



## Toponyms from 3000 years ago? Implications for the history and structure of the Yolŋu social formation in north-east Arnhem Land

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### ABSTRACT

*The paper focuses on a set of toponyms found on the coast of Blue Mud Bay in northern Australia, in an area today occupied by Yolŋu (Murngin) peoples. In the first part of the paper, we present an analysis, based on geomorphological, archaeological, anthropological and linguistic evidence, to suggest that these toponyms have been in place for at least 3000 years, and that they are early Yolŋu toponyms. We then argue that certain social practices and cultural mechanisms, which continue today, work to form a complex, multi-media and multi-sensory archive of names-in-place, within the frame of a robust system of intergenerational transmission. It is plausible that such a system has considerable time-depth. Yolŋu oral histories suggest, indeed, that Blue Mud Bay was the origin point from which Yolŋu-Matha languages and Yolŋu forms of kinship and governance then spread inland to the north, west and south.*

**Keywords:** archaeolinguistics, cultural continuity, Holocene sea-level rise, shell middens, toponyms, Yolŋu (Yolngu), Archéolinguistique, élévation du niveau de la mer Holocène, toponymes, amas de coquilles, continuité culturelle

### RÉSUMÉ

*L'article se concentre sur un ensemble de toponymes trouvés sur la côte de Blue Mud Bay dans le nord de l'Australie, dans une zone occupée aujourd'hui par les peuples Yolŋu (Murngin). Dans la première partie de l'article, nous présentons une analyse, basée sur des preuves géomorphologiques, archéologiques, anthropologiques et linguistiques, pour suggérer que ces toponymes sont en place depuis au moins 3000 ans et qu'il s'agit de premiers toponymes Yolŋu. Nous soutenons ensuite que certaines pratiques sociales et mécanismes culturels, qui existent encore aujourd'hui, fonctionnent pour former une archive complexe, multimédia et multisensorielle des noms en place, dans le cadre d'un système robuste de transmission intergénérationnelle. Il est plausible qu'un tel système ait une durée considérable. Les histoires orales de Yolŋu suggèrent, en effet, que Blue Mud Bay était le point d'origine à partir duquel les langues Yolŋu-Matha et les formes de parenté et de gouvernance Yolŋu se sont ensuite propagées à l'intérieur des terres au nord, à l'ouest et au sud.*

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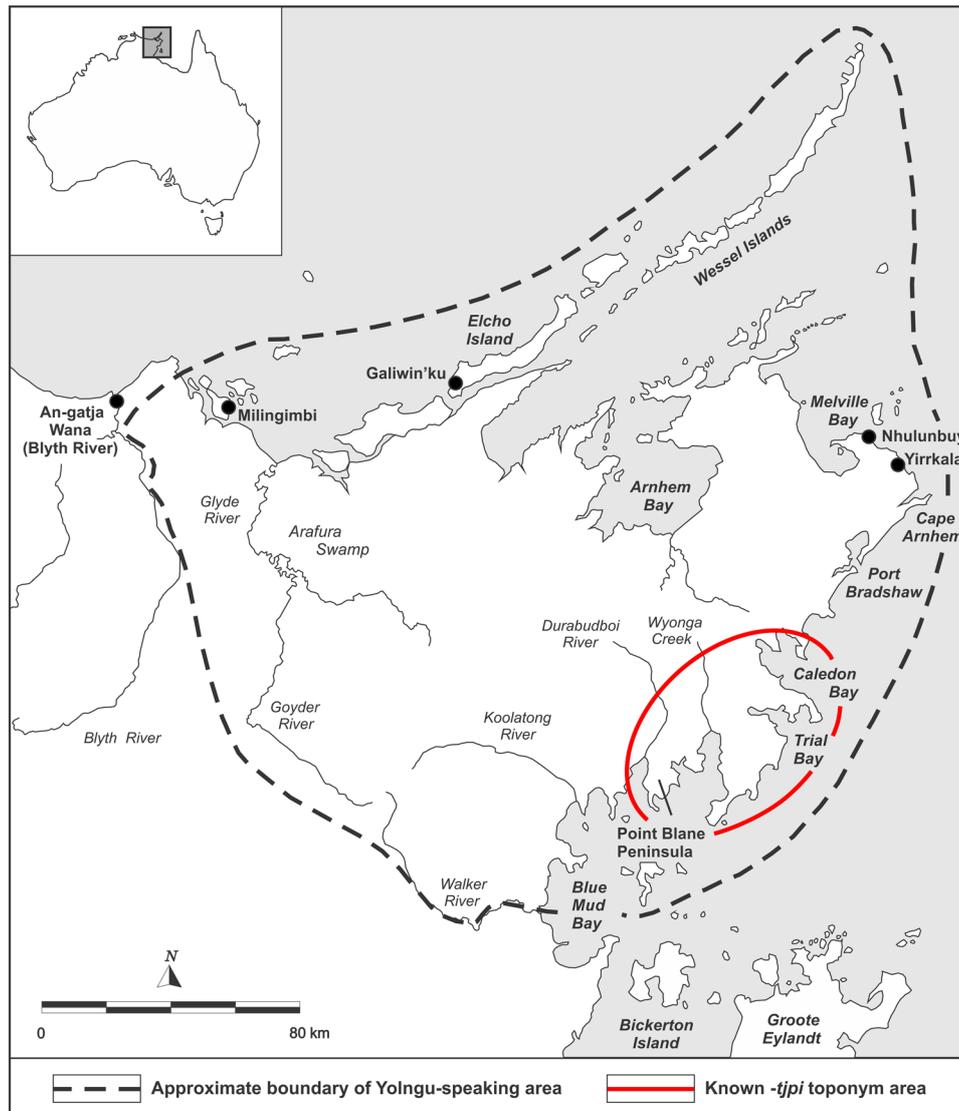
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### INTRODUCTION

A coincidence of archaeological and linguistic data has enabled us to recover a voice from a set of toponyms located in Yolŋu Country on the Holocene high stand coastline of Blue Mud Bay in north-east Arnhem Land. We will argue that these still-spoken names have been in place for at least 3000 years, and we will outline the process of discovery and its implications for the reconstruction of the structure and dynamics of the Yolŋu regional system over time.

The toponyms in question end in a distinctive final element *-tjpi* and are found on or near the coast in the south-eastern part of Yolŋu Country. They occur in the northern part of Blue Mud Bay and northwards up the coast

as far as Caledon Bay (see Figure 1).<sup>1</sup> We know so far of 70 of these names, from three main sources.<sup>2</sup> Ronald Berndt, working at Yirrkala with Yolŋu in 1946, made a comprehensive map of the places of the Yolŋu eastern and north-eastern coastal area. He recorded 33 of these toponyms.<sup>3</sup> In our own research, we mapped the coastline from Caledon Bay to the Walker River, using GPS technology to locate place names in the sea and on the coast. In the area stretching from Cape Shield to Jalma Bay, we also mapped inland. This survey yielded 28 *-tjpi* toponyms. Finally there are 22 such names known to be currently in use as personal names, and one as a clan surname.<sup>4</sup> Some of these are as yet unmapped. The singular feature of these names, apart from their distinctive final

Figure 1. Location of Yolŋu-matha languages and of known *-tjpi* toponyms (area circled).

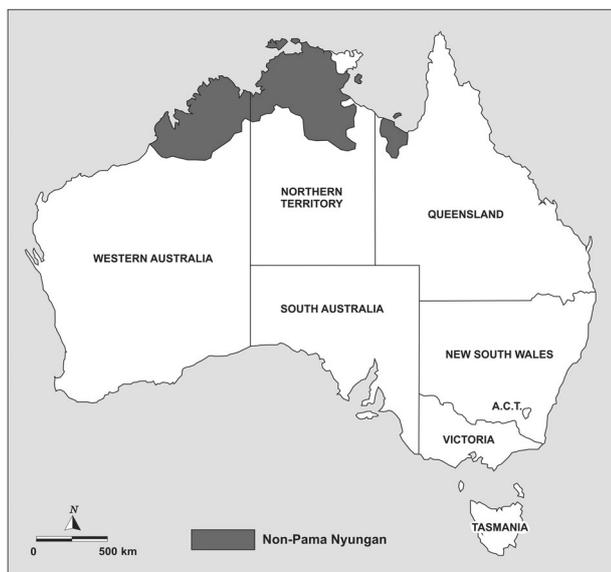
element, is that all but two of those so far mapped are located on the Holocene sea-level high stand coastline (or in its close hinterland).

