

An Archaeology of Madang Papua New Guinea



University of Otago, Working Papers in Anthropology, 5

Dylan Gaffney & Glenn R. Summerhayes

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Man from Madang district in ceremonial
dress (Photo: Fr. Joseph Jurczyga SVD).
University of Wollongong Archives,
D160/04/218.



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Department of Anthropology and Archaeology
University of Otago
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No. 1: *Admiralty Islands*. Hans Nevermann. Translated by John Dennison. Edited by John Dennison and Glenn R. Summerhayes (2013).

No. 2: *Sailing for survival: A Comparative Report of the Trading Systems and Trading Canoes of the Bel people in the Madang area and of the Motu people in the Port Moresby area of Papua New Guinea*. Mary Mennis (2014).

No. 3: *The Empress Augusta/Sepik River*. O. Reche. Translated by John Dennison. Edited by John Dennison and Glenn R. Summerhayes (2015).

No. 4: *Excavations on Motupore Island (Vol 1-2)*. Jim Allen (2017).

No. 5: *An Archaeology of Madang, Papua New Guinea*. Dylan Gaffney and Glenn R. Summerhayes (2017).

This book details investigations into the archaeology of Madang District, Papua New Guinea. Specifically, several important archaeological sites on the coast and offshore islands are examined. In 2014, the authors completed a survey around Madang Lagoon along with Bilbil Island and Yabob Island, and excavated two sites: Tilu at Malmal village and Nunguri on Bilbil Island. Our excavations uncovered archaeological deposits dating to 600-500 years ago. This was associated with distinctive red-slipped pottery in the 'Madang-style,' obsidian, shell ornaments and tools, animal bone, and shellfish food remains. The report also examines how modern pots are made around Madang, and different material culture produced and traded around the northeast coast generally.

...

Dispela buk i toktok long akiologi bilong Madang District, Niugini. Mitupela lukim sampela ples bilong akiologi na mitupela mekim pinis masta mak long sampela lagoon bilong Madang ples na tu long Bilbil ailan na Yabob ailan. Mipela digim pinis insait long graun no painim olupela graun na sit bilong paia long 600-500pela krismas i go pinis. Mipela painim retpela biknem clay pot, na glas botol (jaling/obsidian), na tumbuna sel na tamiok na wantaim bun na, na olupela kaikai bilong bipo. Na tu mitupela painim aut ol i save makim nupela clay pot long Madang, na sampela samting bilong tumbuna taim we ol i be senis i go i kam.

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Front cover photograph: Madang-style Magob pot, Australian Museum collections, E.67040 (photographed by Dylan Gaffney 2015).

Back cover photography: 'D160/03/460b Yabob pottery, Madang,' 1944-1966 Cochrane Papua New Guinea Collection, University of Wollongong Archives. Open access.

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Dedication

This report is dedicated to two champions of Papua New Guinea culture, who passed away during the course of our research, 2014-2016. The late Yeyeg of the Nob clan, Yabob-Up-Top, was a master potter and was kind enough to demonstrate her skills to us in the field. Her expertise in potting has been preserved in several books, including *The Traditional Art and Crafts of Madang and Siassi* edited by R. Christensen (1975), *A Potted History of Madang* by Mary R. Mennis (2006), and a graduate thesis, University of Otago, by Dylan Gaffney (2016). Yeyeg sadly passed away in 2014.

Herman Mandui, the Chief Archaeologist of Papua New Guinea, and the Deputy Director of the National Museum and Art Gallery, accompanied us into the field in 2014 and undertook excavations at Tilu, Malmal village. Despite being ill at the time, Herman continued to act as a distinguished representative of the museum, on behalf of archaeology and cultural heritage, and was an inspiring mentor to students. Herman also passed away in 2014, due to complications from tuberculosis. An issue of the *Journal of Pacific Archaeology* 7(1) 2016, has recently been dedicated to Herman's years of research and friendship.

Below left: Yeyeg collecting potting clay at Yabob-Up-Top, 2014

Below right: Herman on route to survey Bilbil Island, 2014



Acknowledgements

This publication was first printed in 2016 as a community report for the people of Bilbil and Malmal village, Madang, Papua New Guinea. The printing was supported by the Kākano Fund, administered by the Association of Social Anthropologists of Aotearoa/New Zealand, granted to Dylan Gaffney. This revised report, published in 2017 in the University of Otago Working Papers in Anthropology series is an attempt to make the information widely accessible.

We acknowledge the assistance and efforts of numerous others who have been indispensable in making the research a success. Mary Mennis (Brisbane historian and author of several books about Madang) was influential to the inception of the project and was a wealth of knowledge during the fieldwork. The rest of the field team included Teppsy Beni, now a graduate of the University of Papua New Guinea; Affrica Cook, anthropology student at the University of Oxford; and Judith Field, Honorary Senior Lecturer at the University of New South Wales, who has a current Australian Research Council project with Glenn Summerhayes in the Simbai and Kaironk valleys, Madang Highlands.

The communities at Bilbil village and Malmal village were very supportive of the research and were great hosts in the field. They helped us dig the sites, provided food and hospitality.

We are indebted to Sir Peter Barter, PhD (hon.) GCL, OBE, Kt who was incredibly generous in providing accommodation and support for the field team during our visit and continues to show an interest in the project. From the Madang Resort, Sibona, Melissa, Busybee, and Casper were all very helpful in facilitating our research. At the Madang Cultural Centre, Jane Naso accompanied us during our work at Malmal.

