

An Unusual Incised Tablet from the Malaga Cove Site

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Abstract

Until this article, the annals of California Indian studies lacked documentation of any incised stone tablet identified as both created in the scratchboard medium and having asphaltum as its surface colorant. Showcased here is just such an artifact, recovered from the celebrated Malaga Cove site (CA-LAN-138). This LAN-138 specimen displays a panel of geometric scratch drawings rendered using a sharp implement to penetrate a thin layering of fossil bitumen and score the underlying, light tannish sandstone, thereby highlighting the incised lines.

Discussions include comparisons of the LAN-138 artifact with certain other geometrically themed, scratch drawing tablets in order to point out additional ways Native artisans achieved color contrasts to better distinguish incised lines from tablet surfaces. The asphaltum-painted tablet from Malaga Cove may have been burial associated. The specimen was probably produced during the Del Rey Tradition. This essay also addresses questions of incised tablets' functions and meanings, including whether the geometric motifs had any connection to phosphene phenomena.

Introduction

The artifact shown in Figure 1, presently displayed at the Point Vicente Interpretive Center (PVIC) in Rancho Palos Verdes,¹ is the only published, Native California incised tablet rendered in the scratchboard medium. "Scratchboard" identifies a technique of graphic art in which the artist first applies a comparatively dark colorant over a lighter colored, flat surface and then scratches or scrapes through the coating to produce patterns.

The specimen's number, TT#14, indicates that the tablet was found by "amateur archaeologist" Thomas

Tower I, who retrieved it from CA-LAN-138, the Malaga Cove site (see Palmer 1906; Van Valkenburgh 1931; Walker 1937, 1951; Pond 1968; Wallace 1984, 1985; True 1987; Sutton and Grenda 2012). Extended notes on Tower, the Tower Collection, and LAN-138 appear in Koerper et al. (2014) and Koerper and Peterson (2014).

The section just below provides descriptive information on the incised artifact. Following that, there are discussions of certain other unusual incised tablets, of chronology and associations regarding the Malaga Cove tablet (Figure 1), of functions and meanings of geometric scratch drawings on tablets, and of Tower's musings on the nature of tablets. Our essay ends with a summary section.

Description of Malaga Cove Site Incised Tablet

The lithic material of specimen TT#14 (Figure 1) is a very fine, compact sandstone. The asphaltum coating is only on the side shown. The colorant would have been readily available from tarballs that washed up from the ocean onto the rocks and sand just downslope of LAN-138. Perhaps terrestrial seeps were the source of the tar, acquired either through direct procurement or trade.

The bottom border of the artifact is glued into a linear groove that runs the length of a small, modern, wooden display stand (not shown), supporting the specimen

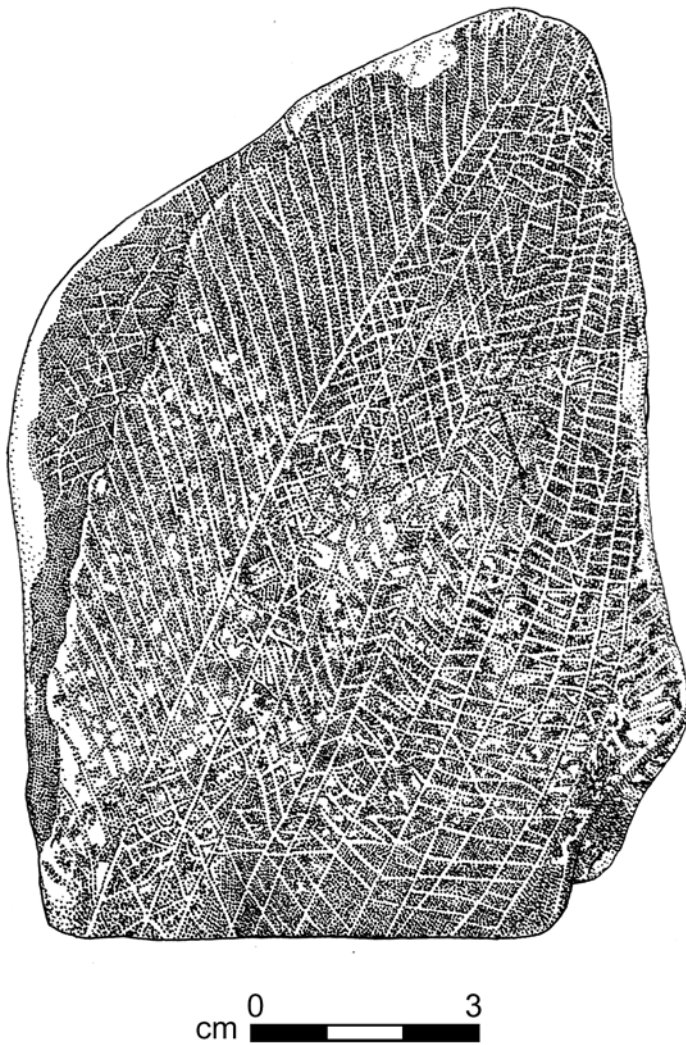


Figure 1. Incised tablet from CA-LAN-138, the Malaga Cove site.

in the upright position viewed in Figure 1. Consequently, the lower several millimeters at the mounted objects' bottom border are hidden. One of us (JC) in rendering the illustration extrapolated from the incised pattern seen just above the top of the wooden mount in order to suggest the look of what cannot presently be observed. Further, it was assumed that the tablet's bottom border is fairly straight.

Height of the piece is estimated at 125 mm, and weight is in the range of 195–200 g. Maximum thickness is 9.5 mm.

The edges are somewhat smoothed. It is uncertain whether the smoothing was natural or was by the hand of man. The sedimentary nature of the stone is immediately apparent on the front of the artifact at the place of greatest curvature along the left border; here the area of more careful incising sits at a higher elevation than a lower area where a small design is crudely executed. A thickness differential is also obvious at a small area toward the bottom end at the right side. The surfaces of the different elevations appear relatively flat and smooth, but we suspect this had more to do with nature's input than purposeful crafting.

There is no incising on the flip side (reverse) of the tablet, where the surface appears relatively rough. Unlike the incised side, or obverse, there is no coating of tar.

