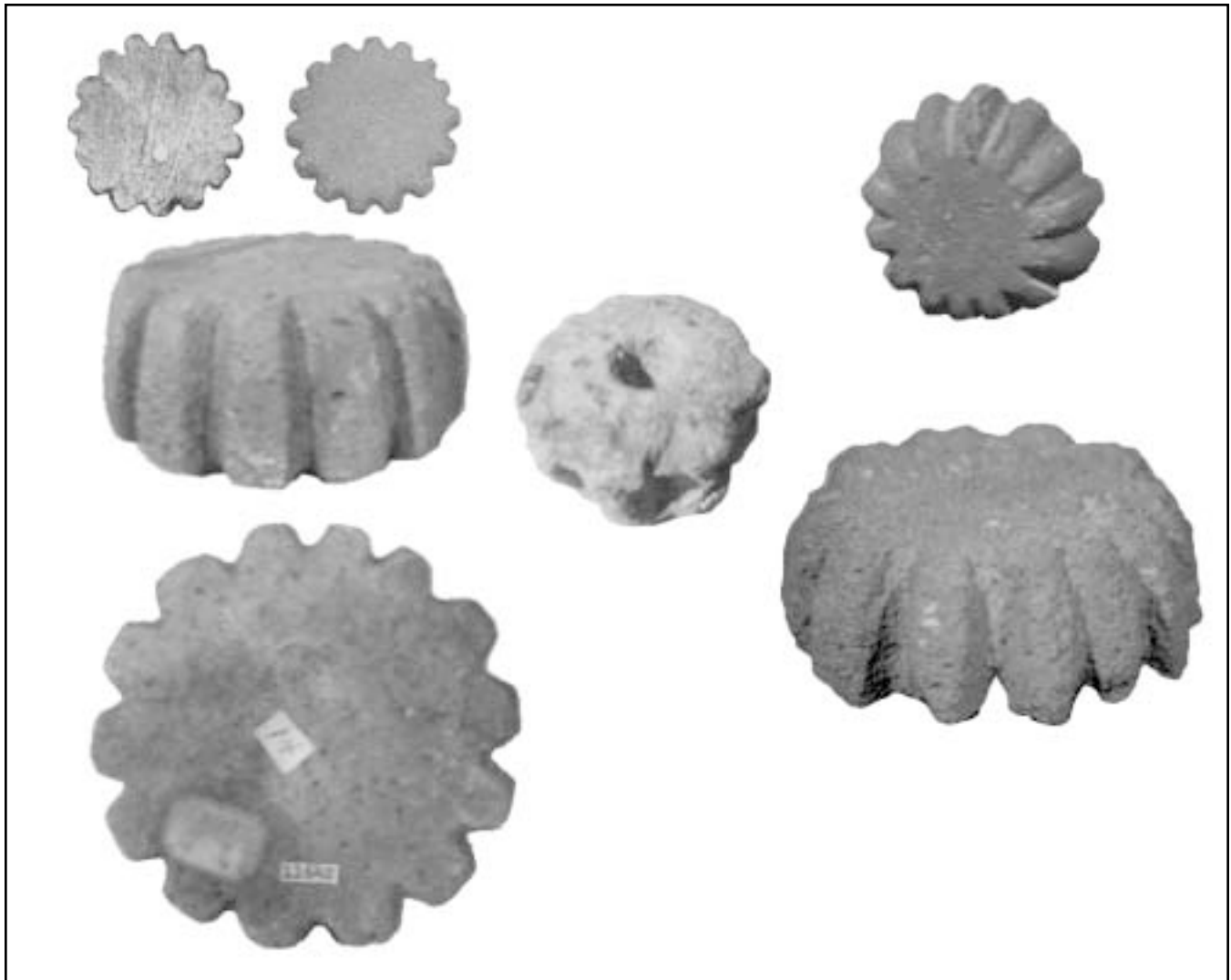


Figure 1. A variety of "cogged stones." An example of an Eberhart "fish vertebra" stone is seen at center and "jelly mold" stones appear on the right.

Pomona, Cajon Pass, Colton, Alta Loma, Yucaipa, Twenty-nine Palms, Murietta, French Valley, Temecula, Rincon, San Luis Rey, and Los Cerritos have all yielded cogged stones.

