KEYWORDS: ***Holocene – Eastern Indonesia – Painted rock art – Austronesian – Metal Age***

NEW PAINTED ROCK ART SITES IN ALOR ISLAND, EASTERN INDONESIA, SUPPORT A DIVERSITY OF ARTISTIC TRADITIONS IN THE LATE HOLOCENE

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Abstract. This paper describes recently discovered painted rock art in two archaeological site complexes, Tron Bon Lei shelters 1 and 2 and the cave sites of Ba Lei 1 and 3, located in the south-west of Alor Island, eastern Indonesia. Tron Bon Lei contains panels that include positive hand prints, anthropomorphs, boats and geometric designs, all painted in red pigment, while Ba Lei contains predominantly white geometric paintings. The Tron Bon Lei red paintings share similarities with rock art in other parts of eastern Indonesia and Timor-Leste, supporting the hypothesis that this region was a culturally and ideologically interconnected maritime province in the late Holocene. However, the white rock art at Ba Lei is quite distinct in terms of style of execution suggesting that the full range of symbolic and cultural diversity has yet to be fully revealed in the rock art of eastern Indonesia.

Introduction

Rock art research in the Island Southeast Asian (ISEA) region covering Indonesia and Timor-Leste has advanced significantly since the first rock art study in Indonesia was published by van Braam Morris (1884) on the rock art of Berau Gulf (also known as MacCluer Gulf), Papua. The recent application of U-series dating to a hand stencil (adjacent to a 'Babirusa pig' painting) at the Maros–Pangkep Site on Sulawesi has demonstrated that some of this pigment art is amongst the oldest human artistic expression in the world with a minimum age of c. 40 000 BP (Aubert et al. 2014).

In the Lesser Sunda Islands, where this study is focused, painted rock art has been recorded in the islands of Alor, Lembata, Kisar and Timor (both Timor Barat — the Indonesian western half of Timor and the independent nation of Timor-Leste) (Almeida 1967; O'Connor 2003; O'Connor and Oliveira 2007; Lape et al. 2007; O'Connor et al. 2015, 2018a, 2018b, 2018c; Galipaud et al. 2016). Petroglyphs have also been found in Timor-Leste where they have been dated to the terminal Pleistocene/Holocene transition (O'Connor et al. 2010) and in Alor Island, where they are undated and where some of the engraved motifs show evidence of having also been painted (O'Connor et al. 2018a).

Together these studies have shown that the rock art of ISEA spans over 40 000 years and that there are distinct phases of art production and styles of painting and engraving. The earliest of these phases, marked by large naturalistic animals and hand stencils, has so far been identified and dated only in Borneo and Sulawesi (Aubert et al. 2014, 2018). In other islands of eastern Indonesia and Timor-Leste a much more recent art tradition has been identified based on shared locational characteristics, motifs and colours that differ from the older painted rock art (Ballard 1992; O'Connor 2003; Ballard et al. 2004). This more recent corpus of painted art was originally identified by Ballard (1992) as extending from Timor in the west through to Tonga/Samoa in the east. Its distribution in islands unoccupied by people before Austronesian colonisation, and/or in regions where Austronesian languages were spoken, led Ballard (1992: 98) to propose that it was coincident with, or post-dated, the expansion of Austronesian language-speakers into the islands c. 3500 years ago. He, therefore, called it the 'Austronesian Painting Tradition' (APT). Motifs thought to feature regularly in the APT in eastern Indonesia include 'boats, anthropomorphs, faces, fish and birds, as well as simple and elaborate geometrics, with a particular emphasis on roundels or rayed "sun" motifs' (Wilson and Ballard 2018: 7). APT motifs were also thought to be positioned in highly visible but inaccessible locations, sometimes overlooking the sea (Ballard 1992).

Subsequently there has been a great deal more research undertaken into this late Holocene rock art in selected areas, which indicates regional diversification over time (Wilson 2003; Wilson and Ballard

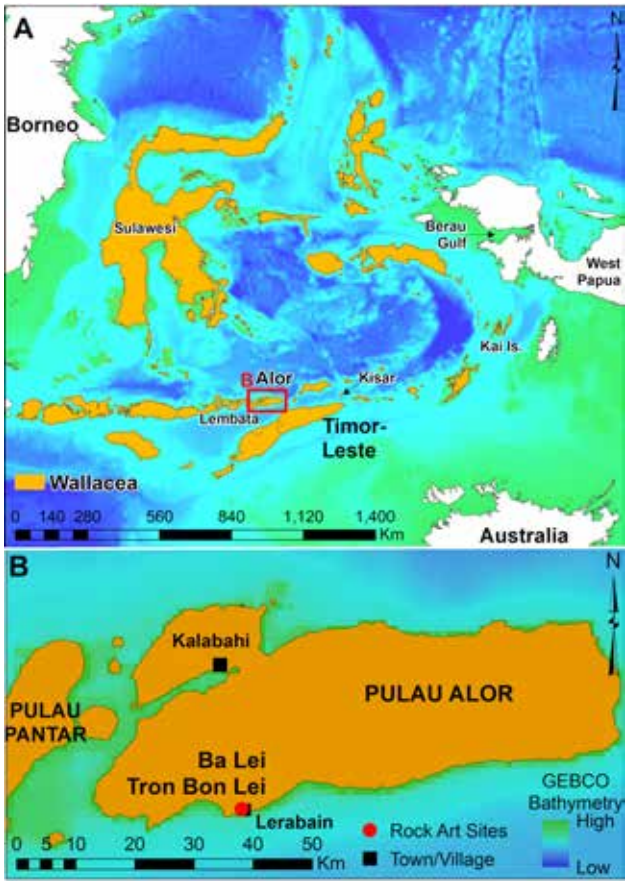

Figure 1. *Map of region showing key localities mentioned in the text. (A) Region overview with Wallacean islands highlighted in yellow and Alor island boxed in red. (B) Location of Tron Bon Lei and Ba Lei on Alor Island.*

2018); however, it is still true to say that the motifs described above, and the predominant use of red pigment, characterise the APT in eastern Indonesia and Timor-Leste. It has recently been noted that some of the diminutive red anthropomorphs in the Timor-Leste panels are shown wielding ceremonial metal axes (*candrasa*), which places their production during the Island South-East Asian Metal Age (ISEAMA) after about 2500 years BP (Fauzi et al. 2016: 254–256; O'Connor et al. 2018c; Oliveira et al. 2019), rather than immediately following initial Austronesian settlement (see also Ballard 1992: 98).