The present day location of the closely related Yolŋu-matha (Ym) languages is an enduring puzzle – they represent an enclave of the widespread Pama-Nyungan (PN) language family surrounded on the landward side to the south and west by Non-Pama-Nyungan (NPN) languages, and to the seaward by the waters of the Arafura Sea to the north and the Gulf of Carpentaria to the east (see Figures 1 and 2). The status of PN as a language family is well established (see, e.g., Alpher 1990; Blake 1988; Bowern 2010; Evans 1988; Evans & McConvell 1998; McConvell 1996; McConvell & Keen 2011), and it is currently suggested that Proto-Pama-Nyungan (PPN) was spoken around 6000 years ago (McConvell 1996). Most researchers seem to agree that PPN originated somewhere near present-day Burketown on the southern coast of the Gulf of Carpentaria (see Bowern 2010).

It is also well established that the Ym languages are descended from a single proto-language, Proto-Ym (PYm). The time-depth of PYm is generally thought to be around 3000 years. Intriguing and unanswered questions in the field of Australian Aboriginal comparative and historical linguistics are: Where did the Ym languages originate? How did they end up where they are today, and how long ago were they separated from the other languages of the PN family? The answers to these questions have implications for the time-depth of PPN, the origin and development of PN as a language family and for the mechanics of the spread of the PN languages across the continent, including the relationship of their spread to movements of population and/or to changes in hunter-gatherer social systems, economies and associated technologies.

We will first argue that the locational distribution of the *-tjpi* toponyms makes it highly likely that they date from around 3000 years ago, when an economy focusing on shellfish becomes evident in the archaeological record of

Figure 2. Distribution of Pama-Nyungan and non-Pama-Nyungan languages.



eastern Arnhem Land (Faulkner 2013). This area today is the homeland of speakers of eastern Ym dialects from the Dhuwala and Dhuwal dialect groups.<sup>5</sup> Forming a conubium of intermarrying clans, they are known collectively as Djalkiripuyŋu.<sup>6</sup> The broad questions we will address are: Were these toponyms inherited by the Yolŋu from previous occupants of the area who spoke a different language, or are they 3000 year-old Ym toponyms? In either case, can they help to shed light on the puzzle of the Ym enclave?

### SEA LEVEL RISE, THE INUNDATION OF THE CARPENTARIAN PLAIN AND THE EMERGENCE OF PPN AND PYM

Before turning to the linguistic aspects of the *-tjpi* toponyms, it is necessary to look in more detail at the topographical and archaeological contexts of their occurrence. Twenty thousand years ago, when the sea level was much lower than today, the northern part of Australia was joined to present-day Papua New Guinea by a vast plain (see Figure 3). With postglacial sea levels beginning to rise around 19–17000 BP (a process linked to climatic amelioration following the Last Glacial Maximum c.21000 BP), the plain began to be inundated. Progress was reasonably slow, and probably imperceptible to the inhabitants of the plain, for between 3000 and 6000 years. However, with the breaching of the Arafura Sill, inundation began to proceed more quickly. By around 8000 BP, most of the plain had disappeared under the sea, including the large freshwater Lake Carpentaria.<sup>7</sup> The plain's former inhabitants, who would have numbered in the tens of thousands at least, would have been gradually forced to higher ground on what were becoming the separate landmasses of Australia and Papua New Guinea and would have been grappling simultaneously with significant

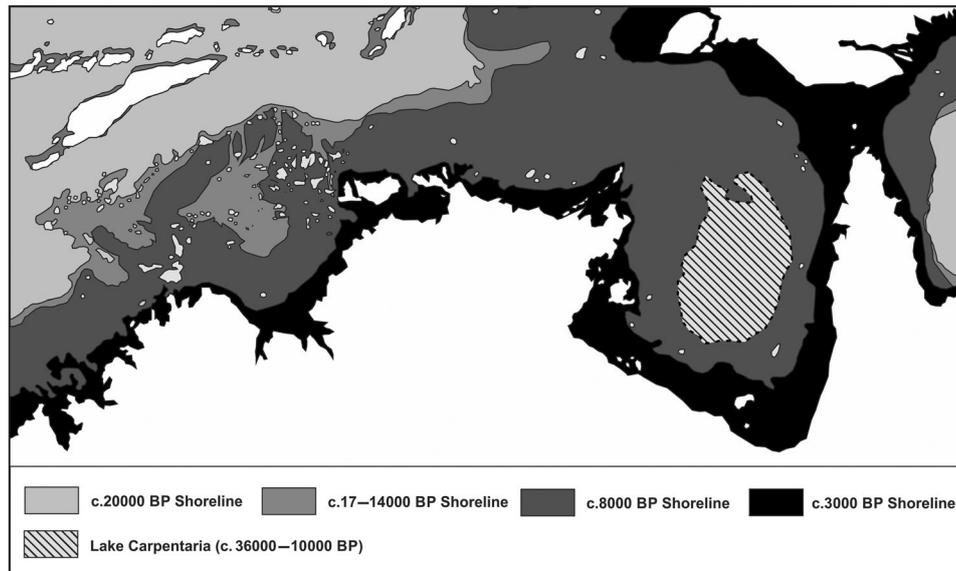
changes in faunal and floral resources. Within the next 2000 years, and certainly by c.6000–5000 BP, the Holocene sea level reached its high stand within the Gulf of Carpentaria (Nakada & Lambeck 1989). By this time the two landmasses were separated by Torres Strait, and the northern coast of Australia had assumed roughly its present position.

This significant flooding event has not often been directly implicated in modelling the origin of PPN and the subsequent spread of the language family across the Australian continent. But we wonder if it should be. In a paper published in 1998, Evans and McConvell carefully charted the possible links between changes in the archaeological record and the expansion of PN, and also broad genetic correspondences that differentiate PN from non-PN speakers, but they made no mention of the possible impact of these early Holocene events in the Gulf region. This is presumably because the broad dates for the flooding of the Carpentarian Plain were thought at that time to correspond to a period well before the emergence of PPN, which then was said to have “an apparent age, from rough linguistic comparison, of around 3000–5000 years” (Evans & McConvell 1998: 174).

However, the consensus now is that PPN emerged at around 6000 BP, that is at roughly the same time as the Holocene high stand occurred, in close geographical proximity to the relatively newly established Gulf of Carpentaria coastline (see Figure 2). Could it not be, then, that the socio-economic pressures occasioned by slow but inexorable migration from the Carpentarian Plain over many generations contributed to the conditions for the emergence of PPN on or near the new coastline? This scenario would still fit with the current hypothesis (see McConvell & Keen 2011) that the ancestors of the current Ym-speaking groups migrated north along the coast of the Gulf, reaching their present location around 3000 years ago, and were subsequently isolated from the rest of the PN language family by speakers of NPN (Gunwingguan) languages moving to the coast from either the south or west. The data that will be presented in this paper do not necessarily contradict that view, or Bower and Atkinson's (2012) analysis that provisionally places PYm closest to the Warluwaric languages (spoken inland to the south of the Gulf) within the PN family tree.<sup>8</sup>

A more radical hypothesis, which fits less well with the current estimates of the ages of PPN and PYm, is that PPN actually originated on the disappearing fringes of the Carpentarian Plain, sometime between 8000 and 6000 years BP. Its origins appear to be near Burketown simply because its actual point of origin is now under water. If that were the case, PYm could have arisen on the western remnants of the plain as a daughter language of PPN. Its speakers would have been gradually forced onto the higher land of eastern Arnhem Land by 6000 years ago and would have been separated from the rest of their language family by the encroaching sea, rather than being cut off later by population movement from south-western Arnhem Land.

Figure 3. Sea level rise, c.20000 BP to c.3000 BP (after Allen & Barton 1989: 5; Nix & Kalma 1972: 88-9; Yokoyama *et al.* 2001: 16).



