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CHAPTER 13
MUA'S ROCK-ART:
DESIGN PATTERNING AND INTER-REGIONAL INTERACTION

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Systematic recording of rock-art from Mua began in 2001 as part of joint archaeological research involving the Mualgal community at Kubin and Monash University archaeologists. In time, and using digital photography and computer enhancement techniques, a total of 137 pictures from six rock-art sites located in the northeastern and southwestern sides of the island were documented. This paper analyzes the rock paintings and the sites in the context of past inter-regional interaction. The results indicate that comparison between Mua's rock-art and similar design forms recorded on both fixed and portable surfaces reveal a more comprehensive understanding of the extent of design form patterning than any single technique alone is capable of. Comparison with design forms recorded on portable material culture reveals links across Torres Strait and into southwestern Papua New Guinea. □ *Torres Strait, rock-art, design forms, material culture, spatial patterning, interaction, Mua island.*

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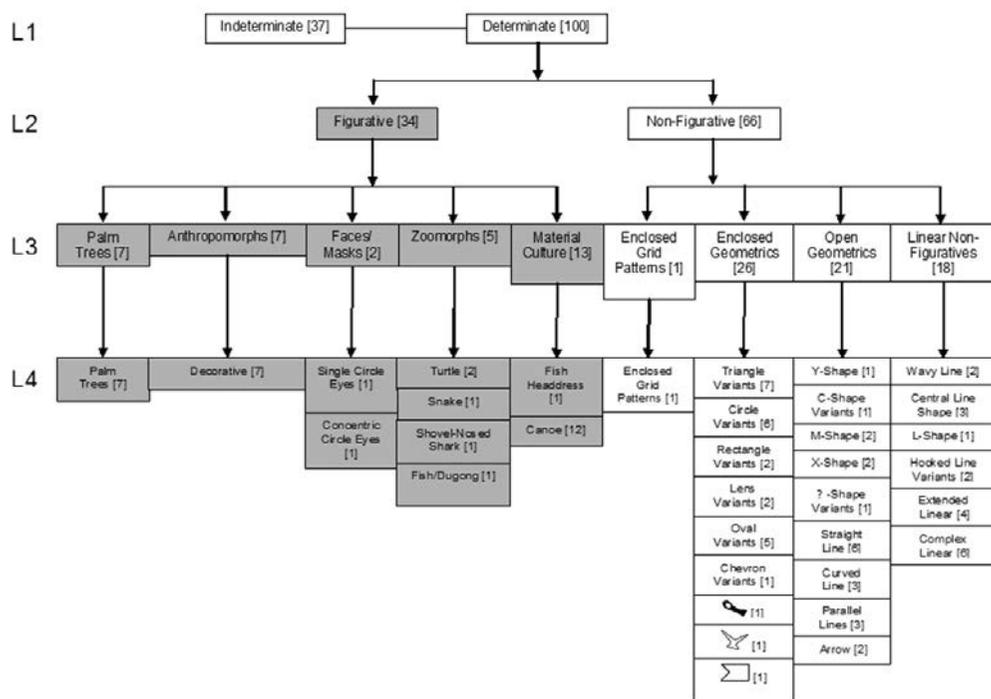
In 2001, the Mualgal community invited Monash University archaeologists Bruno David and Ian McNiven to assist in a joint rock-art recording project; in subsequent years, Liam Brady joined the team and continued recording rock-art on Mua with Mualgal representatives and other members of the Monash University archaeology team (Bruno David and Joe Crouch). Although some rock-art had previously been recorded on Mua by archaeologists, anthropologists, travel writers, and teachers (e.g. Barham, 2000; Beckett, 1963; Singe n.d.; Tennant, 1959; Teske, 1986), the rock-art recording undertaken on Mua between 2001 and 2003 represents the most detailed recordings of Mua's known and previously unknown rock-art. This joint rock-art recording project also utilised digital technology from the onset, including the computer enhancement of every picture recorded from each site. Initial results of Mua's rock-art were presented in a joint publication by Monash University archaeologists and the Mualgal community in the first published paper devoted to the rock-art of Mua (see Brady et al., 2004). The paper presented in the present volume acts as a companion paper to the previous article by examining Mua's rock-art in the context of inter-regional interaction based on similarities in design forms across space, and across different media.

While there has long been a relative paucity of social anthropological and archaeological data from Mua (although this imbalance is slowly being corrected, see chapters in this volume), artistic evidence is used here as a means to investigate the extent of artistic interaction between Mua and the surrounding region. By using a range of comparative decorated material culture objects housed in museums and private collections, recently recorded rock-art data from other Western and Central Torres Strait Islands, and data recorded by Haddon and his team during the late 19th century, evidence of similarities with rock-art design forms from Mua and additional media reveal an extensive sphere of interaction based on the occurrence of stylistic similarities in design conventions across space.

MUA ROCK-ART

A total of six rock-art sites have now been systematically recorded from a range of locations across the northeastern and southwestern sides of the island. Each of the recorded sites is located less than 3km from the coast (Fig. 1). Together, a total of 100 determinate and 37 indeterminate red paintings have been documented and occur in various stages of deterioration. No stencils or engravings have been documented on the island.

TABLE 1. The 4-Level rock-art classification system (with numbers of pictures present on Mua in each category).



Mua's rock-art has been classified hierarchically using a 4-Level system (Brady, 2005) employed to explore region-wide spatial patterning of Torres Strait rock-art. This analysis also updates previous results presented in Brady et al. (2004). The complete 4-Level classification system (Table 1) involves:

Level 1, Indeterminate/Determinate;

Determinate paintings are those pictures that are clear enough to have their shapes determined after digital enhancement; Indeterminate paintings are pictures that cannot be categorised or identified as a result of heavy damage or deterioration;

Level 2, Figurative/Non-Figurative; All the Determinate paintings have been classified as belonging to either one of two major and mutually exclusive generalised motif forms: Figurative motifs are motifs with formal resemblance to objects and beings such as animals, humans, or items of material culture; Non-Figurative motifs are abstract figures;

Level 3, Group Motif Forms; Level 2 motifs are divided into 11 Group Motif Forms; Figurative Group Motif Forms consist

of Palm Trees, Anthropomorphs, Faces/ Masks, Zoomorphs, and Material Culture objects; Enclosed Grid Patterns, Enclosed Geometrics, Open Geometrics, Linear Non-Figuratives, Dots and Dot Variations, and Infilled Non-Geometrics constitute Non-Figurative Group Motif Forms;

Level 4, Specific Motif Forms; Level 4

motif forms are pictures given a specific identification (i.e. they further subdivide the Level 3 categories); a total of 96 Specific Motif Forms were identified across Torres Strait, although only 35 are found on Mua. Analyses of this classificatory group focus on the make-up of visible attributes and similarities with rock-art recorded from elsewhere in the Torres Strait region, and with design forms recorded on a range of portable material culture objects.

Overall, Mua's rock-art assemblage reveals a tendency towards Non-Figurative motifs. Non-Figurative motifs outnumber Figurative motifs at all six sites. Together, the former constitute 66.0% of all Level 2 pictures, the latter 34.0%.

Site	# of Pictures Determined by Computer Enhancement	Total # of Pictures	% of Pictures Determined by Computer Enhancement
Mua 1	0	6	0
Mua 10	13	20	65.0
Mua 28	5	38	17.9
Mua 40	3	25	12.0
Mua 43	1	2	50.0
Mua 96	2	9	22.2
Total	24	100	24.0

TABLE 2. Number of pictures determined using computer enhancement.

Level 3 (Group Motifs) analysis of both Figurative and Non-Figurative Group Motifs indicates clear tendencies towards specific Group Motif forms. Mua's Figurative pictures (Fig. 2) reveals that all five Figurative Group

Motif categories are represented with Material Culture objects (38.2%), Palm Trees (20.6%) and Anthropomorphs (20.6%) comprising the bulk of the documented pictures. Mua 43 is the only site lacking any Figurative imagery. Within these categories, some further observations can be made. Canoes constitute the bulk of Material Culture objects (12 of 13 pictures, or 92.3%) – ten of which appear at Mua 28 and account for 26.3% of all pictures from that site. This indicates that Canoes were an important Figurative element in the rock-art of Mua 28 in particular, being surpassed only by Enclosed Geometrics (n=13) at that site. Additionally, although Zoomorphs represent only 14.7% of Figurative pictures and are entirely localised at Mua 40, this Level 3 Group Motif Form had a special place within Mua's artistic repertoire (see discussion below on totemic species in Mua's rock-art).

