Memoirs of the Queensland Museum | **Culture**

Volume 13

Excavating MacGregor: reconnecting a nineteenth century collection from Papua New Guinea

PO Box 3300, South Brisbane 4101, Australia
Phone: +61 (0) 7 3153 3000
Web: qm.qld.gov.au

National Library of Australia card number

ISSN 2205-3220

E ISSN 2205-3239

A Guide to Authors is displayed on the Queensland Museum website qm.qld.gov.au

A Queensland Government Project
Typeset at the Queensland Museum

Troublesome objects: the travels of arrows

12

Jude PHILP

Philp, J. 2022. Troublesome objects: the travels of arrows. *Memoirs of the Queensland Museum – Culture* 13: 351–380. Brisbane. ISSN 2205–3220. https://doi.org/10.17082/j.2205-3239.13.1.2022.2022-12

This chapter is concerned with the meanings and purposes of the highly varied arrows and bows that were collected for the Official collection from the Western Division of British New Guinea during Sir William MacGregor's administration (1888-1898). As the data about provenance vital to their understanding has not been preserved, these objects largely remain in museum storage and unfortunately have not contributed to an understanding of the history and relationships surrounding their acquisition. Although commonly understood and displayed as weapons by colonial administrations, twentieth century research has emphasised their role in connecting disparate people through an extensive trade network and a shared mythic landscape. This focus on the uses and meanings, rather than the origin and fabrication, of arrows is discussed in the chapter to direct attention towards the events and relationships that instigated their inclusion in the Official collection.

❑ arrow, bow, William MacGregor, British New Guinea, colonialism, ethnography, history, trade

Jude Philp | Chau Chak Wing Museum | University of Sydney
jude.philp@sydney.edu.au

> 'every detail in the construction or decoration … is known by one or more names' (Landtman 1927: 28).

From the beginning of Sir William MacGregor's tenure as Administrator and later Lieutenant Governor of British New Guinea (1888–1898), he led and coordinated annual expeditions to explore the Western Division and to communicate the virtues of colonial government for the people of this vast riverine region which today encompasses the Gulf and Western provinces of Papua New Guinea (Figure 1).[1] Following his third visit to the region in 1892, MacGregor wrote of his success in terms of a change from populations living in fear of violence to lives of peaceful communication, citing that 'tribes visited last year on the left bank of the Fly and as far as Bebea are now beginning to meet and to know each other' (MacGregor 1893a: 48). The arrows and bows that were collected by the Administration from the region tell a different story about 'tribes' that had long been connected in a shared nexus of trade, warfare and history (Godin 2002: 76–81).

During these 'visits of inspection' colonial officers of British New Guinea (BNG) acquired objects for the 'Official collection' (Quinnell 2000; Torrence et al., Chapter 1, this volume). In a despatch to the Queensland Governor, Sir Henry Wylie Norman, MacGregor outlined his aims: 'The collection belonging to this colony has been made with the object of its possessing as full a set of arms, utensils, products of different kinds, &c., as would illustrate its past and present position in the future' (MacGregor Despatch 55/1895, quoted in Quinnell 2000: 90). This statement makes it explicit that the Official collection was made to document both a pre-colonial past as well as the period contemporary with MacGregor. The purpose of MacGregor's Personal collection is less clear (see Torrence & Philp, Chapter 14, this volume) but the inclusion of several hundred intricately carved arrows highlights a recognition of their aesthetic value and the quality of their sculptural forms.[2] This chapter explores the capacity for the 'set of arms' from the Western Division to act as documents of MacGregor's governance and of interaction among three groups of historical actors: Western Division peoples; British New Guinea colonists and nineteenth and twentieth century museum curators.

Largely considered as weapons in museum records, arrows are undoubtedly a troublesome group of objects within collections worldwide (Crowley & Mills 2018: 1). Western Division peoples' arrows are ubiquitous in collections that include material from the island of New Guinea, but are seldom considered as having financial or aesthetic value owing to the lack of knowledge about their cultural origins and the materials used to make them. It is, for example, currently rare for a museum to have any information about arrows beyond their connection to a colonial collector. Rarer still is an accurate estimate of the number of arrows within a given collection. Our ignorance in part is due to the use by non-British New Guinean people of bows and arrows in public and private collections in the nineteenth and twentieth centuries as markers of colonial conquest (Crowley & Mills 2018: 7).[3]

Ideally one would know from where and when arrows and bows in the Official collection were obtained so that one could investigate both the European and local side of this colonial history. The idea of known specific communities associated with a certain type of arrow is a tantalising thread to follow in the assemblage, particularly from a consideration of local historical narratives in the Western Division. For example, in her ethnography of Morehead River peoples, Mary Ayres (1983: 90) refers to a common theme in several mythological narratives concerned with the making of the world: 'People were originally living inside a black palm tree and they are differentiated … by language and type of arrows'.

Barry Craig (n.d.), Thelma Bush (1985) and Andrew Fyfe (Fyfe & Bolton 2011), all working from assemblages of arrows from areas outside the regions known in 1888–1898 British New Guinea, effectively based their work on diversity, typologies and cultural difference using the concept of an origin place for a design or technological feature. Mark Busse (2005: 445–446) has cautioned against this kind of analysis in Western Division because it

is based on a logic of European origin, rather than a local classification. That the Official collection arrows and bows were largely acquired by MacGregor and his party during exploratory journeys, when the names of villages and languages was not known, is another reason to look beyond the origins of the implements for the histories MacGregor was determined to document.

To understand more of their socio-cultural milieu, we need to move beyond the museological concern with origins and the basic capacity of bows and arrow as weapons towards a recognition of these objects as powerful communication devices. As hinted by anthropologist Gunnar Landtman (1927: 28), these physically slight implements were densely layered with meaning by their users

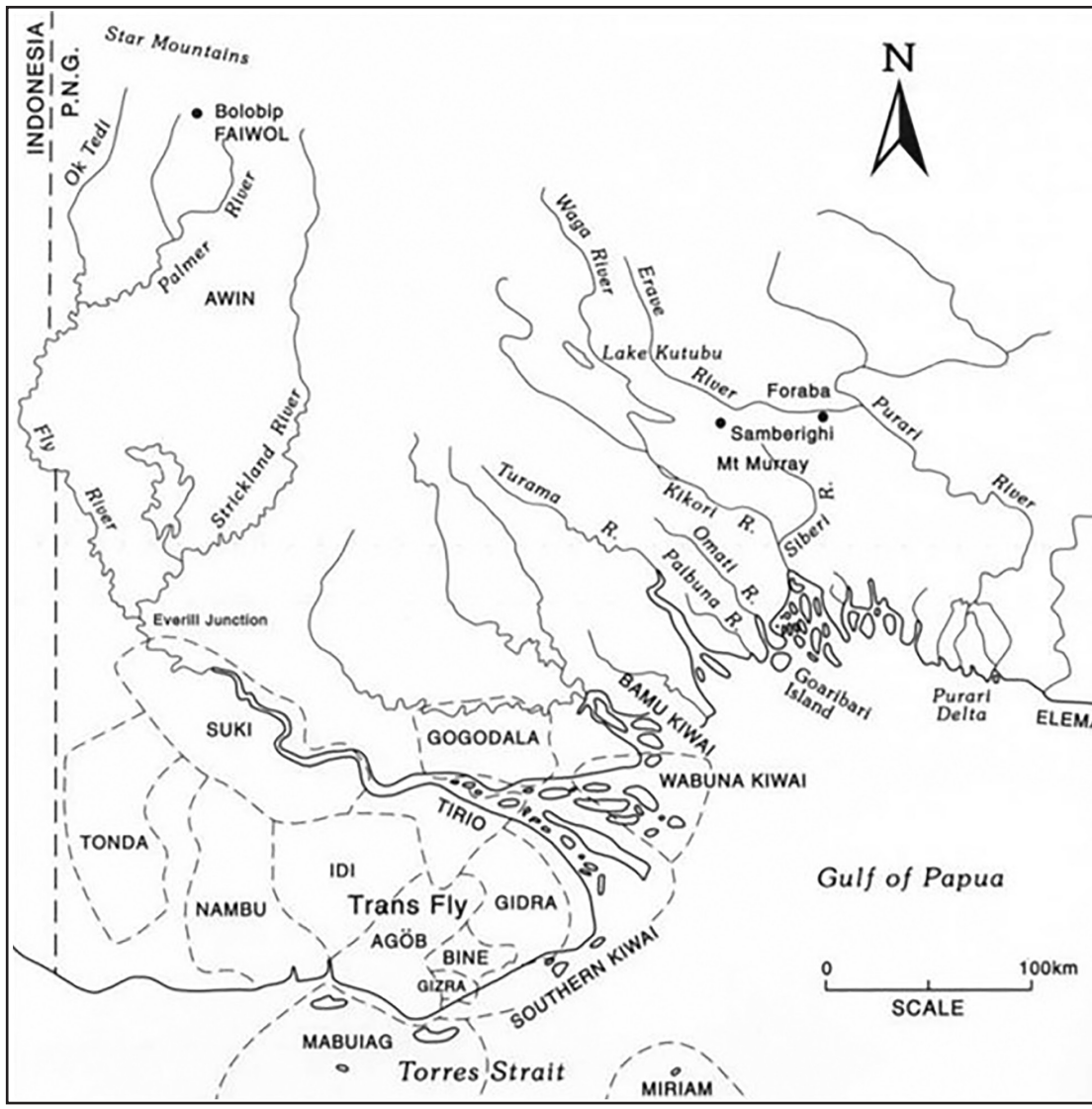

FIG. 1. Map showing the Western Division area with the principal ethno-linguistic groups referred to in the text (Swadling 2019: 164, Fig. 34, with permission from author and Sydney University Press).

and makers. Before moving onto issues of history and the collections' connections to the peoples of Western Division, some understanding is needed of what arrows and bows were used for and what they physically look like.

TROUBLESOME MEANINGS: VIOLENCE AND PEACE

Although commonly referred to as arms or weapons, arrows and bows had multiple uses. Above all else, arrows and a bow were a commonplace part of the attire of men.[4] A sheaf of arrows, held in the hand or slung on the shoulder with a cane rope, potentially included arrows used to defend or attack, given as a gift or used to hunt game, or, most commonly, to obtain food whilst travelling or for consumption within the camp, village or town.

While arrows and bows were predominantly thought of as items of warfare by the colonial government, they also had a diplomatic role and were part of the men's formal wear when receiving guests, as the following account from March 1892 demonstrates. At the small village of Daimo, on the Omati River, when most men and women were away for sago harvesting, MacGregor (1893a: 46) recorded that '... two or three old men and the few boys that remained, went and decked themselves in white cockatoo feathers and pearl-shells &c., before they appeared with their bows and arrows to receive us'.

Across the Western Division, arrows were generally made in two or three parts, consisting of a shaft of cane onto which was bound a hardwood fore-shaft, which in turn might either be sharpened to a point to form the arrowhead, or act as a base for an additional arrow point (Figure 2). Shafts were commonly made from lightweight reed or cane, plant species dominant in inland settings. Arrowheads were made from a variety of materials including hardwood, bamboo, cassowary toenails and bone. A wider variety of materials was used to bind shafts, fore-shafts and arrowheads. Certain features of the binding are more common in some regions than others, such as the red-ochred tight woven cane bindings on arrows collected east of the Fly, or the thick lime paste that secured the binding on arrows probably collected at the Dutch-British border (see Figure 7, j). As trade and exchange relationships dispersed arrows further than the cultural or linguistic boundaries of the makers, such details may be useful indicators of historical trade trends, such as Lawrence (1994) plotted for the region.

