

‘Seducing the fish?’ Marine interspecies relations on Lavongai Island (Papua New Guinea)

Mark Collins

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THÈSE DE DOCTORAT

Soutenue à AMU – Aix-Marseille Université
le 12 décembre 2024 par

Mark COLLINS

‘Seducing the Fish?’

Marine Interspecies Relations on Lavongai Island (Papua New Guinea)

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École doctorale

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Laboratoire de recherche

Centre de recherche et de documentation sur l’Océanie (CREDO) UMR 7308

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For **Juliette**, who first pushed me towards anthropology, then never ceased to encourage and support me.

In memory of those who saw the beginning of this work and with whom I would have wished so dearly to share it but no longer can:

Geoffrey G Collins
8 September 1947 – 4 August 2020

Simone Balp
22 April 1932 – 11 May 2022

John Songo Masngai
12 December 1964 – 9 July 2023

Glenys J Pegg
17 June 1934 – 8 March 2024

‘Seducing the Fish?’

Marine Interspecies Relations on Lavongai Island (Papua New Guinea)

A PhD thesis in anthropology by

Mark COLLINS

Defended at Aix-Marseille University
on 12 December 2024

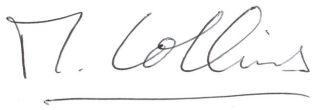
Volume I: Text Body

Affidavit

I, the undersigned, Mark Collins, hereby declare that the work presented in this manuscript is my own work, carried out under the scientific direction of Pascale Bonnemère and Anne Di Piazza, in accordance with the principles of honesty, integrity, and responsibility inherent to the research mission. The research work and the writing of this manuscript have been carried out in compliance with both the French national charter for Research Integrity and the Aix-Marseille University charter on the fight against plagiarism.

This work has not been submitted previously either in this country or in another country in the same or in a similar version to any other examination body.

Saint-Jeannet, on 15 October 2024



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List of Publications and Conference Presentations

Publications related to this thesis

Forthcoming

Collins, Mark, Clara Lord, John Aini, Marion Mennesson, Iris Portoleau, and Philippe Béarez (2025). '*Riranga*: Amphidromous *Sicyopterus* spp. Whitebait on Lavongai Island (Papua New Guinea)'. *Cybium, International Journal of Ichthyology*.

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Collins, Mark (2021b). '« Les gros poissons se cachent ». Frictions entre conceptions du vivant marin sur l'île de Lavongai (Papouasie-Nouvelle-Guinée)'. *Journal de la Société des Océanistes*, vol 153, pp 337–352. DOI: 10.4000/jso.13344.

Conference presentations

Collins, Mark (2022). '« Pourquoi tous ces oiseaux ? » Premières pistes de recherche au retour d'une enquête ethnographique sur les relations interspécifiques marines à Lavongai (Papouasie-Nouvelle-Guinée)'. In: *Séminaire du Centre de recherche et de documentation sur l'Océanie (CREDO)*. Marseille, France. URL: https://hal.archives-ouvertes.fr/hal-03893703.

Abstracts

English abstract

'Seducing the fish' is a phrase which was once used by a man from Lavongai island to describe the 'fish-calling' magic with which he can influence these animals. This doctoral thesis in anthropology asks how such an expression applies to these practices, as a gateway to exploring the interactions between people of Lavongai and marine animals. It approaches the practice of fish-calling by inscribing it within a general ethnography of Lavongai coastal society and uses it to question marine interspecies relations in this setting.

This work is based on 12 months of ethnographic fieldwork carried out on Lavongai (or New Hanover). It contributes detailed ethnographic material and analysis concerning key aspects of Lavongai society: its clan-based organisation, kinship relations, and tenureship practices, and the extended funerary cycle. It also provides a case study of relations between humans and nonhumans in coastal Western Oceania. It demonstrates that fish and other aquatic beings are of great economic, ritual, and cultural significance to the Lavongai people, and that they play a role in the mythology and during dances through which humans attempt to identify with them. It documents the wealth of knowledge which the Lavongai people hold concerning marine animals, their reproduction, their development, their life histories, the locations where they dwell, and their behaviours.

Furthermore, it analyses this ethnographic material through two theoretical approaches. First, the ontological framework (Descola 2013) highlights the way Lavongai people apply a form of homological reasoning when thinking about 'physicality' (body, substance) and 'interiority' ('spirit' or 'inner being') of humans and some birds, in a way that is characteristic of totemism. Clans are named after 'totem' birds, and people in a clan are seen to share physical and internal properties with their respective totems. However, there are limits in the applicability of this model, which leads to the proposal that—in the context of a totemic ontology—it may be difficult to distinguish between physicality and interiority. Moreover, considerations regarding physicality and interiority of non-totem animals are evocative of naturalism (continuity of physicalities, discontinuity of interiorities between humans and nonhumans), suggesting that forms of hybridisation and composition of ontologies are at play.

Second, by inscribing this data in a biosemiotic approach, the thesis highlights the existence of dense networks of interspecies semiosis. This involves humans interpreting signs which they see as being produced by fish, spirits of deceased ancestors, and birds. Humans also attempt to adopt a 'fish's point of view' to conceive of how the signs they address to them will be received. These aim to 'call' and 'tame' them; to encourage their permanence through a fishing prohibition known as *vala*; to make *riranga* goby aggregations feel 'welcome' and remain in the estuary; or to trick fishes with lures. In other words: Lavongai people lend considerable semiotic ability and agency to these animals.

Finally, in attempting to reconcile these two approaches, this thesis proposes a viewpoint in which interspecies interactions bind together ontological considerations and biosemiotic processes. Since it is clear that ontologies do evolve, recompose, and hybridise, the proposal is that signs exchanged between humans and those nonhuman beings about which they have ontological representations are important drivers of this change.

Keywords: human-animal relations, interspecies anthropology, Western Oceania, Papua New Guinea, ethnography.

Résumé (French abstract)

Titre français : « Amadouer les poissons ? » Relations interspécifiques marines sur l'île de Lavongai (Papouasie-Nouvelle-Guinée).

« Amadouer les poissons » ; cette formule est celle d'un homme de l'île de Lavongai, qui l'a employée pour décrire l'influence de sa magie sur ces animaux. Cette thèse de doctorat en anthropologie interroge l'application de cette expression à une telle pratique, qu'elle prend comme porte d'entrée vers les interactions des habitants de Lavongai avec les animaux marins plus généralement. Elle aborde ces pratiques destinées à « appeler les poissons » en les inscrivant dans une ethnographie généraliste pour questionner les relations interspécifiques marines.

Elle se fonde sur 12 mois d'enquête réalisée sur l'île de Lavongai (ou Nouvelle-Hanovre). Elle apporte des matériaux ethnographiques détaillés et des analyses concernant les principaux aspects de la vie sociale lavongai : l'organisation clanique, les relations de parenté, l'organisation foncière, et le cycle funéraire. Elle propose également une étude de cas des relations entre humains et non-humains dans une localité côtière de l'Océanie Occidentale. Elle démontre que les poissons et autres êtres aquatiques sont significatifs sur le plan économique, rituel, et culturel pour les gens de Lavongai, puisqu'ils sont présents dans les mythes et des danses dans lesquelles les humains tentent de s'identifier à eux. Elle documente les savoirs lavongai concernant les animaux marins, leur reproduction, leur développement, leurs histoires de vie, les lieux où ils demeurent, et leurs comportements.

Elle analyse également ce matériau ethnographique au travers de deux approches théoriques. Premièrement, le cadre ontologique (Descola 2005) met en lumière l'existence d'un raisonnement homologique liant la « physicalité » (le corps, les substances) et « l'intériorité » (« l'esprit » ou for intérieur) des humains et de certains oiseaux ; un procédé caractéristique du totémisme. Chaque clan porte le nom d'un oiseau « totem », et ses membres partagent des propriétés physiques et internes avec cet oiseau. Néanmoins, il existe des limites à l'application de ce modèle ici, qui conduisent à proposer que, dans le contexte d'une ontologie totémique, il pourrait être difficile de distinguer ce qui relève de la physicalité de ce qui relève de l'intériorité. Les considérations concernant la physicalité et l'intériorité des animaux non-totems évoquent par ailleurs le naturalisme (continuité des

physicalités, discontinuité des intériorités entre humains et non-humains), ce qui suggère des formes d'hybridation et de composition ontologiques.

Deuxièmement, en inscrivant ces données dans une approche biosémiotique, cette thèse éclaire l'existence d'un dense réseau de sémiose interspécifique. Celui-ci suppose l'interprétation par les humains de signes émis par des poissons, des esprits d'ancêtres défunts, ou des oiseaux. Les humains tentent également d'adopter le « point de vue des poissons » afin de se figurer leur perception des signes qu'ils leur adressent, à différentes fins : les « appeler » pour les « domestiquer » ; les encourager à rester quelque part grâce à un interdit de pêche appelé *vala* ; faire rester longtemps dans l'estuaire des gobies *riranga* ; les piéger avec des leurres. En d'autres termes, les gens de Lavongai prêtent des capacités sémiotiques et une agentivité considérables à ces animaux.

Enfin, afin de tenter de concilier ces deux approches, cette thèse propose une perspective dans laquelle les interactions interspécifiques relient considérations ontologiques et processus biosémiotiques. Puisque les ontologies évoluent, se recomposent, et s'hybrident, les signes échangés entre humains et autres êtres à propos desquels ils ont des représentations ontologiques pourraient être des moteurs importants de ces changements.

Mots clés : relations humains-animaux, anthropologie interspécifique, Océanie Occidentale, Papouasie-Nouvelle-Guinée, ethnographie.

Amalmalangasai i buk ke (Tungag abstract)

Asan i avibisan ke nei dang i rina: 'Pupulu ani ri ien?' Angtogonan si ri vap na manmanik i nei laman makasim e kulenusa Lavongai (Papua Niugini).

Mang sikei a anitun i kulenusa Lavongai katala dang bilangke ta, kate nas ni 'pupulu ani ri ien'. Man kala dang bilangang, kala dang ta sa kate nas ni abis ia ve uriuri si songo ani ri ien. Buk ke kate mang sikei a abis i PhD neite science kite posong ia ta *anthropology* nei dang Ingilis. Kate sui bilangke ta: selen i songo ni ri ien, kate saka pupulu an? Na maraisa vuk antok an, 'pupulu', anitun ang kata atung ia ani avibisan ke? Kate luk a keve susui ke val tutapongai i selen si amalangasai ani keve angtogonan nei liuan i ri vap i Lavongai na ri manmanik i nei laman makasim. Kate palak si dang i songo ni ri ien, na kate amalangasai nia nei ararai lava si selen i to na selen i ol e rina si ri vap i Lavongai. Kate buk amalangasai kapa a angtogonan i keve nem to aongos e ngerelo na nei laman makasim.

Nau, a vo kalkalang ni buk ke, Mark Collins, nata pasal le France si me ol e Metevoe, mang sikei a rina e ngerelo i kulenusa Lavongai (o Niu Hanover), sikei a sangauli na pongua na ulen. Nei buk ke, sa nate dang tatana, nata arai ia, o ri vap kita dang tatana singig e Metevoe si kag taun i ol e vuang. Buk ke kate dang ta selen i ol na selen i to ti ri vap i Lavongai: kari keve patmanu, kari selen i osongon, kari selen i angsongo, kari selen i teng vunep na pagal vunep si vil matang o bis lu, kari selen i kepkepai na vil matanangan si taun a matmat ka serei. Buk ke kate kun toron a mang nem kate dang tatana: kate angtogonan nei liuan i ri vap i kulenusa ke, na ri manmanik i nei laman makasim. Ien, na mang keve manmanik i nei makasim, kite duk i abis ani ri vap i Lavongai: kite nem

i te angan, kite nem i salim nei maket, kite nem i ol neite aiveven i mang keve avibisan amunai si ri vap nas. Au, kapa, kate toron a mang keve mikamika o malmalang i Lavongai voiang kate mika ti ri ien. Bilangang, nei buk ke, kate kun dang ta nas ang voiang ri vap i Lavongai kite toron ia ani ri ien: ien kite saka akau an? saka polok an? kari ring ite ol e voi? kari pasalan kate saka bil an? na mang keve ararai aliu bilangang.

Buk ke kate amalangasai a keve dang ke si pongua na arairai, voiang a mang keve vap lava si *anthropology* aino kita lomlomonai anirilong.

Ainoan i ararai ang, kate anu voiang kite posong ia ta *ontology* nei Ingilis (anitun ang kana asan ta Descola kata kalang kuluna, nei kana buk i 2013). Ararai ke, kate dang ta keve nem to aongos, kite toron a pongua na palpal: mang anu kate pukun, na mang anu kate malanganto, o pato, o kankanuai. Au na nei buk ke, nala luk a lomlomonai si ri vap i Lavongai kuli pukun o malanganto si ri vap, na ri manmanik, alava ina na manu. Nala amalangasai a sa kate kuvul, na sa kate petekai, nei lomlomonai si ri vap i Lavongai, nei liuan i poisan a matanvap (keve patmanu) na mang keve manu (keve manu siksikei si keve patmanu) e Lavongai. Using a keve patmanu i Lavongai, kite asan ta mang poisan a manu ang.

Apongua i ararai kate anu i '*biosemiotics*'. Asan ke, kate toron a pongua na palpal: '*bio*' asukang ta 'to', na '*semiotics*', kate *study* i *signs*, asukang ta selen i amalangasai ni keve nem, o dang ta keve nem. Bilangang ta ri ien, ri anit, na ri manu kite tav dang val ri vap, sikei kite amalangasai ta mang keve nem, val sa kite buk ia o sa kite misag ania, na ri vap kite nas ni arai ni ien, o manmanik, na kite kinlei a kari vubukai or sa kite misag ania. Au, na ri vap kite abis a mang keve avibisan voiang kite lomlomonai ania si ri ien ki luk a ro na supsupai ina. Bilangang ta, kate toron a keve avibisan si amalangasai ani ri ien a sa, o sa. Ri vap kite nas ni songo ni ri ien, na asiang a mang keve uriuri nei laman si vil iria ta kila tav lomoi. Ri vap i Lavongai kite kun nas ni abis a mang keve avibisan si vil ni mang sikei a ien lik luai, kite posong ia ta riranga, ka ol a taun vunga mete rina. Kite mamaila ani ien ang, na kite sasagi na angalilisai a fok ina le, na ien ang ka ol a ro luai, na ka tav palak sumasuma nei sung.

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Laimen Beling fishing at sunset. 22 August 2023, Metevoe.
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It is a paradox of the way universities function that a document which receives the direct and indirect assistance of so many people, such as this thesis, should ultimately be signed by just a single author. In any other situation, similar shared work would indubitably require shared authorship, but in this case it is forbidden. I am therefore left with the difficult task of having to thank all those who contributed to this work, whose names are not on the front page, but should be. To all of you: be assured that this work would have been impossible without the sum of all your inputs, and that this is indeed a collective endeavour.

