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The Rock Art of *Soxtonocmu*, an Inland Chumash Village

GEORGIA LEE

ROCK art represents an artifact of man, and, as with tools, ornaments, or structures, it is a reflection of cultural behavior. Thus, through rock art the potential exists for the reconstruction of the cognitive aspects of a culture (Hudson and Lee n.d.). Style and consistency in art are means by which individual and group values in a society are expressed; an art style reflects traditional values and patterns of thought in a society and serves to maintain cultural stability (Anderson 1979:71).

The Chumash area of coastal southern California is noted for its colorful, often spectacular, rock paintings. But the area also contains other, less glamorous forms of rock art: petroglyphs in the form of pitted boulders (cupules) and grooves. Although cupules are ubiquitous in the territory of the Chumash, they have received scant attention. Grooved petroglyphs are less common; cupules in association with sharply incised lines are rare. When we find a style of rock art that appears to be outside the (apparently) accepted norm, it may reflect a change over time, changing values in a society, or influence from another cultural group.

The purpose of this paper is to describe the unusual variety of rock art associated with an inland Chumash village (CA-SBa-167), known historically as *Soxtonocmu*. The site is located in the eastern foothills of the Santa Inez Valley, Santa Barbara County, California. To the north is Zaca Peak; Figuroa Mountain is to the east. Birabent Creek, a perennial surface-flow stream, winds through the site.

Past exploration of *Soxtonocmu* includes excavations by de Cessac and Pinart in 1877. Over the years pot hunters also lavished much of their attention here. Then, in 1960-61, an archaeological investigation was conducted by James Deetz; although a brief note on a pictograph rock appeared in print (Deetz 1964:505), the results of this excavation have never been published.

According to Horne (1980:58) the village of *Soxtonocmu* had at least two occupation periods: historic, and an earlier, undated occupation that was probably seasonal. *Soxtonocmu* is listed in the mission records, and historic artifacts, such as glass beads, were recovered from the upper levels of the excavation. Four different types of rock art are found in the vicinity of this inland site: cupules with sharply incised grooves; an anthropomorphic figure formed by some of the incised grooves; pecked ovoids; and a portable rock with pictographs. The latter three are the only reported examples of their kind in Santa Barbara County.

Georgia Lee, Institute of Archaeology, Univ. of California, Los Angeles, CA 90024.

