

Decoding the Rock Art of Old Hawai'i: A Brief Report on Petroglyphs in Manukā, Ka'ū District, Hawai'i Island

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Abstract

We describe petroglyphs documented in a survey of household complexes in a section of Manukā Ahupua'a, Ka'ū District, Hawai'i Island called Kīpuka Malua. The larger number of anthropomorphic figures found in one household is interpreted as reflecting a concern with *mana*, or spiritual power, by a local chief. We also consider the more specific notion that these images commemorate travel and thus reflect a social strategy of emphasizing long-distance networks.

Introduction

Academic research on the rock art, or *ki'i pōhaku*, created by the ancestors of Kānaka Maoli has generally come in to the archaeological literature from two types of research. The first type of research is formal scholarship aimed at documenting, classifying, dating, and interpreting petroglyphs. These studies are summarized in widely available volumes highlighting exceptional examples of rock art (e.g., Cox and Stasack 1970; Lee and Stasack 1999), as well as an important, large body of limited circulation reports available at the State Historic Preservation Division's library and university libraries. The second type is full-coverage archaeological survey. In these studies, it is common for petroglyphs discovered on survey to be well documented through field maps, drawings, and photos, but efforts to decode the meaning of petroglyphs in terms of the larger cultural landscape are rare (e.g., Millerstrom and Kirch 2002).

In our recent survey we documented a number of petroglyphs in association with two adjacent household complexes (*kauhale*) near Manukā Bay in Ka'ū District, Hawai'i Island. In this paper we view these rock art images through the theoretical framework of political economy and suggest that the

accumulation of more images within the larger of the two households is an outward display of the *mana*, or spiritual power, of a local chief or *konohiki*. This does not exclude many other reasonable interpretations, and at present, we do not know the precise chronological relationship between the art and the occupation of the households (e.g., Dye 2010). Further, we lack direct historical information from oral traditions that would help interpret the images. Nonetheless, we felt it was important to present this reading of the evidence to encourage more diligent and detailed documentation, careful analyses, and decoding of rock art found during survey.

Background

Manukā Ahupua'a is best known to archaeologists as the location in Ka'ū District where Allen and McAnany (1994) conducted a settlement pattern survey with the purpose of testing Handy and Pukui's (1958) *'ohana* model (Figure 1). They noted that due to the marginal conditions for upland agriculture, permanent habitation was restricted to the coastal zone. This meant that there was no pre-contact upland-coastal exchange system in Manukā; although it should be noted that strong evidence for the *'ohana*

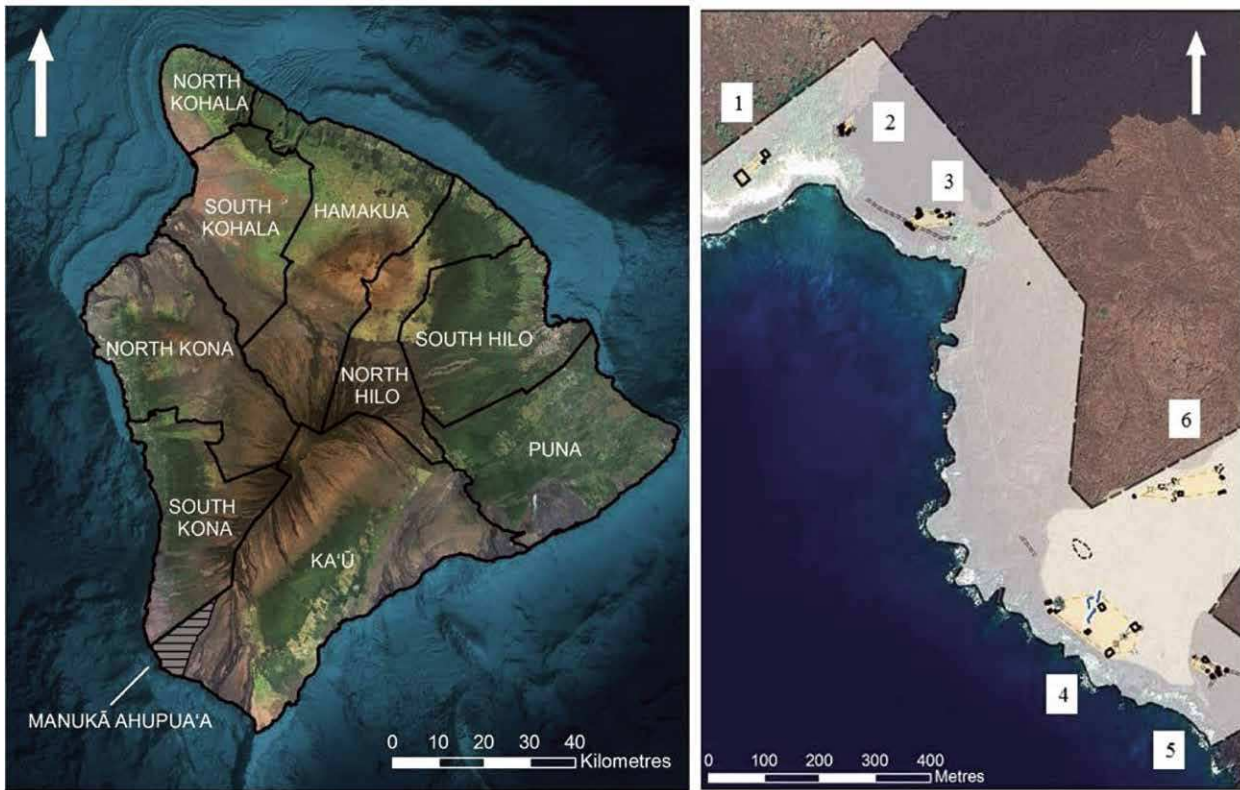


Figure 1. Manukā Ahupua'a, Ka'ū District is a naturally barren area with exposed basalt flows and little soil development except for on pockets of geologically older flows (*kipuka*). Sources: Ladefoged *et al.* (2009); Sherrod *et al.* (2007).



