

# The archaeology of rock art in Fiji: evidence, methods and hypotheses

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## ABSTRACT

*We present results from four field seasons in Fiji focused on rock art research. We recorded previously noted sites and surveyed particular areas in search of new ones. The results tend to confirm the scarcity of Fijian rock art, as our research has produced a total of 23 sites. Nonetheless, this fact implies some interesting aspects. First, there are at least two different traditions of rock art in Fiji, which we have broadly defined as a Polynesian-based tradition and a collection of unique cases. In spite of the small size of the sample, the Polynesian-based tradition shares a series of conventions that allow us to detect patterns. The group of unique cases is formed by particular and unique actions, and is likely later in time. Fiji is an exception in the broader Oceanic context in terms of rock art, since it is generally quite abundant in this area. This discontinuity is used to argue that rock art was probably not an inherited cultural practice carried out by people during the colonisation process but, rather, a relevant activity associated with different historical developments in different archipelagos.*

**Keywords:** Fiji, patterns, rock art.

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Until recently, Fijian rock art has been poorly known. Most research was limited to the depictions described in a few old and sketchy publications (Hill 1956; O'Reilly 1954; Paine 1929; Palmer & Clunie 1970; Parke 1960; Phillipps 1951; Snow 1950; Vogan 1937). Except for Ewins' (1995) work on Vatulele, there is no global account or in-depth analysis on any of the sites. But a thorough investigation of rock art in Fiji is important for more than merely filling in a gap in the archaeological record. Fiji is an "in between" archipelago, "situated geographically closer to Western Polynesia . . . yet usually classified as a 'Melanesian' culture" (Kirch 2002: 155). Therefore it is particularly relevant when tracing Oceanic cultural manifestations back to their origins. Given that rock art is abundant throughout most of Oceania, the dearth of a similar tradition of rock art making in Fiji should be explained, rather than assumed.

Our first approach to the topic (Millerstrom & Cruz Berrocal 2009, 2010) was to produce comprehensive surveys, since neither surveys nor site excavations with a focus on rock art had previously been performed in Fiji. This is an archipelago located in the South-Central Pacific, composed of over 300 islands scattered over 18300 km<sup>2</sup>. We undertook fieldwork for four consecutive years between 2007 and 2010, carried out by the authors in 2007, 2008 and 2009, and by María Cruz Berrocal, Antonio Uriarte González and Juan Gaspar Leal Valladares in 2010.

Due to the extent and difficulty of accessing most Fijian islands, we developed different strategies to study the rock art: (a) We collected published or oral references of all real

or potential rock art sites in Fiji. (b) We revisited and re-recorded known sites, exploring the surroundings in order to test the accuracy of the available information. It is questionable whether some of the sites mentioned in the bibliography exist or whether some marks were mistaken as rock art. In other cases, some confusion may exist as to the location of some of the figures and what they depict. (c) We developed an intensive survey on Moturiki Island, in order to test different hypotheses related to rock art. We intended to understand how landscape and rock art are linked, and how the underlying processes of increasing social complexity might have played a role in the making of rock art in Fiji.

The results are summarised in Tables 1–3. Table 1 presents the sites that we recorded through forms, pictures and tracings, including three boulders with polishing grooves (one in Uluibau, unnamed; Menawai; and one in Rukuruku Bay, unnamed) that we do not include in our count of rock art sites (for the distribution of the sites, see Figure 1). Table 2 synthesises the iconographic information from the sites that we recorded. Table 3 collects all references to real or potential rock art sites in Fiji. Of these, we only deal with Tavoro waterfall, Bukusía, Koroiemalu, a cave in north-east Vanua Levu, Moala, Vatulele, Sawa-i-Lau, Waiboteigau and Vanua Lailai, since there is no information whatsoever that can be used to acknowledge the rest of the references as real rock art sites. Therefore, the count of rock art sites amounts to 23. Figure 1 shows the distribution of sites and Figures 2–7 present a representative sample of motifs.

Table 1. A summary of the rock art recorded by the authors. The sizes of the boulders are reported in metres by length × width × depth. We have omitted the exact coordinates of the sites.

ISLAND/village	Classification (Polynesian-based/ unique cases)	Site	Type (size)	Technique	Content
VANUA LEVU					
Dawara	PN	Vola Creek	Outcrop (2.20 m × 2.0 m × 0.15–0.20 m)	Pecked	Circles, concentric circles, sun shape
Vatukuca	PN	Vatu vola vola na vu (Figure 2)	Boulder (3.0 m × 4.0 m × 6.0 m)	Pecked	Anthropomorphic face, concentric circle, cupules, circular geometric designs
Dakuniba	UN	Dakuniba (Figure 4)	14 boulders of various sizes	Pecked	Circular and angular geometric figures, letters
Nailou	PN	Qaravonu (Figure 3)	Rock shelter (10.5 m × 6.0 m × 4.5 m), boulders within the shelter	Pecked, incised, charcoal-drawn	Turtles
TAVEUNI					
Welagi	PN	Loaloa Point (Figure 2)	Boulder (4.5 m × 7.0 m)	Pecked	Concentric circles
	PN	Taveuni Palms (Figure 2)	Boulder (0.8 m × 0.6 m × 1.7 m)	Pecked	Concentric circles, cupules
Navakawau	UN	Vatutabataba	Shelter formed in a cliff wall (about 5–6 m deep and up to 10 m wide)	Painted	Handprints in red pigment
VITI LEVU					
Sewene	UN	Tatuba Cave (Figure 5)	Cliff face (0.65 m × 1.05 m)	Intaglio	Hand, pecked circular indentations
	PN	Maqere (Figure 3)	Boulder (2.5 m × 2.0 m × 2.0 m)	Pecked	Anthropomorphic stick figure, turtles, geometric figure
Voua, Nadroga	PN	(Figure 6)	Coral block, now in Fiji Museum	Carved	Footprint
MOTURIKI					
Uluibau	PN	Vatu vola (Figure 2)	Boulder (2.05 m × 0.95 m × NA)	Pecked	V-shaped and U-shaped polishing grooves, polishing spots, circles, concentric circles
Uluibau			Boulder (0.8 m × 0.6 m × 0.3 m)	Polished	V-shaped polishing grooves
Wawa		Menawai	Boulder (1.45 m × 0.80 m × NA)	Polished	V-shaped polishing grooves, polishing spots
OVALAU					
Rukuruku Bay			Boulder (0.75 m × 0.60 m × 0.40 cm)	Polished	V-shaped and U-shaped grooves, polishing spots
Lovoni	UN	Dedevolevu (Figure 7)	Shelter formed in a cliff wall (area with depictions: 8.0 m × 5.8 m; depth around 6.5 m)	Incised	Lines, sun shapes, crisscross patterns
BEQA					
	PN	Vadramata (Figure 3)	Boulder (1.5 m × 1.10 m × 0.70 m)	Pecked	Turtle
	PN	Rukunawai	Boulder (0.9 m × 0.4 m × 0.15 m)	Pecked	166 circular pecked indentations, 2 cm in diameter × 1 cm deep

