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PO Box 3300, South Brisbane 4101, Australia
Phone 06 7 3840 7555
Fax 06 7 3846 1226
Email qmlib@qm.qld.gov.au
Website www.qm.qld.gov.au

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CHAPTER 12

THE ARCHAEOLOGY OF DEFENCE ON MUA

BRUNO DAVID

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Shortly prior to the arrival of the first missionaries on Mua in 1872, the Mualgal, the Indigenous people of Mua, were in a fluctuating state of war and alliance with various neighbouring groups including the Badulgal, Goemulgal and Kaurareg. This state of affairs necessitated shifting settlement patterns to minimise the chance of surprise attack on Mua villages, and the location of strategic lookout points for enemy raiding parties. These latter locations contained warning installations including the placement of *bu* (trumpet) shells at elevated sentinel points with good views across the surrounding land and seascape. The presence of such warning devices at strategic lookout points has in some cases resulted in distinctive archaeological signatures amenable to archaeological enquiry. This paper reports on initial radiocarbon dates on such strategic installations, aiming to investigate the antiquity of Mua's unstable socio-political relations with surrounding groups. □ *Torres Strait, military archaeology, trumpet shells, warning systems, archaeological sites, Mua island.*

Bruno David, School of Geography and Environmental Science, Monash University, Clayton 3800, Australia (Email: Bruno.David@arts.monash.edu.au); received 4 March 2007.

Torres Strait Islander history is today richly told through a combination of oral traditions handed down by elderly Islanders (e.g. chapter 1, this volume); historical and anthropological texts, images and sound recordings collected since the mid-1800s (e.g. Haddon, 1901-1935; Moore, 1978); and, since the 1970s, archaeological research (e.g. papers in McNiven & Quinnell, 2004). These sources variably address different aspects of Islander pasts, and from different viewpoints (in particular, see Nakata, 2007), but one common theme that repeatedly appears about the past concerns the fragile, tensioned and shifting nature of inter-group socio-political relations between islands and island groups. The dynamics of such past political alliances and disputes in Torres Strait have previously been highlighted by Lawrence (1994), who noted that trade itself across Torres Strait was not fixed, but under constant negotiation and readjustment as alliances changed between islands. Similarly, McNiven (1998) also pointed out that Torres Strait Islanders were historically under fluctuating relations of 'enmity and amity' between islands and island groups, and that processes of alliance were constantly being re-negotiated through a range of social institutions and processes (e.g. through access to resources, marriage partnerships). Other archaeological research in Torres Strait has focused on other aspects of the cultural past, in particular the history of specific cultural

practices that address the way people engaged with their environs (e.g. agriculture, village life; Barham, 1999; Harris, 1977; David & Weisler, 2006), and the way specific elements of those surroundings – such as the seas or spirits – are perceived in everyday life (e.g. David & Mura Badulgal Committee, 2006; McNiven, 2003; McNiven & Feldman, 2003). Also of long-standing archaeological interest have been questions of trade and inter-regional influence (e.g. Vanderwal, 1973, 2004). However, questions of trade in themselves do not directly address broader questions of political relations – as McNiven (1998) rightly notes, questions of trade do not by themselves hold the answers to social processes of 'enmity and amity' – for regulated or negotiated trade can and does take place in contexts both of peace and conflict, as it is perceived to variably and acceptably benefit one party or the other (take recent Iraq-Australian relations, for example). This paper thus aims to explore archaeologically questions about the way people responded to alliances and conflict in Torres Strait, despite recent efforts in this direction (e.g. McNiven, 1998; McNiven & von Gnielinski, 2004) representing an aspect of the past that remains poorly-known for the region. More specifically, it asks questions about the history and origins of ethnographically-documented patterns of warfare between Mua and other islands of Torres Strait. Research on

Mua's warfare history has only just begun, and definitive answers are not yet to hand. Here, I wish to present initial results relevant to this issue, for it is only by first asking such questions, and secondly accumulating a considerable amount of data – which will take some time – that reliable archaeological patterns, and thus answers, will eventually appear.

I begin this research with the early period of sustained European contact – the mid to late 1800s – for it is to this time that detailed ethnographic information on systems of alliance and enmity between islands is first known. By tracking back in time through archaeological research material expressions of these ethnographically-known social responses to inter-regional conflict and military alliances – by going from the known to the unknown – we can track back in time historical dimensions of what we know from ethnography.