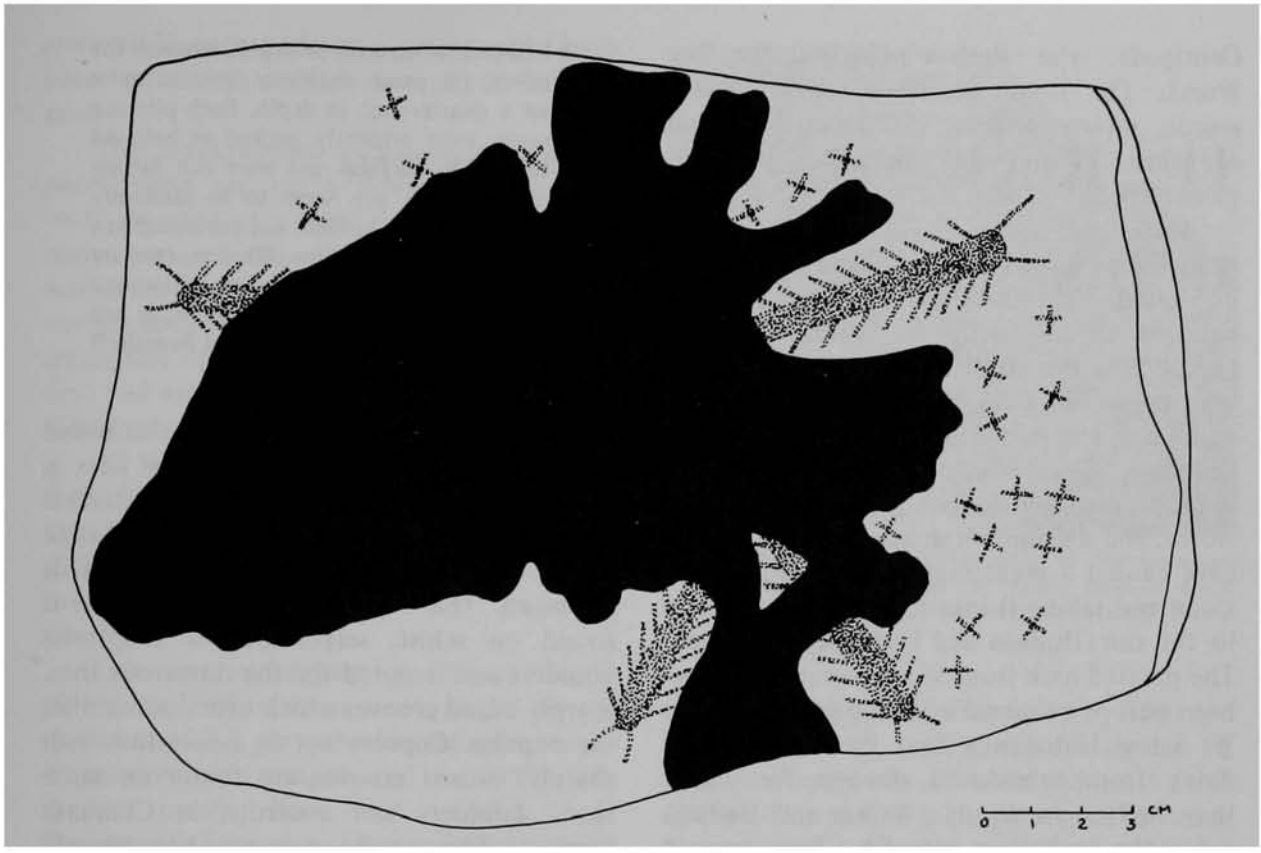

Fig. 1. Painted rock excavated from the Midden. Designs are in red and consist of centipede-like creatures and crosses or X's. Asphaltum has been poured or spilled over the slab obscuring part of the design. When excavated, the rock was face down.

While a precise understanding of rock painting and engravings will probably remain obscure forever, the rock art of *Soxtonocmu* –in its unique variety–provides us with a rare glimpse into the ceremonial life of the inland Chumash.

PICTOGRAPH ROCK

A rectangular sandstone slab decorated on one side with red pictographs (Fig. 1) was removed from the excavation unit near the center of the village site. According to Deetz (1964:505), the stratum from which the stone was excavated is dated to the historic period, or about A.D. 1800. It measures 23.5 by 14 cm. The part of the design that is visible consists of four centipede-like shapes and 20 small X's or crosses. Asphaltum was spilled or poured over the center of the slab, thus obliterating part of the pictograph. The centipede motif, a thin, elongated oval with numerous projections, is a familiar one in Chumash cave art, as is the cross or X, which is frequently incised on portable objects as well (Lee 1981). Ritter and Ritter (1976:212) stated that the centipede is a Chumash symbol for the cause of death. That the design probably did symbolize this is suggested by a myth. Blackburn (1975:202 *ff.*) describes an oral tradition that tells of the adventures of Coyote, the culture-hero, and

Centipede, who climb a pole into the Sky World. The myth describes ordeal, death, rescue, return to earth, and resurrection—all elements found in shamanic tradition (Vastokas 1974:140).

Ritter and Ritter (1976:196) also noted that shamans possessed objects that were decorated with secret and powerful symbols believed to be useful in healing. Kroeber (1925:198) described a Yuki curing shaman who began his work by painting a flat stone with red and white pigments. Among the Chumash, there is ethnographic evidence of shamans painting designs on rocks to avert a storm, and a Chumash shaman was reputed to have caused a great famine by painting on a stone and taking it into the hills to expose it to the sun (Hudson and Underhay 1978:36). The painted rock from *Soxtonocmu* may have been part of a shaman's healing paraphernalia. We know historically that the Indians were dying from introduced diseases for which they had no immunity (Walker and Hudson n.d.); the asphaltum may have been poured over the stone during a curing ceremony in an effort to "kill" the centipede death image.