The role of the APT as a form of symbolic signalling was originally explored by Ballard (1992) and later developed by Ballard and colleagues (2004) who suggested that as many of the paintings were in prominent locations such as on sea cliffs, the rock art may have formed a visual language linking maritime communities (Ballard 1992; Ballard et al. 2004; O'Connor et al. 2015). This hypothesis was explored in detail in the context of shared motifs in the rock art of Timor and its neighbouring island, Kisar (O'Connor et al. 2018c), as well as other islands further to the east (O'Connor 2003).

A maritime network connecting Alor, Timor and Kisar is indicated by the presence of exotic obsidian in archaeological sites on these islands from the terminal Pleistocene (Reepmeyer et al. 2011; 2016, 2019). In the late Holocene, maritime networks appear to have flourished and extended their reach with the movement of domestic animals and exotic manufactured goods from mainland SE Asia across the Wallacean Archipelago, and as far east as western Melanesia (Ambrose 1988; Hung et al. 2007; Bellina 2014; Calo 2014; Castillo et al. 2016; Oliveira et al. 2019). Yet despite these connections and similarity in terms of style and subject in the late Holocene rock art suggesting socio-cultural links across space and time, the details of the relationships between islander communities have yet to be fully explored. Recent research in Lembata and Kisar Islands has shown that as well as parallels there are also motifs and styles which are not common across the region and perhaps represent the late emergence of 'local' traditions (see also Wilson 2003). Examples would include the large anthropomorph recorded in Lembata and the multi-coloured geometrics which feature prominently in the Kisar artistic repertoire (O'Connor et al. 2018b, 2018c).

Here we contribute new records of painted rock art from two site complexes on the island of Alor, eastern Indonesia (Fig. 1). The rock art, located at Tron Bon Lei and Ba Lei near the modern village of Lerabain on the south-west coast of the island, was discovered and recorded by a joint Universitas Gadjah Mada (UGM) and Australian National University (ANU) team in 2014 and 2018. The motifs include hand prints, anthropomorphs, boats, zoomorphs and simple geometrics. We describe the paintings in the two sites with respect to motifs, technique and colour and then discuss them within the regional context of pre-Historic artistic traditions of eastern Indonesia and Timor-Leste. While the red painted motifs at Tron Bon Lei seem to fit within the scope of the APT, the white rock art of Ba Lei seems to represent a distinct tradition which, based on superimposition, we suggest post-dates the red art.

Geographical setting of Tron Bon Lei and Ba Lei

Alor Island, to the north of Timor, is mostly volcanic in origin with small areas of uplifted coralline limestone terraces confined to the north and western rims of the island (Heering 1941). The sites, Tron Bon Lei 1 and 2, and Ba Lei 1 and 3, are located in a volcanic ridgeline close to the coastal village of Lerabain, in the south-west part of Alor Island (Fig. 1B). The ridgeline is formed of fine-grained, dark to light grey-coloured, basaltic to andesitic deposits with intercalated sub-angular to rounded clasts measuring up to ~50 cm in diameter.

Tron Bon Lei is a complex of two shelters (Figs 2 and 3), located about 150 m from the sea with an elevation of 30 m (Fig. 2). Vertical fissures divide an area of overhanging ridgeline into two shelters. One shelter runs approximately 30 m in length and faces west (Tron Bon Lei 1, Fig. 3A). The overhang curves in an L-shape

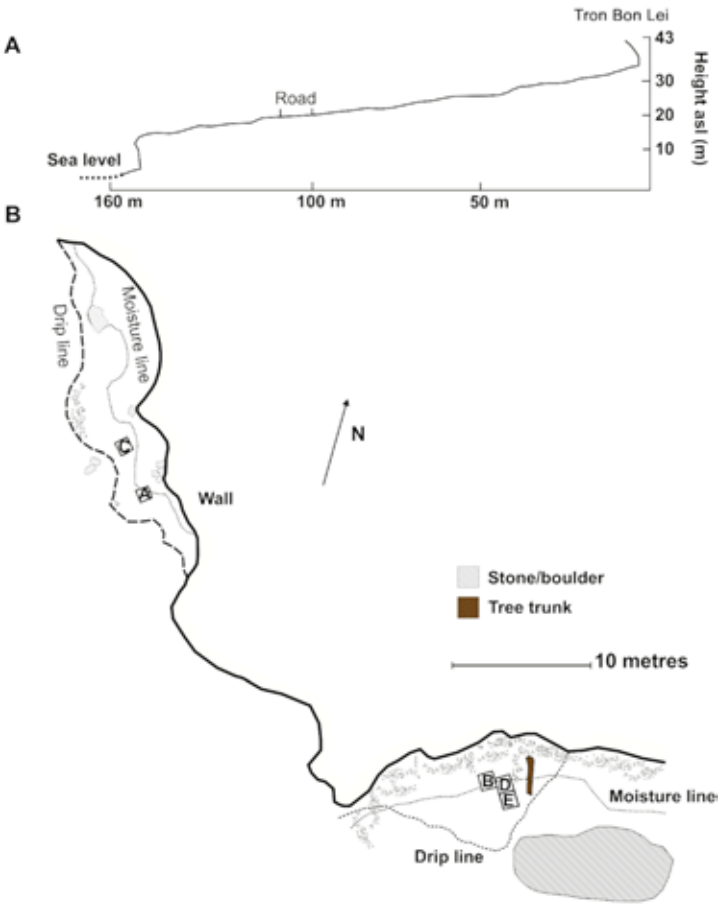

Figure 2. *(A) Transect showing distance of Tron Bon Lei shelter to the current coastline and height above sea level. (B) Plan of Tron Bon Lei 1 and 2 showing excavation squares C, A, B, D and E.*

and Tron Bon Lei 2, which is approximately 20 m in length, faces south towards the sea (Fig. 3B). On average the Tron Bon Lei shelters are well lit and provide ample headroom when standing (5 m from the floor to the roof).