The thin layer of asphaltum on the incised side had an obvious purpose, that is, to effect a color contrast between the dark surface and the underlying sandstone, thus allowing the geometric panel to emerge in a dramatic display. The medium is generally referred to as “scratchboard” art, but it is known also as both “scratch card” art and “scraperboard” art.

Compared with the majority of southern coastal California tablets with scored surfaces, LAN-138 artifact seems to display a greater profusion of detail. At first impression, the geometric panel might seem overly busy to the point of distraction, but with closer study, distinctive patterning breaks out.

Occupying a majority of the elevated region of the front face (>90 percent of the surface area), there are two divisions that might be discerned. With reference to the tablet’s orientation in the illustration (Figure 1), we characterize the division on the left as sequestering “parallel” lines of graduated lengths. Its right boundary is a broadly curving line spread from the artifact’s bottom left corner to near its uppermost point. It serves as the left boundary of the second division, whose right boundary is another curvilinear device, spreading out in an opposite direction. Within the right side of this second division, there are many small, bounded spaces, squarish to rectangular, but with some recalling parallelograms. Leftward are some crosshatchings. At the lower tier along the tablet’s left edge, asphaltum was laid in and subsequently lightly scored, producing comparatively crude geometric designs.

Some Comparisons

The authors selected two incised, or scratch drawing, tablets (Figures 2 and 3) to compare with the

LAN-138 artifact. Readers might find comparisons interesting and informative. The three specimens hold in common distinctive color/tone contrast between tablet surface and etched design.

With the Malaga Cove specimen (Figure 1) an artisan painted the “canvas” black, but in some scratch drawing creations, a darkened stone surface was the result of geologic processes. The dark patina might mask an underlying lighter stone that could be revealed through incising with a sharp instrument. Witness the “incised slab of paper shale” reported from Burton Mound, Santa Barbara, by J. P. Harrington (1928:Plate 14a, 91) (see Figure 2).²

Harrington offered a detailed description of this 101.5 mm long, 82.0 mm wide, 8.5 mm thick artifact:

Slab of shale with scratchings on both surfaces. The shale is almost fine enough to be called slate. The surface is blackish but takes on an orange color almost like lichenous layer in places on both sides. The scratches are not deep but one can feel them with the finger. The scratches are intended to give a cross-hatching pattern but are very irregularly executed. The edges of the slab are squared with straight fractures, making the fragment four-sided in shape [Harrington 1928:91].

Parenthetically, the surface of a material selected for incising might be lighter than the underlying stone, setting the scene for a color contrast but in reverse of the phenomenon just described. Johnson (1966:12, Plate 10a) reported an unshaped, irregular piece of basalt with “a heavily patinated yellow, chalk surface which could be scratched easily.” The incised lines of this CA-LAN-2 specimen (#175-108) that are deeply etched appear dark and distinct, while other lines that are shallow offer no color contrast to the chalky surface.

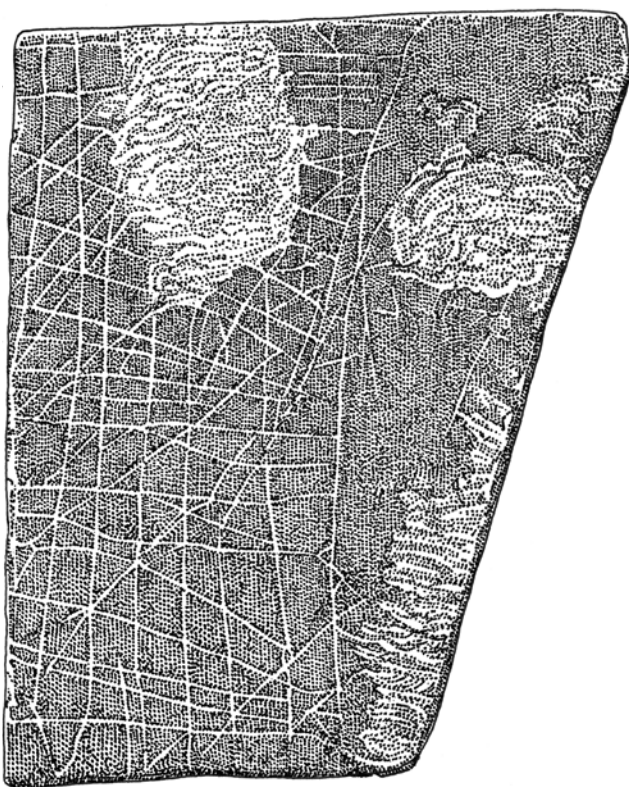


Figure 2. Incised tablet from CA-SBA-27, -28, the Burton Mound site, Santa Barbara.

In Harrington's (1928:105) discussions regarding employments of asphaltum at Burton Mound, he noted that fossil bitumen was used "as a filling for incisions or scratchings so as to bring out incised designs in black" (see also Gutman 1979:34). No specific examples were described or illustrated by Harrington. We suspect that the best way to accomplish infilling was to coat the incised surface with a wash of melted tar either followed up quickly with a wiping down of the surface or followed up by light abrading of the surface once the asphaltum had been allowed to cool and solidify. This kind of artwork brings to mind the incised objects of bone, tusk, and tooth created by Yankee scrimshanders using sail needles as they whiled away long hours of inactivity aboard whaling vessels. These craftsmen highlighted their scratch drawings

with applications of mixtures of oil and lampblack or even tobacco juice (see Whipple 1979:126–131).

The scratch drawing of Figure 3, a tablet from CA-ORA-91, the North Bay Fossil Canyon site (see Anonymous 1968a, 1968b, 1970),³ appears to provide an example of infilling to better define the "artwork." However, the black pigment observed is not tar; neither is it charcoal nor a manganese dioxide based paint. Rather, the colorant has the look of specular hematite. We infer that some binder was employed, possibly an animal substance, but the paint's tenacity in the etched channels suggests the possibility of tree pitch. Subsequent to its application to fill in the incised lines, excess paint was removed from the surface. Perhaps sharkskin "sandpaper" could have been useful for this purpose.

