

# Spatial dichotomy among the petroglyphs at Tinaja de Villegas, central Baja California

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## Abstract

A petroglyph site near Laguna Seca Chapala in central Lower California has been known to rock art researchers for over 40 years. This site shows a distinct separation in motif expressions on opposing canyon sides at a major *tinaja*. The spatial variation is represented by deeply engraved circular patterns on one side as opposed to largely pecked geometric/abstract symbols on the other side. A smaller site is nearby along a probable travel route. Interpretive explanations for the rock art variation and distribution are explored.

In Baja California rock art discoveries, studies and restudies over the last century and more demonstrate a progression in our identification and interpretation of facets of prehistoric Native American Indian cultures. Much is known concerning the petroglyphs and pictographs of Lower California, but many more locations await discovery, rediscovery and careful investigation. As a small step in this advancement of research regarding these phenomenal rock art records, several such sites in the central peninsula near Laguna Seca Chapala (Figure 1) were briefly examined in 2011 as part of a research expedition coordinated between the Instituto Nacional de Antropología e Historia and the University of California.

The focus of the research was the relocation of the Tinaja de Villegas petroglyph site analyzed in 1973 by avocational archaeologists from the United States with ties to the Cotsen Institute of Archaeology at the UCLA Rock Art Archive, where the early documentation is filed. A general description of the site location served as guide for locating and quickly assessing the relatively small site, aided by Google Earth images. The few hours at the site were spent in photography, mapping and appraising the accuracy of field sketches, with corrections made as needed and several panels redrawn. The restudy is far from complete, but it does provide enough data that an analysis of content and variability can be undertaken and interpretations/explanations offered. As an aside, it should be noted that information derived from the 1973 study by Velma Pontoni and her team was obtained and used by Campbell Grant in his *Rock Art of Baja California* (Grant 1974:75-76). His name for the principal site is Piedra Blanca.

The main petroglyph site, Tinaja de Villegas, is approached from the northerly reaches of Laguna Seca Chapala moving north up an arroyo in low foothills separated by relatively wide alluvial terraces. Following the principal drainage north as the hills increase in size and the drainage bottom narrows, a small site complex of flaked basalt cobbles, marine shellfish remains, a quartz mano and a low petroglyph boulder was encountered on a terrace or arroyo interflue about 2 km south of the main site. These petroglyphs include a lightly pecked circle, oval and circle with central dots, a zigzag, a faint pecked undulating line, and dints (Figure 2). The petroglyph boulder is on an apparent trail leading into the constricted canyon and series of rock



Figure 1. Central Baja California site location map.

tanks or *tinajas* where the main site is encountered.

This focus area of volcanic boulders is within a canyon about 70 m deep, with adjoining rock taluses and colluvial deposits topped by rim rock (Figure 3). Here are three pools or water basins. Petroglyphs occur on both sides of the drainage near the upper two *tinajas* in an area measuring about 40 by 35 m. This canyon has seen tumultuous flows of water in the past, such that lower-lying petroglyphs have been eroded, some becoming imperceptible to the naked eye. One has to wonder if this could be the water hole described in Padre Wenceslaus Linck's diary, the water hole reached after Laguna Seca Chapala was found to be dry (Burrus 1966:48). Linck, however, makes no mention of Native American Indian inscriptions. But, in any case, the observation points out the scarcity of water at times in this locality, an important topic in discussions below.

In looking at the petroglyph occurrences, we have divided the main site into west and east sides, believing that there are testable differences of potential behavioral meaning in this division based on petroglyph variability. Furthermore, we have followed the tradition of categorizing the images by panel, a division based on occurrences of images on separate boulders and/or separate faces of a boulder or outcrop, divisions that may or may not have mattered to the artists. Twelve panels were distinguished on the west side, compared to 22 panels on the east side. On the other hand, the west side contains 182 distinguishable motifs compared to only 45 for the east side (Figure 4). There is a clear indication of much greater focus and attention to individual panels on the west side. The division into motifs (element combinations or single elements) is subject to a level of subjectivity and our Western biases, and such divisions may or may not have cultural meaning. The geometric/abstract nature of the petroglyphs makes divisions difficult, especially with cases of panel integration. We have tried to be consistent in our application, with the





Figure 2. Villegas trail petroglyphs.

authors cross-checking the application, a process similar to that defined by Wallace and Holmlund (1986:64-65). Furthermore, we cannot emphasize enough that our study was brief and incomplete, and that better documentation and more detailed observations are needed.

### **Rock art images**

The site can best be characterized by the circularity of the motifs, and such an emphasis is evident on both sides of the canyon, with 82% of the motifs (149 out of 182) circular on the west side compared to 87% (39 out of 45) of the motifs on the east side (See Table 1 for a list of figures by panel) (Figure 4). The complexity of the west versus the east side is easily apparent with 16 of the 22 panels on the east side with only one motif compared to only one of 12 panels on the west side. Furthermore, there are one to 91 motifs per panel on the west side compared to one to 15 motifs per panel for the east side. Of the site's 227 motifs, 80% (182) are on the west side compared to 20% (45) on the east side. The most evident difference between the two canyon sides is with regard to cupules. There are 133, both isolated and in combination – with one possible exception – on the west side and one or none on the east side (Figure 5). There are other differences as well in the presentations. Deep rubbed and/or pecked petroglyphs, sometimes in crowded, tangential configurations, are common on the west side and nearly absent on the east





Figure 3. View south from Tinajas de Villegas site.

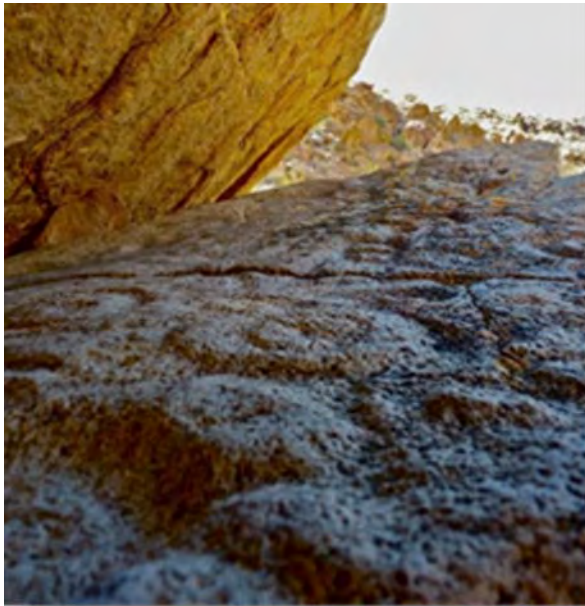


Figure 4. East and west side panels.