The largest numbers have been recovered in Orange County in Costa Mesa, Laguna Beach, Morro Canyon, San Juan Capistrano, Corona Del Mar, Huntington Beach, San Joaquin Home Ranch, San Joaquin Gun Club, Trabuco Canyon, Seal Beach, and Bolsa Chica.

The rock source of the worked stones is of local attribution consisting of granite, basalt, sandstone, siltstone, limestone, andesite, lava, dacite and pumice (Eberhart 1961). It is not

uncommon to find attempts at repair of broken or chipped stones using asphaltum (Dixon 1968). Koerper and Mason (1998) in an overview of cogged stones with possible theories as to their use, distribution, and age report a cogged stone made of ochre and interpret the unique quality of the manufacture as indicating a non-utilitarian purpose. This is consistent with association of the mineral with interpretations of magico-religious thought and behavior. Cogged stones give no appearance of utilitarian employment.

Hundreds of these cogged stones are in museums and private collections (Dixon 1968). Institutional collections include those

housed within the Asistencia of Mission San Gabriel, California State Indian Museum, Los Cerritos Rancho Museum, Overton Museum, Palomares Adobe Museum, San Bernardino County Museum, San Diego Museum of Man, San Jacinto Museum, San Luis Rey Mission Museum, Western Trails Museum at Knott's Berry Farm, Riverside Municipal Museum, The Bowers Museum of Cultural Art, and The Museum of the American Indian which is now the Smithsonian Institution National Museum of the American Indian (McKinney 1968: 50-54). Private collections include archaeological collections repositories and storage facilities maintained by cultural resource management companies.

The age of the cogged stones is difficult to ascertain. A minority of the reported hundreds were found *in situ*, with most collected on

farmland after farmers had plowed or from river or creek drainage systems. Keith Dixon (1968) relates that evidence for dating cogged stones is sparse but estimates they date to a period several thousand years BCE.

Seri Use of Cactus in Play Activities

The Seri Indians of northern Mexico use slices of columnar cactus in a game called *camoailcoj* played at fiestas (Felger and Moser 1985:160-161). Photographs of Seri women playing the game provided by Felger and Moser depict the women using cactus slices, or discs, as place markers for edges of the playing field (Fig. 2). Griffen (1959:14) describes the game but notes the use of rocks for the boundry markers. Felger and Moser (1985:164) indicate stones are used in the *camoailcoj* game when



Figure 2. Seri Indian women playing *camoailcoj* game with organ pipe cactus sections. (Felger and Moser 1985). Photo by Mary Beck Moser from *People of the Desert and Sea: Ethnobotany of the Seri Indians*, by Richard Felger and Mary Beck Moser. © 1985 The Arizona Board of Regents. Reprinted by permission of the University of Arizona Press.



Figure 3: Seri community playing *comoilcoj* game in 1996. (Lucas 1996).

cactus is not available. Griffen witnessed the game played during puberty ceremonies.

Native American Public Telecommunications, Inc. and Pacific Islanders in Communications in 1996 released an episode for their two-part series "Storytellers of the Pacific" titled "Self Determination" which depicts *comoilcoj* played as part of a fiesta celebrating the halfway point in construction of a large basket on Tiburon Island in northern Mexico (Lucas 1996). The videotape depicts cactus discs used as the place markers set into the ground on their edges, leaving gaps between sets of five groups of discs cross-sectioned from *Stenocereus thurberi*, or Organ Pipe Cactus (also Pitaya Dulce). The number of the cross sections, like the size of the playing area, depends on the number of players. Game sticks called *hemot* are used as dice and each player keeps a counter formed from a stick of *Jatropha cinerea* or Ashy Jatropha (Felger and Moser 1985:160). The videotaped performance includes the casting of the dice sticks (Fig. 3). Other games played by the Seri incorporating cactus include a men's game, *cacomaloj*, which employs the use of Saguaro, or Sahuaro (*Carnegiea gigantea*), fruit skins (1985:248).

Felger and Moser (1985:164) also provide photographs of Seri children using slices of cactus as wheels in a toy made from wooden branches that perforate the center of the

cactus discs (Fig. 4). A similar toy is depicted fashioned from *Lophocereus schottii*, Old Man Cactus, Garambullo or Senita (1985:249).

SYMBOLIC LANDSCAPES

Felger and Moser (1985, also 1974) present symbolic values of plants with a section devoted specifically to columnar cacti. Six species are described as dominant in the Seri region: *Carnegiea gigantea*, *Lophocereus schottii*, *Pachycereus pringlei*, *Stenocereus alamosensis*,



Figure 4. Seri Indian boys playing with toys fashioned from cross sections of organ pipe cactus with center perforations. (Felger and Moser 1985).