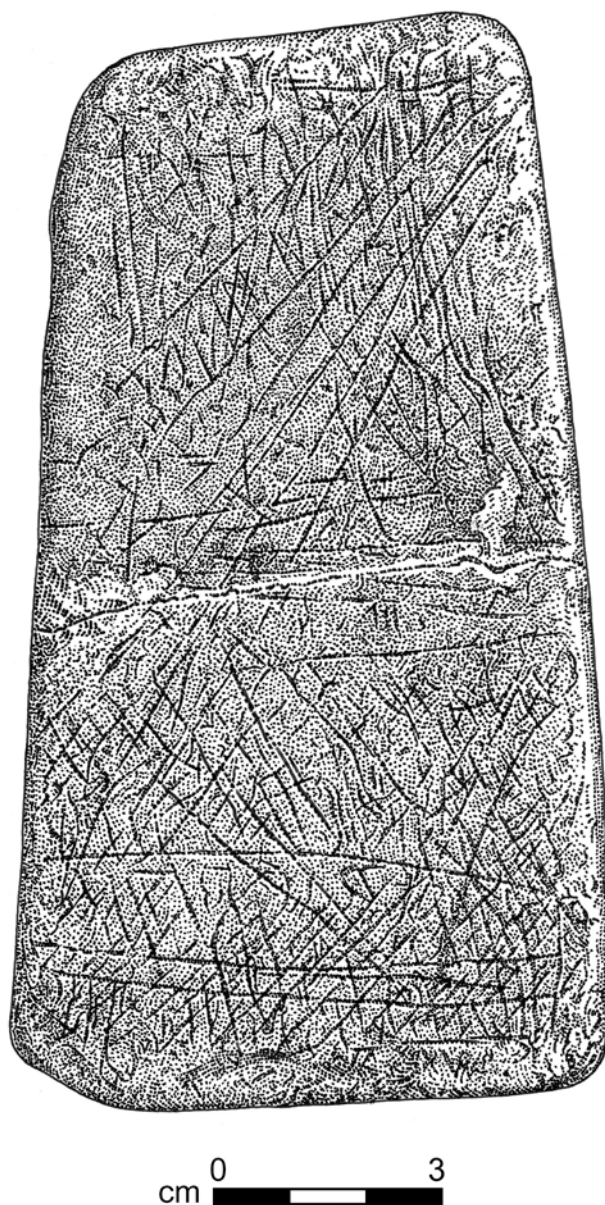


Figure 3. Incised tablet from CA-ORA-91, the North Bay Fossil Canyon site.

Incising on the obverse side (Figure 3) is not random, as might be one's initial impression. For instance, studied observation reveals that through the seeming messiness, several long lines are somewhat bunched at the upper right, and top-down they course at the diagonal and become increasingly spread apart from one another. The longer of these cross over a visible breakage near the object's midsection where the two parts of the tablet were rejoined with glue by laboratory personnel.

Toward the bottom some amount of crude cross-hatching occurs within three long rectanguloid spaces defined largely by four lines coursing across the obverse surface. There are many more etched areas that might be considered, but at this point it is left to the reader to further scrutinize the incising.

The obverse panel extends to all edges of this fine-grained, tan sandstone artifact. The edges were

smoothed round, and the four corners were purposely rounded. The tablet weighs 253 g and is 145 mm long and 78 mm wide; thickness is relatively uniform, about 13 mm at the maximum.

The reverse side (not shown) was not highly decorated by comparison, and there is no evidence indicating any application of a colorant. The entire reverse panel shows a warm tannish hue, in contrast to a more darkened obverse.

For the late prehistoric Palos Verdes Estates site, Wallace (2000:189) described three tabular objects, one sandstone and two siltstone, that were incised or scratched with geometric elements (e.g., chevrons, parallel lines, cross-hatching, comb-like and box-like designs). He observed that black pigment “rubbed into the markings made them stand out more prominently.” His designation, “black pigment,” suggests that the colorant was probably not asphaltum, which is fairly easy to identify.

One last example of infilled incisions to highlight a design is noted. At CA-ORA-683 in the San Joaquin Hills, archaeologists recovered a tablet shaped by chipping and edge grinding. Both sides of this 111 mm x 42 mm artifact exhibit crudely executed geometric designs (Specimen #13807) (Hurd 1991a:82, Figure 42). The colorant applied to the incisions at each side was stated to be charcoal.

Regarding Associations and Chronology

Temporal placement for the Malaga Cove incised tablet is problematic. Thomas Tower’s (1942) typed manuscript identifies a dozen “grouped finds” and lists associated items for each. Two among these dozen, “Find No. 6” and “Find No. 12,” both burial related, are reasonable candidates for having contained the scratchboard specimen of Figure 1. The “find” entries for both Nos. 6 and 12 note the presence of flat rocks with “fine lines”; while imprecisely worded, the

descriptions unequivocally call out incised tablets. It is possible, however, that the focus of this essay (Figure 1) was found apart from any grouping of artifacts or other feature.

Two of the scratch drawing objects are mentioned in the section of Tower’s manuscript that is labeled “Find No. 6—Chumash Burial.” These “two pieces of flat rock finely lined” occurred with other burial furniture accompanying skeletal remains that were largely reduced to “streaks of dust.” These other grave goods were the following: a “handful” of barrel-shaped *Olivella* beads; an abalone shell dish; a large *Cardium elatum* shell; two “spear” points; one “idol head”; a drill; and one hammerstone.

Some frustration attends perusal of Tower’s written material; for instance, in his July 12, 1941 handwritten letter to Edwin Walker, Find No. 6 (manuscript) is designated #5, but “Find No. 5—Chumash Infant Burial” (manuscript) is designated “#6.” The descriptions, typed (Tower 1942) versus handwritten (Tower 1941), are more or less the same, but there is some small amount of additional detail in the July 12 letter, to wit, “the two lined rock slabs lay about the center of the burial with much broken artifacts and what appears to be an idol’s head.”

These two so-called “Chumash” burials were possibly close to one another. They were in the same stratigraphic setting. There was much steatite associated with “Find No. 5.” It is probably the case that “Find No. 6” is of the Del Rey Tradition (see Sutton 2010).