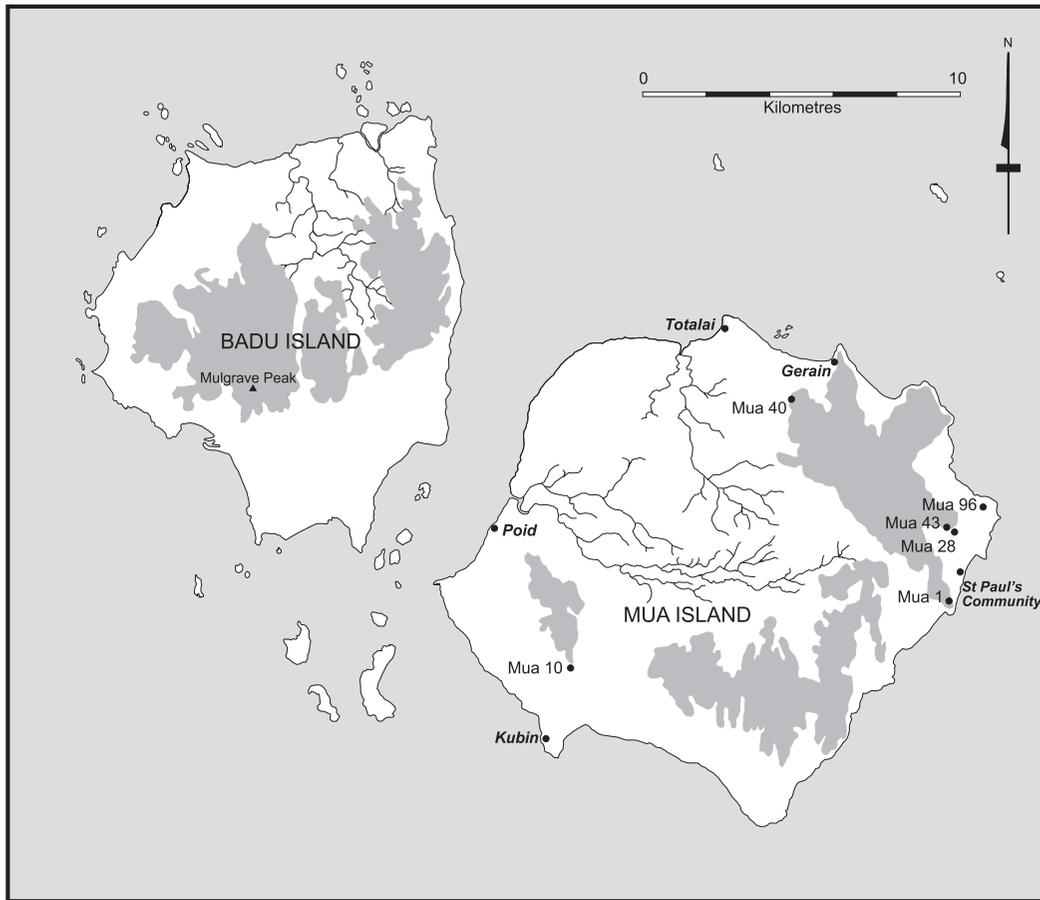


FIG. 1. Map of Mua's known rock-art sites.

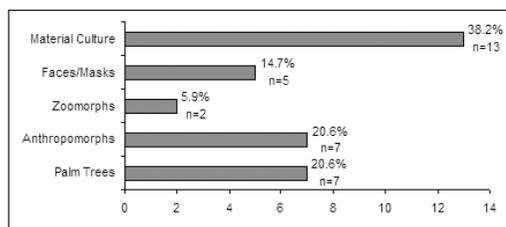


FIG. 2. Mua's rock-art, Figurative Group Motif Forms, by relative number of pictures.

Non-Figurative Group Motifs (Fig. 3) focus on three categories which together account for 98.5% of this category: Enclosed Geometrics (39.4%), Open Geometrics (31.8%) and Linear Non-Figuratives (27.3%). Geographically, each of these motifs is fairly evenly spaced across those parts of the island investigated, except for an unusually higher number of Enclosed Geometrics at Mua 28 (n=13).

Given the harsh coastal regime in Torres Strait, conditions for the preservation of rock-art are not favourable. Coastal processes such as salt and water damage have caused deterioration of rock-art across the islands, making the recovery and documentation of this threatened form of Islander and Aboriginal visual heritage rather urgent, and a key concern for Indigenous Torres Strait communities. As a result of the heavily deteriorated nature of Torres Strait rock-art, computer enhancement techniques were employed in an effort to recover and record as many pictures as possible before they disappeared entirely. Computer enhancement involved the saturation and rotation of faded colours using Adobe Photoshop 7.0 (see Brady, 2005, and Brady et al., 2004 for details of the enhancement steps used in this process). Results using this technique revealed that nearly a quarter (24.0%) of all Determinate motifs on Mua were recovered via this methodological procedure. Mua 10 benefited the most, with 65.0% of its pictures becoming identifiable following computer enhancement (Table 2).

INDIVIDUAL MOTIF ANALYSIS

Given the relatively small number of Determinate pictures, multivariate statistical analyses were not attempted. However, individual pictures from Mua can be used to shed light on artistic inter-regional interactions through comparisons with other rock-art recorded in the Torres Strait region. Some of Mua's paintings can also be used to identi-

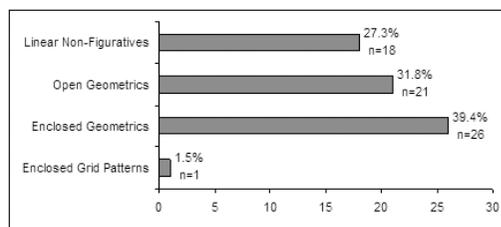


FIG. 3. Mua's rock-art, Non-Figurative Group Motifs, by relative number of pictures.

fy motifs endemic to the island. Relationships with material culture objects on various media are also examined in an attempt to gain a wider understanding of the distribution and portability of specific design forms across the Torres Strait region and into its more peripheral areas (e.g. New Guinea and Cape York Peninsula).

PALM TREES. Seven Palm Trees have been documented from three sites at Mua (Mua 10, Mua 28 and Mua 96) (Fig. 4A). Each Palm Tree is recorded as an individual painting (that is, not connected or linked to another Palm Tree), although at Mua 10, an Anthropomorph (identified as Goba, from the Goba oral tradition; see Lawrie, 1970 for the full narrative, and David et al., 2004a for detailed discussion of this painted panel) is depicted positioned between two Palm Trees with one arm extended in front and one behind touching both Palm Trees. The distribution of Palm Trees in rock painting is restricted to Mua and may represent the first recorded instance of Palm Trees in Australian rock-art.

Material culture correlates featuring depictions of Palm Trees are found in Central Torres Strait and the Western Province of Papua New Guinea. A tobacco pipe collected from Iama in Central Torres Strait (Haddon, 1946) displays a structurally simple type of Palm Tree, while wooden combs from Suki Lagoon in the Western Province (QM E6325, E6326) of Papua New Guinea feature more elaborate representations of Palm Trees (Fig. 4B). Thus, while the distinctive Palm Tree motif is endemic to rock-art from Mua, their appearance on material culture objects from Central Torres Strait and the Western Province of Papua New Guinea, reveals artistic conventions common to one mid-Western island and the western Papuan mainland (Brady et al., 2004: 44).

ANTHROPOMORPHS WITH HEADDRESSES. Two paintings of Anthropomorphs feature distinctive headdresses whose form is similar to those

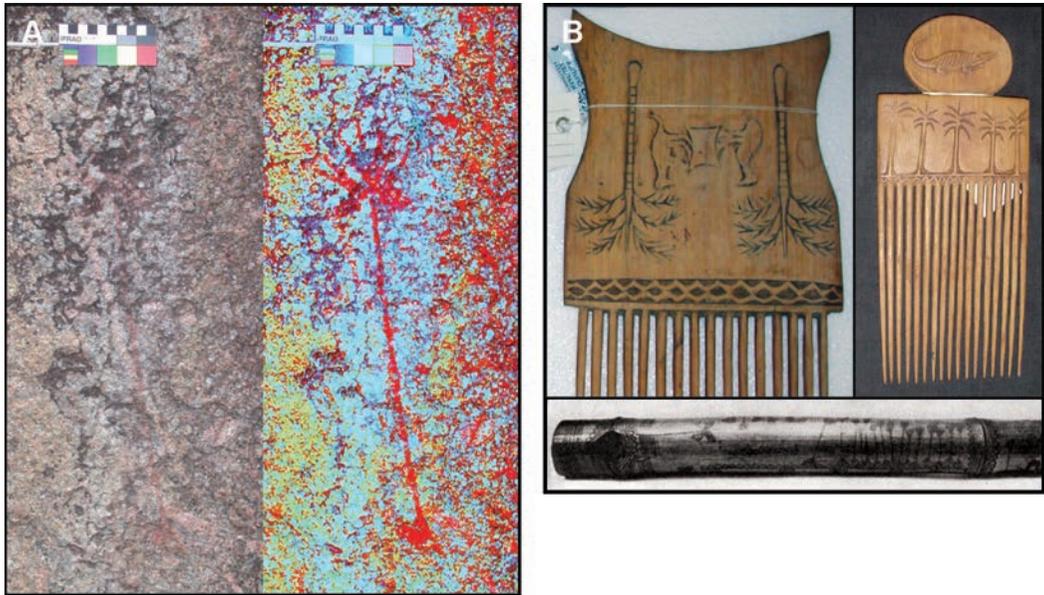


FIG. 4 A, Computer enhancement of a Palm Tree from Mua 96; B, (upper left and right) Wooden combs from Suki Lagoon, Western Province, Papua New Guinea; (bottom) tobacco pipe from Iama (Haddon, 1912: plate 37; cf. Haddon, 1946).

depicted on dancers involved in death dances at Pulu (see Haddon, 1904a for details of funeral ceremonies, and Haddon, 1904b for the significance of rock-art on Pulu).