ETHNOGRAPHIC ACCOUNTS

In 1871, Henry Chester, the Police Magistrate at Somerset, undertook an exploratory cruise to the northeast passage of Torres Strait, along the way visiting islands rarely and, in some cases, never previously contacted by Europeans. His report on this voyage makes interesting reading (Chester, 1871: no pages):

My first visit was to Jervis Island [Mabuyag]. This island being quite out of the track of vessels navigating Torres Strait was merely approximately laid down by the Surveyors, and until the close of the year 1870 was never visited by Europeans. It is situated to the Northward of Mulgrave island [Badu] and is about sixty miles distant from Cape York. The boats of the "Pakeha" and "Melanie" were the first to call there and obtained a quantity of pearl and tortoise-shell. The natives had recently returned from a successful foray on Banks island [Mua] in which they had killed thirteen of the Italeega and carried off several women. The fresh skulls were then hanging in their huts. They saw also a quantity of damaged tobacco, which probably came from the wreck of the "Honolulu", and purchased for a handkerchief a large tarpaulin. On arriving at the island I found no less than fifteen canoes hauled up on the mud and a crowd of men on the rocks. An interpreter from Cape York explained to them the reason of our visit and warned them that not more than one canoe would be allowed alongside at a time. With some little difficulty, due to the stupidity of the interpreter, they were made to understand that the price of a tomahawk or

small knife was 10 pair of shells; of a large knife 15 pair, while three would purchase a fig of tobacco, and five pair a piece of iron for a fish spear. When the first tomahawk was handed out, it was exhibited in triumph to the people on shore who set up a great shout and sent off in haste for the shell stowed away in their huts. Amidst much laughter, scraping of hands and incessant shouts of Marbiack läag – läag! (Jervis island. Peace! Peace!) the trading went briskly on, and in a very short time I had purchased 200 pair of shell. At first all the usual precautions adopted when trading with savages were observed, one man covering me with his carbine while I was stooping over the trade box, but before long the arms were laid aside and all hands were busy receiving and stowing away the shell. Neither then, nor afterwards during my whole intercourse with them, was there the least attempt to extort more than the stipulated price; indeed, some weeks later when a dearth of tomahawks was impending, and I raised the price to 15 pair of shells, there was no dissatisfaction expressed. By this time mutual confidence had been established, and two of the tribe volunteered to go with me to Mulgrave island, and were away in the boat for three days. On returning to Marbiack I went on shore and was received by some 30 or 40 men of the tribe. From much whispered consultation in which the words "Ipikāageem and läag-nino-läag", (Women. Peace, really Peace!) were frequently repeated, I gathered that they were debating as to whether the women should be sent for, and the matter was apparently decided by two friends vouching for our peaceful intentions. A present of beads distributed among the women and children who then came forward from the mangroves, behind which they watched our proceedings, was received with much rejoicing, and, what is rare among savages there was no begging for more. In five subsequent visits to these people in each of which I spent a week at the island I never had reason to alter the very favorable opinion I formed of them during our first intercourse. Such confidence had they that two of their principal men on one occasion returned with me to Cape York, and seven on another. The latter were detained longer than was expected as I had to take some natives who had been cast away in a canoe back to their own island, so that it was three weeks before the Marbiack men could get home. The joy at their return was great; nearly the whole population of the island flocked down to the beach and crowded into and around the boat. Their wives brought their youngest children and placed them in the arms of the men, who fondled them in the boat while relating the wonders they had seen. What appeared

to have struck them most during their stay was the shooting of a bullock, for though they had most likely heard of the effects of firearms, they had evidently never witnessed their power, and could not understand how so large a beast could be so easily killed.

One day while awaiting the favourable time for fishing I occupied myself in taking down the names of the tribe and afterwards calling them over. In this manner I got the names of the whole male population amounting to 114 persons. I also collected a short vocabulary of their language which closely resembles that of the Prince of Wales islanders.

[...] Of all the natives employed in the pearl fishery, those from the island of Maré are undoubtedly the best and bravest, but at the same time the most lawless and difficult to restrain. A boats crew of these men were suddenly set upon by the Gamaleega [Goemulgal] in revenge for something they had previously done; their firearms were wrested from them and they were compelled to make a hasty retreat to their boats with one of their number badly cut about the head by a tomahawk. The guns were afterwards recovered through the Agency of the Warrior islanders.