Table 1. Description of figures (approximations).

<b>West Side</b>	
Rock 1, Panel A	Circle (or ring), 3 separate circles each with central cupule, undecipherable, oval/circle?, 2 double concentric circles connected with line, 3 separate cupules, double circle with central cupule, curved line, curved line? Complex interconnected figure with circle connected by line to circle with central cupule; line to circle with central cupule with line connecting 2 concentric circles with central cupule adjoining circle with central cupule with another line to circle with central cupule sharing sidewall with circle with central cupule; another line to circle with central cupule and still another line to circle with central cupule with added line to another circle with cupule and undecipherable figure.
Rock 1, Panel B	3 concentric circles connected to crossed lines, 4 separate circles, curvilinear line, sub-rectangular figures, and undecipherable figures.
Rock 1, Panel C	Circle, circle and ovate form, all clustered; deep oval, more recent pecked dumbbell and complex curvilinear form, obscure curvilinear image, complex rectangular figure with 3 rays from circular nodes at top and rays from bottom constricted end (bottom portion of panel extremely water-worn).
Rock 1, Panel D (top)	Double concentric circle with central cupule—wall shared with circle and central cupule, 4 separate circles, 16 separate circles with central cupules, 8 double concentric circles with central cupules, obscure image, cupule, circle with “x” in center.
Rock 1, Panel E (side away from drainage)	Worn and obscured band of diamonds and U-shaped patterns and 2-4 cupules (entire complex bounded by horizontal crack and pecked line); rectangle, 2 circles connected with line—2 cupules in one, one central in the other; circle with central cupule, cupule, rectangle with knob and inward scrolls—connected?; obscure figure.
Rock 2	53 single circles (or rings) with central cupule, 4 separate circles with bisecting line on each, double concentric circle with bisecting line, 6 double concentric circles with central cupule, 13 cupules, 4 incised lines, 5 double concentric circles, 3 circular obscure figures, double concentric circle with crisscrossed lines, cupule and groove (many figures adjoin).
Rock 3	Row of six diamond-shaped elements, two laterally bisected; cupules in two of the diamonds.
Rock 4	5 concentric circles with smaller circles adjoining with central pecking.
Rock 5	Small curvilinear polygon; 7 circles (donut-like) with central cupules, circle, cupule, obscure lines or U-shaped pattern.
Rock 6	Curvilinear polygon, 2 separate curved lines, curvilinear pattern with scroll.
Rock 7	4 concentric circles with central cupule--3 circle polygon attached to outer ring; oval to diamond-like pattern with small projection; circular motif, 7 separate double concentric circles, circle with line extension, 2 curved lines, 2 separate circles, zigzag, rectangular figure with scroll.
<b>East Side</b>	
Panel 1	4 concentric rings with central dot.
Panel 2	Grid and circles.
Panel 3	4 concentric circles with central dot--begins as spiral and then forms into concentric circles.
Panel 4	Panel integration evident; circular handled figure—circle in bas-relief with 14 similar adjoining circles inside and outlined handle-like extension; complex curvilinear figure, double concentric circle with central dot or cupule, 2 double concentric circles, irregular “heart-shaped” polygon, circle, complex geometric pattern with intersecting curved and linear segments, curved and linear polygon bounded by crack, single pole ladder (line with 5 spaced perpendicular lines and circle on end).
Panel 5	Circle, circle with central dot, circle with central pecking, 2 (or more) polygonal/circular figures.
Panel 6	7-celled polygon.
Panel 7	3-celled ovoid polygon.
Panel 8	6 concentric rings pecked in center.
Panel 9	2 complex polygons.
Panel 10	Rayed circle, curved geometric motif.
Panel 11	Circle with central dot.
Panel 12	Complex combined curvilinear and rectilinear figure with rectangle attached containing interior dots; dints on one.
Panel 13	Bisected polygon—atlatl-like.



East Side (continued)	
Panel 14	Complex zigzag polygon, curvilinear polygon.
Panel 15	Vertical line with 7 circles (2 with central dots), 3 separate circles, spaced pecked dots (16-17) forming a rectangle, line with extending circles on end, circle with central cross and curved line, complex circular and linear polygon.
Panel 16	Simple fret design (dark patina).
Panel 17	4 horizontal circles-use of natural staining of rock to connect these elements?
Panel 18	Large semi-circular spall with pecking around unspalled edge.
Panel 19	Curvilinear polygon with stem, circles connected with lines, 2 nested triangles.
Panel 20	Gridded trapezoid with pecked and un-pecked interior rectangles.
Panel 21	2 loops and line (atlatl like).
Panel 22	Horizontal rectangular grid with loop and amorphous pecking (dark patina).



Figure 5. Main panel, west side.

side. There is greater complexity overall in the west side panels. On the east side there is more singularity, common isolation, and lack of recurrence of motifs. Other subjective differences include more rectangular motifs on the east side, less angularity on the west side, and more complex curvilinear/geometric patterns on the east side. Overall there is little superpositioning of motifs at the site. Some images have incorporated features of the rock, including spalls, cracks and boulder edges, into the presentation.

The most dramatic panel to the modern viewer sits on a sheltered, nearly horizontal rock