Table 2. The distribution, frequency and percentage of images recorded by the authors in Fiji, 2007–2010. The numbering system in the “Classification” column refers to the typology constructed by Lee and Millerstrom for the rock art repertoire in Polynesia (e.g. Lee 1992; Millerstrom 2003).

Classification	Number of images	Types as percentage of total images	Polynesian versus unique images (PN/UN)
ANTHROPOMORPH, TYPES 1100–2000			
Anthropomorphic stick figure (1200)	1		PN
Subtotal	<b>1</b>	<b>0.3</b>	
DISCONNECTED BODY PART, TYPES 2100–2300			
Anthropomorphic face with concentric circle eyes (2140)	1		PN
Hand (2200)	10		UN
Foot (2250)	1		PN
Subtotal	<b>12</b>	<b>3.4</b>	
SEA FORM, TYPES 4100–4700			
Turtle general outline (4100)	21		PN
Turtle with motif (4110)	2		PN
Subtotal	<b>23</b>	<b>6.6</b>	
GEOMETRIC, TYPES 7100–7800			
Crisscross pattern (7119)	55		UN
Circle (7200)	12		PN
Banana-shape figure (7207)	2		PN
Circle with lines (7228)	3		PN/UN
Concentric circle (7230)	32		PN
Angular geometric motifs (7700)	23		UN
Curvilinear geometric motif (7705)	36		PN
Polishing areas (7740)	3		PN
Polishing groove (7730)	54		PN
Cupules, random (7400)	4		PN
Circular pecked impressions (7750)	91		PN
Subtotal	<b>315</b>	<b>89.7</b>	
<b>Total</b>	<b>351</b>	<b>100%</b>	

## DISCUSSION OF THE EVIDENCE

Rock art in Fiji has been “created” to a large degree by oral history. Most existing references seem to refer to natural features, not human-made depictions. The cultural tradition of ascribing meaning to particular phenomena possibly influenced the first scholars, few of them professional archaeologists, who published the rock art. It is clear that there is *some* rock art in Fiji, and as the search is intensified, even more may be discovered. However, it is also clear that Fiji stands out in the context of the Pacific as having very little rock art. Rock art data recorded in New Caledonia (Monnin & Sand 2004; Sand *et al.* 2006), Hawai’i (e.g. Lee & Stasack 1999), the Marquesas Islands (Millerstrom 1997, 2001, 2003), Easter Island (Lee 1992) or New Zealand (O’Regan 1998, 2003; Trotter & McCulloch 1981) are stunningly abundant and systematic fieldwork has consistently led to additional discoveries.

Our 2008 and 2010 field seasons were the first systematic attempt to investigate this possibility in Fiji (Millerstrom & Cruz Berrocal 2009, 2010). We carried out survey on the islands of Moturiki, Yanuca, Caqalai and Leleuvia (Lomaiviti Group). This group of small islands was appropriate for developing an intensive and extensive archaeological survey that covered most of the territory. In 2006, a new rock art site had been

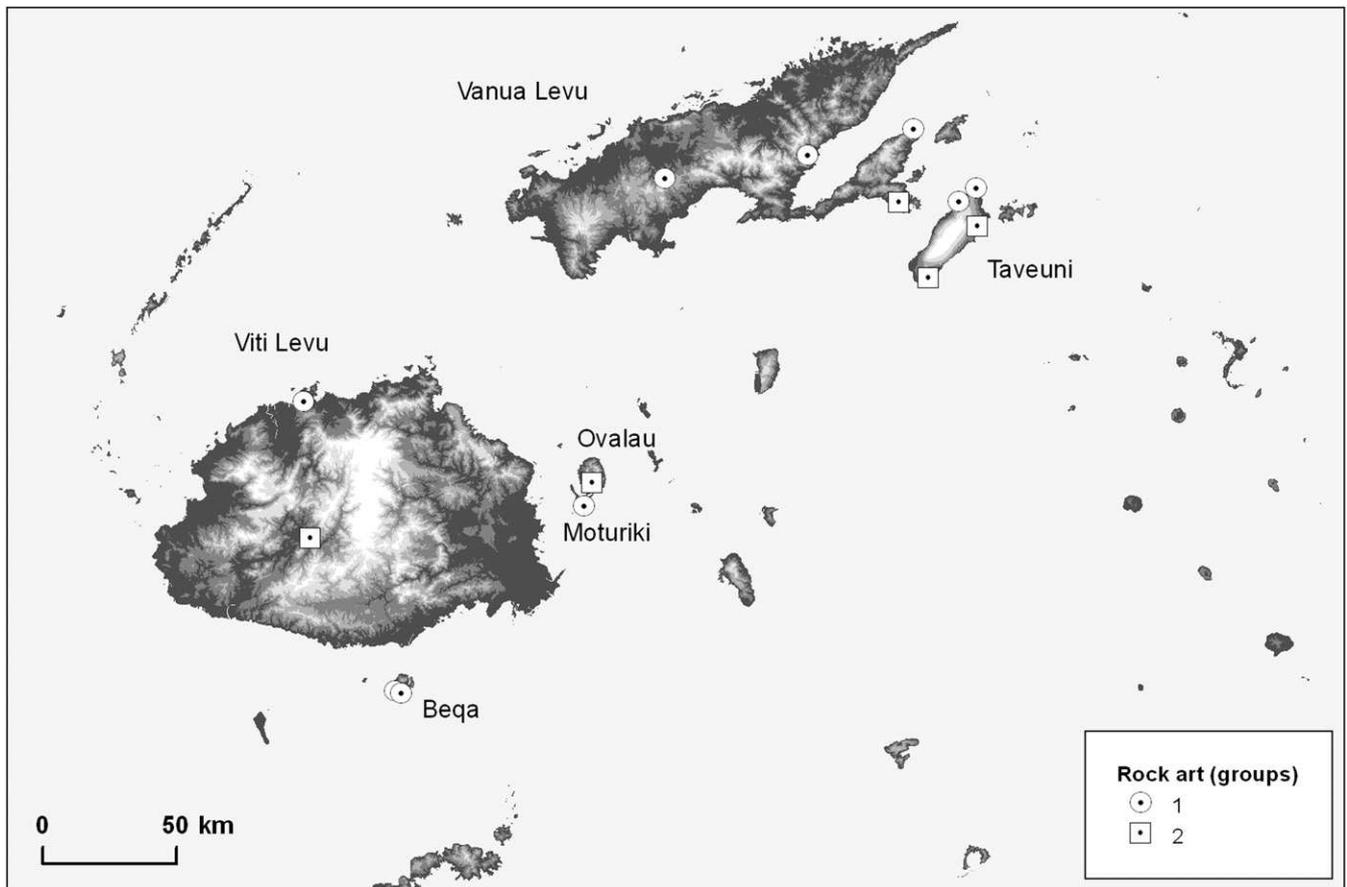
discovered in Uluibau, Moturiki (Millerstrom & Cruz Berrocal 2009). The site, a boulder with numerous concentric circles associated with polishing grooves, nicely matched the rock art sites in Vanua Levu, Taveuni and other Pacific islands. Moturiki, being a high island, has a diversified landscape that includes both mountain and extensive flat coastal settings, creating the interesting possibility of different landscape contexts for rock art. In addition, Moturiki has one of the oldest Lapita settlements found so far in Fiji (Nunn *et al.* 2007). Thus, this was a perfect case study furnishing evidence for the entire temporal sequence of settlement in the archipelago, from the earliest Lapita occupation all the way to European contact and up to the present day.

