

Migrations of the Great Mural Artists

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Superimpositions of painted figures at sites in the Sierra de Guadalupe in Baja California Sur indicate that this sierra was the homeland of Great Mural Art. The art then moved north to the Sierra de San Borja and Sierra de San Francisco in separate migrations. This paper gives evidence for the migrations based on differing conventions used in the painting of human figures.

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Introduction

In the book *The Prehistory of Baja California* Don Laylander (2006:9) poses the question: “Were prehistoric Baja Californians highly mobile and fluid in their settlement patterns? Or were they more nearly sedentary, and did they live within the confines of exclusive territories?” This question is not easily answered by the archaeological record of material culture; however the rock art of the peninsula can make a significant contribution towards the answer. This paper will show that the Great Mural art of Baja California documents migrations from the Sierra de Guadalupe into other sierras to the north. Thus the Great Mural artists inhabiting the central part of the Baja California Peninsula did indeed move significant distances in separate migrations.

Note: In many of the figures are photographs enhanced for better visibility by the rock art enhancement program DStretch. DStretch produces false color images, but it also makes visible pictographs that would otherwise be impossible to see or publish. Several of the Sierra de San Borja and Sierra de Guadalupe paintings are faded and DStretch was extremely useful in visualizing them both at the sites and afterwards. See DStretch.com for more information. Due to the number of images it is not possible to show both the original and enhanced images in this paper. To get some idea of the original painting see Figure 20. It shows the painting site from which Figure 19c was cropped.

Background

Great Mural art is justly famous for its larger than life depictions of humans and animals in the Sierra de San Francisco, a World Heritage site. The art was known to the Jesuits in the 18th century and investigated by Leon Diguet in the 1890’s. Diguet’s article on the pictographs of Baja California appears in Grant (1974:25-52). In the 1950’s Barbro Dahlgren and Javier Romero (1951) investigated Cueva San Borjitas for INAH (the Mexican archaeological institute, Instituto Nacional de Anthropologia e Historia). The art was rediscovered by Erle Stanley Gardner in the 1960’s (Gardner 1962). In the 1970’s Harry Crosby explored the Sierra de San Francisco, Sierra de Guadalupe, Sierra de San Juan and Sierra de San Borja, discovering many sites. In his explorations Crosby covered the entire area of Great Mural painting and wrote the definitive book on the subject (Crosby 1997). His book will be used extensively in this paper. Study continues under the auspices of INAH by archaeologist Maria de la Luz Gutiérrez Martínez. With Justin Hyland she wrote a book on the art of the Sierra de San Francisco (Gutiérrez and Hyland, 2002). She has completed a significant thesis on this art (Gutiérrez 2013) that is much used in this paper. See Hyland (2009) for more information on previous research.

Great Mural rock art is well characterized in Crosby’s excellent book. The art (for the most part) consists of large (life-size or greater) figures of humans and animals. Crosby

(1997:175) describes the style of the paintings as follows: “humans were drawn head on, animals in profile; outlines are literal, infill patterns fanciful; all anatomical features are revealed in outlines even if distortions of perspective were required”. He further notes that “the Painters adhered to a remarkably rigid code.” (Crosby 1997:211) This style is unlike other rock art traditions which are found both to the south and north of the Great Mural area. Harman (2012) presents images of several such sites to the north.

The “rigid code” of the painters does allow for some variation. It is the spatial distribution of this variation that will be used to document migrations. For this purpose I will focus on the depiction of humans at Great Mural sites. Such depictions have come to be called “monos”. There are monos present at most (but not all) Great Mural sites.

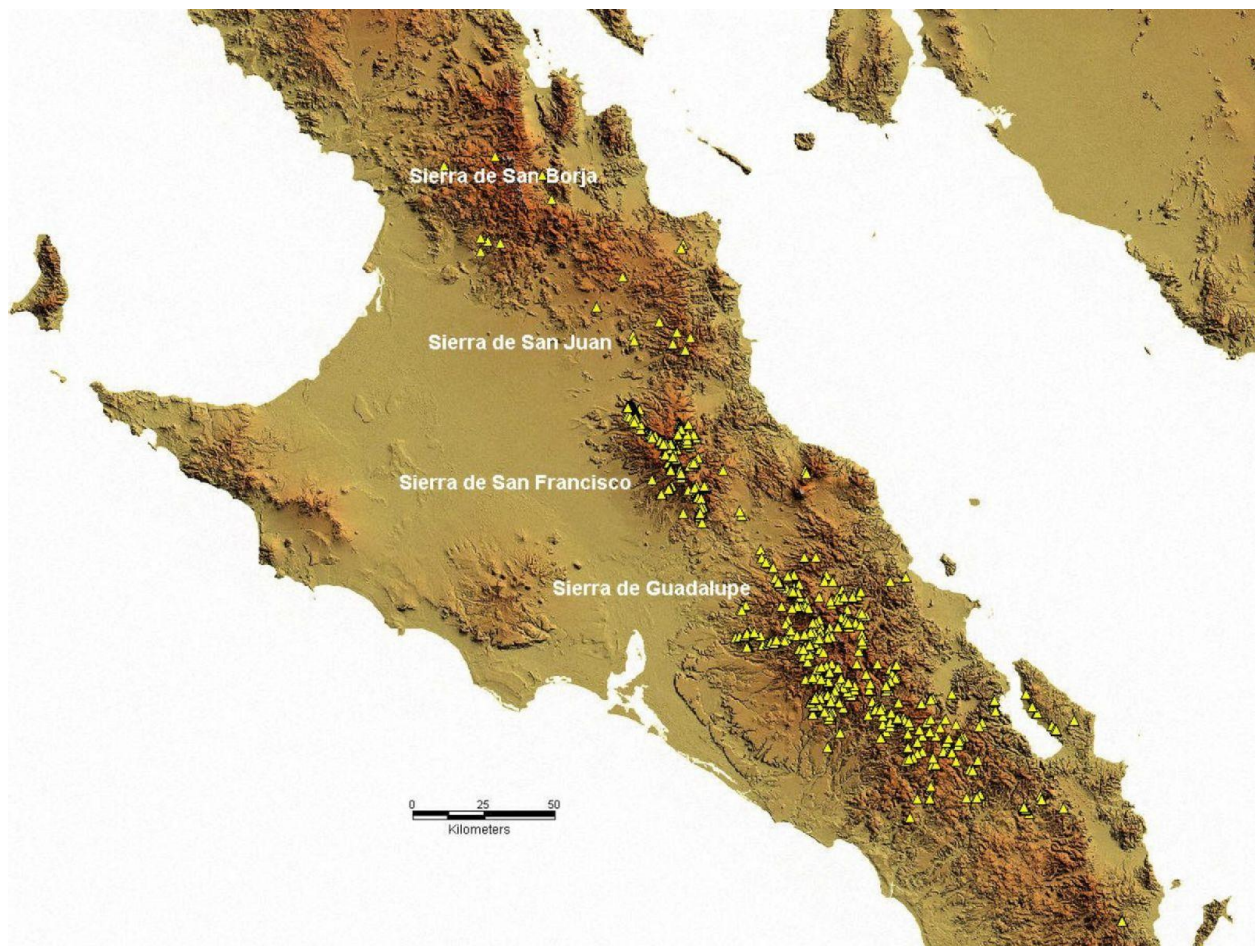


Figure 1 Great Mural Distribution. Map courtesy of Maria de la Luz Gutiérrez Martínez, INAH.