First and foremost, to the people of Metevoe who hosted me, helped me, supported me, taught me their language, their ways, explained what I did not understand, laughed and cried with me, and agreed to play along with this unusual request for long-term research: my deepest and most sincere thanks. *Kag posong ro luai animi aongos, ri vap i Metevoe voiang mitala aiveven anig, na ali pakangai anig, na akalit iau ta selen i dang i rina, na amalangasai ni keve nem aongos natala tau aniria. Taratala los na tangis kuvul, na nata ol ve nami val nate ol ve kag matanvap a korong. Kalaro, kalaro, na kalaro luai. Mang kate*

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When I was three years old, my parents made the choice to move from England to France because they knew the benefits which such a multilingual and multicultural upbringing could have for the young child that I was. It must have been a form of sacrifice to them, but without this, I would have been a very different person and my interest in language would not have been so keen. I am very grateful that they made this choice for my benefit, as I am to them for bringing my brother and me up in such a supportive and open-minded way.

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Summary

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Preliminary Notes

People and places

The places and the vast majority of the people described in this thesis have not been anonymised nor substituted in any way. Indeed, I asked my interlocutors if they agreed to be named directly and showed photographs which I had taken of them, asking if they would allow me to use these in this work. Nobody refused, quite the contrary: the reactions were enthusiastic, they wanted to be included, named, shown in photographs; they wanted me to write about their village and their island. For this reason, and because when asked they did not consider that the work contained in this thesis was confidential in any way, I have followed their wishes. I hope this choice will offend nobody and that all who are cited and mentioned here will take pride in the work we have done together being fixed on paper and on digital storage for future generations both of locals and scholars of the region to read. This is also the reason why I have chosen, despite being enrolled in a French PhD program, to write this thesis in English, so that those Papua New Guineans who can read it are able to consult this document if they so wish.

The only exception to this concerns the 'fish-callers' who agreed to speak with me about their knowledge. None of them explicitly requested that I withhold their names, but it is clear that what they told me is secretive and precious. For this reason, I refer to them with pseudonyms chosen randomly in a list of current local given names.

Credits for photos and other figures

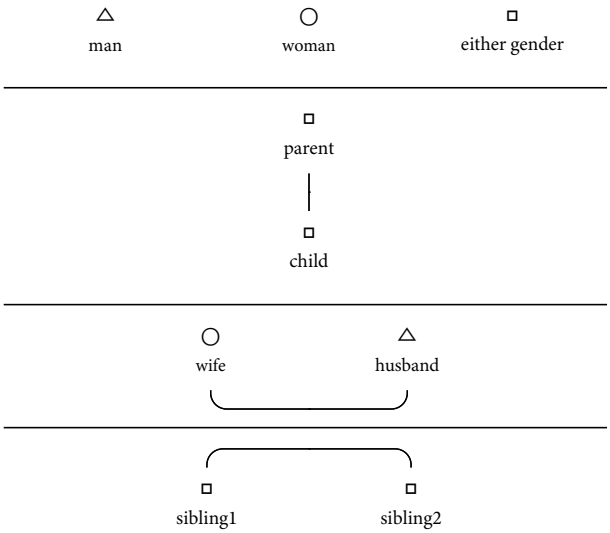
Except where stated otherwise, throughout this thesis, all photos are my own work. When a figure is drawn from another source, this is either used because it is in the public domain, or because its copyright holder has published it under a permissive licence such as the Creative Commons (CC) Licence allowing for its reuse in this context.

Conventions

This thesis is written with reference to British English spelling and typographical conventions, according to the New Oxford Style Guide (Waddingham 2016) and the corresponding short typographic reference edited by the University of Oxford (2016). It has been typeset using LuaLaTeX following the class provided by Aix-Marseille Université.

Quotations of my interlocutors' statements are referenced with the person's name underlined in order to distinguish them from bibliographic references, which are made using the 'author date' format and refer to the References on page 481 at the beginning of Volume II.

In kinship diagrams, the following conventions are used as is standard in anthropology:



Several abbreviations are used in this context, which also have the standard meaning in kinship studies of: M=mother, F=father, S=son, D=daughter, Z=sister, B=brother, C=child, P=parent, W=wife, and H=husband. I also use the lowercase specifiers: ms=man speaking, ws=woman speaking, ss=same-sex, and os=opposite-sex.

Foreign languages and translation

The Tungag language which is spoken on Lavongai and which features prominently in this thesis is essentially an oral one. It has a tentative orthography which I attempt to adhere to here when transcribing speech I heard, but some transcriptions would no doubt be challenged by native speakers. I do however attempt to follow the orthographic conventions laid out by KE Fast (2015, pp 16–17), who gives the following table drawing correspondence between International Phonetic Alphabet (IPA) phonemes and spellings:

a	ʌ	b	d	ɛ	ɸ	g	gː	ɣ	i	k	kː	x	l	lː	m	mː	n	nː	ŋ	ŋː	ɔ	p	pː	ɾ	r	s	sː	t	tː	u	β
a	a	b	d	e	f	g	g	g	i	k	k	k	l	l	m	m	n	n	ng	ng	o	p	p	r	r	s	s	t	t	u	v

As for the orthography of Tok Pisin, I follow the standard which has been adopted nationally in Papua New Guinea since the mid 1950s, as found for instance in Mihalic (1971, pp 2–8). The orthography is approximately the following:

a	b	d	e	f	g	h	i	d͡ʒ	k	l	m	n	o	p	ɾ	s	t	u	v	w	j
a	b	d	e	f	g	h	i	j	k	l	m	n	o	p	r	s	t	u	v	w	y

In Tok Pisin, 'the consonants are generally close to their IPA values' and the 'five basic vowels' are 'fairly close to cardinal IPA values' (GP Smith 2008, pp 195, 198), meaning they

are pronounced much as they would be in English. Tok Pisin does however show some variation in pronunciation across the country (see GP Smith 2008).

This thesis relies heavily on personal translations of material which was originally spoken or written in a language other than English. When citing a passage which has been translated, in order to make the translation verifiable while not distracting from the main text, I have used endnotes prefixed with a 'T', such as this one.[T98] Corresponding original texts can be found in Volume II on page 721. Footnotes are used throughout the manuscript for all other purposes.

Translated text includes statements by interlocutors on Lavongai in their vernacular Tungag language, as well as others in the Papua New Guinea vehicular creole language, Tok Pisin. In both these cases, I relied on my own abilities in these languages, as well as on assistance from native speakers where necessary for the translations.

There are also translations from works in other languages than English and for which no published translation could be identified. These include French, of which I am a native speaker and for which I provide my own translations. They also include some citations translated from German, a language in which I have minimal abilities, and for which I received assistance from Melina Danesh and Tobias Wagemann.

Whichever the source language, any inaccuracies in the translations are of course my responsibility.

The thesis also includes interlinearised and glossed text where a more fine-grained analysis of the vernacular language is warranted. For these, I follow the widely accepted conventions known as *The Leipzig Glossing Rules* published by the Department of Linguistics at the Max Planck Institute for Evolutionary Anthropology (Comrie, Haspelmath, and Bickel 2015). These make use of the following abbreviations:

1	first person
2	second person
3	third person
BEN	benefactive
CAUS	causative
CONT	continuous
DEF	definite
DER	derivation
DET	determiner
EXCL	exclusive
GEN	genitive
INTJ	interjection
LOC	locative
MTW	motion towards
NEG	negative
OBJ	object
OBL	oblique
PFV	perfective
PL	plural
POSS	possessive
POST	postposition
PRF	perfect
PST	past
REDUP	reduplication
SG	singular

Document structure and section numberings

This thesis is organised into two volumes in order for the paper version to obey printing and binding constraints. The first volume contains the preliminary pages and the text body. The second volume contains the list of cited references, 11 appendices, the endnotes in 'T' (originals of translated texts), a table of contents, and lists of figures, tables, and maps.

Pages and endnotes are numbered continuously throughout the entire thesis. In the text body, chapters are numbered from 1 to 9. Within each chapter, sections and subsections are numbered hierarchically: for example in chapter 5 the first section is 'Section 5.1' and its first subsection is 'Sub-section 5.1.1'. Figures, maps, tables, and interlinear glosses are equally referred to by labels prefixed by the chapter number: for example 'Table 7.2' is the second table appearing in Chapter 7. Footnotes are numbered continuously within each chapter.

Foreword

How a topic of research is chosen owes as much to one's personal inclinations and competence as it does to the major preoccupations of the time and place in which it is thought out. Each generation of anthropologists have had their own reasons for focussing more on one aspect or on another of sociocultural life, influenced in this by the dominant preoccupations of their respective eras.

This thesis and the research that underlies it have been developed in a time in which the most pressing issue is the ecological and climatic predicament into which globalised capitalism and extractivism have drawn the earth. There is no questioning the fact that we now live in a world where the planet's biosphere is being disrupted and its climate destabilised to an alarming degree (IPBES 2019; IPCC 2023). Although the term 'Anthropocene' has recently been rejected as a geological epoch by the International Union of Geological Sciences (IUGS), this is nonetheless a time period in which the nefarious influence of our species—or rather of a small share among our species—is the major driver of rapid biological and climatic change. Marine life is affected more specifically by the current trend in anthropogenic global warming brought about by the combustion of fossil fuels. This is causing an increase both in oceanic temperatures and in seawater acidity, which marine biologists warn pose a grave danger to the coral polyps that form the keystone species of equatorial and tropical reef environments. The frequency of 'coral bleaching' episodes caused by these oceanic changes is increasing dramatically (Hughes *et al.* 2017, 2018).

Far from being a purely scientific or technical issue, this is a keenly political one. Indeed,

> the warming is undoubtedly global on the scale of the sciences that study it, but it takes on distinct forms for human and nonhuman collectives depending on where they live and the means which they have to deflect some of its effects. In short, we are indeed all on the same boat, but it is not the same thing to be stuck in the cargo holds, the first to drown, or on the first-class deck, near the life-rafts.[T1] (Descola 2018, p 28).

The choices in subject and location made at the onset of this work cannot be detached from this situation. This is an anthropological study of the relations between the people living on the coast of Lavongai Island and the nonhuman beings they coexist with, and it grew out of a preoccupation with the way humanity and the rest of the biosphere interact. Although the topic of this thesis is not the human-induced loss of biodiversity nor the radical climatic changes that are currently underway, my intention is to further our understanding of one of the myriad ways in which humans *can* interact with other life forms while living in one such 'cargo hold' of our shared tellurian vessel. By describing, analysing, and publicising these forms of living in the world which the people in question experience as participants in a whole mesh of interspecies relations, the aim is to make a small contribution to changing how those like us who are on the 'upper deck' view our own place in the biosphere. For

I concur with Philippe Descola that 'if we can be useful [as researchers] it is also and especially by trying to disrupt our scientific vision of the way we inhabit the earth and by hoping that our ideas will expand beyond laboratories and scholarly journals.[T2]' (2018, p 28). With this framing explicitly stated, let me now turn to the actual focus of this thesis: the marine interspecies relations in which the Lavongai people engage.

General Introduction

> I sing this song. I roll the baskets with plants inside them on the sand, then I put them in the water on the reef. They stay there, and their smell calls the fish and brings them up to the shore. That is what seducing the fish means.[T3]
>
> Bernard, 16 October 2019

Bernard is a fisherman from the south coast of Lavongai, an island which is part of the Western Oceanian nation of Papua New Guinea.[1] He possesses knowledge of songs and associated magic which allows him to influence the behaviour of fish. The rather specific metaphorical turn which Bernard imparts to his last sentence raises many questions. How are these practices seen to be akin to 'seducing' the fish? What perceptions and conceptions does this formulation suppose on the part of the fish he aims to influence in this way? The word he employs, *malira*, refers to 'love magic'; it is intended to convey the fact that esoteric knowledge is being employed that will result in the recipient—a woman, usually, or fish in this case—coming to like the practitioner. They will be enchanted, charmed, seduced.

It is this particular form and the many other forms displayed by relations between the people of Lavongai and the living beings of their marine environment that will be explored here, in an attempt to understand the role that aquatic beings play in the cultural fabric of this island's society. By doing this, I hope both to render more intelligible this culture and maybe to contribute to our knowledge of relations that exist between all types of beings—human and otherwise—in coastal and marine environments.

Anthropology has historically, since its institution as a discipline in the 19th century given considerable attention to relations between human societies and their 'environment', including other nonhuman living beings. The way such topics are broached in the discipline has since undergone many changes. Indeed, anthropologists have pointed out that certain partitions of the epistemic domain—which used to be seen as necessary for the purposes

1. Bernard is a pseudonym here; see the Preliminary Notes on page xiv.

of disciplinary specialisation—have in fact created or reinforced dichotomies that are now hard to work around empirically. Thus, Claude Lévi-Strauss asked over half a century ago: 'Where does nature end and culture begin? Several ways can be suggested for answering this dual question, but so far all have proved singularly disappointing.' (1969, p 4). This dualism between 'nature' and 'culture' is now criticised by anthropologists on several levels. They point out that it belongs to a specific tradition of Western, Cartesian philosophy (Wagner 1977; M Strathern 1980). Moreover, they show that this dualism is a potential barrier towards understanding the worldviews, cosmologies, and specific metaphysical positions of the societies with which they work (Descola and Pálsson 1996; Ellen and Fukui 1996).

Other anthropologists, accompanied by scholars from disciplines such as biology and ethology, have drawn attention to the fact that such 'human exceptionalism' implied by the attribution of a 'cultural' ability solely to humans is equally untenable (Di Piazza 2005; Alter 2023). Indeed, successively, each of the supposed 'abilities' which some would consider to make humans into radical outliers in the realm of Animalia (ability for culture, for language, for art, for industry) have been shown to dwell along many different continua, on which humans are diversely situated alongside other living beings (Rose 2017, p 55).

All these works have contributed to the emergence of a subdomain of the discipline known as 'anthropology of nature', following the expression with which Philippe Descola named his chair at the Collège de France (2001). This aims to resituate the study of humanity within a resolutely nondualist paradigm. This is because the various societies in which ethnographies have been produced show there are diverse ways of organising and conceptualising mankind and other beings that are not limited to the nature-culture dualism.