Many thanks also to the numerous students at the University of Otago who assisted with the cleaning and cataloguing of artefacts: Alana Kelly, Robert Henderson, Alix Muir, Greg Hil, Eleanor

Moore, Charles Radclyffe, Debbie Stoddart, Evan Morcom, Georgia Kirby, Rebecca Adam, Jamie Hearfield, Merryn Chynoweth, Lucy Northwood, Laura Lawson, Nikole Wills, and Tessa Whitehead. Josiah Mani helped to translate the abstract.

Radiocarbon determinations were undertaken by Geraldine Jacobsen. Access to museum collections was provided by Moira White and Scott Reeves (Otago Museum, Dunedin), Rebecca Conway (Macleay Museum, University of Sydney), Grace Hutton (Te Papa, Wellington), Yvonne Carrillo (Australian Museum), and Fuli Pereira and Kolokesa Mahina-Tuai (Auckland War Memorial Museum).

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A view looking south from Bilbil village, during fieldwork, 2014.



Introduction

Madang is located on the northeast coast of the large island of New Guinea. It is an important, but uncharted area in Pacific archaeology. People have been living along this coast for over 50,000 years, representing some of the first migrants into Oceania during the late Pleistocene. Along the same coast, it is likely that early Austronesian speaking groups voyaged and traded during their movements out of Southeast Asia, into the Pacific over 3000 years ago.

Much of what we know about the past in Madang is based on oral histories, which tell of several major events: 1) the coming of Europeans in the late 19th century, 2) the 'Time of Darkness,' caused by an eruption on par with Krakatoa, emanating from Long Island in about 1660AD, and 3) the evacuation of Yom-ba Island, formerly located in the Bismarck Sea, but which was probably destroyed by a tidal wave several generations before the Time of Darkness. Yomba

was the legendary homeland of the Bel people, who now inhabit many of the islands and coastal areas around Madang Lagoon, and on the offshore islands of Yabob and Bilbil. Hundreds of years ago, some of the ancestors of the Bel may indeed have migrated to Madang from Yomba- the 'Atlantis of the Pacific.' Over the subsequent centuries, the Bel became the dominant traders along the northeast coast, sailing on their large trading canoes between Karkar Island in the north and the Vitiiaz Strait in the east. Ethnographic observations in the late 1800s and early 1900s described the Bel as affluent people who made spectacular voyages along the Rai Coast to trade for food, obsidian, stone tools, pig tusks, dog teeth necklaces, and wooden bowls.

Despite this, much of what happened in the past, and when it happened, is an archaeological mystery. In 2014 a team of archaeologists completed investigations around Madang district. The investigations aimed to address these happenings- when the first Bel arrived around Madang, and how they developed their vast trade networks. This report describes these investigations and the results of the archaeological excavations.





Clay pots for sale at Bilbil village, 2014.



The 'black' clay source
at Bilbil



The potters of coastal Madang

The bright red and expertly-made pots of Madang are famous in New Guinea. The potting communities have been producing and trading similar pots for the last 500 years. In the past, pottery production was a necessary part of life. This is because many Bel groups- the Bilbil and Yabob included- could not produce enough food on their islands to support their large populations. So they turned to trading pottery for food in order to maintain their livelihoods.

By examining how pots are produced today, archaeologists can better understand how they may have been made in the past. We can also then look at how the techniques of pottery production have changed over the centuries: which styles become popular or fade away.

Below: Yeyeg collects 'red' clay at Yabob-Up-Top



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Yeyeg mixing the clay and black sand temper to form *iso*; the paste used to make pots.



Yeyeg forming the rim preform by hand.



Yeyeg beating the body of the pot into shape using a wooden paddle.

The pots of coastal Madang are produced in a series of stages. Firstly, the potters collect black beach sand and dig up potting clay from under the gardens. The Yabob use about six different types of clay, while the Bilbil use two different types. The clay is carried back to the village in bilums and banana leaves are left to cover the clay pit to prevent it drying out. The clay is prepared and stored in large balls under the houses before use.

Secondly, when producing a pot, the potter takes the clay and mixes it with the black beach sand. Then, the potter forms the rim opening very roughly by pressing her thumb into a lump of clay. She then spins the clay with her other hand, pressing her thumb deeper to expand the opening. This 'rim preform' is then often left to dry for a few days before the following stage.

Next, the potter adds a mass of clay to the rim preform and starts to form the body. A wooden paddle is used to beat the outside of the pot into shape while fingers are used on the inside to expand the size of the body. In later stages, spherical stone anvils are used on the inside to smooth it out. Different types of wooden paddles are used in different stages. In the final forming stage a wide paddle is used to gently smooth out the outside of the pot.

The pots are then decorated with small wooden tools and covered with brilliant red slip (liquid clay) before being fired. The pottery firing is completed in the open and uses bush material for fuel. The pots are first put on a small fire to test their strength, but later they are transferred to a larger and hotter fire to make them stronger.

Below: Clay pots being fired at Yabob. Photo by Papua New Guinea Department of Information and Extension Services. University of Wollongong Archives D160/04/140.



Sentie Noah at Bilbil, polishing the pot with sago paste

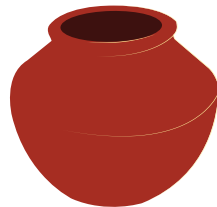


After the firing stage, the pots are rubbed with a sago paste which makes the red slip shine. Pots are used in day-to-day cooking but they can also be exchanged on the Rai Coast or in Madang, sold to tourists at Bilbil village, or used for bride-prices. When a pot breaks or cracks it can be flipped upside down and arranged with other pots to form a tripod to support in-use cooking pots.