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Figure 5. Cholla Cactus. Serrated edges are seen around the depressed center of the flowering stalk.

S. gummosus, and *S. thurberi*. Fruit from *Carnegiea gigantea*, *Pachycereus pringlei*, *Stenocereus gummosus*, and *Stenocereus thurberi* are gathered using a pole referred to in Seri as *hehe imam ihapoc* or 'plant its-fruit what-one-pries-off with.' Interestingly, the Seri have a constellation representing a cactus crook pole. Similar cactus fruit gathering poles are described for the Walapai and Havasupai of Arizona (Kroeber 1931:41).

Supernatural, mythic, medicinal, and food use can be identified for each variety of columnar cactus found within the Seri region, each form imbued with particular folkloric regard, use, and value demonstrating a highly symbolic cultural perception of cactus (Felger and Moser 1985:245). In some instances, sections of cactus are cut out for holding ritual water or are scalloped out to allow clamshells to be imbedded into the column as ceremonial treatment of the

highly regarded cactus (1985:255). Slicing cactus into discs, gouging holes into the sides of the cactus ribs and perforating cactus to hold ceremonial materials are all examples of the symbolic value of the plant to the Seri. In one dramatic instance *Stenocereus thurberi* holds enough value and power to warrant it being cut into discs and thrown into a fire as a supplicant for calming the wind (1985:260). The employment of *Pachycereus pringlei*, or Cardon, to stop rain by building a fire at the base of the cactus offers another folk tradition (1985:248). The Seri obtain folk medicine from a number of different cacti. In addition, many species have mythological roles for the Seri (1985:245-271).

Cacti in California and Northern Mexico

The northern Sonoran Desert and the deserts of Southern California hold a wealth of evidence



Figure 6. Saguaro Cactus.

of climatic change. Southern California native plants have been replaced by species from northerly climates over time leaving the Southern California of today different in numbers and varieties of plant species than in past eras (Benson 1969:35-43). Colonialism and the subsequent development of California add to the change in plants commonly seen in the state. Cacti in Southern California fall into species that are often shared with Mexico as part of a more common climate of the past.

Mexican and Colorado Desert flora blend closely while higher elevation deserts exhibit the encroachment of northern species (Benson 1969:60). *Opuntia engelmannii* and *O. phaeacantha*, commonly known as prickly-pear cacti, can be found in Mexico and southern California. The first report of California cacti was made in 1793 by surgeon and naturalist Archibald Menzies as he traveled with George Vancouver (1969:63). Fruits of the prickly-pear

were given to the Vancouver party when they visited Santa Barbara on November 10, 1793. While in San Diego, naturalized fields of *Opuntia ficus-indica* or Mission Prickly-Pear, were reported in large numbers by Menzies. English botanist Thomas Nuttall made further notes about Southern California cacti in 1836, and Dr. C.C. Parry collected specimens in 1852 (1969:66-67).

A variety of opuntoid species are present in Southern California (Fig. 5), many of these referred to as cholla or club-cholla cacti. *Cylindropuntia munzii* (= *Opuntia m.*), *C. bigelovii* (= *Opuntia b.*), *Corynopuntia parishii* (= *Opuntia stanleyi*), and *Micropuntia pulchella* (= *Opuntia p.*) are all cactus species found in Southern California (1969:98-148). These various cholla and club-cholla cacti are relatively small and have overlapping circles of leaves winding into a body that when sliced into sections produce a disc with serrated edges.



Figure 7. Saguaro Cactus.

These discs have the same imagery as those seen in rock art designs and the so-called coggled stones but are much smaller in diameter than any such stones that have been reported.

Larger columnar cacti provide stalks with ribs that, when cut into discs, mirror with great consistency the shapes of many coggled stones. *Carnegiea gigantea*, or Saguaro cactus, is of large size, commonly distributed between Mexico and Southern California and it is structured with ribs (Fig. 6 & 7). In 1852, Parry collected specimen of this cactus for his work "Notes on the *Cereus giganteus* of Southern California and Some Other California *Cactaceae*" (Benson 1969:67). *Carnegiea gigantea* (= *Cereus giganteus*) commonly forms between twelve and twenty ribs while another species, Engelmann's Hedgehog Cactus (*Echinocereus engelmannii*),

normally has 10-13 ribs and a diameter of 3.8-8.7 cm. on each stem and is common in southern California, Arizona, and northwestern Mexico (Benson 1969:173).