My next visit was to Mulgrave island, called Bādoo by the natives. For many years the Badooleega, who are very numerous, have borne the worst reputation for treachery and cruelty, and the evil influence exercised by the white man Wini who lived with them for years, but who has died since the settlement at Cape York was founded, still continues to bear fruit. A long series of massacres of defenceless people perpetrated with absolute impunity has accustomed these miserable savages to regard Europeans as an easy prey, and until last year they have congregated every S.E. season at the Prince of Wales group in readiness to take advantage of any disaster that might occur to shipping. It was these people who instigated the "Sperwer" massacre in 1869 and of the three tribes who took part in that tragedy they are the only one that has escaped all punishment. Torres Strait is probably the only part of the world w[h]ere outrages like these can be committed with impunity, although, perhaps, nowhere could they be more easily prevented or punished.

[...] It was only after numerous attempts to communicate with the Italeega of Banks island that I at length succeeded in overcoming their timidity and inducing them to trade. Living in perpetual dread of their powerful neighbours of Badoo and Marbiack they are compelled to be constantly shifting their camps, which

they take great care to conceal on the side to seaward; so that I passed and repassed several without any idea of their vicinity. The men complained piteously of the Gamaleega and bewailed the destruction of their tribe which was, they said, no longer able to contend with its numerous enemies; but if the whites would only assist them they would soon be revenged for all they had suffered. They argued that we ought to help them against the Badoo men particularly, who had so often killed white men while the Italeega had always been friendly, and, no doubt, should it ever be necessary to punish the Mulgrave islanders for future outrages it might easily be done with the assistance of these people, who are familiar with their country and camping grounds.

This early European account of Mualgal relations with Goemulgal and Badulgal reveals significant historical details, in particular a then-prevalent fear of and desire for revenge on Mua's immediate westerly neighbours. Soon after Chester's visit, the first London Missionary Society missionary was settled on Mua in 1872 (see chapter 4, this volume), and with the accelerating pace of contact with pearl shellers, missionaries, government officials and other outsiders, it became increasingly evident that the Mualgal had recently suffered a devastating military defeat at the hands of their neighbours from Badu and Mabuyag (for details, see Shnukal 'The last battle of Mua' chapter 3, this volume). So great was this devastation that among many neighbouring Islanders popular tradition to this day has it that the Mualgal were not only defeated but entirely annihilated during what has come to be known as 'the last battle' on Mua. Wilkin (1904) discusses in considerable detail the 'feud' that was prevalent in the late 1800s between Mabuyag and Badu versus Mua, revealing an ongoing series of conflicts which eventually culminated in 'the last battle' (see Haddon, 1901-1935 for numerous accounts of warfare between islands in Torres Strait). Shnukal (chapter 3, this volume) identifies the year of this event as 1870, a conclusion entirely consistent with Chester's 1871 eyewitness report that '[t]he natives had recently returned from a successful foray on Banks island [Mua] in which they had killed thirteen of the Italeega and carried off several women. The fresh skulls were then hanging in their huts'.

While there is some debate, both amongst Islanders and academics, concerning how many people survived this 'last battle', it is clear that a small but significant population