Figure 2. Examples of buildings found on older flows (top) and younger flows (bottom); interior of structures shown with dashed line. Sources: Allen & McAnany (1994:Fig 2); Sherrod *et al.* (2007).

model has been found elsewhere (Field *et al.* 2011).

We went to Manukā in 2012 to record house sites as part of research looking at how the rules of *kapu* were materialized in different domestic settings (Codlin 2014). The lack of trees and soil development means there is a high likelihood of discovering the stone foundations of buildings. Also, on exposed ‘a‘ā and pahoehoe any living space would require clearing stone which leaves behind telltale prepared surfaces (Figure 2). A lack of soil further necessitated the construction of core-filled walls and platforms to support wooden beams where digging postholes was impossible. Lastly, since perishable materials used in constructing coastal house sites would require a trip to the uplands, there would have been a high logistical price on building houses. Therefore, a household with more, and larger, buildings we presume reflects greater relative wealth and status.

In Manukā there is a section of older lava flow surrounded by younger flows called Kīpuka Malua that has a number of well-preserved house sites (Figure 3). Reconnaissance survey in the 1960s followed up by intensive survey in 1977 resulted in the discovery of

over 100 features and the whole of Kīpuka Malua was given the State Site designation 50-10-71-2159. Allen and McAnany (1994) defined a number of complexes within the site designation. Unfortunately, we could not reliably use the original designations and so defined our own numbering system.

The focus of this paper is rock art recorded at two adjacent house sites. Below, we begin by describing petroglyphs recorded at a large household (Complex 4, internal floor area: 258 m²). We presume this was the home of a high ranked family. Next we describe rock art found at a much more modest house site with a combined internal floor area floor area of just 26 m² (Complex 6), that we presume belonged to a lower ranked family.

Petroglyphs in a Large Household (Complex 4), Kīpuka Malua (50-10-71-2159)

The largest household complex in this *kīpuka* – both in the area over which buildings were spread and in the total floor area of buildings – is designated here as Complex 4. We interpret Complex 4 as home to a local elite, possibly the *konohiki*. It consists

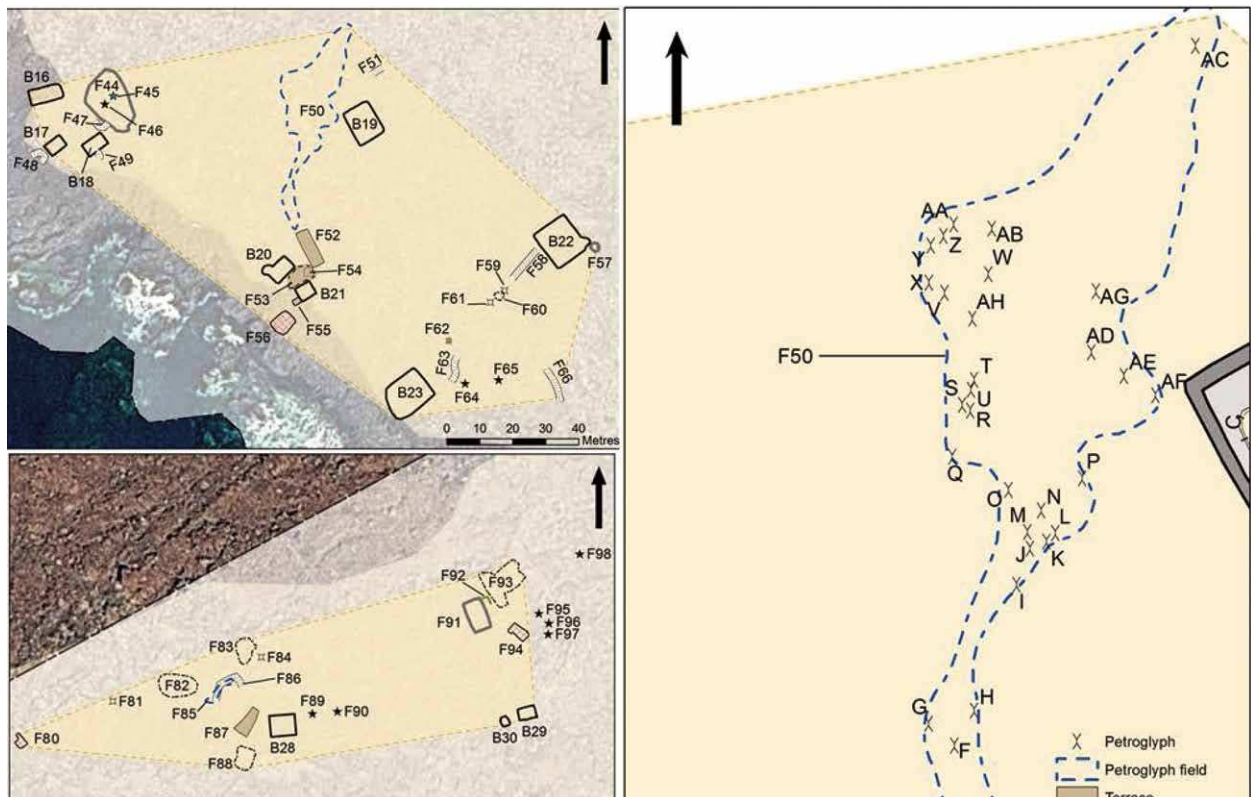


Figure 3. Buildings and other architectural features in Kīpuka Malua associated with the two fields of petroglyphs (see Codlin 2014).