The first Anthropomorph (Mua 40) is depicted in frontal pose with no identifiable arms, and bent legs splayed to either side. The middle of a diagonal line (left side extending upwards) extends from the head and consists of short angled lines extending from the diagonal line. Only one other Anthropomorph (from Kirriri) has been recorded in Torres Strait rock-art with a diagonal-shaped headdress with short, upward-extending, angled lines (see Brady, 2005 for details). The second Anthropomorph (Mua 96) consists of a human-shaped figure depicted in profile with knees, arms and waist bent and an upward curving line extending from the head (headdress). Short angled lines also extend from the curved line. A similar-styled Anthropomorph with curved headdress and short angled lines is found in the rock-art of Pulu (Figs 5A, 5B).

A technique employed by Haddon during his field research in 1888 and 1898 involved asking Islanders he worked with to draw images on paper of objects, animals, and people engaged in ceremony, and the like. In Haddon's descriptions

of funeral ceremonies of the Western Islands, a drawing provided by Gizu of Mabuyag of an individual involved in the death dance reveals close similarities with the headdress recorded on the Mua and Pulu Anthropomorphs (Haddon, 1904a: 256). Haddon (1904a: 252-253; cf. 1893: 152-154) notes that during the death-dance or "great funeral ceremony" for deceased Mabuyag Islanders three principal characters consisting of *markai* (representing the ghosts or spirits of dead men), *ipikamarkai* (representing the ghosts or spirits of dead women), and *danilkau* (buffoon) performed a series of dances. *Markai* and *ipikamarkai* danced in separate pairs, while the *danilkau* appeared at the end of the dancing following a single *markai*, and entertained the crowd with his antics such as skipping, jumping, and falling down (Haddon, 1904a: 253-256). Similarities between the *danilkau's* headdress and rock-art are clearly evident (Fig. 5C). The *danilkau's* headdress consisted only of a "single stick beset with white feathers" (Haddon, 1904a: 254) and has been drawn by Gizu as both a curved and straight line. Additionally, this design is also featured in paper drawings of anthropomorphs collected from Eastern Islanders (e.g. Haddon, 1935: 118).

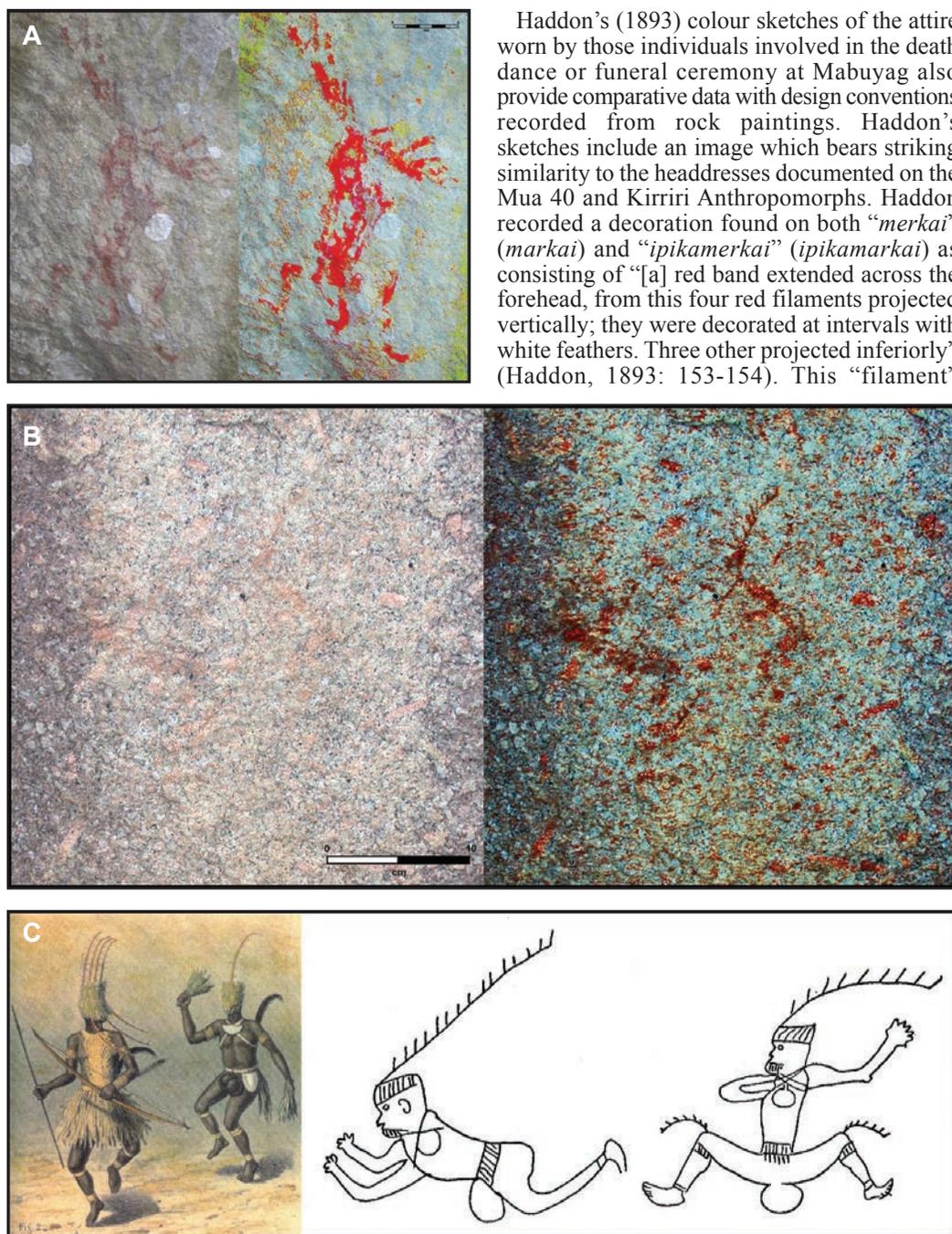


FIG. 5A, Computer enhancement of an Anthropomorph from Mua 40; B, Computer enhancement of an Anthropomorph from Mua 96; C, (left) Haddon's (1893) colour sketch of dancers from the death dance at Pulu; (right) Gizu's drawings of *danilkau* involved in the death dance at Pulu (Haddon, 1904a: 256).

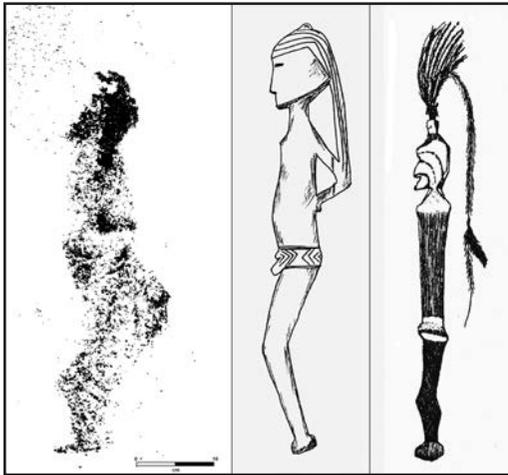


FIG. 6. (left) Black and white conversion of an Anthropomorph from Mua 40; (middle) tobacco charm (*sokop madub*) collected from Mer (after Moore, 1984: plate 63); (right) tobacco charm (*sokop madub*) collected from Mabuyag (Haddon, 1904b: 345).

decorated with white feathers that extends upwards and downwards from the head is similar to the lines on the Anthropomorph noted above, whereby a curved line, centred at the head, projects upwards and downwards and has short angled lines (feathers) extending upwards from the central line. While this similarity between the death dancer attire recorded by Haddon, and the Mua rock paintings, may or may not signify a common meaning (i.e. relating to the death dance), it does indicate that there is a common form of decoration – perhaps for a range of types of performance – between these islands.

ANTHROPOMORPH (“SOKOP MADUB” OR TOBACCO CHARM). One infilled Anthropomorph from Mua 40 is depicted in profile with knees and waist bent and without any visible arms. The form of this figure is similar to carved wooden tobacco charms documented and collected by Haddon from Mabuyag in the Western Islands and Mer from the Eastern Islands (Fig. 6). He noted that:

[a] *sokop madub*, or tobacco charm, consists of a narrow slab of wood carved to represent a man [...] [n]umbers of these effigies were stuck in the ground in tobacco gardens in order to make tobacco grow more quickly. They were also in some instances ... tied on to a small bamboo so that the tobacco should grow to the same height (Haddon, 1908a: 207).

This distinctive rock painting from Mua 40 resembles closely the *sokop madub* objects of magic from the Western and Eastern Islands.