Despite the lack of fit with what is currently known linguistically, there is, nevertheless, some tantalising evidence that supports this alternative scenario. Evans and McConvell (1998) note that in terms of their stone tool technology, Ym-speaking people pattern with their western Arnhem Land, NPN-speaking, neighbours, sharing the NPN bifacial point tradition rather than the innovated backed artefact toolkit of speakers of other PN languages. This can be explained in only one of two ways. Either PYm speakers were isolated from the rest of the PN languages and had become a part of the western Arnhem Land technological sphere *before* the invention of backed artefacts, or they abandoned their “PN” technology after they moved to their present location.<sup>9</sup> If the former scenario were accepted – and on the face of it, it seems to us the more likely – then the Ym languages would have been separated from the other PN languages for at least 5000 years, making this an event of the early rather than the late part of the initial phase of PN expansion.<sup>10</sup>

In addition, the genetic evidence adduced by Evans and McConvell (1998) (to support an earlier hypothesis about the original location of PPN) seems to suggest a deep-time connection between the peoples of Arnhem Land, including today’s Ym speakers, and the peoples of Cape York Peninsula. This raises the possibility that the ancestors of Arnhem Landers, including speakers of PYm, and of the peoples of Cape York may have been neighbours out on the Carpentarian Plain.

Finally there is the intriguing fact that the Yolju (Murngin) kinship system is very different from those of surrounding NPN groups, and of an unusual form for Australia. In an important paper, Patrick McConvell and Ian Keen (2011) conjecture (with a great deal of detailed evidence) that the Yolju system developed out of a Kariera-type system, and they note that the Kariera kin

terminologies of Cape York Peninsula contain cognates of many Yolju kin terms. In their conclusion, they see the geographical implications as problematic, and then posit the “migration followed by encapsulation” hypothesis.

However, we now (with some regret) leave the more radical hypothesis where it belongs in our current state of knowledge – in the realm of hopeful speculation – and turn to the archaeological evidence.

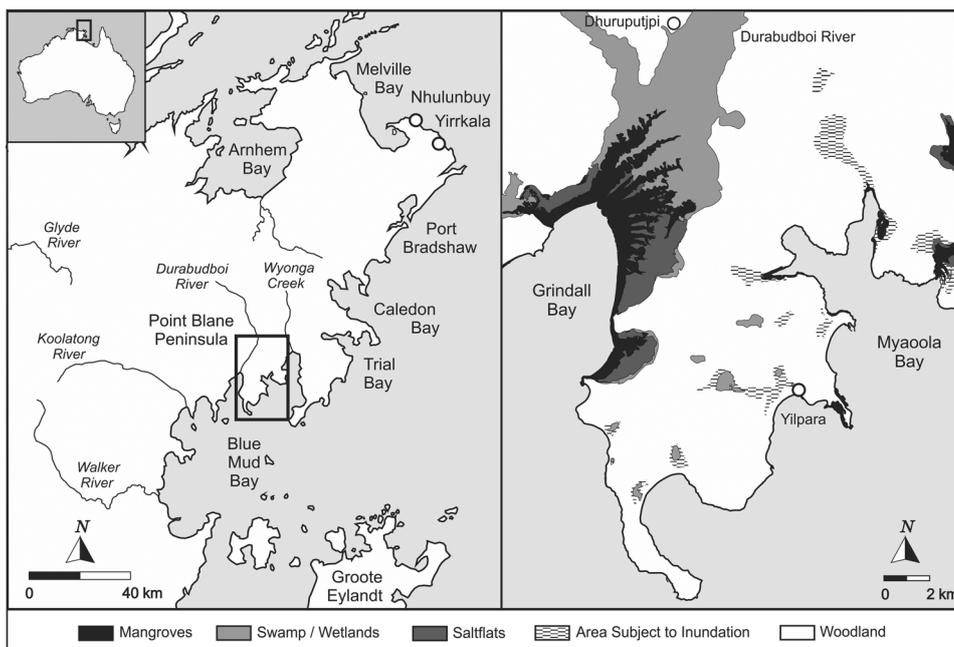
#### ARCHAEOLOGICAL EVIDENCE FROM POINT BLANE PENINSULA

Past endeavours to correlate archaeological with linguistic data in Australia have necessarily been somewhat broad-brush in scope (e.g. Evans & Jones 1997; Evans & McConvell 1998), but thanks to Faulkner’s research we have very detailed data for the Point Blane Peninsula (see Figure 4), which is part of the area of northern Blue Mud Bay where the majority of the (as yet identified) *-tjpi* placenames occur.

Faulkner’s work on the Point Blane Peninsula shows that the earliest recoverable evidence for regular coastal occupation, in the form of extensive shell mounds and middens, dates from around 3000 BP (Faulkner 2013). This does not necessarily mean that the coast was completely unoccupied between 6000 and 3000 years ago (contra Beaton’s (1985) time lag hypothesis), but earlier occupation has left no archaeological trace.

On the Point Blane Peninsula, the Holocene high stand is marked on the western, Grindall Bay, side by a lateritic ridge, which would have formed a cliff overlooking the newly created shallow embayment at the mouth of the Durabudboi River. Today this former bay is characterised by an extensive complex of wetlands (nearest to the old

Figure 4. Point Blane Peninsula.



high stand shoreline) and saltflats, fringed at the present day coastline by mangrove-lined creeks (see Figure 4).

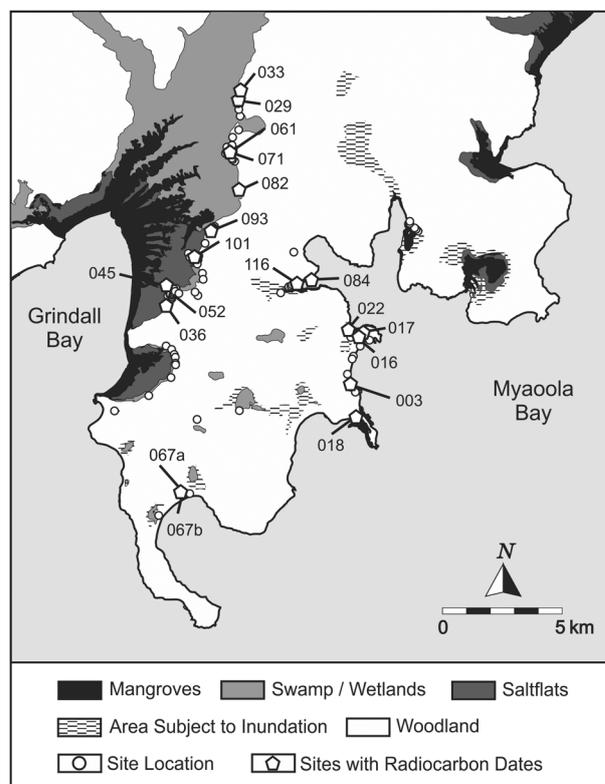
The mounds and middens in this area that were surveyed and excavated by Faulkner are found, in the main, along the top of the lateritic ridge.<sup>11</sup> The earliest are the farthest inland from the present-day coastline. It seems that the deposition of mounds and middens over time occurred close to where the shellfish beds lay on the tidal mudflats below the ridge. As the mudflats prograded, they were replaced by freshwater wetlands on the landward margins, and the mudflats and shellfish beds moved further out with the seaward movement of the mangrove forests. Although there is some variability in the radiocarbon dates obtained from the surface of the sites in Grindall Bay, in general terms the mounds and middens gradually become more recent in date as they follow the prograding mud flats.

Figure 5 shows all the sites investigated and indicates those for which radiocarbon dates were obtained.<sup>12</sup> On the Grindall Bay side, the northernmost site (033) is situated on the top of the lateritic ridge and provides a surface date of c.2140 calBP. The southernmost dated site on the ridge (036) is dated to c.526 calBP on samples obtained from the site surface.