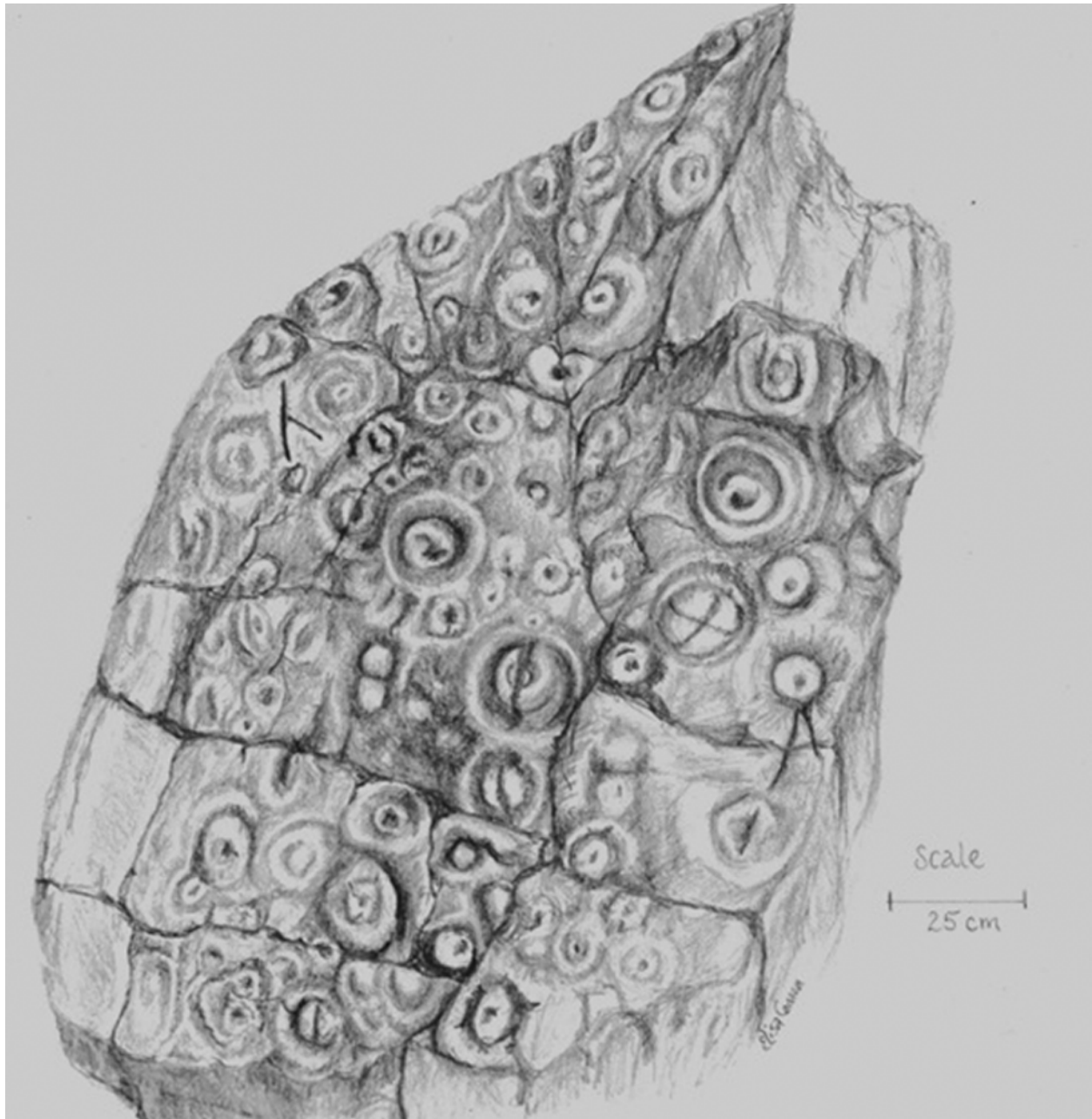


Figure 6. Main panel, west side.

surface and contains 91 closely spaced or touching, deeply carved motifs, including 53 circle and cup figures, 13 individual cupules, six two-ring concentric circles with central cupule, five double-ring concentric circles, four circles with bisecting lines, three indefinite circular patterns, one cupule and groove, one double concentric circle with overlaying crossed grooves, and four incised lines – two pairs intersecting (Figure 6). These circular figures measure between 4 cm and 20 cm across on a rock face 210 cm long by 140 cm wide (see Table 2).

Grooves can vary between 0.25 and 1 cm wide, 0.75 to 1 cm deep and 4 to 20 cm long (Figure 7). Cupules range from 2 to 4 cm in diameter and are 1 to 3 cm deep. The other 11 panels or boulders contain many more circles, concentric circles – sometimes linked – cupules,

Table 2. Sample measurements of rock art panels and motifs. (Naming and numbering system based on UCLA Rock Art Archive data; measurements are approximations.)

Panel/Rock Number	Location	Panel/Rock Dimensions	Select Motif Dimensions
Panel 1	East	30 cm L x 36 cm W	A: 18 cm L x 10 cm W B: 20 cm L x 18 cm W
Panel 5	East	30 cm L x 50 cm W	A: 12 cm L x 10 cm W B: 30 cm L x 30 cm W C: 14 cm L x 12 cm W
Panel 6	East	53 cm L x 30 cm W	A: 20 cm L x 20 cm W B: 30 cm L x 15 cm W
Panel 7	East	22 cm L x 15 cm W	A: 22 cm L x 15 cm W
Panel 10	East	20 cm L x 10 cm W	A: 20 cm L x 10 cm W
Panel 12	East	16 cm L x 11 cm W	A: 16 cm L x 11 cm W
Number Unknown	East	70 cm L x 100 cm W	A: 35 cm L x 12 cm W B: 32 cm L x 15 cm W C: 50 cm L x 14 cm W
Number Unknown	East	50 cm L x 50 cm W	A: 20 cm L x 10 cm W B: 10 cm L x 9 cm W
Number Unknown	East	28 cm L x 14 cm W	A: 28 cm L x 14 cm W
Number Unknown	East	55 cm L x 40 cm W	A: 55 cm L x 40 cm W
Number Unknown	East	66 cm L x 13 cm W	A: 66 cm L x 13 cm W
Number Unknown	East	20 cm L x 30 cm W	A: 20 cm L x 30 cm W
Number Unknown	East	20 cm L x 20 cm W	A: 20 cm L x 20 cm W
Number Unknown	East	13 cm L x 20 cm W	A: 13 cm L x 20 cm W
Number Unknown	East	44 cm L x 58 cm W	A: 20 cm L x 20 cm W
Number Unknown	East	80 cm L x 30 cm W	A: 20 cm L x 13 cm W B: 20 cm L x 6 cm W C: 20 cm L x 13 cm W
Number Unknown	East	14 cm L x 30 cm W	A: 14 cm L x 30 cm W
Rock 1	West	80 cm H x 122 cm L x 90 cm W	Concentric Circles Diameter: 7 to 27 cm Cupule Depth: 1 to 3 cm Cupule Diameter: 2 to 4 cm
Rock 2	West	40+ cm H x 210 cm L x 140 cm W	Concentric Circles Diameter: 4 to 20 cm Cupule Depth: 1 to 3 cm Cupule Diameter: 2 to 4 cm
Rock 3	West	90 cm H x 200 cm L x 80 cm W	A: 22 cm L x 65 cm W B: 10 cm L x 10 cm W Concentric Circles Diameter: 8 cm to 12 cm Cupule Depth: 1 to 3 cm Cupule Diameter: 3 to 4 cm
Rock 4	West	60 cm L x 100 cm W	A: 40 cm Diameter No Cupule
Rock 7	West	50 cm L x 30 cm W 70 cm L x 60 cm W	A: 12 cm L x 6 cm W B: 10 cm L x 24 cm W C: 20 cm L x 30 cm W Cupule Depth: 1 cm Cupule Diameter: 3 cm

L = length; W = width; H = height





Figure 7. Grooves and other motifs, west side.

curvilinear lines, ovals and ovate forms, a zigzag, a rectangular figure with inward scroll, a dumbbell-like figure, a complex rectanguloid figure with rays, an obscure band of diamonds and U-shapes with cupules bounded by a horizontal crack and pecked line, a rectangle, a complex pecked curvilinear symbol, and obscure figures. These various panels are relatively large, measuring 30 to 140 cm wide and 50 to 210 cm long as an approximation. Moreover, a vast majority of these figures are also deeply rubbed/abraded/pecked with wide lines or grooves/cupules. In cases, they have been water-worn by the occasional torrents that plunged down the canyon. There may have been other figures now obliterated, and the placement of figures near or within the erosion area was possibly purposeful. Moreover, the panel aspect, periodic water abrasion, and the shading of some west-side panels have prevented the formation of a darker rock coating or patina as opposed to many of the panels on the east side of the canyon.