Figure 1 shows the distribution of Great Mural sites. This map is based on years of work recording sites by INAH archaeologist Maria de la Luz Gutiérrez Martínez. Moving from south to north, most of the sites are found in the Sierra de Guadalupe, many in the Sierra de San Francisco, a few in the Sierra de San Juan and even fewer in the Sierra de San Borja.

Other Evidence for Migrations

There is ethnographic and linguistic evidence that supports the thesis that the inhabitants of the central peninsula were highly mobile and did not have strict territorial boundaries. This evidence of course applies to the Cochimí people who occupied the area at the time of the arrival of the Jesuits in the late 17th century. We present it here as supporting evidence, but acknowledge that the relationship between the Great Mural painters and the Cochimí is not known.

During Jesuit times the Cochimí disavowed any relation to the paintings saying that they were made by a race of giants from the north that died out long before (Crosby 1997:16). Dating of the Great Mural art has been attempted, but there is no consensus. Although many researchers have postulated late prehistoric dates for the Great Murals, there have been much older dates from the Sierra de Guadalupe. See Hyland (2006:127) for a discussion.

The relevance for this paper is that similar conditions evoke similar adaptations and so ethnology of more recent people can give insight into the life ways of people in the past (although it is not certain that the Cochimi people did not paint the murals).

Evidence for Mobility from Ethnology

An unknown Jesuit author said this about the Cochimí:

“Thus for months and months or weeks and weeks they are to be found wandering through the mountainous terrain to gain a living.” (Aschmann 1966:26)

There are many similar quotes. The Jesuits made the observations that the inhabitants had no fixed homes and spent much time moving in order to find food. This is hardly unexpected in a desert with wildly different rainfall from place to place and year to year. After years of drought powerful hurricanes can strike the peninsula at random intervals in random places dumping enormous amounts of water that then causes massive destruction in the arroyos. “The heavily eroded Baja California landscape is stark evidence of extended droughts interrupted by rare deluges ... plants and animals have developed specific adaptations to take advantage of ephemeral abundance.” (Rebman and Roberts 2012:6) Humans adapted by developing wide ranging gathering strategies and fluid territories, perhaps moving in and out of whole sierras as rains or drought might engulf the area. It is the thesis of this paper that the rock art documents two such occurrences.

The following Jesuit quote provides some evidence that the territories of the various bands were not fixed.

“However, it must be noted that in the territory of one nation and language, there are sometimes rancherías of the other nations and languages.” (Barco 1981:17)

Great Mural rock art is entirely within the ethnographically determined Cochimí linguistic area, but the Barco quote implies that even the linguistic boundaries were fluid, a reflection of the constant movement by people to utilize available resources.

Linguistic Evidence for Mobility

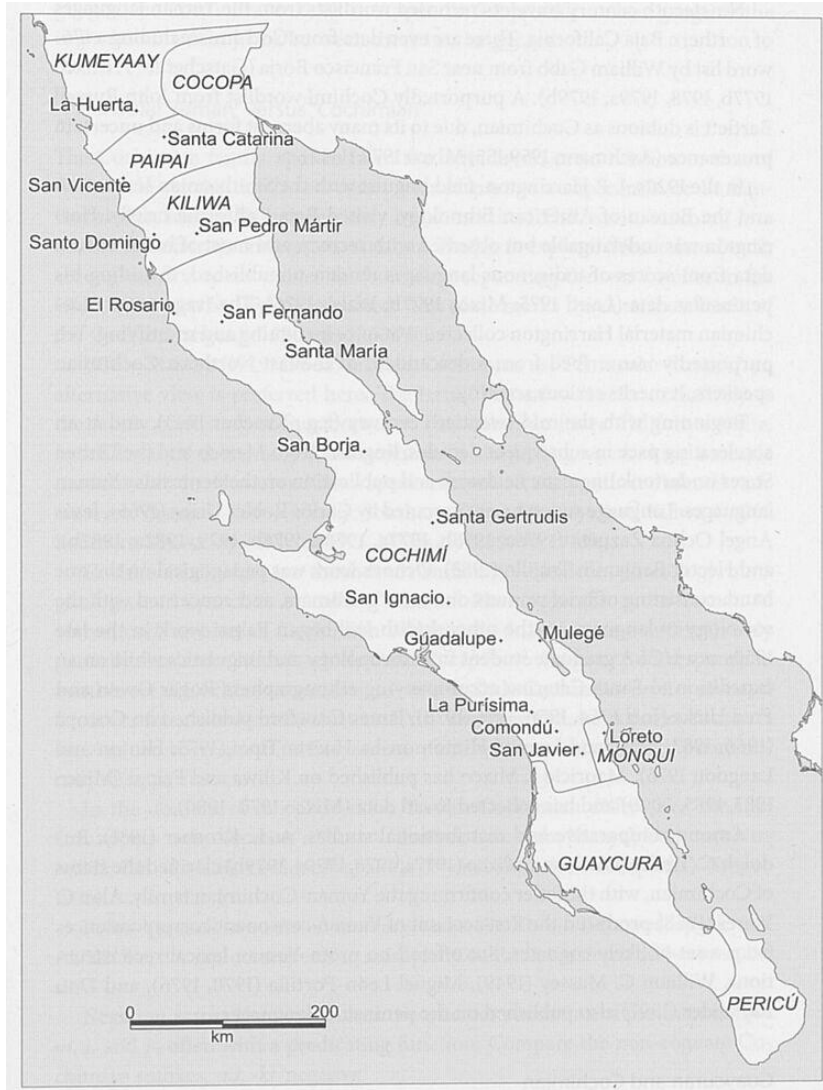


Figure 2 Linguistic Map of Baja California. From (Mixto, 2006:25).

Figure 2 is a linguistic map of the Baja California peninsula at the time of contact (Mixto, 2006:25). The unusually large size of the Cochimí territory in the Central Desert was noted by Aschmann (1967:57). He concludes the large size was due to constant movement:

“The lack of sharp linguistic barriers within the Central Desert is verified in many accounts by missionaries of Indians traveling as much as a hundred miles... Such journeys and migrations were apparently characteristic of the Aboriginal culture.”

The Great Mural area occupies about the lower two thirds of the Cochimí language area up to the site of Mission San Borja. There the rock art style changes. The rock art style to the north of the Great Mural area has been named Northern Abstract by Ewing (1986).