Another columnar cactus with ribs is *Ferocactus viridescens*, or Coast Barrel Cactus, which inhabits Southern California and Mexico (Fig. 8). This species commonly forms fifteen to twenty ribs (1969:173). *Ferocactus cylindraceus* var. *cylindraceus* (= *F. acanthodes*) can exhibit from eighteen to twenty-seven ribs. *Ferocactus cylindraceus* var. *lecontei* (= *F. acanthodes* var. *lecontei*), or barrel cactus, is yet another ribbed form of cactus in Southern California as are *Echinocactus polycephalus* and *Mammillaria dioica*, all which can be cross sectioned into discs with serrated or notched edges (Benson 1969:148-173). An interesting observation is the presence of *Lophocereus schottii* and *Echinocereus triglochidiatus* indigenous to Arizona, more specifically near the town of Chandler, Arizona. This is the same *Lophocereus schottii* used by the Seri in the manufacture of a toy (Fig. 9). *Echinocereus triglochidiatus* exhibits an average of five to thirteen ribs. Other cacti that are not ribbed can still produce a cross sectioned disc with serrated edges. All of these cross sections reveal an inner structure that mirrors the outer growth layer with an inner pattern of serrated edges and structure lines radiating from the center to the outer edge. Cross sectioning the top of any columnar cactus will produce a disc that is cambered with one surface of wider diameter than the opposing one,

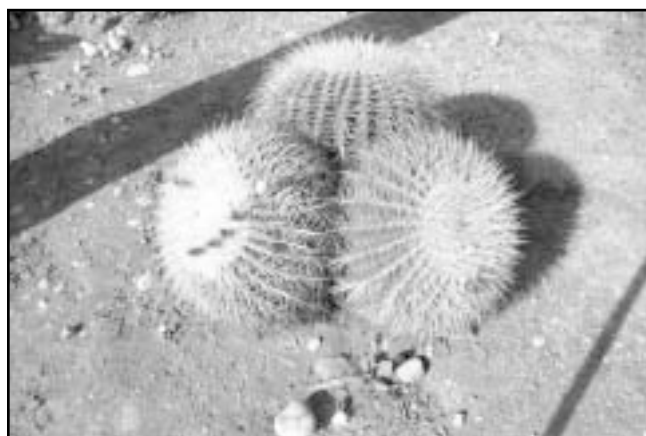


Figure 8. Coast Barrel Cactus.



Figure 9. *Lophocereus Schottii* in cross section with center structural lines visible.

recalling, incidentally, the “jelly mold” subtype coggled stone (Fig. 10).

Linguistic Notes

The Seri are of the Hokan linguistic group but there is much discussion concerning the particular form of Hokan used by the Seri. Powell favors Yuman-Hokan identification, while Gatschet indicates a non-Yuman form of Hokan (1891:136-137; 1900). Kroeber saw the Seri as Yuman-Hokan. Sapir lists the Seri as Salinan-Hokan and Langdon identifies the Seri with the Chumash and Chontal (1915; 1925:525; 1974:86). This is of interest as the Yuman-Hokan connection puts the Seri in association with other Yumans on the Baja Peninsula and San Diego or along the Colorado River and Desert leading up to southern Arizona. A Salinan-Hokan identity creates an association with the coast of

California reaching north to San Luis Obispo. The Miguieleño and Antoniaño Indians of Southern California are similarly of the Salinan-Hokan linguistic group though the language is now extinct (Shipley 1978:86). These groups are marked as north of the Chumashan form of Hokan with San Luis Obispo serving that point between the two though root words demonstrate a relationship between the Salinan and Chumashan language groups (Miller 1985:129). Langdon's grouping of the Seri with the Chumash reinforces this association with the coast of California. Felger and Moser favor the Yuman-Hokan identification putting the Seri in linguistic association with the Cocopah, Havasupai, Kilino, Maricopa, Paipai, Quechan, Yavapai and Walapai (1985:8). The geography of each of these language subgroups encompasses regions rich with cacti, but the divide between Yuman and Salinan identity may have implications