Arrows were predominantly employed with bows whose length was determined in relation to the height of the user. That bows were at times buried with their owners underscores this close relationship between a bow and its owner. Two materials were used to make bows: a hefty species of bamboo and wood from black palm (Figure 3). The specific methods for tying the thin bamboo bow strings to the bows are described by F.E. Williams (1936), Gunnar Landtman (1933) and Jan van Baal (1966) as features of specific user groups. Fraying each end of the thin bamboo strip, knots were either made to sit over the end point of the bow, or to knot back onto the bamboo strip. Many of the bow strings in the Official collection are no longer connected, some were perhaps never collected with the bows, which may point to these being collected when not in use[5] – such as the case with 'heirloom' bows that had been kept in memory of a close relative and subsequently traded to the colonial officers.

Birds were hunted with both plain and butt-ended arrows to protect the plumage; fish were shot with multi-pronged arrows as well as plain single pointed arrows (Figure 4); small arrows and bows were used by young boys to practice, and small arrows and arrow heads were used for medical purposes (Figure 14, Torrence & Philp, Chapter 14 this volume). Arrows with long, flat-bladed bamboo heads were commonly used for killing larger animals and humans (see Figure 2, a and c). Plain as well as highly carved and painted arrows were used in warfare and for ceremonial purposes. Lighter-weight plain arrows could be used for fishing or to fire volleys at distant targets, while carved and barbed arrows were likely intended for close combat. Both arrows and ornamented bows were also part of dance costumes (e.g. Williams 1940: 326; Landtman 1927: xi). Most of

FIG. 2. Sample of the diverse styles of arrows from Western Division, with detailed images of the arrow tips in the lower frame. From top to bottom: **a.** ER11181 (MAC9043), collection location, Upper Fly River; **b.** ER11304 (MAC9385) collection location Fly River; **c.** ER18604 (MAC8614), no collection location; **d.** ER11399 (MAC7763), collection location 'Vanu R' likely Bamu River; **e.** ER11396 (MAC8747), collection location 'Vanu R' likely Bamu River; **f.** ER18991 (MAC9077), no collection location; **g.** ER11505 (MAC8885), no collection location; **h.** ER16960 (MAC9084), no collection location. Queensland Museum Photography, Peter Waddington.

FIG. 3. Upper image **a.** and **b.** ER16570 (MAC6199) Queensland Museum Photography, Peter Waddington. Two views of a typical bow used west of the Fly River, with cane bow string knotted in place. The reddish tinge of the bamboo in b. is a trait of this bamboo species. Lower image shows three black palm wood bows used predominantly east of the Fly River with their characteristic carved designs located near the point on which the bowstring is knotted: **c.** ER14278 (MAC5620) no collection location. It is one of the many objects entangled with the Official collection which came to the Queensland Museum through an earlier transaction: **d.** ER16568 (MAC5364) no collection location; and **e.** ER13303 (MAC5359) collected from Fly River. Photography, J. Philp.

FIG. 4. Image of a man from the Western Division demonstrating fishing with bow and arrow whilst holding other arrows ready for firing. Photographer probably F.E. Williams, 1930s. Image courtesy Macleay Collections, Chau Chak Wing Museum, University of Sydney HP90.28.2364.

these arrow types also have what could be termed decorative elements inscribed on the shaft through incising, painting, or selectively stripping the outer skin of the cane shaft. Some are personal flourishes, whereas some common patterns were employed by a particular group of makers. Other 'decoration' may have a more technical purpose, such as the use of spiritually efficacious materials and signs or raised lines on the base (Figure 5) that could potentially have aided grip when the arrow was held within the taut bow string prior to flight.

Arrows were also employed by their users within gestures of peaceful intent, as, for example, with MacGregor's experience at Aworra on the Fly River: 'All at first held the bow & great bundles of arrows in their hands … At last some of them laid aside their bows & arrows & came down to meet us.' (MacGregor 1890–1892: 31 March 1891). Visiting Administration officers also employed this practice by laying down guns or leaving them elsewhere (e.g. MacGregor 1890–1892: 26 March 1891).

Some sorcery practices included the use of arrows.[6] Such arrows were made effective for their perceived magical qualities by a combination of esoteric knowledge and diverse ingredients bound into their fabric. These are probably the most troublesome of all arrows for contemporary descendants.[7] In broad terms this is because while religious-spiritual and social contexts distance people living today from past practices, it does not necessarily dispel their ancestors' ability to impregnate particular objects with malevolent agency (see Demian 2013).[8] MacGregor recognised that both direct and indirect violence had similar consequences and enacted the 'Sorcery Ordinance' in 1893 'which made it a criminal offence for natives to practise or pretend to practise sorcery, or to possess sorcery implements' (Keenan 2015: 68). Sorcery however did not abate through the criminal system, as seen in the statement of Francis Winter (1899:71), long-serving Chief Judicial Officer writing at the end of MacGregor's tenure: 'Sorcery, or, to speak more accurately, the belief in sorcery, is a prolific source of murder'.

'IRON AND PEACE'

(MacGregor 1893b: 31)

While multifarious uses of arrows were commonplace prior to and during the making of the Official collection, arrows and bows were frequently the focus of colonial interest because of their capacity as weapons. When a village community was known to have initiated a violent attack against another, houses were often ransacked by Government Officers and weapons including bows and arrows were publicly burnt. For example, when several Mekeo villages were implicated in aggressive attacks 'the arms of the natives – spears, bows and arrows,

FIG. 5. A bundle of arrows in the Queensland Museum showing the incised lines around the base, and stripy patterns made by selectively stripping back the outer cane skin. The holes (and the binding string) are a consequence of their use in twentieth century exhibitions). Photography, J. Philp.

and stone clubs – were collected from all the houses [at Eboa] and burned in the street' (MacGregor 1894:17). Arrows and bows were also looted from houses and burnt, occasionally collected (Torrence & Davies, Chapter 9, this volume) and acquired from battle grounds (Torrence et al. Chapter 8, this volume).

During a tour of inspection in the east of British New Guinea, MacGregor argued that in Kiriwina Island, 'From the white man they have so far received only iron and peace' (MacGregor 1893b:31). Western Division people probably began trade involving iron centuries before the sustained British presence through foreigners from the Indo-Malay archipelagos (Swadling 2019:155–158). So, when British people began to arrive in greater numbers from the 1840s, there was already an established a pattern of trade where iron and cloth was received and arrows and food proffered in exchange (Philp 2013). MacGregor continued the practice, particularly during initial meetings, seeking out leaders in order to gift them a shirt as a sign of Government recognition of their status. Following this demonstration of peace was the opportunity for trade when arrows and bows were purchased from their owners by MacGregor personally and for the Official collection (MacGregor 1890–1892: 31 March 1891). During his initial visit to Kiwai Island and the Fly River, for example, when arrows were collected for the Official collection, there are many occurrences of the gifting of shirts (MacGregor 1890a: 37, 38, 39; MacGregor 1890b: 44, 45, 46, 48).

MacGregor read the narratives of previous European explorers in the region (e.g. MacGregor 1892:53–54) and from his time as the Colonial Medical Officer in Fiji, was accustomed to the practice of reciprocal gift giving as a way to initiate meetings. It is therefore likely that he was conscious that his actions were a continuation of the political representation of Government through cloth and iron and the peaceful intention of a trade in arrows which followed. Interestingly, while the cloth and beads from such trades were entwined with other decorative elements on objects such as drums, neither iron nor cloth are attached to arrows and bows in the Official collection.

Michael Quinnell (2000:81) has argued that the Official collection can be understood in terms of politics, including diplomatic gifting and the making of alliances. The local political undercurrents that paralleled the making of the Official collection are instructive of the ways that local people secured MacGregor's support towards mutually useful ends. MacGregor's initial coastal contacts were often able to influence government actions further inland through expeditions and punitive actions.

LOCAL POLITICS

MacGregor often structured his expeditions into unknown territory by taking on men wherever possible as translators along the route. In this way Topo, from the twinned inland and coastal villages of Kunini, introduced MacGregor to Duba and other allies at the coastal settlement of Tureture in February 1890. Duba, the leader of Tureture, subsequently introduced MacGregor to village leaders further west (MacGregor 1890d:66–67). On this first visit to Tureture, MacGregor wrote it was 'the most promising community in this part of the Possession' and was equally positive in his assessment of their leader Duba whom, he noted, had been schooled at the London Missionary Society Institute at Mer in the Torres Strait. Duba met MacGregor wearing 'the full uniform of the metropolitan police force' and defined his position in the village to him through the term 'Mamoose'[9], a signal that he had been recognised for his leadership by Torres Strait-based Resident Magistrates prior to 1888 (MacGregor 1890c: 64).

One year later these Tureture, Mowatta and Kadawa (Katau) allies and men from the associated inland settlement of Masingara had successfully pressed the local Government officer, John Cameron, to assist them in deterring the inland Badu people from harassing them. Led by Cameron and George Wriford, this large party of men armed with arrows and bows, five of whom had rifles, was turned back by the Badu following a short exchange, during which Kasavai of Kadawa was shot by an arrow in the chest (he survived and later enrolled in the

Armed Native Constabulary). In MacGregor's (1892: 48) assessment the situation could have been avoided with a greater contingent of rifle-bearing men and through ensuring that local weapons were not carried into Badu territory, thus signalling government purpose rather than local warfare.

The following month, fearing the defeat would damage the Government's reputation, MacGregor (1892: 48) led 'the largest force that could be mustered, but with a peaceful demeanour' back to the site of the battle. This force included two dozen men armed with firearms and around 250–300 men armed with bows and arrows. MacGregor argued that a 'peaceful demeanour' was maintained by refusing to allow the allies to carry bows and arrows into Badu territory, the lack of pillaging and through the leaving of gifts. They did not meet the Badu, who retreated into the surrounding forest, an act which MacGregor interpreted as a sign they understood the Government party's 'overwhelming strength' (MacGregor (1892: 48).

In another example, Cameron was stationed at Mabuduan[10] and enrolled Kiwai civilians and Armed Native Constabulary (ANC) in a long-term campaign to harass Sumai villagers. Cameron's purpose was to halt further fighting. Over a period of months, Kiwai 'approached their canoes in native form and seized their occupants or the contents of the canoes. In this way a great many arms were taken from the Sumai men' (MacGregor 1893c: 34).

These events indicate the level of trust obtained by coastal Kiwai with the British New Guinea administrative officers, a strategy that Kiwai appear to have been working on for their prosperity from at least the 1870s (see David et al. 2015). The Badu incidents, involving hundreds of men from all sides, were also strong demonstrations of the colonially-sanctioned use of rifles and the defensive purpose of the ANC, along with the vetoing of the use of bows and arrows in aggressive actions.