FISH HEADDRESS. Mua 28 features one of only two distinctive Fish Headdresses so far documented in Torres Strait rock-art (the other is from Dauan 1). Mua’s Fish Headdress displays a body structure consisting of a left-facing open mouth, nose mount and a triangular design extending upwards from the middle of the body. While Mua’s example is drawn in a similar style to the Dauan 1 example, the key difference between the two paintings is that Dauan 1’s Fish Headdress is surmounted on an Anthropomorph, while at Mua 28 the picture is displayed independent of an Anthropomorph (Figs 7A, B).

Using Haddon’s (1912a: 298-305) five categories of Masks/Headdresses for Torres Strait, McNiven et al. (2004: 236) placed the Fish Headdress rock painting from Dauan into Haddon’s third category: masks representing a complete animal with or without a human face. Based on the form of the Mua 28 example, I can also add this picture into this category.

Material culture objects with depictions of fish headdresses are common across Torres Strait: a spinning top collected by Haddon from Mer in the Eastern Islands contains a drawing of a dancing anthropomorph wearing a headdress with similar structural properties as the rock paintings (e.g. left-facing open mouth, small nose mount, and central surmounted triangular design) although an additional line extending from the tip of the nose to the tip of the tail and passing over the surmounted central triangular design has also been drawn (Haddon, 1912c: plate 37); a tobacco pipe from the Pitt-Rivers Museum, collected from an unknown Torres Strait island (not pictured here; see Brady 2005:388), also features a depiction of an incised fish headdress similar in form to the decorated spinning top; tracings of fish headdresses by Haddon from a series of tobacco pipes (Haddon, 1912a: 301, figs 256b-c) have similar basic forms to the rock paintings, although they lack the tip-to-tail lines. Additionally, the form of the fish headdress recorded by Haddon (1893) in his colour sketches from the Saw-Fish Dance he witnessed at Thursday Island (Waibene) in 1888 is consistent with the form of the rock paintings (with a fish-shaped body, open mouth, triangular central mount design, and nose mount). This particular headdress also featured a tip-to-tail line. Not surprisingly, the fish headdress design



FIG. 7A-B. Fish Headdress. A, Computer enhancement of a Fish Headdress and a Palm Tree from Mua 28. B, (Clockwise from upper left) Drawing by Joani of Mabuyag of the labour mask (Haddon, 1904b: 344); drawing by an unnamed Eastern Islander of a fish headdress (Haddon, 1935: 371); colour sketch by Haddon (1893) of the Sawfish Dance at Waibene; spinning top from Mer (Eastern Islands) (Haddon, 1912: plate 37, fig. 4).

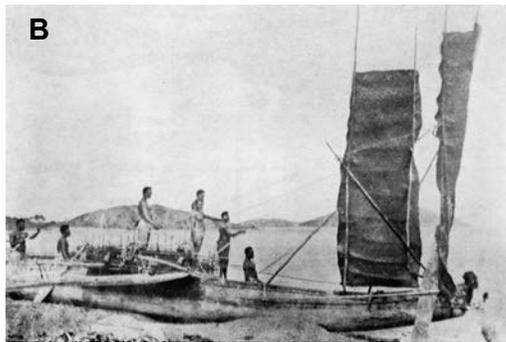


FIG. 8A-B. Canoe imagery. A, Computer enhancement of a Canoe with sails (Mua 28); B, Photograph by Haddon (1912: plate 26, fig. 2) of a Mabayag canoe rigged with sails.

form is widespread given its ethnographically documented ceremonial function across much of Torres Strait. David et al. (2004b: 21) noted that turtle shell masks generally could be found across the Western, Central and Eastern Islands, as well as Mawatta and Parama island in south-western Papua New Guinea near the mouth of the Fly River. Landtman (1927) has also recorded a similar headdress from Kiwai island. Although the basic structure of the design form (e.g. fish body with open mouth, nose mount and surmounted central design) remains consistent between rock paintings and decorated material culture, considerable design embellishments are visible on the material culture correlates, which suggest that the depiction of the Fish Headdress as a rock painting is a simplified form.

Comparisons between paper drawings and rock paintings reveal similar, basic forms to that

of the headdress which consists of a fish body with an open or closed mouth; however, several design variations exist between paper drawings and rock paintings. Dauan's Fish Headdress matches most of the paper drawings in that it is drawn with an individual wearing the headdress. However, other structural similarities consisting of a fish's body, open mouth, nose, and central projecting decoration remain consistent between the Dauan and Mua rock paintings and paper drawings. Both Mua and Dauan's Fish Headdress rock paintings lack any of the design embellishments afforded to the drawings by Gizu, Sunday, and Joani (all from Mabayag) such as three and four pronged designs (*goa* nut rattles) and linear designs (e.g. curved lines with short angled lines extending upwards – similar to the feather decorations which adorn drawings of Anthropomorphs) which extend from the mouth and tail of the headdresses. As a result, the Fish Headdress rock paintings, when compared with paper drawings by Torres Strait Islanders, reveal a more generalised, less embellished structural form.

CANOES. Mua features one of the largest numbers of Canoe paintings recorded in the Torres Strait region ($n=12$ for Mua, the same number as recorded from Somerset, Cape York). While I

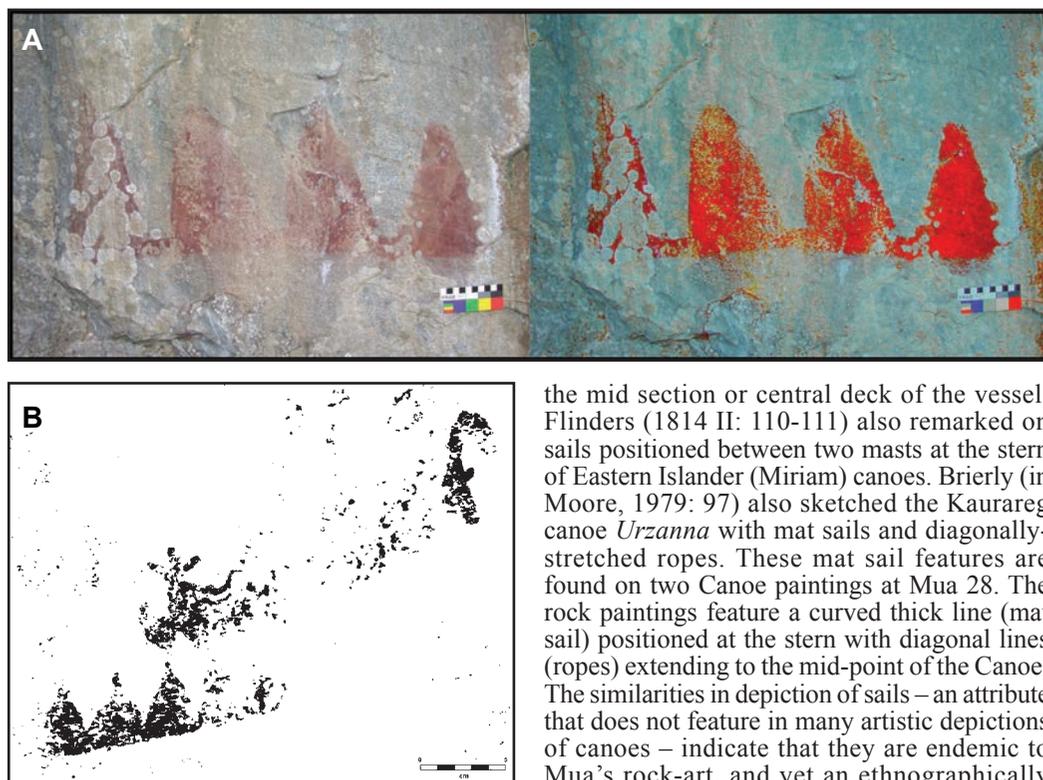


FIG. 9A-B Laterally Linked Triangles. A, Computer enhancement of four Laterally Linked infilled red triangles from Mua 40; B, Black and white conversion of three Laterally Linked infilled red triangles from Mua 28.

(Brady, 2005) have previously demonstrated that rock paintings of Canoes recorded from Torres Strait and Cape York feature a range of formal characteristics (e.g. flags, sails, people, central and rear columns), one particular characteristic deserves special mention.

Sails on Canoe paintings have been documented from Dauan (a crab-claw canoe sail similar to those recorded on *lakatoi* canoes from the *hiri* trading network operating in the Papuan Gulf, see Dutton, 1982) and Mua. Haddon noted that mat sails on canoes in Torres Strait were rare in 1888 (only one or two canoes in the Western Islands were observed with them and none recorded from the Eastern Islands) and entirely absent in 1898. Haddon's (1912c: plate 26, figs 1–2) photographs of a canoe from Mabuyag in 1888 show two mat sails mounted at the bow (or stern) of the canoe with several ropes stretching at a diagonal angle from the sails to

the mid section or central deck of the vessel. Flinders (1814 II: 110-111) also remarked on sails positioned between two masts at the stern of Eastern Islander (Miriam) canoes. Brierly (in Moore, 1979: 97) also sketched the Kaurareg canoe *Urzanna* with mat sails and diagonally-stretched ropes. These mat sail features are found on two Canoe paintings at Mua 28. The rock paintings feature a curved thick line (mat sail) positioned at the stern with diagonal lines (ropes) extending to the mid-point of the Canoe. The similarities in depiction of sails – an attribute that does not feature in many artistic depictions of canoes – indicate that they are endemic to Mua's rock-art, and yet an ethnographically recognised feature on Torres Strait canoes (Figs 8A, B).