This thesis resolutely places itself within the field of anthropology of nature and stands by its intellectual legacy. It is concerned with relations, with the ways in which different kinds of being—including but not limited to humans—interact and connect. There is now a considerable literature in anthropology of nature that focuses specifically on the study of relations between humans and what is variously referred to as 'nonhumans' (Mezzenzana 2018), 'other-than-humans' (Harrison-Buck and Hendon 2018), 'more-than-humans' (Tsing 2013; Chao 2022), or, in French, as other '*existants*' (literally 'those who exist' or simply 'beings', Brunois 2007; Descola 2011; Simon 2021). Specific methodologies have been developed in this field which propose that ethnographers lend attention to the behaviours, attitudes, and perspectives not only of humans but of all the species involved in sociality, in what is generally referred to as 'multispecies ethnography' (Kirksey and Helmreich 2010; Locke and Muenster 2015; Bubandt, Andersen, and Cypher 2023). Moreover, ethnographers and ethologists draw attention conjointly to the agency that nonhuman beings have in their interactions with humans, since 'not only do animals influence human history and take on an active role in it, they are also and especially protagonists in an interaction [...] during which each has the ability to make the other act and to transform his behaviour.[T4]' (Manceron 2016, p 289).

Here, I refer to the theme of this research as 'interspecies relations', borrowing an expression from biology. I 'use the term *interspecies* to refer to relationships *between* different forms of biosocial life' and as 'a capacious framing paradigm that names the articulation of human/nonhuman binaries and human/animal/plant taxonomies as interrelated even

as these continue to operate in both congealed and differentiated modes.' (Livingston and Puar 2011, p 3). Although the concept of 'species' is drawn from the Western scientific tradition and is fraught even within the confines of biology (Zucker 2020; Herrera and Garcia-Bertrand 2023), anthropologists have shown that the tendency to distinguish 'species' and classify them is a human universal (Ellen and Reason 1979; Atran 1998; Ellen 2006). I therefore refer to 'interspecies relations' here with a relatively open definition of *species*, which should be understood to mean nothing stricter that 'kind of being' or 'group of beings of the same type' as recognised locally by a given society. This aims to emphasise the shared agency of all participants in these relations, whichever 'species' they may belong to. In other words: the premise of this work is that relations are not only human phenomena, but that there are relational intentions, actions, and behaviours throughout the domain of life.

The French anthropologist Marie-Claire Bataille-Benguigui has pointed out that within 'human-animal studies' most publications 'deal with relations between mankind, animals and their environment, and [...] the environment and animals in question are mostly terrestrial, [...] the animals that we can meet, follow, domesticate or hunt share our own living environment, which is not aquatic.[T5]' (2011, p 57). Her remarks still holds true 13 years later—and others have made similar observations more recently (Artaud 2019). The implication here is that there is a whole world of relations to be explored between coastal societies and beings living in and around the water. In other words, as far as the study of interspecies relations goes, in anthropology, fish and other animals of the sea have been largely 'left out'. Therefore, because the project of an 'anthropology of nature' to which this thesis adheres is to describe and attempt to comprehend the diversity of ways in which human societies relate with their living environments, focussing on those relations that involve marine animals appears as a fruitful endeavour. This is the case because it will provide new data for comparison with the existing—mostly land-based—studies of interspecies relations, and also because there are societies for which the focus of attention in such relations is not so much on terrestrial beings, but on those from the marine and coastal environments.

Nonetheless a sizeable literature exists that contains some information concerning anthropology of coastal societies. Publications in this domain from around the world have explored multiple themes, and several thorough reviews of this literature had already been written as early as the 1980s (Poggie 1980; Acheson 1981). A number of edited volumes have collected contributions of marine anthropologists (notably: Casteel and Quimby 1975; ME Smith 1977; Gunda 1984; Bouvet and Page-Jones 2020). A special issue of the *Journal de la Société des Océanistes* entitled 'Traditional fishing in Oceania' (*La pêche traditionnelle en Océanie*) collected 18 articles on this topic from around the Pacific (Bataille-Benguigui, Anderson, and Swadling 1981). There has been research in marine anthropology into the technical and livelihood concerns related to fishing, both in the seas (for example: Firth 1946; Bruguière 1986; Bataille-Benguigui 1989; Geistdoerfer 2007) and in rivers (Laval 2016; Grenand and Grenand 2020). Many such publications are of a more applied nature and concern the ecological impacts of fishing, or the potential for durable management of marine resources, in particular as these relate

with 'traditional' practices in coastal societies (for example: Akimichi 1978; Bambridge 2016; Fache and Pauwels 2020; Travési 2020). Scholars have discussed the pertinence of referring to a specific domain as 'anthropology of the sea', 'maritime anthropology', or 'marine anthropology', with many now considering this to be an important subdivision of the discipline (Geistdoerfer 2007; Artaud 2018; Reyes, Garineaud, and Chlous 2018). Large general comparative works have been published, such as the recent book by Hélène Artaud (2023) which compares the ways that 'Atlantic' and 'Pacific' peoples have of conceptualising and relating to the respective oceans near which they live.

Oceania has been characterised by Tongan and Fijian anthropologists Epeli Hau'Ofa (1994, 2005, 2008) as a reticulated and connected 'Sea of Islands', a vision of this geographical area which he opposes to one which would have cast it as a fragmented seascape dotted with isolated islands. This aquatic continent has naturally featured among the locations where works concerning marine anthropology have been published (for example Firth 1981; Johannes 1981; Firth 1984; Bataille-Benguigui 1986; Leblic 2008).

However, some areas of Oceania have seen relatively few anthropological studies carried out into marine issues. Scarcely a monograph is published concerning populations of Papua New Guinea, the Solomon Islands or Vanuatu that does not in some way present the role of pigs in social life, and for many of the region's societies these are indeed among the most important animals (Thurnwald 1934; Rappaport 1967; Meggitt 1974; Hide 1981; Dwyer 1990; Stasch 1996; Minnegal and Dwyer 1997; Hide 2003; K Schneider 2013; Sillitoe 2021). Another group of terrestrial animals that has received the attention of ethnographers in this region is birds (Radcliffe-Brown 1951; Gi, Majnep, and Bulmer 1975; Bulmer 1976, 1979; Feld 1982; Sinclair, Tuke, and Opiang 2010; Tidemann and Gosler 2010), notably the flightless cassowary (Bulmer 1967; Bonnemère 2006; Brunois 2007). In other words, the literature on marine interspecies relations in this part of Western Oceania[2] remains comparatively scant in comparison to that which focuses on relations with non-marine animals in that area, especially when considering the large number of societies that live in this part of the maritime continent.[3]

Moreover, most of those studies that do exist in this region on this topic date from an era in which anthropologists largely approached the roles of nonhumans in social analysis as either objects of utilitarian or symbolic attention; in other words, as either 'good to eat' or 'good to think' in Lévi-Strauss' famous formulation (1963b, p 89). They did show, however, that people who live in coastal locations in this area, far from being 'land bound'

2. The Western Oceanian nations of Papua New Guinea, the Solomon Islands, and Vanuatu are often referred to collectively as 'Melanesia' (with Fiji, Tonga, and New Caledonia sometimes included, as well as the disputed territory of Papua which is under Indonesian control). The term refers to the skin colour of its inhabitants and originates in the early colonial era of the region, when Europeans contrasted it with the other regions of Polynesia (many islands), Micronesia (small islands) and Malaysia (land of the 'Malays', considered a distinct 'race'). I do not use this terminology here because of its racist undertones. However, some inhabitants of this region have 'turned the stigma around' and use the name 'Melanesia' as a marker of cultural identity (notably Bernard Narokobi, former Papua New Guinea jurist and politician, Narokobi 1980; Dobrin and Golub 2020).

3. Taking language as a form of proxy for cultural diversity, the fact that Papua New Guinea is home to several hundred coastal languages, the Solomon Islands over 60 and Vanuatu over 130 suggests there are many opportunities in these countries for exploration of these issues.

and concerned primarily with their gardens, are avid fishers, sometimes navigate great distances, and have detailed knowledge concerning animals of the sea (for instance see, Bell 1935a; Blackwood 1935, pp 326–359; Shoffner 1976, pp 168–251; Carrier 1982; Eley 1988; Schug 1995; Van Heekeren 2017).

More recently, since the advent of 'interspecies' or 'multispecies' approaches to the study of relations between humans and nonhumans, only a very limited number of anthropologists have carried out fieldwork in Western Oceania with recourse to such methodologies. These include Hviding in Marovo Lagoon in the Solomon Islands (1996), Schneider in the Autonomous Region of Bougainville both in Papua New Guinea (2012, 2013) and Calandra on the island of Tongoa in Vanuatu (2017, 2018). All have highlighted the important roles that aquatic animals have from a relational perspective for societies of this region. They show that animals of the sea are far more than a source of food and the substrate of symbolic projections, but that they form networks of relations with humans. This indicates that there is a need for more research into these themes in Western Oceania, and that the 'interspecies' methodologies can be fruitfully applied to such topics in this region. That, precisely, is one of the proposed contributions of the present thesis.

Fieldwork location

Part of Western Oceania, including all of New Ireland Province in Papua New Guinea, is included in what is colloquially known as the 'coral triangle' or 'Indo-Malayan centre of maximum marine biodiversity' (Hoeksema 2007). This is an area of warm equatorial and tropical seas where coral reefs are the dominant coastal ecosystem and constitutes the place on the planet where the highest concentration of marine species is found. People living in this area of the world are highly dependent on aquatic ecosystems for their livelihoods. According to a 1996 survey within Papua New Guinea, the administrative division known as the 'New Guinea Islands Region'—which comprises the provinces of Manus, New Ireland, East and West New Britain, and Bougainville—was, at the time, the country's largest consumer of fish, with 20 kg being eaten per person, per year (Hide 2003, p 128). This is why, when I began considering where I might conduct fieldwork for a research project into marine interspecies relations in Western Oceania, I turned my attention towards the New Guinea Islands.

At the onset of my research, I contacted several anthropologists who had recently conducted fieldwork in this area, and eventually began discussing my project with Paige West of Columbia University in New York. She put me in touch with John Aini, a former National Fisheries Authority employee, former president of the Lavongai Local Level Government (LLG), and local environmental activist whose work involves promoting customary practices in order to allow for durable management of marine resources. When I arrived in New Ireland, recommended by Paige West, I was hosted by John Aini and began searching for a location in which to carry out fieldwork. It was at John Aini's home that I met Laimen Beling of the Lavongai village of Metevoe, in southern Lavongai Island. After a few failed attempts to organise fieldwork in Tabar or in central New Ireland mainland, I eventually asked Laimen if I could come and stay in his village and not only did he accept

graciously, but he also put me up in his home. He and his family subsequently became my closest friends in Metevoe, helping me in every aspect of my work.

Lavongai Island measures some 50 km by 70 km and is home to over 30,000 people. Its climate is equatorial, and the livelihoods of the island's inhabitants are based on swidden horticulture, as well as raising pigs and chickens. They also—and more importantly here—catch fish over the coral reefs, in the estuaries and coastal waters around their island, as well as in the large rivers that flow down from the mountains located in the southern quarter. The island is large enough for its interior to be quite distant from the sea, however, the population overwhelmingly lives along the coast.

The work which this thesis is based upon is therefore grounded in the village of Metevoe, in south Lavongai. Throughout the thesis, I refer to the society that is being described as 'the people of Lavongai', because this island, along with neighbouring Tingwan and a few smaller off-lying islands to the north and east (see Map 1.2) present uniformity in language, living conditions, and sociocultural organisation. In this whole area, a single language is spoken: Tungag. Although geographically localised dialectal variants of Tungag do exist, these are all mutually intelligible and present limited variation. Moreover, most of the island's population lives near the coast, and there are no significant climatic nor geological variations around the island, although for the small proportion of inland people, living conditions do differ slightly. The economic situation is also similar in all parts of this area, since there are only slight disparities in the opportunities offered for livelihoods between localities: no town, no mining operations, no greater access to any significant marketable commodity. Those variations that do exist—due to the soil in certain parts being more fertile or fishing grounds varying in productivity—are not so numerous nor extreme as to cause any given place to have no access at all to horticulture or fishing, for example.

To the east, the limit of the Lavongai linguistic and cultural area is found on the islands that separate New Ireland mainland and Lavongai, known as the Tigak islands (after the language spoken there and in the north-western tip of New Ireland mainland). This cultural boundary appears to be quite stable, since Richard Parkinson—one of the earliest ethnographers of the region—writes that this was already the 'ethnographic limit' between New Ireland and Lavongai in the late 19th century (1990, p 195). In the area where these two linguistic groups are in contact, fighting used to be frequent between Tungag- and Tigak-speakers. However, since written records began in this region, colonial policing and now greater national integration have brought such inter-group hostilities to an end. Although the area where Tungag and Tigak speakers are found to the east is not a firm boundary, and there is a degree of intermarriage and bilingualism there, the geographical, ecological and linguistic situation support the contention that 'Lavongai society' can be expected to present relatively uniform properties throughout the area including Lavongai, Tingwan, and other small offlying islands. This lends at least a degree of *a priori* validity to generalisations that might be made to the society as a whole from observations in a few of its localities.

One of the reasons I chose to carry out fieldwork on Lavongai is that although there is existing ethnographic documentation concerning the island's society, many questions remain open and there is ample room to add to this ethnography.

Indeed, Lavongai society has been the subjects of only relatively little sustained ethnographic attention compared—for instance—to the volume of work that has been produced on the New Ireland sculptures and mortuary rituals known as *malanggan* (for example Krämer 1925; Powdermaker 1931; Walden 1940; Küchler 1985; Derlon 1997; Were 2003). In the late 19th and early 20th century, a few anthropologists visited Lavongai but left only very little documentation. These include the Germans Franz H Strauch and Edgar Walden. The first made just one presentation in a conference in which he described Lavongai succinctly (1877), the second also made a single conference presentation on his work (1911) and his notes were written into a posthumous article by Hans Nevermann (1940). The Danish anthropologist of German origin, Richard Parkinson did write a very clear and detailed monograph recounting his *Thirty Years in the South Seas* (1990), but he does not make much more than passing mention of Lavongai, and often seems to include the island's society within sweeping descriptions of the whole area without specifying where he made his observations.

Since then, two anthropologists have carried out long term fieldwork on the island, and two others have spent short periods there. Theodor Schwartz, an American anthropologist who is best known for his work on the Manus Island 'Paliau movement', a so-called 'cargo-cult' (Schwartz 1962), visited Lavongai in 1966 and 1967 and did some research into a similar movement known as the 'Johnson cult' (which I will present in more detail below). To my knowledge he produced no publication based on his visits to Lavongai (but see Schwartz 1973, in which he does mention this research in a footnote). He did, however, take notes and make several recordings there.[4] He also communicated actively with the American anthropologist who would produce the most abundant writings on the 'Johnson cult': Dorothy K Billings.

She was the first to carry out long term fieldwork on Lavongai, where she lived for six months, more specifically in Lavongai village on the south coast, in 1967, then for shorter periods in 1972, 1974, 1988, 1990, 1994, 1998 (2002, pp viii, ix, 4), and at least once in the 2000s. She was investigating the 'Johnson movement', and wrote an article (1969) then—quite some time later—a monograph on this subject (2002). The main focus of her work however was on what she referred to as 'cultural style', a concept which draws both from psychology and anthropology. She proceeded by carrying out comparisons between Lavongai society, and what she terms the 'Tikana' society, named after the three language groups of northern New Ireland mainland (Tigak, Kara, and Nalik). This forms the backbone of the PhD thesis which she defended in 1972. Almost a decade later, she produced a heavily expanded version of this thesis which adds large amounts of material, in particular transcribed interviews and many anecdotes and observations, bringing the manuscript to a staggering total of 1839 pages (Billings 1981).