We surveyed Moturiki to gather exhaustive GPS measurements of archaeological sites, remarkable landscape elements and vegetation formations. Subsequently, over 80 archaeological sites were recorded (Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in prep. ); however, only two boulders with grooves and grinding marks were located (Table 1). A preservation bias is of course possible, since the one documented site in Moturiki, Vatu vola, was submerged in a swamp, possibly created by newly deposited soil after the marking of the boulder. A test pit excavated in 2010 (Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in preparation) showed that heavy

Table 3. Fijian rock art sites mentioned in the literature.

ISLAND/village	Classification (Polynesian-based/ unique cases)	Site	Content	Reference(s)	Result
TAVEUNI Bouma Naqilai	UN	Tavoro waterfall Qacavulo	“A boulder with engravings of parallel characters which are set in line”	Hill 1956; Palmer and Clunie 1970 Palmer and Clunie 1970: 3; Snow 1950	Lost Not relocated
VITI LEVU Kalokolevu Raiwaqa	UN	Naboro Bukusfa	“Running figures” Some 16 figures painted in charcoal	Palmer and Clunie 1970: 10 Worthy and Anderson 1999; Julie Field, unpublished site report, 2001	Not relocated Not relocated
Toga	UN	Koroiemalu Cave		Sepeti Matararaba, pers. comm., 14 September 2009	
Toga Vunitogoloa Lautoka		Naihehe Cave Cubucubu ko Degei	Footprint Linear petroglyphs Primitive animal or a crude human figure	Local people Parke 1960: 31 Snow 1950:71	Not relocated Not relocated Lost
MALAKE VANUA LEVU Labasa		Malake		Parke 1960: 32	Lost
(north-east area) Saqani	UN	Malau A cave Tukituki	Undetermined petroglyph  A large human footprint with toes; late historical figures 50 concentric circles	Sagale Buadromo and Sepeti Matararaba, pers. comm. Geoffrey Clark, pers. comm. Hill 1956: 83	
YANUCA/YANUCA LAILAI (LOMAIVITI) NANANU-I-RA			Turtle	Phillipps 1951: 51; Palmer and Clunie 1970	Not relocated
TOTOYA MOALA, KETEI-RA	PN	Noavatu	Boulder with possible engravings Concentric circles, stars, half moons	Hiener, undated, in Parry and Watling 1988: 108 P. Nunn, pers. comm., 16 September 2009 Jone Balenaivalu, pers. comm., 13 September 2007; Sepeti Matararaba, pers. comm., 14 September 2009	Not relocated
VATULELE	UN		Anthropomorphs, zoomorphs, canoe, geometrics	Palmer and Clunie 1970; Ewins 1995	
SAWA-I-LAU	UN		Two linked circles, each with a V in its centre	Vogan 1937; Snow 1950; Palmer and Clunie 1970	
NACULA GAU MAGO	UN UN	Waiboteigau Vanua lailai	Linear petroglyphs Handprint 4–5 hand stencils	Parke 1960: 31 Toren 1999: 74 Geoffrey Clark, pers. comm.	

Figure 1. A map showing the distribution of the Polynesian-based tradition of rock art in Fiji (group 1) and the unique sites (group 2). (Figure by A. Uriarte.)



sedimentation on the coastal areas may have been an important environmental process in southern Moturiki during prehistoric and historical times. Similarly to the Vatu vola site, other boulders with depictions also could have been buried.

However, this still does not account for the dearth of rock art on the dry, northern side of the island and on the rest of the islands that we surveyed. Overall, our systematic survey has confirmed rather than refuted the general trend in the archipelago. In the future, more rock art sites will probably be found but, overall, Fijian rock art falls into the category of “negative evidence”: even if one site occurs in a particular region or island, additional rock art sites will not predictably appear on the same island. This is an unprecedented finding.