The centerpiece of Tower’s “Find No. 12” was a prone burial. Associated artifacts included a small mortar and pestle, abalone shell dishes, each with tar-plugged excurrent holes, and two “flat stones finely lined.” The incised designs were characterized as looking like “barbed wire entanglements.” This description is too vague to know whether Tower had in mind an incised panel looking like that of Figure 1.

Tower's (1942) discussion of "Find No. 12" is sparse. There is no information that would assign the interment to Level 2, 3, or 4. Certainly the broad cultural context was the Del Rey Tradition. It should also be noted that elsewhere incised stones have been burial associated (e.g., Wallace et al. 1956).

It should be recognized that Walker recovered scored, or incised, stones from all levels of the Malaga Cove site. He illustrated five partly disintegrated incised stones from his Level 1 investigations (1951:50), but the shapes of the incisions are way different than what we have witnessed for other kinds of incised specimens. Gordon Pond (1968; see also Koerper and Desautels-Wiley 2012:50–53) documented three burial-associated steatite tablets that were stacked together in Level 2. Found by collector Joe Cote, they were very expertly carved.

Meanings/Functions

Introduction

The regional archaeological record documents numerous unperforated stone tablets bearing geometric or quasi-geometric scratch drawings (e.g., Anonymous 1937; Treganza and Malamud 1950:149, Plate 23; Wallace et al. 1956; Treganza and Bierman 1958:67; Curtis 1959:60; Greenwood 1959, 1972:34, 63–64; Johnson 1966:12, Plate 10; Lathrap and Hoover 1975:97; Koerper 1981:284–286; Lee 1981:40–45; Wallace 1985:140, Figure 3, 2000:189; Hudson and Blackburn 1986:278–280; Koerper and Cramer 1988:Figures 1c, 5e, f; Hurd 1990, 1991a, 1991b; Mason et al. 1992a:161–164, Mason et al. 1992b:81–85, Mason et al. 1992c:61–63, Mason et al. 1992d:178–185, Mason et al. 1993:170–178). The tablets' incised motifs are sometimes characterized using unflattering language (e.g., careless, irregular, aberrant, haphazard, crude, random), which immediately raises questions regarding meaning and purpose. A Depression era, WPA Orange County archaeologist, considering a

certain shale tablet and describing its incisions as "promiscuous and irregular," expressed the following:

Art of this type is of the lowest order. There seems to be no indication that nature is being imitated let alone an effort to embody an idea. If there is an idea in this bit of carving it is still undiscovered [Anonymous 1937].

Scratch Drawings Are Symbolic

This sentiment regarding what the commentator (John Winterbourne?) deemed unsophisticated composition is echoed in Father Boscana's take on certain ground art. A boy undergoing a particular kind of ritual was feathered and painted, and then he was carried to the *Vanquex* (a "temple").

On reaching there, the satraps put him at one side of Chinigchinix and in front of him on the ground they painted a figure, the most ridiculous which can be imagined, for it consisted of nothing more than streaks or lines, horizontal and transverse, circular and semicircular, all poorly made without order or arrangement [Harrington 1934:17–18].

The same sort of "ridiculous and odd" figure was produced as part of a ritual preceding a general expedition (commanded by a chief) to hunt game or to gather seeds (Harrington 1934:35; see also Boscana 1933:38). In *A New Original Version of Boscana's Historical Account of the San Juan Capistrano Indians of Southern California* (Harrington 1934:35), the artwork was said to be painted, but in the first version published in English (Robinson's version), one reads that the "very ridiculous figure" was "sketched" (Boscana 1933:38). Harrington's comments addressing such are informative.

There is no necessity of assuming that what Boscana here refers to is ... ground

painting, such as was made with pigments... in connection with the boys' ceremony and the ceremony ... regarding headdress burying. Ceremonial figures were also made by tracing an outline on the ground with a stick or with anything. For instance, when Leona became sick ... a tracing of a *toowic*, spirit, was drawn on the ground with a stick and the patient was seated near it during a curative ceremony [Harrington 1933:156, annot. 103].

Interestingly, in the first full publication of Boscana's *Chinigchinich* (Robinson version), what was sketched on the ground by the *puplem* at the boys' ceremony was described as "a most uncouth and ridiculous figure of an animal" (Boscana 1933:46). Harrington (1933:156, annot. 103) observed that this adding "of an animal ... still does not enable us to decide whether [ground painting] or simply scratching on the ground is meant." This allows a very reasonable proposal, one that addresses the above critique of the WPA archaeologist (Anonymous 1937), who believed that Indians may not have been imitating nature and that such "lowest order" artwork may not have embodied ideas. While the most simple scratch drawings were not representational in the sense of depicting an object in a recognizable manner, that does not necessarily mean that they were purely abstract in the sense of lacking referent to either an object in the natural world or a spirit being from supernatural landscapes. From the foregoing perusals of Boscana's manuscripts and of Harrington's notations, it is understood that some "roughly" rendered artwork might fold into ritual venues, both communal and relatively private.

Some hint of meaning possibly attaching to incised stones might be garnered from Luiseño ethnography. Raymond White (1963:143) reported that certain incised stones, called *noth*, were repositories for *ayelkwi*, a mana-like power. Anthropology conceptualizes mana as a non-vitalistic, supernatural force

that may be manifest in and through persons, animals, and objects. "Nonvitalistic" is another way of saying that the power/force does not derive from such things as divine beings or souls. It is a concentrated kind of animatistic power/force (e.g., Harris and Johnson 2003:265). *Ayelkwi* might express itself as knowledge, hence it is frequently referred to in Luiseño ethnography as "knowledge-power." White (1963:143) wrote that all things having or suspected as having *ayelkwi* were considered "persons."

Hurd's Research

The most rigorous research program directed to the description and interpretation of regional tablets having geometric scratch drawings was that of Gary Hurd (1991a, 1991b) who was then working with the Newport Coast Archaeological Project (NCAP) in central coastal Orange County. Hurd first broke out "patterned incised stones" (geometric scratch drawing tablets), from "utilitarian (non-patterned) incised stones," the former, he deemed, most probably falling to ceremonial or ideological functions and the latter being those specimens whose incisions are random, due likely to actions such as cutting and trimming hides, fibers, etc. on slabs/tablets serving as backing. Hurd (1991a:96) observed that the utilitarian incised stones give evidence of the following: (1) infrequently, instances of incised "lines beginning or ending at the same point;" (2) "absence of consecutively applied parallel lines," and (3) "the common presence of lines made with bifacially flaked tools."