Ba Lei is a complex of three small caves (Fig. 4) about 300 m to the west of Tron Bon Lei (Fig. 1B). Ba Lei 1, the largest of the three contained some faded patches of red pigment and several simple white geometrics (Fig. 4A). Ba Lei 2 the second largest cave in the complex had no obvious rock art but this may be due to poor preservation of pigment on the wall surfaces. Ba Lei 3, the smallest of the three caves is only 2 m high and 4 m wide at its maximum dimension but contained white geometric motifs and some faded red pigment (Fig. 4B).

Excavations conducted in both areas of the overhang at Tron Bon Lei in 2014 revealed a record of occupation dating from c. 21 ka, and signs of human settlement through to the late Holocene associated with stone tools and faunal

Figure 3. *Tron Bon Lei shelters: (A) shelter 1, view facing south; (B) shelter 2, view facing east (photos SO).*

Figure 4. *Ba Lei shelters: (A) shelter 1 facing north, (B) shelter 3 facing north (photos SK).*

Site	Motif		Colour
Tron Bon Lei 1 & 2	Geometrics	at least 8	red
	Anthropomorphs	10	red
	'Boats'	7	red
	Zoomorphs	0	
	Hand prints	10	red
Ba Lei 1 & 3	Geometrics	25	white
	Anthropomorphs	0	
	Zoomorphs	2	1 red and 1 white
	'Boats'	0	
	Hand prints	0	

Table 1. *Proportion of geometric, anthropomorphous, zoomorphic, 'boats' and hand print motifs recorded at Tron Bon Lei and Ba Lei, south-west Alor Island, eastern Indonesia.*

remains (Reepmeyer et al. 2016; Samper Carro et al. 2016; Hawkins et al. 2018). A burial with fish-hooks as grave goods was dated at ~12 ka (O'Connor et al. 2017) and the abundant fish bones and shellfish indicate that the site was used primarily as an occupation camp for exploiting the nearby coastal zone (Samper Carro et al. 2016). Chemical sourcing of the obsidian stone artefacts from Tron Bon Lei shows that Alor was receiving exotic obsidian from at least 12 000 years ago and likely had connections with other parts of the Lesser Sunda region from this time (Reepmeyer et al. 2016; Maloney et al. 2018). Earthenware pottery and introduced animals in the upper layers show that the shelter continued in use into the Neolithic period, albeit with less evidence of occupation (Hawkins et al. 2018). Ba Lei has not been archaeologically investigated.

Rock art recording methods

Digital photographic data were collected during the field surveys. Classification was carried out for comparative analysis to explore the variation of rock art in Tron Bon Lei and Ba Lei. Classification was aided by the use of *DStretch* (Harman 2005), a computer enhancement tool allowing for faded motifs to be discerned. Photoshop software was then used to lift the pigment images and place them on a contrasting background. Patches of pigment were identified at both sites which could not be formally identified, even using *DStretch*. These were not included in the analysis.

The rock art of Lerabain, southern Alor

In Tron Bon Lei, rock art occurs in both sections of the overhang (Tron Bon Lei 1 and 2) where the shelter walls protect a flat floor deposit (Figs 2 and 3). As the shelters are part of a continuous overhang they are discussed here simply as Tron Bon Lei. Anthropomorphs are the most common figurative motifs found at Tron Bon Lei followed by 'boats'. Geometric motifs dominate at Ba Lei which has an additional class of motif not positively identified at Tron Bon Lei: zoomorphs. Tron Bon Lei also contains red hand prints (Table 1). A representation of motifs by category is shown in Table 1, albeit with the proviso that this list is not exhaustive as some motifs could not be discerned and other faded paintings may have been missed in the field.