Despite its scarcity, we can analyse the Fijian rock art evidence at several scales, in terms of the existence and lack of patterns. At the iconographic level, Fijian rock art falls into two broad groups (Figure 1). The first group includes depictions within a Polynesian tradition; for example, circles, concentric circles, cupules, turtles, an anthropomorphic face and a footprint (Figures 2, 3 and 6). They are easily recognisable because they are highly regular, sharing conventions of depiction; in short, they are a patterned phenomenon. The second group is in fact an

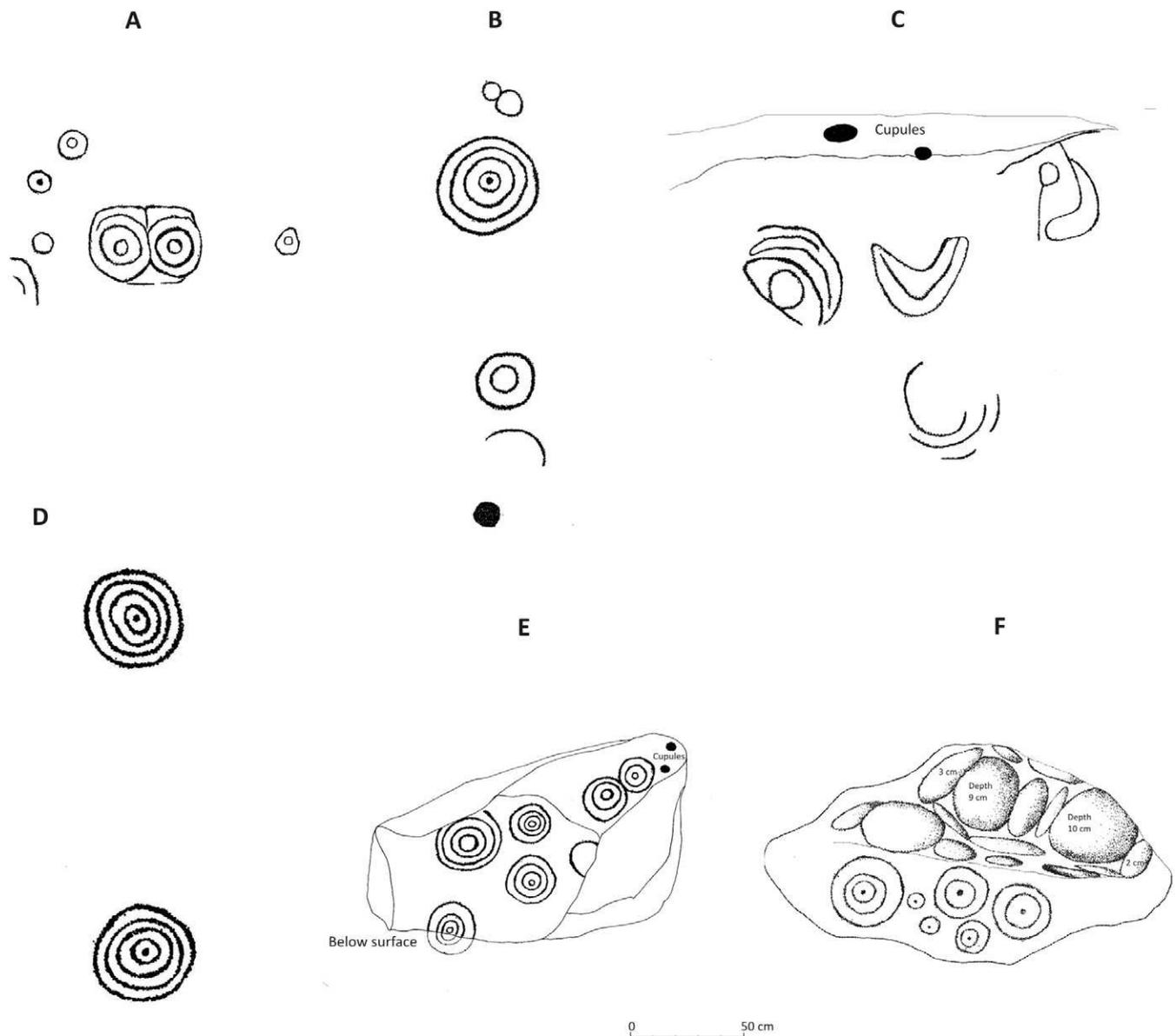
aggregate of sites, an apparently unpatterned accumulation of unique cases (Figures 4 and 5). The two types of depiction are not found within the same panels and sites, and there seems to be no accumulative making of rock art, but one single event in which the rock art panel was created.

#### *Polynesian-based depictions*

The Polynesian-based depictions (Figures 2, 3 and 6), as we have called them, share technical manufacture: they are pecked figures, something also closely related to the rock art found throughout both Near and Remote Oceania. Some of the figures – for example, in Qaravonu (Figures 3A and 3B) – are pecked on both sides of the same stone, giving the figure a three-dimensional appearance. This unique placement of pecked figures occurs in great numbers on Easter Island and the Marquesas; also, one has been recorded in Hawai’i. The face motif is especially prevalent on Easter Island and in the Marquesas. Cupules occur in Fiji, Tonga and American Samoa, and are found in a great number in the Marquesas, in Hawai’i and on Easter Island.

The iconographic and technical patterns are also consistent with geographical regularities, although the small sample size prevents a thorough geographical

Figure 2. (A) Vatu vola vola na vu, Vatukuca, Vanua Levu (panel A); (B) Vatu vola vola na vu, Vatukuca, Vanua Levu (panel B); (C) Vatu vola vola na vu, Vatukuca, Vanua Levu (panel C); (D) Loaloo point, Welagi, Taveuni; (E) Taveuni Palms, Taveuni; (F) Vatu vola, Uluibau, Moturiki. (Drawings by S. Millerstrom; final art by E. Serrano.)



analysis (see an example of this analysis in Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in preparation). Thus, it is not possible to delineate the conditions that guided the locational choices. Nor is it possible to predict the locations of other rock art sites from our case studies. This remains true despite the large number of variables that we recorded; for example, the geographical setting, hydrography, geology, soils and vegetation, the visibility from and of the site, the number of elements in the site, the association with archaeological remains, the number of panels and dimensions, the orientation, the characteristics of the panel surfaces and the distinctive features of the site, the possibility of sheltering in the site, the appropriateness of

communication through sound from or into the site, the accessibility and the existence of other adequate surfaces for making rock art. Nevertheless, some patterns are apparent. Depictions are generally located on boulders (six cases), with one case on an outcrop and another on a rock shelter. In two cases (Vatu vola vola na vu and Maqere), the sites are located on ridges at a relatively higher altitude, overlooking a large valley and the sea, respectively.