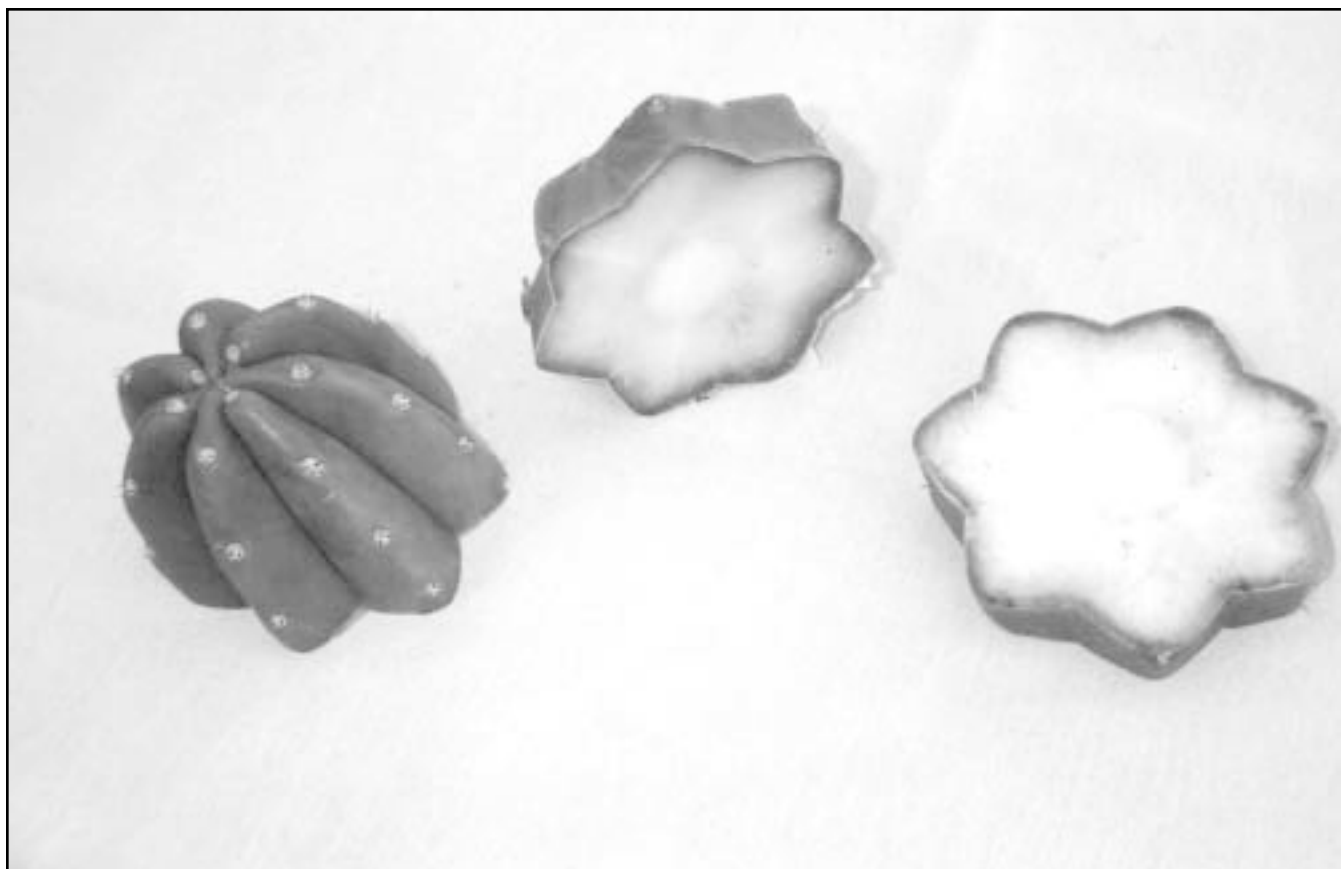


Figure 10. *San Pedro cactus in cross sections displaying camberring of top section and inner structure lines. San Pedro is a Peruvian cacti species used in indigenous art and ritual as documented by Eduardo Calderon and Douglas Sharon. (Calderon 1982; Sharon 1978).*

indicating inland or coastal areas of association worth considering.

The Uto-Aztecs separate Salinan and Chumashan-Hokan from Yuman-Hokan groups in San Diego and Imperial counties, and northern Mexico (Shipley 1978:88). The Seri are a pocket of non-agricultural Hokan speakers surrounded on the Sonoran Desert by Uto-Aztec groups (Bowen 1976:95). There may be linguistic indication that the Seri migrated from the Baja Peninsula across the Sea of Cortez to their present location (Bowen 1976:95). The Jesuit priest Juan Maria de Sonora identified linguistic borrowing with the Cochimi of Baja California (Bowen 1976:96).