CUPULE ROCKS WITH INCISED GROOVES

The cupule/incised groove type of petroglyph is distinguished here from the Great Basin style known as "pit and groove," which refers to pits in conjunction with broad pecked grooves. The Great Basin style has been defined as follows:

> This style [pit-and-groove] was named by us in an earlier report . . . largely on the basis of evidence from a single site. More thorough investigation of Nevada and California petroglyphs indicates that most occurrences of this style consist simply of pits, only a few having grooves as well. The pits vary in size. Most of them are only an inch or two in diameter, but some are as much as 12 inches across. Grooves, when present, are from a half-inch to an inch in width. Pits are usually a half-inch to an inch in depth, whereas the grooves are much shallower—seldom more than a quarter-inch in depth. Both pits and grooves were evidently pecked or battered into boulder surfaces and were not further smoothed. The pits seem to be randomly placed on a rock surface, not patterned in a regular or definite fashion. When grooves are present they do not lend composition but merely connect some of the pits or, in one example, encircle pits [Heizer and Baumhoff 1962:208-209].

The cupule/incised groove type as found in Santa Barbara County and several sites in San Luis Obispo County is clearly different. Whether this is a result of the different type of rock surface or a different intent is unknown. The cupule/incised groove style is found on schist, serpentine, or soapstone boulders and is noted for the numerous thin, sharply edged grooves which often outnumber the cupules. Cupules not in association with sharply incised grooves are found on sandstone boulders and outcrops in Chumash territory. The cupules appear to be randomly placed at most of the sites; some, however, form definite patterns. At least five Chumash sites have broad shallow grooves in association with cupules and these may be considered closer in type to the pit and groove style, although the grooves are made by abrasion rather than pecking. Aside from the occurrence of cupules on free-standing boulders and outcrops, some sites have cupules on the inside of painted cave shelters, located on floor surfaces as well as on vertical walls. Their association with paintings suggests a ritual function. Occasionally the cupules are under painted surfaces, giving us a hint of chronological application, although the time span is, of course, unknown. A few cupules have been noted with paint inside the pits. It is doubtful that these could have been utilized as "paint pots" due to their small size and (usually) vertical placement. However, cupules located on horizontal surfaces and in

association with bedrock mortars might have been functional, perhaps as an aid to cracking acorns.

The *Soxtonocmu* cupule/incised groove petroglyphs are on a group of serpentine rocks situated on a slight rise southeast of the main part of the village site and directly across the creek from the pinnacle which is a conspicuous natural feature of the site. These serpentine rocks are of the Franciscan formation and exhibit a glossy sheen that contrasts effectively with the texture of the carvings.

All the rocks that were chosen to be incised have this polish, which is caused by shearing. Shearing results in numerous shiny slickensides, which cause the rock to weather in shiny lenticular and ovate fragments (Dibblee 1966:12).

The cupules appear to be randomly placed, and they vary in size with an average diameter of 2.5 cm. The incised grooves are predominantely straight, and form X's, V's, crosses, parallel lines, and radiating lines. Groups of lines are often crossed by an opposing line as in a tally. When incised around a pit, they form a "sunburst" design. Many of these serpentine rocks have heavy patches of red-orange lichen, some of which grows in the engravings.

The three major rocks are numbered in order, north to south:

(1) A large rectangular boulder, measuring 90 by 150 cm. and 90 cm. at the highest point, contains approximately 128 cupules, plus grooves, on its tilted north face (Fig. 2). Scattered grooves are on the east and south faces, and several glossy light-green intrusions in the rock are marked with linear incising. The north face is divided by natural cracks. These fissures divide the rock into sections and it is along these fissures that most of the exfoliation has taken place. The surface is particularly eroded on the lower northeast section.