of seven buildings spread over a large coastal section of Kīpuka Malua about a kilometer south of Manukā Bay (Figure 3). There are three sections to the complex. The western end has three elongated buildings, two interpreted as canoe sheds (*halau*) and the third as some type of house (*hale*). The far eastern end has the largest buildings recorded in the area and is interpreted as the primary living area including a large house (*hale*) that could have made a suitable sleeping house (*hale noa*) (Building 23) and a men's house (*mua*) (Building 22). In the center of the complex is a small group of historic era structures at the coast and a third *halau*. This is also the location of a building (Building 19) built in a similar fashion to the *mua*, with a core-filled wall around a shallow collapsed section of a lava tube.

A field of 35 petroglyphs (Feature 50) is found in five loosely defined clusters with two isolated images roughly 20 m away from the main field (Figure 3; Table 1). Previously reported as “a field of 25 petroglyphs... comprised largely of human figures,” (Allen and McAnany 1994:35), most were pecked on to near-horizontal bedrock, but a few of the larger examples were pecked or incised with a stone tool on boulders or near vertical lava blisters. All images are consistent with the pre-contact era styles of images in terms of method (e.g., no incising with a metal tool) and content (e.g., no post-contact letters or examples of Western contact images). For this study panels were given unique identification numbers (e.g., Feature 50-A, 50-B, etc.), and recorded as points on a Trimble GeoXT GPS with their locations later differentially