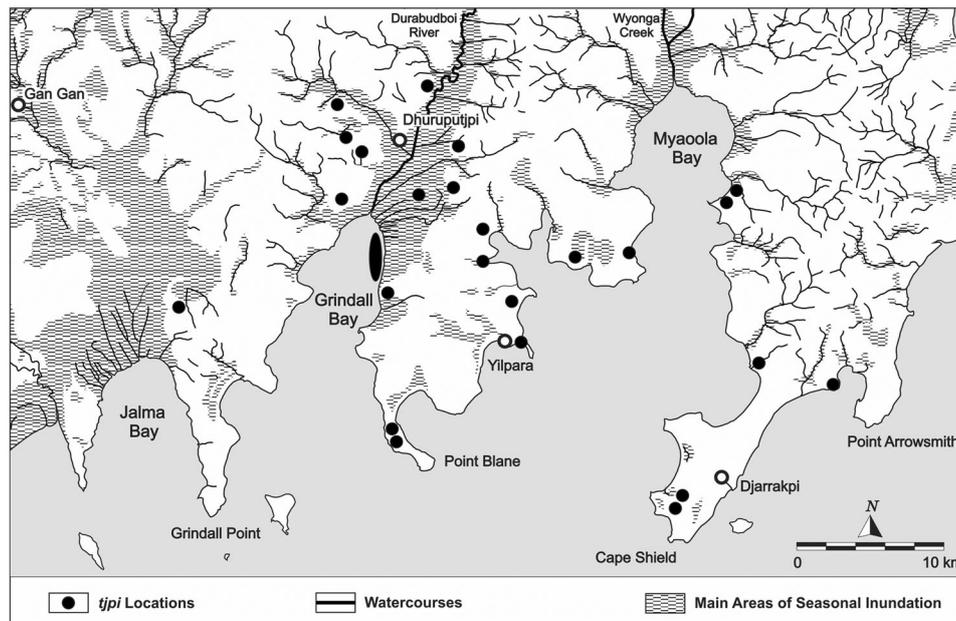
**The -tjpi toponyms: location**

Here we will focus on the subset of 28 -tjpi toponyms that were mapped using GPS, and the name recorded by Barber (2005) in the same general area.<sup>13</sup> These 28 toponyms comprise 41% of the total so far known. These mapped toponyms occur almost without exception on the old Holocene high stand coastline of Grindall Bay and Myaoola Bay (see Figure 6). On the Grindall Bay side, where there has been considerable progradation, all (but one) are found on, or just inland from, the laterite ridge.<sup>14</sup> On the Myaoola

Figure 5. Map of dated sites, Point Blane Peninsula.



Bay side of the Blane Peninsula, there have been several phases of beach ridge formation since the Holocene sea level maximum, but the effects of coastal progradation have been much less dramatic. Here, the -tjpi toponyms are found close to the present-day coastline.

Figure 6. Location of the mapped *-tjpi* toponyms.

Six of these toponyms are associated with excavated sites on the Point Blane Peninsula (see Table 1) with dates ranging from 2953 calBP to close to the present. It is notable that two – Gumurryanutjpi and Dilmitjpi – are associated with areas containing large, early mound and midden complexes. The comments in the second column of Table 1 gives details of the location, site dates and the present-day mythological associations of the place.

The close association of these names with the Holocene high stand coast is either an extraordinary coincidence, or an indication that the names date (at least) to the time when this coast was the focus of intensive shellfish exploitation around 3000 years ago.<sup>15</sup> At first sight, it looks like Yinitjpi is an exception, but closer inspection reveals that it is associated with a small area of higher ground on Point Blane that would have been an offshore island at the Holocene high stand. We know from Berndt's data that some places that are still islands today bear *-tjpi* toponyms.

### THE *-tjpi* TOPONYMS: LINGUISTIC ANALYSIS

The *-tjpi* toponyms are indubitably Yolŋu toponyms today, but was that always the case? Do they perhaps represent a survival from an earlier stratum of occupation by non-Ym-speaking peoples? Or do they belong to a language that is ancestral to present-day Ym languages? What is the origin of the final segment? These are the questions that we will now briefly address.

#### *Deconstructing \*-tjpi*

All today's Ym languages have a distinctive derivational suffix *-p/wuy* that was undoubtedly a PYm suffix.<sup>16</sup> Its meaning is extremely hard to pin down satisfactorily in

English: an approximation is “inherently associated with, characteristic of”.<sup>17</sup> We suggest that the final element, *-pi* is a contracted form of *-p/wuy*, which is found as the final element of many Yolŋu toponyms.<sup>18</sup> In that context, its meaning is approximately “place associated with/characterised by X”, for example Matjurr-wuy “flying fox-place”. The contracted form *-p/wi* also occurs sporadically in other contexts, such as in the surname Yunupijū and the group name Ganalpīū (compare Djambarrpuyū, Gupapuyū etc.), in the toponym Djarrakpi (see Figure 6), and in the “hesitation form” *nhawi* (what's-its-name, whatcha-ma-call-it).<sup>19</sup> If we accept that this is a Ym suffix in reduced form, it does not necessarily follow that the rest of each toponym is necessarily Ym in origin. These could be pre-existing placenames that were “Yolŋu-ised” by the addition of a Ym suffix.

The segment *-tj-* is harder to pin down. It bears no relation to any productive suffix found in the Ym languages of today. However, there is evidence to suggest that it may once have been a productive derivational or case-marking suffix.<sup>20</sup> If this proves to be the case, it strengthens the argument that these are, indeed, early Ym toponyms.

#### *The evidence from analysable roots*

The first point to make, because it is an argument in favour of the relative antiquity of these toponyms, is that speakers of present-day Ym languages consider them to be monomorphemic.<sup>21</sup> Table 2 shows seven *-tjpi* toponyms with roots or stems that contain plausibly PYm lexemes, all of which have survived into modern Ym languages. We have not included any of the names that are recorded only by Berndt, because of uncertainties in interpreting his orthography. These seven names belong to the subset of 53 names for which we have reliable spellings.<sup>22</sup>

Table 1. *-tjpi* toponyms associated with dated archaeological sites.

Name	Comments
Dilmitjpi	Associated with an extensive mound and midden complex on the ridge marking the Holocene high stand coastline. Sites 61 (range 1213–1009 cal BP), 71 (range 1483–1192 cal BP) and 82 (surface 1900 cal BP). The sisters Barrnyili and Gaṇaypa (mothers of Djeṭ the ancestral sea eagle), who transformed into Daṅgultji (broilgas), walked through here. Used as a female personal name.
Garatjpi	On western side of Myoola Bay. Site 03 (surface 461 cal BP) is here. The <i>mokuy</i> (spirit person) Liyawaḍay fished here.
Gumurryanuṭjpi	Associated with an extensive mound and midden complex on ridge marking the Holocene high stand coastline. Sites 29 (range 2287–1912 cal BP) and 33 (surface 2140 cal BP). On the edge of the hinterland area called Bāndarr, where the <i>mokuy</i> (ghosts) of dead Dhuwa moiety people roam.
Ḳumatjpi	Dated sites: 84 (range 683 cal BP to modern), 116 (range 638–225 cal BP) Name for area of a coastal creek (no significant progradation). The ancestral snake Burruttji (yellow water python) stood up here to make lightning.
Malitjpi	Close to oldest dated site: 18 (basal 2953 cal BP). On dune system close to Maḍarrpa settlement of Bāniyala/Yilpara. Ḳuḷumu (ancestral flat-tailed stingray) travelled here, and there is a huge permanent ground sculpture of Ḳuḷumu near here.
Yinitjpi	Dated sites: 67a (1115 cal BP) and 67b (range 1518–592 cal BP). Near the end of Point Blane; higher part would have been a small island at Holocene sea level maximum. Associated with the turtle-hunting <i>mokuy</i> Walḷunbi.

Table 2. *tjpi* toponyms with recognisable PYm lexemes as roots.