A mobile people

The ethnography thus paints a picture of a people always on the move with no fixed territories. For such a people migration to a new area, even a new mountain range would be natural if conditions change and the new area becomes attractive. This may have commonly occurred. The rock art gives us a snapshot into two such migrations.

Sierra de San Francisco



Figure 3 Cueva Pintada in the Sierra de San Francisco. Photo by Larry Turan.

The Sierra de San Francisco is the best known Great Mural area. There are many dozens of sites in the sierra with sizes varying from small rock shelters holding a few images to huge sites with dozens of images like Cueva Pintada (Figures 3, 4) and Cuesta del Palmarito (Figure 5a).

The paintings can be larger than life size and can occur as much as 15 meters above the shelter floor.

Paintings of monos in this sierra adhere to a code even more rigid than usual in Great Mural art.

- Arms are always up
- Legs are straight in a static posture
- Male monos never have genitals



Figure 4 Cueva Pintada detail. Photo by Jeff LaFave.

The iconic San Francisco mono is the red/black vertical division of the infill or all red or all black versions seen in Figure 4. Other infill possibilities can be seen in Figure 5.

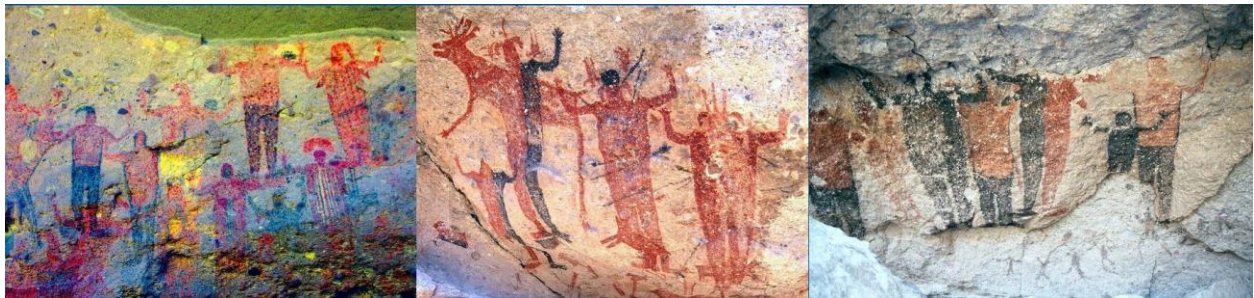


Figure 5. Sierra de San Francisco monos. Left to right: a)Cuesta del Palmarito,DStretch LDS enhancement; b)La Palma;c) Cueva de las Flechas.

The monos at Palmarito convinced the Jesuit Padre at San Ignacio that “The men had loose shirts with sleeves; beyond this a greatcoat and breeches but no shoes.” (Quoted in Crosby 1997:14) My INAH guide from the Sierra de Guadalupe explained that the monos in San Francisco have no genitals because they wore clothes. Whatever the reason, no male genitals are shown. The variation in San Francisco is limited to the infill and the headdresses of the

monos. The outlines of the paintings adhere to the above code. As we shall see other parts of the Great Mural area have different conventions.

The Sierra de San Juan (see Figure 1) is a small range north of the Sierra de San Francisco. From my limited explorations of that area San Francisco conventions are followed (Figure 6).

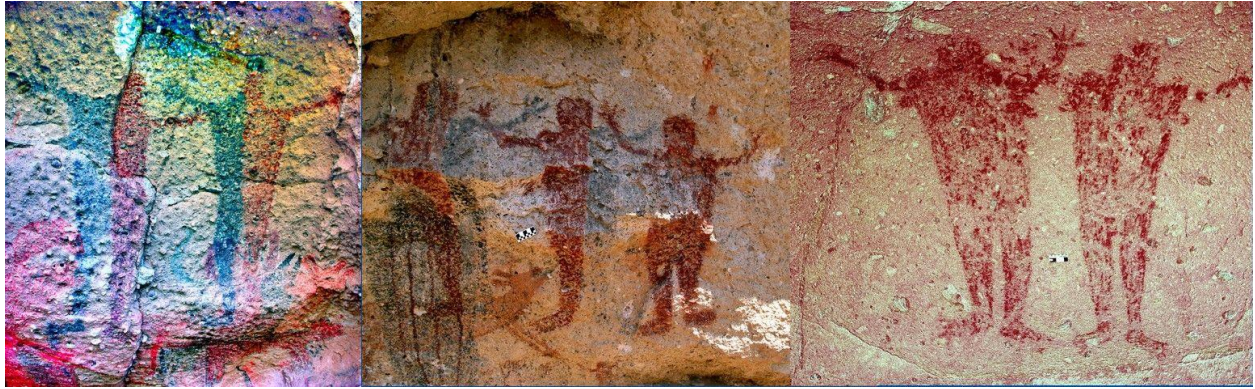


Figure 6. Sierra de San Juan panels. From left to right: a) Santa Gertrudis Norte, DStretch LAB enhancement; b) Cueva Murciélago; c) Los Paradones, DStretch YRE enhancement.

Sierra de San Borja



Figure 7. Panel from Campo Monte in the Sierra de San Borja. DStretch LDS enhancement.

Great Mural art in the Sierra de San Borja is restricted to the portion of the range south of the Mission San Borja. In the 1970's Crosby found 6 Great Mural sites in the Sierra de San Borja (Crosby 1997:194). Of the known sites the largest is Campo Monte, documented in Harman (2009).



Figure 8 Sierra de San Borja panels. Left to right: a) La Palmita, DStretch YRD enhancement; b) La Palmita, DStretch CRGB enhancement; c) Campo Monte, DStretch CRGB enhancement; d) San Pedro, DStretch LRE enhancement

The conventions in San Borja differ from San Francisco in that sometimes the arms of the monos can be down (Figures 7, 8) and sometimes genitals are shown on the male monos (Figures 7, 8b, 8c, 9a). The legs are straight. At two sites the monos are pierced by numerous parallel darts (Figures 9b, 9c). This is a trait that will help to link this art to a particular site in the Sierra de Guadalupe.



Figure 9 Sierra de San Borja panels. Left to right: a) El Toro, DStretch YBK enhancement; b) San Matias, from Crosby (1997:206) used with permission; c) Cardónal, DStretch YRE enhancement.

Harry Crosby named a Great Mural “school” encompassing the San Borja sites: Red-On-Granite. He defined the school by the paint color (almost always red), the position of the paintings (faces of granite boulders), stiff unnaturally proportioned bodies with long torsos and short limbs, and the presence of arms down in many monos. He considered it to be conspicuously homogeneous in style. (Crosby 1997:207) He does not mention the existence of genitals on some monos.