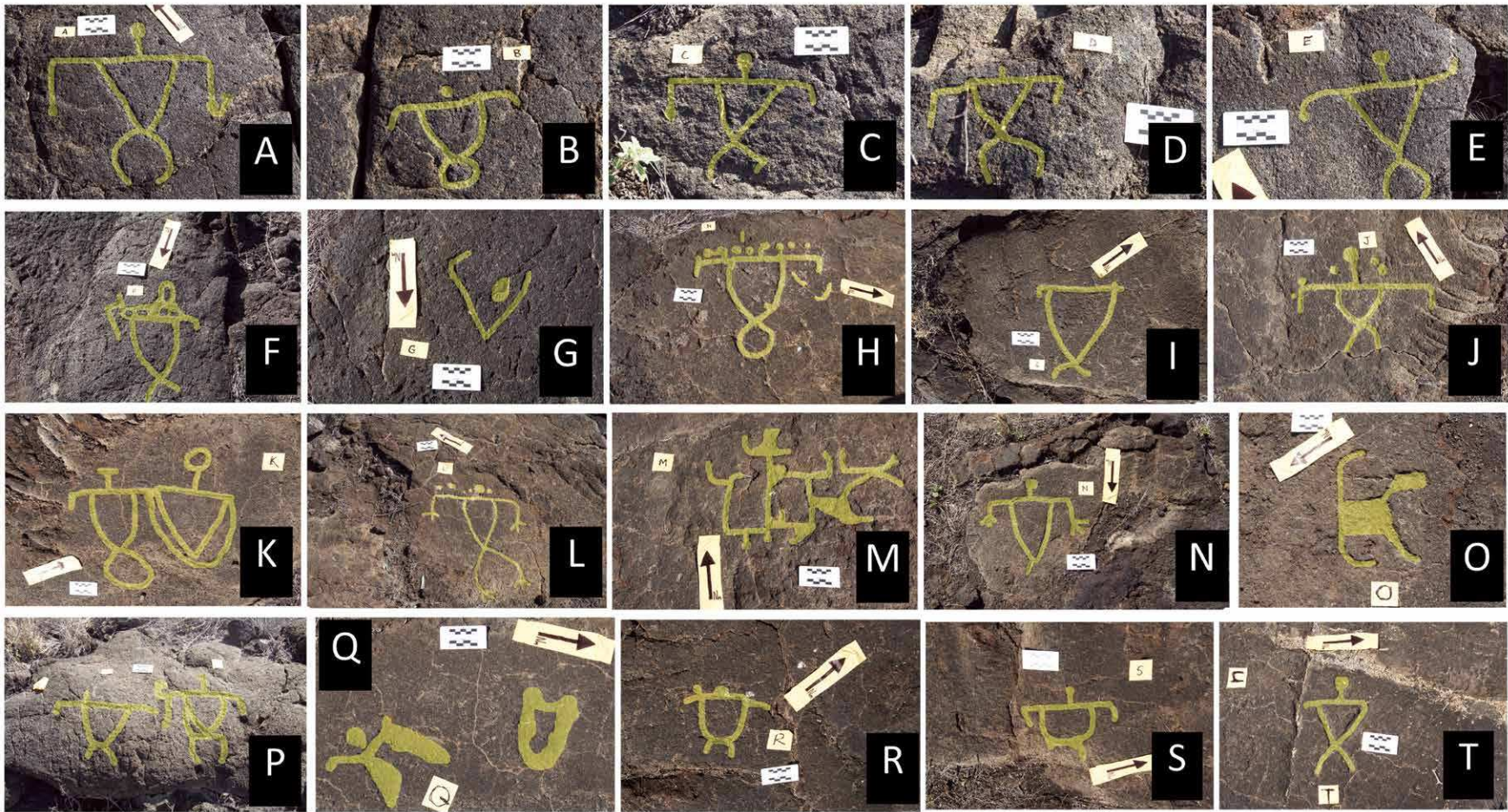


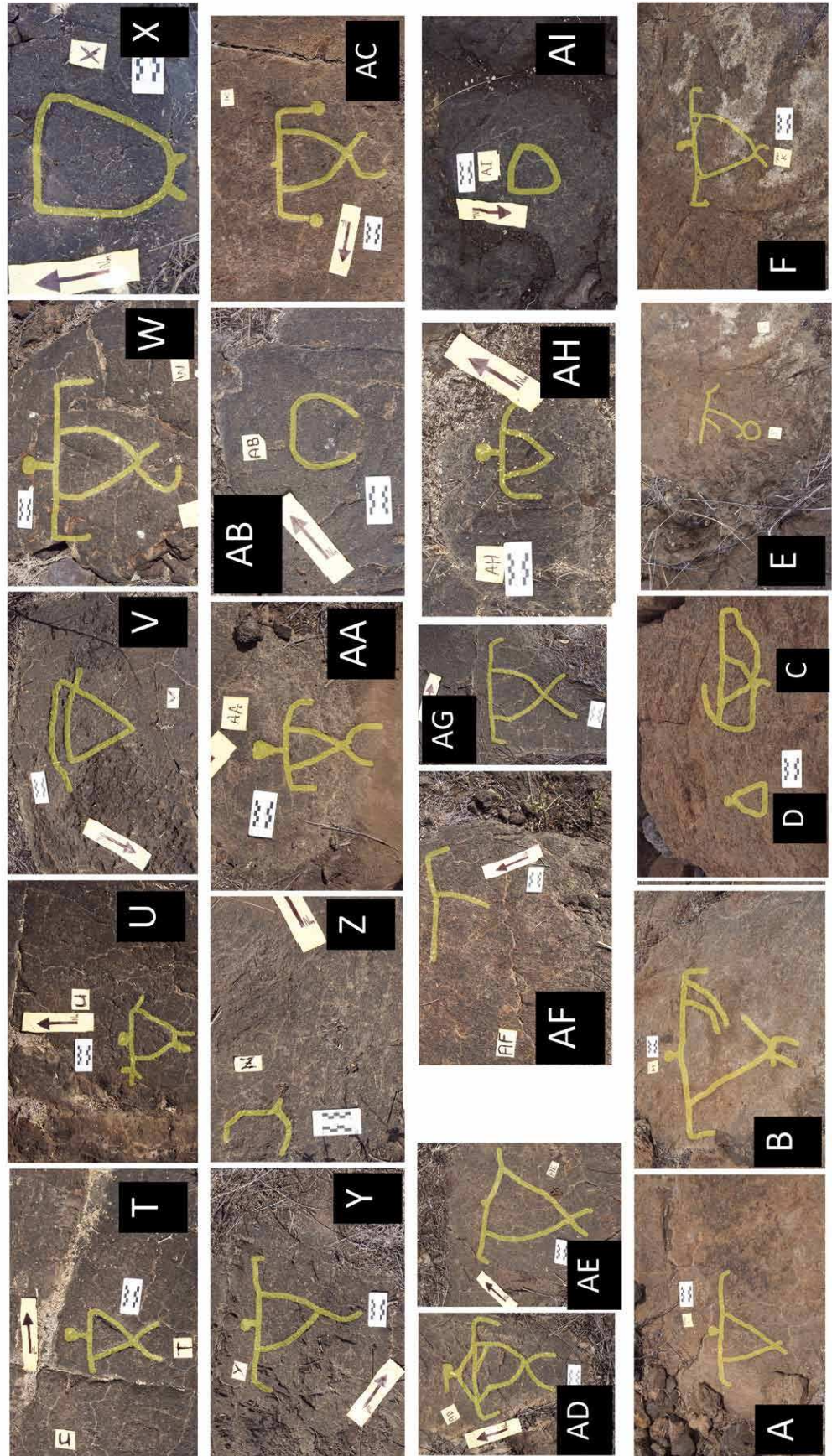
Figure 4. Petroglyphs were photographed, traced by marker on to clear plastic, and then these photos and tracings were combined to create a composite image.

Table 1. Summary of panels in Feature 50.