Although material culture objects featuring depictions of Canoes are rare, one engraved bamboo tobacco pipe from an unnamed Torres Strait island also displays a sail (without diagonal lines extending to the middle of the hull) similar to the design recorded in the Mua rock painting (Haddon, 1912d: 360). Consequently, while sails on Canoes appear to be endemic to rock-art from Mua, they are a visible feature on decorated Torres Strait material culture.

TRIANGLE VARIANTS (LATERALLY-LINKED TRIANGLES). A distinctive form of Triangle Variant also sheds light on spatial relationships. Laterally Linked Triangles have been recorded from two sites on Mua (Mua 28 and Mua 40), and have also been documented from Badu and Pulu thus revealing a restricted distribution to the mid-Western Islands (Figs. 9A, B). These sets of Laterally Linked Triangles are either infilled or outlined, and consist of no less than three and no more than five triangles. While triangles are a ubiquitous form in Torres Strait material culture objects (especially found



FIG. 10. Black and white conversion of a notched-rectangle shape from Mua 28.

on wooden combs and bamboo tobacco pipes), their clear presence in rock painting indicates a shared design form that appears geographically restricted.

ARROWS. Mua rock-art also features the northernmost distribution of Arrow paintings in the Torres Strait region. Two heavily deteriorated paintings of Arrows that have been superimposed by other pictures have been recovered from Mua 40 (see below; Fig. 12a). The only other Arrow paintings have been recorded from islands to the south of Mua: Ngiangu, Muralag, and Somerset.

NOTCHED-RECTANGLE SHAPE. The notched-rectangle shape illustrated here is a rare motif documented only from Mua and Kirriri. It resembles the open-mouth of a *warup* drum (Fig. 10).

CHEVRON VARIANTS. Chevron Variants (n=9) have been recorded in rock-art from Mua, Somerset, Ngiangu, Muralag and Kirriri (Fig. 11); that is, Mua contains the northernmost representations of this motif.

DISCUSSION. Mua's documented rock-art displays artistic relationships with several different islands and across a range of media. Mua also features some motifs that are endemic to the island. Endemic motifs – Palm Trees and Canoes drawn with sails – are unique since they display design elements not shared in other rock paintings

from the region. However, their appearance as a design in portable items of material culture indicates that production of these specific design forms is not restricted to a fixed medium alone.

Mua's individual motifs display patterning with several other Western Islands. Ethnographic-based alliance patterning is visible between only a few individual Mualgal rock paintings and Kaurareg islands (Ngiangu, Kirriri, and Muralag) through shared designs incorporating Chevron Variants, notched-rectangle shapes, Arrows, and Anthropomorphs with Headdresses. Given the ethnographic observations of strong alliances between these groups in the mid to late 1800s (e.g. Haddon, 1935), it was originally thought that there would be more shared designs between these two groups. I would suggest that the weak stylistic similarities between Mua's rock-art and that of peoples (and islands) to the south indicates that the rock pictures of Mua were not as influenced by the system of social alliances observed in the 1800s as was originally suspected. Furthermore, only one occurrence of shared artistic conventions was found between the closely neighbouring mid-Western Islands of Mua, Pulu, and Badu (Laterally Linked Triangles). Consequently, it seems that Mua's rock-art was also not constrained by geographical proximity.

The incorporation of similar design forms recorded on items of portable material culture reveals that rock-art alone cannot be an adequate indicator of Mualgal artistic inter-regional interaction. Individual design forms documented from Mua clearly reveal a shared material expression that occurs on both fixed and portable mediums. While Mua only features a

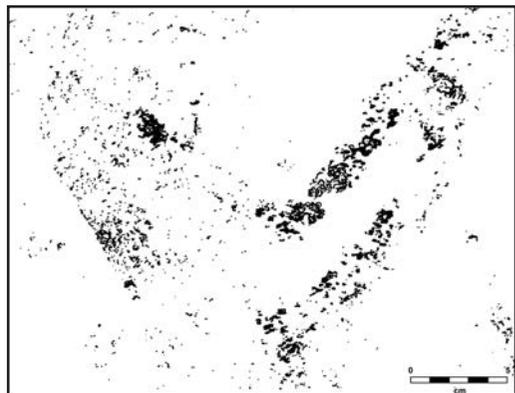


FIG. 11. Black and white conversion of a Chevron Variant from Mua 28.

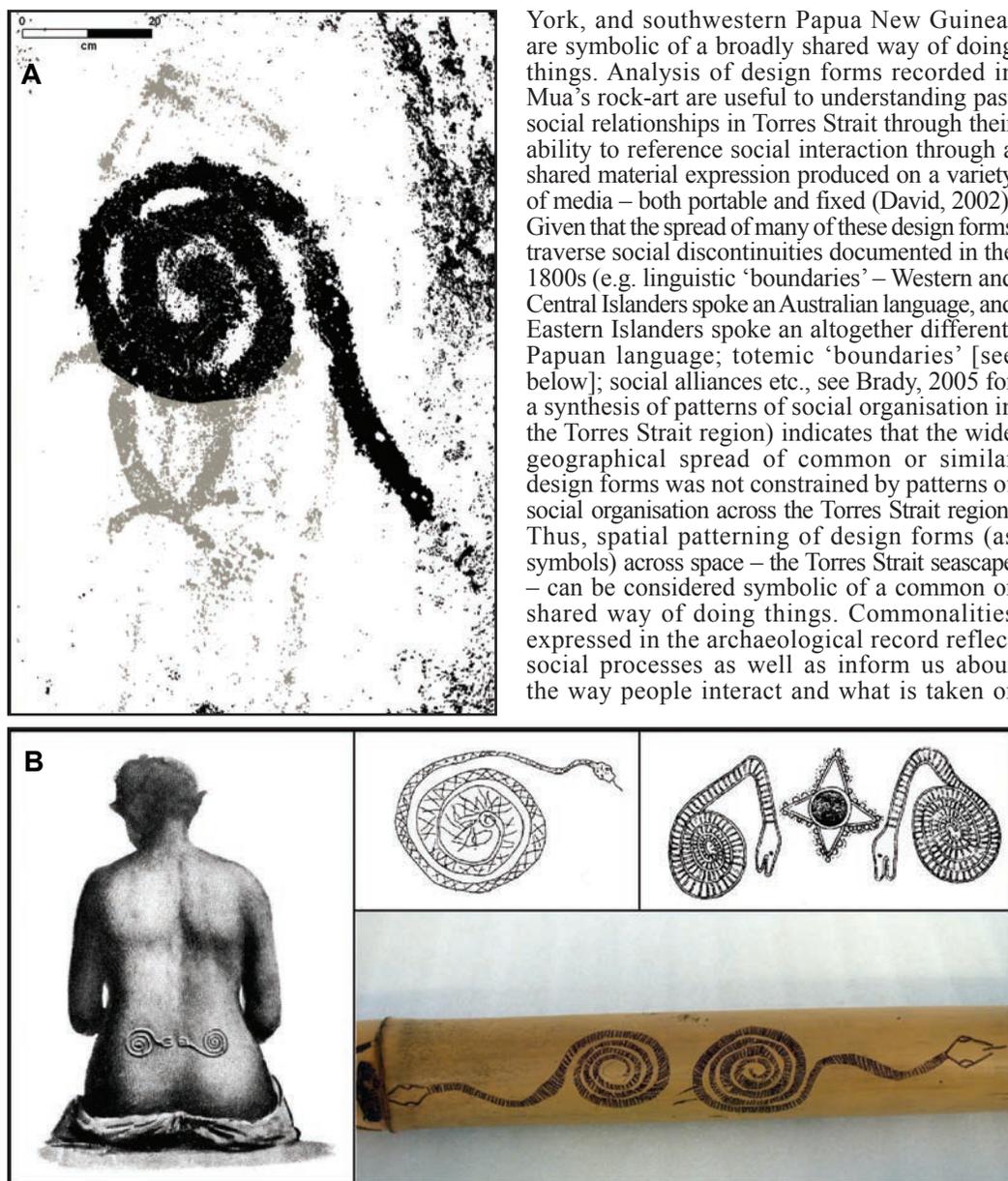


FIG. 12A-B. Coiled snake imagery. A, Black and white conversion of a coiled Snake painted over an outlined Turtle and an Arrow (Mua 40); B, (left) Patagam of Mabuyag with two coiled snake totem scars on her lower back (Haddon, 1904: plate 9; (upper middle) drawing by Gizu of a snake totem (Haddon, 1904: plate 6); (upper right) tobacco pipe collected at Cape York (Haddon & Rivers, 1904: 168, fig. 20); (bottom) tobacco pipe from an unknown Torres Strait island (courtesy of the Pitt-Rivers Museum, Accession Number: PRM 1909.30.53).