While the east side contains far fewer motifs, these figures exhibit more diversity and individuality overall. As mentioned, the most complex panel mirrors some of those on the west side, without the dramatic depth of production (Figure 8). The panel is integrated including concentric circles with central dots (or cupules?), a single-pole ladder-like design, an irregular “heart”-shaped polygon, complex geometric or abstract patterning with intersecting curved and linear segments, and a paddle-like design with a circular end with nine polygons and an elongate outlined extension – almost handle-like. In a Eurocentric view, this resembles a waffle iron, but there is a likeness to the agave stalk and bud just before flowering, a part of the plant roasted for food as among Kiliwa (Hohenthal 2001:333) and the Cochimí (Aschmann 1959:79). However, its true representation is enigmatic.

Other panels contain circular or ring images, a connected grid and circles, curvilinear polygons, a rayed circle, a complex curvilinear-rectilinear polygon with a sub-rectangle extension with interior spaced dots and less patinated dints along one side; several double polygons centrally bisected with a line (possibly atlatl or male sexual symbolism) (Figure 9), a complex zigzag polygon, lines and circles, spaced pecked dots forming a rectangle, a large circular spall with a pecked ring around it; nested triangles, gridded trapezoid with pecked and





Figure 8. East side panel. Note the “stemmed” object in the lower right.



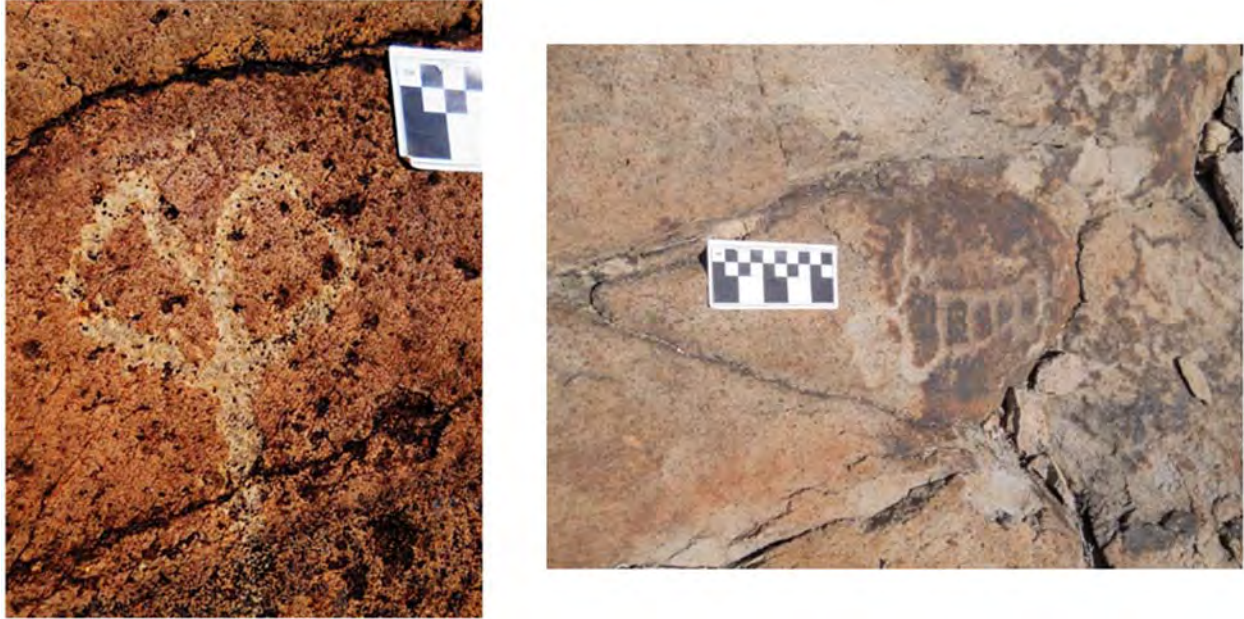


Figure 9. Atlatl-like and rectangular motifs, east side.

non-pecked interior rectangles, and a rectangular grid with a loop and amorphous pecking, among others (see Table 1). A number of these panels exhibit a dark rock coating into which petroglyphs have been pecked, and these are relatively isolated within the larger boulder outcrop (Figure 9).

### Style/motif complex

Stylistic definitions in Baja California, often imbued with subjective evaluations, are an ongoing development in the search for heuristic categories with spatial, temporal and behavioral meaning. As Malotki (2007:17) has stated, in style analysis one looks to “recurring similarities of design and motif, technique, distinctness of expression, overall aesthetic quality, artistic attributes, and material considerations.” Conkey and Hastorf (1980:2) believe that “style is also ideas, intentions, and perceptions ... highly variable, polysemic, and ambivalent.”

The examination of the Tinaja de Villegas sites demonstrates the inherent difficulties in defining a style or styles for the rock art. Grant (1974:72) was the first to assign the main site and rock art in the central peninsula to the Cochimi Abstract stylistic area, a concept now abandoned due to its purported association with the Indians who inhabited the area at the time of European contact. Easily, such rock art complexes may have, and likely did, precede this ethnic group in age, at least partially.

Generally, this northern portion of Baja California falls within what has been more recently labeled the Northern Baja California Abstract Style (Ewing 1986a:87; Ritter 1991:24). The relationship of this general style, tradition or motif complex with the Western Archaic Tradition (Wallace and Holmlund 1986:84-85), Western Archaic Geocentric Tradition (Malotki 2007:22-23), or as a variant of the California Tradition (Whitley 2000a:50) is unclear. As the senior author has previously stated (Ritter 2010:158), regional differences in the central peninsula rock art sites are the result of factors beyond artistic abilities. Furthermore, variations in motif complexes in the northern peninsula relate not only to age but include:



inter- and intra-cultural differences, stylistic diffusion, or borrowing...the concept of style or motif complex, while useful, must be examined in the light of group inter-action, idiosyncratic representation, functional variation displayed through variable presentations, and temporally overlapping or even multiple cultural use of the same location [Ritter 1991:25].