In his study of the NCAP nonutilitarian specimens, most of which were siltstone, sandstone, or shale, Hurd used 10 x to 60 x microscopy to document most notably line intersections to describe the order in which each incision was laid down. The majority of patterned incised stones "exhibited multiple incision events or groups of patterned lines made at different times," thus suggesting "separate, significant personal or social events." This determined effort to

sequence the applications of different patterns on the many specimens having multiple patterns produced compelling evidence that in many cases these events played out on a tablet at different periods of time, thus belying any notion of casual doodling to account for such scratch drawings.

Phosphenes?

Geometric patterning seen in scratch drawings might recall certain physiological responses to mechanical stimulation of the retina, as when pressure is applied to the eyes with the eyelids shut. It is in childhood that many of us first encountered the luminous displays, largely geometric, called phosphenes, particularly when rubbing the eyes just after lying down to nap or retiring at bedtime. Recollections of such light shows that occurred during childhood or that perhaps occurred as a consequence of certain adolescent or adult indulgences have inspired thoughts that some rock art drew inspiration from the phenomenon of phosphenes. Most students of anthropology undoubtedly know that hallucinogenic drugs can precipitate phosphene phenomena (see e.g., Reichel-Dolmatoff 1972:110; Blackburn 1977; Lee 1981:23).

Regionally, the powerful alkaloid *Datura meteloides* (a.k.a. *D. wrightii*), common name, jimson weed (a.k.a. toloache), comes to mind, especially with regard to toloache ritualism connected with boys' initiation rites (Kroeber 1925:640; Boscana 1933:45–46; Harrington 1933:161–162, annot. 123, 124; Heizer 1968:33; Geiger and Meighan 1976:89) but also in regard to shamanic trances and medical practice (Hudson and Blackburn 1986:139–140).

Other causes of phosphenes might be spontaneous, occurring, for instance, under conditions of visual deprivation. Blackburn (1977:90) also explained that electrical stimulation to the eyeball, sudden eye movements, alcohol, and headaches might induce phosphenes. To this list Lee (1981:24) added sensory

deprivation, meditation, fasting, and emotional stress. Blackburn cited Oster (1970:83) who reported that the geometrization of phosphene patterns seems related to the geometry of the eye, the visual pathway, and the visual cortex.

There is no California ethnographic testimony that directly implicates *Datura* ingestion in driving the production of pictographs or petroglyphs or any other visual medium. Interestingly, Frank Latta's Yokuts ethnographic research prompted a suspicion that phosphenes, some drug induced and some not, had perhaps inspired some geometric motifs seen in basketry decoration:

One possibility of the origin of some geometric basketry designs needs to be presented here. [Four aged informants] all furnished descriptions of geometric designs, some not seen on baskets but which had appeared to them in dreams. Pahmit [an old Dumna] said, "He come in daytime, too, when I'm wide 'wake'." Wahumchah [an old Yowlumne] reported practically the same experience, but he also stated that he had seen other similar forms after he had drunk toloache (jimson weed) tea at the time of his initiation into the tribe [Latta 1999:589].

It is an interesting note that Latta referred to the geometric motifs as "migraine designs." His term arose from consultations with an eye surgeon/psychologist and with a second eye specialist.

Hurd (1991a:87, 96, 1991b:133) gave thought to a phosphene hypothesis, noting first that various scholars believe drug-induced phosphenes helped explain rock art. Then he wrote:

The healing stones described by Harrington may well suggest a functional category of the artifacts (Hudson and Blackburn 1986:[139–140]). If we include the trance state, often

drug enhanced, as part of the divinatory/diagnostic process, these stones may be physical records of such curing events (Hurd and Pattison 1984) [Hurd 1991a:96, 1991b:133].

Thomas Tower's Take on Tabular Scratch Drawings

Overreaching ethnographic analogy underlies Thomas Tower's (1942) interpretation of geometric scratch drawings in the typed manuscript that he posted to Edwin Walker. We were unable to locate any response by Walker to the subject matter that follows.

In the "Personal Opinions and Conclusions" section of Tower's 1942 manuscript, the relic collector posited that Indians might have believed that tablets' "fine lines" functioned to hinder the evil spirits bent on catching up to the good spirit which departs from a corpse at burial or on the occasion of last rites. The malevolent spirit is required, according to Tower, to follow the lines.

Tower explained that he had personally observed a certain kind of ritual that had been "followed for thousands of years by the Mongol race." The mortuary rite involved "scattering numerous pieces of paper punched full of holes" as the burial party made its way to the cemetery. The purpose of this was to impede the evil spirit's progress in overtaking the good spirit since the evil one "must pass through each one of the holes." Tower supposed it quite "logical to assume that in the day of the Chumash and in the absence of paper" the functional equivalents of the holed paper were "flat rocks covered with lines," some of which he had recovered from interments.

Summary

More than seven decades ago, a unique, incised stone tablet (Figure 1) was excavated from the Malaga Cove site by relic collector Thomas Tower I. One surface was not worked, but the opposite side features a panel of very busy, interlocking geometric designs.

The object's uniqueness follows from the fact that the artwork was created in a scratchboard medium and that the colorant was asphaltum, thinly laid onto one surface and allowed to solidify before an engraving tool penetrated the blackened coating to score the underlying sandstone. Thus rendered, there was color/tone contrast between the scored lines and the stone "canvas." Tower's find provides documentation of a previously unrecognized employment of asphaltum in regional prehistory.

Similar color contrast might be achieved by, for instance, selecting tabular raw material with darkly patinated surfaces and applying a graver to reveal underlying stone of lighter hues. One such example is the specimen from Burton Mound, Santa Barbara (Figure 2). Also, infilling of etched lines with a colorant will very effectively bring out a design; one example of such is the ORA-91 artifact illustrated in Figure 3.