Since Crosby's explorations a few more Great Mural sites have been found. Within 10 km of Campo Monte, there are (by my count) 15 panels at 5 Great Mural sites. I know of 4 sites with a few panels each in other parts of the sierra. A few more sites certainly remain to be found, but even so the number of sites is far fewer than San Francisco or Guadalupe where there are hundreds of sites and some are very large with dozens of paintings. Clearly San Borja is an outlier of Great Mural art. The Sierra de San Francisco and San Juan are the closest Great Mural areas to San Borja, yet San Borja conventions (arms down, genitals present) are not found there. They are found however in the Sierra de Guadalupe. Ewing (1988:43) was the first to mention the possibility that the San Borja Great Mural people came from Guadalupe. Crosby (1997:198-199) found one site at the eastern limit of the range that, although very poorly preserved, looked similar to Sierra de San Francisco sites. Documentation of this site appears in Harman (2013). The monos there have arms up, but are too poorly preserved for further analysis.

Sierra de Guadalupe



Figure 10 Sierra de Guadalupe panels. Left to right: a) Los Clavelitos, DStretch LDS enhancement; b) El Chavalito, DStretch YRE enhancement; c) Monos de Santo Domingo, DStretch LDS enhancement; d) Agua Grande, DStretch YRE enhancement.

The Sierra de Guadalupe is larger and better watered than the other Great Mural sierras. Mission records show that the population density was the highest of the central desert area (Aschmann 1967:154). The number of Great Mural sites in the Sierra de Guadalupe (many hundreds) dwarfs the number contained in all other sierras, see Figure 1. Just as in San Francisco many of these sites are small, but there are several large sites each with dozens of paintings.

Despite the long history of research at Cueva San Borjitas near Mulegé (see below), other parts of the sierra have been neglected. An exception is the account by Harry Crosby of many important Guadalupe sites. Yet even he admitted (Crosby, 1997:180): “Modern interest in the Great Murals began with the discovery of noble examples in the Sierra de San Francisco; my first impressions of this extraordinary artistic phenomenon were formed there as well.”

Gutiérrez (2013) covers Guadalupe in some depth; however issues of access and protection have greatly limited scholarly attention by other researchers. Another problem for the study of sites is their relatively poor preservation compared to the Sierra de San Francisco. Many painted surfaces in the sierra have weathered and much of the paint is lost or badly faded. DStretch enhancement has enabled the study of previously undecipherable panels, see Figure 20. Many large sites in the sierra have never been publicly documented.

Although the art is unquestionably Great Mural, the conventions in the Sierra de Guadalupe vary and do not show the rigidity seen in San Francisco. Arms are mostly up, but there are several cases in which arms are down. Legs may be bent and splayed out. Gutiérrez (2013:312) calls this a dynamic posture. Male and female genitals are sometimes shown. Gutiérrez (2007) has written about the feminine and masculine iconography in the Sierra de Guadalupe. Headdresses are sometimes present.

The conventions are varied and hard to categorize. Gutiérrez (Gutiérrez, 2013:193) characterizes the art as follows (my translation).

“...the imagery of the Sierra de Guadalupe exhibits the greatest diversity in the region investigated here. The panels form an intricate mosaic that has a rich repertoire of motifs with large variations that coexist without apparent order. Given this confusing situation, it is important to note that, except for some cases, it is truly difficult to define boundaries between these sub-styles, as they are subtle, with broad areas of transition where certain motifs or tendencies coexist in many sites often away from their core areas.”



Figure 11 Sierra de Guadalupe panels. Left to right: a) Los Venados, DStretch YRD enhancement; b) Los Ajos, DStretch LDS enhancement; c) La Estrella, DStretch LDS enhancement; d) Cerro Pelón, DStretch LDS enhancement.

Figures 10 and 11 give a sampling of the different mono conventions. There are other examples in the sections on San Borjitas and Monos de San Juan. The sites represented in the figures are distributed throughout the sierra and represent only a portion of mono types. Many conventions seen in these images (for example black faces (Figure 10c), checkerboard infill, headdress style, leg placement, arms down) reoccur with permutations at other sites. Arguably San Francisco has the most graceful Great Mural art, but in Guadalupe creativity rules.

Evidence for a Chronology

“I easily assumed the viewpoint that San Francisco was the cradle of this art. ... It is equally logical to propose that various schools, following Great Mural conventions, developed in different areas of Guadalupe and that the bands which created the San Juan school, being nearest to San Francisco, carried their art north. One or the other of these propositions will probably fit the facts – but those facts remain to be unearthed.” (Crosby 1997:181)

The facts don't need to be unearthed. At the sites of Cueva San Borjitas and Monos de San Juan in the Sierra de Guadalupe superimpositions demonstrate the existence of Great Mural art that predates the San Francisco art. In addition to Harry Crosby, Eve Ewing (1988:43) also proposed that the Great Mural artists came from Guadalupe.



Figure 12 Entrance to Cueva San Borjitas

Cueva San Borjitas

Cueva San Borjitas is about 23 km west of Mulege in Baja California Sur. Figure 12 shows the entrance to this famous cave. Leon Diguët photographed this site in 1894 (Grant 1974:31, 34). In 1951 INAH sent researchers Barbro Dahlgren and Javier Romero to investigate San Borjitas. They produced an article (Dahlgren and Romero, 1951) that included a drawing (by Dahlgren) of the ceiling, Figure 13. In the article Dahlgren gave names to several types of monos and determined their relative sequence. In 1974 Campbell Grant published a book on the rock art of Baja California that included a section on San Borjitas (1974:95-105). He drew the ceiling, named mono types, and produced a relative sequence. Gutiérrez (2013:353-372) has also analyzed the paintings, has produced a relative sequence, and has illustrated the ceiling and walls. Harman (2010) gives a more thorough discussion of the history of research and superimpositions in the cave.