TROUBLESOME DIVERSITY: ARROWS AND BOWS IN STORAGE

Although at first the whole of the Official collection was sent to and administered by Queensland Museum (QM), after 1897 selected bundles of arrows from QM stores were sent to the British Museum (BM), the Australian Museum (AM) and the National Museum of Victoria (MV) as part of a distribution acknowledging the resources applied by the UK and the colonies of Queensland, NSW and Victoria to establish and administer British New Guinea (Torrence et al. 2020; Torrence & Davies, Chapter 13 this volume). The acquisition of additional arrows had little purpose for the recipient museums for three reasons. Firstly, the late nineteenth century 'collecting mania' meant that arrows were increasingly offered to public museums (Förster 2018: 39); secondly, the international exhibition conventions meant that assemblages of arrows were generally shown *en masse* as a 'meta-artefact' of colonial possession (Crowley & Mills 2018: 11); and thirdly, the limited associated information delivered with the Official collection arrows and bows did not differentiate them in any meaningful way from the many arrows already in the museums' care. And so, the arrows continued to be troublesome, largely remaining in museum storerooms. Also mostly still in storage is MacGregor's Personal collection of ethnographic objects acquired during his time in British New Guinea. Bequeathed to his *alma mater*, Aberdeen University, the collection, but not the arrows, was partially exhibited at the time (Torrence & Philp, Chapter 14 this volume; Knowles & Curtis, Chapter 15 this volume).

A visual onslaught of difference and similarity is palpable when looking at arrows and bows in the museum storage rooms of today. Row upon row of shelving space is taken up with arrows displaying the broad visual similarity of their manufacture with a cane shaft joined to a wooden arrowhead. Upon closer inspection differences between each object are obvious in the intricate decorative elements, shapes and styles of arrowheads and methods of joining tips to arrow shafts and bow strings to bows.

FIG. 6. Differences in the styles of arrows is shown in the upper image with a closeup of the tips in the lower image. From top to bottom: **i.** ER11168 (MAC9283) collection location Upper Fly River; **j.** ER18502 (MAC8029) no collection location; **k.** ER16579 (MAC9066), no collection location; **l.** ER13238 (MAC9284) collection location Fly River; **m.** ER11307 (MAC9070) collection location Fly River; **n.** ER17476 (MAC9050) no collection location. Queensland Museum Photography, Peter Waddington.

Drawing from the Official collection of arrows and bows, Figure 6 displays the common styles of arrowheads and Figure 7 illustrates variations in binding techniques. When Gunnar Landtman, Paul Wirz and Alfred Haddon worked in this area as ethnographers of Kiwai, Marind and Torres Strait-Western Division populations respectively, they each included in their monographs images of the varieties of arrows used by the population under investigation. Landtman (1927: Figures 32–33) documented no less than 37 different kinds of arrows employed by coastal Kiwai, and Wirz (1922) described 46 different styles of arrows used by Marind groups. In his comments on their general use as a popular exchange commodity, Wirz (1922: 106) also reflected that the closer one went to the coast, the variety of arrow styles in use increased. That Haddon (1912: 175–190) recorded and collected 35 different styles at Mer[11] in the Torres Strait is evidence of the south-eastern extent of these trade relationships, a relationship that MacGregor was told of at Mai Kussa (MacGregor 1890–1892: 13 March 1891). In short, although my focus here is on the Western Division, any investigation of the history of arrows and bows in the late nineteenth century needs to include people across the Dutch and Queensland borders, given these arbitrarily mapped divisions were barely a generation old when MacGregor visited the region.

TROUBLESOME HISTORIES

> *Madia mo uroburae rirua Sido rirua*[12] (Landtman 1913: 305).

As both specialised and general articles, many arrows in the Western Division of British New Guinea had probably circulated through trade, exchange relationships and barter[13] well before they entered the Official collection. That arrows

FIG. 7. Differences in the styles of arrow binding are illustrated by arrows shown in the upper image of FIG. 6. From top to bottom: **i.** ER11168 (MAC9283) collection location Upper Fly River; **j.** ER18502 (MAC8029) no collection location; **k.** ER16579 (MAC9066), no collection location; **l.** ER13238 (MAC9284) collection location Fly River; **m.** ER11307 (MAC9070) collection location Fly River; **n.** ER17476 (MAC9050) no collection location. Queensland Museum Photography, Peter Waddington.

were also made for trade makes assignations of cultural or geographical relevance complex, particularly as the human relationships to objects have been obscured through collecting processes and practices. Despite their investigations with museum collections and extensive field studies both within and after MacGregor's time in British New Guinea, Landtman, Wirz and Haddon were unable to conclusively document manufacturing origins for the arrows in use within these communities. Even a search for the communities who traded arrows and bows with MacGregor is difficult as arrows in the Official collection were commonly referred to as 'bundles' and the vast majority (83%) were not provenanced. For these reasons it is necessary to search in different ways for likely connections.

A handful of scholars over the past 120 years have tried to understand more about peoples' use of bows and arrows in the Western Division.

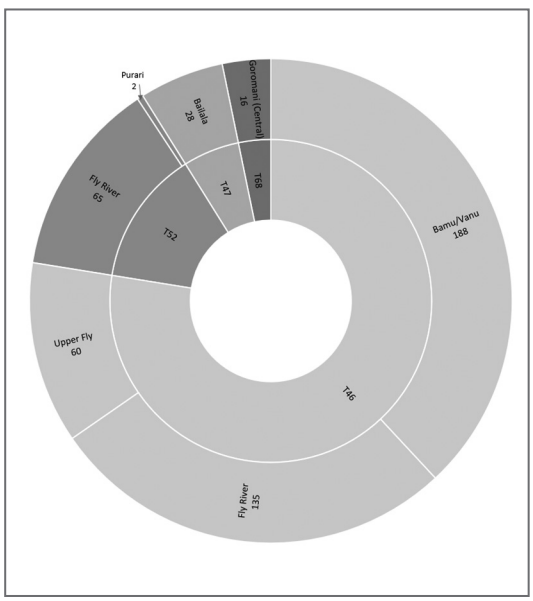

FIG. 8. QM received arrows from the Official collection in five consignments (T46, T47, T52, T60 and T68). This figure shows the numbers of arrows for each of the localities reported in the register, but these only make up 17 per cent of the total group. The largest number of recorded localities followed periods of initial exploration, suggesting that this information was a feature of early collecting in a given area (Data from Master List, Appendix 2 this volume).

Contemporaneous with MacGregor, ethnographers James Edge-Partington (Edge-Partington & Heape, 1890) and Alfred Haddon (1895) used field and museum collections to document differences in these types of objects. Their publications largely abstract arrows from their social and local uses. Edge-Partington used his drawing skills to detail the different forms of arrows found in collections (Neich 2009). Haddon (1895; Herle 1998: 84) used his observational skills and collections to consider and delineate stylistic differences within a rhetoric of evolution. Collecting in the Western Division in 1888 and 1898, his work demonstrates the southern reaches of the Western Division arrow trade (Haddon 1912: 173–190).

In the early twentieth century ethnographic focus was on the social settings of peoples' actions and usually centred on a single village location. For example, Gunnar Landtman, based at Mawatta, greatly added to knowledge about the contexts in which arrows and bows were employed by Kiwai language speakers (Landtman 1927), as well as providing a schema of arrow types commonly in use by Kiwai communities (Landtman 1933: 99–105). Sporadic accounts and collections for the Official Papuan or 'Murray Collection' (Schaffarczyk 2006) were made in the early twentieth century, most notably by Alfred P. Lyons (1922) who conducted a study of arrow production in the upper Morehead River region in the early 1920s during his time as Resident Magistrate for the Western Division. F.E. Williams, Government Anthropologist for the Australian administered Territory of Papua, documented arrow and bow technologies, types and contexts on the Trans-Fly coast (Williams 1936). His later research in the Gulf of Papua (Williams 1940) was focussed on the ceremonial lives of Elema peoples, which enhanced understanding of the wider contexts and symbolism related to bows and arrows.

Paul Wirz (1922: 104–113; tables 33–36) wrote the first major ethnography of Marind-Amin, work that includes detailed descriptions and illustrations of arrows and bows. His work was vastly expanded in Jan van Baal's (1966) monumental study *Dema*

which focussed on the spiritual-philosophical concepts that inform social and ceremonial action. Unusual for the period is Hitoshi Watanabe's (1975) focus on the kinds of bow and arrows in use (and those remembered) by Wonie villagers living on the Oriomo River inland of the west bank of the Fly. Despite the lapse of 70 years, many of the arrows he documented are similar in form and detail to those in the 1880–90s ethnographic collections of the region.

In their ethnographic work, these twentieth century scholars also documented a large number of mythic-narratives and narrative forms, such as the song of Sido's death quoted above (Landtman 1913: 305). From the 1980s, ethnographic study was concerned with understanding local ideas of history, with an emphasis on the ways people use mythic-narratives to absorb, relate and evaluate recent events and origin-histories across the land, seas and rivers (Busse 2005).[14] Mary Ayres (1983), based at Tjevethak (Rouku), evaluated these narrative histories as signals of Morehead River peoples' ordering and reordering of their country into named places. These ideas from the mythic narratives of the region were furthered by Kevin Murphy (2013), based at the villages of Buzi and Ber on the inland plain of the Binaturi River, when documenting the inter-relationships of western Trans-Fly peoples. Also based in the Binaturi region of the Trans-Fly was Modowa Gumoi (2010) whose study focussed on livelihood strategies of Bine. His documentation included materials for the production of bows (*garar*) from the bamboo *Bambusa vulgaris*, identifiable by its red interior (Figure 3b.), and the four common arrow types, all of which have parallels in the Official collection: (1) *songo* with a sharpened bamboo blade, (2) *ose* an arrow once made with an intricately carved point, (3) *dopa* a blunt-ended arrowhead, and (4) the multipronged *waia*. Gumoi (2010: 295–296) also includes details about the threads and adhesive saps used to bind the arrowheads to the cane shaft, and notes that 'the current generation of Bine men lack the skills for the intricate designs of the *ose* arrowheads', including the chants (using 'archaic language') that were uttered when making the arrowheads. Working between Torres Strait and with people living west of the Fly River, David Lawrence (1994, 2010) substantially added to the published canon of mythic narratives from coastal and Torres Strait peoples in his research which documented exchange and trade relationships over time. His work particularly shows the patterns of reciprocal exchange relationships along with trade and the role of Kiwai as traders, trade intermediaries and exchange partners with people resident inland, seaward and across the Western Division coasts.

What consistently emerges from research on the Western Division populations is the symbolic richness associated with bows and arrows irrespective of the functional, diffusionist or other ethnographic interpretations made from study based in a single village. From this also comes the recognition that while there is enormous diversity of arrow types in use by any one community, each knows arrows in intimate detail regardless of whether they were made locally or acquired through trade. Also prevalent is the continuous movement of people across the region, observed by early explorers of the Fly River (e.g. d'Albertis, 1880: 324) and in more recent times (Murphy, 2013). While MacGregor flatly blamed Tugeri warfare for this movement, Ayres (1983: 19–22) later argued that movement was part of the seasonal pattern of land-use, which, along with social issues that included warfare with local and distant enemies accounts for the presence and absence of villagers at known settlement sites.