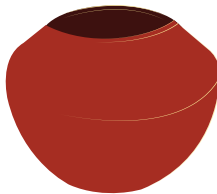
The Bel produce four main types of pot: the *bodi* and *magob* for cooking, the *tangeng* for cooking at feasts, and the *you-bodi* for storing water.

Right: A diagram of the pottery production stages used to produce Madang pots.

Bodi



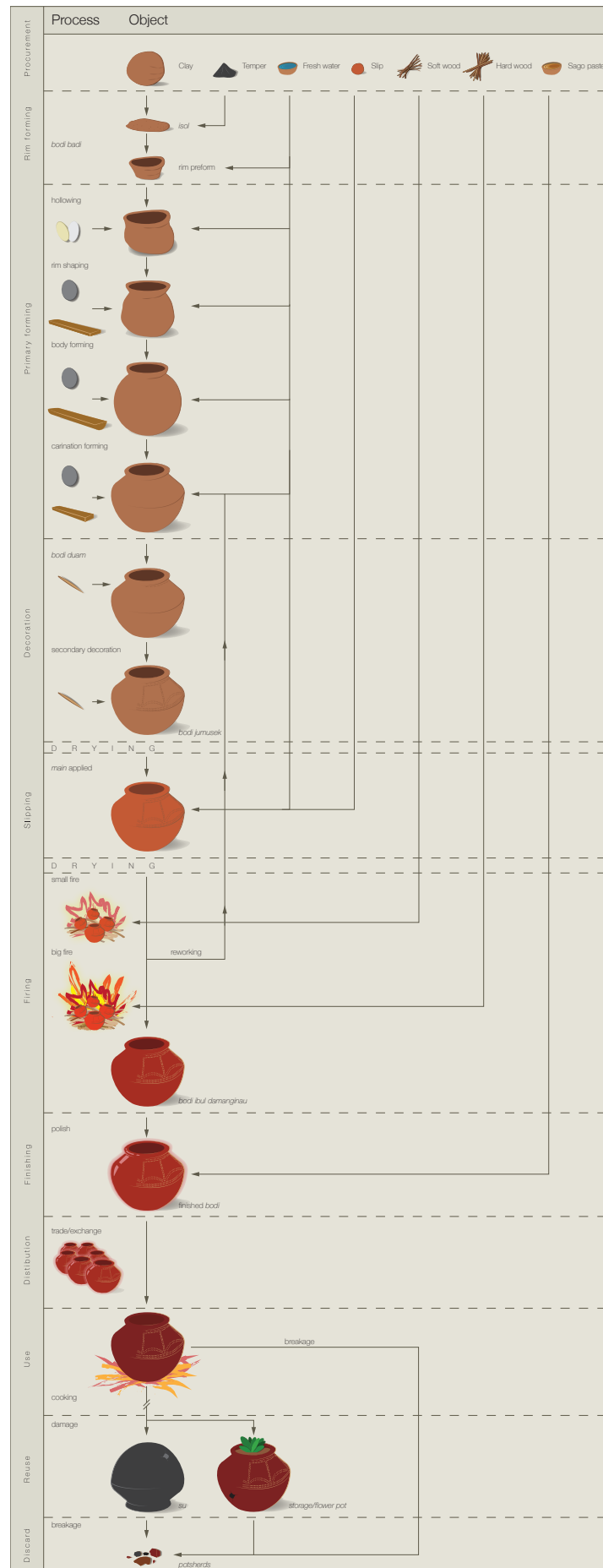
Magob



Tangeng



You-bodi



A man near Bilbil village produces a broom from bush materials.



Traditional material culture

The people of coastal Madang continue to use a variety of material culture for tools, decoration, transport, and storage. Many of these objects are modern European introductions, such as steel axes or metal cooking pots. However, other items are similar to those which have been manufactured and traded along the coast for hundreds of years prior to the first European contact in 1871.

In the past, the Bilbil and Yabob people produced clay pots and traded them with other groups along the coast and inland. These pots could be exchanged for food, bone and shell ornaments, black and red paint, turtle shell armbands, spears, bows and arrows, stone axes, and so on.

Different villages on the northeast coast specialised in making different things. The Karkar Islanders produced large wooden pestles and mortars and hourglass drums; the people of the Rai Coast produced large wooden bowls, slit gongs, and bark cloth; the Gogol Valley people made large black pots; the Sio and Gitua people made another type of pots, similar in appearance to Bel pots; the inland villages created the spears and bows and arrows.

By trading objects and giving items away as gifts, the Bel accumulated a lot of material wealth. They were also welcomed as friends for hundreds of kilometres in each direction because their pots were so sought after.

To complete their trade voyages along the coast, the Bel used large, wooden outrigger canoes called *balangut* and *lalong*. These canoes were produced in the Madang Lagoon area by the Riwo, Kranket, and Siar Islanders and could store large numbers of clay pots. The Bel would sail these canoes all along the northeast coast, especially during May-July when the winds were good.

Many such objects were collected by European scientists, anthropologists, and tourists during the 19th and 20th centuries. These are now stored in museums from Russia and Germany to Australia and New Zealand. These items provide fascinating insight into the objects being made and traded during early European exploration of the coast.

Below: A stone axe collected from the Huon Peninsula, housed in the Ethnological Museum of Berlin.