So this leads us paradoxically to the question of stylistic assignment of the Tinajas de Villegas sites.

From our perspective, there are clear complex abstract or geometric representations that fall within the Western Archaic and/or Northern Baja California Abstract styles or traditions. Notwithstanding, there are also present numerous, often concentrated cupules and complex circular and cupule petroglyphs (Figures 5, 6 and 7), a motif presentation reported from Alta California as far south as the Santa Barbara area by Mark and Newman (1995) and labeled “cup-and-ring petroglyphs” (also see Foster 1983). There is a vague resemblance of some of the deep circular and cupule patterns with a style in Alta California designated the Pecked Curvilinear Nucleate. But pronounced unaltered or minimally altered centers to the circular grooves are not accordant, and there is quite a gap in occurrence from those in Alta California (cf. Gillette et al. 2013 and Mark et al. 1990 for examples and discussion). There are a few incised lines and dints or “select area” pecking as well. There are no apparent pictographs, punctuates, scratching, or, with a few possible exceptions, representational, naturalistic, or iconic images clear to the Western viewer. The deeply engraved circular and cupule and grooved/incised line motif complex is very unusual if not unique to the corpus of sites identified so far in the peninsula. At this juncture it would appear that the site contains not just one style of presentation but rather several or a number of motif or style complexes, including perhaps the Far Western Pit-and-Groove Tradition as defined by Whitley (2000a:47-50). Overall, the lack of rigidity in north peninsula style classifications makes it difficult, if at all warranted, to assign style categories to this site and perhaps on a broader level to rock art in the north peninsula.

Some comparisons to peninsular sites might assist not only in clarifying or identifying motif and style or tradition variations but also in interpreting or attempting to explain what this complex might mean in terms of prehistoric behavior. Cupules, for instance, are a worldwide phenomenon, often associated with fertility and world renewal (cf. Ritter and Ritter 1976:176-180). Their presence in central Baja California has not been found in abundance to date, with other examples, for instance, found in the Sierra de San Luis (Ewing 1986b:53), by Crosby (1975:42, 1984:7) in the Sierra de San Francisco, and by this author in work around Bahía de la Concepción (Ritter 1979). There is a similarity in the deeply grooved cupule and circles and a few oval forms to the sometimes deeply grooved vulva-like forms found especially in the central peninsula, horseshoe-shaped figures with central grooves or cups (and painted examples) (cf. Brewer 1978:229; Crosby 1975:99; 1984:7, 39, 76, 100, 134; Kaufman 1978:106; Ritter 1986:160, 1994:22-23, 2010:173; and Workman 1985:59, as examples).

Another widely dispersed motif in the Desert West and much of the northern two-thirds peninsula is the concentric circle, in both painted and petroglyph form. Ewing (1986a:89-92) discusses these motifs as part of the Northern Baja California Abstract Style, with examples described from three sites in the hills and mountains inland from Bahía de los Ángeles some 40 km or more to the southeast of our study sites, and they also occur at nearby Montevideo, inland from Bahía de los Ángeles (see Grant 1974:77). She also mentions an example from at least one interior Great Mural painted site well to the south (over 200 km) in the central peninsula. The famous painted Cataviña site some 43 km to the northwest of our study sites contains concentric

circles and circular elements, among many forms (Grant 1974:Plate 1; Workman 1983). The senior author has also discussed circular motifs at two petroglyph sites in the Sierra de San Francisco, also near tinajas (Ritter 1993:Table 1) over 200 km away. About 17% of the motifs are concentric circles, circles/ovals, bisected circle/oval, or circle/ovals with central dot. The major categories of motifs at these sites are, however, rake-like figures and rows or dots or dashes not like our study sites.

Overall the central peninsula mountain sites analyzed or observed to date do not subjectively nor objectively appear like the Villegas sites. Johnson (1978:53) discusses concentric circles and other circular figures at the Velicatá site over 90 km to the northwest. Nearby within a few score of kilometers of Velicatá, King (1978:131) comments on the frequency of circular and concentric circle petroglyph forms. Even further to the north approaching the United States at Palmas de Cantú, Grant (1974:76) illustrates a large boulder with numerous circles and concentric circles that he places within his Great Basin Abstract style. None of these, however, appear deeply engraved, nor are there any cupules. The point of this discussion is that circular/concentric circle figures are not particularly rare in the state of Baja California or some distance farther south into Baja California Sur and even in remoter locations. Hedges (1998:54) notes the occurrence on Kumeyaay pottery of painted circular designs and the similarity to north peninsula pictographs such as Las Pilitas. Circular figures in Colorado delta Cocopa pottery observed by Gifford (1933:320) are said to “represent nothing, have neither symbolism nor names.” Perhaps more importantly are what rock art motifs are shared with ceramic traditions and what can we say about their geographical and cultural context.

## Dating

Dating the rock art sites is problematic at best. No archaeological time markers were found near either site, and there is no direct dating of the glyphs nor firm time markers portrayed in the figures, with the possible exception of several atlatl-like images (Figure 9). The petroglyph rock coating formation at the main site, especially on the east side, suggests more than one period of manufacture, and re-pecking of some elements may be present. Where this is perceived, the rock coating formation is not pronounced, suggesting late prehistoric use. In any case, there is no demonstration in the rock art of heavy or dark rock coating or varnish/patina formation to suggest a great age.

In an earlier study of central peninsula rock art dating, focusing on pictograph sites along and west from Bahía de los Ángeles, the senior author and others (Ritter et al. 2011:17) suggest through indirect dating that the Northern Abstract sites studied date from 500-1,000 years ago back to perhaps 3,000 years ago. Meighan’s (1978:11) volume of papers on seven widely dispersed central peninsula sites proposes the predominately geometric/abstract rock art dates prior to A.D. 1000. Obviously we must await better dating of the Villegas sites to see if the referenced dating above applies as suspected.

## Interpretive proposals

There is no certainty in the interpretations regarding the meaning and function or functions and conceptual frameworks of the rock art present at the study sites. What we can offer here are some “best fit” proposals based on a rationalistic approach that meshes the image presentations, cultural and environmental context, regional and broader ethnographic

information, principles of human cognition, psychology and artistic expression, and a comparative approach based on rigorous studies of rock art elsewhere in the peninsula and beyond. Among the themes explored herein, and themes not necessarily mutually exclusive, are relationships of the rock art to a cultural landscape, curing, shamanism or dream/trance-state imaging, puberty and mortuary ceremonialism, hunting magic and art for life's sake.