relatively small number of paintings, the design forms documented here, and those recorded from the Central and Eastern Islands, Cape

York, and southwestern Papua New Guinea, are symbolic of a broadly shared way of doing things. Analysis of design forms recorded in Mua's rock-art are useful to understanding past social relationships in Torres Strait through their ability to reference social interaction through a shared material expression produced on a variety of media – both portable and fixed (David, 2002). Given that the spread of many of these design forms traverse social discontinuities documented in the 1800s (e.g. linguistic 'boundaries' – Western and Central Islanders spoke an Australian language, and Eastern Islanders spoke an altogether different, Papuan language; totemic 'boundaries' [see below]; social alliances etc., see Brady, 2005 for a synthesis of patterns of social organisation in the Torres Strait region) indicates that the wide geographical spread of common or similar design forms was not constrained by patterns of social organisation across the Torres Strait region. Thus, spatial patterning of design forms (as symbols) across space – the Torres Strait seascape – can be considered symbolic of a common or shared way of doing things. Commonalities expressed in the archaeological record reflect social processes as well as inform us about the way people interact and what is taken or

gained from that interaction. By documenting commonalities in 'ways of doing things' across a social field (Welsch & Terrell, 1998), we can

observe a shared expression that results from social interaction. Consequently, the visual marks identified on these different media all share common characteristics which enable the spread of meaningful conventions through social interaction.

TOTEMIC LINKS

The totemic clan system in Western and Central Torres Strait was documented by Haddon and Rivers during their ethnological research in 1898. This social organisational system was based on groups organised into patrilineal totemic clans whereby each clan was identified by its group totem (e.g. mammal, bird, reptile, fish, invertebrate, plant, or inanimate object), and each clan had its own recognised territory on the island (Haddon & Rivers, 1904: 159). Membership in common totemic groups helped socially link people across the Western and Central Strait:

The solidarity of the totem-clan was a marked feature in the social life of the people and it took precedence of all other considerations, not only so, but there was an intimate relationship between all members of the same totem irrespective of the island or locality to which they might belong and even warfare did not affect the friendship of totem-brethren. Any man who visited another island would be looked after and entertained as a matter of course by the residents who belonged to the same totem as himself [...] if a man visited an island where there were no individuals who had the same totem as himself he would stay with a clan which was recognised as being in some way associated with his own (Haddon & Rivers, 1904: 161).

Thus, individual totems served to unite Torres Strait Islanders in common social reference groups, and in a common social referential system.

Totemic representation occurred on several different media. In 1888, Haddon stated that the animals he recorded from Kirriri's rock-art (a Hammerhead Shark, a Dugong, and a Turtle) represented totems (Haddon, 1904d: 358). Additionally, Beckett (1963: 54) used Haddon to suggest that we regard 'all the animal figures as totemic species' in Torres Strait rock paintings and engravings. Haddon and Rivers (1904: 158-159) also remarked that material culture objects were also decorated with their owner's totem, and in some cases totems were represented as scarred designs on individuals. Using this knowledge of totemic representation, I examine the graphic linkages between 1) Mua's recorded

totemic species and corresponding totemic species from other Torres Strait islands; and 2) the distribution of material culture objects with Mua's totemic species.

In 1898, Haddon and Rivers (1904) recorded a total of ten totemic species from Mua (dugong, shovel-nosed shark, crocodile, snake, dog, shark, Hammerhead shark, stingray, stone, and another form of ray). I have only been able to identify five Zoomorphs from Mua's rock-art – all from Mua 40. Mua's painted Zoomorphs consist of a Snake, a Shovel-Nosed Shark, a Fish/Dugong, and two Turtles. With the exception of the Turtle, all of these are totemic taxa, suggesting that the depiction of totemic animals was an important dimension of artistic activity at Mua 40 (but not at other sites on Mua).

SNAKE. The lone Snake painting documented from Mua consists of an infilled, coiled body with the end (head) pointing towards the ground. The Snake has been drawn over the upper half of a deteriorated, outlined Turtle (Fig. 12A). No other painted Snakes were recorded from any other islands during this project (although one is known from the island of Waral to the south; Bruno David, personal communication 2006).

Images of snakes documented on material culture objects and people display a similar design convention used in the production of this totemic species (Fig. 12B). A tobacco pipe collected during the HMS *Challenger* expedition from the mid-1870s features two incised, coiled snake designs drawn facing away from each other. Additionally, Haddon (1946: 68) has noted that the coiled snakes engraved on a pipe collected from Cape York (but originally made in the Western Islands) suggest that the 'owner belonged to *tabu*, snake, totem clan'. The snake totem has also been recorded by Haddon as a scarred design on a woman from Mabuyag. Patagam was photographed by Haddon (1904c: plate 9, fig. 2) with two scarred, coiled snake designs facing away from each other.

SHOVEL-NOSED SHARK. Mua features the only Shovel-Nosed Shark rock painting known in the Torres Strait islands (Fig. 13A). Somerset also displays two Shovel-Nosed Sharks, although since information regarding social organisation at Cape York does not appear to be linked to the Torres Strait totemic clan system,

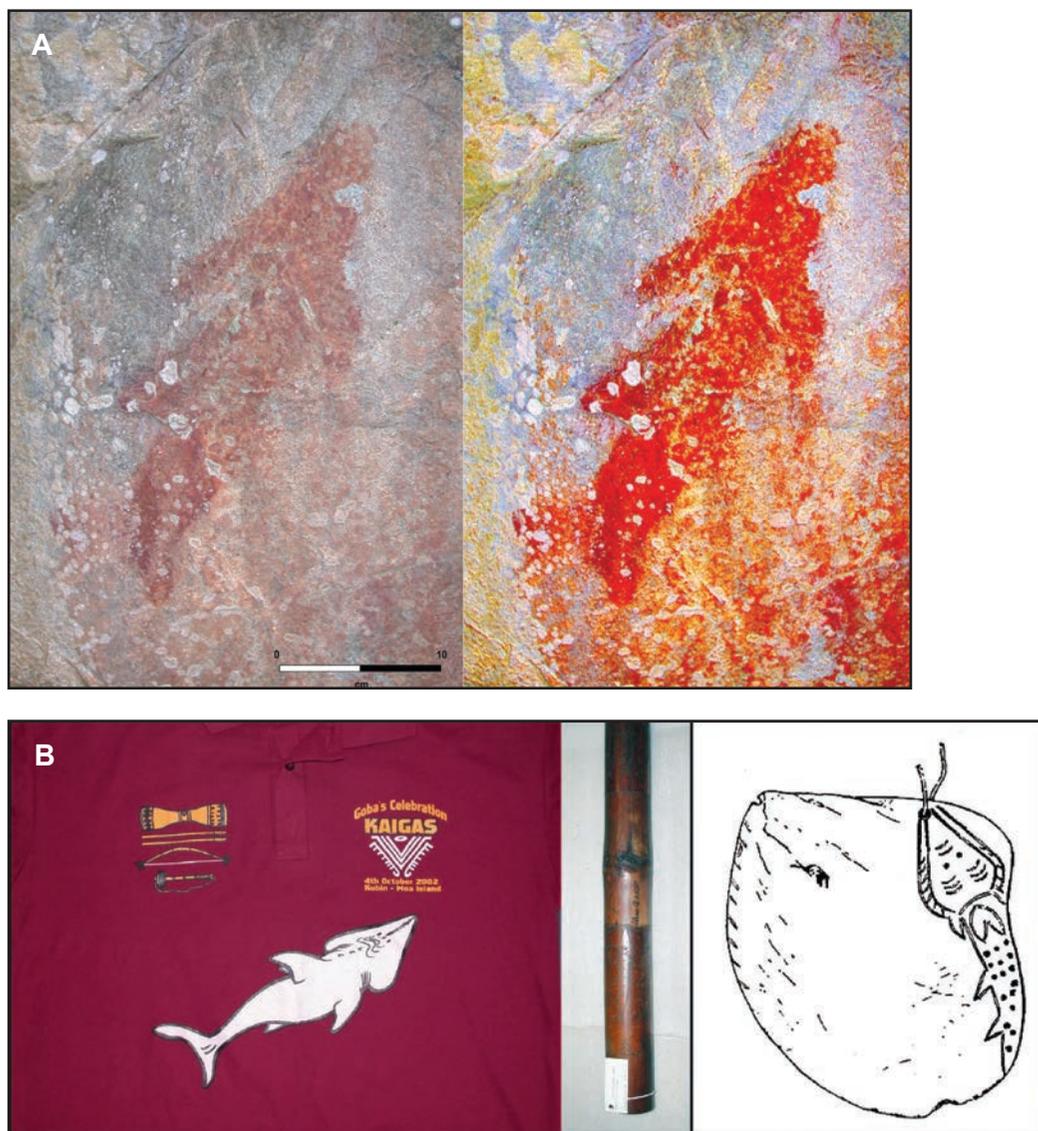


FIG 13 A-B. Shovel-nose shark images. A, Computer enhancement of a Shovel-Nosed Shark from Mua 40; B, Left: commemorative T-shirt produced by the Mualgal for the 2002 Goba cultural celebrations with a similar depiction of a shovel-nosed shark; middle: pipe collected by the Royal Geographical Society Expedition to the Fly River in 1885 (QM E 9627); right: engraved pearlshell pendant from an unnamed island (Haddon, 1912b: 43).

these two paintings cannot be considered to have a totemic link with the same image from Mua.