(2) Six meters southwest of rock No. 1 is a boulder that measures 94 by 89 by 120 cm.; the height is 110 cm. The top surface has 12 cupules plus grooves; the west and north faces contain 42 cupules, plus grooves. The north face is stepped, forming three separate planes; the bulk of the engraving is on the highly polished central plane. This relatively small face has the most deeply engraved lines; one large groove 5 mm. deep bisects the rock horizontally for a portion of its width (Fig. 3*a*). On the west face the cupules and grooves continue to the soil line and may extend below the present level of the ground. Portions of the surface have exfoliated, particularly on the west side of the rock.

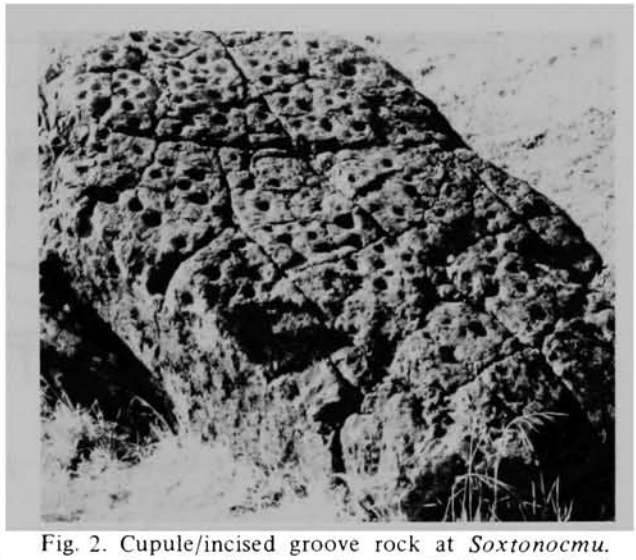

Fig. 2. Cupule/incised groove rock at *Soxtonocmu*. Photograph shows the north face of Rock No. 1, which is the most elaborately decorated face.

(3) Lying three meters southeast of rock No. 2, this small boulder measures 60 by 60 cm. It contains 16 cupules and many grooves. The surface is badly eroded; it may have contained a larger number of carvings at one time.

There are many other small rocks scattered around these larger boulders. Some have a few random grooves. One, lying slightly northeast of rock No. 1, has the initials "T.S." pecked into the surface. These appear