Some LAN-138 tablets served as mortuary furniture, but Tower's notes give no clear direction to whether specimen TT#14 was burial associated. Judicious consideration of Tower's often ambiguous notes suggests that the tar-coated tablet might reasonably be attributed to the Del Rey Tradition.

This essay has provided information for contemplating possible meanings and functions of tablets. We believe that tablets' geometric scratch drawings were usually crafted to project more than mere decorative embellishment and that across broad time most, if not all, scratch drawing tablets served magico-religious and/or curing purposes. Specific details bearing on meanings/functions will undoubtedly remain elusive.

Postscript

It is common to regard geometric designs as not representational, if "representational" is to mean depiction of something in a recognizable manner. If certain geometric motifs are purely decorative/abstract and

without referent to anything (such as, say, a celestial body, water, a tree, a supernatural being, an animal, or a human), then of course they are not considered representational as the term is construed here. Should certain geometric motifs have an objective or subjective referent, that is, are symbolic but do not communicate the referent in a recognizable manner, then again, those motifs are not “representational” as the term is here applied. However, if certain geometric designs are the outcomes of phosphene experience, then they are ipso facto representational, but the referents, of course, are subjective.

End Notes

1. Located next to the Point Vicente Lighthouse, the Point Vicente Interpretive Center is a small, regional museum dedicated to educating the public about the natural history and the cultural history of the Palos Verde Peninsula and surrounding waters. Among its various displays are a variety of fossils (including those of cetaceans), prehistoric Indian artifacts, historic objects relating to whaling and sealing industries, etc. Docents are available to give tours and answer questions. The location offers a premier spot for watching gray whales from December through April. For more information call 310-544-5264, or visit the website www.palosverdes.com/rpv/recreationparks/docents/index.cfm.
2. The last occupation at the multicomponent Burton Mound, Santa Barbara, was the historically recorded village of Syujtún (also Syuxtun) (see Harrington 1928; Rogers 1929:100–108; Johnson 1986, 1988; Gamble 2008:93–96). CA-SBA-27, -28, and possibly -29 are the designations for the historic village (Gamble 2008:92–96; see also Johnson 1988).
3. This CA-ORA-91 incised tablet was recently resurrected from among the PCAS Curation Facility holdings during one of the society’s monthly curation days, when volunteers catalog collections, rebag/rebox

varied specimens, and otherwise attempt to preserve and protect artifacts and ecofacts. The tablet was placed in a Riker mount along with a tag on which was recorded a catalog number (506) and provenience (CA-ORA-91; Unit Z-2; level, 12–18 in). The PCAS undertook excavations at CA-ORA-91 under the direction of Pat Robinson in 1968 (Schroth 1979:50), but there was never a site report.

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References Cited

- Anonymous
1937 *Indian Art*. Works Progress Administration Anthropological Project #4465. Report on file, Special Collections, Langson Library, University of California, Irvine.
- Anonymous
1968a North Bay Fossil Canyon Site. *Smoke Signals* 7(9):4.
1968b Fossil Canyon Site. *Smoke Signals* 7(8):6.
1970 Sites Destroyed. *Smoke Signals* 9(5):6.
- Blackburn, Thomas
1977 Biopsychological Aspects of Chumash Rock Art. *The Journal of California Anthropology* 4(1):88–94.
- Boscana, Father Gerónimo
1933 *Chinigchinich: A Revised and Annotated Version of Alfred Robinson’s Translation of Father Gerónimo Boscana’s Historical*

- Account of the Belief, Usages, Customs and Extravagancies of the Indians of this Mission of San Juan Capistrano Called the Acagchemem Tribe.* Fine Arts Press, Santa Ana.
- Curtis, Freddie
1959 *Arroyo Sequit, Archaeological Investigations of a Late Coastal Site in Los Angeles County, California.* Archaeological Survey Association of Southern California Paper No. 4. Los Angeles.
- Gamble, Lynn H.
2008 *The Chumash World at European Contact: Power, Trade, and Feasting among Complex Hunter-Gatherers.* University of California Press, Los Angeles.
- Geiger, Maynard, and Clement W. Meighan
1976 *As the Padres Saw Them: California Indian Life and Customs as Reported by the Franciscan Missionaries, 1813–1815,* Santa Barbara Mission Archive Library, Santa Barbara, California.
- Greenwood, Roberta S.
1959 Early Dwellers in Topanga Canyon. *Archaeology* 12(4):271–276.
1972 *9000 Years of Prehistory at Diablo Canyon, San Luis Obispo County, California.* San Luis Obispo County Archaeological Society Occasional Paper No. 7. San Luis Obispo, California.
- Gutman, Theodore
1979 The Use of Asphaltum Sourcing in Archaeology. *Journal of New World Archaeology* 3(2):32–43.
- Harrington, John Peabody
1928 Exploration of the Burton Mound at Santa Barbara, California. In *44th Annual Report of the Bureau of American Ethnology, 1926–1927* 44:23–168. Smithsonian Institution, Washington, D.C.
- 1933 Annotations. In *Chinigchinich: A Revised and Annotated Version of Alfred Robinson's Translation of Father Gerónimo Boscana's Historical Account of the Belief, Usages, Customs and Extravagancies of the Indians of this Mission of San Juan Capistrano Called the Acagchemem Tribe,* by Father Gerónimo Boscana, pp. 91–247. Fine Arts Press, Santa Ana, California.
- 1934 *A New Original Version of Boscana's Historical Account of the San Juan Capistrano Indians of Southern California.* Smithsonian Miscellaneous Collections Vol. 92, No. 4). Smithsonian Institution, City of Washington.
- Harris, Marvin, and Orna Johnson
2003 *Cultural Anthropology.* 6th ed. Allyn and Bacon, San Francisco.
- Heizer, Robert F. (editor and annotator)
1968 *The Indians of Los Angeles County, Hugo Reid's Letters of 1852.* Southwest Museum Papers No. 21. Southwest Museum, Los Angeles.
- Hudson, Travis, and Thomas C. Blackburn
1986 *The Material Culture of the Chumash Interaction Sphere, Volume IV: Ceremonial Paraphernalia, Games, and Amusements.* Ballena Press Anthropological Papers No. 30. A Ballena Press/Santa Barbara Museum of Natural History Cooperation Publication, Menlo Park, California, and Santa Barbara, California.
- Hurd, Gary S.
1990 Incised Stone. In *Newport Coast Archaeological Project: Results of Data Recovery at Buck Hill, CA-ORA-663,* by Roger D. Mason, Clay A. Singer, Mark L. Peterson,