D703



D705



FE564



E67039



46100



E64578



Opposite: Madang pots produced at Bilbil and Yabob. D703, a small cooking pot and D705, a large water container collected by Miklouho-Maclay 1872 (Macleay Museum); FE564, a large cooking pot dated 1912 (Te Papa); E67039, a modern tourist pot, and E64578 a recent three spouted water container collected by Margaret Tuckson 1975 (Australian Museum); 46100, a standard cooking pot, 1973 (Auckland Museum).

Above: Two wooden bowls from Astrolabe Bay. A round bowl (D24.3049) and a long bowl (D24.3048) typical of the the Siassi Islands and Rai Coast (Otago Museum, Dunedin).



The people who live in inland Madang, in the Gogol River Valley and nearby areas, also produce pots. However, these pots are very different to the red, spherical pots that the Bel produce. Oral histories suggest that the Bel used to exchange their pots for the inland pots because they were better for cooking sago in and gave it a sweeter taste. The inland pots are visually distinctive. They are often long and dark grey or black in colour. They are also produced using a different technique known as coiling, whereby long rolls of clay are spiralled around and stuck together to form the shape of the pot. This is distinct from the Bel potters who all use wooden paddles and stone anvils to form the body of the pots.

Above: Inland Madang cooking pots. 46145- large cooking pot purchased at Guman village by Sue Bulmer 1967; 46144- large cooking pot made at Guman; 46143- cooking pot, unknown provenience; 46111- large cooking pot purchased by G. Johnston at Begasain (all Auckland Museum); CG1281- small cooking pot from Gounua village; CG1282- large cooking pot, unknown provenience (both Te Papa).

Right: Trade valuables from Long Island: top- Pig tusk necklace; centre-cowry shell armband; bottom- dog teeth necklace (photos: M. Mennis 2014)



Yabob Island during archaeological survey, 2014.



Archaeological surveys

In order to investigate the human past along the Madang coast, it was necessary to locate a number of archaeological sites. Some sites had been recorded in the Niugini Archaeological Survey at the National Museum and Art Gallery of Papua New Guinea in Port Moresby, in the 1970s. However, many remained unexplored and unrecorded.

The first stage of our archaeological fieldwork was to survey many of the islands and coastal villages near Madang in search for archaeological remains and the tell-tale signs of pre-colonial habitation. During our archaeological fieldwork, we located several archaeological sites around the Madang Lagoon and off the coast, which are currently settled by the Bel people. This included Siar Island, Kranket Island, Yabob Island, Bilbil Island, Bilbil Village, Yabob-Up-Top, Yabob-Down-Below, and Malmal village. All of these places contained traces of past human activities, particularly, broken clay pots for cooking and trading, obsidian stone tools for scarification and cutting, stone axe fragments for making canoes, shell ornaments for the *singsing*, and so on.



On way to investigate Bilbil Island (Photo: J. Field 2014)

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Stack of concrete blocks at the high point on Bilbil Island. Blocks are inscribed '1910' and probably relate to the German Navy rest house built around that location. Another inscription, 'SMS' is likely the designation of an Imperial German Navy Ship.



Collection of flaked stone tools on Yabob Island. The stone is a mixture of chert, argillite, quartz, and jasper. Much of this was probably traded into Madang from the Rai Coast.



Beach of Siar Island during surface survey in 2014. The beach contained numerous archaeological potsherds indicating former habitation.



Sek River

Biges River

Nagada River

Mis River

Meiro River

Gum River

Gogol River

Gogol River

Nuru River

Malmal

MADANG LAGOON

Siar Island

Kranket Island

Madang

Yabob Island

Bilbil Island

5° 10'

5° 20'

145° 50'

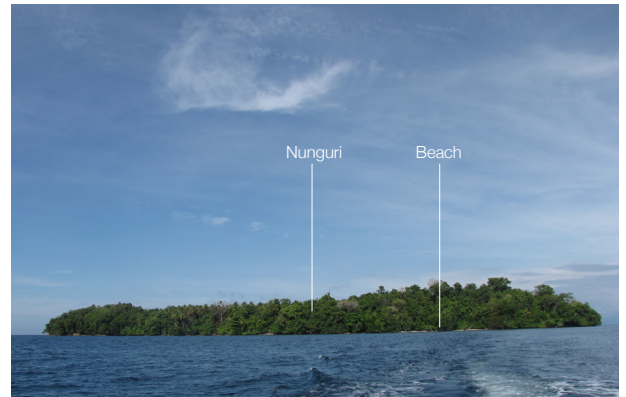
BISMARCK SEA

Archaeological potsherds exposed in the eroding stratigraphy of Bilbil Island.



The excavations

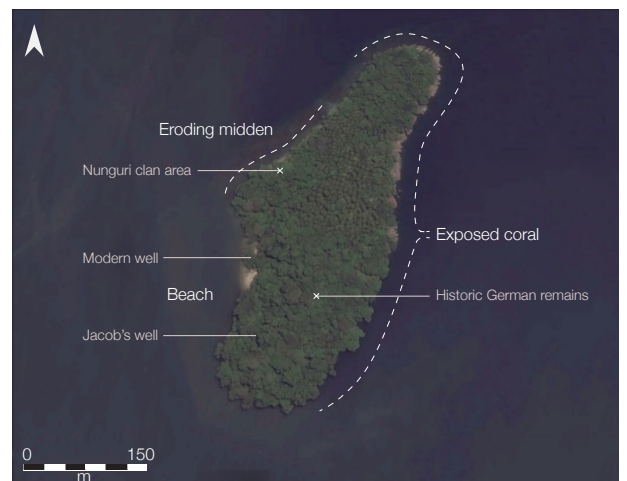
To further examine the archaeology of coastal Madang, we selected two sites to excavate. We undertook archaeological excavations where we scientifically recorded artefacts, their depth and quantity, and the associated soil and strata. One excavation was at Tilu clan area in Malmal Village and another at Nunguri clan area on Bilbil Island. Both sites were large mounds which had built up from hundreds of years of people living on them. Here we found broken pottery sherds, obsidian stone tools, old shellfish and bone food scraps, and rare shell tools, arm-bands, and necklaces. The pottery is mostly ancestral to the modern Madang pottery, which is bright red, tempered with local beach sand, and decorated around the pot's shoulder and neck.