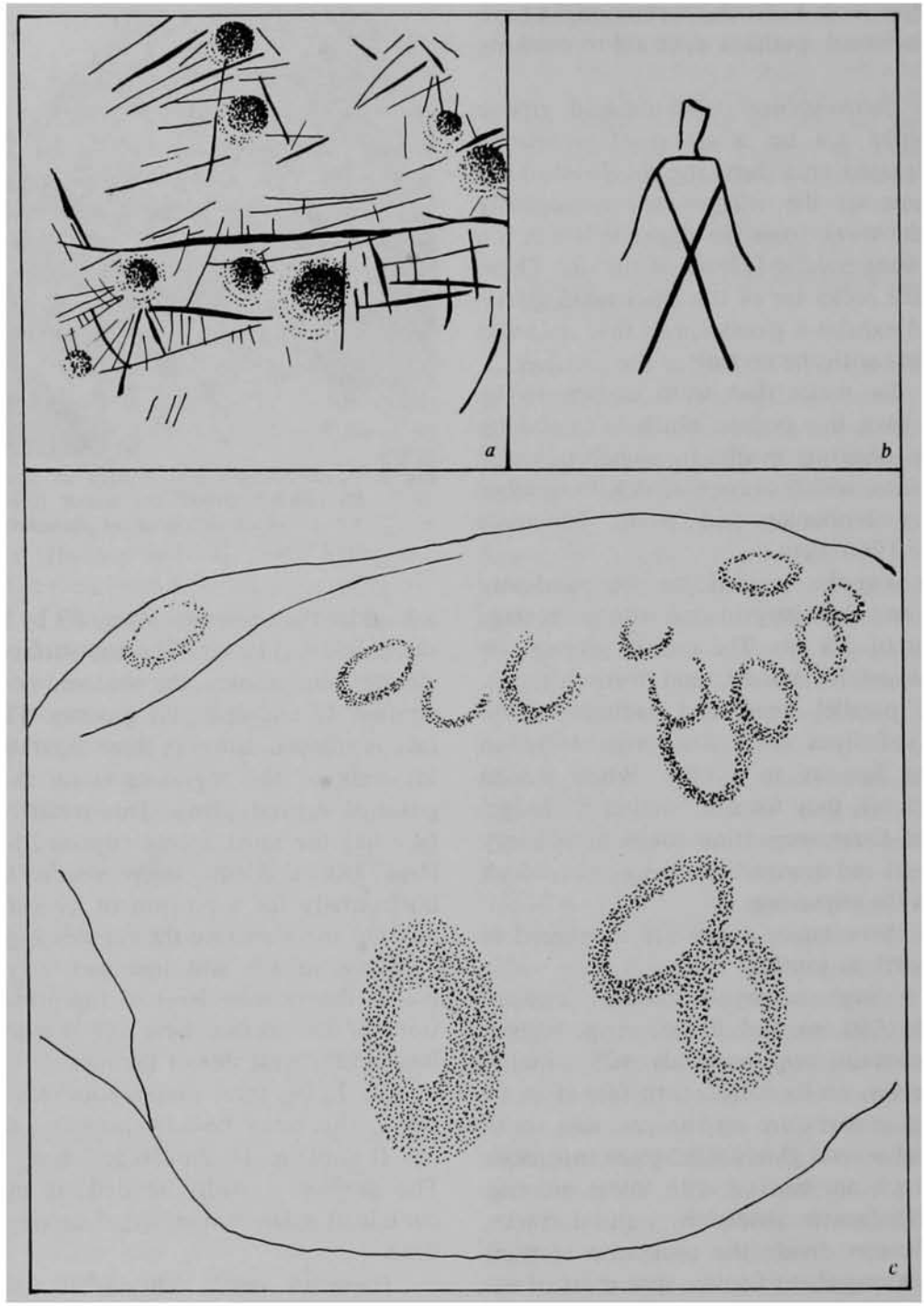

Fig. 3. Details from Rock No. 2 and nearby serpentine boulder: *a*, detail of Rock No. 2 showing deeply carved grooves in conjunction with the cupules; *b*, small incised anthropomorphic figure on the west face of Rock No. 2; *c*, pecked ovoids and horseshoe shapes on serpentine boulder.

to be very recent. Ninety meters north-northwest and downhill toward the creek from the above-mentioned rocks is another large serpentine boulder with a few scattered grooves and traces of cupules in the remaining bits of shiny slickensides. The surface of this rock is almost totally exfoliated; before erosion, the petroglyphs may have been more extensive. Northwest and downhill almost to the creek is a small rock with a few grooves and possibly some eroded cupules. To the west and on the downhill slope lies a rock almost flush with the surface of the ground; two cupules were observed here. It is possible that more rocks with petroglyphs may be located along the creek bank, but the heavy brush prevented a thorough search.

The serpentine rock in the area of this site is not difficult to engrave. Experiments conducted on a small rock from the vicinity of the village indicate that an incised groove 1 mm. deep could be worked with a chert edge in a few minutes. In another experiment, a cupule was formed by pecking and then abrading with a sandstone rock. It was necessary to break the surface of the rock by pecking before a depression could be made; abrasion alone was not sufficient. Less than ten minutes was involved in this portion of the experiment.

Another cupule-incised groove rock lies upstream on the same creek approximately 4 km. to the east. This site (CA-SBa-1528) includes a large squarish boulder with cupules and sharply incised grooves; a small rock nearby has three grooves, and 30 meters to the west is another boulder with grooves only. The first rock is flat and table-like. It measures 47 by 34 cm. on the top surface and is heavily eroded, making a definite count of the cupules difficult. Grooves appear to dominate. The rock which lies 30 m. to the west has grooves only, most of which are vertically oriented. The north side has both vertical and horizontal grooves in series near the top of the rock.