survived and remained on Mua. Too small to defend themselves from further attacks, the surviving Mualgal abandoned their previous coast-side village(s) in favour of more temporary and less visible residences among the hills inland of Totalai (for details, see e.g. chapter 4, this volume). Constantly on the lookout for incoming raiding parties, foremost on Mualgal minds were strategies for surviving their recent calamity, including the possibility of forming alliances and eventually potential revenge expeditions with the newly-come European and missionary powers (e.g. Chester, 1871, cited above). As history would have it, these events of the early 1870s proved to be the last inter-island war between Mabuyag-Badu and Mua. It is apparent from oral traditions however, that, for a considerable period of time previously, unstable alliances had existed between various Islander communities, including the Mualgal and Kaurareg (e.g. Moore, 1978), Badulgal and Goemulgal (e.g. Wilkin, 1904: 308-316), Badulgal and Kaurareg (e.g. Moore, 1978), Goemulgal and Tudulgal (e.g. Wilkin, 1904: 319), possibly Mualgal and Badulgal who shared a common threat during the reign of Kwoiam on Mabuyag (Haddon, 1904: 67-83), and possibly also Mualgal and Tudulgal further afield if Shnukal's statement that 'the Yam Island chief, Maino, accompanied Revd McFarlane to Mua to attempt to settle ongoing difficulties between the Islanders and missionaries' is relevant to this question (see chapter 4, this volume). Conversely, oral traditions also document memorable raids and revenge killings between the people of Mua and Badu (e.g. Lawrie, 1970: 45-46; Wilkin, 1904: 317-319; see David et al., 2004a), Badu and Mabuyag (e.g. Haddon, 1904: 76-77), Badu and Kaurareg (e.g. Moore, 1978), Mua and Mabuyag (e.g. Haddon & Wilkin, 1904: 301; Wilkin, 1904: 317-319), Mabuyag and Dauan (e.g. Wilkin, 1904: 316-317), and Mabuyag and Tudu (e.g. Wilkin, 1904: 319). There are very many accounts, both written and oral, of headhunting raids, revenge killings and massacres involving treachery between islands (see above references). The Chester quotation above is but one of these – a full citing of each documented account is beyond the aim of this paper, and would amount to a full-length volume. Over an unknown period of time that includes the 1800s, systems of alliance and enmity between neighbouring and more distant Torres Strait islands, island groups, the Australian mainland to the south, and the New Guinea mainland to the north remained in flux (see Haddon, 1901-1935 for numerous examples; McNiven, 1998

for pertinent discussions). As McNiven (1998) notes, contexts of shifting 'enmity and amity' between groups were mediated by various forms of social connectivity, including marriage partnerships, trade relations and ceremonial gatherings, as well as perceived actions of disrespect from one party towards another, together with the cycle of raiding, revenge killing and feud that these engendered.

We know through oral traditions, historical sources and archaeological evidence that ongoing military raids and revenge killings – usually resulting in the beheading of the victims (including men, women and children) for prized heads, and the stealing of women – led to the development of settlement-related defence strategies on Mua and other islands. Included among these were camouflaged village locations (behind thick mangroves) with easy and quick access to moored canoes (e.g. Chester, 1971), inland village locations (e.g. Lawrie, 1970: 121; Shnukal chapter 3, this volume), increased levels of residential mobility (chapter 3, this volume), the establishment of lookouts as sentinel points near residential locations (Father John Manas, pers. comm., 2003), and long-distance warning systems involving the blowing of *bu* (trumpet) shells and/or fire/smoke signals (e.g. Wilkin, 1904: 314). Each of these strategic solutions to an elevated problem of defence has a material expression amenable to archaeological enquiry. Consequently, it is possible to investigate the historicity of Mua's intensive military engagements with neighbouring groups, as these involved defensive responses against revenge raids, by archaeological research into the nature and antiquity of specific kinds of defence strategies. Three lines of enquiry are particularly pertinent:

1. when did the Mualgal begin to use *bu* (trumpet) shells as a warning device;
2. when were hilltop sentinels near villages first established; and
3. what is the antiquity of camouflaged and/or inland village locations (in contrast to vulnerable, exposed coastal village locations).

If we could work out how old the Mualgal defence and warning system was, we could get insights into when in the past the Mualgal began to be so wary of incoming raiding parties that a specialised defence system became necessary. In particular, we ask: did the Mualgal enter into fragile and potentially volatile alliances-enmity relations with their neighbours ever since initial colonisation, at least 2500 years ago given

what is known of the history of Torres Strait colonisation (David et al., 2004b, McNiven et al., 2006, Crouch et al. in press). Or rather, did ongoing wars such as those documented in the ethnography and oral traditions develop late in Mualgal history, possibly only a few hundred years ago? Did such active military activity between individual islands and island groups only develop in conjunction with significant population increases 800-600 years ago or later as documented by McNiven (2006), in association with other cultural transformations (McNiven's, 2006: 10 'strategic readjustment'), such as the onset of new ritual structures (dugong bone mounds, *bu* shell arrangements) and their associated practices and beliefs? These latter innovations imply new ways of engaging with seascapes and, as sites of agglomeration that incorporated co-ordinated clan networks in their operation, they also imply changes in the way that places and people were 'shared' and 'tied to broad scale social alliances and concomitant exchange relationships that directly and indirectly connected [...] island communities' (McNiven, 2006: 9).