Location	Description	Panel Orientation
1	A anthropomorph, triangular torso, with circle legs, downward arms with object in hand, dot head	229.5°
	B anthropomorph, triangular torso, with circle legs, downward arms, dot head	229.5°
	C anthropomorph, triangular torso, with legs, downward arms, dot head	229.5°
	D anthropomorph, triangular torso, with legs, downward arms, dot head	229.5°
	E anthropomorph, triangular torso, with circle legs, opposing arms, dot head	229.5°
	F anthropomorph, triangular torso, with legs, downward arms, shoulders and head are circle cluster or bas relief dots	359.5°
	G geometric, v-shape with dot inside	372.5°
	H anthropomorph, triangular torso, with circle legs, downward arms, shoulders and head are dots, three dots over figure's left shoulder, four over right shoulder, could indicate seven stars of Pleiades (Makali'i)	77.5°
2	I anthropomorph, triangular torso, short legs and arms, no head	133.5°
	J anthropomorph, triangular torso, with legs, downward arms, dot head and two dots over figure's left shoulder, two over right shoulder and one next to right hand	213.5°
	K anthropomorph, two connected figures; viewer's left is rounded-triangular torso with circular legs, downward arms, and short horizontal line head; viewer's right is triangle torso within a rounded triangular torso, no arms or legs, head is circle and higher than connected figure	125.5°
	L anthropomorph, triangular torso, with three digits on hands and legs, downward arms, dot head with four dots over shoulders; one over figure's left shoulder, three over figure's right shoulder	252.5°
	M anthropomorphs connected; two possible dot heads, linked downward arms and legs	7.5°
	N anthropomorph, triangular torso, downward arms with three digits, dot head, one short leg	2.5°
	O dog with tail curved toward head	216.5°
	P anthropomorph, two connected figures; viewer's left is rounded-triangular torso with legs, opposed arms with upward arm toward other figure, and no head; viewer's right is triangle torso within a rounded triangular torso, opposed arms with upward arm toward other figure, dot head, and is larger and higher than other figure	266.5°
3	Q geometrics, two shapes, viewer's left is u-shape with dot outside; viewer's right is u-shaped and closed	219.5°
	R anthropomorph, wide, rounded-triangular torso, with short legs and arms, head is small half-circle	129.5°
	S anthropomorph, wide, rounded-triangular torso, downward arms, short legs, dot head	91.5°
	T anthropomorph, triangular torso, legs, one short arm, dot head	121.5°
	U anthropomorph, wide, rounded-triangular torso, with short legs and arms, three digits on figure's right hand, dot head	204.5°
4	V geometric, triangle with exterior loop around one side	357.5°
	W anthropomorph, triangular torso, circle legs, downward arms, dot head	222.5°
	X anthropomorph, rounded triangular torso, short legs, no arms or head	201.5°
	Y anthropomorph, triangular torso, downward arms, one leg, dot head	59.5°
	Z geometric, c-shaped with line at the center; could be legs	259.5°
	AA anthropomorph, triangular torso, legs, downward arms, triangular-oval head	239.5°
	AB geometric, horseshoe shape	127.5°
	AC anthropomorph, rounded triangular torso, downward arms with dot hands, legs, small dot head or no head	271.5°
5	AD anthropomorph, rounded triangular torso with line across upper torso and additional upward pointed triangle above shoulders, birdlike head, downward pointed arms, legs	85.5°
	AE anthropomorph, triangular torso, downward arm, short legs, small dot head	82.5°
	AF geometric, y-shaped	219.5°
	AG anthropomorph, rounded triangular torso, downward arms, legs, no head	67.5°
	AH anthropomorph, triangular torso, downward arms, no legs, large dot regular style head	n/a
	AI geometric, rounded triangle	297.5°

Figure 5. Composite images of petroglyphs recorded in Kīpuka Malua. From top row to bottom, Feature 50-A to -F, -G to -L, -M to -R, -S to -X, -Y to -AE, -AF to -AI, Feature 85-A to -E.





corrected. Images were photographed and traced on to clear plastic (Figures 4 and 5). This is a technique that has been employed elsewhere (Millerstrom and Kirch 2002), and unlike the outdated methods of making rubbings or chalking (Lee and Stasack 1999:9), it does not damage petroglyphs. In our full survey report we combined field photos with the tracings (Codlin 2014), and that is how we have chosen to present them here. We recognize that this privileges our subjective impression of the images, however, the original photographs and point locations are available upon request.

The first cluster is nearest to the coast and includes seven anthropomorphic images with triangular torsos and one v-shaped geometric figure. Five of these images are close to one another (50-A through E), oriented in the same direction (230 degrees SW), and three have circle legs. Just slightly inland of these is a figure (50-H) that was first noted by Cox and Stasack (1970:82), with four dots over its right shoulder and

three over its left, and circle legs (Figure 6). If these dots represent stars, then the image's orientation to the NE (77.5 degrees) may indicate an association with Pleiades (Makali'i) (Figure 6). Nearby is another figure with dots above the shoulders (50-F), and again if these are symbolic of astronomical features, then the near exact N orientation (359.5 degrees) is suggestive of Polaris (Hoku-pa'a).

Before we go on, we should note that we have interpreted several of the anthropomorphic images as possibly referencing astronomy due to the placement of dots above the shoulders. This is not the first time that dots have been found near the head of an anthropomorphic figure in Hawaiian rock art, Lee and Stasack (1999:18) for example note figures with dots around the head at Puakō, Hawai'i Island (see also Lee and Stasack 1999:174). But to our knowledge, this symbol has yet to be read as possibly indicative of astronomical features.