DISCUSSION

Grant (1978:527) reported a pit and groove rock on the south coast of Santa Rosa Island, and cupules with incised groove designs on steatite rocks have been recorded on Santa Catalina Island (Nelson Leonard, personal communication 1981). The author (Fleshman 1975) has reported four cupule/incised groove rocks in San Luis Obispo County; these were carved into polished serpentine and are very similar to those at *Soxtonocmu*. One of the four San Luis Obispo County rocks is atypical in that it has at least five pecked ovoids on the same rocks with the cupules and grooves. The ovoids appear to have been superimposed over the other markings.

Rocks containing cupules and grooves occur worldwide. These markings undoubtedly were multifunctional, with the meaning varying from one group to another. We do have some ethnographic evidence for the use of pit and groove rocks as fertility enhancers or for weather control among California tribes. For example, among the Hupa, Karok, Shasta, and Tolowa, weather control involved ceremonies performed at particular rocks or boulders. Heizer (1953:35) described one of them:

> The rock which is of tan-colored low grade soapstone or talc, was scratched, presumably with a hard, pointed stone. A white dust or powder was thus produced. If the series of long, straight parallel grooves were scratched, snow would fall, and to stop a snowstorm a scratch was made across (i.e., at right angles to) the parallel grooves. The shallow conical pits were made to produce wind and rain, and the rock . . . was covered to stop the rain.

Most of the ethnographic data, however, refer to cupule and groove rocks as fertility rocks or "baby rocks." Barrett (1952: 385-387) called these boulders "sterility rocks." Among the Pomo, these were believed

to have the ability to cure sterility:

> . . . the sterile pair went to one of these rocks and . . . a prayer for fertility was made. Then by means of a pecking stone, some small fragments were chipped from the sides of one of the grooves or cuppings in its surface. These were then ground to a very fine powder which was wrapped in some green leaves and taken to some secluded spot. Here this powder was made into a paste and with it the woman's abdomen was painted with two lines, one running from the top of the sternum to the pubes, the other transversely across the middle of the abdomen. Some of the paste was also inserted into the female. Intercourse at this time positively assured fertility, due to the magic properties of the rock.

The East Pomo used these rocks in order to conceive:

> If a woman wants a child she fasts for four days, taking only a little mush after dark. On the fifth day she goes alone to the rock at daybreak, taking with her a small flint knife. She walks around the rock counter-clockwise four times, then clockwise four times. Then she stops, facing the carved surface of the rock . . . four times she . . . cuts it and with the dust . . . she marks upon her body two long lines from lower lip to navel, from left armpit to right, and then a circle around the point of crossing, and . . . a dab upon the forehead. . . . Then she speaks to the rock, asking for a child. There are no set prayers for this. She rises, and beginning again . . . goes through her ritual four times. Then four times she walks around the rock counter-clockwise, then clockwise four times. She stops where she has been crouching, turns her head to the left four times and then goes home. Four times on the way she stops and turns her head to the left, but on no account must she look back. All this must be kept secret from everyone [Loeb 1926:247].

Loeb (1926:248) also noted that the northern Pomo used both rocks and trees in order to increase fertility; the rite was the same in either case. However, the rock was the more desirable method because the tree was likely to give children with small eyes.

Other variations are cited by Ritter and Ritter (1976:175-6):

> Conception Rock and several other close locations near Ukiah, California, were used by the Pomo Indian women to promote and protect pregnancy. Those desiring pregnancy sat on this boulder and swallowed minute portions scraped from it. The surface is covered with depressions and grooves suggestive of the generative organs . . . [and] . . . two baby-shaped rocks [were] visited secretly by a Pomo couple wanting offspring. Both would run uphill to them, the woman would scratch a line on one of the rocks, and they would copulate there. At a similar rock in Pomo territory a husband and wife, accompanied by the chief, would mark it with steatite used like chalk—"V" for a desired male child, "X" for a female—and then they would lie on the design. Later the chief . . . pecked the design they had marked on the rock.