The following archaeological evidence is assembled as a means of commencing such a programme of historical enquiry.

THE SITES

SENTINEL POINT WITH PERFORATED *BU* SHELL. The only lookout site to contain a demonstrably perforated *bu* shell (for blowing to produce a loud sound) investigated on Mua is site Mua 41, located on the upper eastern slope of a grassy saddle mid-way between the beach

at Wag (St Paul's community) and the bay to the immediate north of Meth hill (Figs 1-3; see David 'Archaeological surveys at Bulbul and Gerain' chapter 16, fig. 7 for site location). Here, three-quarters upslope and 300m from the hilltop, a complete *bu* shell was at some time in the past placed on a boulder, which itself lies adjacent to a larger, vertical granite monolith visible from a considerable distance away. From this location one has excellent views northward to the sea, including the trajectory of incoming canoes making their way to northeast Mua from Mabuyag and Badu. To the south, site Mua 41 also offers excellent views to Wag. There is no evidence of other cultural materials (and therefore no archaeological evidence for camping activity, such as shell remains or the like) at Mua 41 itself. However, there is extensive archaeological evidence of past camping activity in the form of shell scatters and stone artefacts along the grassy and occasionally lightly-wooded flats 300 to 400m to the west. These shells and stone artefacts are located on flat ground at a slightly lower elevation than Mua 41, in a place not as easily seen from a distance as the upper slopes of the saddle. Mua 41 thus represents a strategic location from which to observe the northern, seaward access to this part of Mua. At the same time it also represents an excellent point from which signals can be communicated southward to a camping location that appears to have been repeatedly used on the nearby grassy flats, to Lady Hill slightly further to the west across the other side of the valley, and on to Wag further to the south, each of these locations containing numerous archaeological signs of past camping activity. The two boulders at Mua 41 are in



FIG. 1. Mua 41 showing granite boulder lookout with perforated *bu* shell lying on the lower (left hand side) boulder, looking NW-ward across the valley.



FIG. 2. Mua 41, looking northward to the bay on north side of Meth hill, with perforated *bu* shell lying on boulder in foreground.



FIG. 3. Mua 41, looking southward to Wag, with perforated *bu* shell lying on boulder in foreground.

this respect themselves excellent potential *turau kula* (lookout rocks) from which to warn individuals and groups in surrounding camping locations of incoming raiders.

With permission from the Mualgal Council of Elders, a small sample of *bu* shell from Mua 41 was extracted and AMS radiocarbon-dated to 579±40 years BP (Wk-12387), representing a calibrated age of between 180 and 120 years ago (Table 1). The presence of a perforated *bu* shell positioned directly on a *turau kula* at Mua 41, next to extensive archaeological evidence for camping activity, indicates that a warning system already existed in this eastern part of Mua by the mid, and possibly early, 19th century AD.

SENTINEL POINT AT GERAIN POINT. In addition to Mua 41, one further sentinel point has been archaeologically investigated, at Mua 38 on the hilltop at Gerain Point immediately above the small village location of Urakaraltam (Figs 4-6; see chapter 16, this volume, fig. 9 for locations of sites Mua 36 and Mua 38). This lookout point also has excellent views across the sea, here directly to Badu and Mabuyag (see below, and chapter 14, this volume). Radiocarbon dating of shell remains – including both food remains and small fragments of *bu* shells that may have represented food remains or been used as sounding



FIG. 4. Gerain Point, view westward from Mua 38. The Mua 38 shell midden is in the foreground, Badu on the horizon in the distance.

instruments to warn of incoming raiding parties (the weathered fragments are too small to tell whether or not the *bu* shells were perforated) – indicate that this sentinel point on the hilltop at Gerain Point was first established sometime between c.400 and 300 (and most likely c.300 years ago). It is of relevance to note that here on the hilltop is also found a crocodile stone arrangement, with Haddon (1935: 64) reporting from his 1898 fieldwork that on Mua ‘the *kodal* men were the warriors’ (for discussion, see chapter 14, this volume). The implication is that by this time the Mualgal felt obliged to visually scout the sea through the establishment of a sentinel system associated with village locations for purposes of defence in northern Mua.