A feature of most ethnographies is the inclusion of mythic narratives.[15] Over 120 years, peoples of the region engaged with ethnographers to document their oral histories in public and in secret. This has contributed to the recognition of the shared socio-cultural traditions and beliefs which broadly connect Kiwai speakers on the Bamu River east of the Fly with Marind, the Agob, Gizra and Idi language speakers as well as others from the coast and northwards to Suki areas on the flat plain and hinterlands and southwards across the Torres Strait (Wagner 2019; Figure 8). This vast area is today governed through three different nation-states (Papua New Guinea, Indonesia and Australia). How can these

observations assist in understanding the historical social relations that led to the incorporation of arrows and bows in the Official collection?

Firstly, caution must be taken in using the localities that were recorded for the arrows and bows because of the movements of people and geographies. A specific locality, such as 'Bamu River', may indicate an historical episode when arrows and bows were traded or acquired for the Official collection, but this placename does not necessarily indicate a specific population of people in the past or today. This is particularly true when one takes into consideration the movement of villages and settlement on the Bamu River as well as the dynamic shifts in river paths over time (cf. Barker et al. 2012:164) which complicate the location of places fixed with rough latitude and longitudes in the *Annual Reports of British New Guinea*. Secondly, the location given for a collection of arrows will not necessarily reflect the place where they were made or even predominantly used because of the networks of regional trade (see also Lawrence 1994: 243). For example, in 1879 Henry Moseley, naturalist on the *Challenger* expedition, noted the vibrant trade in arrows at Cape York by Torres Strait Islanders (Moseley 1879:361), who themselves had previously acquired them through trade with Western Division trade-partners. Haddon (1912: i fn.1) used this example to caution museums against assigning arrows to 'Cape York' within the catalogues of his time. A similar caution needs to be taken with the Official Collection localities for arrows and bows (Figure 8).

The records of extensive trade also lead to a recognition that a history of these implements in the Official collection must acknowledge that, when arrows were traded, there were locally specific practical, metaphorical and symbolic meanings about which MacGregor and others were ignorant.[16] As the obscure snippet of a Kiwai song about the life of the creator-culture hero Sido that opened this section makes obvious, this aspect of arrows and bows can only be interpreted from the knowledge base of experts from these various societies today.

SUPPLY LINES: SPECIALIST MAKERS AND TRADE

Thus far I have argued that while little was recorded about the bows and arrows when they were obtained for the Official collection, the circumstances of their acquisition is a reflection of the networks of trade across an enormous region by people who were interlinked through a shared knowledge of the travels of historically distant culture heroes (Figure 14; Busse 2005: 453–454). The diversity of arrow forms in the Official collection are in this way a reflection of this wide-reaching trade.

A separate study would need to be made to understand local political meanings, extent of reciprocity and ramifications of the events when arrows and bows were acquired to reach conclusions about the highly varied motivations people had in trading with MacGregor (Thomas 1991). One event on the Auro River in March 1892 indicates the complexities involved. MacGregor was travelling by whaleboat with seven others, including a chief from Kiwai, when they were approached by a party in a canoe, which MacGregor (1893a: 44) observed 'had on board a great many bows and arrows, some sago and large crabs. Some articles were exchanged in barter, and it seemed that quite friendly relations had been established'. Further downstream when MacGregor had onboard a local leader interested in making peace, canoes with an estimated 300 men appeared with bows and arrows raised towards MacGregor and his company. Unable to flee because of the speed of these canoes, MacGregor evidently decided against attempting verbal diplomacy via the local leader but issued an order to fire. His own motivations were plain. He wrote that he was obliged to issue the order to maintain 'the prestige of the Government' (MacGregor 1893a: 45). On another occasion, at Dibiri on the Fly River, people refused to enter into negotiations involving an exchange of goods, hiding arrows from the visiting party (MacGregor 1890–1892: 26 March 1891).

Bows and arrows were made routinely by people in Western Division, especially by inland people with greater access to the resources of cane or black palm, hardwood, resins used to fix the arrowheads and arrow shafts, and varnishes. For instance, Watanabe's (1975: 13–21) census documents that Gidra language speakers from Wonie village near the Oriomo River knew of no less than thirty different kinds of arrows made by them. According to colonial sources, certain cultural groups were renowned for their skills and produced highly desirable arrows used widely (Lyons 1922: 145). Two kinds of widely traded arrows are discussed here, those said to be 'from Buji' and those 'from Torres Strait'.

'BUJI' ARROWS

Not recognised at the time, but reflected in the QM collections, was the extensive trade in bone and claw-tipped arrows with red, black and yellow shafts which came to be known as 'Buji arrows' (Figure 6, j.; Figure 7, j.), because they were widely collected by foreigners at Buji government station. Established in 1897, MacGregor hoped Buji station would be a permanent settlement for Agob language speakers who he believed had been uprooted by Tugeri peoples from their coastal and inland seasonal camps in the Mai-Kussa area to the west (Lawrence 2010: 71). Writing some twenty years after MacGregor left British New Guinea, Lyons (1922: 146–147) documented the production and widespread trade of the 'Buji' arrows from 'Tombukabora' and 'Karagara' villages at the headwaters of the Morehead River. This area, also referred to as 'Middle Fly' is partly occupied by Suki peoples who only had fleeting meetings with MacGregor and his officers during the latter's exploration of rivers (Burton 1995: 4).[17] Working in the Trans-Fly region, Williams (1936) documented the use of 'Suki cassowary and bone models, which are themselves being neglected for arrows with steel heads' (1936: 335). Gunnar Landtman (1927: 29) who documented their use by Kiwai speakers, was unable to conclusively assert where these arrows came from beyond 'a considerable distance up the Fly on the western side', indicating that Kiwai received the arrows from intermediaries.

An unprovenanced group of arrows in the Official collection from the T60 consignment which followed the battle against Tugeri matches Lyons' description of the so-called 'Buji' arrows (Landtman 1927: Fig 32 i, j; Lyons 1922: 146–147). Noting that the tip was made from wallaby or cassowary bone carved in a spatulate shape, or of a cassowary toenail Lyons (1922: 147) writes: 'The haft is of reed; the head of a hard, light and white, coloured wood; and the tip, of which the lower end is left to protrude as a barb, is of bone' from wallaby or cassowary carved to form a spatulate shape or occasionally made from a cassowary claw. Attaching the arrowhead to the shaft are 'bindings of strong bast, which is afterwards coated with a mixture of shell lime and human blood', with the shaft itself ornamented with the designs of the maker 'with intermediate broad red bands' (Lyons 1922: 146). Their wide use by people across Western Division (and by the Marind of Dutch New Guinea and Islanders of the Torres Strait) was in Lyons' (1922: 145) view indicative of the inherent superiority of these arrows. Interestingly, the Official collection 'buji' arrows from the T60 consignment were acquired prior to the 1897 establishment of Buji as a Government station. The Official collection thus documents this transitional moment between local and widespread trade for foreigners and locals alike.

FROM 'TORRES STRAIT'

Of great interest in ethnographic circles at the time were the 'Torres Strait man arrows' made by Gizra and Bine people and noted by Lawrence (1994: 368) as a specialisation of Naidoro and Kilaloe (Togo) clans. These arrows were finely carved with elaborate elements of the features of crocodile, centipede, snake or human beings and further embellished with lime infill (Figure 9). The equally distinctive arrowpoint was either made

of bone embedded within a thick black, resinous substance (Figure 2b) and/or heavily carved barbs in wood. Both the points and detailed carving indicate an arrow that had potential for use in sorcery and magical contexts. Continuing until today, the symbolic relationships between the Bine and Gizra ceremonies where these arrows were used and ancestor beings of Geadap and Muiam are seldom stated publicly. Suffice to say here that since larger versions of the man-face element were collected further inland, indicating a wider region where close relationships with these ancestral beings were maintained, a similar origin may be inferred for the heavy and large arrowhead in the Official collection (ER11504 (MAC7630) Figure 10). These usually small, fine arrows were also noted by Wirz (1922: 111) as one of the kinds of arrows he identified as made by inland Marind-Kanum people, but not used by coastal Marind-Anim.

The so-called 'man' arrows are often provenanced to Torres Strait Islander populations because of their early collection from Mer in the Murray Islands in 1836 (Florek 2005) and from other islands in the Torres Strait in the mid-1880s. Haddon was probably the most acquisitive of these 1880s collectors, and the various forms of arrows acquired by him in the Torres Strait are currently housed in the British Museum. One (BM OC.,89+232) was collected by Haddon at Tudu in the Strait's Central islands through Maino, the mamoose of Iama-Tudu, along with a great many things that Maino wished to be deposited 'in a big museum' (Herle & Philp 2020: 115; David et al. 2015). MacGregor also met and travelled with Maino in the Western Division when he was visiting his father-in-law, the ANC constable 'Tom Mowatta' (MacGregor 1890–1892 21: March 1891). Earlier in March, while investigating signs of Tugeri's presence with men from Boigu, Tom had talked with MacGregor about the travels of men from Erub and Mer to Mowatta and MacGregor (1890–1892: 13 March 1891) noted 'evidently there has always been some trade with them'. That Maino and the leaders of Mowatta and Tureture had been instrumental in the selection of objects traded into the 'Haddon collection' (Moore 1984) and had some understanding of the purpose of such acquisitions could mean they had a similar influence on the composition of the Official and MacGregor's Personal collections. The Boigu men taught MacGregor their method of tying bow-string to bamboo bows, which potentially inspired him to follow-up on the method used by Aworra people of the Fly River to string their palmwood bows: 'plaited into the bamboo top in such a way that it will hold firmer the greater the strain' (MacGregor 1890–1892: 31 March 1891). These scant conversational notes, which were not included in his formal ARBNG missives, suggest MacGregor was privy to a great deal of information from senior men on a variety of topics which he regarded as inconsequential to his job, and which were therefore largely left unrecorded.

FIG. 9. Two forms of 'Torres Strait arrows' from the Queensland Museum collection. **a.** ER11304 (MAC9385) collection location Fly River and **b.** ER11505 (MAC8885) no collection location. These arrows probably had either a bone or cassowary toenail tip which has since been lost. Photography, Peter Waddington, Queensland Museum.

FIG. 10. An exceptionally large 'Torres Strait' arrow tip in the form of a male figure, no collection location or arrowshaft is associated with this arrow tip: ER11504 (MAC7630). Photography, J. Philp.

Further evidence of the particular influence coastal Kiwai leaders had on MacGregor comes from the account of the death of Sedu, of Tureture. By MacGregor's (1916) telling, after he had established relations with Kiwai at Tureture, he was entrusted with the adolescent Sedu by the chief Duba, Sedu's elder brother. By 1896 Sedu was a Lance-corporal in the Armed Native Constabulary (ANC), leading a detachment of nine men serving on the north-east coast. The following year he met his death during a battle on the Mambare.[18] When MacGregor recomposed his coat of arms, Sedu's portrait was incorporated 'as my dexter supporter; and three years ago I sent a photograph of my arms to Sedu's tribe that they might have another proof that as long as I live I shall never forget Sedu' (MacGregor 1916: 557).