Overall, there is a general association of polishing boulders and rock art sites in Fiji with water, regardless of their rock art tradition. Thus, Vola Creek is in a river, as is Vadramata, while Dakuniba, Qaravonu and Tatuba are closely associated with rivers. Loaloo Point is on the coast,

Figure 3. (A) Qaravonu, Nailou, Vanua Levu (panel A); (B) Qaravonu, Nailou, Vanua Levu (panel D); (C) Vadramata, Naceva, Beqa; (D) Maqere, Viti Levu (panel A); (E) Maqere, Viti Levu (panel B). (Drawings by S. Millerstrom; final art by E. Serrano.)

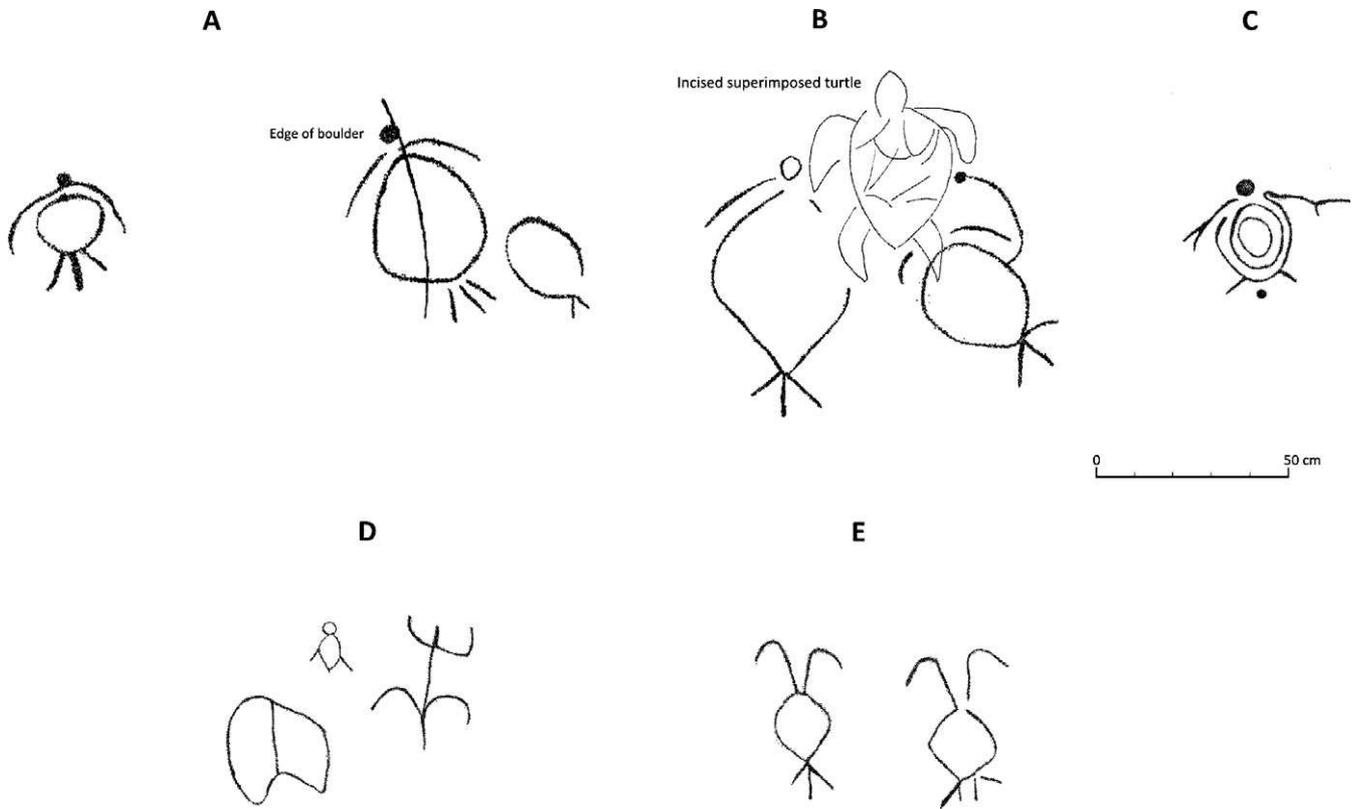


Figure 4. Dakuniba, Dakuniba, Vanua Levu: (A) panel B; (B) panel D; (C) panel G. (Drawings by S. Millerstrom; final art by E. Serrano.)