In this, she names 'the New Ireland style "group-oriented", and the New Hanover style "individualistic"' to which she adds the caveat that 'if I were comparing New Ireland to the Zuni, I might find the New Ireland style better named "individualistic"; and if I were comparing New Hanover to the Shoshone, I might find its style better named "group-

4. The archives of Theodor Schwartz are conserved at the University of San Diego, and include these 'New Hanover Recordings'. See https://library.ucsd.edu/.

oriented'". (Billings 1981, p 19). She further refers to the 'style of integration' of New Ireland society as being 'egalitarian' (1981, p 25) and that of Lavongai 'peck-ordered' (1981, p 32). She pursued this comparative enterprise on many topics in a series of articles on 'expressive style' (1987), 'behavioural orientation' (1989), conflict (1991), political organisation (1992b), and art (2015b).

Ton Otto, a Danish anthropologist, also spent several months conducting research on the sociology of baitfish royalties around Lavongai in 1988, as a consultant for the Papua New Guinea National Fisheries Department. For large-scale tuna poll-and-line fishing, fresh baitfish are needed, which must be procured from coastal waters. In this context, royalties are paid, but there are difficulties involved in identifying who they should go to. Indeed, in Papua New Guinea, the law recognises that 'traditional' or 'customary' landowners have the rights to benefits ensuing from their land. However, at sea, the situation is complex since boundaries and usage practices are more fluid. Otto was thus tasked with carrying out research into the local social organisation and marine tenure, to aid in decision-making regarding the sharing of royalties in the Lavongai and Tigak Islands area. He published a report on this work in a University of Papua New Guinea 'Occasional papers' series (1990) and later a chapter in an edited volume on cultural practices of Oceania (1998). In these, he gives a presentation of Lavongai social life that is detailed and thorough, considering the short time-period he spent there.

Another American, Jason Roberts, spent a total of sixteen months on the island, from 2014 to 2015 in the course of doctoral studies into the effects of large-scale logging in North Lavongai. He wrote an article presenting his work (Roberts 2019a) and recently his PhD thesis has been published (Roberts 2024). In this he attends to the so-called 'resource curse' which poor nations often appear to be caught in. He states that this, 'against truth in labeling, is actually an ironic way of describing a particular type of structural constraint within a global capitalist market that has always been designed to buy cheap, sell dear, and externalize economic and environmental risk.' (Roberts 2024, p 7). He describes the damage that has been caused by joint foreign and local companies who carried out large-scale logging in the north of the island, in the context of special agricultural and business leases (SABL): deeds that allow logging companies to clear forests then create plantations on customary land (Filer 2011). These projects promised great benefits to the neighbouring villagers and brought very little, other than resentment on the part of the many who did not benefit towards those few who did. He concludes that 'within a field of such limited market possibility as has historically existed on New Hanover, saying no to resource-dependent development schemes could be tantamount to admitting that life here will never exceed the status quo.' (Roberts 2024, p 7).

A few academic publications are also available that were produced by people who grew up in Lavongai, and present various aspects of their own culture. Tukul W Kaiku is a professor of Archival Science at the University of Papua New Guinea (UPNG) who is from Meteran in south Lavongai. She has produced several conference presentations and articles concerning the culture of her island. One of these describes the land tenure system (2013), another concerns the Johnson movement's 'religious features' (2015), yet another, cosigned with her son, Patrick K Kaiku, lecturer in Political Science at UPNG, relates four examples of 'indigenous knowledge' from Lavongai (Kaiku and Kaiku 2008).

A conference presentation has also been published (Abo 1995) that describes a type of dance practised on Lavongai, known as *kambai*. This was written by Augustine Abo, who is credited in the proceedings volume as being 'from Lavongai village, New Ireland Province' and 'completing his Diploma in Music at the University of Papua New Guinea (UPNG)' (Reigle 1995, p 266).

Methodology

This thesis is based on twelve months of ethnographic fieldwork carried out between October 2021 and July 2022, then August to October 2023, in the village of Metevoe on the south coast of Lavongai island (Map 1.1).[5] It also reanalyses the material derived from a previous three-month stay between August and November 2019 in the same location in the context of a Master's degree.

Metevoe is a medium-sized settlement at the scale of Lavongai, where a little over 450 people live in houses scattered along the coast, made mostly from 'bush materials' (nailed wooden frames and sago thatch). For the duration of this fieldwork, I lived with Laimen Beling, Teresia Laimen and their family in Ringsamung (a locality of Metevoe). At first, in 2019, this was in their own house in which they cleared a corner for me to sleep. When I returned in 2021, I was pleasantly surprised to find that my hosts had built a separate house next to their own, barely 200 m from the sea, which they insisted was now 'my house' (Figure 1). Both parents and all seven children in this family are frequent fishers, from the 20-year-old boy to the seven-year-old daughter, although Laimen and his eldest sons are the most assiduous.

While attending specifically to the way the people of Metevoe interact with the living beings that inhabit their marine environment, this work also adopts a monographic approach to the Lavongai society. Indeed, the manner of ethnographic research which I believe to be the most fruitful involves adopting a wide perspective on the society where the ethnographer is living in order to better contextualise socially and culturally the topic which is being studied.[6] One limitation in this regard however is that I have documented men's activities and discourse far more than that of women, because I am myself a man and there is a rather marked gendered division of labour and use of space on Lavongai. I did make conscious efforts to engage with women when this seemed appropriate, to discuss various matters with those with whom I had a more relaxed relationship, and to accompany some women during their daily activities such as fishing or gardening, but this was far rarer than with men.

Before travelling to Lavongai, I had also carried out a desktop review of the available historical sources concerning Lavongai, in order to contextualise my own observations

5. I travelled regularly to New Ireland, approximately once a month, to purchase supplies and contact my relatives in France since Metevoe did not have any access to telecommunications between 2019 and 2023, and still does not to this day, whereas in Kavieng there is a mobile phone network. When in New Ireland, I stayed at Kaselok as a guest of John Aini. I also travelled around Lavongai once in a clockwise direction by boat, leaving Metevoe, calling in at various villages, and staying for longer periods in Angat and Neipuas.
6. In French one would say that '*on ne peut pas prendre les choses par le petit bout de la lorgnette*' (Pascale Bonnemère, pers. comm. 2020).



Figure 1: Photo of the house which Laimen, his son Daniel and others built for me in Metevoe. One of the two rooms had not yet been walled when this photo was taken. Laimen (standing), some of his children, and other young men can be seen resting or working on its construction. 25 November 2021, Metevoe.

diachronically. The sources available in this regard include missionary biographies, colonial patrol reports, and early publications by anthropologists and naturalists.

A full genealogical and residential survey was carried out covering the entire village of Metevoe, and the information obtained was fed into the Program for the use and computation of kinship data (PUCK)[7] in order to facilitate the determination of kinship chains, to allow for visualisation of family data and to calculate the characteristics of the village's affinal and consanguinal ties.

A village-wide socioeconomic survey focussed on fishing was also administered to at least one representative of each of the 56 households previously identified.[8] This yielded information regarding schooling, religious attendance and affiliation, past and present places of residence, quantity and type of available fishing gear (including crafts such as canoes), frequency of fishing efforts, and interpersonal practices surrounding fishing (for instance who gives fish to whom, who fishes with whom). Village toponyms were also

7. The Program for the use and computation of kinship data, PUCK, was developed during the project entitled *Traitement Informatique des phénomènes de parenté* (computer processing of kinship phenomena) between 2006 and 2009. It is available from https://kintip.net/puck/le-logiciel-puck; see also Hamberger, Houseman, and Grange (2009) and Hamberger *et al.* (2014).

8. See the interview form used for this in Appendix A.

collected, and this data was input into QGIS, which was used to produce the maps in this thesis.[9]

This research relied heavily on linguistic competency. I made a point of learning the local language, Tungag, as quickly and thoroughly as possible, and thereafter, after approximately three months, used it exclusively for the rest of the research.[10] Language information was consigned as rigorously as possible. This work included the production of a preliminary dictionary of over 2,300 words which was entered into Fieldwork language explorer.[11] In hindsight, investing this time and effort into learning and systematically documenting information on and in the local language appears to be one of the most felicitous methodological choices that I made during this work. Indeed, this attention to the language allowed me to develop a deeper rapport with people in Metevoe, whose daily activities and conversations are all carried out in Tungag. It was also an entryway into the discussion of key concepts and practises which they named and explained to me as part of my process of learning the language.

As well as learning Tungag during fieldwork, in this thesis I carry out my analysis with careful attention to the vernacular terminology itself. I draw attention to finer points of difficulty in translation, or to concepts that are formulated in a particular way in Tungag. Of course, there are pitfalls to such linguistic-anthropological analysis that are now well known. Much has been written on 'linguistic relativity' since the works of Edward Sapir (1921) and Benjamin L Whorf (1956).[12] I do not endorse the 'strong' form of the Sapir–Wharf hypothesis—which holds that language irrevocably constrains thought and hence culture—but since the scientific literature to date clearly indicates deep interdependence of culture and language (the 'weak' form of the hypothesis), this thesis is written within such a framework.

Aside from general ethnographic participant-observation, I also used more pointed research methodology. Long semi-directive interviews were carried out in Tungag with 11 villagers (three women and eight men, approximately 20 to 70 years old), who were either knowledgeable about fishing, or who had a particular position within the community. These followed a guide written in Tungag that was developed with input from several interlocutors during informal exploration of the issues addressed. It included sections on perception and organisation of space (village, forest, gardens, reefs); gender and procreation; life and death; conceptions of 'soul' or 'spirit' in humans and animals; relations, similarities, and differences between humans and nonhumans, with a focus on fish, their modes of reproduction and life cycle; the temporary fishing prohibition known as *vala*; and 'supernatural' or 'hidden' beings that are said to inhabit the island. A further 22

9. QGIS is a geographic information system produced by the QGIS Development Team and available from https://qgis.org/.

10. I was greatly helped in this by the people of Metevoe, who were patient teachers. One magician also gave me several pieces of a specially prepared plant that I was to eat on an empty stomach, at dawn, in order—he explained—to aid in my memorising the language. This, he was adamant, was the main reason why I was able to learn the language successfully; certainly not my hard work nor linguistic sensitivity.

11. Fieldwork language explorer (FLEx) is a suite of software tools designed to aid in the documentation of languages and the analysis of texts developed by SIL International and available from https://software.sil.org.

12. For recent discussions of linguistic relativity see Duranti (2009), Wolff and Holmes (2011), Heine, Narrog, and Pederson (2015), Pederson (2015), and Danesi (2021).

interviews in Tungag with other interlocutors were recorded without recourse to this guide. These took the form of life-stories, or explored specific questions related to fish, fishing or other key aspects of marine interspecies relations on the island. Of these, six were group discussions with several interlocutors present. All interviews were analysed and partially transcribed then translated using ELAN.[13]

Throughout the fieldwork periods, continuous investigation of the local knowledge concerning marine animals was carried out on a day-to-day basis, yielding a large inventory of local marine biological knowledge. Photographs were taken of any fish that was observed. Later, thanks to these photographs, a two-day workshop was organised, to which any who wished to participate were convened, and during which the data in this inventory was checked and discussed collectively (see Appendix B). These workshops were attended by approximately 20 men and 10 women and allowed for a number of corrections to be made and nomenclature to be discussed between participants. Photographs were also used to obtain identifications of the marine animals in question in France.

For the documentation of local knowledge concerning birds, a different methodology was used. Because there exist highly detailed checklists of birds found in New Ireland, and even specifically on Lavongai and because the number of species involved is relatively low, it was possible to show villagers photographs of these birds and ask them to name and discuss them. This yielded Tungag names for what locally are considered to be 76 different birds, corresponding to 105 species in the scientific nomenclature (see Appendix C).

During the course of ethnographic fieldwork I learned of several young men who were gifted in drawing, and I asked them if they would produce some drawings for me to use in my work, which I explained as being that of attempting to know and understand what the people of Lavongai think about and do with fish and other animals in the sea. They agreed, and I provided them with the equipment they requested: paper, pencils, pens and rubbers. One young man in particular, Michael Toreu Ottis, produced numerous drawings that I offered to purchase for K 20 each.[14] I then asked him to explain in a recorded interview what the drawings represented and what had led him to produce them. As his father, Ben Ottis, had instructed him as to what to draw for at least a few of these productions, he also sat in on this discussion and commented on a number of the drawings. Several of these are presented throughout this thesis. Similar methodologies have been applied fruitfully by a number of ethnographers working in the region on anthropology of nature (Brunois 2002; Calandra 2017; Nombo, Leach, and Anip 2021), and these drawings do indeed

13. ELAN is a program allowing for annotation and transcription of audiovisual recordings. It is available under the GPL licence from https://archive.mpi.nl/tla/elan, and is developed by the Max Planck Institute for Psycholinguistics. For more information on ELAN see Wittenburg *et al.* (2006).

14. The national currency of Papua New Guinea is known as the 'Kina', a name that refers to a shell which in many places in the country was considered valuable in precolonial times. Between 2019 and 2024, the Kina to Euro exchange rate fluctuated between 3.37 K/€ and 4.41 K/€. In Papua New Guinea, prices in Kina are written with a preceding 'K', as in K 20, a convention which I have followed in this thesis.

provide a rich window into the way this young man and his father perceive their life in south Lavongai.

I hope the reader will now forgive me for briefly presenting here some of the ethical dimensions of this work. Indeed, I am deeply convinced these are an important aspect of any ethnography, and that it is not something that we should allow to remain self-evident for a Franco-British ethnographer to travel uninvited to Papua New Guinea to conduct research. Anthropologists have long drawn attention to the ethically fraught nature of such ethnographic research (see, among a now vast literature: Morauta *et al.* 1979; Billings 1992a; Mertens, Cram, and Chilisa 2013; Olivier De Sardan 2015). Many local scholars of former colonised countries in Oceania have quite rightly pointed out how detrimental it can be to the local scientific and educational communities if such research is conducted in the manner of 'parachute science' (West 2008, 2016; Millora, Maimunah, and Still 2020; Braun 2021; Stefanoudis *et al.* 2021). Although it is true that anthropologists usually develop sincere relationships, deep emotional ties, and long-lasting debts during prolonged ethnographic fieldwork, the asymmetry of such a situation remains. Moreover, it is well known that the presence of a foreigner in a rural area of Papua New Guinea can cause disturbance. During his research in the East Sepik Province of Papua New Guinea, in the 1990s, Swedish-American anthropologist Don Kulick was involved in an incident during which a criminal group (so-called *raskols* in Tok Pisin), armed with an artisanal firearm, killed a man in the village where he was conducting fieldwork. This incident was brought about by a rumour that had travelled hundreds of kilometres, telling of a large amount of money which Kulick was supposed to have been carrying with him. Following this, he wrote a letter to the editor of *Anthropology Today* in which he stated that he considered the country to be too dangerous for foreigners to conduct research in, not just for themselves but also because of the disruption their presence represents for locals (Kulick 1991, pp 21–22). Although this was over 30 years ago, I do not believe the situation has changed significantly, at least not for the better. There is still very limited policing in rural areas of Papua New Guinea, perhaps even less now than in the 1990s, as the population is increasing much faster than the number of police officers. People are still as impoverished, and it is very frequent to find highly tense situations of inequality, injustice, and violence. In such a context, research that is designed and funded from faraway universities is at best of little import to locals and can even be a nuisance or an affront to them.