Just under 200 of the 'Torres Strait' arrows, patterned with animal and human sculptural forms were acquired by MacGregor for his Personal collection. Looking across the rows of arrows in the stores of the University Museums, Aberdeen (Figure 11), a similarity in form is evident, but the bindings that fix the shaft to the head are quite diverse. Fine string finished as glossy black or with the natural fibre tone is used with a long decorative half-hitch knot in some cases. Others are fixed with thin strands of bamboo skin or with thin plaited fibre. Long bindings of slender white fibrous material covered in a black clay-like substance are quite common as are examples with fine twist rope. This high variation in the fabric binding the shaft to the arrowheads could indicate aspects of localised modification and, if so, emphasises the six or more cultural regions which acquired the arrows through trade.

That so many varieties of these arrows featuring crocodile, man, snake or centipede designs exist in MacGregor's Personal collection are suggestive of his interest in variations in technological and artistic practices and his application of the ethnographic practices of his time through the collection of varieties within singular types of objects[19] (see Torrence & Philp, Chapter 14 this volume; Herle 1998). It can also be conjectured

that both intermediary traders and makers found a new market with the colonial government officers. Whether this was because items related to sorcery had been cast off in the wake of the Administration's laws, out of need for food and other goods for displaced populations having been forced from their lands, or due to the decreasing trade with Islanders and others at this period, is open to speculation.

When comparing 'Torres Strait', 'Buji' and other Western Division arrows from the collections by missionaries, explorer-collectors and early anthropologists in the region with those in the Official collection, it can be demonstrated that the styles of bows and arrows remained remarkably stable and consistent over at least a 40 year period.[20] Flamboyance of style (Torrence 1993) is not seen here as an indicator of stylistic change in this period due to colonial influence, but rather recognised as the independent stylistic differences of the various clans and language groups. Spectacular examples of this are two sculptural forms acquired from different language groups of the Western Division recognisable for their similarities with the delicate carved element of 'man' arrows used from Kiwai to the Torres Strait, and by innumerable peoples of the coast and hinterlands west of the Fly River. One, acquired by Captain Strachan in 1886 in the 'Mai Kussa River area', is a freestanding figure resembling the carving on 'man arrows'. The other was acquired by Gunnar Landtman in 1910 and used by Kiwai Islanders in *mimia* ceremonies.[21]

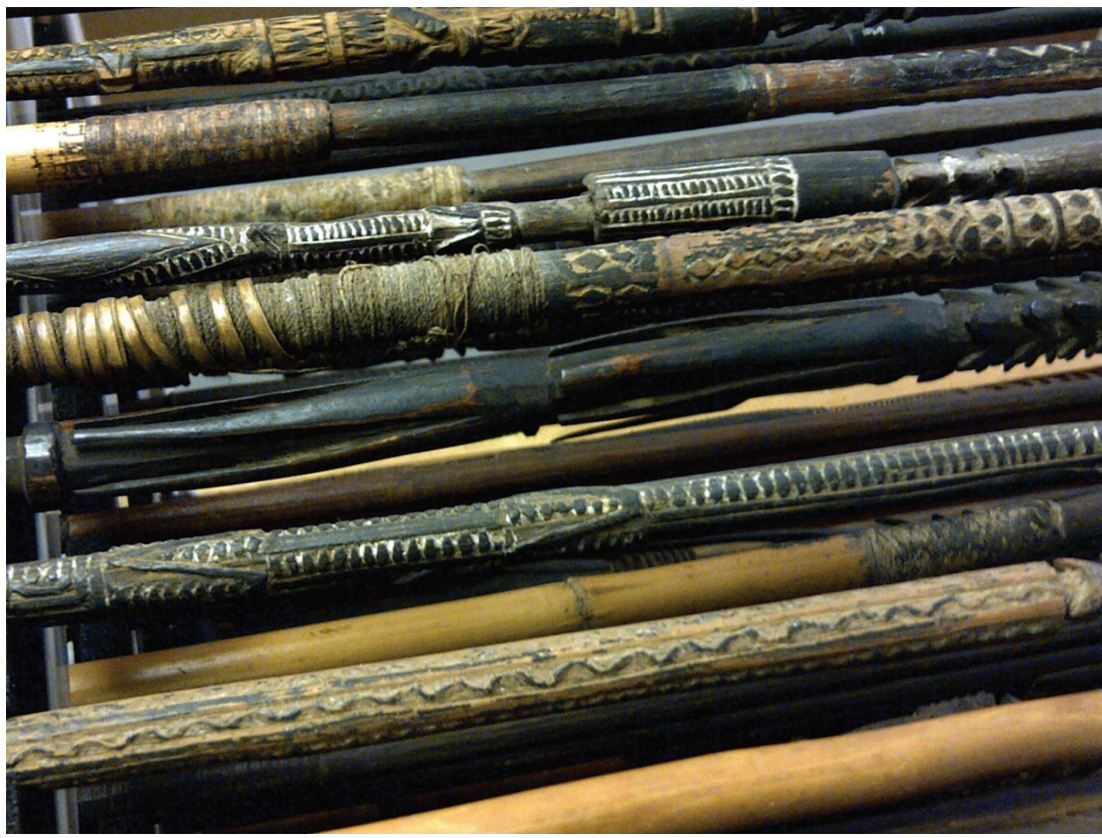

FIG. 11. Part of MacGregor's Personal collection of 'man-arrows' currently housed at the University of Aberdeen Museums. Photography J. Philp 2016 ©University of Aberdeen.

These connections underscore the complexities of meanings and multiplicity of uses that could be attributed to 'an arrow' or 'a bow'.

TROUBLESOME NUMBERS AND BRIEF ENCOUNTERS

> '... the Marind always wear bows and arrows when they dance' (Wirz 1922: 111)

Once the arrows and bows were acquired by MacGregor and/or other government officers, they were sent along with other objects to the Queensland Museum for cataloguing and storage (Davies, Chapter 2 this volume).[22] Of the arrows collected in the Western Division, over 2 000 were not recorded with a location signalling a collection event.[23] Of the 478 located to a rough geographic origin (Figure 8), these consignments appear to follow after exploratory expeditions, as was the case for the arrows designated Bamu River (Figure 2c, d), Fly (Figures 2b; 6l) and Upper Fly River (Figures 2a, 6i), while a total of 15 bows and 1607[24] arrows were distributed to the BM (527), the AM (552) and to MV (528).

The arrows collected from the beginning of MacGregor's tenure did not arrive at QM until August 1892 (T46), when 447 arrows from the Bamu and Fly Rivers, along with eight bows from the Bamu River, were sent (35 arrows were not given a locality). Subsequent consignments included on average around 50 arrows, until the T60 consignment received in March 1897, when over two thousand arrows were delivered. A substantial proportion of these were assumed to have come from the 1896 battle between the Tugeri, Government officers and their Western Division and Torres Strait allies, in part determined by the then QM curator, Michael Quinnell, on stylistic grounds, but also because they had remained tied together in bundles (Torrence et. al., Chapter 8, this volume). With such large numbers of objects needing the laborious processes of registration, it is not surprising that at times arrows from expeditions prior to 1888 were mistakenly included within the Official collection (Davies, Chapter 2 this volume; e.g. Figure 3c). When selections of duplicate objects were made for the BM, AM and MV in 1897, roughly 700 arrows from earlier collections were inadvertently selected as duplicates of the Official collection and were distributed to the BM, MV and the AM (see Torrence & Davies, Chapter 13 this volume; Davies & Quinnell, Appendix 4 this volume). With so little use made of the arrows at the time, and in consideration of the broad messages of 'colonial conquest' they were often used for, these mixed colonial origins went unnoticed. Today, with greater international museum work focussed on repatriation, and particularly considering the return of the Official collection to the National Museum of Papua New Guinea (Quinnell 2000; Knowles & Quinnell, BOX 1.2 this volume), Davies' (Chapter 2 this volume) unravelling of these registration errors is vital.

Employing the scant locations to target potential events in the *Annual Reports of British New Guinea* can lead to individual episodes of collection (Quinnell, Appendix 1 this volume). For example, on 16 January 1890, some 500 miles up the Fly River below Palmer Junction, MacGregor (1890b: 62) recorded meeting thirty men. 'We remained with them nearly an hour and obtained from them some newly caught fish (all caught by a single pointed arrow), arms, and ornaments, &c... Their arrows were the most formidable, heavy, barbed weapons we had seen'. Of a later investigation centred on the Morehead River, he wrote: 'They wanted knives and tomahawks in exchange for stone clubs, bows and arrows, feather ornaments, yams and a kind of sweet potato' (MacGregor 1897a: 42). No village or place name was recorded and considerable historical knowledge of settlements at this time would be needed to locate them today (see Ayres 1983 and Murphy 2013). Both examples, however, indicate that trade with foreigners included foodstuffs as well as arrows.

The largest 'group' of arrows acquired, but not located to a specific place, conform to the styles and materials of arrows used across the region. These largely originate from MacGregor's battle

with the Tugeri warriors (see Torrence et al., Chapter 8, this volume) (Figure 12). MacGregor (1897b: 56) observed that the arrows the Tugeri left behind at their coastal campsite 'offer great variety as to size and make'. Although of poor quality, one photographic plate in the *Annual Reports of British New Guinea* (Anon. 1898: Pl. 9) shows that the variations of form and colouration MacGregor observed conform to arrows collected elsewhere in the Western Division, indicating that Marind peoples participated in the trade networks of this region (Figure 12).

These arrows could be asserted to be 'war arrows' appropriated from the ground, inside canoes and temporary camps after the Tugeri fled the battle ground at Wassi Kussa in 1896. Yet as Wirz (1922: 111) indicates, arrows were routinely part of Marind dance attire and acquired through trade between peoples and connected groups which shared mythic narratives across the region. While it may seem a minor contextual difference, assigning all these arrows to 'war' places emphasis on the moment of most importance to the British New Guinea colonists and their Western Division and Torres Strait collaborators: i.e. the subjugation of the Tugeri.

Whether the arrows and bows are conceived as spiritual or performance related objects or weapons, this collection from the campsite remains a crucial indicator of the varieties of equipment Tugeri had with them on this journey. Over a thousand plain-tipped arrows show the detail of work effected on 'simple' arrows, and most have shafts decorated either with engraving or patterns made by selectively stripping back the outer skin of the cane (Figure 5). In terms of the social relations that enabled the acquisition of this collection, it was the Armed Native Constabulary, recognised village leaders and others from east of the Morehead along with men from Boigu island in the Torres Strait who helped form this collection through their knowledge based on experience of when and where the Tugeri would appear. Their participation in the battle was acknowledged through a sharing of the spoils of this war (MacGregor 1897b: 55).