- Paul E. Langenwalter II, Tony Morgan, and Gary S. Hurd, pp. 28–29. Prepared by The Keith Companies, Archaeology Division, Costa Mesa, California. Prepared for Coastal Communities Builders, Newport Beach, California. Report on file, South Central Coastal Information Center, California State University, Fullerton.
- 1991a Incised Stone, Grooved Stone, and Tablets. In *Newport Coast Archaeological Project: Results of Data Recovery at CA-ORA-683*, by Roger D. Mason, Clay A. Singer, Paul E. Langenwalter II, Lisa Panet Klug, Mark L. Peterson, Tony Morgan, and Gary S. Hurd, pp. 80–101. Prepared by The Keith Companies, Archaeology Division, Costa Mesa, California. Prepared for Bramalea California, Inc., Irvine, California. Report on file, South Central Coastal Information Center, California State University, Fullerton.
- 1991b Incised and Grooved Stones. In *Newport Coast Archaeological Project, Results of Data Recovery at The Wishbone Hill Sites, CA-ORA-339, CA-ORA-340, CA-ORA-928, CA-ORA-929*, by Roger D. Mason, Brant A. Brechbiel, Mark L. Peterson, Clay A. Singer, Paul E. Langenwalter II, Robert O. Gibson, Tony Morgan, and Gary S. Hurd, pp. 129–137. Prepared by The Keith Companies, Archaeology Division, Costa Mesa, California. Prepared for Coastal Community Builders, Newport Beach, California. Report on file, South Central Coastal Information Center, California State University, Fullerton.
- Hurd, Gary S., and E. Mansell Pattison
1984 Manifestations of Possession in Novel Ecological Contexts. In *Ecological Approaches to Clinical and Community Psychology*, edited by William O'Connor and Bernard Labin. John Wiley, New York.
- Johnson, John R.
1986 The Chumash History of Mission Creek. *Noticias* 32(2):20–37. Santa Barbara Historical Society, Santa Barbara.
1988 *Chumash Social Organization: An Ethnohistoric Perspective*. Ph.D. dissertation, Department of Anthropology, University of California, Santa Barbara.
- Johnson, Keith L.
1966 *Site LAN-2: A Late Manifestation of the Topanga Complex in Southern California Prehistory*. Anthropological Records Vol. 23. University of California Press, Berkeley and Los Angeles.
- Koerper, Henry C.
1981 *Prehistoric Subsistence and Settlement in the Newport Bay Area and Environs, Orange County, California*. Ph.D. dissertation, Anthropology Department, University of California, Riverside.
- Koerper, Henry C., and Joe Cramer
1988 Archaeological Evidence of Visual Aesthetic Expression in Prehistoric Orange County. In *The Natural and Social Sciences of Orange County*. Memoirs of the Natural History Foundation of Orange County Vol. 2, edited by Henry C. Koerper, pp. 93–105. Natural History Foundation of Orange County, Newport Beach, California.
- Koerper, Henry C., and Nancy Anastasia Desautels-Wiley
2012 A Proposed New Genre for the Portable Cosmos of South Central Coastal California: The Dorsal Fin Effigy. *Pacific Coast Archaeological Society Quarterly* 46(1 and 2):39–112.

- Koerper, Henry C., Galen Hunter, and Ivan Snyder
2014 Five Effigies with Possible to Probable Ceta-
cean Referent. *Pacific Coast Archaeological
Society Quarterly* 49(1 and 2):21–36.
- Koerper, Henry C., and Mark L. Peterson
2014 On the Anatomy of the Malaga Cove Site.
*Pacific Coast Archaeological Society Quar-
terly* 49(1 and 2):37–62.
- Kroeber, Alfred L.
1925 *Handbook of the Indians of California*.
Smithsonian Institution Bureau of American
Ethnology Bulletin 78. Government Printing
Office, Washington, D.C.
- Latta, Frank
1999 *Handbook of Yokuts Indians*. Brewer's His-
torical Press, Exeter, California, and Coyote
Press, Salinas, California.
- Lathrop, Donald W., and Robert L. Hoover
1975 *Excavations at Shilimaqshtush*. San Luis
Obispo County Archaeological Society
Occasional Paper No. 10. San Luis Obispo,
California.
- Lee, Georgia
1981 *The Portable Cosmos: Effigies, Ornaments,
and Incised Stone from the Chumash Area*.
Ballena Press Anthropological Papers No. 21.
Socorro, New Mexico.
- Mason, Roger D., Brant A. Brechbiel, Mark L. Peterson,
Clay A. Singer, Paul E. Langenwaller II, Lisa
Panet Klug, Tony Morgan, Robert O. Gibson
1992a *Newport Coast Archaeological Project,
Orange County, California, The Golf Course
Sites, CA-ORA-660, CA-ORA-664, CA-
ORA-665, CA-ORA-1231, and Results of
the Test Programs at CA-ORA-666, CA-
ORA-1229, CA-ORA-1230, CA-ORA-1232,*
*CA-ORA-1233, CA-ORA-1234, and CA-
ORA-1235*. Prepared by The Keith Com-
panies, Archaeology Division, Costa Mesa,
California. Prepared for Coastal Community
Builders, Newport Beach, California. Report
on file, South Central Coastal Information
Center, California State University, Fullerton.
- Mason, Roger D., Brant A. Brechbiel, Clay A. Singer,
Wayne H. Bonner, Robert O. Gibson, Mark
L. Peterson, and Tony Morgan
1992b *Newport Coast Archaeological Project
Results of Data Recovery at CA-ORA-667*.
Prepared by The Keith Companies, Archae-
ology Division, Costa Mesa, California.
Prepared for Coastal Community Builders,
Newport Beach, California. Report on file,
South Central Coastal Information Center,
California State University, Fullerton.
- Mason, Roger D., Brant A. Brechbiel, Clay A. Singer,
Mark L. Peterson, Lisa Panet Klug, Wayne H.
Bonner, Tony Morgan, and Robert O. Gibson
1992c *Newport Coast Archaeological Project:
Results of the Test Program and Data Re-
covery Program at Area 13 of CA-ORA-662
(ICD-13) Impacted by Construction of
Lower Loop Road*. Prepared by The Keith
Companies, Archaeology Division, Costa
Mesa, California. Prepared for The County of
Orange Environmental Management Agency,
Construction Division. Report on file, South
Central Coastal Information Center, Califor-
nia State University, Fullerton.
- Mason, Roger D., Brant A. Brechbiel, Clay A. Singer,
Patricia A. Singer, Wayne H. Bonner, Robert
O. Gibson, Mark L. Peterson, and Lisa Panet
Klug
1992d *Newport Coast Archaeological Project:
Results of Data Recovery at the French Flat
Complex Sites, CA-ORA-232, CA-ORA-233,*