There are few if any ready-made solutions for such problems, only general principles. The first is, of course, to comply with local regulations for research, which I did to the best of my abilities, obtaining a research visa for this project then complying with its requirements such as seeking local partnerships and sharing all research outputs with local institutions. But, in a position such as mine, that of a foreign student from a rich country coming to a post-colony such as PNG to do research, one should never lose sight of the fact that this work, however it is carried out, is likely to benefit the researcher far more than anybody involved or concerned at the site of research. I therefore attempted to clarify this for my own interlocutors whenever the opportunity presented itself. These explanations went along with incessant and sincere attempts to describe the objectives of my research,

and paying attention to the way it was received by them. I also tried to make my presence in the village of Metevoe into something of a positive contribution. I did my best not to be a burden on my hosts, paid for anything that needed buying in the time I was there, bought food on the markets and in the stores in Kavieng for the whole family, gave gifts and monetary payments for their work to those among the villagers who assisted me the most. I received numerous requests for assistance of many types and honoured those I could, such as writing letters for people, helping draft applications for higher education, speaking with school children about various topics—as requested by teachers—buying household items such as soap, coffee, or batteries for torches, and providing over-the-counter medicines and wound dressings, and I hope to have done so in as equitable a manner as possible.

From ethnography to anthropological hypotheses

The theme of this study is marine interspecies relations. It is anchored in the location of Lavongai, and its methodology is ethnographic, deployed in a wide-ranging way through a monographic approach. However, as French anthropologist Pascale Bonnemère points out, 'beyond ethnographic description and regional comparisons, anthropology consists in producing theoretical hypotheses capable of accounting for the diversity of existing social and symbolic productions.' (2018, p 229). This thesis will therefore also place the data produced on this theme and in this setting within two theoretical frameworks developed in anthropology, in order to better analyse it, and perhaps contribute something in return to the wider discussion which these theories entail. These theoretical frameworks have been chosen here because they provide methods and analytical tools that allow for better description and comprehension of interspecies relations, whilst avoiding the pitfalls of anthropocentrism, and without resorting to problematic dichotomies such as those commonly drawn between nature and culture, or human and nonhuman.

More specifically, the first theoretical approach which this thesis will endorse attends to the concept of 'ontology', meaning the discourse or conceptions which people have regarding the nature of different beings. This term is initially a philosophical one, and has entered widespread use in anthropology only in the last few decades (although early interest in the topic of ontology is found in some earlier works, such as Hallowell 1964). Although there are many approaches to this subject in anthropology, Eduardo Kohn, in a review of the field of ontological anthropology, writes that all of these

> are responses to certain conceptual problems and contradictions that arise as anthropological thought faces new challenges. […] Ontological anthropology is not generically about 'the world,' and it never fully leaves humans behind. It is about what we learn about the world and the human through the ways in which humans engage with the world. (Kohn 2015, pp 312–313).

Indeed, the focus on ontologies in anthropology aims to alter the level on which discussion of universality and difference is carried out. It involves taking seriously the way that different interlocutors frame their conceptions of beings without bracketing this within the 'cultural' sphere, and without postulating a separate 'natural' framework in which these beings would have immanent properties independently from the way they are perceived.

This is a response to the fact that 'nature' and 'culture' are themselves problematic categories at best, as discussed above. In the context of this theses, it aims to allow for the relations between Lavongai people and marine animals to be understood in the local framework.

In this field, a number of works have been foundational. These include the so called 'Science and Technology Studies' (STS), notably the writings of Bruno Latour (1993) concerning the conceptions of nature and science held by the 'Moderns'. In these, he enjoins ethnographers to strive towards a more 'symmetrical' practice, that does not consider 'modern' scientific knowledge to be distinct from 'non-modern' epistemologies (Latour 2013). The works of Eduardo Viveiros de Castro (1998, 2004) concerning Amazonian 'perspectivism' or 'multinaturalism' have also been seminal in this domain. Indeed, 'perspectivism' reverses the fundamental ontological assumptions of Western scientific thought, in which beings are considered to all share a similar 'nature', whilst humans are the only species generally considered to have a 'culture'. In Amazonian perspectivism, all beings share a similar propensity for culture, whilst differing only in the various 'natures' or physical manifestations which they adopt. The works of Philippe Descola which grew out of his ethnography of the Amazonian Achuar society (1994) are also key in this field. In *Beyond nature and culture*, he defines 'ontologies' as systems of 'properties of existing beings' (2013, p 121). He distinguishes various ontologies, which are found in societies around the world and act 'as a point of reference for contrasting forms of cosmologies, models of social links, and theories of identity and alterity' (2013, p 121). Descola's analysis relies on two fundamental distinctions which he considers to be universal. The first is between human and nonhuman beings, the second is between the 'interiority' and the 'physicality' of these beings. Interiority 'partially covers what we generally call the mind, the soul, or consciousness: intentionality, subjectivity, reflexivity, feelings, and the ability to express oneself and to dream' (2013, p 116), whereas physicality 'concerns external form, substance, the physiological, perceptive and sensorimotor processes' (2013, p 116). When considering these for humans and nonhumans and discerning their similarity (also referred to as 'continuity') and dissimilarity (or 'discontinuity'), one obtains four possible modes of identification of the properties of beings. These combinations are what Descola refers to as the four 'ontologies', which he respectively names: 'naturalism', found in Western societies since the 17th century; 'animism', in Amazonian and circumpolar societies; 'analogism', in Chinese divination or Middle Age Europe; and 'totemism', in Australian Aboriginal and Indigenous North American societies. The latter case of totemism is the one with which this thesis will engage for reasons which the following chapters will gradually make clear. Indeed, Descola's ontological model, although it has been well received and is now widely recognised for its contribution to the field, take into account only a very select subset of Oceanian ethnography (more precisely, Australian ethnography), and it has not been used for the analysis of Oceanian ethnographic material to any significant extent (see however Scott 2013). It is one of the proposed contributions of this thesis to gage the applicability of this model to the ethnography of Lavongai.

Another field which has brought into question the dualism between 'nature' and 'culture', and sought to bridge it, is known as biosemiotics. As the name indicates, this is an application of semiotics, meaning the study of signs, in the context of living beings.

Biosemiotics mainly draws its theoretical underpinnings regarding this central concept of signs from the works of the American logician, mathematician, and philosopher Charles S Peirce. Biosemiotics studies how biological, cognitive, psychological, and cultural phenomena intertwine during the manipulation of such signs. Scholars of this field hail from many academic domains and biosemiotics is by definition a multidisciplinary endeavour (Barbieri and Sebeok 2008). In the context of anthropology, it shows its strength in the fact that 'there is a series of binaries that biosemiotics abolishes or modifies by treating life as continuous and by discerning semiosis across the realm of nature; namely: individual/collectivity, agent/subject, verbal/nonverbal, human/non-human, mind/matter, culture/living nature.' (Cobley 2016, p xii).

Few scholars have, as of yet, attempted to apply the tools of biosemiotics to anthropological issues, with only a handful of exceptions. The French philosopher Dominique Lestel has concentrated his work on the anthropological and philosophical aspects of scientific studies of animals, and has discussed the use of biosemiotics in several publication (Lestel 2002, 2010, 2011). He considers this to be a tool that can allow for the study of cultures in general, both human and nonhuman, emphasising the fact that 'the issue of the evolution of meaning is crucial for coming to grips with the phylogenesis of culture, as is that of the complexity of the communications of the agents which make up the societies' (Lestel 2002, p 61).

Among anthropologists, Eduardo Kohn—who works with the Avila Runa people of the Ecuadorian Amazon—has focussed his research extensively in this direction. His monograph *How Forests Think* (2013) involves a sustained effort to understand the interspecies relations in which the Runa people are involved by using the tools of biosemiotics, most notably with reference to the works of Terence Deacon (1997, 2012). This allows us to attend more adequately to interspecies relations because

> we humans are not the only ones who do things for the sake of a future by re-presenting it in the present. All living selves do this in some way or another. Representation, purpose, and future are in the world—and not just in that part of the world that we delimit as human mind. This is why it is appropriate to say that there is agency in the living world that extends beyond the human. (Kohn 2013, pp 41–42).

This perspective echoes that of a precursor to biosemiotics in anthropology, Gregory Bateson, who wrote that

> whatever the word story means [...] the fact of thinking in terms of stories does not isolate human beings as something separate from the starfish and the sea anemones, the coconut palms and the primroses. Rather [...] thinking in terms of stories must be shared by all mind or minds, whether ours or those of redwood forests and sea anemones. Context and relevance must be characteristic not only of all so-called behavior (those stories which are projected out into 'action'), but also of all those internal stories, the sequences of the building up of the sea anemone. (Bateson 1979, p 14).

French anthropologist Florence Brunois also adopts a biosemiotic approach in some of her work with the Kasua people of mainland Papua New Guinea (2015, 2018). She draws attention to the fact that 'the forest which they live in is not only saturated by signs that are emitted by its multitude of existing beings, but it is also a forest where this multitude of

beings is listening for signs produced by others (humans and nonhumans).[T6]' (Brunois-Pasina 2015, p 5).

Overall, the biosemiotic approach to interspecies anthropology appears to show promise because forms of agency have been shown by ethologists and biologists to permeate all life. Therefore, focussing on the circulation of signs between all living beings can allow anthropological materials on interspecies relations to be better understood for what they are: the product of the actions and intentions of multiple agents, both human and nonhuman, rather than the utilitarian subjects of purely human needs or symbolic projections.

In summary: this research attempts to forward three goals. Firstly, it seeks to document and offer insights that will allow for a better understanding of the culture of Lavongai. To this aim, where possible, it attempts to improve on and expand previous ethnographic works that have been carried out on the island, most notably by a sustained effort to learn the local language and to hear people out in their own vernacular. Secondly, it contributes a particular case study to the anthropological documentation of marine interspecies relations in Papua New Guinea, a field that has not been tackled often in this region, where such relations have been described and analysed far less than those with land-dwelling beings such as pigs or birds, and far less than similar relations elsewhere in Oceania. And thirdly it attempts to place the ethnographic data produced on Lavongai society and their marine interspecies relations into two analytical frameworks: anthropology of ontologies and biosemiotics, in order to better understand this material and to inscribe it within a wider theoretical disciplinary dialogue.

As it strives towards these goals, the following text is organised into nine chapters and a conclusion, all in Volume I. The References, ten appendices, and the original texts of translated excerpts are gathered in Volume II. In the first chapter, I present the geographical, historical, linguistic, and economic situations of Lavongai Island. In Chapter 2, I describe the social organisation of its inhabitants. This involves presenting the clans of Lavongai, the kinship system, and the interplay between clan-membership and usage of areas of land and sea. In Chapter 3, I attend to the 'constitution of beings', meaning the local considerations concerning procreation, birth, ontogeny, and bodily substance. This, for humans, nonhuman animals, and also a number of 'hidden beings'. In Chapter 4, I turn to the life cycle of the people of Lavongai, and describe three key events of puberty, marriage, and death. I describe the way Lavongai people respond to the latter with an elaborate funerary cycle that lasts several years and involves feasting practices of which fish meat is a component. In Chapter 5, I describe the fishing vessels, tools, and techniques which are used on Lavongai, while attending to the changes that have occurred throughout the last century in this regard, and to the sociocultural particularities of each fishing technique. In Chapter 6, I describe what I refer to as 'fish-calling', a type of practice which involves long-term and enduring relationships between magicians and certain fish, and calls upon the spirits of deceased forefathers known as *anit* (it is an example of fish-calling that Bernard is describing in the epigraph to this introduction). In Chapter 7, I attend to a type of localised temporary fishing restriction which is referred to as *vala*. I reconstitute how this has evolved from its origin in fish-calling activities to become a hybridised form of local management practice with the aim of 'looking after' marine life. I also show how *vala*

calls upon the power of *anit* to effect the prohibitions, and analyse the discourse which is employed in this context during public speeches. In Chapter 8, I turn once again to the clan-based structure of Lavongai society, insomuch as each clan is named after a bird. I consider how this can be likened to a form of 'totemism', and confront the data from my Lavongai research to the ontological model of Descola (2013). I further reflect on the way a 'totemic' ontology can apply beyond the confines of the people-bird relations involved in the clan system. In the final chapter of this thesis, I adopt a biosemiotic perspective on the marine interspecies relations documented on Lavongai, and analyse three situations: fish-calling, the relations between Lavongai people and a particular fish known as *riranga* (a goby), and the process of luring, which is a key aspect of marine interspecies relations.

In doing so, I hope to offer some insights that will contribute towards answering the main research questions which drive this thesis, namely: how do Lavongai people interact with the life forms found in their marine environment? To what extent is marine life socioculturally important for the inhabitants of the island's coast? How can this particular case study of marine interspecies relations contribute more generally to an 'anthropology of nature'?

Chapter 1

Kara To e Rina: Our Life in the Village

Foam from the sea
And waves are beating me.
The anger of the waves from the reef
Is washing over me.
Oh Lavongai, our home.

Oh the lads of Lavongai,
They paddle their canoes
To go out fishing.
Oh the lads of Lavongai,
They paddle their canoes
To go out fishing…[T7]

Nat i Lovongai (Lad from Lavongai)
by Reinz
January 2024

The chapter that opens this thesis is intended to give the general context of the ethnographic material produced on relations between humans and marine species, which makes up the overarching subject of this research. It outlines the living conditions in the village of Metevoe where most of the fieldwork was carried out and which prevail with considerable uniformity around the island of Lavongai. In the following pages I present information about geography, prehistory, history, language and demography, as well as the subsistence economy of the island.[1]

1. A separate chronological bibliography of works concerning Lavongai, including historical, anthropological, and linguistic publications, is also included in Appendix D.