Above: Bilbil Island, a view looking east toward the beach and Nunguri clan area.



Above: Malmal village, selected for Excavation 1 at Tilu clan area.



Above: Bilbil Island, selected for Excavation 1 at Nunguri clan area.

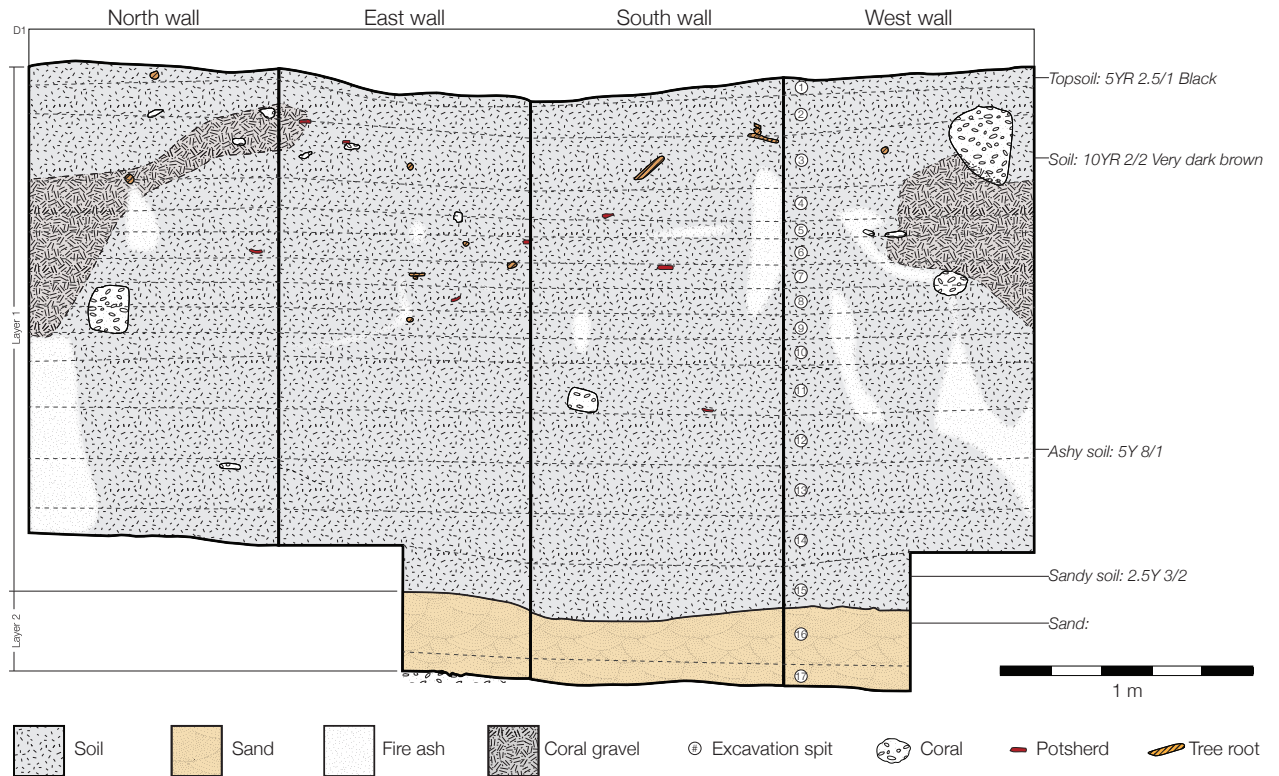
Excavation 1- Nunguri, Bilbil Island

The first excavation was completed at Nunguri clan area on the western side of Bilbil Island. Excavation of a 1x1m (Test Pit 1) on Nunguri mound consisted of seventeen excavation units (spits) over two stratigraphic layers, taken to a maximum depth of 2.53m below surface. Spits 1-10 were controlled 10cm units, while Spits 11-14 were increased to 20cm using a shovel due to time constraints, and Spits 15-17 were sectioned to 0.5x1m in the south end of the unit, due to depth concerns. By Spit 16 at 2.35m below surface, there was very little pottery present, some small shell, and no obsidian, and by Spit 17 there was no cultural material except a few tiny sherds that were probably intrusive from above. Digging was stopped due to safety concerns and although still sand (bedrock was not reached), the deposit was convincingly sterile.