Toponym	YM lexeme(s) and meaning(s)	Comments
Barrkatjpi	<i>barrka</i> edible stingray sp.	Mapped. Outside excavation area. On the north-western side of Grindall Bay, south of Bumatjpi and the wetland complex. Manyili/Barrnyili and Gaṇaypa (ancestral women) travelled here.
Bukutjpi	<i>buku</i> forehead	Mapped. Outside excavation area. Small creek running down into a small wetland area on a headland within Myoola Bay. Wiṭitj (ancestral olive python) tried to stand up here, but he was too short. Attested as a male personal name.
Buralatjpi	<i>Burala</i> darter	Known from Berndt’s data and as a personal name. Located on the eastern coast of Myoola Bay.
Gaṇamutjpi	<i>gaṇamu</i> mosquito sp.	Mapped. Outside excavation area. Small swamp around a creek running south-east to the Durabudboi River. Just north of Dhuruputjpi.
Garatjpi	<i>gara</i> spear (N)	Mapped. On western side of Myoola Bay. Site 03 (461 cal BP) is here. The <i>mokuy</i> Liyawaḍay fished here.
Gumurryanuṭjpi	<i>gumurr</i> chest, shore + <i>yānu</i> gully	Mapped. Associated with an extensive mound and midden complex on the Holocene high stand coastline. Sites 29 (range 2287–1912 cal BP) and 33 (surface 2140 cal BP). On the edge of the Bāndarr area, where the <i>mokuy</i> of dead Dhuwa moiety people roam.
Malitjpi	<i>mali</i> shadow, reflection, ghost	Mapped. Close to oldest dated site: 18 (2953 cal BP). On dune system close to Maḍarrpa settlement of Bāniyala/Yilpara. Ḳuḷumu (ancestral flat-tailed stingray) travelled here, and there is a huge permanent ground sculpture of Ḳuḷumu near here.

What information about naming practices can we glean from this small set of analysable toponyms? It seems that there are two (or possibly three) principles at work here: the name reflects topography; or the name is descriptive of flora or fauna found in the place; or the name references ancestral (*waṇarr*) action in the place. The last is the most speculative, so let us begin there. There are four of these toponyms that possibly index activities of *waṇarr* (creator) or *mokuy* (spirit) beings, whose exploits are still recounted today.

*Activities of ancestral beings: Bukutjpi, Garatjpi, Malitjpi.* Contemporary Yolḷu figurations of the past feature a complex cast of characters. Ancestral creator (*waṇarr*) snakes are very old; indeed they almost ubiquitous

in Australia. For a subset of the Dhuwa moiety clans of the Yolḷu region, Wiṭitj (olive python) is a foundational *waṇarr* being. Wiṭitj travelled widely through the lands of these clans. Directly north of Bukutjpi is a ridge of high ground known as Garayal, which is the backbone of Wiṭitj. Bukutjpi actually has three *-tjpi* names, which suggests it has been highly significant for a long time. The name Bukutjpi possibly references the head of the python as it struggles to stand up here.

Some beings are more local. As a class of *waṇarr* being, *mokuy* tend to be closely associated with the estate of a particular clan. The term is also used for the “ghosts” of the known dead, and there is a sense in which the ancestral and the known dead merge into each other in the *mokuy* beings.

Figure 7. The Luḷumu ground sculpture near Malitjpi.



The place called Garatjpi (spear-ed/having-place) is associated with the activities of the *mokuy* Liyawaḍay, who speared fish there.

In the local topography of Maḍarrpa clan country around Myoola Bay, the *wajarr* Luḷumu (flat-tailed stingray) was responsible for the creation of the freshwater billabongs that make this coastal area habitable. There is a huge ground sculpture depicting Luḷumu near Malitjpi (see Figure 7). Could it be that this *mali* (shadow, reflection) has been carefully curated for 3000 years? If these toponyms still carry their original *wajarr* or *mokuy* associations, then we have some evidence that at least some aspects of Yolŋu cosmology as it is today were substantially in place 3000 years ago.

*Fauna characteristic of place: Barrkatjpi, Buralatjpi and Gaṇamutjpi.* Barrkatjpi is possibly named for a species of edible stingray (*barrka*). At the time of the Holocene high stand, Barrkatjpi was on the coast overlooking a shallow sandy-bottomed area of sea – the kind of place that stingray are still hunted today. The connection between *-tjpi* toponyms and two species of stingray (*barrka* and *luḷumu*, discussed above) may reflect the early importance of stingrays as a food source, as well as their importance as *wajarr* (in the case of Luḷumu).

*Gaṇamu* is the name for one of the several mosquito species that abound in wet areas. Today Gaṇamutjpi is a boggy area surrounding a small tributary of the Durabudboi (aka Dhuruputjpi) River. At the Holocene high stand, this tributary would have joined the river close to its mouth. Finally, *burala* is the name for a species of darter.

*Topography of place: Gumurryanutjpi.* This toponym seems to describe a characteristic of the place – as it was 3000 years ago. Gumurryanutjpi is analysable as \*gumurr-yāṇu-tj-pi “shore-gully-ed/having-place”. A glance at the topography of the site (see Figures 5 and 6) reveals that here (just south of excavated site 029) the lateritic ridge is bisected by a gully. 3000 years ago this ridge was the cliff on the coast overlooking the tidal mudflats – but it is now several kilometres inland. The mound and midden complexes on this part of the ridge date between 2287 and 1912 calBP. As in this case, many of the

*-tjpi* toponyms are found near what would have been sources of fresh water on or near the old coastline.<sup>23</sup>

### PLACE AS UNCHANGING?: THE LONGEVITY OF SOME YOLDU TOPONYMS

The 25 analysable or possibly analysable *-tjpi* names (see above and n. 20) comprise just over one third of the 70 such names so far identified. This is good evidence that all these *-tjpi* toponyms were always Ym names. However, it might be suggested instead that such significant continuity indicates that, rather than being 3000 years old, these names have a more recent origin. In this section, we address the question of how such a subset of toponyms could plausibly have remained in place for as long as 3000 years.

The broad question can be subdivided into two: Is it plausible that Yolŋu have mechanisms that have maintained names in place for over 3000 years and what would those mechanisms imply about the nature of Yolŋu society over time? The starting point has to be what we know about Yolŋu society from current research and what mechanisms are in place today for passing knowledge of toponyms from generation to generation. How secure are those mechanisms? What kind of evidence do we have for the stability of toponyms in the present?

The first point to note is that names are not only toponyms. The same names can be applied to people, places, boats, dogs, constellations and material objects (see Tamisari 2002). The majority of names are associated with the *wajarr* – the ancestral beings in whose footsteps (*djalkiri*) Yolŋu follow. *Wajarr* is a complex dimension of existence that is both inside and outside time. It denotes ancestral beings in place and journeying between places. The landscape is a manifestation or embodiment of ancestral actions, and toponyms often refer to aspects of *wajarr* journeys across space and time. The meaning of a name may refer to the place where an ancestral being landed, saw a species of animal, bled into a lake, transformed into a hill and so on.

The narratives of the *wajarr* are recursive: they relate events that happened in place, but not according to strict chronological sequences.<sup>24</sup> There are narratives within narratives, in which ancestral beings sometimes are observers and sometimes participants. Some *wajarr* are restricted to single estates, but major *wajarr* tend to connect a number of clans of the same moiety through their journeys. The actions of the *wajarr* are encoded and to an extent are manifest, even actualised, in the songs, dances and sacred objects that they created and passed onto the humans who occupied the country they had shaped by their actions.

Names are distributed and structured according to key features of Yolŋu social organisation. Yolŋu society is divided into two exogamous patrimoiety, which in turn are comprised of sets of patrilineal clans. In the Yolŋu region as a whole, there are more than 60 groups that we can label as clans – patrilineal descent groups with primary rights to

areas of land and sea that we term “estates”. Occupation of those spaces is prescribed by ancestral law, *rom*. The *wañarr* are unique to one or other moiety; hence, the names associated with them are distributed on the basis of moiety – a name is either Dhuwa or Yirritja. As names, toponyms are most closely connected to the clans on whose estates they are located; they are part of the sacred property of the clan. As we shall see, they may also be passed as personal names to members of other clans, but they can always be traced back to their point of origin. People who are named after places have a particular spiritual association with that place.

### **Maintaining the archive of names**

Not all toponyms are in use as personal names in the present, though that statement needs to be qualified. Both people and places have several names. Usually only one of those is in everyday use at any point in time. Personal names are seldom used as a mode of address – people are usually addressed and referred to by kin terms or their status. It is quite possible that if we had a list of the Yolŋu population that included every name that each person has, then we would see that many more toponyms are in fact in use as personal names. In effect, then, people (the living, and the remembered dead) make up a distributed archive of names, including toponyms.