1.1 Geography of Lavongai Island

Lavongai Island is located barely south of the equator[2] a few kilometres to the west of the larger island of New Ireland in Papua New Guinea (Map 1.1). Its coast is bathed by the Pacific Ocean to the north and the 'Bismarck Sea' to the south (named after the former German First Chancellor, Otto von Bismarck). It measures approximately 70 km west to east and 50 km north to south. The southern part of the island is relatively mountainous, with hills emerging very near the coastline, and rising to 800 m. The northern part has a larger coastal plane, and slopes only emerge gradually several kilometres inland. The mountain range which bars the whole island from est to west is known as the 'Tirpitz range' (after an early-20th century German Admiral). The whole island is striped with numerous north-south waterways, of which a dozen major rivers. Almost all the villages on the island are located near the coast or along these large rivers (Map 1.3).

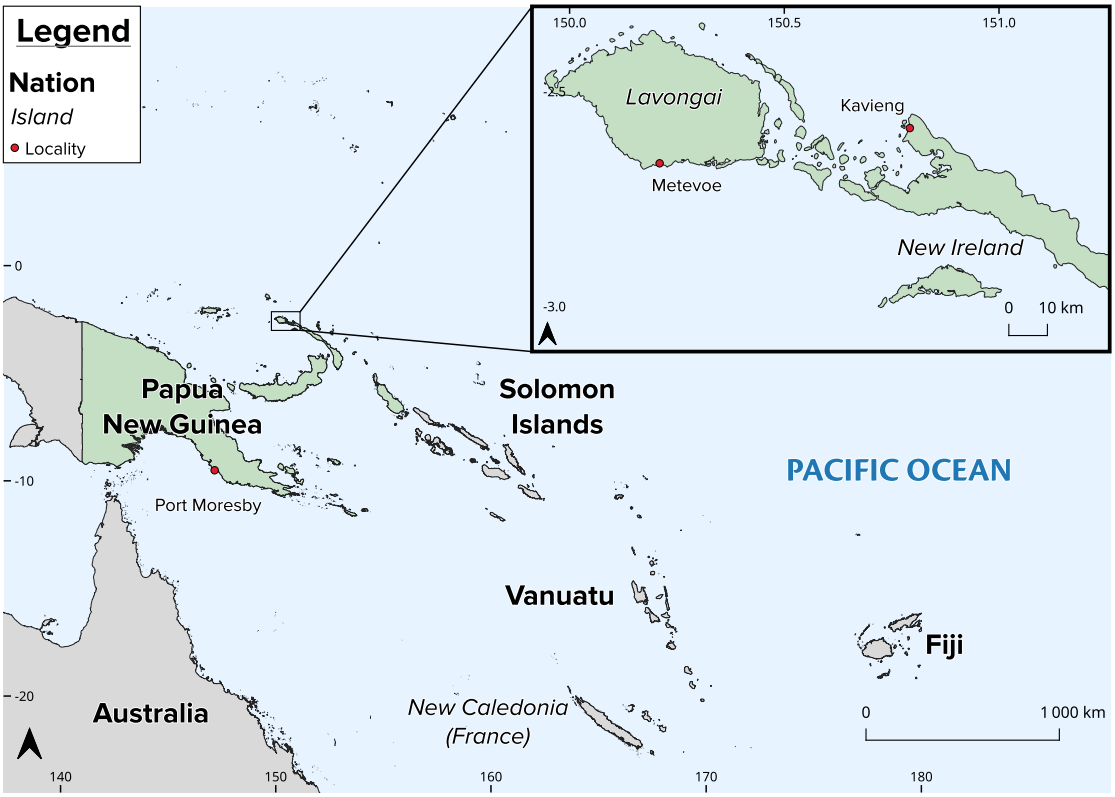
The island's climate is equatorial (also known as a 'tropical rainforest climate'), with high annual temperatures that vary very little and consistent rainfall throughout the year. Average daily temperatures range from 28 to 32 °C, and over 3,000 mm of rainfall is recorded annually, evenly spaced throughout the year.[3]

The island of Lavongai is known by at least two names, one of which is spelled with some degree of variation. The British sailor Philippe Carteret gave it the name 'New Hanover' in 1767 (Carteret 1773, p 600), and this remained in used thereafter by missionaries, traders, and other foreigners who were to pass through the region in the following centuries. Nowadays, the area that includes the island and other small offlying ones is known in administrative documentation as 'Lovongai' (National Statistical Office of PNG 2014a). The origin, meaning, and orthography of this name are all somewhat debated. It is highly uncertain that this landmass even had a name in the vernacular language of its inhabitants before the times of colonial involvement. Indeed, the term 'Lavongai' is ambivalent. By this word, people still to this day refer to a location where one of the first Catholic missions of the whole island was placed, and which is located on the south coast of the island. Father Joseph Stamm, a Roman Catholic missionary from Germany belonging to the organisation of the Missionaries of the Sacred Heart who lived in that specific village from the early 1930s to 1941, was very confident in his tone when he wrote in the introduction to his grammar:

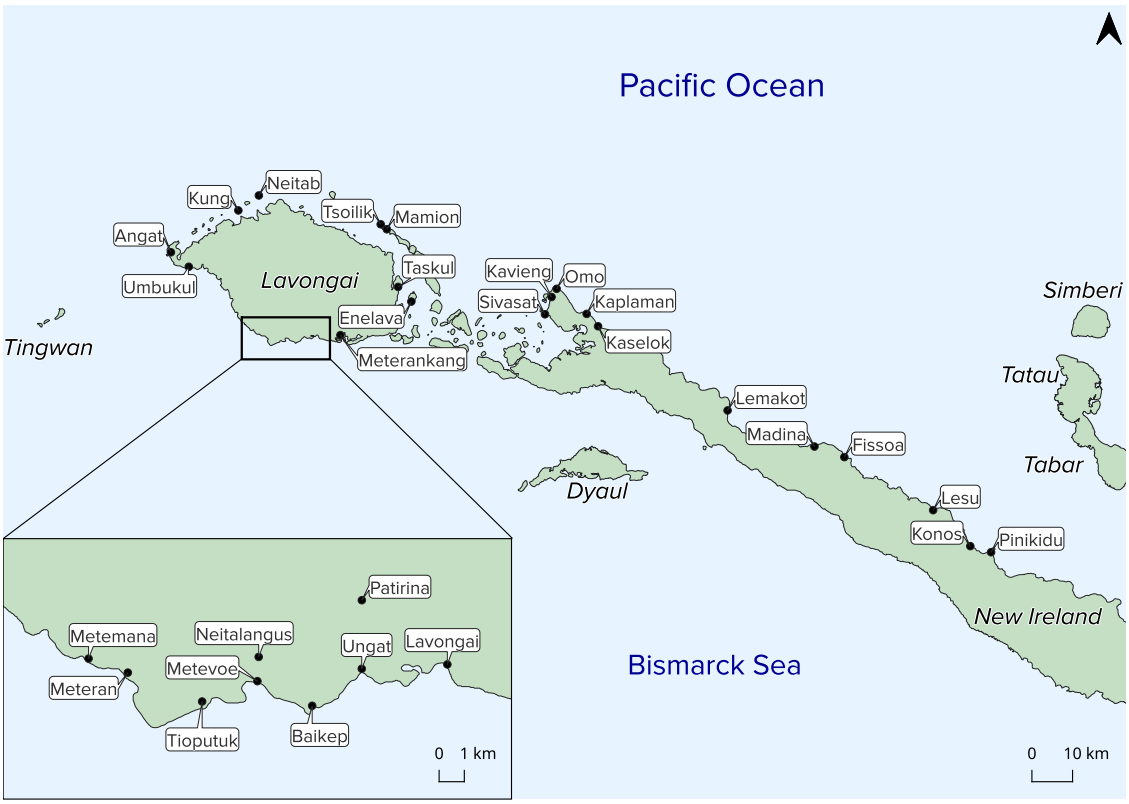
> The natives of New Hanover do not have a special name for their island. For them it is a sort of a continent. By the natives of other districts it was generally called Lavongai, from the village Lavongai. For this reason the government dropped the old official name New Hanover and the island was officially named Lavongai and the village was officially called Metesaula. But the natives did not care for this new name. For them Lavongai [village] was always Lavongai. After the last war [WWII] the old official name New Hanover was applied again to the island and the village Lavongai regained its old name. (Stamm 1958, p 1).

He even offers an etymology for this name:

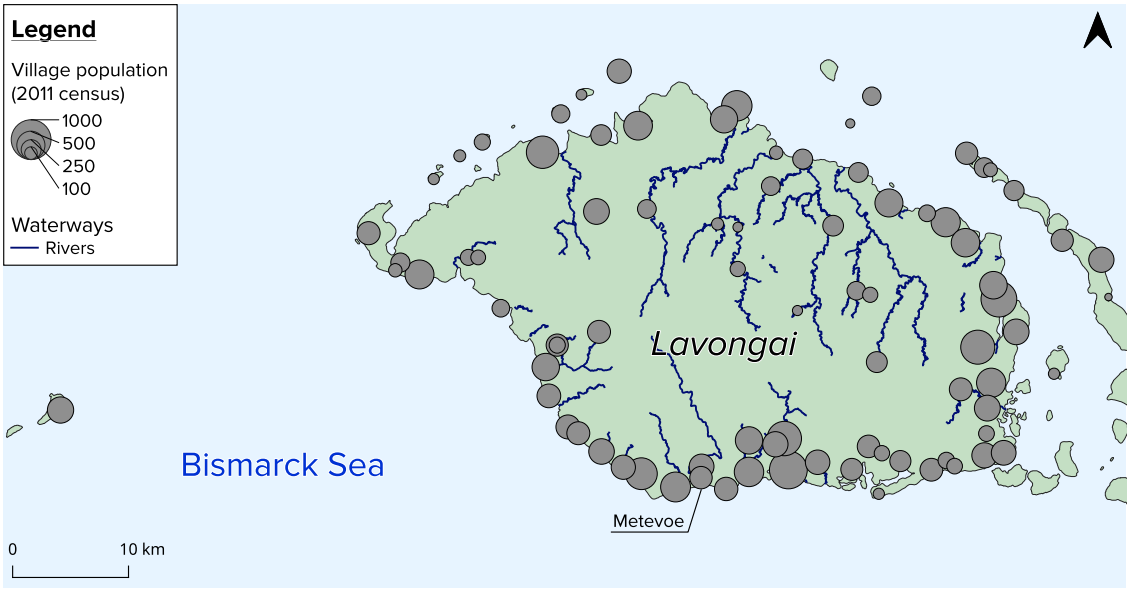
2. The island lies, precisely, between latitudes S 2°20′ and S 2°42′ and longitudes E 149°54′ and E 150°30′.
3. Weather information is based on data gathered at Kavieng airport weather station a few kilometres to the east, on the larger island of New Ireland.



Map 1.1: Situation map locating Lavongai Island within Papua New Guinea, and in Oceania. Cartographic data from OpenStreetMap.



Map 1.2: Map of Northern New Ireland mainland, Lavongai island and surrounding locations, showing place names that are used in the present thesis.



Map 1.3: Map of Lavongai village-level population according to the 2011 census. Cartographic data from OpenStreetMap. Population data (UNOCHA and PNG NSO 2012).

> The spelling Lavongai is not quite correct, but it got into the official papers, and it will be best not to alter this spelling. The correct spelling would be: Lovangai 'the surrounding of the sand beach'. A sandy beach is not very often found on the south coast of New Hanover and therefore this name is quite appropriate. (Stamm 1958, p 2).

The term 'Lovangai' can be broken down into two morphemes. The first root, *lo*, does refer to the beach and is used in the fixed expression *ngerelo* (by the shore).[4] The second term, *vangai*, means 'possession, place, tract of land'—not far removed from what Stamm rendered by 'the surroundings', but far more precise (see Sub-section 2.3.3). The whole could therefore be translated as 'the possession by the shore'

There is a degree of flexibility in Tungag regarding the pronunciation of vowels and because the language is essentially an oral one with a tentative orthography, various spellings for the island's name continue to be used in turn in different contexts.[5] In the present thesis, for reasons of coherence and clarity, I have chosen to use the orthography that is, to date, the most commonly found in written documentation: Lavongai.

1.1.1 Getting around: boats, canoes, and paths

Lavongai is separated from Kavieng, the main administrative and commercial centre of New Ireland Province, by a stretch of sea just under 40 km wide. Sea-going vessels of some kind are necessary for all who wish to access basic services, or to buy and sell on the markets and in the stores which are found in the provincial capital. They are also among the main tools used for fishing (on this topic see Section 5.2).

The main mode of travelling around the island, and to and from Kavieng from Lavongai, is in fibre-glass hulled, 23-foot open boats powered by 40-horsepower outboard motors (Figure 1.1). In the period during which fieldwork was conducted, one could *pesit* (perform a 'per seat' payment, meaning 'get on as a passenger') to travel from Kavieng to Metevoe at the cost of approximately K 50, on one of at least three or four boats whose owners were usually heading in the direction of Metevoe from Kavieng.

Many such boats have recently been provided by the Member of Parliament for Kavieng District (on the administrative organisation see page 25), Ian Ling-Stuckey, under the guise of a number of 'district development programs', to a selection of constituents in Metevoe and other Lavongai locations.[6] This has caused a rapid increase in the number of privately operated boats, and consequently in an undeniable intensification in exchanges between island locations around Kavieng district. Hardly a day went by during the nine months of

4. Native speakers are uncomfortable breaking down the word *ngerelo* into the two components, so tightly is the locative *ngere-* bound conceptually to the location *lo* in this case.

5. Thus the morpheme 'Lavongai' is understood equally if realised as [Lʌβʌŋa͡i], [Laβaŋa͡i], [Laβoŋa͡i], [Lɔβoŋa͡i], [Loβʌŋa͡i], or [Loβoŋa͡i].

6. The District and Provincial Service Improvement Funds (DSIP and PSIP) are under the supervision respectively of Members of Parliament at the district level, and Governors, and since their spending is almost never reported, they are all but discretionary. The amount of money allocated to them has risen to alarmingly high levels over the last decades. The developmental value of the 'projects' they are spent on has frequently been called into question (see Lea 2019; Guande 2020; Laveil 2021). On Lavongai, the boats and engines which are bought with DSIP money are handed to select—faithful—constituents to do with as they will, with no form of accountability nor control.



Figure 1.1: Kenny tends to his boat *Manggi NH* (Tok Pisin and abbreviated for 'Lad from New Hanover'). Skippers from South Lavongai, such as Kenny and those of the two other crafts on the picture, usually anchor here together, on the *nambis* ('beach' in Tok Pisin—which is really a slippery mound of coral rubble) near the wartime memorial. They take turns watching over the boats and their contents while going around town. 24 November 2021, Kavieng.

my second stay in Metevoe when a boat did not come or go to and from Kavieng. When I returned in 2023, it was not infrequent for several boats to make the trip in a single day.