Right: Glenn Summerhayes and Teppy Beni surveying at Bilbil Island (Photo: J. Field 2014)

Below: Dylan Gaffney excavating Nunguri (Photo: J. Field 2014)



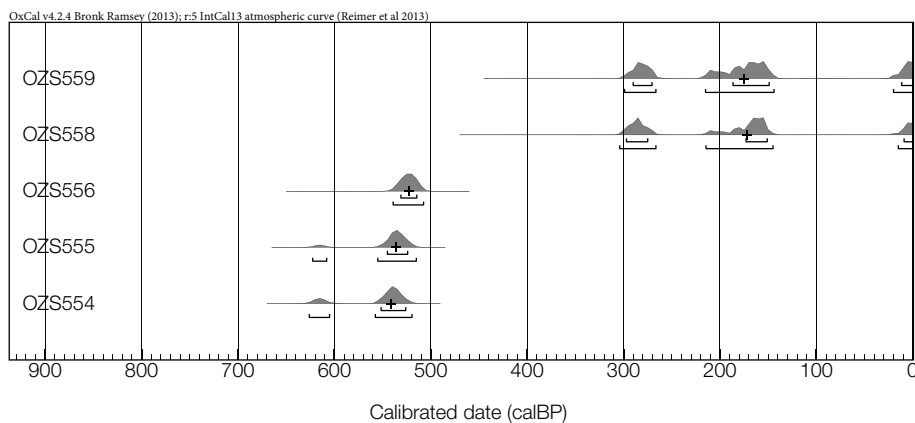


Layer 1, representing Spits 1-15 is a thick soil layer with occasional white and grey ash deposits. Layer 2 is a pale yellow former beach sand represented by Spits 16-17. This layer would represent the original beach deposit prior to significant tectonic uplift several hundred years ago.

Above: Straigraphic drawing of the Nunguri site on Bilbil Island. Layer 1 (Spits 1-15) is in grey, while Layer 2 (Spits 16-17) is in yellow.

Six charcoal samples from Nunguri, Test Pit 1, were submitted to the Australian Nuclear Science and Technology Organisation (ANSTO), at Lucas Heights for radiocarbon dating. The radiocarbon dates produced provide a good indication for age of site occupation and suggest two major phases of activity spanning a period of about 500-600 years.

Below left: Radiocarbon calibrations from the Nunguri site on Bilbil Island. The dates suggest occupation spanning about 550 years ago to recent.



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Excavations ongoing at Nunguri clan area, Bilbil Island
(Photos: M. Mennis and J. Field 2014)

Excavation 2- Tilu, Malmal village

Malmal village is situated 12km north of Madang township. Tilu clan area was previously excavated by Brian Egloff in the 1970s, and consists of two mounds demarking the north and south of the hamlet. These two central mounds (A and B) remain an important and well-preserved component of the site, which overlooks the Madang Lagoon to the north and east, and is landlocked to the south. A sandy canoe harbor is present about 20 metres north of Mound A, allowing access from Malmal Island, several hundred metres to the northeast. Land access to the site is via a dirt road from the south, or

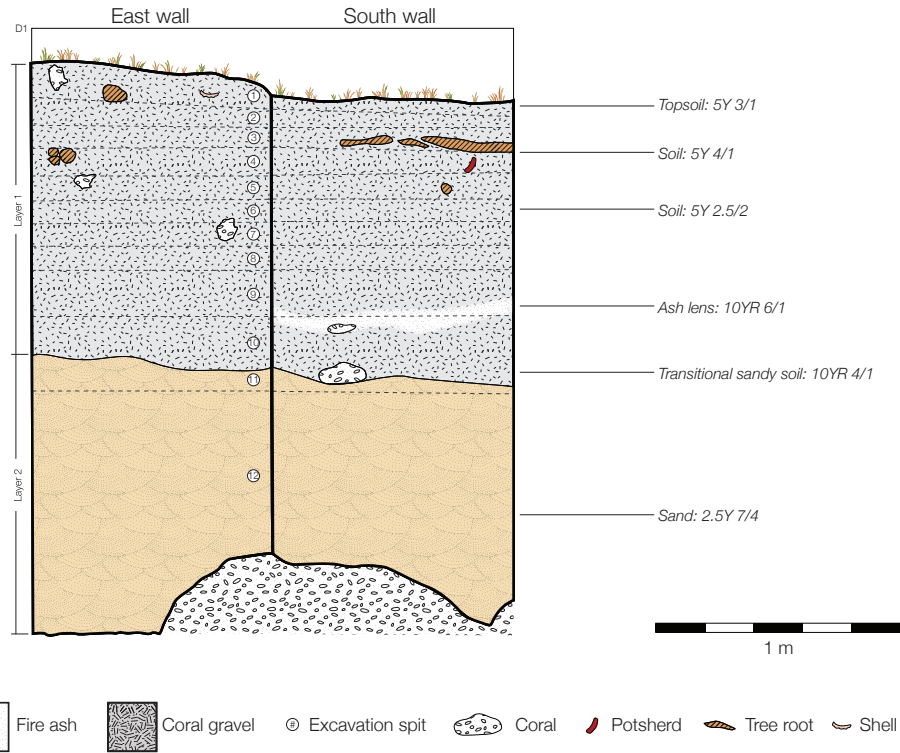
through Malmal village proper, 200 metres to the east. Given around 3m higher sea levels in the late Holocene, Tilu would have probably been an island during initial occupation about 600-500 years ago. Today Tilu is used for coconut and betelnut production, with plantations around most of the area. Excavation was undertaken at Tilu to examine when the site was first occupied and how the material culture changed through time. This change would then be compared to the archaeology present at Nunguri, Bilbil Island. Mound A at Tilu was selected as the focus for excavation due to the large quantity of surface artefacts in the area, identified during survey.