VILLAGE LOCATIONS. Research into the location and antiquity of specific villages on Mua has only recently begun, with excavations at Urakaraltam (site Mua 36; see chapter 14, this volume) and Totalai (site Mua 22; see chapter 9, this volume). Initial results here give tantalising clues to the kinds of questions asked in this paper.

The case of Urakaraltam is somewhat different from that of Totalai (see below). While the latter is an open space exposed to the full view of passing seacraft, Urakaraltam is well hidden from view

TABLE 1. AMS radiocarbon and calibrated ages, *bu* (*Syrinx aruanus*) shell at Mua 41 (calibrations using Calib 5.0.2; ΔR-32±20, Sean Ulm, pers. comm., 1 March 2007).

¹⁴ C laboratory #	δ13C ‰	% Modern	¹⁴ C date (years BP)	Calibrated age AD (68.3% probability)	Calibrated age AD (95.4% probability)
Wk-12387	3.4±0.2	93.0±0.5	579±40	1646-1729 (.804) 1736-1759 (.115) 1787-1803 (.081)	1569-1829 (1.000)



FIG. 5. View from Gerain Point from area of Mua 38, looking WNW-ward to Badu in the distance.



FIG. 6. View SE-ward from area of Mua 38 on Gerain Point.

by a thick but narrow strip of mangroves (Fig. 7). David et al. (chapter 14, this volume) present a detailed report of archaeological research at Urakaraltam, indicating that initial establishment of a village at this location most probably took place sometime between 1688 and 1811 AD. There is no question that Urakaraltam is located in a hidden setting while remaining close to the coast, with the hilltop at Gerain Point nearby (site Mua 38) offering excellent views across the surrounding seascape all the way to Badu and Mabuyag. The implication is that by c.300–200 years ago, when the village of Urakaraltam was first established, defensive measures at village locations were already needed and employed on Mua.

Totalai is found along the mid-northern coast of Mua, on the island's northern-most point. The village was located in an exposed location on a

flat plain at the foot of a low ridge, immediately adjacent to the coastline (Fig. 8). From the beach itself at Totalai villagers had a broad view spanning the northern end of Badu to Mabuyag and further north and eastward. The converse was also true, Totalai Point being highly visible from a long way away and covering a wide span of vision. Totalai is almost certainly the place where the first LMS missionaries settled and established a 'school' on Mua in the 1870s (see chapter 4, this volume). It is most likely that Totalai was to some degree frequented by Mualgal immediately prior to the establishment of a mission station there, but small-scale archaeological excavations have so far failed to reveal the presence of a village at this site shortly prior to missionisation (it is uncertain from the radiocarbon ages whether the last phase of occupation at Totalai began with the missionary period – the 1870s – or whether it began shortly before then). Rather, it appears from oral traditions (e.g. see Haddon, 1904; Haddon & Wilkin, 1904; Wilkin, 1904) that residence took place on the nearby beachside locations of Murarath and Baua to the immediate east of Totalai (on the other side of the hill that contains the rock monolith of Puapun), where mangroves offer shelter from view. Radiocarbon dates from the Totalai excavations indicate that a village was present at Totalai itself from some time after 1525±40 years BP to shortly after 1140±40 years BP, equivalent to calibrated ages of around 1507–293 to 1068–926 years ago; but that village appears to have been abandoned around 1000 years ago or shortly afterwards. Archaeological research undertaken so far suggests that a village was not re-established at Totalai until 255±40 years BP, shortly before the first evidence of glass fragments which Ash & David (chapter 10, this volume) associate with the onset of sustained missionary activity in the late 1800s.

The exposed nature of Totalai on the beach-front, easily accessible to Badulgal and Goemulgal raiders, makes it most unsuitable as a village location during times of warfare with neighbouring Islanders. Consistent with this, we have found no unequivocal archaeological, nor any clear-cut documentary evidence for the existence of a village at Totalai prior to the arrival of missionaries in 1872. The fact that the original Totalai village was abandoned around or shortly after 1000 years ago raises the question as to whether this site then first became too susceptible to enemy raids, necessitating its abandonment. While we cannot be certain that conflict was the cause

of the abandonment of Totalai, this sequence of events offers us a first clue that uneasy, unpredictable or long-term hostile relations may have first occurred between Mualgal and neighbouring group(s) around or shortly after 1000 years ago. This interpretation is presented as a possible explanation to keep in mind as further archaeological data is revealed on Mua and neighbouring islands.