If boats are not available, or one wishes to get to a location that is not coastal, travelling around Lavongai is done by foot on a network of paths and tracks that are fair to rough. There are no roads that a car could be reasonably expected to travel upon. Although in the northern part of the island, where industrial logging has taken place, a network of logging tracks was established, these are now unmaintained and will, inevitably, become forested again before long (see Roberts 2024). The island, true to its tropical climate, is abundantly watered by many streams and rivers, and the most difficult aspect of any travel is often crossing these bodies of water and swampy areas. Lavongai people travel considerable distances on foot at a brisk pace, usually bare-footed, to attend meetings, funerals, visit relatives, collect plants or other materials not found near their home, and for some of them almost daily to get to and from distant gardens and plantations.

A final point of note concerning movement is that Lavongai people look upon the disparity in transport facilities between New Ireland mainland and their own island as a strong form of injustice. While New Irelanders enjoy the benefit of motorised vehicles, numerous gravelled tracks, and even a number of tarmac roads, Lavongai people spend extraordinary amounts of their meagre revenue on boat travel,[7] which contributes to their ongoing feeling of marginalisation.

1.1.2 Elements of demography

It is well known that population data in Papua New Guinea is contentious.[8] Nonetheless, it is possible to get an outline of the demographic situation from the information that does exists.

Administratively, Lavongai is part of New Ireland Province, within the independent nation of Papua New Guinea (see Map 1.1). An administrative division known as a 'Local Level Government' (LLG) comprises the whole of Lavongai mainland, the islands of Tingwan[9] to the west, and smaller offlying islands to the north as well as a few to the east (other small eastern islands belong to the neighbouring Tikana LLG). The three 'rural'

7. It cost K 50 to buy a fare for one person's trip from Kavieng to Metevoe between 2019 and 2023, a 70 km trip over sea, and for this same amount, one could travel all the way to Namatanai, 260 km away by 'Public Motor-Vehicle' (PMV, as the small, 11-seat buses which operate throughout Papua New Guinea are known). This is to say nothing of the difference in comfort between an open-deck speedboat trip and one in a PMV.

8. In principle, a census should be held in the country every 10 years. There have so far been censuses in 1980, 1990, 2000 (National Statistical Office of PNG 2003), and 2011 (National Statistical Office of PNG 2014b). The latter, however, was considered 'a failure' by analysts (Bourke and Allen 2021). There should have been a census in 2021, but this was delayed first because of the Covid-19 pandemic (PNG NSO 2021), then because of a lack of funds, and was eventually conducted in June 2024. Its results have not yet been published.

9. This is also sometimes spelled 'Tingwon', although both spellings are irregular in the tentative Tungag orthography (L Fast 2004; KE Fast 2015, pp 15–17), since the voiced labial–velar approximant, /w/, is rendered with 'u' or 'ou', meaning the orthography should be 'Tingouan' or 'Tinguan', pronounced [tiŋʍɔn]. Official documentation and maps alternatively use 'Tingwan' and 'Tingwon', with the former being slightly more frequent.

LLGs of Murat, Tikana, and Lavongai as well as the Kavieng Urban LLG make up the Kavieng District, one of the two which constitute New Ireland Province.

The census division that is relevant here is known as 'Lovongai Rural LLG'. For this, the 2011 census gave a population of 29,005, up from 18,283 in 2000. This represents a 37 % increase over 11 years, which, if extrapolated, means the 2022 population might have been as high as 40,000.

The island can be estimated to have a surface area of ~12,000 km^2 and a perimeter of ~170 km. Calculated over the island's full surface, the population density would therefore be somewhere between 25 hab./km^2 for 30,000 inhabitants, and 34 hab./km^2 for 40,000 inhabitants. However, this reasoning does not take into account the actual implantation of villages (Map 1.3). Since the population is in fact much more concentrated near the shore, one might obtain a more adequate population density by considering a 5 km-band along the coast, which, assuming the island were a circle with a 170 km coastline, would yield an area of approximately 770 km^2, and push the estimated population density up to a minimum of 39 hab./km^2 and a maximum of 52 hab./km^2. In any case, these population density figures are all relatively high, since the Papua New Guinea published average is 22 hab./km^2 (although this figure has all the shortcomings of the population figures mentioned above, and also masks considerable variation in density between large sparsely populated forested areas and the relatively dense cities of Port Moresby or Lae).

My own data from genealogical surveys conducted in June and July 2022 in Metevoe yielded a population of 380 people, a 16 % increase from the 317 people counted during the 2011 census. Although it is difficult to draw too fine a conclusion from these at times contradictory data sources, there is a good likelihood—when the high birth rate is considered—that the population overall is increasing. This makes the population of the island an important issue, both from the perspective of government and public services which require redimensioning, and from an economic perspective, since people are highly dependent on access to large areas of land and to well-stocked fishing-grounds (Section 1.3), both of which could be increasingly in short supply in the future.

1.1.3 *Tungag*: the Lavongai language

The mother tongue of all who are born on the island of Lavongai and grow up there is the local vernacular which is known as Tungag.[10] This word means 'my same-sex sibling' in the vernacular itself.[11] It is sometimes spelled Tungak, including by native speakers of the language (Miskaram 1993; Abo 1995, p 136), and in some scholarly publications (L Fast 1990; Roberts 2024, p xiii).

There have been two main efforts to document the language, both under the guise of Christian organisations. The first was by the aforementioned Father Stamm who wrote a grammar of the language that was subsequently published by Australian linguist Clive Beaumont (1988). The second was by Lesly and Marian Fast (Fast and Fast 1989; L Fast

10. The language has also been referred to in a small number of publications as 'Dang' (a vernacular term meaning 'talk, to talk, speech, to speak'), 'New Hanover', or 'Lavongai' (Beaumont 1988, p vii).

11. Although it is sometimes glossed as 'brother' or even 'friend', the later being something of a mistranslation.

1990, 1997a,b,c, 2004), the linguists associated with SIL who carried out the Bible translation (see page 45). One of their daughters, Karin Fast, who was with them in Umbukul during this time, learned Tungag as she grew up. She defended a PhD in Linguistics at the University of Heidelberg (Germany), and her thesis has been published as *Spatial Language in Tungag* in the Asia-Pacific Linguistics series of The Australian National University Press (2015). This contains an updated and expanded version of her father's grammar, as well as a discussion of the language properties of Tungag concerning movement, space, and geography.

The language has three major dialect groups. These are usually referred to respectively as *Rang kate*, *Rang kapo*, and *Puk matas*. The first two expressions are formed from *rang* (also *dang*), 'talk, speech', and from a verbal particle that marks the third person singular combined with a verbal marker for continuous aspect *ka-te* or *ka-po*. This type of formulation is used very often in speech (it plays a roll similar to 'it is' or 'he is' in English). The contrast between *-te* and *-po* is dialectal: speakers of the southern dialect will say *kate maiak*, those of the western and northern dialects *kapo maiak* (he or she is fishing). *Puk matas* is formed from *puk* which is another synonym for 'talk' or 'speech', and *Matas* is the name of a north wind which is also used to designate the cardinal point. Although the dialect itself is in fact spoken in a wide quarter of the island, ranging from north to east, through northeast and including many offlying islands there, it is indeed the most northern of the three. In summary: Metevoe is included in the southern part of the island where *Rang kate* is spoken, and it is this dialect which I learned; the west of the island speaks predominantly the *Rang kapo* dialect and the north and north-east the *Puk Matas* one.

1.2 Lavongai from prehistory to the present

Although the focus of this thesis is on the present, and most of the discussion will be based on the observations I made during fieldwork, the preceding epochs have great bearing on the topic of this research. For this reason, I sought out information on the prehistory and history of Lavongai through existing archaeological and historiographic publications and by consulting archival documentation from the past centuries. During fieldwork, I also discussed the recent past with people of Lavongai in order to attempt to reconstruct their own oral history of the region and to reconnect this, where possible, with the written documentation. The first of these two sources—the documentary—presents the difficulty that it was written by people who had strong biases towards the locals they were describing. Terminology such as 'primitives' or 'savages' is frequently used, and in all the early writings of European visitors to the regions, the ever-present spectre of anthropophagy looms (Rubel and Rosman 2021). Indeed, most inhabitants of Western Oceania were assumed to be 'ferocious cannibals' at this time: one naturalist who travelled through the area in the late 19th century thus entitled his book *Through New Guinea and the Cannibal Countries* (Cayley-Webster 1898). These sources must therefore be handled with great care.

1.2.1 Ancient human presence in New Ireland

Archaeologists distinguish two main phases during which human populations arrived on New Ireland and on the surrounding islands. The oldest known evidence of human occupation on the mainland dates from ~42,000 years ago (Leavesley *et al.* 2002, p 56; Kerby *et al.* 2022). From remains found in middens inside several New Ireland caves dated between ~32,000 and ~20,000 years ago, it is known that the populations present at this time hunted bats and captured marine animals for food, including fish and shellfish (Allen, Gosden, and White 1989).[12] The shellfish in question are all species found near mangroves or in the intertidal zone, on reef flats or nearby. The fish include many reef- and shallow-water-dwelling families such as triggerfish (*Balistidae*) or parrotfish (*Scaridae*), but also some sharks which might suggest a more elaborate fishing technology since they are not found so close to shore (Allen, Gosden, and White 1989, p 552). These early inhabitants of New Ireland arrived from Southeast Asia via New Guinea and New Britain, crossing several areas of open sea (but always with a line of sight to the land on the opposite side of the strait they were crossing, a topic which I will return to in Section 5.2). Despite some archaeological scoping research having been carried out on Lavongai, no such Late-Pleistocene traces have been found there. However, it is reasonable to assume that conditions which prevailed on New Ireland several millennia ago were most likely similar on Lavongai and therefore that population situations and dynamics were also similar. Moreover, during some periods, around 20,000 years ago, much lower sea-levels meant that Lavongai and New Ireland were in fact part of a single landmass (Leavesley 2004, p 21).

Intensification in the food production techniques and population growth is known to have occurred around 10,000 to 8,000 years ago (Leavesley 2004, p 44). This was followed by notable introduction of several terrestrial mammal species which had not been present previously in New Ireland and suddenly become abundant in archaeological sites around this period, including the Gray Cuscus (*Phalanger orientalis*) and Brown's Pademelon (*Thylogale browni*) (Leavesley 2004, p 40).

Approximately in this same timeframe, a number of plants are also thought to have been domesticated and used as food sources or for other uses in New Guinea. These include

> a range of highland and lowland plants, most of which were insignificant or absent outside the region. Highland domesticates included the *karuka* Pandanus complex (*Pandanus julianettii/iwen/brosimos* complex), edible *pitpit* (*Setaria palmifolia*), and Rungia (*Rungia klossii*), whereas lowland domesticates included species of *marita* Pandanus (*Pandanus conoideus*), *Canarium* spp., and *Terminalia* spp., as well as sago (*Metroxylon sagu*; Barrau 1958: 46). Species with broad altitudinal ranges included sugarcane (*Saccharum officinarum*; Simmonds 1976b: 104–108) and Australimusa bananas (*Musa* spp.; Simmonds 1976a: 211–215). (Denham 2011, S387).

12. When Allen, Gosden, and White (1989) published the results of their New Ireland digs in these caves they even stated that the fish remains found in one cave, at approximately 20,000 years of age, were the oldest evidence of fishing in the world (1989, p 552); since then, there have however been several older and more conclusive archaeological finds, in particular in insular Southeast Asia (O'Connor, Ono, and Clarkson 2011).

The timeframe in which these might have started to be used in New Ireland however is not clear, but eventually all of these species came to be found in agricultural systems throughout the region.

Much later, starting approximately 4,000 years ago, a distinct wave of human settlement began in the area, coming not from mainland New Guinea, but from seaboard. This is known as the 'Austronesian expansion' which has close ties to an archaeologically well attested cultural complex called 'Lapita' and is characterised by distinctive forms of stamped pottery which was first formally identified in a New Caledonian locality of the same name.[13] Lapita immigrants brought with them dogs, pigs, and chickens and radically changed the economic landscape of the region, with a shift away from hunting and gathering and a considerable intensification of horticultural activity (Crabtree 2016). The first archaeological traces of Lapita presence in the region are present on offlying islands such as Mussau and Kamgot and dated to approximately 3,500 years ago. It is only from 2,700 years ago that similar traces appear on New Ireland mainland (Leavesley 2004, p 56).

The oldest evidence of agriculture on Lavongai has been tentatively dated by Leavesley and Troitzsch (2007) between 4,000 and 3,000 years before present. This showed evidence of *Spondias* sp. (trees that produce edible nuts), of ginger species, of cordylines, and of several species of palms (Leavesley and Troitzsch 2007, p 251).

From this and other archaeological work conducted in the Lapita area (Clark, Anderson, and Vunidilo 2001; Bedford and Spriggs 2019; Howes, Jones, and Spriggs 2022), it can be surmised that the population of Lavongai, in the two to three millennia after the beginning of the Austronesian expansion, transitioned from a mobile to a more sedentary horticultural economy (Hogg, Summerhayes, and Chen 2021), comprising long-distance trading of certain materials (notably obsidian and pottery, Hogg *et al.* 2024), and based around the staple foods of sago, taro, banana, supplemented with meat from domesticated species (pigs and chickens), as well as fish and shells both from the riverine (Bouffandeau *et al.* 2019) and marine environment (Kirch 2021b).

The next 'great arrival' to have changed the face of this region was that of Europeans. This started when Spanish, Dutch, Portuguese, then English, German, and French ships began to 'explore' the region, coming across the Pacific Ocean from Cape Horn during circumnavigations of the late 'Age of Discovery' and early 'Age of Sail'. As these visitors left documented traces of their journeys, from here, the archaeological perspective can be supplemented by an historical one.

1.2.2 Early European colonial influence

Intermittent European presence in the islands of the Bismarck Archipelago began during the 'Age of Discoveries', in the 17th century. Dutchmen Willem C Schouten and Jacob Le Maire sighted New Ireland on 25 June 1616. Abel Tasman then sailed through the

13. The work of Edward Gifford and Richard Shutler in Lapita are those that first allowed for recognition of this cultural complex. Although it is this place name that was given to the pottery and eventually to the cultural complex, shards of a similar type had in fact been identified several decades earlier, at the beginning of the 20th century, in Wattom (East New Britain, Papua New Guinea) by Father Otto Meyer (Dotte-Sarout and Howes 2019).

archipelago in 1643 but thought that New Ireland was the northern part of New Guinea. Later, the British captain William Dampier passed through the region in 1699-1700, and although he knew that the Bismarck Archipelago was separate from New Guinea, he still believed that New Britain and New Ireland were connected, and went around the latter from the north, then sailed back westward without sighting Lavongai (Burney 1817, p 215).