- CA-ORA-671, CA-ORA-672, and CA-ORA-1205*. Prepared by The Keith Companies, Archaeology Division, Costa Mesa, California. Prepared for Coastal Community Builders, Newport Beach, California. Report on file, South Central Coastal Information Center, California State University, Fullerton.
- Mason, Roger D., Brant A. Brechbiel, Clay A. Singer, Mark L. Peterson, Lisa Panet Klug, Wayne H. Bonner, Robert O. Gibson, and Patricia A. Singer
1993 *Newport Coast Archaeological Project Results of Data Recovery at the Pelican Hill Sites, CA-ORA-662 and ORA-1203*. Vol. 1. Prepared by The Keith Companies, Archaeology Division, Costa Mesa, California. Prepared for Coastal Community Builders, Newport Beach, California. Report on file, South Central Coastal Information Center, California State University, Fullerton.
- Oster, Gerald
1970 Phosphenes. *Scientific American* 222(2):82–87.
- Palmer, Frank M.
1906 Reports on Researches Conducted by the Southwest Society of the Archaeological Institute of America. *The American Journal of Archaeology* 10(1):21–26.
- Pond, Gordon C.
1968 Steatite Tablets from Malaga Cove. *The Masterkey* 42(4):124–131.
- Reichel-Dolmatoff, Gerardo
1972 The Cultural Context of an Aboriginal Hallucinogen: *Banisteriopsis caapi*. In *Flesh of the Gods*, edited by Peter Furst, pp. 84–113. Praeger, New York.
- Rogers, David Banks
1929 *Prehistoric Man of the Santa Barbara Coast*. Santa Barbara Museum of Natural History, Santa Barbara, California.
- Schroth, Adella
1979 A History of Archaeological Research on Irvine Ranch Property: The Evolution of a Company Tradition. *Pacific Coast Archaeological Society Quarterly* 15(3):45–67.
- Sutton, Mark Q.
2010 The Del Rey Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(2):1–54.
- Sutton, Mark Q., and Donn R. Grenda
2012 Defining Level 1 at Malaga Cove (CA-LAN-138), California. *California Archaeology* 4(1):123–144.
- Tower, Thomas P.
1941 Letter to E. F. Walker, dated 7/12/41; subject: Tower's burials #5 and #6 at the Malaga Cove site. Edwin F. Walker notebook Vol. 1, archived at the Braun Research Library, Southwest Museum campus, Autry National Center, Los Angeles.
1942 Stone Age People of Malaga Cove, Prehistoric and Historic. Copy of typed manuscript available at the Point Vicente Interpretive Center, Rancho Palos Verdes, California. Available also with both the Edwin Walker Collection and the William Wallace Collection, Braun Research Library, Autry National Center, Los Angeles.
- Treganza, Aden F. E., and Agnes Bierman
1958 *The Topanga Culture, Final Report on Excavations, 1948*. Anthropological Records

- Vol. 20, No. 2. University of California Press, Berkeley and Los Angeles.
- Treganza, Aden F. E., and C. G. Malamud
1950 *The Topanga Culture, First Season's Excavation of the Tank Site, 1947*. Anthropological Records Vol. 12, No. 4. University of California Press, Berkeley and Los Angeles.
- True, Delbert L.
1987 Malaga Cove: One More Comment. *Journal of California and Great Basin Anthropology* 9(2):273–282.
- Van Valkenburgh, Richard F.
1931 Notes on Redondo Sites, Redondo Beach, California. Unpublished field notes on file, Department of Archaeology, Los Angeles County Museum of Natural History, Los Angeles.
- Walker, Edwin Francis
1937 Sequence of Prehistoric Culture at Malaga Cove, California. *The Masterkey* 11(6):210–214.
1951 *Five Prehistoric Archeological Sites in Los Angeles County, California*. Publications of the Frederick Webb Hodge Anniversary Publication Fund Vol. 6. Southwest Museum, Los Angeles.
- Wallace, William J.
1984 Prehistoric Cultural Development in the South Bay District, Los Angeles County, California. *Pacific Coast Archaeological Society Quarterly* 20(3):1–4.
1985 A Last Look at Malaga Cove. In *Woman, Poet, Scientist: Essays in New World Anthropology Honoring Dr. Emma Lou Davis*, edited by Thomas C. Blackburn, pp. 136–144. Ballena Press Anthropological Papers No. 29. Ballena Press, Los Altos, California.
2000 A Late Prehistoric Site on the Palos Verdes Peninsula, Los Angeles County, California. In *Archaeological Passages: a volume in honor of Claude Nelson Warren*, edited by Joan S. Schneider, Robert M. Yohe II, and Jill K. Gardner, pp. 182–197. Western Center for Archaeology and Paleontology, Publications in Archaeology No. 1. Hemet, California.
- Wallace, William J., Edith S. Taylor, and others
1956 *The Little Sycamore Shellmound, Ventura County, California*. Contributions to California Archaeology No. 2. Archaeological Research Associates, Los Angeles.
- Whipple, Addison Beecher Colvin
1979 *The Whalers*. The Seafarers, Vol. 8. Time-Life Books, Chicago.
- White, Raymond C.
1963 *Luiseno Social Organization*. University of California Publications in American Archeology and Ethnology Vol. 48, No.2. University of California Press, Berkeley and Los Angeles.