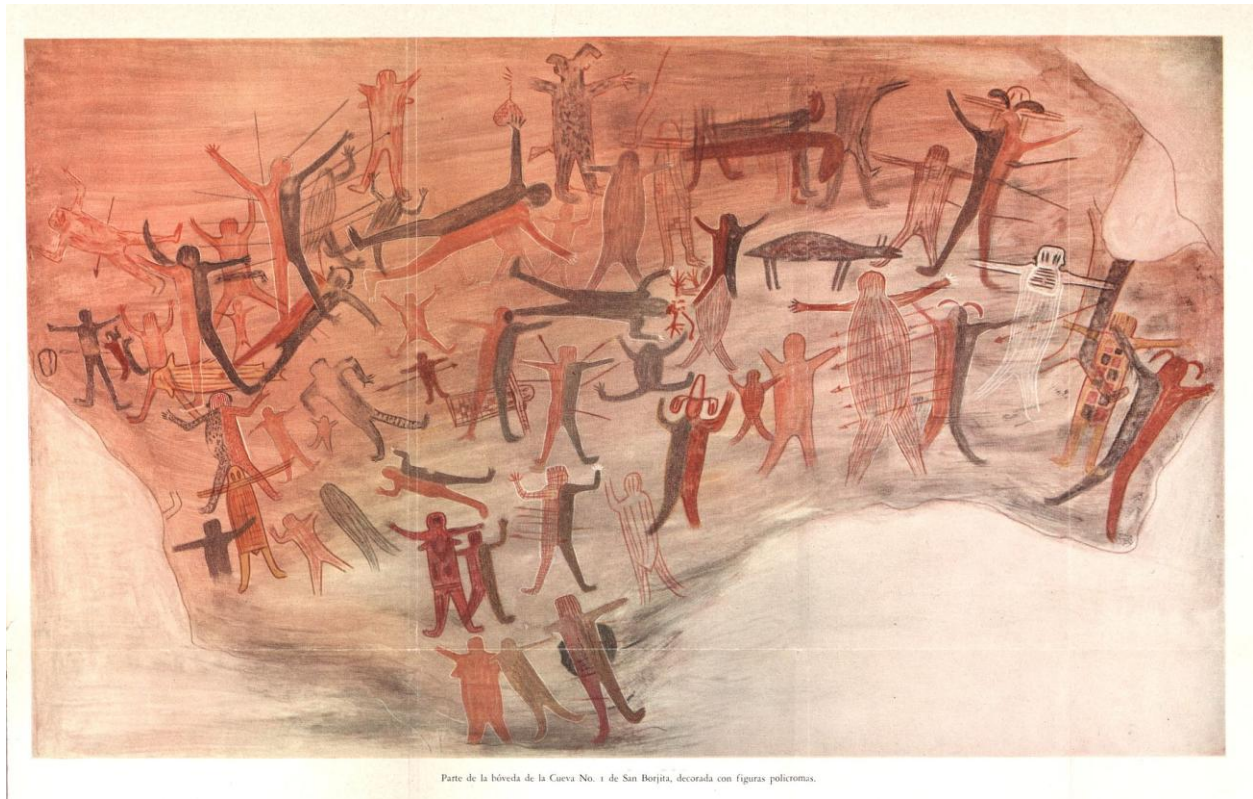


Figure 13 Drawing of the ceiling of San Borjitas by Barbro Dahlgren

The sequences of the various authors differ in details and it is not always clear in Dahlgren or Grant which name refers to which particular monos. However they all agree that the style most like that in the Sierra de San Francisco is the youngest. In Dahlgren's drawing (Figure 13) the San Francisco like monos (called bi-colors by Dahlgren and Grant) are the large red and black monos. Dahlgren also includes the large all red and all black monos in that category. The monos differ from the San Francisco conventions in that they often have male genitalia depicted, but otherwise are very similar with straight legs and some headdresses.



Figure 14 Detail of the San Borjitas ceiling showing superimposition of San Francisco bi-colors on top of cardónes. DStretch LAB enhancement.

Figure 14 shows a portion of the ceiling. In that photo the San Francisco like monos are clearly superimposed over smaller monos. The smaller monos have vertical stripes and widespread legs. There are many examples of them in San Borjitas, including some which are larger. I will call them cardónes, a name given by Dahlgren to the larger monos inspired by the giant cactus found nearby. The monos have somewhat bulbous bodies, with vertically striped body infill done in red or black (Dahlgren and Romero, 1951:173). They often have widespread bent legs. Most do not have headdresses.



Figure 15 Cardónes from Cueva San Borjitas. Left to right: a) DStretch RGB0 enhancement; a) DStretch LAB enhancement; c) DStretch YRD enhancement; d) DStretch LBK enhancement.

Figure 15 shows several of the cardónes found at San Borjitas. The bent legs in cardónes in Figure 14 and 15c are examples of Gutiérrez's dynamic posture. Such legs can be seen in monos painted throughout the Sierra de Guadalupe (Figures 10 a, b, c, 11 b, c).



Figure 16 Detail of the San Borjitas ceiling showing superimposition (black arm at center) of San Francisco bi-color on top of scarecrow.

There are other styles present at San Borjitas overlain by bi-colors. Figure 16 shows a “scarecrow” (Dahlgren’s term is *espantajos*) beneath the arm of a bi-color. They have straight arms, checkerboard infill, elliptical heads, and are often painted using some yellow paint (Dahlgren and Romero, 1951:173). Figure 17 shows another scarecrow beneath the legs of a bi-color. Dahlgren considered these to be the oldest monos at San Borjitas (*ibid*).

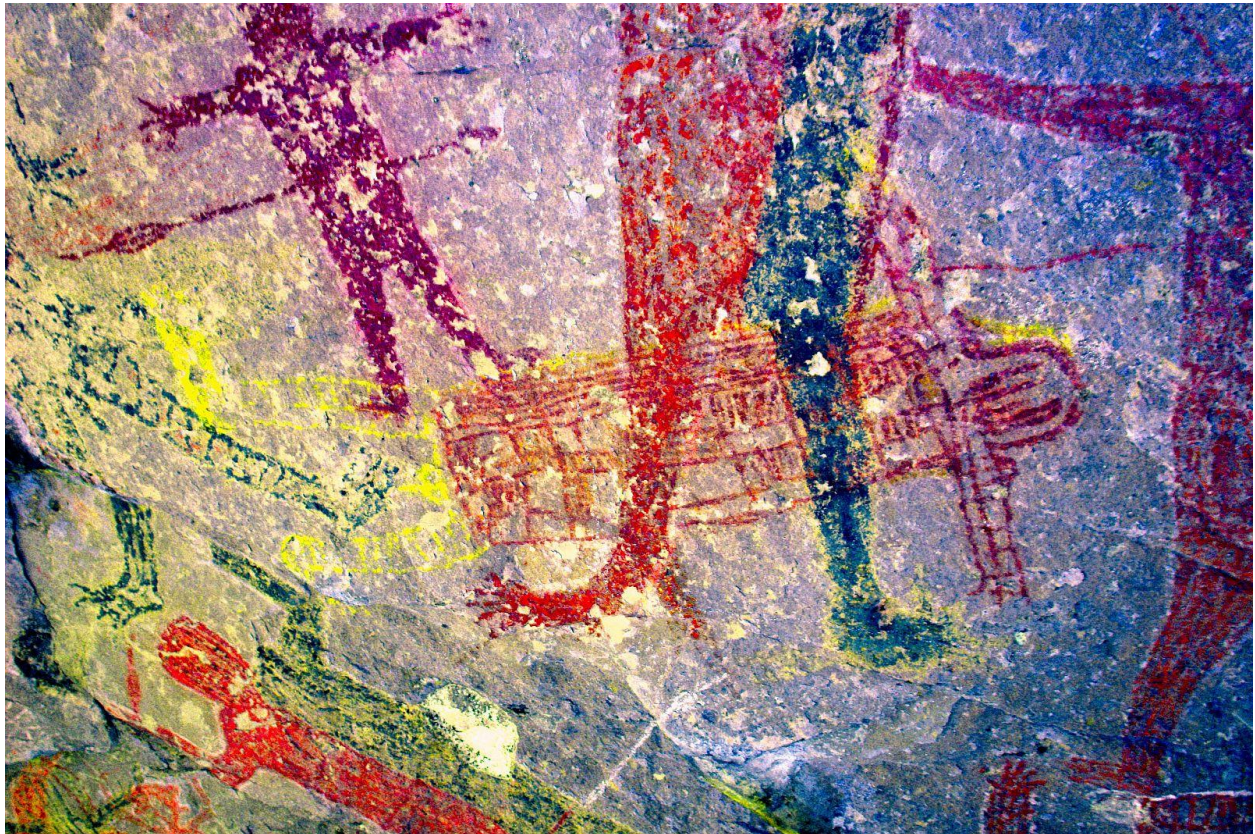


Figure 17 Detail of the San Borjitas ceiling showing superimposition (legs) of San Francisco bi-color on top of scarecrow. DStretch LDS enhancement.