In following an easy route to the major petroglyph complex from the south, up the drainage, as mentioned we happened upon a boulder with petroglyph images dominated by circular motifs, much as at the major site. It seems likely that this boulder served as a trail marker relative to the principal site at a major *tinaja*/water source. Within the greater region, the Villegas *tinajas* were undoubtedly a regional hydrologic feature of immense importance to animals and people in this desert region, a point made for this locality by Linck as quoted earlier. In Australia, as likely here, Taçon (1999:34) remarks that rock art activity "is most directly linked to early perceptions of landscape – the very location and organizational structure of rock art speaks of human relationships to places and spaces." With more archaeological inventory in this locality, we may eventually be able to better link these rock art sites and others with an improved defined pattern of prehistoric use and behavior here. Hartley and Vawser (1998:206) in a study of rock art in the Colorado River drainage propose that the location of some rock art "was determined by threats to resource patches and by a need to assert proprietary rights." A rare resource such as water may have provided a similar motive here in central Baja California.

The predominance of circular motifs at the sites can be examined in terms of a sample of ethnographic information from other locations in the peninsula and beyond and in light of other scholarly interpretations. These motifs have a broad distribution in the American West and elsewhere. For instance, Steward (1929:end table) early found that 45 of 101 sites tallied for California and adjoining states (including one in Baja California) had concentric circle motifs.

Among the Klamath Indians some distance to the north in southern Oregon, Hann and Bettles (2006:190) found compelling ethnographic evidence that

these concentric circle motifs do indeed represent portals through which shamans, and others, could travel between the physical and spiritual worlds. And in the Klamath Basin at least they may also represent the disk of *Gmok'am'ê*, the original Klamath/Modoc shaman, and the spirit of the sun.

Foster (1983:51) suggests a similar site in California's Mendocino County marked a Cahto territory boundary. Schaafsma (1980:11-12) found that among some Indian groups of the American Southwest the concentric circle and central dot figures appear to symbolize the sun and earth with the center dot possibly representing water.

Among the Luiseño in southern Alta California, Kroeber (1908:177) reports that the boy's puberty ceremony included a circular sand painting that was bisected from the north to south and east to west, and represented the world with the central hole the navel, a representation of death and with other components. DuBois (1908:87-91) also discusses circular or concentric circle sand paintings with other elaborations used in a series of Luiseño ceremonies, with the outer circle representing the Milky Way, the middle circle the sky and the inner circle the spirit, with variations. Part of one painting in the girl's ceremony has a diamond design such as we have seen at Tinaja de Villegas (see DuBois 1908:Figure 2) (Figure 10). Oxendine (1980:Fig. 5) duplicates from John P. Harrington's notes a sketch of circles in a pictograph painted by boys during Luiseño initiation rites. Gifford (1933:311) reports a Cocopa shaman constructing a circular sand painting with four small piles of earth in the four cardinal directions to assist in curing, with the ring said to represent the edge of the world. Cohen (1987) offers further





Figure 10. Rock 3, west side, diamond chain.

discussion on circular and non-circular sand paintings among southern California and northern Baja California tribes.

Among the Mohave, Bourke (1889:175) illustrates a petroglyph spiral among other figures located at the mythic location of the first boys' nasal septum piercing puberty ceremony. Álvarez de Williams (1973:44) offers an ethnographic account regarding a Cocopa boys' nasal septum piercing ceremony at special places noted for their *tinajas*. At one such place, geometric red figures are distinguished, but there are no circular figures. Densmore (1932:8-9) also notes that among Yuman groups, when a man reached a certain age he "put his mark on a rock for future generations ... an animal mark ... kind of record."

Tangentially, Linck's 1762 account from Mission de San Borja in the central-north peninsula has some potential meaning to the regional rock art. Here he discusses the local Cochimí "wizards" (shamans in today's parlance) who "have brought to us their instruments, idols, garments, and paintings, all of which we burned publicly" (Burrus 1967:49). While the paintings are certainly mobiliary art, the point is that the religious formulators of the Cochimí painted images as part of their practices.

Moving farther afield from the peninsula to illustrate the variability in one motif and its meaning, among the Walbiri of Australia, Munn (1973:32, 104, 151) notes that "totemic ancestors are represented by graphic designs that are of considerable importance in the visual symbol system focused on ancestral belief." Here circles and concentric circles can represent

among women fruits and vegetable foods, stone and breast, while among men the same symbol can represent campsite, circular path, hole, fire, fruit, hill, etc., according to context. The various ethnographic parallels discussed in the paragraphs above should be viewed with caution when considering the Villegas images, but they do demonstrate the difficulty in interpreting rock art, even with ethnographic information.

In looking at other motifs, particularly the cupules, there are further ethnographic parallels worth considering, such as from northern California. Ritter and Ritter (1976:175-182) have discussed cupules, grooves and other rock art symbolism in northern California and elsewhere, noting that ethnographic data support a human fertility association. Nissen and Ritter (1986) in a study of cupules and grooves/incision sites in northernmost California found ethnographic evidence to support their function in world renewal ceremonies and inferentially as a means for group regulation and integration with regard to important resources such as salmon.

While cupules are common in southern and south-central California, the ethnographic information regarding their function and the conceptual framework in which the figures operated is limited. Whitley (2006:310-315) has summarized a good deal of data, acknowledges the uncertainty of functional ascriptions, and believes there is enough information based on north-central and northern California ethnographies to suggest they operated in girls' puberty ceremonies in south-central California and the western Great Basin, if not beyond, as in southwestern California. However, Hedges (2001; personal communication 2013) has found no ethnographic evidence of cupule manufacture in southern California associated with puberty ceremonies. Furthermore, Whitley (2006:315) rightly notes that at least in some regions "hard and fast boundaries between cultures, cults and kinds of rock art are unlikely to have existed."

The diamond-chain-like motif at Tinaja de Villegas may have a relationship to rattlesnake back patterning (Figures 4 and 10). If so, Whitley (2006:305) provides an ethnographic context for this symbol related to southern California Indian groups. He proposes that the diamond-chain and zigzag represent rattlesnakes and were the most commonly depicted motifs resulting from the girls' puberty initiation.

Among the Luiseño of southern California, DuBois (1908:76, 142, 179) found the rattlesnake to be one of the "avengers of the hill" to do harm to those disobedient to the faith and a special messenger from the divine being Chungichnish. Later (DuBois 1908:80) she relates that among the Mesa Grande Diegueño (Tipai or Kumeyaay), rattlesnake was a spirit helper associated with the boys' puberty ceremony. The rattlesnake was also a motif within the boys' initiation sandpainting (DuBois 1908:90, 92, 177). Diamond chains are shown by Kroeber (1908:175, 178) as pictograph motifs associated with Luiseño girls' ceremonies (also see discussion in Hedges 2001:127) and were a component of boys' initiation ceremony sandpaintings.