Top: views of Mound A at Tilu, Malmal village

Bottom: Dylan Gaffney records artefacts at Tilu

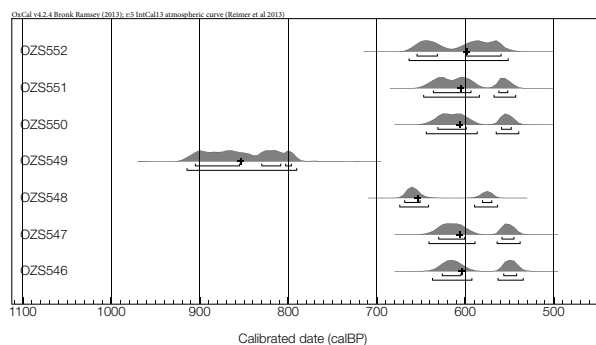
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Above: Straigraphic drawing of Unit 1, Tilu site at Malmal. Layer 1 (Spits 1-10) is in grey, while Layer 2 (Spits 11-12) is in yellow.

Excavation of a 1x1m unit (Unit 1) was undertaken at Mound A and was dug down twelve spits to a maximum depth of about 2.5m below surface, where the water table was reached and coral bedrock began to inhibit excavation, indicating the level of the natural coral uplift. Spits 1-8 began as controlled 10cm units but were increased to 20cm from Spit 9. Due to time constraints, Spit 12 was a ~100cm thick and almost entirely culturally sterile unit. Excavation identified two distinct stratigraphic profiles, very similar to that at Nunguri. A separate 1x1m shovel pit (Shovel Pit 1) was dug unsystematically, downslope from Mound A with a crow bar/metal digging stick in order to assess the horizontal extent of the deposit. This pit was dug down to about 120cm deep, where the water table was reached. The same two major layers of stratigraphy were observed in Shovel Pit 1 as in Unit 1. Collections made from this shovel pit were limited to diagnostic potsherds and lithic artefacts.

Seven wood charcoal samples from Tilu, Unit 1, were submitted to AINSE for radiocarbon dating. The dates suggest a single phase of site occupation about 550-650 years ago, with rapid sediment build up. One radiocarbon date (OZS549) is an outlier for unknown reasons. Occupation at Tilu is then contemporary (or slightly earlier) than the first occupation phase at Nunguri.



Above: Radiocarbon calibrations from the Tilu at Malmal. The dates suggest occupation at about 550-650 years ago.



Excavations at Tilu, Malmal village
(Photos: D. Gaffney, G.R. Summerhayes, and M. Mennis 2014)

Pre-colonial artefacts

At both Nunguri and Tilu, we excavated substantial masses of pre-colonial artefacts. These include tens of thousands of broken pottery fragments, hundreds of obsidian stone tools, and dozens of shell artefacts. The excavated pottery is almost all red-slipped, spherical pots with out-turned rims, much like the pots being produced around Madang today. Five distinct manufacturing methods were identified in the analysis of the pottery, which seem to fulfil similar functions to today- cooking pots and water storage pots. These pots were decorated with appliqué (raised blobs of slip in relief), incisions, and carved paddle marks. Using a scanning electron microscope and x-ray fluorescence we have geochemically fingerprinted many of the potsherds and discovered that they were all produced using local ingredients. This means that the sources of clay and temper used by modern potters are very similar to those used by the original potters to arrive on the Madang coast over half a millenia ago.

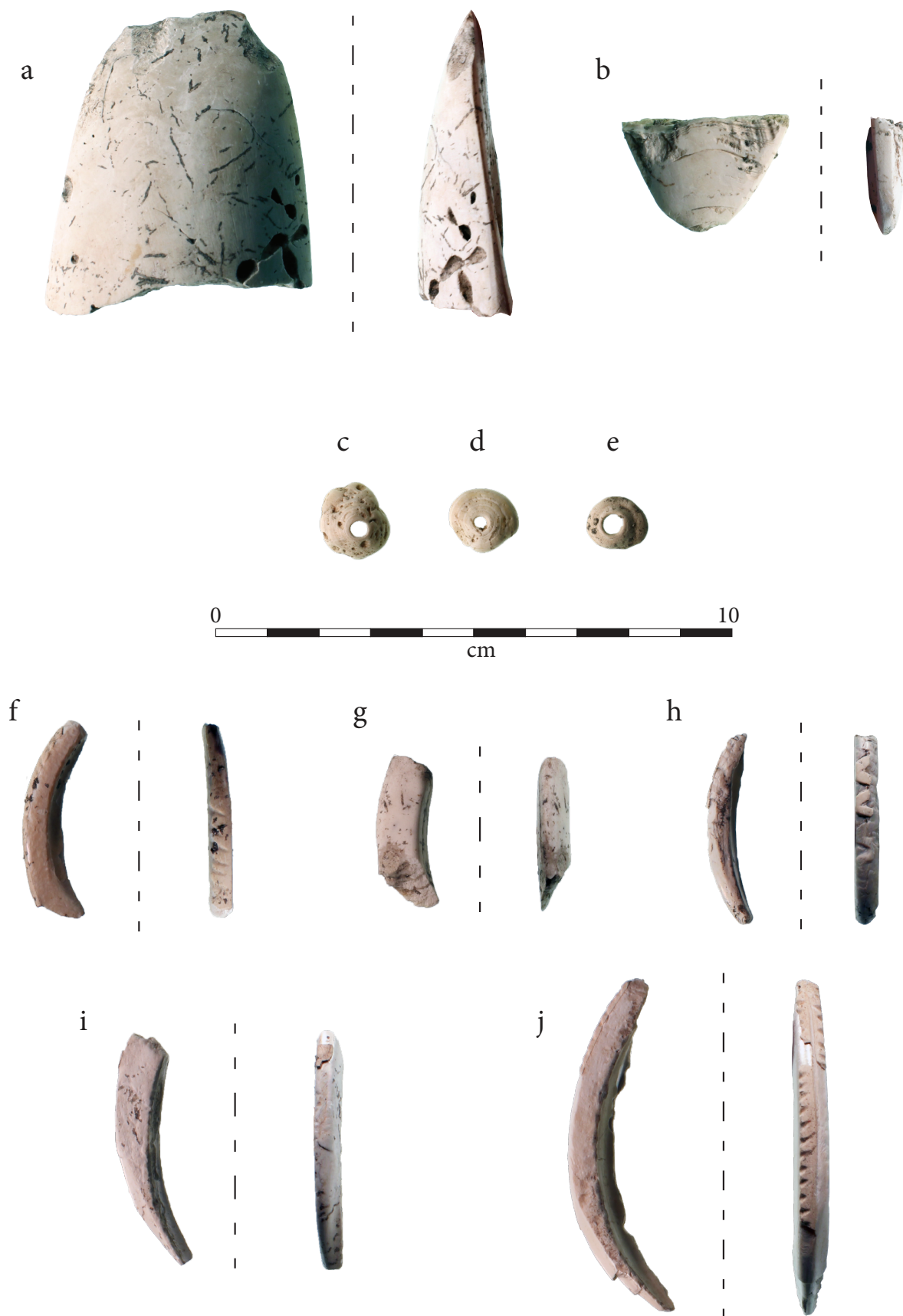
Obsidian stone tools indicate trade connections with the Bismarck Archipelago. Obsidian stone sources are geographically limited and so there are only a small number of locations to obtain this very sharp cutting rock. It is likely that obsidian was traded into the Vitiaz Strait (at Long Island or Umboi Island) and then exchanged to the Rai Coast or to the Bel traders directly. Other stone tools of lesser quality such as chert and argillite was also traded in to Madang and this likely derives from the hills behind the Rai Coast.