The variety of monos found in the Sierra de Guadalupe makes it hard to rigidly define types; yet strong similarities of style at different sites can be seen and it is very useful to have names that can be referred to. I will use Dahlgren’s terms defined for San Borjitas (*cardónes*, scarecrows, and bi-colors) to refer also to similar monos found elsewhere in the sierra. For this purpose I will define a scarecrow simply to be a mono with checkerboard infill; this differs somewhat from Dahlgren’s definition and is problematic for the monos in Figure 11c, d which are probably younger than the older scarecrow tradition.

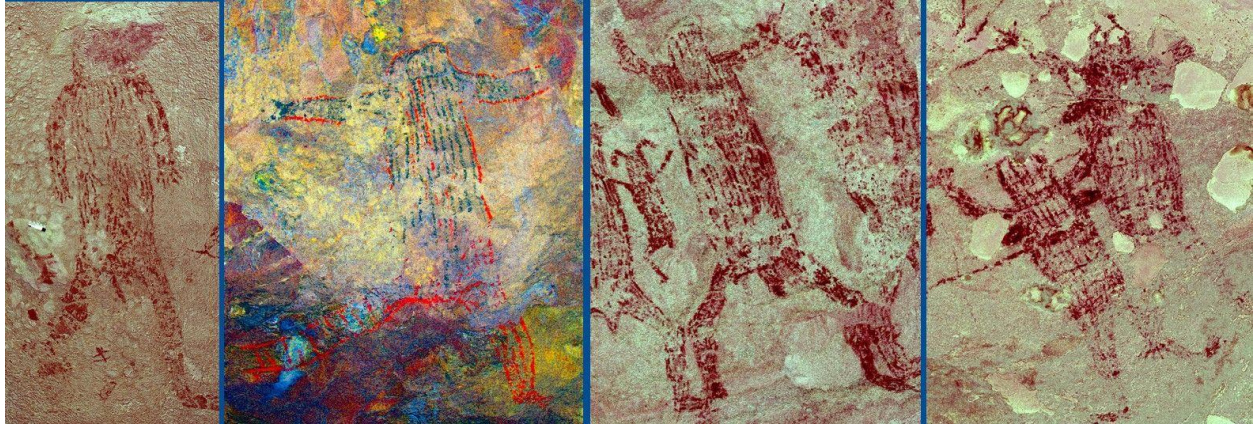


Figure 18. Cardónes from sites in the Sierra de Guadalupe. Left to right: a) Los Ajos, DStretch YRE enhancement; b) Pie de la Cuesta Guadalupe, DStretch LDS enhancement; c) Boca de las Piedras, DStretch YRE enhancement; d) Los Gatos, DStretch YRE enhancement.

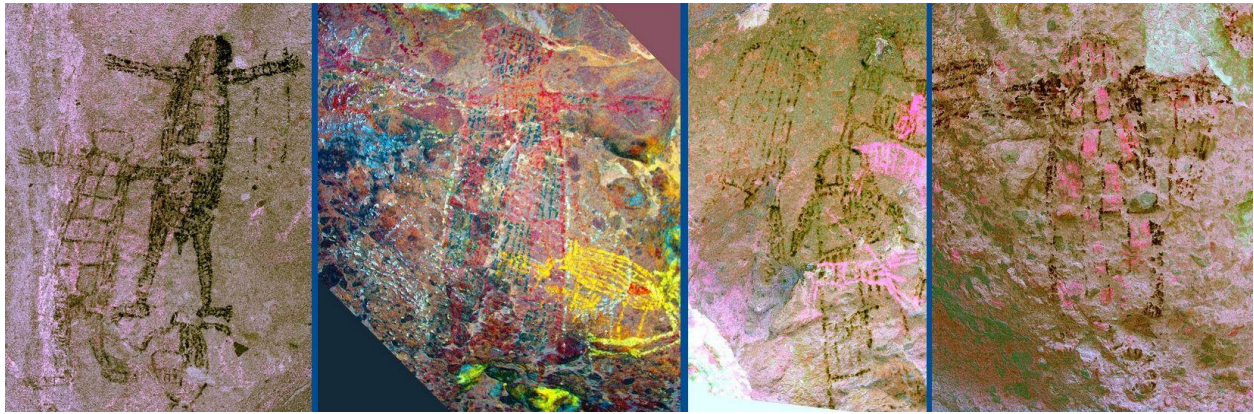


Figure 19 Scarecrows from sites in the Sierra de Guadalupe. Left to right: a) Toños, DStretch YYE enhancement; b) Pie de la Cuesta Guadalupe, DStretch LDS enhancement; c) Chapala, DStretch YYE enhancement; d) Huatamote, DStretch YYE enhancement.

Cardónes and scarecrows can be found at many sites in the Sierra de Guadalupe including several near San Borjitas, see Figures 18 (cardónes) and 19 (scarecrows). In Figure 19 (a, c, d) I have included images from apparently (no dating has been done) old caves done in yellow paint. The DStretch YYE enhancements change the very difficult to see yellow into brown. In Figure 19c there is a cardón with arms down on the left and a scarecrow also with arms down (violating Dahlgren's definition) on the right. The painting there is nearly invisible. The DStretch enhancement makes the monos visible, but changes the colors. Figure 20a is an unenhanced image of the cave wall. It gives an idea of the actual cave surface. Figure 20b is the same photo with DStretch YYE enhancement.