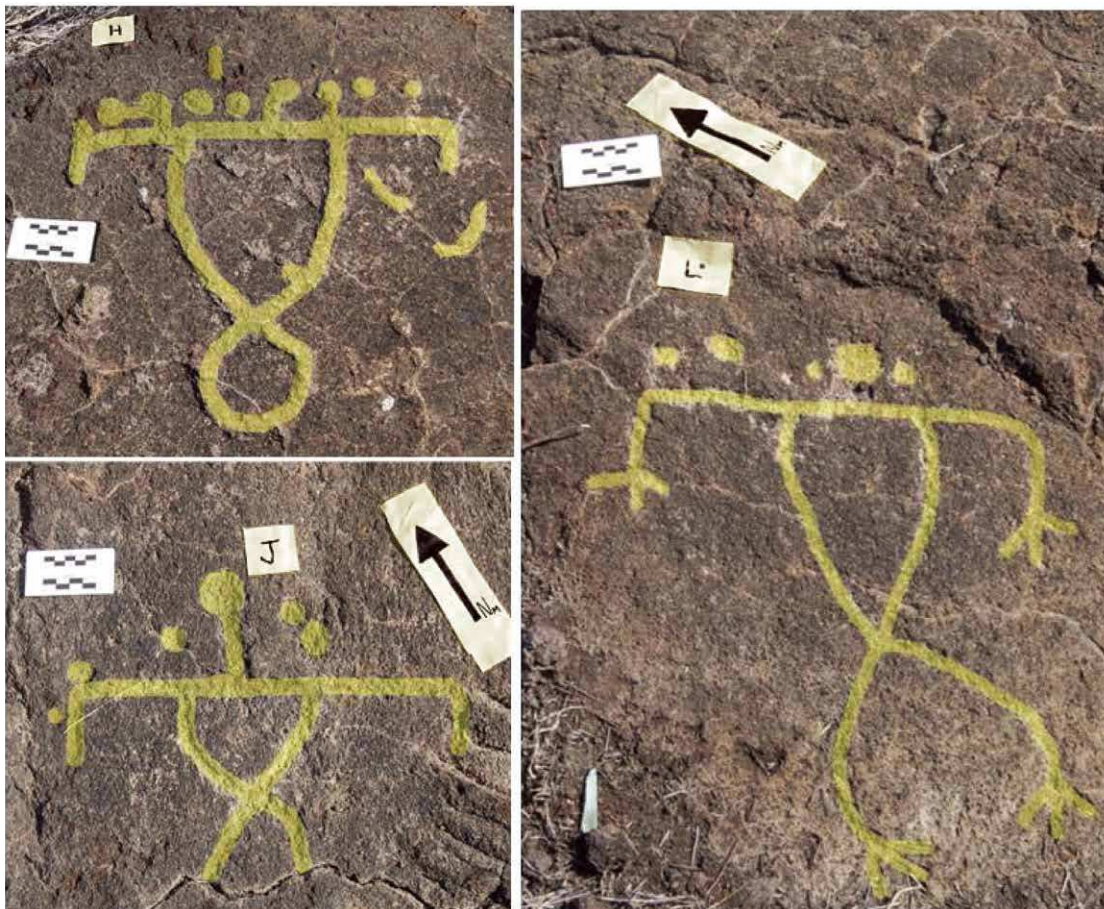


Figure 6. Anthropomorphic images with dots carved above their shoulders. Top, left is a panel oriented northeast and dots may be referencing (Feature 50-H) the star cluster Pleiades (Makali'i); bottom, left is oriented due north (50-J); and right is oriented to the southwest (50-L).

The next cluster, located 7.5 m inland from the first, includes four individual anthropomorphic images (50-I, -J, -L, -N), two large panels with pairs of anthropomorphic figures (50-K, 50-P), one multi-figure (50-M), and a large dog (50-O). Two of the single anthropomorphic images have dots over their shoulders. One has five dots (50-J), two close together over its left shoulder, two further apart over its right shoulder, and one small dot near its right hand; the image faces SW. The other image (50-L) is unusual in that it is long with three digits on all four extremities, and four dots, one over its left shoulder and three over its right shoulder; the image faces WSW (Figure 6). Again, these may be referencing star clusters, in these cases associated with the southwestern horizon; association with the Southern Cross (Hānaiakamālama) is unlikely given how far offset they are from due south. One additional figure has three digits, but only on the hands (50-N). The figure pairs are interesting because the figure on the viewer's right is slightly higher and larger. The right hand figures also have an added level of detail on the torso. In panel 50-K, the figures differ in nearly every respect; the left hand figure has a rare flat linear head, typical downward arms, and circle legs whereas the right hand figure has a circle head with a long neck, a sharp triangular shape within the torso, and no legs or arms (Figure 7). The other pair, 50-P, has two figures that are more similar to one another, but the left hand figure has no head, and they are joined at the arm.



Figure 7. One of three panels showing pairs of figures (Feature 50-K).

The third cluster, located a further 9.5 m inland, is made up of four small anthropomorphic single images (50-R to U) and a pair of geometric figures (50-Q). The human figures are less elaborate than others; one has three digits on one hand (50-U). Just a few meters inland is the next cluster.

The fourth cluster is made up of four single anthropomorphic figures and three geometrics. One figure appears to have had circle legs (50-W). Two of the geometrics are c-shaped (50-Z,-AB), one is a triangle (50-V).

The final cluster, located a few meters east of the third and fourth clusters described above, is a group of five images (50-AD to AH) that run up to just 2 m away from the northwest corner of Building 19. Four are single anthropomorphic figures, including one with a bird-like head (50-AD) on top of a triangle that meets the shoulders at the torso, and additional line across an upper quadrant of the torso (Figure 8).