Shell artefacts include tools such as adzes, made from giant clams, which could be used for wood-working and processing sago, and net weights which were tied to the edge of fishing nets. These artefacts also include a variety of shell ornaments such as incised shell armbands, shell and coral beads, and shell breastplates. There is also evidence for the local manufacture of many of these ornaments on-site.

In addition to these artefactual categories, the excavations also uncovered substantial evidence for the pre-colonial diet. This diet involved a myriad of locally caught shellfish, and large reef fish, along with domesticated animals such as pig and dog.

Below: Decorated pottery fragments excavated from Tilu site.





Above: Shell artefacts excavated from Nunguri site: a-b, shell adzes; c-e, shell beads; f-j, shell armbands with carved motifs.

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N-142 Spit 2



N-163 Spit 2



N-642 Spit 3



N-692 Spit 3



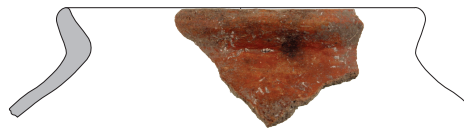
N-2011 Spit 7



N-2738 Spit 11



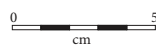
N-3405/3407/3454 Spit 14



N-3702 Spit 15



N-3866 Spit 16



Above: Pottery from Nunguri site. All are examples of pots which were produced around Madang and probably on Bilbil Island.

Endnote

The Madang District is an important area of the New Guinea coast with a rich archaeology and material culture. This archaeology can tell us a lot about the human past in the region, such as when Austronesian speaking groups arrived on the coast, why ancient trade networks expanded, and how technology has developed over time. The archaeological excavations at Bilbil and Malmal have shown that the Bel probably moved onto the Madang coast about 650-550 years ago, where they continued to make bright red pots and trade them to others along the coast. This event occurred several generations prior to the Time of Darkness and is consistent with oral histories, which tell of the Bel migrating from the legendary Yomba Island that sank into the ocean. How Yomba sank and to where the populous first escaped to is still a matter of debate.

The Bel came to Madang with an expert potting knowledge, and the techniques used to produce pots have changed only slightly over the centuries.

Five hundred years ago, the ancestors of modern Bel potters were using paddles and anvils and bright red slip, in a similar way to today. The Bel traded these pots for shell armbands, stone axes, obsidian, and pigs, which were all uncovered in our investigations.

Examples of many of these objects can be seen in the Madang Cultural Centre, or other museums around the Pacific and in Europe. The pots which the Bel produce today are modern iterations of a long tradition of pottery manufacture. Although the Yabob do not regularly produce pots for trade any more, the Bilbil frequently make pots and sell them around Madang and to tourists.

Archaeological work in Madang will continue as future projects- around the northeast coast and even in the Madang Highlands. This will link the current research into a larger context, aiming to investigate the early peopleing of Papua New Guinea, tens of thousands of years ago, the migrations of Austronesian-speaking communities along the coast, and the creation of complex long-distance trade networks. All of these questions are of international significance to archaeology and anthropology and are only beginning to be unravelled.

Below: Glenn Summerhayes and Herman Mandui discuss archaeology at Bilbil village (Photo: M Mennis 2014).





Presenting community reports back to Bilbil village (left and bottom) and Malmal village (centre). Photos: K. Miamba, N. Murio, and D. Gaffney 2016).



Further reading

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