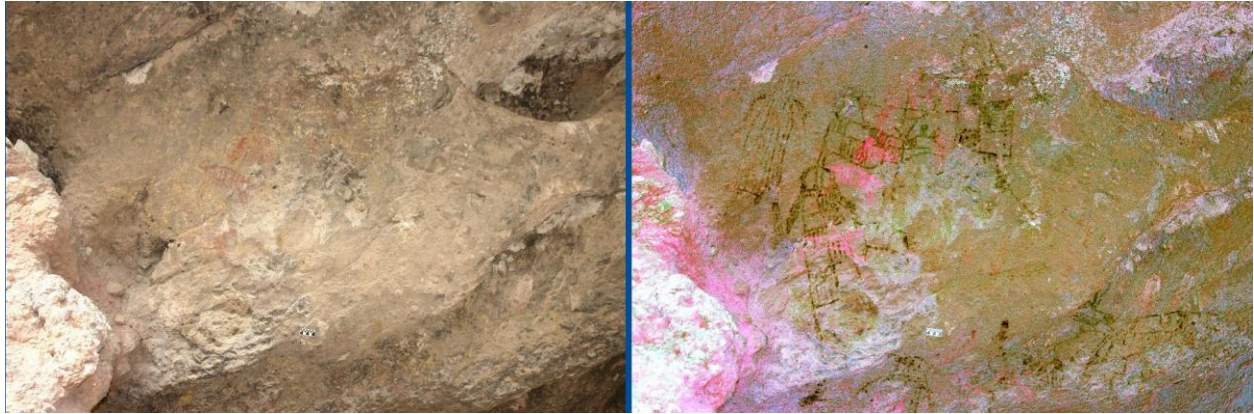


Figure 20 Left a) Unenhanced image of Cueva Chapala; Right: b) DStretch YYE enhancement. Compare with Figure 19c.

This gives two early traditions in the Sierra de Guadalupe that predate the San Francisco style. Gutiérrez (2013:250-260) has analyzed sites near San Borjitas from a landscape viewpoint and has identified many that she calls secondary to San Borjitas. Cardónes and scarecrows can be found at many of these sites. Figure 18a, b, and 19a, b, and d are from such sites.



Figure 21 Monos de San Juan panorama. Overhang is at the right side of panorama.

Monos de San Juan

Monos de San Juan is a large and impressive site in the Sierra de Guadalupe about 33 km west of San Borjitas. Many larger than life monos are placed high on the cliff wall (Figure 21), although there are smaller and lower monos present as well. Leon Diguët photographed this site in 1894 (Grant 1974:36). Harry Crosby visited the site and realized its importance (Crosby 1997:129-132). Gutiérrez (2013:373-388) extensively documents the site including a sequence for the images. Crosby (1997:176) recognized a connection between Monos de San Juan (and other sites in the northern Sierra de Guadalupe) and the paintings in the Sierra de San Francisco.



Figure 22 Monos de San Juan panel.

The monos seen in Figure 22 demonstrate this connection. Many of the monos have similar proportions, outline, and infill as ones in San Francisco and we would classify them as bi-colors. There are some differences. The bi-colors present at Monos de San Juan show more diversity than exists in San Francisco. Some monos have leg positions more typical of Guadalupe than San Francisco (see Figure 22 center) and a few show male genitals (as can be seen in Figure 23 in the monos at far left and right).



Figure 23 Monos de San Juan panel. DStretch LDS enhancement

At an overhang in the site there is evidence for superimposition of a bi-color over a cardón. The overhang is shown at lower right in Figure 21.



Figure 24 Detail of area to upper left of overhang.

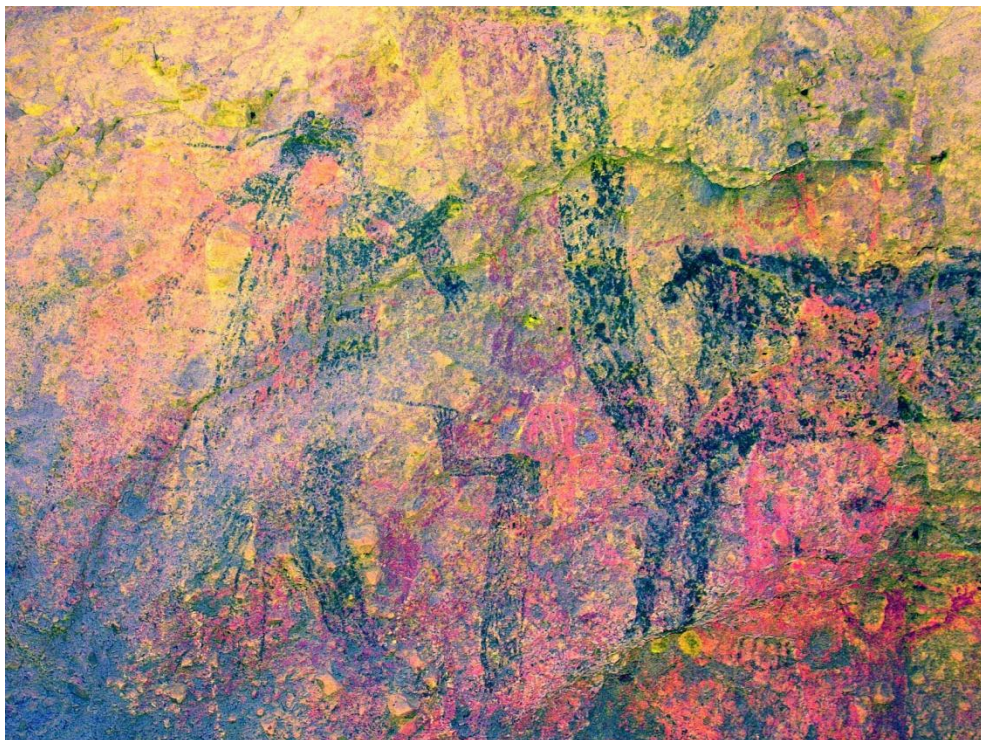


Figure 25 DStretch YBK enhancement of Figure 24 showing black cardón at left with arms down.



Figure 26 DStretch YRE enhancement of Figure 24 showing red side of bi-color over cardón.

Figure 24 is a close-up of an area just above the left side of the overhang. In Figure 25 a DStretch YBK enhancement (emphasizing blacks) shows on the left a black cardón with arms down. On the right side of that mono one can see a black arm extending up. Figure 26 is a DStretch YRE enhancement of the same image which emphasizes reds. There it is clear that the black upraised arm is just the black right side of a bi-color mono with a red side on the left. This mono follows the strict San Francisco conventions including straight legs. Its position directly on top of the cardón indicates that it may have been intentionally placed over the older mono. Figure 26 also shows two faint red cardónes with arms down, one at the far left and one at the far right. The arms down monos provide a connection with the Sierra de San Borja, as does the genitals on several monos. A further connection is given by the many parallel darts seen at left and right in Figure 27. Other examples can be seen in Figures 23 and 25.



Figure 27. Detail of Monos de San Juan panel showing many parallel darts. DStretch YBK enhancement.

The Migrations

Migration to Sierra de San Borja

The Great Mural art of the Sierra de San Borja shows a clear relation with the Sierra de Guadalupe and especially with the site Monos de San Juan; but not with the closer Sierra de San Francisco or San Juan. The distribution of arms down monos shown in Figure 28 confirms this. It is likely that the art was painted by people from Guadalupe, who travelled to San Borja and bypassed San Francisco. This may have happened before the movement to San Francisco, as arms down monos are found in Guadalupe only at sites with old types, either cardónes or scarecrows.