Tron Bon Lei (1 & 2) rock art

The Tron Bon Lei (1 & 2) rock art is mostly posi-

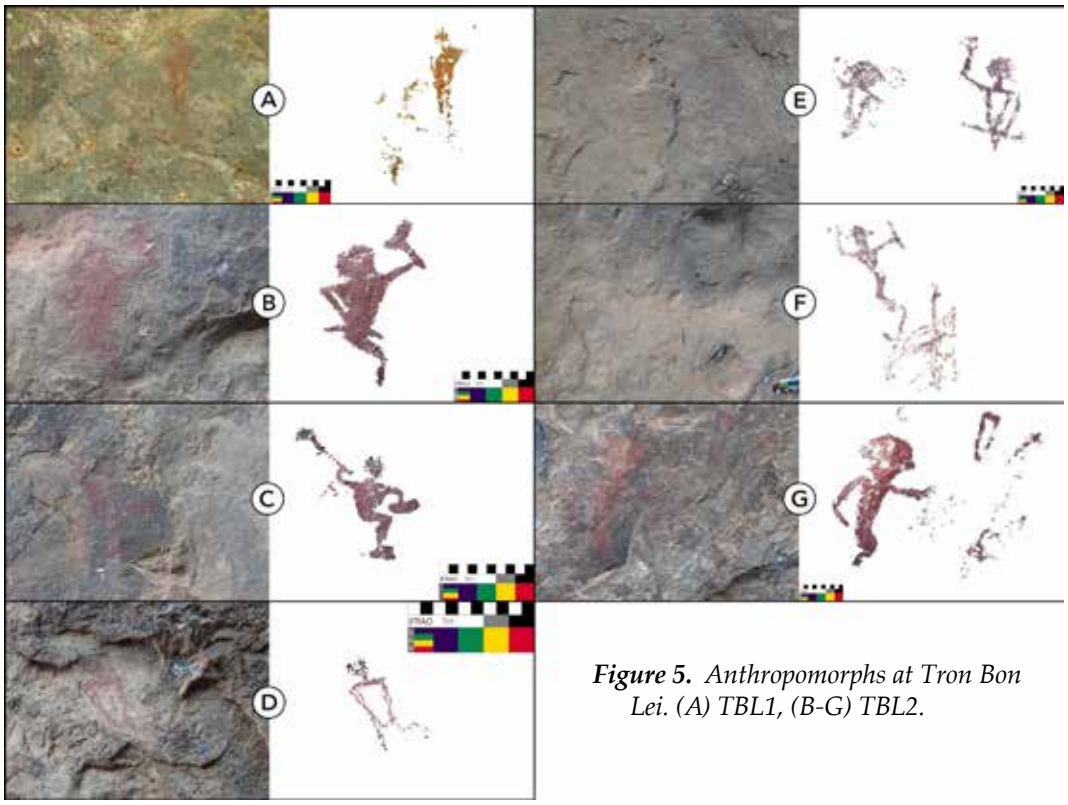

Figure 5. *Anthropomorphs at Tron Bon Lei. (A) TBL1, (B-G) TBL2.*

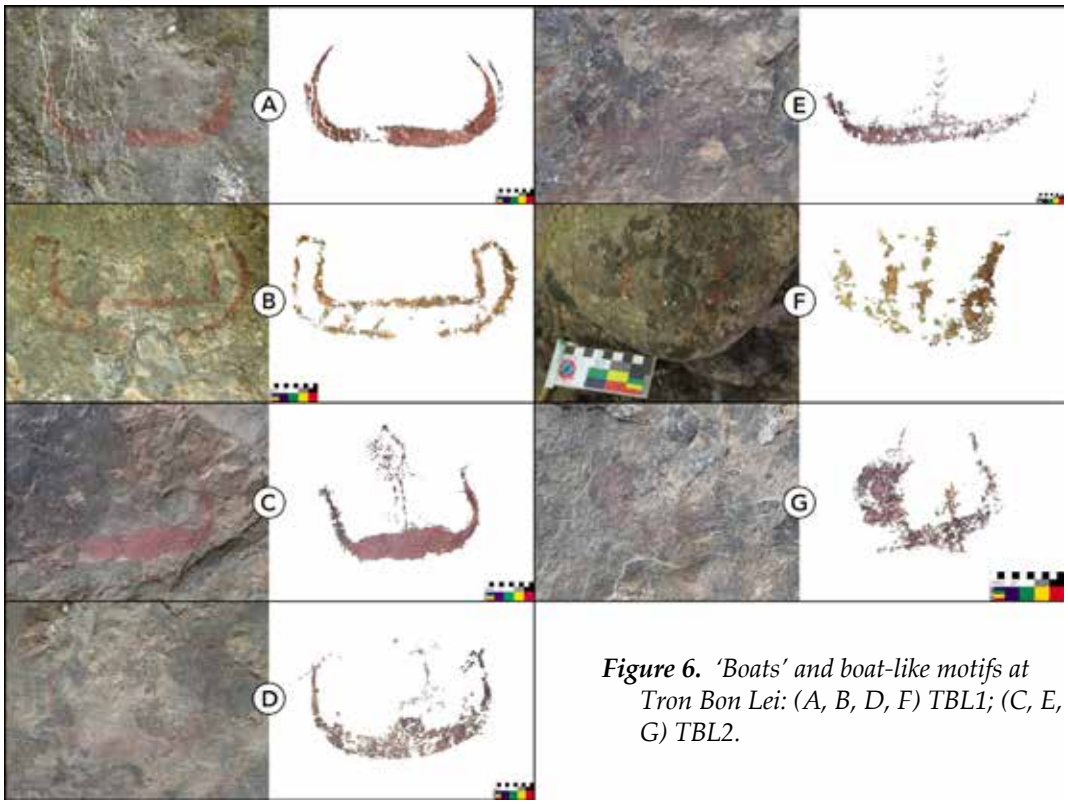

Figure 6. *'Boats' and boat-like motifs at Tron Bon Lei: (A, B, D, F) TBL1; (C, E, G) TBL2.*

tioned between 60 cm and 280 cm above the current floor of the shelter. Anthropomorphs are painted between 150 to 280 cm, 'boats' occur between 166 and 191 cm, hand prints between 180 and 265 cm, and geometric motifs between 237 and 420 cm above the modern floor surface.

Anthropomorphs are the most common figurative motif at Tron Bon Lei with at least ten recorded. All are in red pigment (Fig. 5). The head in all figures is shown in solid red pigment and in 5A, B, C, F and G the body is also infilled, whereas in D and E the torso is outlined. Some of the bodies are shown in twisted half profile (Fig. 5B and C) whereas others show the body in frontal view (Fig. 5D and E). B and C appear to be holding weapons. B is wielding an 'axe' and C has a possible club and a 'shield'. The figures in E, F and G are also shown holding objects, possibly weapons or in the case of G, a 'shield'. The anthropomorphs on the left of the panel in E and G appear to be wearing headdresses of a fan-like shape. Figure 5B appears to be wearing a traditional loincloth (Raymond 1934). Raymond (1934: 241) describes the loincloths worn across the Indonesian Archipelago as a long strip of beaten barkcloth 'wound round the hips and passed between the legs, the ends being allowed to hang down several inches in front and rear'. At the feet of F is another figure lying prone, however, it is uncertain if a human or an animal is represented, or even if the two figures are associated. Figure 5E shows two incomplete anthropomorphs. As with anthropomorphous figures elsewhere in eastern Indonesia, those in Tron Bon Lei are not proportionally painted, often being depicted with large heads or other parts of the body accentuated (Ballard 1988).