Shovel-Nosed Sharks are also found incised on a tobacco pipe collected by the Royal Geographical Society Expedition to the Fly River in 1885; and as an engraving on

pearlshell from an unnamed Torres Strait island. Furthermore, the form of what was until recently a previously undiscovered rock painting (at Mua 40) bears a remarkable similarity to a drawing of the shovel-nosed shark totem on a commemorative T-shirt produced by the Mualgal community for the 2002 Goba



FIG. 14. Computer enhancement of an undifferentiated Fish/Dugong from Mua 40.

celebrations (Fig. 13B). The rock painting from Mua, which has strong formal similarities with the shovel-nosed shark on the T-shirt (a narrow, triangular-shaped head with a body that narrows considerably towards the tail), was not known to Islanders at the time when the T-shirt was produced. The similarities in the form of the shovel-nosed shark rock painting and T-shirt design suggests a common Mualgal design convention used in the production of this totemic species.

FISH/DUGONG. The undifferentiated Fish/Dugong painting (infilled) does provide some information concerning totemic affiliations with other islands (Fig. 14). Five similar paintings have been recorded from Dauan, Badu, and Ngiangu. Dauan is the only island where neither the fish nor the dugong is a recorded totemic species. However, a totemic relationship can be established between the two other islands since both dugongs, and at least one type of fish from each island are recorded totemic species.

TURTLE. According to Haddon and Rivers' (1904) ethnographic evidence collected in 1898, Turtles were not identified as a totemic species on Mua, although two Turtles (one infilled [Fig. 15], one outlined [see Fig. 12A]) are present in the rock-art of Mua 40.

Material culture correlates recorded on drums collected from Saibai and Muralag, and a wooden club from Mer, all feature turtles with a patterned 'shell' – a design not recorded on Mua's Turtle paintings.

DISCUSSION. Of Mua's painted totemic species, only the undifferentiated Fish/Dugong shares a link with totemic depictions of the same animal from other islands: Badu and Ngiangu. Neither the Snake nor Shovel-Nosed Shark are represented as totemic species in the rock-art from other Western and Central Islands. Thus, social relationships between Mua and other islands based on shared

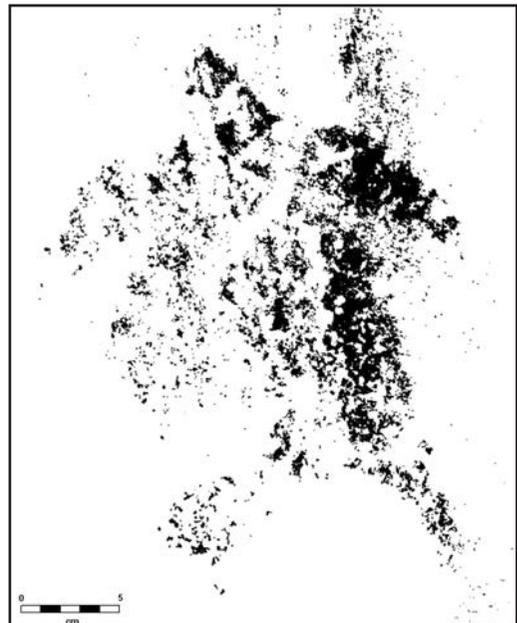


FIG. 15. Black and white conversion of a Turtle from Mua 40.

totemic species depicted as rock paintings are limited to only two islands.

While Mua's zoomorphic rock paintings do not display many totemic links with other Western and Central Islands, they do represent *fixed* markers of totemic affiliation and most likely would have been recognised between members in the common system of social organisation that was recorded across Western and Central Torres Strait. However, *portable* material culture objects, and people decorated with images of totemic animals had an even more widespread occurrence and visibility.

Many researchers (especially Haddon in 1888 and 1898), explorers, missionaries, traders and ships' crewmembers have collected numerous such items of material culture (e.g. Moore, 1984, 1989). However, since many objects lack information regarding a specific collection locale (e.g. island) it is difficult to ascertain whether animals decorated on material culture correspond to the geographic distribution of that particular totemic animal. Many objects collected from the Fly River estuary, the Trans-Fly, and the Eastern Islands are decorated with animals identified as totems in the Western and Central Islands (e.g. stingray, hammerhead shark, shovel-nosed shark). Given the frequent exchange occurring in the region, it seems likely that objects decorated with totemic animals would not remain solely within totemically-affiliated regions. Suffice it to say that material culture objects with animals that are totems in the Western and Central Islands have a widespread distribution across the entire Torres Strait region. However, in some cases, such as at Mua, distinctive design conventions recorded on material culture objects mirror those recorded as totemic species. For example, snakes are depicted on three different media (rock painting from Mua 40, tobacco pipes, people – Patagam from Mua) in a single distinctive coiled form indicating a shared, standard form of a totemic design convention that appears on several media.

Additionally, Haddon and Rivers (1904: 162-169) have noted that for some of the extant clans at Mabuyag, clan members would decorate items of material culture with their clan *augadh* (totems). In particular, they noted that the *Kaigas* (shovel-nosed shark) clan would inscribe their totem on tobacco pipes, drums, and on people (e.g. scarred right shoulder [male] and both legs [women]), while the *Tabu* (snake) clan decorated tobacco pipes with images of snakes, and scarred a coiled snake on the calf of each leg on men and

placed two scarred coiled snakes on the lower back of women – the same design convention used in the production of the totem at Mua 40.

The presence of Turtles as non-totemic species at Mua 40 suggests that: 1) Haddon and Rivers may have overlooked these particular species as totemic animals; and/or 2) by the late 19th century this particular totemic clan may have died out or been replaced and/or; 3) they may represent totemic animals from clans on other islands (either made by visitors, or about outsiders). In this context, I note the large, highly visible coiled Snake that has been superimposed over the upper half of a relatively deteriorated, outlined Turtle. The spatial arrangement of these paintings, taken in a general context where superimpositions of rock-art are extremely rare across Torres Strait (including Mua, see below), suggests an attempt to display a recognised island clan totem (Snake) over a Torres Strait symbol (past totem ?) not known from Mua in the late 19th century (Turtle). This, I suggest, was a symbolic attempt to display one particular clan totem (Snake) at the expense of another (Turtle). An alternative possibility could relate to attempts through magic of members of the Snake totem to influence their catch of turtles, a major food item on Mua. Such an interpretation would be supported by the presence on the same rockshelter wall of a painting of a *sokop madub* tobacco charm (see above), used to magically increase garden fertility.

SOCIAL DIMENSIONS OF MUALGAL ROCK PAINTINGS

The social expression inherent in some of Mua's rock paintings can also be used to address the issue of: why do people paint on Mua? Five functional dimensions of Mualgal rock-art are identified through recorded paintings:

1. Paintings associated with *magic* are located in the depiction of a tobacco or garden charm from Mua 40; the Snake (clan) painting over a Turtle (food item) painting at the same site may be similarly related to magic;
2. Paintings associated with *narratives* or oral traditions can be found in the depiction of the Goba oral tradition from Mua 10 whereby Goba is depicted hiding between the palm trees to escape the headhunters who killed his father;
3. Paintings associated with *burials* are recorded at Mua 40 and Mua 43 where geometric pictures (M-shapes) are located in association with a small amount of skeletal material (Brady et al., 2004: 42);
4. Paintings associated with *totems* or clan markers are found exclusively at Mua 40 with the



FIG. 16A-B. Landscape patterning. A, Mua 1 rock-art site overlooking the east coast of the island; B, Mua 43 rock-art site (Tommy Newie standing on the upper boulder, Liam Brady and Bruno David standing at the entrance to the small shelter).

depiction of the Snake and Shovel-Nosed Shark totemic symbols (and to a more indistinguishable extent a Fish/Dugong totem) and;

5. Paintings associated with *ceremonial activity*, which are located exclusively at Mua 28 in the form of a Fish Headdress – an image whose correlates can be found in ethnographic drawings of dancers engaged in ceremonial activities.

These five categories of paintings that are deemed to be reflective of a Mualgal social expression reveal a distinctive functional dimension to Mualgal rock-art. The range of social expressions isolated above suggests that Mualgal rock-art was associated with several different elements of Mualgal culture. These associations do not reveal exact answers as to the *why* these images were painted at each location, but rather, provide insight as to *how* the images were used and what they reflected – stories and local histories, burial, totemic markers of social and territorial relationships, and as evidence of magic. Although the question ‘why did people paint rock-art on Mua?’ is close to impossible to answer without directly asking the artisans who created these images (all of which have long passed away; taking into consideration also that this information was not passed down to present generations), some indication as to the meaningfulness of some of Mua’s paintings becomes apparent through analysis of pictures and their cultural associations.