The probable antiquity of the pit and groove form of petroglyph is noted by Hill and Hill (1975:18):

> The pit and groove type of petroglyph is not only the easiest to make but is also the most widely disseminated around the world. As a widely distributed feature is generally older than one with a limited range, we may consider the pit and groove type of petroglyph to be our oldest tradition, probably brought in by the immigrants from Asia.

Pitted boulders are among the earliest types of petroglyphs in the Great Basin area, according to Heizer and Baumhoff (1962:311), who postulated a date of 7000 years B.P. for this type of rock engraving. Conversely, Heizer and Clewlow (1973:20-30) cited pit and groove rocks from the north coast of California which they believe to be of recent origin because they were used in ethnographic times. At this time, it is not

possible to date such petroglyphs. A study of the growth rate of lichen on the *Soxtonocmu* rocks may give a clue, since several of the carvings are heavily encrusted. Lichen growth is indicative of age (Heizer 1973:67), but precisely to what extent is undetermined since the growth rate varies according to numerous environmental factors.

In the Chumash area, cupules or cupule/incised groove rocks are located near occupation sites. Minor (1975:15-17) also noted that pit and groove rocks in southern California were associated with camps and villages, and possibly connected with initiation ceremonies of the Luiseño and Diegueño Indians. He referred to their possible use as boundary markers, but found no evidence for their use in weather control or hunting magic.

Three cupule rocks in diverse areas of southern California have recently been discovered to be "ringing stones" (Hedges 1981; Weinberger 1980). When struck with a stone, they emit a bell-like sound. Whether the cupules played any part in the sound effects, or simply enhanced the magical properties of the rock is unknown. Dubois (1908:92, 95, 121) refers to the use of "ringing stones" in both boys' and girls' puberty rites among the Luiseño. Payan (1966:86) suggested that the rock itself possessed supernatural qualities and that the making of the petroglyphs was only part of a magical formula to obtain desired results.

In dealing with European cupules, Liniger (1973) stated that many of them have a relation to archaeoastronomy, a conclusion reached by Aveni (1977:180) in Mesoamerica. In his early survey of the archaeology of the Santa Barbara area, Rogers (1929:115) came to the same conclusion:

> At least eight other boulders within the confines of the former village show upon their faces the strange clustering of "cup markings" that are frequently found. . . . They seem to resemble nothing so much as the constellations of stars.

A Scottish folk legend suggests a magical use for cupules found at ritual sites in that country: they served as entrances and exits for the spirit of the rock (Molitor 1981).

INCISED ANTHROPOMORPHIC FIGURE

On the west face of Rock No. 2 is an engraved anthropomorphic figure (Fig. 3*b*) placed among the cupules and incised groove markings. It has a rectangular head directly attached to a triangular body. The legs are a continuation of the sides of the triangle; arms extend downward from the top. The small figure measures 5.2 cm. in length and 2.3 cm. at the widest point. To date, this style of anthropomorphic depiction has not been found elsewhere in the rock art of the Chumash area. It is, however, a common type in the Great Basin, the Southwest, and eastern Utah. This is not to imply a connection. More likely it is the result of individuals working outside the traditional art styles of the area.