'Boats' are the next most common figurative motif (Fig. 6). Except for 'boat' B, the hulls are painted in solid red infill. Two of the 'boats' (Fig. 6D and G) appear to depict an anthropomorph standing centrally inside the hull. The anthropomorph in boat D is standing above and clear of the deck, and the pigment is much fainter than the pigment used for the 'boat', thus it is uncertain if the two images are meant to be associated or even painted at the same time. The anthropomorph in 'boat' G is painted in a slightly lighter shade of red than the boat, and seems to show the lower torso and legs painted over the hull of the boat, so here again the two images may not have been painted at the same time, or been intended to be visually associated. Sails are possibly featured in 'boats' F and G but are less distinct than those depicted on 'boats' in Timor-Leste, and the sail in G, if it is indeed such, is painted as if to show it positioned far forward at the prow of the boat like some form of fore-and-aft rig (Lape et al. 2007). 'Boat' A has a simple solid red hull with a very high prow and stern and has a 'double' at one end, which may be the result of repainting. 'Boat' B is painted in outline with lines across the sides which may represent paddles. 'Boats' C and E include a central upright structure which does not resemble a mast (Fig. 6). In the case of 'boat' E, this feature has a strong resemblance to the branching 'tree of the life' motifs shown on some Indonesian woven textiles (Ballard et al. 2004).

There are at least eight geometrics or sets of geometrics at Tron Bon Lei (Fig. 7). Those that are discernible (Fig. 7A, B and C) are built around combinations of vertical or horizontal lines. Geometric F occurs above anthropomoph G which is holding a possible shield and may be part of a composite image. Tron Bon Lei