We have already touched on other ways in which the set of names associated with places are maintained. The names are always in currency, in multiple ways. Toponyms are intoned in ceremonies, paintings represent named places, and in ceremonial performance and in producing paintings people constantly reinforce the relationships between individuals, social groups, *wañarr*, and places. Paintings, songs and ceremony constitute the *maḍayin*, the ancestral corpus in material and linguistic form, and names are part of this corpus.<sup>25</sup>

How stable an archive is the *maḍayin*, and how robust are the archival processes over time? Are they equivalent in some respects to written records? The analogies that Yolŋu make with books – *djorra*’ – and title deeds certainly imply that they believe so. People will say that songs, paintings, ground sculptures and sacred dilly bags are *djorra*’, analogous to the Bible. We turn now to consider in more detail how this archival system works, and the mechanisms that ensure its durability through time.

The first thing to note is that the names themselves, though primarily the property of the owning clan, are shared with others; and connections between the places of different clans are always being enacted in ceremony (for details see Keen 1994; H. Morphy 1991; Williams 1986). This happens in many different ways. *Wañarr* travel across country and connect the estates of different clans of the same moiety. In ceremony, each clan will sing its segment of the journey, its set of places; but frequently groups come together to sing the songs in sequence, joining in with each other and thus fixing the knowledge of names in a wider group than just the members of the owning clan. People create sequences of songs according to the themes or purpose of a ceremony. If

they are guiding the soul of a dead person from the place of death to its resting place in the clan’s sacred well, they will sing songs in a sequence that facilitates the journey of the soul across the adjoining estates of several clans of the same moiety. On other occasions, they will sing sets of songs that mark the connections between the people who are present.

The key intra-moiety connections are between sets of clans related as mother’s mother (*māri*) to (woman’s) daughter’s child (*gutharra*), or as sisters (*yapa*). *Māri* and *gutharra* clans are related as wife bestowers (*māri*) to wife receivers (*gutharra*) because many individual members of the respective clans, over time, have been in that kin relationship.<sup>26</sup> Yolŋu refer to this relationship – at both the individual and the clan level – as the “backbone” of their society. *Yapa* (“sister”) clans share *wañarr* in common and are also likely to be in similar structural positions within the regional marriage system. In any ceremonial performance, sequences of songs will be organised on the basis of relationships between *māri* and *gutharra* clans and also on the basis of *yapa* connections through shared *wañarr*. These choices are based in complex considerations, in which senior knowledge holders (both male and female) must weigh in the balance the immediate politics of the ceremony that is under way and the medium to long-term transmission of the entire archive to younger generations.

Personal names are also distributed according to complex considerations. While many of an individual’s names come from their own clan, they will also be given one or more names by their *māri* (actual and classificatory). Under the Yolŋu system of marriage, a male *māri* (mother’s mother’s brother) bestows his daughter’s daughters in marriage to his sister’s daughter’s sons (*gutharra*). Names follow this line of bestowal. Yolŋu have two explanations for this practice. First, it enables men to see where their female descendants have “travelled” in marriage and provides a strong argument for the return of women in marriage to the originating clan in later generations – completing a cycle that encompasses a minimum of seven patriline (of both moieties) and six generations. The other reason is that the *gutharra* clan is the one that will take over the *māri* clan’s country if the *māri* clan becomes extinct. In such cases, the bearers of a name from their *māri* clan literally carry the name back to its place. This introduces an important factor associated with Yolŋu relations between people, *wañarr*, and place – the *wañarr* footprints are the eternal determinants, not the living individuals who are their ephemeral manifestation in the present. Yolŋu talk about the land as relatively autonomous of the people who occupy it – it is the lands and waters that interact, that intermarry, and communicate through their sound, smell, and taste (Magowan 2007; Morphy & Morphy 2006). The cultural manifestation of this is the *maḍayin*, the sacred corpus through which living people give voice to the *wañarr*.

Every area of land is associated with a clan dialect and a set of *maḍayin* that emanate from the *wañarr*. In order to maintain their claim over country, the people of the clan must enact and perform the *maḍayin*, and the *rom* – the Law – from that country. When a clan becomes extinct, those

who move in to replace it are bound by the same constraints. They must perform the *madayin* and *rom* that pre-exists in the place, and they must speak the ancestral *matha* –the language – of that place.

Marcus Barber (2005, chapter 7) provides by far the most detailed analysis of Yolŋu personal names and argues that naming people is “a way of passing on knowledge and of retaining it” (2005: 133). Yolŋu are ever-conscious of the relationship between personal names, place names and the *wañarr*, and Barber provides examples of the way this works out in practice. On one occasion he was mapping place names, and people had trouble recalling the name of a place near Djarrakpi: “They subsequently remembered it as Amalu, and [one of them] Nuwandjali later had a grandson (SS), to whom he gave that name, saying quite explicitly that it would help people remember it” (2005: 133). Barber notes the significant role played by women in the naming of their grandchildren, and how in that way their “knowledge of country, of people, of the Ancestral realm, and of the relationships between them is revealed” (2005: 133).

We now have outlined some of the main mechanisms that might ensure the stability of toponyms over time, once they have come into existence. The relative autonomy of the *wañarr* domain, the fact that the system is orientated to maintaining its cosmological pattern, means that the responsibility for keeping names in place is shared and enacted by clans across the region. People are committed to keeping names in place, and names are continually being used in ceremony. Names are central to maintaining relationships between people in the present, and tracing important relationships of kinship and ancestral connection back into the past, ultimately to the point of origin of the pattern of relationships between *djalkiri* places. These are the core places within an estate that are central to a clan’s identity. They are the reference point for the reproduction of Yolŋu society.

The structure of knowledge about a clan’s ancestral estate can be seen as a chunking mechanism which maintains the memory of places in a mnemonic system (see H. Morphy 1991: 101). The estates are “boxes” which hold the names and – to simplify somewhat – as long as each clan ensures that its own set of names is passed on over time then the overall system of naming remains intact. This system is reinforced by the existence of clan designs – *likan* – which are unique patterns associated with each estate. Recognition of the pattern opens up, in effect, a box of names associated with main *wañarr* beings in place. The research we have undertaken on Yolŋu designs shows the precision by which each marks its own estate. Patterns are extensions or manifestations of the *wañarr* associated with the clan estate, and their form is a mnemonic for the associated sets of names. While individuals often move and live across the territories of different clans during their lives, they are continually being drawn back to performing the songs and reproducing the paintings of their own estates. And, as Peterson (1972) long ago argued, as their lives progress, people’s focus on their own clan estate intensifies.

Research undertaken by Curkpatrick (2019) and Corn (2008) shows that a similar precision is reflected in *manikay* (clan songs). The equivalent of the *likan* is the *dämbu*, intervallic rhythmic structures that uniquely identify the song series of each clan. Curkpatrick, comparing recordings made in the 1960s with performances 50 years on, finds the core structure identical, showing that the traditional means of transmission “were and are highly stable in their production of orthodox musical elements” (2019:81). The whole system is supported by regional ritual experts, termed *djirrikay*, whose responsibility it is to oversee the production of sand sculptures and body paintings in ceremonies and to intone the sacred toponyms associated with each big named place.

### *Evidence for continuity*

Although north-east Arnhem Land has a relatively short colonial history (see Morphy & Morphy 2016) and hence of the Western archival recording of cultures, there is considerable evidence for continuity in knowledge of names and naming over time. Donald Thomson, who undertook several years of fieldwork between 1937 and 1942, made extensive and well documented collections of bark paintings that enable us to see that the locations of estates and their associated toponyms are consistent with the present.<sup>27</sup> In 1946, the anthropologist Ronald Berndt, when resident in Yirrkala, commissioned Yolŋu to draw maps showing toponyms and their associated *wañarr* across the entire eastern Arnhem Land region, from Walker River in the south-east to Milingimbi in the west. The map of the southern half of the region was produced by two brothers then in their thirties, Narritjin and Nänysin Maymuru, demonstrating the huge extent of individually held knowledge.<sup>28</sup> Our genealogies, although relatively limited at the more distant generations, unsurprisingly record personal names from nearly 200 years ago that are held by people today. And in ceremonial performance, the *djirrikay* still call out the same sets of names associated with places that we first heard over 40 years ago.