There are two isolated images, a small triangle near the coast (50-AI), and a single anthropomorphic figure with dots for hands (50-AC) located almost 20 m inland.

Petroglyphs in a Small Household (Complex 6), Kīpuka Malua (50-10-71-2159)

Complex 6 is a cluster of three building foundations and twelve other features roughly 300-400 m inland from the coast. On the *makai* end is a collapsed lava tube that forms a natural enclosure where a building

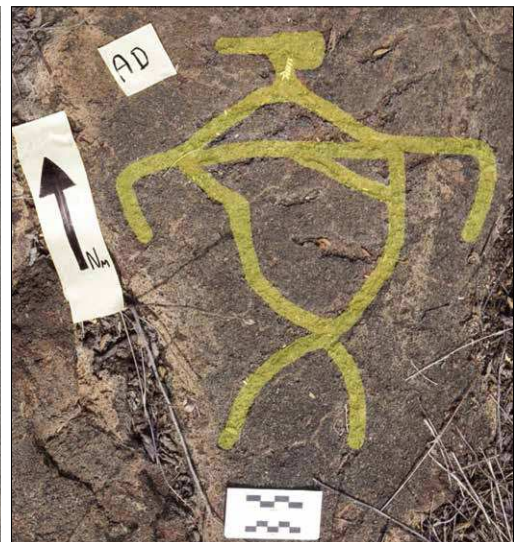


Figure 8. Bird-headed figure similar to others described in the Hawaiian Islands (e.g., Cox and Stasack 1970:Figure 11).

Table 2. Summary of panels in Feature 85.

Location	Description	Panel Orientation
1	A anthropomorph, triangular torso, downward arms, short legs, regular dot head	180.5°
	B anthropomorph, triangular torso with additional curved line, downward arms, wide short legs	190.5°
2	C possible animal shape with tail and one leg, triangle in the center	125.5°
	D geometric, triangle with dot at apex	122.5°
	E anthropomorph, triangular torso with extra line, circle legs, downward arm, no head	63.5°
	F anthropomorph, rounded triangular torso, downward arms with dot hands, short legs, shoulders have circles where they meet the arms	146.5°

with an upright waterworn stone is interpreted as a *mua* (Building 28); habitation structures are found on the *mauka* end of the complex. This much more modest house compound has a group of six petroglyphs (Feature 85) that appear to be part of a small ritual area on the *makai* end that includes a low wall (Feature 86) and several upright stones (Table 2). The first cluster includes two single anthropomorphic figures (85-A, 85-B); both have sharp triangular torsos with short legs, one has some additional detail on the torso in an upper quadrant (85-B) and is the largest single figure recorded (61 cm by 57 cm; Figure 9; see also Tables 3 & 4). The second cluster, located just 4.5 meters away, includes two pairs of images that were given their own panel designations since they may or may not have been created together. The first includes a triangle with a dot at the apex (85-D) next to what may be an animal figure with a tail and head

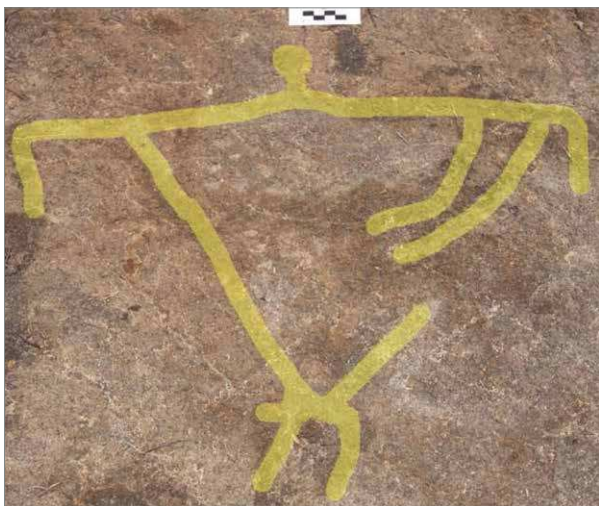


Figure 9. The largest anthropomorphic image found in Kīpuka Malua (Feature 85-B). Noted the detail added in the upper half of the torso.

Table 3. Approximate size of Feature 50 panels.

Feature 50	Height (cm)	Width (cm)
A	38	44
B	18	24
C	22	25
D	15	16
E	22	24
F	35	24
G	17	16
H	43	41
I	32	28
J	29	40
K	45	48
L	45	40
M	32	47
N	31	36
O	26	20
P	40	77
Q	23	43
R	19	19
S	21	24
T	26	17
U	23	27
V	25	37
W	43	42
X	25	19
Y	31	36
Z	14	14
AA	25	18
AB	15	14
AC	33	32
AD	39	40
AE	42	26
AF	18	33
AG	34	42
AH	14	17
AI	13	11

Table 4. Approximate size of Feature 85 panels.

Feature 85	Height (cm)	Width (cm)
A	35	43
B	61	57
C	25	31
D	17	9
E	26	28
F	37	37

(85-C). Next, are anthropomorphic figures 85-E and 85-F. On the viewer's left is 85-E with a triangular torso and an additional line within the torso, circle legs, but no head and one arm. The other image (85-F) is larger with a wide, triangular body where the shoulders are almost as long as the sides, and small circles are placed where the arms meet the shoulders.