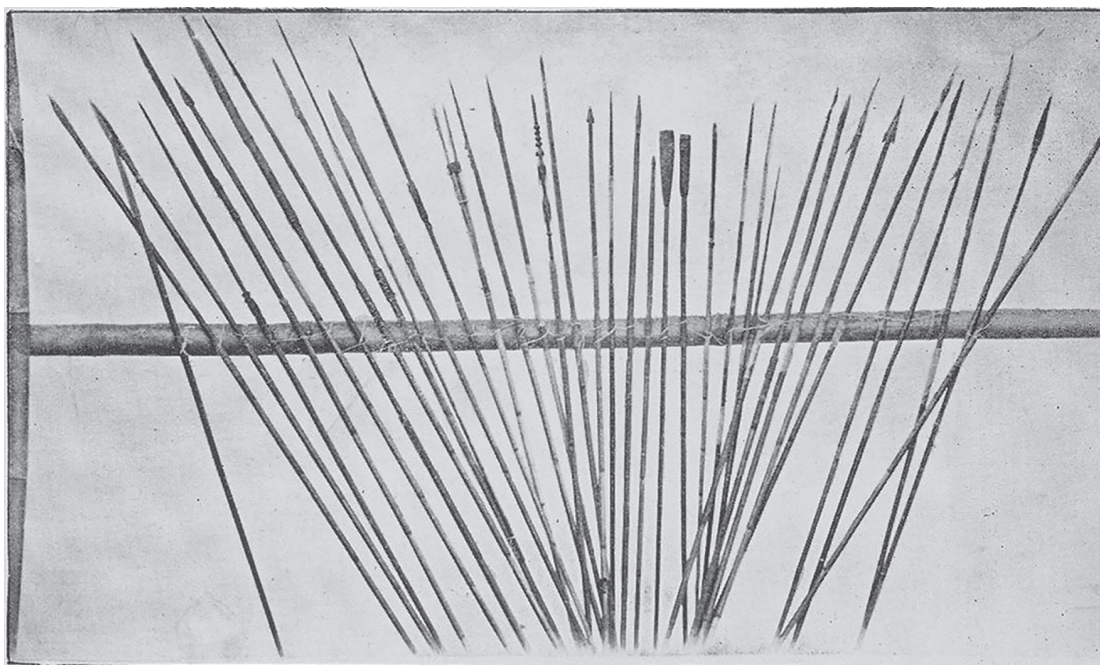

FIG. 12. Plate 9 from the *Annual Report of British New Guinea* showing arrows acquired after the battle with Tugeri, 1896 (Anon. 1898).

Despite the paucity of information colonial agents gleaned about the arrows and bows acquired over a six year period from across the region, the considerable diversity of arrow forms in the Official collection indicate the extensive landscape across which all varieties of arrows were in use. But there is also a general lack of multi-pronged fishing arrows and of bird hunting arrows. The scarcity of these implements in the collection could indicate that the majority of collecting episodes were related to warfare of some kind and/or that the technology of hunting was changing during the years of MacGregor's work. The latter seems unlikely given the continued use of arrows for fishing and hunting in the twentieth and twenty-first centuries (e.g. Murphey 2013; Hitchcock 2004; Watanabe 1975). As birds hunted for feathers were predominantly found in forested regions (see Philp, Chapter 3 this volume), the small number of butt-ended bird arrows may also reflect the colonists' restriction to the coastal plains of Western Division during this period. The most likely interpretation, however, comes from the large number of bamboo bladed arrows in the collection (Figure 2a and c). These arrows were used both in hunting as well as for violence towards humans. It would seem that Western Division people selectively traded these kinds of implements.

THE POLITICS OF ARROWS

Along with ensuring the collection was maintained in good order for the future citizens of British New Guinea, MacGregor pressed QM curator Charles de Vis to exhibit material for the public. Later still, in common with international exhibition trends, large numbers of arrows were fixed into fan-shaped exhibits suspended from the ceiling (Figure 13). The drill-holes in the base of many arrows in storage (Figure 5) could allow for a reconstruction of this group and indicate that the exhibition included the diversity of kinds from the collection. This spectacle emphasised technology and volume over individuality and purpose, an exhibition strategy which was criticised for the lack of associated information (Knowles & Curtis, Chapter 15, this volume). The mass groupings of arrows which dominated nineteenth and twentieth century exhibitions is a style that continues today albeit as a marker of the colonial message about the subjugation of the colonial subject (Jenkins 1994: 257; Jones 2015).

As a collector, MacGregor was most likely invested in material culture as a way to understand contemporary concepts of evolution (i.e. change from simple to complex). In his era it was commonplace for Europeans to associate the things they saw in use with defined periods of their own history and to view change from one technology to another as 'advancement' (Petch 1996; Herle & Philp 2020: 23). In MacGregor's (1919: 40–41) terms this 'jump from barbarianism to civilization' was the inevitable result of colonialism. It is also unlikely that arrows were given out of a *need* for cloth or iron in a practical rather than diplomatic sense, for the Western Division's peoples were highly adept at moving goods between coastal and highland communities (Swadling 2019) and coastal people already had ready access to cloth and iron through Torres Strait commerce[25] and traditional trade partners.

On both sides the diplomatic purpose of the gifts of cloth and iron and the opportunity to barter for arrows and other items that followed appears to have been recognised. While MacGregor's purpose was clearly to establish 'pax britannica' (Quinnell 2000) leading to an acceptance of colonisation, the various political motivations of the people he met with, meanwhile, are entangled in the long- and short-term strategies that Western Division's peoples employed to deal with these formidable intruders.

THE HALTED TRAVELS OF BOWS AND ARROWS

> 'The variations [of arrows] in the area south of the Digul are quite large and far more diverse than among the inhabitants of the Digul. The closer you get to the coast, the more numerous the different types of arrows that can be found here from all

FIG. 13. The old Queensland Museum's upper floor exhibition with MacGregor collection arrows fanning downwards from the ceiling c.1920. © Queensland Museum.

> areas, so that it is often very difficult to decide where a certain type of arrow was originally made and where it is at home.' (Wirz 1922: 106).[26]

According to Ayres (1983: 42), for people living upland on the Morehead River 'memory is objectified into visible acts and other invisible signs, and when these things containing the memory are ceremonially removed, the memory is finished'. Museum collections can be dangerous, unstable and troublesome in part because workers such as myself link objects with people of a particular time and place. This can be a welcomed and purposeful activity, but for some it can be culturally hazardous and undesirable because of the connection made to specific people and moments in history. This is possibly the most troublesome conclusion from this analysis of the Official collection arrows and bows, and one that throws into question MacGregor's desire that the collections would be purposeful in the future to document history.

The arrows and bows collected for the Official collection are remarkable objects of technical purpose, weighted and designed to carry the arrows with force over short and long distances. Most have elaborate details applied to bindings, various engraved and stripped decorations on shafts, or highly intricate, densely carved fore-shafts. From an aesthetic perspective many of these arrows are exemplary demonstrations of the expertise of their makers and the complexity of social and cultural uses. While there are common aesthetic attributes to each kind of arrow, single arrows also demonstrate the extent of individuality that could be applied by their maker working within a cultural tradition. Each arrow reflects the multiple uses in daily life that arrows had at this time. They were at once highly spiritual and mundane, makers of peace and of violent action, worn in dance performances, and carried for hunting game. Their versatility was also rooted in their capacity for carrying symbolic messages to an extensively dispersed and linguistically diverse audience united through shared narratives about the creation of the known world and its peoples (Figure 14).

The Queensland Museum's use of arrows, whether in exhibition with sharpened points dangling above the heads of spectators or as 'disposable' trade objects sent out to other museums, carried only messages of warfare. Other histories of this time that MacGregor intended to document through the Official collection were muted.[27] Yet those communities willing to be involved in and benefit from the Administration's work in the Division are documented by these objects. This assertion is supported by the number of people signed on as village leaders, and the constables – notably Sedu (from Tureture) and Kasavai (from Kadawa) amongst others – who served across the colony as members of the Armed Native Constabulary (Dutton, 1985: 195, 200) and as carriers on expeditions.

Some years ago I worked for Malu-Kiwai school at Boigu to make a small museum of their history. Working with senior men and women, I was directed to collect genealogies and mythic narratives – including their encounters with the Tugeri in colonial times. These battles had been commemorated weeks before through church services and speeches and in the dances and songs that joined this history to the introduction of Christianity to the island. In commemoration of the work, I was given a short, feathered dugong harpoon (*wap*) and three over-sized wooden 'arrows' with heavy, strongly carved barbs in designs seen in the Official collection. Procured from trade partners in Buji, this representation of Boigu history was an impressive present. This gift has been inspirational for writing this chapter, reminding me of relationships formed by trade in similar arrows in the past, the connections with mainland communities and the active ways these histories are remembered and passed on. The arrows and bows of the Official collection similarly continue their roles as documents of history that MacGregor initiated, although differently wrought. This is a living history where the archive of bows and arrows in the Official

collection demonstrates the continuity of aesthetic and technical skills with arrows and bows made and used today through songs, dances and narratives to recall in mythic style nineteenth century battles as well as the origins of the Western Division's peoples and connections with Torres Strait Islanders and Marind peoples. These implements also document the active establishment of colonial government and, through more linear forms of history, document the tentative first steps in communication between government and local peoples.

ACKNOWLEDGEMENTS

With thanks to the members of the 'Excavating MacGregor' team for inspiration, knowledge and thoughtful discussions over the years of the project. This study was funded by the Australian Research Council Discovery Grant DP150103518. Many thanks to curators and collections staff who assisted us to see the Official Collection in the various institutions and who generously shared their thoughts on the collection with us: Queensland Museum, Kiri Chan,

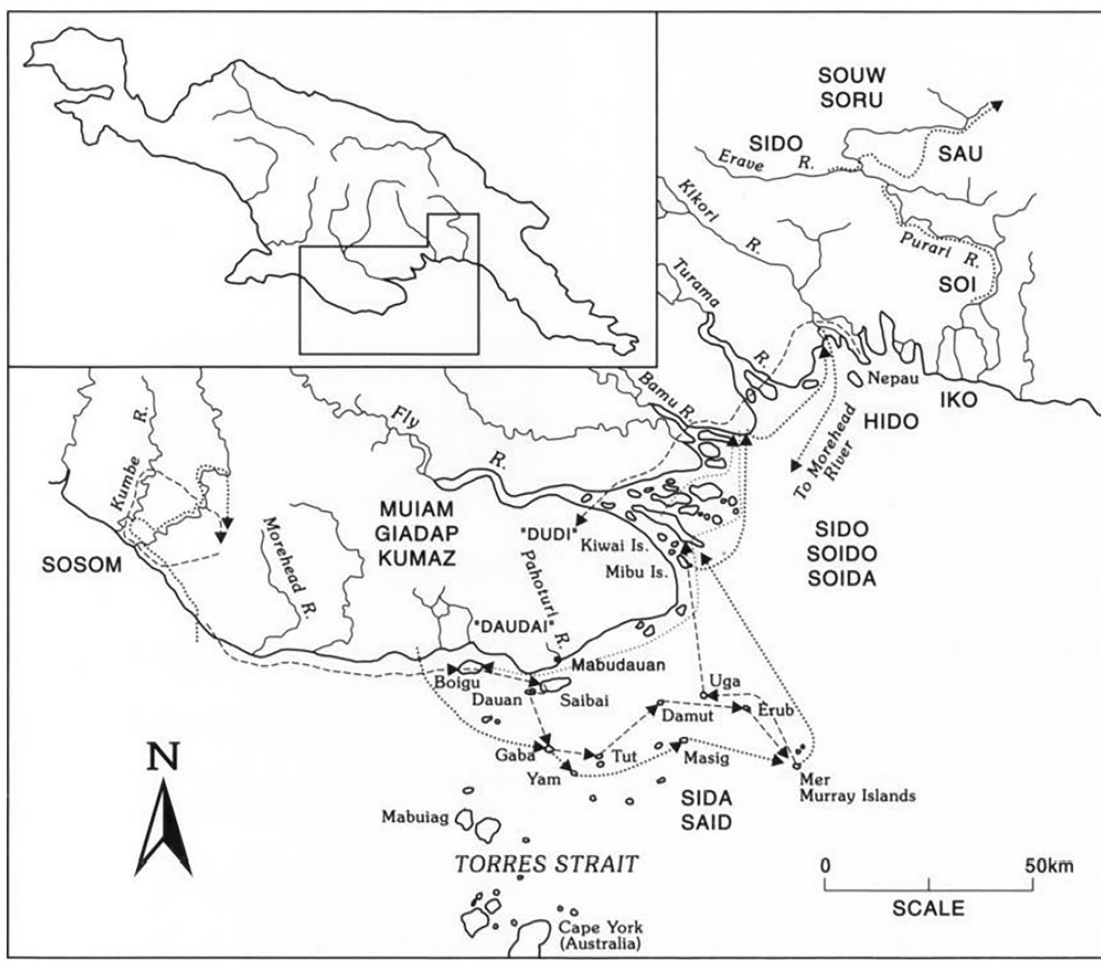

FIG. 14. Roy Wagner's plotting of the movements of principal culture heroes (marked in capitals) across the Western Division, Dutch New Guinea and Torres Strait (Wagner 2019: 287, Fig. 63, reproduced with permission of volume editor and Sydney University Press).