In short, this complex Yolŋu archive, with its multi-sensory and multi-media components that act to reinforce one another within a robust system of knowledge dissemination and intergenerational transmission, has persisted in its depth and complexity throughout the upheavals of colonisation and its aftermath.

## IMPLICATIONS FOR THE HISTORY OF THE YOLDU POLITY

In the eastern part of the Yolŋu region, the present system of social organisation is centred on regionally based connubia of intermarrying clans, in which the clans of the same moiety stand in *māri-gutharra* relationships to one another and take their wives (or from another perspective, mothers) from the neighbouring clans of the opposite moiety. The Djalkiripuyŋu of northern Blue Mud Bay form one such connubium. The system of marriage is asymmetric, unlike

that of the groups surrounding the Yolŋu region. Connubia must comprise a minimal set of seven patrilineages or clans but in reality more groups are involved in many cases. On the basis of our genealogies, and Yolŋu oral history and models of their marriage system, the connubia appear to be durable. The Djalkiripuyŋu, for example, were already a connubium at the time of first contact at the beginning of the nineteenth century.<sup>29</sup> If clans within a connubium become extinct they will be replaced by people (members of a *gutharra* clan) with rights to inherit, who move in and occupy the structural space (H. Morphy 1991). The people who move in become the continuing spiritual line of descent from *wangarr* beings whose imprint preceded human presence. The people change, but the *wangarr* domain and its names and associated *maḏayin* remain always anchored to place. Such a system, once established in place, could potentially remain in place for several thousand years, despite the contingency of demographic factors.

Yet the Yolŋu system is also inherently expansionist.<sup>30</sup> The inheritance of names from *māri* to *gutharra* marks the movement of women along a matriline that connects strings of clans together into connubia. But although the majority of marriages take place within the connubium these are not tightly bounded units. Sometimes people take spouses from adjacent connubia; for example some Djalkiripuyŋu individuals are married into clans of surrounding connubia to the north, west and east (Groote Eylandt). Over time the passage of names and the exchange of gifts establishes long-term relationships and obligations outside the connubium and this provides a possible mechanism for the expansion of the system of kinship and marriage outwards beyond an existing set of intermarrying clans to incorporate neighbouring groups. Eventually, when the membership of a connubium expands in this way, it is likely that new connubia will begin to form within this larger group, and that a process of fission will take place.

It is likely that the Ym languages and the Yolŋu social system expanded to the north, south and west from the north of Blue Mud Bay, possibly as the result of the formation of new connubia that incorporated neighbouring groups. We are positing an additive system that expands by the creation of like units that will then become more set over time (see H. Morphy 1993). Yolŋu today intermarry with other groups that have different systems of kinship and marriage, and on the boundaries people are adept at managing the relationships between different systems.

### OUR MODEL AND THE YOLŊU MODEL

Our hypothesis is consistent with aspects of Yolŋu oral tradition, at least from the perspective of the Djalkiripuyŋu. For example, the major *wangarr* beings of the Dhuwa moiety, the Djan'kawu Sisters, are said to have come by canoe from the east, across the sea. After making landfall, they formed and named the country and gave birth to the first Dhuwa moiety clans, then proceeded north-westward to form and name more places, and people them with their clans.<sup>31</sup>

The model we have developed is therefore not a surprise to Yolŋu with whom we have discussed elements of it. In conversation one day about the Yolŋu social system under current conditions of radical change, a Yolŋu man offered this striking summary: "On the surface Yolŋu move around, sometimes marry the wrong way, there seems to be no pattern. But the country holds its eternal pattern from the *wangarr* and that always pulls us back". From a Yolŋu point of view then, the idea that toponyms, as part of that ancestrally given pattern, might remain unchanged and in place for 3000 years is unremarkable. The *wangarr* world was and is transformational, but names become fixed in place and are manifest in enduring connections between people and place. Place names are markers of the clan ownership of estates, and together with paintings, songs, dances and sacred objects are the basis upon which rights and relationships are established. Yolŋu belief is that the pattern of ownership set in the *wangarr* has continued to this day. Yolŋu acknowledge that over time groups may die out and indeed, as we have seen, they have mechanisms for succession to place. The groups who succeed do so by occupying a previously existing ancestral space.

The Yolŋu model is primarily one of interconnection over space and immeasurable time, with people and places connected over large areas through the journeys of *wangarr*. Evidence of those connections is also found in the distribution of names, found sometimes far from their place of origin. It is also a model of movement of the *system itself* over time. But whereas the Yolŋu model hypothesises a *wangarr* origin that progressively creates named order out of nothingness, our model presupposes that the Yolŋu system moved into spaces already occupied by other groups, and incorporated them as it moved, in real time.

### CONCLUSION

The research undertaken for this project has been carried out in close collaboration with Yolŋu people from eastern Arnhem Land. Their sense of being in place – in and for the long term – gives us the confidence to look at longitudinal trajectories leading to the present. The rich resource of the toponyms provides the possibility of measuring the Yolŋu concept of an enduring relationship between people and place against a body of associated data that provides a temporal dimension. Our findings do not surprise Yolŋu in the way they surprise many non-Yolŋu, who carry with them a model of a world in a constant state of change.

The Yolŋu system is dynamic and has changed over time, particularly with respect to its expansion and its incorporation of other groups. But we argue that there is also evidence, in the place where that system first made landfall, of long-term continuities in the relationship between people and place. The existence of 3000 year-old toponyms requires the development of plausible hypotheses for continuity over that period of time. We offer a number of different sources of evidence that could be factors in that continuity: the intergenerational transmission of names as

both place names and personal names over time, the presence of names in clan songs associated with place and a system of social organisation that is grounded in the relationship between social groups and particular places. Linguistic evidence suggests the spread over time of Yolŋu languages from east to west; whether this involved the migration of people or other factors remains open to further research. But our analysis provides a possible solution through positing the emergence of a Yolŋu polity over time, in which linguistic change and the spread of Yolŋu languages follows incorporation within the Yolŋu system of social organisation.

Our methodology is interdisciplinary, combining anthropological, archaeological and linguistic analyses. The data that we analyse are cross-temporal; they range from the archaeological deposits of 3000 years ago to contemporary data on Yolŋu social organisation, beliefs and oral history. The linguistic data is interestingly positioned in time, since languages are both of the present and part of the *longue durée*. The combined methods we adopt allow us to hint at processes that can be placed in temporal sequences. In *-tjpi* we have identified a linguistic element that connects a set of words used in the present to their use and location 3000 years ago. The particular pattern of distribution of *-tjpi* toponyms hints at a possible place and time for the development of a social formation that emerged – or made landfall – in an area in the north of Blue Mud Bay and then extended out to its present boundaries. It is not inconceivable that extending this integrated method of analysis may reveal similar processes operating across Australia and reveal a history of the development of regional polities associated with structured totemic geographies.

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### NOTES

1. We are aware of one outlier, much further north, that requires further investigation.
2. Some names appear in all three sources, some in two out of three, and some in only one source. It should be noted that these names form a tiny subset of Yolŋu toponyms, which must number in the several thousands.