Discussion

As has been pointed out in previous studies of petroglyphs, we cannot know what was in the minds of artists, and it is likely there are multiple meanings associated with a single symbol. We, the authors, view the art described here through the lens of political economy. It is this theoretical viewpoint that leads us to the question: why are more images found within the larger, and presumably, higher ranked household? We could more confidently address this question if we had the ability to say for certain that these images were made before, during, or after the occupation of the two households in question. One factor that points to the contemporaneity of the houses and images is the fact that the figures all have the triangular body style, which appeared late in the Hawaiian sequence (Cleghorn 1980; Stasack *et al.* 1996). Elsewhere, a preponderance of one body type has been taken as temporal marker rather than a function of being associated with a certain type of context (Lee and Stasack 1999:155). A late date would be consistent with when this marginal area was likely occupied, but before it was largely abandoned in the post-contact era. We also note they appear to have accumulated organically, rather than made as an organized single panel, and there is no clear evidence of over-writing existing images.

Lithic artifact sourcing studies have reported a greater amount of material evidence for long-distance social networks in the Hawaiian Islands at houses of elites and religious sites (Kirch *et al.* 2012). If the

images in Manukā in some fashion reflected social networks that might explain why there are more at the larger house site. Egan and Burley's (2002) remarkable discovery of Hawaiian-styled petroglyphs in Tonga certainly suggests that rock art may in some cases be used as a proxy for long-distance travel. In 1823, William Ellis observed rock art in Ka'ū and neighboring districts and offered some speculation on the motivation of artists and the meaning of images that is relevant here:

Along the southern coast, both on the east and the west sides, we frequently saw a number of straight lines, semicircles, or concentric rings, with some rude imitations of the human figure, cut or carved in the compact rocks of lava. They did not appear to have been cut with an iron instrument, but with a stone hatchet, or a stone less frangible than the rock on which they were portrayed.

On inquiry, we found that they had been made by former travellers, from a motive similar to that which induces a person to carve his initials on a stone or tree, or a traveller to record his name in an album, to inform his successors that he has been there. (Ellis 2004:472)

Ellis goes on to briefly discuss the meaning of different elements, specifically dots and circles as representations of the number of people and type of travel. Cox and Stasack (1970:13) also list travel in their three general motivations for creating rock art: "(1) Recording of trips and communication concerning other events, on trails and at boundaries; (2) A concern for insuring long life and personal well being; and (3) The commemoration of events and legends." But, they also rightly point out that using Ellis is problematic and that, "it is hardly reasonable to rest the entire case of the meanings of the petroglyphs on this one statement" (Cox and Stasack 1970:31-32). We agree and note that it is additionally problematic to take Ellis' account at face value given that this comes to us as he recounts his own travels.

With those caveats in mind, we looked again at our dataset and asked, do we have any reason to believe these images represent, as Ellis put it, "former travellers"? There are no preserved examples of trails in the immediate area around the petroglyphs described here, but there are preserved sections of a coastal trail nearby at Manukā Bay, as well as *mauka-makai* trails noted on archaeological survey (Allen and McAnany 1994) and historic maps (Maly and Maly 2004:37). We note that most images are located between the

canoe sheds and the *mua*; the *mua* being where male guests were traditionally received (Handy and Pukui 1958:165; Valeri 1985:174). However, these spatial associations are far from definitive links to travel.

Is it possible these images commemorate the *makahiki* procession? Rock art elsewhere has been interpreted as indicative of *makahiki* (e.g., Cox and Stasack 1970:35). One prominent figure in Kīpuka Malua has seven dots above the shoulders and is oriented to the NE, which we suggest is a reference to the star cluster Makali‘i. Also, Kīpuka Malua is a short distance from a *heiau* complex at Manukā Bay that would have been the last stop within the Ka‘ū District before the procession entered South Kona District. However, while it is tempting to draw the connection between the annual circuit of the image of Lono and this location, there are no clear architectural signals of intensive festivities here, and we note that a lengthy stay by a large group would have put a burden on the local community. Therefore while we cannot eliminate the possibility these images were associated with *makahiki*, we do not have overwhelming evidence to support this interpretation.

A more general explanation for the accumulation of more images within the larger of the two households that fits with political economy theory and Hawaiian culture practices, is the view that these images were an outward display of the *mana*, or spiritual power, of a local chief. This does not negate more specific interpretations, such as the possibly that these were made by travelers; an association that might be tested through lithic artifact analyses. It is also important to note that this study falls short of confirming our general decoding of the petroglyphs as displays of *mana*. Confirming the apparent use of petroglyphs as displays of *mana* requires a broader accounting of rock art in and around domestic complexes to give us a fuller notion of how *ki‘i pōhaku* fit in to how people structured their private spaces, especially in terms of religious ritual (McCoy 2008, 2014). In sum, we hope this brief report will encourage more systematic efforts to decode small numbers of petroglyphs discovered and recorded on surveys.

Conclusion

We describe petroglyphs found within two adjacent households within Kīpuka Malua along the southern coast of Hawai‘i Island. We suggest that the larger number of images found in one household might be

generally interpreted as reflecting a concern with *mana*, or spiritual power by a local chief. We also consider the more specific notion that these images commemorate travel and thus reflect a social strategy of emphasizing long-distance networks. However, the contextual evidence supporting this interpretation at this site is weak. In future we hope to see many more attempts to decode what petroglyphs found on survey might tell us about the cultural landscape.

Acknowledgements

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