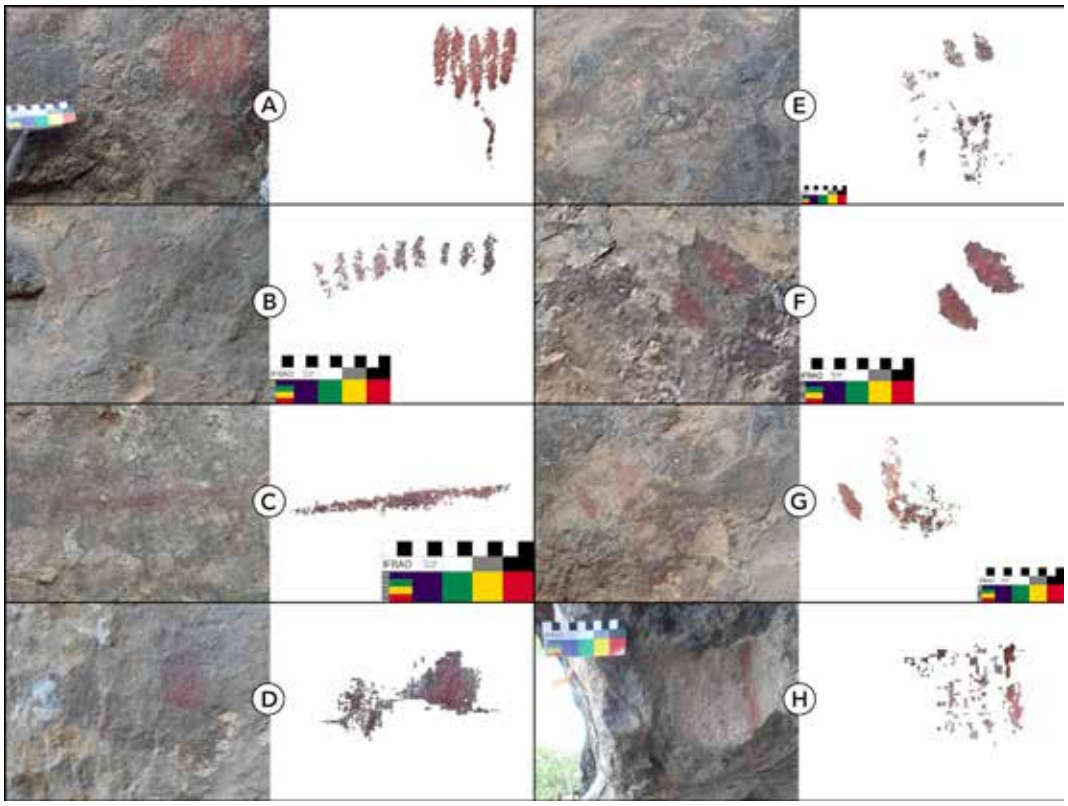

Figure 7. *Geometrics at Tron Bon Lei: (A, B, D-F) TBL2; (C, G, H) TBL1.*

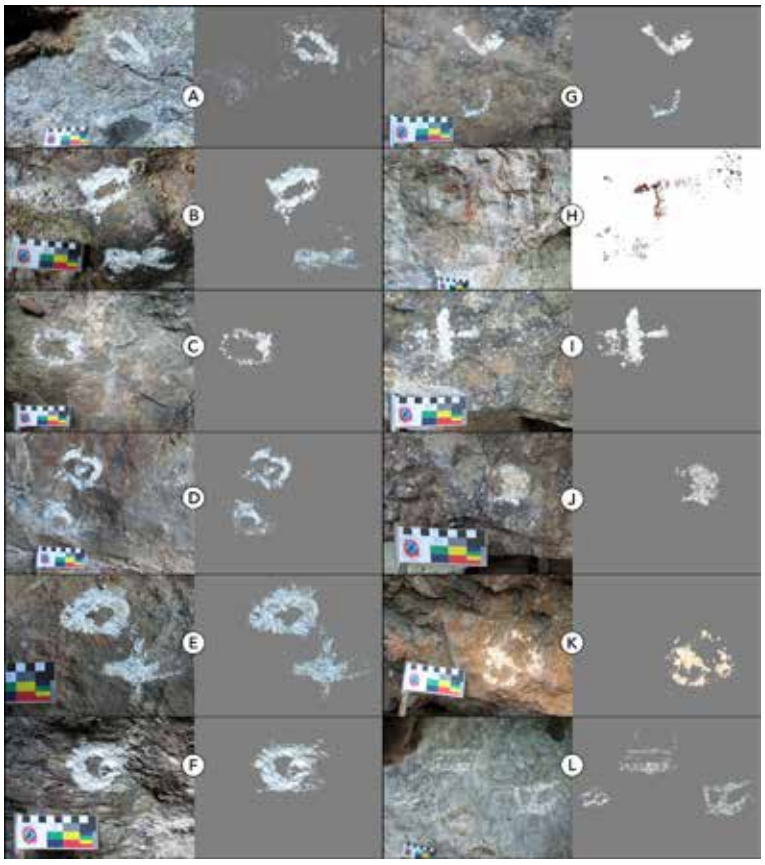

Figure 9. *Geometrics at Ba Lei 1.*

geometrics G, D and H are so poorly preserved that all that can be safely said is that they are red pigment.

Finally, ten adult-sized hands were printed on the rock wall

Figure 8. *Hand prints at Tron Bon Lei 2.*

in red pigment (Fig. 8). In the few prints where it is possible to discern the finger patterning, they are left hands. One of the prints (bottom left) has only four fingers present, however, this may be due to poor pigment preservation as several of the prints are very indistinct. Several of the prints have a void where the palm naturally concaves at its centre, creating a break in the pigment.

Ba Lei 1 and 3 rock art

In Ba Lei 1 there are 17 white geometric motifs, many of which are in sets of two (Fig. 9). The white pigment is thickly and crudely applied. There is one red motif which may be a geometric and which appears to have white pigment obscuring parts of the red pigment (Fig. 9H).

Ba Lei 3 also contains predominantly white geometric symbols painted in simple brush strokes, with at least 12 individual symbols represented (Fig. 10). The Ba Lei 1 and 3 geometrics are built from a combina-

tion of circles, dots and crosses with some designs in Bai Lei 3 enveloping crosses and/or dots inside a circle (Fig. 10A, G, H, I and J).

Some of the geometrics at Bai Lei 3 appear to have had black (Fig. 10A, C, J and K) or red pigment (10F) pre-applied to the wall surface to create a contrasting background to accentuate the visual impact of the white motif.

Zoomorphs were also recorded at Ba Lei (Fig. 11), with a possible fish in red outline at Ba Lei 1 (Fig. 11A) and a white painting of a 'turtle' at Ba Lei 3 (Fig. 11B); its body is shown in outline and flippers and head as solid infill. The white geometric in 11A seems to be overlapping the tail of the red 'fish'.

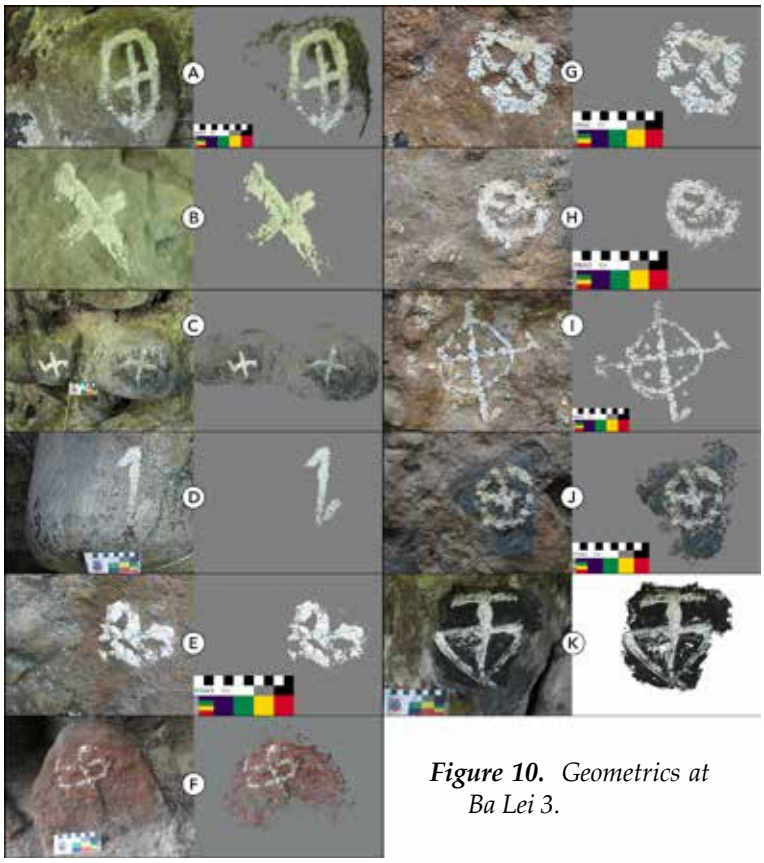

Figure 10. *Geometrics at Ba Lei 3.*

Figure 11. *Zoomorphs at Ba Lei. (A) The 'fish' motif is very indistinct and is painted in red pigment. (B) The 'turtle' motif is painted in white but shown in a grey hue in the panel on the right for contrast.*