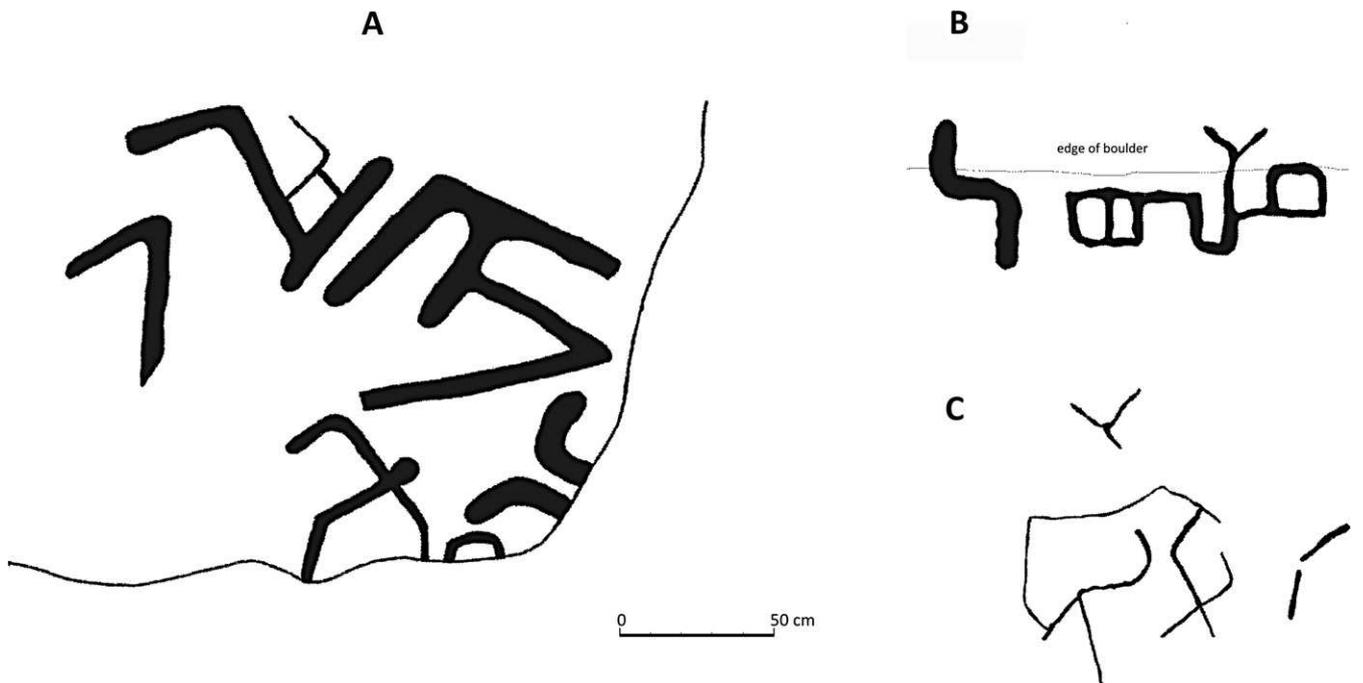


Figure 5. Tatuba Cave, Sewene, Viti Levu. (Drawing by S. Millerstrom; final art by E. Serrano.)

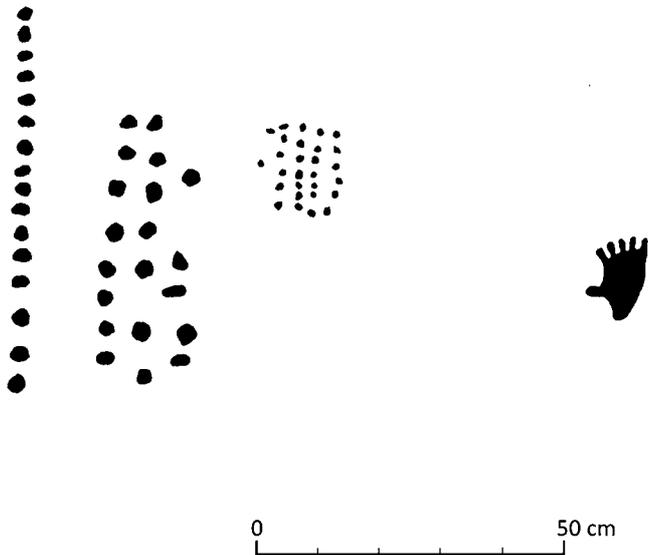


Figure 6. Nadroga, Voua, Viti Levu. (Drawing by J. Sánchez and E. Serrano.)

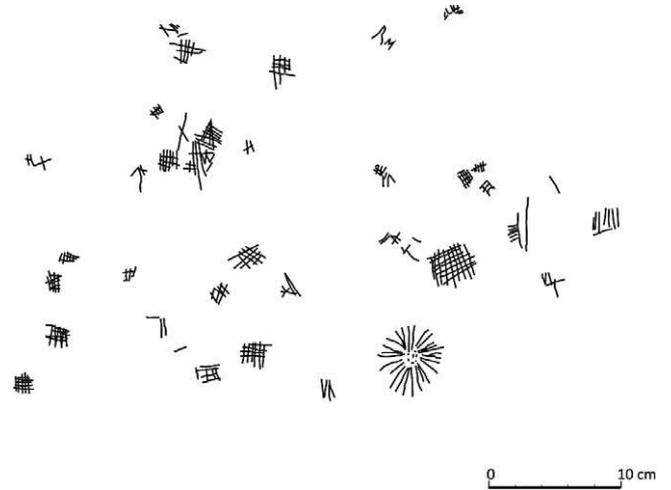


as are Vatutabataba, Rukunawai and the boulder in Rukuruku Bay; and Vatu vola and Menawai are in swamps.

However, it is not possible to evaluate the statistical significance of this fact, since with our present information we cannot map the association and produce a sound comparison with the surroundings of the sites (see an example in Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in prep.).

Except on Vanua Levu, most sites are located in low coastal areas. With assistance from Antonio Uriarte

Figure 7. Dedevolevu, Lovoni, Ovalau. (Partial drawing by J. Sánchez and L. Pérez; final art by E. Serrano.)



(Centro de Ciencias Humanas y Sociales, CSIC, Madrid), we tried to corroborate this impression. Uriarte GIS-calculated the relative altitude of the sites in Taveuni and Vanua Levu, using a 5 km wide buffer area. The results reinforce the previous description, and show two clear patterns: that represented by Taveuni, where all sites occupy a very low position in comparison with their surroundings, and that represented exclusively by Vanua Levu, where rock art sites are located in elevated positions, occupying middle-range altitudes between the mountains and the coast.

It is challenging to advance an explanation for this exception, and we resist establishing a chronological relationship between coastal rock art sites and early settlement on the one hand, and rock art inland sites and later occupation of the interior, documented in other islands, on the other (Best 1984; Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in prep.). Vanua Levu's uniqueness can be neutralised by the fact that the island falls into line in terms of the amount of rock art that it possesses. In so far as can be reasonably stated, there are two sites in Viti Levu (Maqere and Voua, unnamed), two sites in Beqa (Vadramata and Rukunawai), one site in Moturiki (Vatu Vola), three sites in Vanua Levu (Vola Creek, Vatu vola na vu and Qaravonu), two sites in Taveuni (Loaloa Point and Taveuni Palms) and one site in Moala (Noavatu). Thus, with the exception of Viti Levu, a large, main island with just two sites, the larger islands (Vanua Levu and Taveuni) have two or three sites, while the small and medium-sized islands tend to have one site. Although the meaning of this fact is elusive, we assume that the existence of just one site per island does not detract from the social significance of rock art; rather, it adds to it.