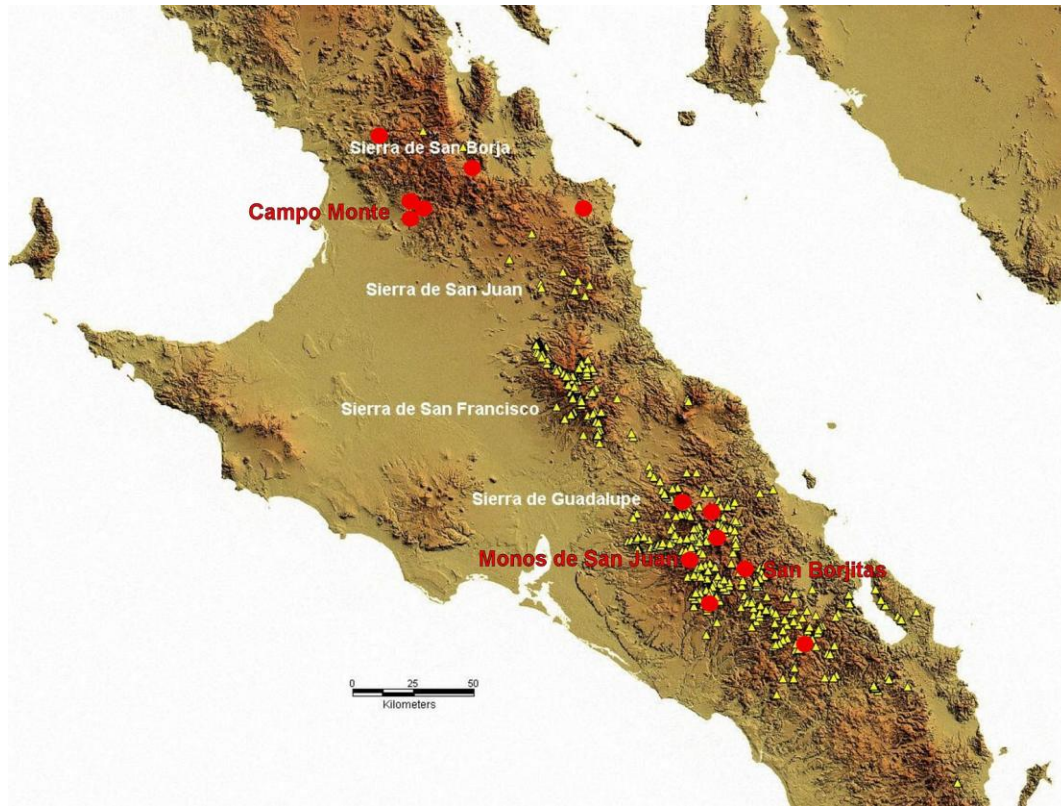


Figure 28 Distribution of monos with arms down. Red dots are locations of sites with arms down.

The few Great Mural sites in San Borja and their stylistic uniformity demonstrate an absence of time depth for the Great Mural art there. It is possible that people seasonally made the 200 km trek to Campo Monte from the Sierra de Guadalupe, but I think it far more probable that a group from Guadalupe migrated to there and made the art.

To the north of the Great Mural sites are other rock art sites, but they are very different in nature. See Harman (2012) for a description of several sites. At the border between the two rock art styles there are some areas where the art intermixes. See Harman (2014) for a description of an interesting juxtaposition of sites. Ritter (1995:17) has hypothesized that the rock art boundary coincides with a linguistic/cultural boundary. South of the boundary abstract sites are not common. This gives some evidence that the area south of the boundary may have been empty when the Great Mural painters arrived.

Migration to Sierra de San Francisco

The superimposition evidence at both Cueva San Borjitas and Monos de San Juan shows convincingly that Great Mural art in the Sierra de Guadalupe predates that in the Sierra de San Francisco. The many sites with hundreds of paintings in San Francisco demonstrate time depth. There is also some evidence of change in style, for instance infill styles at Cueva Pintada (Figures 3 and 4) verses Palmarito (Figure 5a) and La Palma (Figure 5b) where horizontal division of the

body commonly appears. Gutiérrez and Hyland (2002:367-378) studied headdress styles in the Sierra de San Francisco and concluded that there were significant differences in headdress style between arroyos. Nevertheless when compared with the great diversity of styles in Guadalupe the San Francisco art follows an especially rigid code. Cueva Pintada is about 80 km north of Monos de San Juan and seasonal movement from Guadalupe to San Francisco cannot be ruled out, but there are no large sites in the Sierra de Guadalupe that follow the rigid San Francisco rules. This argues against the existence of a group in Guadalupe that made seasonal movements to San Francisco.

The lack of diversity in San Francisco is another indication of migration. If the varying styles in Guadalupe reflect a natural evolution of the art over time and space then why is the San Francisco art so uniform? The painters there were clearly at the apex of Great Mural artistic expression. The art they brought from Guadalupe was a mature style that had become constrained and there were no previous traditions of Great Mural Art in the Sierra de San Francisco.

Discussion

Guadalupe art reflects diffusion through time and space. Traits such as arms down grew and then disappeared. The cardón and scarecrow monos were replaced by other styles. Despite the changes, the basic Great Mural character of the art remained. Some traits, for instance the checkerboard infill, occasionally reappear at different places and times, see Figure 11 c, d. The black faces seen in Figure 10c at Monos de Santa Domingo appear at other sites in both Guadalupe and San Francisco (Crosby 1997:138). The many different conventions in this sierra that still fall within the overall Great Mural style argue for a long tradition of the art and many different groups practicing it. The differing styles reflect a natural evolution of the art over time and space.

There is so far no firm superimposition evidence for styles after the bi-colors in the Sierra de Guadalupe. In the southern and western part of the range are several large sites and styles that are clearly different from anything found in the north. The southern part of the Sierra de Guadalupe has so far received little study. There is however some evidence at the large site Chavalito that many paintings are newer than apparently older bi-color images found there. This is tantalizing evidence that Great Mural artists in the northern part of the sierra left for San Francisco while the painting continued and evolved in the southern part.

The special character of Great Mural art in Baja California deserves study. The Great Mural groups developed an art that gave a sense of inclusion within a larger tradition yet contained differing details of expression within this tradition. This seems distinctly different from the rock art (much of which is abstract) that dominates the peninsula (and the North

American desert southwest) elsewhere. Not only is each site unique, but nearly every painting is unique.

Conclusion

The vagaries of weather and rainfall in the Baja California peninsula required special adaptations from the people living there. They adopted a highly mobile lifestyle constantly foraging for food. The record left behind by their art gives us insight into larger movements. The large, populous Sierra de Guadalupe provided a reservoir for groups to move to other sierras. One group moved 200 km to the Sierra de San Borja. The painting tradition there did not last long. Later another group moved 80 km to the Sierra de San Francisco and San Juan where the painting persisted for some time. Thus Great Mural art has documented migrations of people of up to 200 km in the Baja California peninsula.

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