3. The maps were created by a group of knowledgeable Yolŋu men and annotated by Ronald Berndt. The maps and accompanying notes are held in the archives of the Berndt Museum at the University of Western Australia. Berndt’s orthography is sometimes difficult to interpret; and we are considering here only those examples that are definitely *-tjpi* names. We have recently been able to confirm the approximate locations of five of the places that previously were only known to us from Berndt’s data.
4. One of these was recorded by Barber (2005) rather than in the context of the larger mapping exercise.
5. These mutually intelligible dialects are named by Ym speakers for their distinctive forms for the proximal dietic “this/here”.
6. *Djalkiri*, (foot, footprint), like many Yolŋu terms for body parts, is entangled in a complex metaphorical universe. It may also refer to an ancestral imprint on the landscape, and it is sometimes translated as “foundation” – that is, “the origin of law and identity”. In the name “Djalkiripuyŋu”, it refers ostensibly to footprints in the mud of Blue Mud Bay, but may also carry the connotation that these groups are the “foundation” people with respect to Yolŋu *rom* (Law). The conubium also includes clans that speak the dialects known as Dhay’yi, but none of the known *-tjpi* toponyms are in the estates of those clans. For more detailed discussion of Yolŋu conubia, see H. Morphy (2007) and F. Morphy (2008).
7. For further details, see Lewis *et al.* (2013) and Reeves *et al.* (2008).
8. One member of the Warluwarric group, Yanyuwa, is found on the southern coast of the Gulf.
9. Although initially viewed as a technological element that arose in the mid Holocene, Hiscock (2002); see also Hiscock and Attenbrow (1998) has convincingly argued that backed artefacts first appear in southeastern Australia during the terminal Pleistocene or early Holocene (c.7000 to 8000 BP), with more intensive production occurring between 4000 and 1500 years ago. Arguably the earlier dates for the backed blade tradition could problematise the relationship posited between innovation in stone technology and linguistic change. The spread of both backed blades and PN languages could nonetheless have some association with the rise in sea level.
10. Unfortunately, this hypothesis is completely resistant to analysis based on the principles of historical linguistic reconstruction. If PYm originated out on the Carpentarian Plain, it is highly likely that many of its daughter languages were literally drowned, and are irrecoverable (much like the archaeology of the plain). In such a scenario, the 3000 year-old “PYm”, which appeared on the coast of Arnhem Land, may have been just the westernmost dialect or language of the original Ym language group.
11. This is particularly the case for the shell mound and midden sites situated in the northern part of Grindall Bay. In the southern part of this area, sites are still largely located on the laterite ridge; however, they also encroach onto the present day wetland margins and onto the saltflats, likely as a result of shifting shell bed location with progradation and sedimentary infilling.
12. The Blue Mud Bay radiocarbon dates were obtained on marine shell samples, and the conventional radiocarbon age converted to calendar years using the CALIB (v6.1.1) calibration program (Stuiver & Reimer 1993). The ages reported here are the median calibrated age before present (calBP) (for further details, see Faulkner 2013). The oldest site found in the region is in fact on the eastern, Myoola Bay coastline – an eroded

- midden (site 084) situated on a sandy headland 200 m from the present coastline, dated to c.2953 calBP.
13. The map (Fig. 6) shows 26 places, one of which has three *-tjpi* names attached to it. The majority are “small” places, indicated by dots. The oval shape indicates one name, Gunmurrutjpi, that designates a larger general area encompassing the coastal waters and adjoining coast, including areas that were formerly on the Holocene high stand coast. The area is associated with the activities of the *wajarr* saltwater crocodile.
  14. Our most recent (2017) consultations with Yolŋu about Berndt’s dataset focused on a set of *-tjpi* toponyms he recorded in the region of the large wetland called Mayawunyji at the top of Myaoola Bay. Here too the *-tjpi* toponyms seem to occur on the higher ground that fringes the present-day wetland-saltflat-mangrove complex.
  15. Guruputjpi is the only mapped “small” location that is not found on the high stand coastline. We have not been there. It is now in the mangrove area near the coast – an area with a saltwater crocodile nesting site in which crocodiles abound.
  16. The initial segment of the suffix is subject to alternation in today’s Ym varieties. It takes the /p/ form following a stem-final stop or nasal, and the /w/ form following vowels and semi-vowels. Either may occur following a lateral (l, ɭ) or a rhotic (r, rr). For a detailed description of a Yolŋu-Matha dialect, see F. Morphy (1983).
  17. It is similar in its range of meanings to *-y* in English “foxy” or “musty”, which is defined by the Collins dictionary as: “adjective suffix, ‘full of or characterized by’, from Old English *-ig*”. But whereas this is a suffix of relatively minor importance in English, *-puy/-wuy* in Ym is centrally important to the characterisation of relationships between people, flora and fauna and locations.
  18. See McConvell (2006, 2009) for a discussion of suffixes on toponyms in Aboriginal Australia.
  19. The modern suffix *-puyŋu* denotes “(people) of the place of (X)”. It is composed from *-p/wuy* and an archaic genitive *\*-ŋu*. *Nhawi* was originally *\*nhä-wuy* “what-puy”.
  20. The possibility that *-tj-* comes from a pre-Ym substrate source cannot be fully discounted without further research. However, there are several surviving words in modern Ym languages with final consonant *-tj*. One of these is *wetj* “gift”. Corresponding to *wetj* is the verb *weka-* “give”. The verb *gä-* “carry” exists as an independent verb in modern Ym. *Weka-* is now monomorphemic (for Ym speakers), but is analysable as *\*we-gä-* (gift-carry). That is, at an earlier stage in the Ym languages the independent verb *\*gä-* also functioned as a verbalising suffix (with loss of vowel length once the vowel is no longer in the word-initial syllable – a regular process in Ym languages). There is no space to expand here, but there is evidence that in PYm several verbs had this derivational function (see F. Morphy 1983). If this is the correct analysis, PYm had a nominal root *\*we* “gift” from which a derived nominal was formed by the addition of *\*-tj*, and from which a verb could be derived by the addition of *\*-gä*. The precise grammatical function of *\*-tj-* is a matter for further research. It may be analogous to the past participial English “-ed” (*\*we-tj* = “(thing) gifted”), or it may be an archaic comitative case marker “with, having” (*\*we-tj* = “with gift”, “gift-having”). Modern Ym languages do not have a past participial form, and the modern comitative suffix is an unrelated form *-mirr(i)*.
  21. The name Buralatjpi (see Table 2) has a fuller form Buralatjpiwuy, in which the suffix *-wuy* is optionally added following *-pi-*, thus demonstrating that here the element *pi* is no longer perceived as a suffix.
  22. Another possible candidate is the name recorded by Barber. He has it as “Wirliwirliitjpi”. If this is a slight mistranscription, and the name is in fact Wilirwilirritjpi, its original meaning would have been “shell mounds-having-place”/“shell mound-ed-place” (*wilirr* = shell mound; reduplication signals plural). This is also attested as a personal name.
  23. There are a further 18 *-tjpi* toponyms where (part of) the root is potentially relatable (with more research) to a word that is found in contemporary Ym languages.
  24. See H. Morphy (2012) and MacDonald and Veth (2013) for the ways in which a theory of recursivity facilitates the use of ethnographic and archaeological data in interpreting longitudinal processes in the ongoing relationships connecting people to land in different regions of Australia.
  25. Naming systems are an integral component of what Merlan, writing about the Manggarayi to the south west of the Yolŋu, refers to as “the cognitive map that people have of localities” (1982: 162).
  26. For a more comprehensive description and analysis of the Yolŋu kinship system, and of the use of kin terms between clans, see Keen (2004) and H. Morphy (1997).
  27. Donald Thomson’s collections and archived fieldnotes are held in the Melbourne Museum (see Allen 2008).
  28. The Berndt Maps and associated documentation are held in the Berndt Museum at the University of Western Australia.
  29. The integrity of conubia was affected by the centralisation and sedenterisation of regional populations during the mission era: many clans formed new networks of marriage arrangements in the context of the mission stations. Members of the Djalkiripuyŋu conubium were separated from one another; some headed north to Yirrkala, others south to Numbulwar or east to Groote Eylandt. However, in the context of the homelands movement of the 1970s, Djalkiripuyŋu has largely succeeded in reassembling itself on its country in the north of Blue Mud Bay (F. Morphy 2010; Morphy & Morphy 2016).
  30. And expansion may have been, at times, a less than peaceful process. Evans *et al.* (2004) note that in Dalabon, the language of their western neighbours, Yolŋu are called *djuram*, translated as “soldiers”.
  31. The Djan’kawu Sisters narrative is also central to the origins of Dhuwa moiety clans further north, in particular the Rirratjingu clan whose Country includes Yirrkala. In their version of the narrative, the Djan’kawu first made landfall on the dunes at Yalanbara (Port Bradshaw). Thus people from different conubia position themselves differently in deep ancestral history, though the sense of movement from west to east holds across the region.

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