Discussion

Tron Bon Lei and the Ba Lei caves contain very different painted art assemblages, with Tron Bon Lei dominated by figurative motifs (anthropomorphs and 'boats') and hand prints, and Ba Lei dominated by non-figurative motifs (geometrics). As well as differences in the range of motifs represented, Tron Bon Lei and Ba Lei have differences in the choice of pigment colour. At Tron Bon Lei only red pigment was used, while at Ba Lei white pigment is used for all motifs aside from a possible geometric (Fig. 9H) and a simple 'fish' (Fig. 11A). In the only example where white and red pigment overlap (Fig. 11A) the white geometric appears to have been painted over the red fish. This single instance of superimposition (Fig. 11A) may indicate that the white Ba Lei geometrics were painted later than the red art in both sites. Generally, white pigments do not have the longevity of haematite-based pigments, which combined with the fresh appearance of the white geometrics also suggests limited antiquity of the latter. However, this is uncertain as at Ba Lei some of the white images were painted on a pre-prepared black or red background (Fig. 10A, C, J, K and F). This indicates that all colours were available to the artists at Ba Lei as the prepared background and motif must have been painted in close succession. Thus, the choice of white for the majority of the motifs at Ba Lei was not due to the unavailability of black and red pigment, but rather the deliberate selection of white for these simple geometrics.

The Ton Bon Lei and Ba Lei geometric assemblages are also very different from each other. Those at Tron Bon Lei are built around vertical lines whereas the Ba Lei geometrics are built around circles, crosses and dots. The geometrics in both sites are painted freehand and are structurally simple.

Many of the motifs at Tron Bon Lei are painted high on the shelter walls and thus potentially fulfil the signalling role that Ballard suggested for the APT. The anthropomorphs are up to 2.8 m above the current floor surface and some of the red geometrics are more than 4 m above the floor. In contrast, the Ba Lei caves are fairly low roofed and none of the white geometrics are high on the walls or easily visible from the outside. The white geometrics at Ba Lei likely served a different function to the red art at Tron Bon Lei 1 and 2, although what this might have been is unknown.

A significant point of difference between the geometric assemblages at Tron Bon Lei and Ba Lei when compared with other parts of eastern Indonesia and Timor-Leste is that they lack the 'sun-ray' motifs, concentric circles and scrolls (Röder 1956, 1959: 109, Pl. 36; Ballard 1988; O'Connor 2003; Arifin and Delanghe 2004: 84, Pl. 34; O'Connor et al. 2018c), recognised as leitmotifs of the earliest APT (Wilson and Ballard 2018: 7). Lene Hara and Lene Cece, Timor-Leste, Jawalang 2 & 4 and Inuntun 4, Kisar, and Dudumahan in the Kai Islands do have examples of circles enclosing crosses (Ballard

1988; O'Connor et al. 2018c) such as occur in Ba Lei, although in these islands they are usually one component of more complex geometric designs.

The boat paintings of eastern Indonesia and Timor-Leste are very variable, ranging from highly schematised to detailed representations showing mast rigging, built structures and steering oars (Arifin and Delanghe 2004; Ballard et al. 2004; Lape et al. 2007; Kealy et al. 2018; O'Connor et al. 2018a, 2018b, 2018c). The 'boats' at Tron Bon Lei are at the simple schematised end of the range, however, their high vertical or raked-back prows and sterns are features shared with most 'boat' paintings across the region (O'Connor 2003; O'Connor et al. 2018c). For example, the Dudumahan site in Kai has 'boats' represented as simple crescent shapes (Ballard 1988: 153, 4i and 2vi). This is also seen in the 'boat' petroglyph at the Du Bloing site at Mademang on the central south coast of Alor which are over-painted in red pigment (O'Connor et al. 2018a: 119, Figs 5 and 6).

Ballard et al. (2004) have discussed the ubiquity of 'boat' imagery in ISEA in a diversity of mediums and in cosmology as 'vehicles for states of transition' (Ballard et al. 2004: 392). They note that the elaborate woven Lampung textiles of South Sumatra commonly feature a large ship, with a 'tree of life' 'emerging from the deck' (Ballard et al. 2004: 393). These textiles are central to a variety of rites of passage as diverse as circumcision, child presentation, weddings, ceremonies to mark the completion of new houses and in funerals (Ballard et al. 2004: 392; Barbier and Newton 1988: 236–238), where they are often used to 'handle the corpse and the litter before being hung on a wall' (Ballard et al. 2004: 393). As noted above, some of the 'boats' at Tron Bon Lei have a central structure that bears similarity to the 'tree of life' motif. The 'tree of life' is a symbol found in many world religions, with ancient origins predating the Christian Era. In the Quran, it is synonymous with the tree of immortality. The combination of the 'tree of life' and the boat may reference the symbolic journey from life to death and thence onward to the afterlife on the 'ship of the dead' (see Ballard et al. 2004 for a comprehensive discussion of the role of these symbols in rites of passage in Island Southeast Asia).

Figure 12. *Girl in Timor-Leste wearing traditional headdress. Credit: Design Pics Inc / Alamy Stock Photo.*

Although stylised crescent-shaped motifs such as those configured at Tron Bon Lei (Fig. 6A, C, E and D) are usually interpreted as boats, there is also the possibility that they may represent ceremonial head-dresses (Fig. 12), or even buffalo horns. Crescent-shaped headdresses known as *Kaibauk* are worn on ceremonial occasions by both men and women in Timor (Fig. 12), where they are characteristically made of silver alloy or bronze (Barrkman 2009: 104). Some are simple crescents, while others are augmented with central branching structures or decorations. They are said to represent a half or crescent moon or a pair of buffalo horns (Hicks 1988: 144–148). Barrkman (2009: 104) notes that in the past women 'wore *Kaibauk* when performing war dances that were danced in unison, while for men it was part of their warrior attire'. They are regarded as extremely powerful and valuable items, kept as heirlooms in ceremonial houses and passed on generationally, often as part of bridewealth (Barrkman 2009: 104). Crescent-shapes are also sometimes reproduced in carvings on house doors (Hicks 1988: 145, Fig. 153). Water buffalo horns, which form a natural crescent, are also widely used in the Lesser Sunda Islands as a symbol of wealth and were placed on grave posts after the animals were killed, during the funeral, and attached to traditional houses (Hicks 1988). Adams (1977) records that in the Insana district of Timor segments of buffalo horn are carved into the shape of a boat and worn by dancers at funeral ceremonies. The boat head-dresses support upright posts to which brightly coloured bird feathers are attached. 'Bird feathers may indicate a symbolic form of propulsion (by virtue of ritual action), the feathers providing a metaphor for the prosaic human effort of paddling' (Adams 1977: 98). Thus, these symbols in rock art are likely multivalent.