Imelda Miller, Karen Kindt, and Chantal Knowles; Australian Museum, Robin Torrence and Logan Haronga-Metcalfe; British Museum, Jill Hassell; Cambridge University Museum of Archaeology and Anthropology, Rachel Hand, Jocelynne Dudding, Anita Herle; University of Aberdeen Museums, Neil Curtis, Hannah Clark and Louise Wilkie. At my own institution, the Chau Chak Wing Museum at the University of Sydney, my thanks to volunteers Joyce Robinson and Mure Lilje who helped enormously in looking at arrows and sorting through differences and to Jan Brazier, Peter White and Jim Philp for reading earlier versions of this chapter.

❑ ENDNOTES

1. Technically the Western Division region also includes the modern provinces of Hela and Southern Highlands, but as these highland regions were unknown during the British New Guinea Administration, they are not discussed here.
2. Torrence & Clarke's (2011) study of late nineteenth century British auction catalogues demonstrates the higher value placed on sculptural forms, particularly at a monumental scale.
3. See Crowley & Mills (2018: 6–7) who argue European displays of medieval weaponry and nineteenth century exhibition practices linked them with messages of arrows as objects of violent power.
4. Although here referenced in the past tense, arrows and bows continue to be made and used in the Western Division region.
5. In reviewing this chapter for publication, Barry Craig noted that bows are usually kept unstrung until they are about to be used.
6. The Papua New Guinea Sorcery Act (1971) defines the practice as follows: '"sorcery" includes (without limiting the generality of that expression) what is known in various languages and parts of the country as witchcraft, magic,

enchantment, puripuri, muramuradikana, vada, meamea, sanguma, or malira, whether or not connected with or related to the supernatural' (Auka et al. 2020).

7. The continued efficacy of dangerous objects is partially controlled by museums today through the establishment of 'closed' collections, where specific objects are kept apart or covered over so that visitors to stores will not be compromised on seeing them.
8. Melissa Demian working with Suau language speakers at the extreme east end of the south coast adopted the idea of 'practical nostalgia' to explain their historical practice. 'Practical nostalgia,' she writes, is 'a longing for home or the past as it ought to have been, and a deliberate break with things as they were, in order to clear a space for what might someday be' which effectively makes it possible for people to '[distance] themselves from a history that is commonly understood to have been filled with violence, cannibalism and inappropriate objects of worship such as ancestors and spirits' (Demian 2013: 32).
9. Anna Shnukal (2015: 58-9) gives an account of the use of the term 'Mamoose' by Europeans to refer to Islander leaders in the Torres Strait. It was also conferred on leaders at Mowatta and Tureture by Hugh Milman (Herle & Philp 2020: 60-62).
10. Mabuduan government station was established at the unsettled spiritually significant site of Mabuduan in 1890, but later moved to Daru. In their study of the Australian border with Papua New Guinea, Moran and Curth-Bibb (2020: 61) argue the establishment has politically favoured Kiwai speakers in the nineteenth century and today.
11. In 1888 Haddon also collected similar arrows in the western and central islands of the Torres Strait (Herle & Philp 2020: 86-90, Fig. 1.18; Moore 1984)
12. This excerpt of a song about the death of the creator-culture hero, Sido, Landtman translated to mean: 'Sido's body travelled homeward on the south-east wind'.
13. See Chris Gregory (2015) for descriptions of trade, exchange and barter in colonial New Guinea.
14. In one sense specific mythic narratives of culture heroes are commonly known by a wide group of people across an enormous area. As Wagner (1972: 20) writes, '[t]he total effect [of these narratives] is one of a series of linked myths, continuing from one society to the next'. Each telling is, however, specific to its narrator and the place, time and audience.
15. For an analysis and context of historic and modern narratives from the Western Division region, see Murphy (2013: Chapter 6) and Lawrence (1994).
16. See Haddon (1908: 39, 47, 156, 171, 300, 333) for some of the varied contexts in which arrows and bows feature in mythic narratives and metaphorical dance contexts.
17. It is also possible that some 'Tugeri' raids included Suki peoples. In 1996 the Boigu Elder Ordie Gibuma asserted that at least one of the Tugeri raids of the early missionary period (1871-1890s) originated with inland Western Division peoples while others were by 'Tugeri' from Dutch New Guinea (Philp 1998).
18. Alongside Corp. Sedu several others also lost their lives during this battle, including Gaiwa, Joe (Taurauraki) and Milio of the ANC, as well as Kess Kess (cook), Gudumori, Yuovo, Diaroro (prisoners employed in public works), five European miners and the Resident Magistrate John Green (MacGregor 1898: 28).
19. Other objects collected in large numbers in the Personal collection include stone clubs, axe/adze heads and wooden dance swords (see Torrence & Philp, Chapter 14 this volume). The earliest examples of a style consistent with Western Division arrows are from Mer (Murray) Island. These were collected in 1836 and are now in Australian Museum collection registered as E.18415–E.18420 (Florek 2005: 85).
20. Comparisons made with arrows from the Macleay Collections, University of Sydney and Australian Museum, Sydney.
21. The example collected by Strachan is in the Australian Museum (B10092). The figure collected by Gunnar Landtman was donated to Cambridge University Museum of Archaeology and Anthropology (E 1912.79.257).
22. The figures in this section are derived from the Official collection 'Master List' (Davies, Chapter 2 this volume).
23. This figure includes arrows subsequently attributed to the Tugeri.
24. This number includes some arrows designated to other areas such as Goromani in the Central Division.
25. See Regina Ganter (1994) for an account of the extensive international commerce in the region from the 1860s.
26. Wirz (1922: 106) asserted that while imitations of popular arrows were made locally: 'Nevertheless, there are arrow types of very local distribution that can to a certain extent be viewed as a monopoly of a certain local group'.
27. The absence of mythic narratives in MacGregor's writings is interesting given that he read the *Iliad* and other Greek mythic texts during expeditions and that British publications of 'folklore' were increasingly including narratives from people across the globe – an interest of his museum circle that included MacGregor's friends Anatol von Hügel and Enrico Giglioli (Torrence & Philp, Chapter 13 this volume).

LITERATURE CITED

AUKA, R., GORE, B. & PEALIWAN, R. 2015. Sorcery – and witchcraft-related killings in Papua New Guinea: The criminal justice system response. Pp. 241–253. In M. Forsyth & R. Eves (eds) *Talking it through: responses to sorcery and witchcraft beliefs and practices in Melanesia*. ANU Press: Canberra. http://doi.org/10.22459/TIT.05.2015

ANON. 1899. Tugeri arrows. *British New Guinea Annual Report, 1st July 1897 to 30th June 1898*: Plate 9, Figure 17. Victorian Parliamentary Papers: Melbourne.

AYRES, M. 1983. This side, that side: locality and exogamous group definition in Morehead Area, Southwestern Papua. Unpublished PhD thesis, University of Chicago, Chicago.

BARKER, B., LAMB, L., DAVID, B., KOROKAI, K., KUASO, A. & BOWMAN, J. 2012. Otoia, ancestral village of the Kerewo: modelling the historical emergence of Kerewo regional politics on the island of Goaribari, South Coast of mainland Papua New Guinea. In S. Haberle & B. David (eds) *Peopled landscapes: archaeological and biogeographical approaches to landscapes*. Terra Australis 34. ANU Press: Canberra. http://doi.org/10.22459/TA34.01.2012

BURTON, J. 1995. Middle Fly and North Morehead area study. *Ok-Fly social monitoring project report*, 10. Unisearch PNG Pty. Ltd. for Ok Tedi Mining Limited: Port Moresby.

BUSH, T. 1985. Form and decoration of arrows from the Highlands of Papua New Guinea. *Records of the Australian Museum* 37(5): 255–293. http://doi:org/10.3853/j.0067-1975.37.1985.326

BUSSE, M. 2005. Wandering hero stories in the Southern Lowlands of New Guinea: culture areas, comparison, and history. *Cultural Anthropology* 20: 443–473.

CRAIG, B. (n.d.) The Upper Sepik-Central New Guinea Project dataset. https://uscngp.com/dataset (accessed 17 January 2022).

CROWLEY, T. & MILLS, A. (eds.) 2018. *Weapons, culture and the anthropology museum*. Cambridge Scholars Publishing: Newcastle upon Tyne.

D'ALBERTIS, L.M. 1880. *New Guinea: what I did and what I saw*. Volume 2. Low, Marston, Searle and Rivington: London.

DAVID, F., LUI-CHIVIZHE, L. & PHILP, J. 2015. Individuals in Kulkalgal history. *Journal of Australian Studies* 39 (3): 290–306.

DEMIAN, 2013. When we were in darkness: The hazards of knowing history on the Suau coast. Pp. 32–38. In L. Bolton, N. Thomas, E. Bonshek, J. Adams & B. Burt (eds) *Melanesia: Art and Encounter*. British Museum Press: London.

DUTTON, T. 1985. *Police Motu: Iena Sivarai (its story)*. The University of Papua New Guinea Press: Port Moresby. http://hdl.handle.net/1885/133561 (Accessed 20/1/2022).

EDGE-PARTINGTON, J. & HEAPE, C. 1890. *An album of the weapons, tools, ornaments, articles of dress & c of the natives of the Pacific Islands*. Palmer, Howe & Co.: Manchester.

FLOREK, S. 2005. The Torres Strait Islands collection at the Australian Museum. *Technical Reports of the Australian Museum* 19: 1–96. http://doi.org/10.3853/j.1031-8062.19.2005.1464 (Accessed 20/1/2022).

FÖRSTER, L. 2018. Ethnographic collections. Pp 38–39. In Working group on behalf of the Board of the German Museums Association (eds) *Guidelines on dealing with collections from colonial contexts*. German Museums Association: Berlin.

FYFE, A. & BOLTON, J. 2011. An analysis of arrow and string bag craft variability in the Upper Sepik and Central New Guinea. *Oceania* 81(3): 259–279.

GANTER, R. 1994. *The pearl-shellers of Torres Strait: resource use, development and decline 1860s–1960s*. Melbourne University Press: Carlton.