Among the northern Baja California Indian groups (Tipai), Hohenthal notes (2001:253) the presence of rattlesnake shamans specializing in curing snake bites. The connection of this association and the diamond chain pattern is sketchy, but this information adds another consideration to a possible interpretation of the petroglyph design.

A handful of Baja California rock art scholars have called attention to some of the motifs at rock art sites they have studied and the designs on sacred peninsular and southern California *tablas* or decorated boards of historic-era Indians (cf. Alt and Breece 1978; DuBois 1908:142; Garvin 1978; King 1978; Ortega Esquinca 1998; Ritter 2010). As has been summarized in an earlier work by the senior author (Ritter 2010:170-171), these boards or *tablas* had varying associations and functions among various peninsula Indians during historic contact times, but the

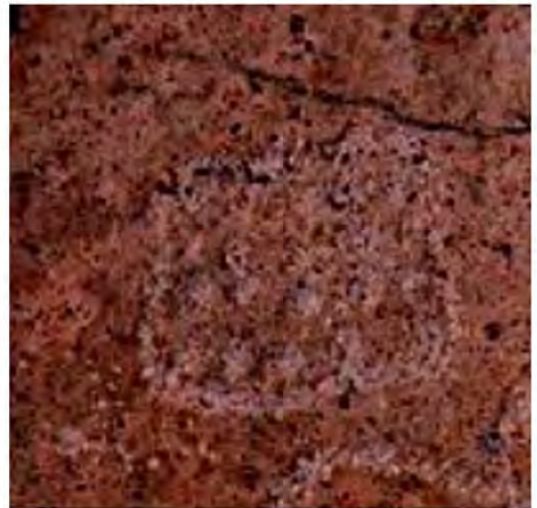


Figure 11. Comparison of *tabla* images (left, after Hedges 1973) and east side petroglyphs.

overall connection was with the socio-religious realm, often with a shamanic link as in curing, spirit possession, altered states of consciousness, mourning, ancestor veneration, puberty initiation, commemoration of the dead, mnemonic aids in shaman training/indoctrination, weather forecasting, foretelling the future, as a means of obtaining social cohesion and a representation of the cosmos. A few of the figures at the Villegas sites can be found on examples of these *tablas* as illustrated by Hedges (1973:Figures 1, 6 and 8) including circles and concentric circles, zigzags, triangles and a square to rectangular shape of one figure (Figure 11). This is certainly an interpretive stretch, but one worth considering in light of other proposed revelatory links discussed herein.



One of the most common interpretations of abstract-geometric rock art (and iconic-abstract combinations) among hunter-forager groups and others is derived from the neuropsychological model that sees some of the graphic presentations (phosphenes, geometric figures, entoptics, elementary hallucinatory images) in a ritual or ceremonial context, and most often associated with the religious formulator, shaman, vision seeker, dreamer and perhaps the mentally impaired seeking or affirming his or her power, initiation into manhood or womanhood, or perhaps improved health as examples. This model has been considerably debated (cf. Bahn 2001; Hedges 2001; Helvenston and Bahn 2005; Lewis-Williams 2001, 2002; Malotki 2007; Pearson 2002; Quinlan 2000, 2001; Whitley 2000b, and others). In the model, abstract/geometric forms of certain types and configurations are produced during trance states, altered states of consciousness, dreamtime or through some measure of cortical stimulation by an individual, perhaps a shaman or someone influenced or commissioned by a shaman. The imagery holds to some proposed universal principles with the phosphenes/entoptics following some universal patterns including variations on grids, nested catenary curves, rows of lines, spirals/concentric circles, zigzags, dots, flecks or dash patterns, meandering lines and filigrees with more advanced stages involving iconography as laid out in much greater detail by Lewis-Williams and Dowson (1988) and Hedges (1992). Hedges (2001:124) has stated that the visionary experience is subject to “the fluidity and complexity of the phenomenon of altered states.” Dronfield (1996:337) in following this model sees a “best fit” test for “confirmation”, and we can look at the Villegas images for comparison since some appear to be phosphene/entoptic-like. Whitley (2006:320) has cautioned that not all motifs within a shamanistic tradition necessarily portray visionary images. And not all the universal phosphenes/entoptics have to be necessarily present as a measure of fit.

One can argue that many or all of the figures present at the Villegas sites could be reproductions of images from a trance-state experience. We certainly see the various circular figures, curvilinear meanders and the few zigzags and grid-like motifs as possibly fitting this model. The location itself, aside from a nearby (100 m) small rockshelter with domestic debris, appears to be away from seasonal camps like are known around Laguna Seca Chapala. This could be a place of specialized ritual involving shamans and individuals on a spiritual quest.

Malotki has offered another interpretation of some abstract/geometric art following the work of Dissanayake (1992). In this proposal, abstract/geometric figures are placed on the rocks as a means to obtain life’s necessities, to make order out of disorder, to provide “markings of magic and power and thereby creating rock art ‘shrines’ that help individuals feel that they exercised a certain control over an unpredictable and dangerous world” (Malotki 2007:32-34), “art for life’s sake, or “artification” with adaptive and selective survival value.

Sympathetic magic of the hunt has been an interpretation for decades that has been widely applied to rock art in Baja California and within a broader context in western North America. There is no compelling evidence such as animal figures or hunting scenes to support such an interpretation on an explicit level. On the other hand, on our visit there were signs of animals using the *tinajas*, and the skeleton of a young bighorn sheep lay by one *tinaja*. There are two figures that could be interpreted as atlatls, both double lobes with a straight line intersecting projection (also see Ewing 1985:Figures 6-8 for regional examples) (Figure 9). These could also be interpreted as male sex organs (see Ewing 1985:13), a weak but possible tie to boys’ puberty ritual or vision-questing. Overall, hunting and animal foods would be important aspects of prehistoric people’s lifeways, in terms of calories but also in terms of male prestige. Therefore, indirectly some of the rock art depictions could be associated with related visions.

In looking at previous rock art studies dealing with the central peninsula, either

petroglyphs or pictographs that fall within the general Northern Baja California Abstract Style distribution, the conclusions and interpretations from earlier scholars are largely similar. Garvin (1978) notes the rock art may have been part of a magico-religious complex involving curing and mortuary ritual. She may have been the first to note that circular features could relate to waterholes (Garvin 1978:45). Both Johnson (1978) at San Fernando de Velicatá and Alt and Breece (1978) at a site in the San Ignacio area in Baja California Sur propose magico-religious and shamanic activity as linked to the rock art manufacture. King (1978) at Cerrito de Cascabeles near El Rosario to the north of our study sites notes a priestly association with the rock art linked to hunting and forging. He further sees vulva-like forms possibly correlated with reproduction, or they might have other sexual implications in his judgment.