DISCUSSION

Although we do not yet have the necessary data to give definitive answers to the major questions asked in this paper, initial radiocarbon dates relevant to understanding when on-going inter-island conflicts began (or became prevalent) on Mua are beginning to emerge. It may well be that ultimately we have to look beyond Torres Strait itself to find appropriate answers as to the origins and institutionalisation of headhunting raids on Mua by Badulgal and Goemulgal – for example, it may be necessary to connect the history of Mua, Badu and Mabuyag with that of Dauan, Saibai and Boigu to the north and thence to the New Guinea mainland, relating the history of headhunting on Mua to the spread of Tugeri (Marind-Anim) (e.g. David & Mura Badulgal Committee, 2006; Knauff, 1993) and/or Kiwai (e.g. Lawrie, 1970: 143-147; McNiven et al., 2004) raids along the New Guinea coast and its offshore islands. It is likely that such southern New Guinea headhunting raids, typically involving fleets of 30 to 40 large war canoes and more and numbering some 300 to 1200 warriors, had significant flow-on effects across all of Torres Strait given their frequency and their large and organised military impacts on northern Torres Strait populations (themselves direct trading partners with other Torres Strait islands including Mabuyag; e.g. Lawrence, 1994; MacGregor, 1893a, 1893b, 1897).

Be that as it may, the Mua archaeological data so far suggests the commencement of ongoing inter-island conflict and raiding on Mua since at least some time between 180-120 years ago (perforated *bu* shell at sentinel point on upper hill-slope, site Mua 41), c.300-200 years ago (establishment of village behind thick mangroves at Urakaraltam, site Mua 36), c.400-300 years ago (sentinel point on Gerain hilltop, site Mua 38), and probably since around or shortly after 1000 years ago, if the abandonment of the village at Totalai is any indication. Elsewhere on Mua, David et al. (2004a) have excavated a



FIG. 7. Thick mangrove cover fronting Urakaraltam, site Mua 36.



FIG. 8. Totalai (site Mua 22) from the sea, showing the site's exposed setting.

rock-art site depicting a known Badulgal raiding expedition to Uma on Mua, dating the event to the mid-1800s or shortly beforehand.

For Mualgal to have established a military defence system (in the form of sentinels on hilltop lookouts, a *bu* shell warning system, and naturally camouflaged village locations), we can infer the existence of an ongoing wariness and fear of incoming warring/raiding parties. For such defence mechanisms to be instated, the Mualgal must have already experienced what was by then an expectation of further trouble – that is, a succession of feuds, raids, and killings. The implication is that Mua was 'caught' in a self-replicating cycle of revenge killings with other islands, a cycle which we know from ethnography to have involved the taking of heads (used by the victors for various purposes, including revenge, male prestige, divination, trade currency, and the attainment of spiritual powers) and the stealing of women (but, interestingly, not the taking of land; see Shnukal, 2004). Thus while the present paper cannot give

definitive answers as to the timing or causes of commencement of systematised inter-island conflicts involving reciprocated raids and the taking of human heads, it continues a research agenda that concerns the history and dynamics of inter-island social dynamics through the archaeology of defence systems, in line with previous discussions by McNiven (1998, 2006) and David & Weisler (2006), and represents a first step towards investigating such dimensions of Mualgal history. This is a research agenda that implicates not only Mua, for by definition inter-island conflict involves various parties incorporating warfare and defence. And while patterns of raiding and defence may not have been exactly symmetrical between islands, we can expect to find variable evidence of such conflicts in the different islands of western Torres Strait and beyond. It is worth noting in this respect that other potential avenues of research include the antiquity of specific kinds of weapons – such as *gabagaba* (see McNiven, 1998; McNiven & von Gnielinski, 2004) – and the frequency and nature of fractures on human skeletal remains, both of which are in progress. A key challenge for researchers will thus be not only to determine the antiquity of such situations of conflict and defence, but also to determine the particular nature of such conflicts and the strategies of response employed on each island.

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