LANDSCAPE PATTERNING

Although patterning in Mua’s rock-art can tell us about artistic relationships with neighbouring groups, the position of Mua’s rock-art sites in

the landscape can also be used to reveal some information about the possible roles the rock-art sites themselves may have played in Mualgal everyday life.

As noted above, Mua’s six rock-art sites are all located in close proximity to the coast. David et al. (2004a: 163) have previously remarked that Mua 10, located at the top of ‘a small, low hill’, was identified by Mualgal as *Turao Kula* (*tura* = spy, *ao* = past tense, *kula* = rock), or ‘Lookout Rock’. Additionally, Brady et al. (2003: 42) note that ‘[o]ral tradition indicates that the Mualgal once used the near-flat top of the boulder as a lookout vantage point to observe their surroundings and search for possible raiding parties coming from other islands’. Clearly, the position of this rock-art site in the Mualgal landscape meant that the site also functioned as a sentinel post. What is intriguing is that a pattern emerges where, with the exception of one site, Mua’s rock-art sites feature a similar, commanding view of the surrounding landscape and seascape. Mua 1, situated on a large granite platform features a wide, unobstructed view of Mua’s eastern coast (Fig. 16A); Mua 40 is situated approximately 50m upslope from a woodland plain and provides a clear northwest view along a long valley, in the direction of Totalai and the sea; the Mua 43 rockshelter is located mid-slope at Lady Hill and displays an eastern view of the landscape, again along a long valley towards the sea (Fig. 16B); Mua 96 is located near the top of a steep hill (Met Hill) and overlooks a series of fish traps and features a wide, commanding northeastern view of the sea. The only site not displaying a view of the

landscape is Mua 28 which is situated at the base of Lady Hill.

Given the information collected by Haddon and his team regarding warfare in the region, it seems that sentinel posts or lookouts were an important dimension in Mualgal life. Wilkin (1904: 308-319) recorded several stories concerning attacks and revenge attacks that involved the Mualgal, and the Goemulgal and Badulgal (quite often as a combined force) (cf. Haddon, 1935: 62-65). This constant state of warfare meant villagers had to be on the lookout for enemies voyaging to, or already on, the island. Wilkin and Haddon (1912: 95) noted that 'the Moa people were always ready to abandon them [houses] for a time and live in the bush among the great hills on the eastern side of the island'. David and Weisler (2005: 44) have already identified a series of sites on a ridge-top on the northeast coast of Mua at Urakaraltam that functioned as a sentinel post where 'warriors were on the lookout for enemy canoes (amongst other things)' (see David et al., 'Archaeological excavations at Gerain and Urakaraltam' chapter, this volume). They also note that a *kodal* [crocodile totem] stone arrangement is located at the lookout point, in an area that has been clearly identified by Mualgal as *dhangal* [dugong] territory. David and Weisler (2005: 44) remark that the appearance of a *kodal* clan marker in *dhangal* territory is not strange given that Haddon reported that the two clans were very closely related and the *kodal* men were considered the warriors of the island. They conclude that '[i]f the sentinels stationed on the ridge-top above the village at Urakaraltam were warriors on the lookout for enemy raiders and incoming local or allied villagers, as is most likely, then the marking of the lookout with a *kodal augud* [*kodal augadh*, crocodile totem] becomes less mysterious' (David & Weisler, 2005: 44).

Thus, if a totemic depiction is used at a lookout point at Urakaraltam, a similar occurrence appears at the Mua 40 rock-art site where totemic designs are used to decorate, what I suggest to also be, a lookout or vantage point. Although the other Mua rock-art sites do not feature any totemic designs (or Zoomorphs for that matter), a link can still be established between those sites that feature a view of the surrounding landscape and seascape, and sentinel or lookout points. Why these additional lookout sites were not decorated with totemic designs remains a mystery, however there exists the possibility that the Islanders using these posts as lookouts

may have been outside their totemic territory and therefore chose not to inscribe their totem on territory that was not theirs.

ANTIQUITY

Evidence for the antiquity of Mua's rock-art is available from two sources: oral traditions linked with excavations, and superimpositions. In 2001, after computer enhancements of panel 1 at Mua 10 were interpreted by Mualgal Elders to represent the Goba legend – a popular story still told today (see Lawrie, 1970 for details of the story) – Bruno David undertook an excavation at the site, directly below the paintings on panel 1. During the course of the excavation, powdered ochre was located *in situ* 1.7-4.6cm below the ground surface (in Excavation Unit 3) (David et al., 2004a: 166). Charcoal dated from this Excavation Unit revealed a radiocarbon date of 325±61 years BP (Wk-9943), which calibrates to some unknown time between AD 1400 and AD 1850 (David et al., 2004a: 166). David et al. (2004a: 168-169) have suggested that the powdered ochre recovered from XU3 is a by-product of the paintings on panel 1, concluding that the paintings were created sometime between AD 1400-1850. This is the first instance in Torres Strait that an actual age has been established for the production of rock-art, using archaeological data.

Superimpositions are a rare occurrence on Mua, occurring only three times: twice on the main panel of Mua 40, and once on panel 1 of Mua 28. Mua 40 features two significant superimpositions. The first involves the picture of a clearly visible coiled Snake placed over the upper half of an outlined Turtle and the lower half of a heavily deteriorated, upward pointing Arrow (see above). The placement of these pictures on the panel probably indicates that more than one episode of painting occurred here, especially given the different stages of deterioration of the coiled Snake over the Turtle and Arrow. The second superimposition from Mua 40 features an infilled set of four laterally-linked Triangles – placed over a heavily deteriorated Arrow. This is the second instance whereby a deteriorated Arrow has been obscured at this site, suggesting that subsequent painting events attempted to obscure faded pictures of Arrows at Mua 40. Why this is so remains a mystery, and may or may not relate to the signification of Arrow depictions.

Mua 28's superimposition is located near the base of panel 1, in a small cluster of four Canoes

(#21, #22, #23, #24). In this instance, the bow of Picture #23 is placed over the middle of the hull of Picture #22, indicating that the former must have been painted after the latter thus representing a second painting episode (although the similar clarity of the two images does not suggest a lengthy period of time between painting episodes; it may be that the two images were painted as little as a few minutes apart). Clearly, superimposition was not part of painting protocol on Mua; superimpositions appear to have been intentional and very meaningful in themselves.

Observations concerning the *relative ages* of Mua's rock-art are provided by rates of deterioration using remarks from earlier recordings of paintings. Kylie Tennant (1959) made the first recorded observations of paintings from two sites at Mua: Mua 10 and Mua 28. Her late 1940s observation of a clearly visible panel of paintings from Mua 10 consisting of an Anthropomorph and Palm Trees (the panel identified by Mulagal Elders as illustrating the Goba oral tradition) provides evidence that in the space of approximately 60 years, this particular panel of paintings has deteriorated to the point that computer enhancement was required to view the scene. Conversely, Tennant also documented paintings from Mua 28 (the Lady Hill rock-art site). Here, she recorded several different motifs such as canoes, fish, turtle, and 'what looked like a man with a long nose armed with a bow and arrow' (Tennant, 1959: 164). In particular, she noted that the canoes 'were set in patterns, half a dozen canoes one under the other, then a group of smaller canoes farther down the rock face dragging what might have been a net' (Tennant, 1959: 164). Most of the motifs (especially the visually dominant Canoes and Anthropomorph with a 'bow') documented by Tennant are still clearly observable today. Consequently, Tennant's observations of Mua rock-art reveal that there are variable rates of deterioration of paintings across the island.

CONCLUSION

Mua's rock-art reveals a range of design forms that are recorded on both fixed and portable media that traverse the entire Torres Strait region. The similarities between Mua's rock-art and that recorded from other islands, and similar design forms documented on decorated material culture objects and people clearly reveals that similar design conventions were employed in the production

of Mualgal rock-art. The rock-art recorded from Mua, although featuring some endemic rock-art forms, illustrates that design forms were moving across space and transferred across media. Consequently, analysis of Torres Strait rock-art must incorporate decorated material culture – as portable entities – to understand the nature of interaction and influence on the rock-art from a specific island. In this case, Mua's rock-art is able to reveal key design convention links with other Torres Strait islands, as well as further north into southwestern Papua New Guinea. These links suggest that rock-art from Mua was not an isolated entity, but reflected social interaction with neighbouring people, islands and mainlands. Furthermore, Mua's rock-art reveals that some paintings are reflective of Mualgal social expression – an observation that sheds light on how some images were from the onset *meaningful* in the context of Mualgal social life. While further research on the antiquity of Torres Strait region rock-art, and comparisons between Mua's rock-art sites and those from the rest of the region are future priorities for Torres Strait rock-art research, Mua's rock-art assemblage has been useful in addressing key questions concerning the nature of Mualgal artistic traditions and their place in the wider Torres Strait region rock-art landscape.

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