Ewing (1985, 1986a, 1986b, 1993) has conducted a number of studies over the years in the general region. She states (1986a:98) that the Northern Baja California Abstract rock art creators “built power and mystery into the art through the potency of symbols that may frequently have been derived from dream or trance states”. Her 1993 study of rock art in the Sierra Mescalera not far from the study sites suggests the images were related to vision quests and shamans in their transformation, to mourning ritual, and in cases could be related to solstice-equinox observations. Similar interpretations have come from Ewing’s other regional studies. In both her 1985 report and more recent 2012 work she notes the strong association of the images and sites with rain making and “calling down the rain” since water was such an important resource in this Central Desert to life.

The senior author’s own rock art work in the central peninsula north of San Ignacio (Ritter 1993, 1995, 2010) has added more input to reasoned interpretations regarding at least select rock art sites – bearing in mind that each site presents its own set of images and archaeological and environmental context. In an assessment of major style variability in the central peninsula (Great Mural versus Northern Abstract), problems of definition aside, the senior author has noted the cultural and environmental differences that could have affected rock art imaging and the relationship of the art to shamanic-related vision questing and image production, to ritual events related to life’s crises such as uncertainty in food acquisition, water storage, intra- and inter-cultural relations, and to related stresses funneled through the group’s religious formulators. Ritter (1993:99) states that “the symbolism and its patterning, and site environmental context and cultural associations, point toward an interplay of human fertility, food acquisition, and water availability.”

In a more recent study of La Angostura and its largely Northern Baja California Abstract art about 100 km south of the study sites, images measurably different from those reported here, the senior author has stated that

this rupestrian art location was a place of religious/spiritual importance to past peoples in their use and recognition of the greater cultural landscape, perhaps a periodic scene for public exhibition of instructional messages of an esoteric/mystical order and/or displaying dream or visionary experiences related to mythical beings or spirit helpers, historic/mythological/ancestral beings, or events, and in some cases, tied to trance-state imagery [Ritter 2010:175].

## Conclusions

While each prehistoric Baja California rock art site has a measure of uniqueness in motifs, location and cultural associations, there are some underlying similarities. These Villegas

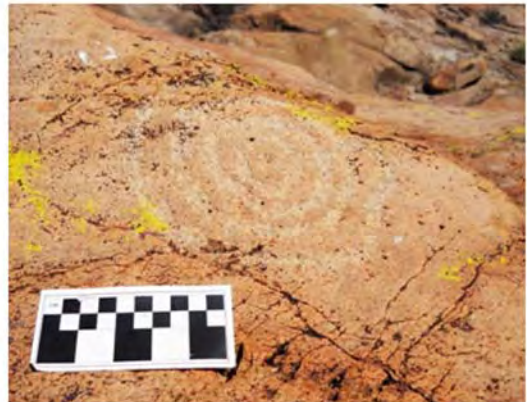


Figure 12. Water drop and concentric circle images.

sites are special places not only to the modern visitor but were extraordinary, likely spiritual and sanctified by the Indians who made them and those who later visited or passed by. In the northern portions of the peninsula, more water-impooverished than further south, they form an integral segment of the dynamic cultural landscape, perhaps part of a spirit trail as discussed by Evans et al. (1993), a topographic or geographic place with regional uniqueness, in this instance perhaps marked by special figures along the route.

Guenther (1999:426) notes that in cross-cultural studies of hunter-forager religion, “underneath all of the contextual and cultural diversity, there indeed is a substrate of ritual, cosmological, and symbolic commonality. This is fundamentally shamanistic (and sometimes totemistic).” The shamanistic connection or influence on at least some of the rock art manufacture and use at Tinajas de Villegas is likely in our estimation, not only from the far-flung ethnographic accounts but also from the images, the symbols portrayed – some of which seem to fit with the neuropsychological theory. These include many of the complex curvilinear, integrated and isolated geometric images. David Whitley (1998:15) has long championed this neuropsychological universal theory, going so far as to state that “It is then understandable that motif forms and subject matter and the principles by which both were depicted are equivalent at a structural level for most if not all North American hunter-gatherer rock art.”

It seems that the rock art at Tinajas de Villegas has a persuasive relationship between a number of its cup-and-ring portrayals and the visual imagery of a water drop hitting a pool of water and the rings expanding out (Figure 12). But any duplication of the art with the water rings in this regard may be coincidental, considering the many other possible interpretations earlier offered. Still, the importance of water to the Indian lifeways and sustenance in this arid region

cannot be ignored, and some of the petroglyphs here likely had a direct relationship to those who were in a position to mediate the connection between the spiritual world and hydrologic events and fresh water sources.

The presence of cupules by themselves and as part of rings perhaps could be related to human fertility, initiation or curing rites, much as in locations to the north. There is some similarity to the vulva-like forms found in concentrations to the south in the peninsula. The senior author has discussed their occurrence in Baja California Sur (Ritter 1994:22-23), noting the circumstantial ethnographic evidence which suggests vulva-like rock art may be used in girls' initiation rites, perhaps female-generated, and the presence of cupules and grooves and deep markings may be an indication of this finding.

The principal site is small and focused around the *tinajas*. The few archaeological surveys in the area and the apparent absence of rancher reports suggest there are not a great number of rock art sites in the locality. This site has a geographic position that implies the singular artist and groups of individuals made pilgrimages or religious or ritual-based treks to this place. Some panels or rocks have had concentrated attention and seemingly reworking, while others are simple and relatively isolated and could be manufactured in relatively short order. There is a differentiation or in many ways a duality in the form and spatial placement of the petroglyphs, especially between the two sides of the canyon. The visitors on occasion exerted substantial energy in glyph manufacture, especially on the west side, perhaps also periodic reworking of individual symbols over decades if not longer. There is the impression that the east side saw more isolated events, perhaps individuals depicting phosphenes from their vision quest, images even related to ritual performances associated with the dead as seen on some similar *tabla* designs. There are also a few images reminiscent of atlatls, perhaps calling attention to a periodic hunting focus at this or other water holes. We can speculate that the western side was more focused on water rites, curing and possibly puberty ritual or initiation.

We may never know for sure what meaning these various images held, but almost certainly the site and the petroglyphs had many functions and contexts likely related to different age grades, genders, societal roles, and even to differing culture groups. The place must have been sacred to many and left an enduring communicative record unusual in this northern peninsula region to aid in individual and societal health and persistence over the generations.

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