GODIN, P. 2002. Avec ou sans arcs et flèches, la guerre en Mélanésie. Pp. 76–81. In F. Klein (ed.). *Lances, arcs et fleche de Mélanésie*. Musée de Nouvelle-Calédonie: Noumea.

GREGORY, C. A. 2015. *Gifts and commodities*. HAU Books: Chicago, Illinois.

GUMOI, M. 2010. Towards a holistic understanding of rural livelihood systems: the case of the Bine, Western Province, Papua New Guinea. Unpublished PhD thesis, Lincoln University, Canterbury.

HADDON, A.C. 1895. *Evolution in art: as illustrated by the life histories of designs*. W. Scott: London.

—— (ed.) 1908. Sociology, magic and religion of the eastern islanders. Volume 6. *Reports of the 1898 Cambridge anthropological expedition to the Torres Strait*. Cambridge University Press: Cambridge.

—— (ed.) 1912. Arts and crafts. Volume 4. *Reports of the 1898 Cambridge anthropological expedition to the Torres Strait*. Cambridge University Press: Cambridge.

HERLE, A. 1998. The life-histories of objects. Pp. 77–105. In A. Herle & S. Rouse (eds) *Cambridge and the Torres Strait: centenary essays on the 1898 anthropological expedition*. Cambridge University Press: Cambridge.

HERLE, A. & PHILP, J. 2020. *Recording kastom: Alfred Haddon's journals from the Torres Strait and New Guinea, 1888 and 1898*. Sydney University Press: Sydney.

HITCHCOCK, G. 2004. Wildlife is our gold: political ecology of the Torassi River borderland, southwest Papua New Guinea. Unpublished PhD Thesis, University of Queensland, Brisbane.

JENKINS, D. 1994. Object lessons and ethnographic displays: museum exhibitions and the making of American anthropology. *Comparative Studies in Society and History* 36: 242–270. http://www.jstor.org/stable/179259

JONES, J. 2015. mugugalurgarra (conceal). In *Unsettled: stories within*. Exhibition curated by National Museum of Australia, November 2015–March 2016. https://www.nma.gov.au/exhibitions/unsettled/jonathan-jones

KEENAN, M. 2015. The Western legal response to sorcery in colonial Papua New Guinea. Pp. 197–212. In M. Forsyth & R. Eves (eds) *Talking it through: responses to sorcery and witchcraft beliefs and practices in Melanesia*. ANU Press: Canberra. http://doi.org/10.22459/TIT.05.2015 (Accessed 20/1/2022)

LANDTMAN, G. 1913. The poetry of the Kiwai Papuans. *Folklore* 24(3): 284–313.

——1927. *The Kiwai Papuans of British New Guinea, a nature-born instance of Rousseau's ideal community*. Macmillan and Co.: London.

——1933. *Ethnographical collection from the Kiwai district of British New Guinea*. Commission of the Antell Collection: Helsingfors.

LAWRENCE, D. 1994. Customary exchange across Torres Strait. *Memoirs of the Queensland Museum* 34: 241–446.

——2010. *Gunnar Landtman in Papua*. ANU E Press: Canberra. https://press.anu.edu.au/publications/gunnar-landtman-papua (Accessed 20/1/2022).

LYONS, A.P. 1922. The arrows of the Upper Morehead River (Papua) bush tribes. *Man* 22: 145–147.

MACGREGOR, W. 1890a. Appendix E. Despatch respecting visit of Inspection to island of Kiwai at Mouth of Fly River. *British New Guinea Annual Report, 1st July 1889 to 30th June 1890*: 36–42. Edmund Gregory, Government Printer: Brisbane.

——1890b. Appendix F. Despatch in further reference to inspection tour of Fly River. *British New Guinea Annual Report, 1st July 1889 to 30th June 1890*: 43–49. Edmund Gregory, Government Printer: Brisbane.

——1890c. Appendix G. Despatch giving details of expedition undertaken to explore the course of the Fly River and some of its affluents. *British New Guinea Annual Report, 1st July 1889 to 30th June 1890*: 43–49. Edmund Gregory, Government Printer: Brisbane.

——1890d. Appendix H. Despatch reporting visit of inspection to the districts on the left side of the Fly Estuary. *British New Guinea Annual Report, 1st July 1889 to 30th June 1890*: 64–69. Edmund Gregory, Government Printer: Brisbane.

——1890e. British New Guinea. Administrative visits of inspection. *British New Guinea Annual Report, 4th September 1888 to 30th June 1889*: 5–23. Edmund Gregory, Government Printer: Brisbane.

——1890–1892. Unpublished diaries of Sir William MacGregor, 1890–1892. National Library of Australia: MS38.

——1892. Appendix M. Despatch reporting further upon administrative visit of inspection to Western Division. *British New Guinea Annual Report, 1st July 1890 to 30th June 1891*: 46–57. Edmund Gregory, Government Printer: Brisbane.

——1893a. Appendix J. Despatch continuing the report of visit of inspection to the Western Division of the possession. *British New Guinea Annual Report, 1st July 1891 to 30th June 1892*: 37–48. Edmund Gregory, Government Printer: Brisbane.

——1893b. Appendix G. Despatch continuing the report of his visit to the Eastern portion of the possession. *British New Guinea Annual Report, 1st July 1891 to 30th June 1892*: 27–31. Edmund Gregory, Government Printer: Brisbane.

——1893c. Appendix I. Despatch reporting visit of inspection to Western Division of the possession. *British New Guinea Annual Report, 1st July 1891 to 30th June 1892*: 34–36. Edmund Gregory, Government Printer: Brisbane.

——1894. Appendix D. Despatch reporting visit of inspection to country west of Port Moresby as far as Freshwater Bay. *British New Guinea Annual Report, 1st July 1892 to 30th June 1893*: 15–20. Edmund Gregory, Government Printer: Brisbane.

——1897a. Appendix I. Despatch reporting visit of inspection to Western Division of the possession. *British New Guinea Annual Report, 1st July 1895 to 30th June 1896*: 38–49. Edmund Gregory, Government Printer: Brisbane.

——1897b. Appendix K. Despatch reporting expedition undertaken to repel Tugeri invaders. *British New Guinea Annual Report, 1st July 1895 to 30th June 1896*: 52–56. Edmund Gregory, Government Printer: Brisbane.

——1898. Appendix G. Despatch reporting ascent of Mambare River, and action taken to discover actual perpetrators of murders at Peu, Gadara, etc. *British New Guinea Annual Report, 1st July 1896 to 30th June 1897*: 25–28. Edmund Gregory, Government Printer: Brisbane.

——1916. Some native potentates and colleagues. *Journal of the Royal Society of Arts* 64(3317): 552–563.

——1919. Preface. Pp. xvii-xxix. In C. Fletcher *The problem of the Pacific*. (Heinemann: London).

MORAN, M. & CURTH-BIBB, J. 2020. *Too close to ignore: Australia's borderland with PNG and Indonesia*. Melbourne University Publishing: Melbourne.

MOORE, D. 1984. *The Torres Strait collections of A.C. Haddon: a descriptive catalogue*. British Museum Publications: London.

MOSELEY, H. 1879. *Notes by a naturalist on the 'Challenger' being an account of various observations made during the voyage of H.M.S. 'Challenger' Round the World in the Years 1872–1876*. MacMillan & Co.: London.

MURPHY, K. 2013. The cultural organisation of social difference and relatedness at the border between Australia and Papua New Guinea. Unpublished PhD thesis, Australian National University.

NEICH, R. 2009. James Edge-Partington (1854–1930): An ethnologist of independent means. *Records of the Auckland Museum* 46: 57–110.

PETCH, A. 1996. Weapons and the 'Museum of Museums'. *Journal of Museum Ethnography* 8: 11–22.

PHILP, J. 1998. Resonance: Torres Strait Islander material culture and history. Unpublished PhD thesis, University of Cambridge.

—— 2013. Shirts for skirts, nets for nails: trade with the crew of HMS *Rattlesnake*. Pp. 39–43. In L. Bolton, N. Thomas, E. Bonshek, J. Adams & B. Burt (eds) *Melanesia: art and encounter*. British Museum Press: London.

QUINNELL, M. 2000. 'Before it has become too late': the making and repatriation of Sir William MacGregor's official collection from British New Guinea. Pp. 81–102. In M. O'Hanlon & R.L. Welsch (eds) *Hunting the gatherers: ethnographic collectors, agents and agency in Melanesia, 1870s–1930s*. Berghahn Books: New York.

SCHAFFARCZYK, S. 2006. Australia's Official Papuan collection: Sir Hubert Murray and the how and why of a colonial collection. *reCollections: Journal of the National Museum of Australia* 1(1): 41–58.

SHNUKAL, A. 2015: Aspects of early local administration, education, health and population on Mabuyag. *Memoirs of the Queensland Museum – Culture* 8(2): 55–125.

SWADLING, P. 2019 (1996). *Plumes from paradise*. Sydney University Press: Sydney. https://dx.doi.org/10.30722/sup.978174332544

THOMAS, N. 1991. *Entangled objects*. Harvard University Press: Cambridge MA.

TORRENCE, R. 1993. Ethnoarchaeology, museum collections and prehistoric exchange: obsidian tipped artifacts from the Admiralty Islands. *World Archaeology* 24: 467–481.

TORRENCE, R. & CLARKE, A. 2011. "Suitable for decoration of halls and billiard rooms": finding indigenous agency in historic auction and sale catalogues. Pp. 29–53. In S. Byrne, A. Clarke, R. Harrison & R. Torrence (eds) *Unpacking the collection: networks of material and social agency in the museum*. Springer: New York.

TORRENCE, R., BONSHEK, E., CLARKE, A., DAVIES, S., PHILP, J. & QUINNELL, M. 2020. Regimes of value in museum practices: a networked biography of the MacGregor field collection from British New Guinea. *Museum History Journal* 13: 111–131.

VAN BAAL, J. 1966. *Dema: description and analysis of Marind-anim culture (South New Guinea)*. Martinus Nijhoff: The Hague.

WAGNER, R. 1972. *Habu: the innovation of meaning in Daribi religion*. University of Chicago Press: Chicago.

—— 2019 (1996). Contribution 1, Mysteries of origin: early traders and heroes in the Trans Fly. Pp. 285–298. In P. Swadling *Plumes from Paradise*. Sydney University Press: Sydney. https://dx.doi.org/10.30722/sup.978174332544

WATANABE, H. 1975. *Bow and arrow census in a West Papuan lowland community: a new field for functional ecological study*. Occasional Papers in Anthropology No. 5. University of Queensland: Brisbane.

WILLIAMS, F.E. 1936. *Papuans of the Trans Fly*. Clarendon Press: Oxford.

—— 1940. *Drama of Orokolo: the social and ceremonial life of the Elema*. Clarendon Press: Oxford.

WINTER, F P. 1899. Appendix J. Memorandum by the Chief Judicial Officer on the administration of justice in connection with the natives of the possession during the past decade. *British New Guinea Annual Report, 1st July 1897 to 30th June 1898*: 69–73. Edmund Gregory, Government Printer: Brisbane.

WIRZ, P. 1922. *Die Marind-anim von Holländisch-Süd-New Guinea*. L. Friederichsen and Co: Hamburg.