PECKED OVOID PETROGLYPHS

The pecked ovoids (Fig. 3*c*) are located on a serpentine boulder that lies downhill and directly west of the village site, almost to the bank of the creek. The rock measures approximately 90 cm. in diameter across the top surface which is level with the alluvium on the east side. The west face is exposed on the downhill side and is 80 cm. high. The ovoids have raised central portions formed by pecking away the surrounding area; abrasion was apparently used to partially smooth these depressions. Pecking results in an entirely different type of petroglyph than incising, which gives a sharp, clean-edged groove. For example, the surface of pits is ground smooth by use of a small grinding stone, although

started by some initial pecking. In contrast, pecking forms rough, imprecise shapes. Most of the pecked ovoid forms resemble oval doughnuts; others are open-ended, forming a horseshoe shape. They cluster over the surface of the rock, overlapping each other in some cases. The raised central portions range from 1.5 to 3.2 cm. in height. The largest oval measures 32 by 23 cm., the smallest is 8 by 14 cm., and the average measures 16 by 14 cm. The rock has a total of 18 pecked ovoids. One of these appears to be unfinished and was revealed by excavation of the alluvial fill at the base of the rock.

Other pecked ovoids are known from Monterey County (Mary Alice Baldwin, personal communication 1977). Hotz and Clewlow (1974) reported a site in Marin County, California, and one from San Luis Obispo County has been cited above. This type of petroglyph, like the pit and groove, is found in many other areas. They are generally believed to be abstracted vulva signs. Vulva signs of many types are found in all parts of the world. They first appear in the Aurignacian-Perigordian Period (Giedion 1962:179). According to McGowan (1978:19), they probably are the most common and most universally recognized female fertility symbol. Not all vulva signs are pecked ovoids; they take other forms, such as horseshoe shapes, wedge shapes, and bisected ovals. A number of female anthropomorphic figures have the genitalia delineated by this type of design. From this it has been inferred that forms which range from a simple cupule to a more elaborate depiction represent the vulva (Payen 1966:90).

Davis (1961:237-239) cited a rock near the Mono Craters that is covered with "horseshoe-shaped symbols in high relief." These representations of female genitalia, which she believes have magical and ceremonial associations, were possibly used in connection with the initiation of young girls to insure against harm and promote safe and easy childbirth.

Such symbols were more than simply "sexual" depictions. As Marshack (1972:297) pointed out, depictions of the vulva became, over time, isolated, abstracted, and loaded with symbolic meaning. The image and the meaning behind it were so well known they were "understood" by every adult in the community. Thus, rather than a narrow symbol of eroticism or anatomical study, vulva symbols had a more comprehensive aspect; they stood for concepts, stories, myths, processes. They may have been associated with human, animal, or crop fertility. In the case of crop fertility, the association could also incorporate sun worship or rain.

DISCUSSION

Whether all the types of rock art at *Soxtonocmu* were contemporaneous with the village occupation is problematical. There is little doubt about the age of the pictograph on the portable rock; it was excavated from the Historic component of the site. Dating the petroglyphs is more difficult. Although we have some ethnographic data on Chumash rock art, they refer to rock painting only. Lacking ethnographic evidence, we cannot positively connect the petroglyphs to the historic Chumash occupation.

As noted here, cupule rocks are generally located in or near villages. Horne (1976:122) also cited evidence of ceremonial activity—including rock art—associated with habitation sites in the inland Chumash area. There are, then, unresolved differences between ethnographic sources that state that secrecy was an important feature of rock art (as in the fertility rite) and the physical location of cupule rocks.

In other areas of California, the preponderance of evidence suggests that cupule rocks as well as rocks with pecked ovoid markings were used either to influence the weather or

in some kind of initiation/fertility ceremony; perhaps the Chumash also employed them for similar purposes. It is unlikely that concrete ethnographic evidence will be forthcoming to unravel this enigma. The true purpose of these puzzling marks on stone will most likely remain forever obscure.

Several explanations may be possible for the diverse types of rock art at *Soxtonocmu*. The variations may reflect a time span in which one expression of ritual life replaced another. One type may date from an earlier occupation. A reaction to a breakdown of the old ways and patterns that occurs as a result of contact with another culture can result in change, and external influence and internal conflict may be expressed by a search for different ways to cope with threatening events.

The rock art of *Soxtonocmu* is an expression of a belief system and ritual activity stemming from those beliefs. Precisely what each referred to is unknown. We are left with only a glimpse of the rich ceremonial life of the inland Chumash.

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