Anthropomorphs, the dominant figurative motifs at Tron Bon Lei, have features in common with those in the neighbouring islands of Timor and Kisar, and as far east as the Kai Islands and the Berau Gulf in Papua (Specht 1979; Ballard 1988; O'Connor 2003; Lape et al. 2007; O'Connor et al. 2015, 2018c). Like those found elsewhere in eastern Indonesia and Timor-Leste, they are very small, shown in active poses, often holding weapons and shields, and at least some have head-dresses and are wearing loincloths.

There were no definite zoomorphic motifs in Tron Bon Lei, but at Ba Lei 3 there is a 'turtle' (Fig. 5B), and

at Ba Lei 1 a possible stylised red fish in outline (Fig. 5A). Fish occur in the rock art repertoire in Lene Hara and Lene Kici 1 in Timor-Leste (O'Connor 2003: 102, 114, Fig. 6), in Jawalang 2 in Kisar (O'Connor et al. 2018c: 6, Fig. 5), at Dudumahan in Kai (Ballard 1988: 153, Figs 8 and 6xii), and widely in Papua (e.g. Arifin and Delanghe 2004: 92–93, 174, 202) but are usually shown with greater anatomical detail.

The Bai Lei 'turtle' appears to be a schematised marine turtle (Fig. 11B). The painted body shape and longitudinal carapace ridge are suggestive of a leatherback (*Dermochelys coriacea*) (Pritchard and Mortimer 1999). Turtles feature on woven textiles in Alor and a mortar in the shape of a turtle was recorded in the possession of local villagers at the village of Kolana at the eastern end of Alor by two to the authors (M and SO) in 2013 (Fig. 13). The turtle mortar was unearthed during excavations for the foundations of a new building, along with some polished stone adzes, so may date to the Neolithic or ISEAMA. A 'turtle' painted in red pigment also occurs at the inland Timor-Leste site Racolo (O'Connor and Oliveira 2007: 394). The highly schematised 'turtle' painting at Ba Lei 3 differs from the more representative red 'turtle' painting at Racolo. The latter has a circular carapace shape (more like Cheloniid sea turtles), complete with scutes and intricate flipper detail.

Domestic animal motifs such as are present on Kisar island (O'Connor et al. 2018c) and in Timor-Leste (O'Connor 2003: 103, Fig. 13) are not found at Tron Bon Lei or Ba Lei, although introduced domestic mammals were recovered from the excavations at Tron Bon Lei in the late Holocene deposits (Hawkins et al. 2018).

Another feature differentiating the Alor sites from other sites in the region is the lack of hand and arm stencils. Hand and arm stencils are prolific in the Papuan rock art (Arifin and Delanghe 2004), in many of the Timor-Leste sites (O'Connor 2003), in Sulawesi (e.g. Aubert et al. 2014; Oktaviana et al. 2016) and at Dudumahan in Kai (Ballard 1988: 146). They are also found in many of the Kisar rock art sites, in some cases being the dominant motif, such as at Jawalang 2 which has upward of 60 stencils represented (O'Connor et al. 2018c). The positive hand prints in Tron Bon Lei (Fig. 8) may have served the same symbolic purpose.

Conclusions

During fieldwork on Alor Island two new rock art complexes were recorded, Tron Bon Lei and Ba Lei. Our analysis indicates two stylistically, and largely spatially, separated traditions; a body of red painted rock art at Tron Bon Lei which features high prow 'boats' and 'weapon-wielding' anthropomorphs, with strong similarities to motifs recorded in Timor-Leste and islands in eastern Indonesia. A second style of rock art is seen at the Ba Lei caves which features simple geometric designs painted in white. The faded nature of a red 'fish' at Ba Lei which is overlain by a white geometric probably indicates that the red paintings

Figure 13. *Turtle-shaped stone mortar from Kolana village in Alor.*

at both site complexes predate the white at Ba Lei. This observation would also seem to be supported by the fresh appearance of the white pigment. In this case, the white geometric assemblage at Ba Lei would represent the local emergence of a late post-APT art tradition in Alor. However, we cannot be certain of this, as the artists at Ba Lei clearly had red and black pigment available to them when they created the white geometrics. The fact that the red and white paintings are largely spatially separated may instead be related to the function of the rock art, such as its use to express difference in identity by different language groups, or clans, using the region contemporaneously.

The red rock art assemblage at Tron Bon Lei largely conforms to the APT, particularly in the dominance of diminutive red anthropomorphs and 'boats', and the height of the red geometrics on the shelter walls. Similarities in the manner of depiction of the anthropomorphs at Tron Bon Lei and those in Timor-Leste suggest that the two islands were socio-culturally inter-connected in the late Holocene. The shared symbology of boats and marine fauna, no doubt reflects a cosmological dimension to the maritime focus of these island communities (e.g. Ballard et al. 2004; O'Connor et al. 2017).

However, the geometric assemblage at Tron Bon Lei has no obvious parallels with Timor-Leste or sites in eastern Indonesia, lacking sun-ray motifs and curvilinear motifs. The geometric assemblage at Ba Lei is even more distinct with no obvious parallels across the region.

Most of the painted rock art sites recorded prior to this study in eastern Indonesia and Timor-Leste are in limestone sea cliffs or caves. The presence of painted art in volcanic formations on Alor demonstrates that painting was not confined solely to limestone areas.

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