Regardless of whether one favors the Salinan/Chumashan-Hokan or Yuman-Hokan identification of Seri language, there is a good argument to be made that ethnographic

elements found among the Seri can be historically associated with those in Southern California.

Chumash and Seri Art Images

Rock art among Chumash includes disc shapes that have serrated or notched edges with lines radiating from the centers to the edges of disc images. Some are referred to as "suns" (Grant 1993; Clewlow 1978:624) (Fig. 11). The most remarkable examples of Chumash rock art are polychromatic pictographs that utilize a material palette consistent with ceremonialism in southern California including red ochre. Campbell Grant identifies the red pigment used in nearly all pictographs found in the Chumash territory as iron oxide, the ingredient found in the red ochre stone reported by Koerper and Mason (1993:85).



Figure 11. *SBa-506 Painted Cave depicting circular design with serrated edges and inner structural lines. (Photograph copyrighted 1989 by William D. Hyder).*

The caves and other sites where Chumash pictographs are found may display examples of folk art symbols and designs rather than ceremonial or ritual expressions or a combination of both.

Ground art or intaglios are found among the Seri. Bowen (1976:32-33) identifies one site that contains a rock circle segmented with lines radiating out from the center similar to the same form seen in the Chumash cave paintings. Rock quarries used for these stone art forms were identified as recently as 1973 (Bowen 1976:32-33).

Another Seri artifact is a disc made from a prehistoric pottery shard. These ceramic discs are perforated at the center and notched along

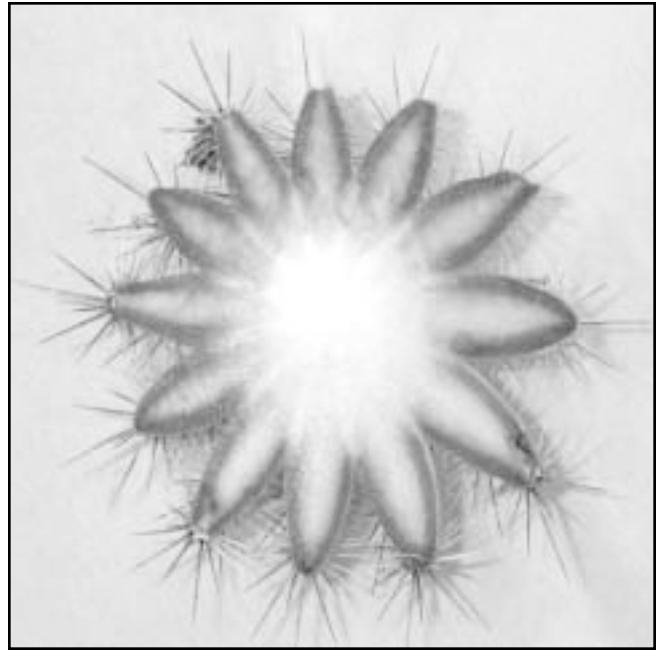


Figure 12. *Saguaro cactus top cross section.*

the edges. Seri informants identify these as a toy, a form of spinning top (Bowen 1976:72).