We have previously hypothesised (e.g. Cruz Berrocal 2005; Cruz Berrocal & Vicent 2007) that rock art can be regarded as an archaeological marker of the construction

of a social landscape. The locations “signed” by rock art acquire significance in social terms, if only because the making of rock art may be interpreted as an “intensification” in the use of certain places in the landscape, under well-specified rules as to what, where and when images can be depicted, and by whom. This means that rock art is an institutionalised manifestation, a truly social institution (for broader implications in terms of intensification, making certain social practices visible, and the link between rock art and “complex” societies, see Cruz Berrocal & Millerstrom 2009; Cruz Berrocal, Sebastián López, Uriarte González & López Sáez 2012, in prep.). This conveys a certain degree of information about the society that made it; namely, that rock art is not made as a custom but as an outcome of certain historical developments. Thus, its making in Fiji should correspond to a particular time period in which the necessity for a social construction of the landscape is most pronounced. This brings immediately to the fore the question of chronology. While we currently lack absolute age determinations for rock art in Fiji, we can advance a relative chronology to approach the problem using the available arguments (see below).

The existence of regularities in rock art making at different levels and on different islands could also be taken as an argument for the existence of widespread connections within Fiji at certain time periods. The consistent pattern that relates the number of sites and the sizes of the islands is, in our opinion, especially relevant in this regard. Coupled with other consistent geographical and technical features, the fact that turtles are represented at several locations in Fiji (see Meijer 2012) is also supportive of a shared rock art making institution in the archipelago.

The footprint from Voua village, Nadroga, Viti Levu (Figure 6) is also remarkable, as this motif has not been found anywhere else in Fiji. The footprint is a relatively large carving, almost a bass-relief, in a coral block. The inner part of the footprint is hollow. The block was associated with a housemound in Voua village. According to Matararaba *et al.* (2010), it is “. . . a coral stone on one of the *yavu*. This stone is significant because it contains what is believed to be a foot impression (petroglyph) which measures to approximately 13 inches long and 7 inches wide – a first of its kind to be found anywhere in Fiji.” The site is known as the Mua Hill Fortification, on the highest part of a hill. It was probably the house of a high-ranking chief in the past, especially because feet seem to have symbolic connotations linked to the political elite. One foot similar to this one was found on one of the tombs of the Lapaha complex (Burley 1994). This petroglyph could therefore show a western Fijian connection to Tonga. Actually, the people living in Voua village had a Tongan ancestor, according to their oral traditions (Dr Sagale Buadromo, pers. comm., September 2010). Indeed, Fiji and Tonga were closely related during most of their history. However, more exhaustive data for this site are lacking, and any argument is necessarily

supported only on the basis of formal iconographic similarities.

In our view, the existence of similar rock art motifs does not necessarily demonstrate interaction on a large scale. Many of them (i.e. concentric circles, or anthropomorphs) seem to be too ingrained in a pan-Oceanic culture to be of use to support links among archipelagos (see, for instance, the recent debate on Houmale’eia, Tonga, and its hypothesised relationship to Hawai’i: Egan & Burley 2009; see also Meijer 2012).

### *Unique cases*

This group includes Dakuniba, Vatutabataba, Tatuba and Dedevelevu, all of which were recorded by us (Table 1; Figures 4, 5 and 7), as well as Tavoro waterfall, Bukusía, Koroiemalu, a cave in north-east Vanua Levu, Vatulele, Sawa-i-lau, Waiboteigau and Vanua lailai (Table 3). Vatulele (Ewins 1995: 23-74) is especially remarkable, with approximately 95 painted face motifs, anthropomorphs, birds, watercrafts, negative hands and geometrics. It is the only site with such a variety of depictions. However, within this group every site presents different motifs, arrangements and techniques.

The depictions portray geometric shapes, hands, dots and lettering (we could also venture the possibility of imitations of older pecked figures, with charcoal-drawn turtles in Qaravonu as the only example). Depictions can be pecked, painted and charcoal-drawn. For the latter, the best example is Bukusía, where Sepeti Matararaba (Fiji Museum 1997) recorded some rough figures. They were not relocated in subsequent fieldwork seasons. They may have been erased by humidity or some overlapping graffiti (the cave is full of these graffiti; e.g. people’s names), which shows how recent they might be. This may also be the case with Tatuba, where depictions were made on a wall covered by lichen. The general roughness of execution is a characteristic that we can attribute to most of the depictions in this group: they are not necessarily highly skilled representations, which contrasts with the perfectly represented proportions and the technical ability found in the group of Polynesian-based depictions.

Rock art in this second group does not seem to share the same conventions for representation. These rock art sites are best viewed as particular and single individual acts. Nonetheless, there do appear to be some noteworthy regularities in their making. The use of cliff faces (Vatulele and Vatutabataba) and caves (Bukusía, Tatuba and Koroiemalu) is apparently associated with late, well-dated settlements – for example, Field (2004: 88) dates the earliest occupation in the Sigatoka Valley at Tatuba Cave around calBCE 20 and calCE 80, including a fortified cave complex (in which the rock art is located), 79 associated housemounds (*yavu*) and terraces, as well as a palisade and rock wall construction dating to CE 1200. These regularities are not incompatible with the proposal that this rock art does not work as a social institution; rather, the depictions seem to be isolated, non-recurring episodes and

they do not seem to conform to rigid rules. Unique sites show particular actions by presumably one individual at one time, and the numerous handprints of the same size reinforce this idea.

On the coast of Vatutabataba, Taveuni, nine handprints are placed on a cliff face. The handprints are located only a few metres above sea level. The flat area above the cliff is called Devil's Place. Oral history tells us that the chief-warrior Lalavata made the handprints. Silio Colaudolu (pers. comm., 18 September 2009), the *turaga-ni-koro* in Navakawau, recounted the story:

One day Lalavata was sitting with his big black dog in the cove cleaning his war club, when he saw blood seeping out of the stone. The blood was from all his people slain in the war with Vuna. Lalavata placed his hand in the blood and it left the prints. Lalavata then decided to avenge his people. He went to battle and killed all the Vuna people except the chief. The Vuna chief gave the southern part to Lalavata and his people. This is where the village of Navakawau now is located. Lalavata requested to be buried alive in a sitting position on the top of a hill overlooking the village. Thus Lalavata was entombed in a grave covered by a heap of stones on top of the hill to the west of the village.

According to local sources, this battle took place some 80 years ago, although it is likely that it took place before the mid-nineteenth century, when most Fijians became Christians. Of course, the existence of oral history does not necessarily provide a chronology for the handprints. But the fact that they are painted on a highly water-battered cliff wall, as well as the uniqueness of the site, reinforces the idea that this kind of representation does not belong to an older tradition of rock art. In fact, as we have mentioned, every site in this group has unique characteristics, and this has been noted by other researchers – for example, Geoffrey Clark's observations in Vanua lailai, Mago island, where he recorded

... 4 to 5 hand stencils ... [that] [c]ompared to other hand stencils from Australia and Vanuatu ... are unusual in that the distal termination of the stencil has a border. In most cases because the pigment is blown through the mouth while the hand is placed against the wall the stencil has a discontinuous border which ends at both sides of the wrist. A rock art specialist at the ANU (Meredith Wilson) has also suggested that the shape of the fingers and distribution of the pigment, might indicate that these stencils have been painted. The above comments show that the Vanua lailai hand stencils are unusual, not only because they are the only recorded rock art in Mago, but also for their execution. (Geoffrey Clark, pers. comm., 22 January 2009, extracted from his 1997 preliminary report to the Fiji Museum)

Hands are in fact widely recognised as a very personal type of expression (Rosalind Hunter-Anderson, pers.

comm., 1 January 2010), and it seems to us that in the Fijian context they could also be associated with expressions of power, at least as far as the oral history is concerned. This would make sense in the framework of a highly individualised non-institutional context, as we are proposing for this group of depictions.

Yet another piece of oral history that can illustrate this point has been collected by Toren (1999: 74 in Meijer 2012: 90):

The water of Waiboteigau, "Water-broken-from-the-middle", the stream that rises in Gau's inland hills, was stolen from two powerful ancestresses whom the Sawaieke chiefs claim as theirs. The water was carried away by the first of ten brothers in a leaf of a plant called "salasalaqato" – so fine-textured, said the teller, one would not believe water could be carried in it. When the first brother – Radua – arrived at the top of a hill he saw that his nine brothers had set sail without him; in anger he threw the leaf full of water to the ground and the course taken by the water that flowed from it retraced that marked by the water which had dripped from the leaf as he had made his way from the ancestresses' house to the top of the hill. Radua slipped and fell on the hillside and there he left his handprint in a stone near the source of the stream.

The contrast between patterned and unpatterned manifestations may lead to the hypothesis that particular social formations may produce one or the other. Polynesian-based depictions in Fiji can be defined as a highly structured manifestation, ruled by conventions and shared norms, working on a translocal basis. In contrast, we understand the unique cases to result from strong individual actions that were probably significant in a social formation that had abandoned some of its cohesive social institutions (i.e. rock art). Therefore, we observe these two groups of rock art as belonging to different moments in the historical development of Fijian society. A later chronology for the unique cases of rock art is further supported by arguments about its preservation, outlined above, and their attachment to oral histories.<sup>1</sup>

Moreover, the discontinuity in Fiji prompts us to discard the colonisation period as the point of departure of rock art making. New Caledonia and Fiji were colonised around 3000 years ago (Kirch 2002) and differences between them in terms of rock art are clear (for an exhaustive account of rock art in New Caledonia, see, e.g., Monnin & Sand 2004), in spite of the recent dating of New Caledonian cave paintings associated with Lapita settlement (Sand *et al.* 2006). Equally clear is the breakdown of patterns in regard to rock art between Fiji, Tonga and Samoa, on the one hand, and the rest of Polynesia, meaning that the origin of their different traditions of rock art making does not lie in the Central Pacific. These facts should eventually help to provide approximate relative chronological brackets for the making of rock art in Fiji.

**Final remarks**

“If you make a measurement and get what you expect, you have made a measurement.  
If you don’t get what you expect, you’ve made a discovery.”

Enrico Fermi, 1901–1954

It is difficult to explain the Fijian exception with regard to rock art; however, we can use this evidence (or lack thereof) to test our initial assumptions. At the beginning of our research, we were following our own experience: rock art rarely appears in isolation anywhere in the world. It is normally abundant, clustering in big groups in specific areas, as is the case with the other archipelagos colonised around the same time as Fiji; for example, New Caledonia. Moreover, rock art is also widespread in Remote Oceania, colonised from the central Pacific homeland. Thus, our initial assumptions established a tacit temporal and cultural continuity sustained throughout Oceania by rock art. In other words, from the existence of rock art in New Caledonia we hypothesised a causal relationship to explain (potential) rock art in Fiji. By extension, the existence of rock art in Remote Oceania established the need for the existence of rock art in the central Pacific, and Fiji was, until now, a missing link.

Now we know that these assumptions are not correct, which serves to highlight the great value of negative evidence in archaeology, and forces us to look for new possibilities. The question is: how do cultural traits spread or reproduce? Rock art is normally – if ever thought about – treated as a “by default” phenomenon: a cultural trait that people share and preserve because it is a tradition, or even a sacred activity. Furthermore, rock art is generally associated with pre-agricultural people, suggesting that it originated early and then, by cultural inertia, was transmitted from generation to generation (Cruz Berrocal & Millerstrom 2009). The evidence from Fiji suggests that the process of preserving and making rock art is more dynamic, leaving aside for the moment the assumption that rock art was part of the initial colonisation package carried by Lapita migrations.

Addison and Matisoo-Smith (2010) have indeed shown that great variability exists in the material assemblages of Lapita colonisers. And while this variability can be accounted for as being functionally driven, rock art is not easily explained as purely functional. Indeed, Fijian rock art challenges the conventional view of rock art as part of ritual or ceremonial expressions ingrained in the cultural patterns of the first colonising groups. Rather, it displays a lack of continuity inconsistent with established chronological assumptions as well as the question of the “origins” of cultural practices, and their transmission and/or independent development.

The existence of a shared iconography throughout Oceania is undeniable. But the “Fijian rock art gap” argues for a chronologically independent origin of rock art making in Near and Remote Oceania, which is further supported by the fact that the iconographic preferences in

different archipelagos tend to be distinct (Meijer 2012). In this light, rock art making would be the product of particular, independent historical conjunctures, used as part of different cultural and social strategies in every archipelago. This brings to the fore questions about the social significance of rock art, and certainly grants it a level of archaeological relevance that is not often acknowledged.

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**NOTE**

1. We recorded a further piece of evidence related to Dedevelevu, a site still considered sacred to local people. In the past, no outsiders were allowed in. Adinukula, a princess from the Solomon Islands who lived in the former ancient village on top of the ridge, was said to be buried in the shelter (story told by Eparama Druguta Turaganiloutu, chief of the Tukuta settlement and descendant of the princess).

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