Summary And Concluding Notes

Slices of cacti can be seen as a model for

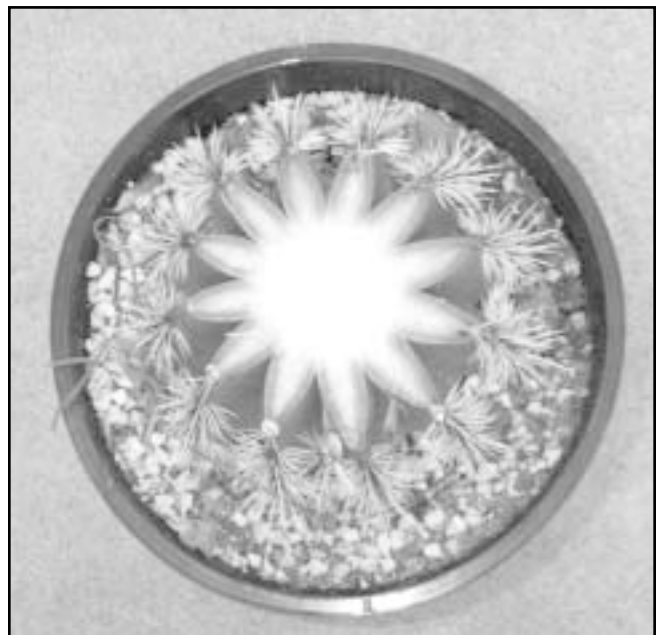


Figure 13. *Saguaro cactus with top removed in growing tub.*

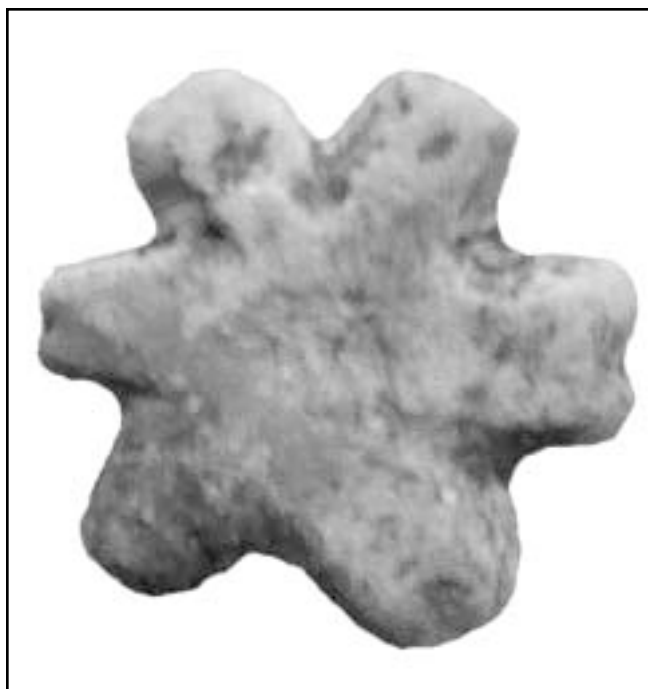


Figure 14. Cactus stone.

artistic representations in stone found in Southern California (Fig. 12 & 13). The classes of cogged stones grouped by Eberhardt can either be matched to different cactus species, to various sections, or treatments of cactus slices, or discs. The so-called “jelly mold” or “summer squash” stones of the Eberhardt Class I type appear to be mimics of the tops of columnar cacti. The numbers of ribs and depths of cuts in the other Eberhardt classifications generally imitate varieties of cacti, having common rib patterns and consistent numbers (Fig. 14). The cogged stone found in Chandler, Arizona resembles two varieties of cacti indigenous to that same area.

The Seri practice of gouging out the sides of cacti to allow the placing of clam shells or other ceremonial material into the edges or in the center is taken as an intriguing clue to the interpretation of Eberhardt's Fish Vertebra (Class III) stones, which have the properties of a cactus slice with gouges in the sides and a center perforation. Reference to Class III stones as fish vertebrae is only impressionistic. A further point of comparison is seen in the ceramic discs with center perforation and notched edges fashioned for use as toys.

In the Seri game called *camoilloj*, stones

may be substituted for cactus slices. Griffen (1959), Felger and Moser (1985), and Lucas (1996) have documented the interchangeability of cactus and stones over a thirty-seven year period in this play game. Felger and Moser (1985) note that stones are sought when cactus is not available. The use of permanent stone representations of cactus slices for folk games played in areas where cactus is not always available may account for the southern California artistic rendering of cactus discs in stone, so-called “cogged stones.” With the changing climate of southern California and consequent encroachment of plants from the north, cacti may have become less available. The desire to retain cactus symbolism is a plausible motive for creating stone representations of cactus slices. The most likely candidates for cacti represented by cactus stones are the columnar *Ferocactus* varieties but other cacti such as chollas are possible models. The Saguaro or Sahuaro cactus is another excellent model as it contains all of the necessary elements of size and number of ribs.

The presence of disc forms with serrated edges containing circles with serrated edges and lines radiating from the center to the edge seen in Hokan Chumash rock art parallels patterns within slices of cactus as well as with Seri intaglios. Stone discs with serrated edges occur within Southern California Hokan areas. Similar stones within the Uto-Aztecan region are found at depths with age estimates that place them within a likely Hokan era preceding any Uto-Aztecan migrations.

The use and value of cacti in symbolic application in Southern California indigenous folk culture needs more examination and may reveal answers to the meaning and symbolism of pictographs and petroglyphs found in the same areas where cacti and cactus stones are found.

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