The British sailor Philippe Carteret was the first European navigator to note that Lavongai was a separate island from New Ireland. He named a number of channels and islands in the region that still bear the appellations he chose, in particular 'New Hanover', which he sighted on 1 September 1767, and christened despite not landing on it. In his journal entry for that day he wrote:

> Over-against the coast of New Ireland [...] lies a fine large island, to which I gave the name of New Hanover. [...] The land of New Hanover is high; it is finely covered with trees, among which are many plantations, and the whole has a most beautiful appearance. The south west point of it, [...] is a high bluff point [...]. This foreland, and the land about it, is remarkable for a great number of little hummocks or hills [...]. We saw, about eight leagues to the westward of it [New Hanover], six or seven small islands[...] two of which are pretty large [this is the Tingwan group]. (Carteret 1773, p 600).

In the ensuing centuries, a regular stream of whalers, traders, and other transient ships visited the region, in search of a series of valuable commodities: pearl, bêche-de-mer (dried sea cucumber, *Holothuroidea*), turtle shell, etc. Not much, however, is known of the interactions they may have had with the locals, since historical traces of their passing are few. Some information can nonetheless be gathered from letters written by people travelling through the region (Rubel and Rosman 2021, chap. 5).

Some of the earliest regular interactions that New Irelanders had with outsiders was in the context of the practice known as 'blackbirding': 'a euphemism for kidnapping, [which] has [...] always been associated with the sugar industry.' (Stevens 1950, p 362). Blackbirding was carried out by Australian, English, and German ships sailing into the area to fetch locals as labourers on the sugar cane plantations of (then German) Samoa, Fiji, and Queensland. This was ostensibly presented as 'recruitment', but many of the men who embarked did so without a clear understanding of the conditions in which they would be taken nor of where they were going, in what clearly amounted to forced labour. Death tolls during the typical three-year-term among men working in plantations in the late-19th century were very high, as much as 20 % in some estimates. Specifically in the Lavongai area, the 'Lord of the Isles' was the first recruiter ship to visit northern New Ireland in 1882, with 178 men embarking to work in sugarcane plantations in Fiji. This caused other ships to visit the area. These 'recruitment' trips were not always successful, nor peaceful: 'The "Hopeful", from Townsville, Queensland, tried unsuccessfully to recruit men from the southwestern part of New Ireland in 1883 but eventually returned to Queensland with some whom they had kidnapped.' (Rubel and Rosman 2021, chap. 7, unpaginated). Blackbirding would eventually come to be criticised in England and Australia. One 'Commodore Wilson' thus wrote of Ross Lewin, plantation owner on Tanna (present day Vanuatu) that he 'had the unenviable reputation of being the most successful manstealer in the Pacific.' (Votes and Proc. Qld. Parlt., 1882, cited in: Stevens 1950, p 364). Several acts were passed by

parliaments banning the 'recruitment' of labourers in the South Sea Islands, even resulting in trials for kidnapping being brought successfully against some ship captains (Stevens 1950, p 369).

At that time, the Bismarck Archipelago was not yet under the formal jurisdiction of any of the European powers. Neither England, Germany, nor France laid a claim to these lands in any formal way, although all of them considered the region to belong to their own 'sphere of influence'. A small number of traders and other 'adventurers' were however already present there—including a Frenchman in the Lavongai area, Mr Gangloff, who setup a trading station on the small offlying island of Kung to the north (Cayley-Webster 1898, p 289). The presence of the foreigners however was marred with violence:

> When traders [...] would 'shoot a kanaka dead without cause',[14] local villagers would drive the trader out and burn the station. When incidents occurred, the European reaction was to shoot people. Their response to the burning of stations was to bring in gunboats and burn down entire villages, attempting to force people collectively into submission. (Rubel and Rosman 2021, chap. 6, unpaginated).

In this time period, by exchanging coconuts, copra, and other commodities with these white visitors, Lavongai people—like others in the region—gradually went from using stone implements, to adopting bush knives and steel axes as their main tools for gardening and other daily activities. They began wearing clothes made from imported cloth. They integrated crops brought to the region by Europeans into their gardens, such as corn, tomatoes, cucurbits, and new 'greens'. They also added to their diet, whenever they could be obtained, new imported foods, chiefly rice, and occasionally tinned fish or beef. Soon, the traders began introducing commodities to the locals which they had a firm control over, in order to induce them into returning and continue providing them with the copra or other raw materials they sought: 'Recognizing that items New Irelanders desired [knives and axes] had a long life, Hernsheim taught them to smoke tobacco, so as to create a felt need which could only be satisfied by their trading copra for tobacco on a regular basis.' (Rubel and Rosman 2021, chap. 6).

1.2.3 New European interests in the region: scientific exploration

From the late 19th century, new types of outsiders began visiting New Ireland: 'explorers', naturalists, and other scientists. Their writings are more abundant and allow for a clearer picture of interactions with the locals in this time period. One of the earliest documented expedition of this sort is that of the British ship HMS Challenger, which sailed to the Admiralty Islands (now known as Manus) from 3 to 10 March 1875 (Moseley 1877, p 382) and made a short visit to Lavongai on route. The expedition's naturalist, HN Moseley, noted how fluid exchanges were in the region: 'The native canoes are so seaworthy, and the natives so enterprising and fearless in going to sea, that possibly articles may pass by barter from island to island here over wide distances, even to New Hanover, New

14. 'Kanaka' is a derogatory term for a black inhabitant of Oceania. Although this phrase appears to be a quote, Rubel and Rosman do not include a reference for it. It may be a general rendering of the kind of language early sources use on this topic.

Britain.' (Moseley 1877, p 411). He also noted that as far as anthropology was concerned, there was only very little that was known of the inhabitants of Lavongai at that time, but that the Gazelle expedition—in progress as he wrote—would allow for more information to emerge (Moseley 1877, p 419).

The first expedition that spent any time on Lavongai Island and for which there are notable historical traces that contain some modicum of ethnographic information is indeed that of the Gazelle, a German vessel.[15] Under the command of captain Georg von Schleinitz, the Gazelle went to Lavongai in 1879 and spent eight days there (Zimmerman 2001, p 155). Franz Strauch, a lieutenant on the ship, published a comparative wordlist that has terms from the Bay of Segaar on New Guinea, two locations in New Hanover, two in New Ireland, Blanche Bay in New Britain, and Malaita in the Solomon Islands (1876, pp 67–69). He later published an article reporting on the observations he made during the expedition, in which he discusses the physical appearance of the inhabitants; describes the women's clothes, notably a type of skirt or apron made from grass; and states that the men were entirely naked but wore ornamental apparel and jewellery (Strauch 1877, pp 39–40). He thus describes the *kapkap* or *kafkaf* ornaments made from the operculum of Tridacna and turtle shell:

> Almost every man wore a large plate around his neck, on the torso (specimens in the collection), no doubt made of *Tridacna gigas*. This shell plate is pierced in the center, with a thread pulled through, and thanks to a knot, both ends of the string are tied behind the neck. [...] It has at least one button made from turtle shell, that is emptied in its centre, but often there is also on this button a fine plate of approximately 2 to 3 cm diameter, made from turtle shell and decorated with a delicate motif. Up to a certain size, this ornament, called *kapkap* is also worn separately on a simple piece of string.[T8] (Strauch 1877, p 43).

He writes about the men's elaborate hair styles, dyed with colourful earth and plant-based pigments and formed into extravagant shapes with moulds, sometimes shaved off on one side (Strauch 1877, pp 41–42). This is a decorative practice that the missionary George Brown would also make note of a few years later (1881, p 220). This type of observation apparently impressed the European scientists, who refer to those locals who had the most elaborate hairstyles as 'dandies', and described these body decorations in detail.

Doctor Naumann, who was the physician aboard the Gazelle, spoke at the 19 February 1876 meeting of the German society for ethnology (published in Hasselt *et al.* 1876). He presented some lances which he said were collected there, and slingshots that he asked locals to make for the Berlin museum of ethnology. He stated that the north coast of New Britain and Lavongai were the most populous areas of the region. He listed animals and plants which he observed: dogs, pigs, and a few chickens (Hasselt *et al.* 1876, p 69), praised the abundance of taro-gardens, and mentioned the presence of banana, papaya, and sugarcane groves, among others.

Finally, the Gazelle's journey was reported on at length, in five volumes published much later, between 1888 and 1890: *Die Forschungsreise SMS Gazelle in den Jahren 1874 bis*

15. A British ship, HMS Blanche apparently visited New Hannover in this time period, at a location they named 'North Harbour', a fact that is mentioned in several subsequent sources (Strauch 1877, p 39; Brown 1881, p 220) but for which I could locate no direct trace.

1876. The information concerning Lavongai is contained mainly in one chapter of the first volume (Hydrographischen Amt des Reichs-Marine-Amts 1888, pp 199–223). This contains a section concerning 'ethnological observations'. They recount an encounter between a party of 30 of the crew and 100 Lavongai men armed with spears, in a village where women and children were nowhere to be seen (most likely because they were hidden away from the intruding white people); the situation was eventually diffused and the relations become 'peaceful' (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 204). Later the locals are qualified as 'harmless' (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 211). The 'ethnological' information they report is morphological and racialising. The Lavongai men are, here again, described as being naked and with elaborate and colorful forms in their hair, the women as wearing grass skirts. They are said to use 'raffia mats'[T9], which are most likely pandanus mats used as protection against the sun and rain (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 213). Several items of 'jewellery' are described, consisting again, of the *kafkaf* necklaces of *Tridacna gigas*, and also of armbands. The report also notes that very little could be learned on the 'social and family conditions',[T10] other than an obvious presence of conflict, since villages were always found to have abundant stocks of spears and stones (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 220). They state that the locals have fishing techniques that are based upon nets and spears, but do not describe them in any detail however.They describe the vessels they observed, in particular a plank canoe they refer to as a 'war canoe':

> War canoes—at least canoes that are regarded as such—are, as far as could be observed, built in a similar, if not as durable, way as the ordinary boats in the Mac Cluer Gulf [on the western tip of New Guinea, in modern day Indonesian Papua], ie they consist of a hollowed-out tree trunk with attached planks. The wood from which these canoes were made also seemed to be harder and stronger than the material of the ordinary boats. The fittings on the outrigger beams were omitted. They did not have raised prows, but rather carved decorations, which the natives seemed reluctant to part with, and which they usually wrapped with raffia, probably to protect the paint. The planks were mainly held in place by crossbars that fell over the top edge of the planks, and the seams between the planks were smeared with resin. Boats under construction were nowhere to be seen.[T11] (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 221).

I will return to these canoes in more detail and concentrate further on this description in Section 5.2.

Germany formally annexed the northeast of New Guinea and the Bismarck Archipelago outright in 1884, but did not install any form of administration, choosing rather to leave the colony in the hands of a number of plantation companies, chief among which was the *Neu Guinea Kompany*. The first ships arrived with this mandate in 1885 (Griffin, Nelson, and Firth 1979, p 34). As they did, they renamed some of the islands that had been charted by the British, and New Ireland became known as Neu Mecklenburg, New Britain as Neu Pommern; New Hanover remained however 'Neu Hannover'.

It is around this time that Lavongai first became a recruitment ground for the German plantations in Samoa. The *Deutsche Handels und Plantagen-Gesellschaft der Südsee-Inseln*

(German trade and plantation society of the South-Sea Islands) and the *Neu Guinea Kompany* (New Guinea company) were given sovereignty over northeastern New Guinea, the Bismarck Archipelago and the Solomon Islands in 1885, and used the first two as recruitment grounds to provide workers for the third (Ohff 2008, p 47). This made it possible, for instance, for a German anthropologist, Franz Reinecke, while present in Samoa from 1894 to 1895, to take anthropomorphic measurements on inhabitants of 15 different islands including the Gilbert islands in Central Oceania; Samoa; Malekula (he writes 'Mallicolos'), Malaita ('Malayta'), and Guadalcanal ('Guadalcanar') in present day Solomon Islands; New Ireland; and Lavongai (Reinecke 1896, p 105). The workers who were fortunate enough to return came with stories of living under the orders of white men and alongside other people from different places in the region. They also introduced to Lavongai the plantation creole, later to be called Tok Pisin, and known in this period as 'Pidgin English' or 'Pidjin' (see below, page 49).

When the British naturalist Herbert Cayley-Webster visited Lavongai aboard a Norwegian schooner, which he hired in New Britain in 1888, he wrote: 'I was astonished at so many of the natives speaking pidjin English, and [...] found that a great number of them had worked on the plantations in Fiji and Queensland.' (Cayley-Webster 1898, p 309). Cayley-Webster spent time on Kung, an offlying, Tungag-speaking island to the north of Lavongai. He describes an event which he observed on Kung:

> the people were preparing a very big festivity and dance. This affair [...] had been no less than ten years in preparation, and promised to be something [...] exceptional [...].
> The village was dressed in its holiday raiment, various coloured crotons decorated the houses, festoons of bright halves and flowers hung from tree to tree, and at the end of the village and in front of the house of their chief, huge heaps of taros, bananas, pineapples, and yams were stacked up to a very considerable height. The men, women, and children were covered in their war paint from head to foot. In the centre of the village a large enclosure had been erected, surrounded by high branches through which it was impossible to see, and which acted as the green room for the performers, and within which every one taking part in the ceremony was collected, no one else being allowed inside. (Cayley-Webster 1898, p 279).

He describes dancing and music, apparently impressed and surprised by the fact that these 'primitive' performances could be so pleasant to watch:

> Whirling round and round, waving branches of crotons, and handling their spears with great dexterity, they kept up in this way for fully half an hour, going through quite twenty different figures, some of which were really very pretty. [...] After witnessing two or three more similar dances and one performed by women, who were by no means behind the men in agility, I returned on board. (Cayley-Webster 1898, p 279).

Although he gives too few details concerning the events during this ceremony to be sure, it could be that this was in the context of the funerary cycle, which is indeed a long process (although nowadays usually not 10 years; see Section 4.3). It might also conceivably have been the presentation of a 'powerful' dance by members of a secret society such as the *pukmaras* (see Sub-section 4.1.2).

Turning to a more general appraisal of the village, he begins by writing that the locals were 'absolutely naked' (Cayley-Webster 1898, p 290), which—from his perspective may have appeared to be the case—but nonetheless, he goes on to note that

> the women, besides wearing a small bunch of fibre in front and behind resembling a wisp of hay, and which is kept in its place by a tendril of some plant fastened round the loins, also cover their heads with a curious arrangement of banana [actually pandanus] leaves sewn together, resembling somewhat a fool's cap, but having a curve backwards. (Cayley-Webster 1898, p 290).

This is recognisable from his description to be what is known as a *kapil* (or *kafil*, pronounced [kaɸil]), examples of which can be seen on Figures 1.2 and 1.3. The *kapil* is a sewn hat made from dried pandanus leaves that used to be worn by women exclusively[16] but it is nowadays sometimes also worn by men, notably during public events and dances, as it is seen as 'traditional' and 'inherently Lavongai' (note Kevin, a young man, is wearing a *kapil* on Figure 7.9).

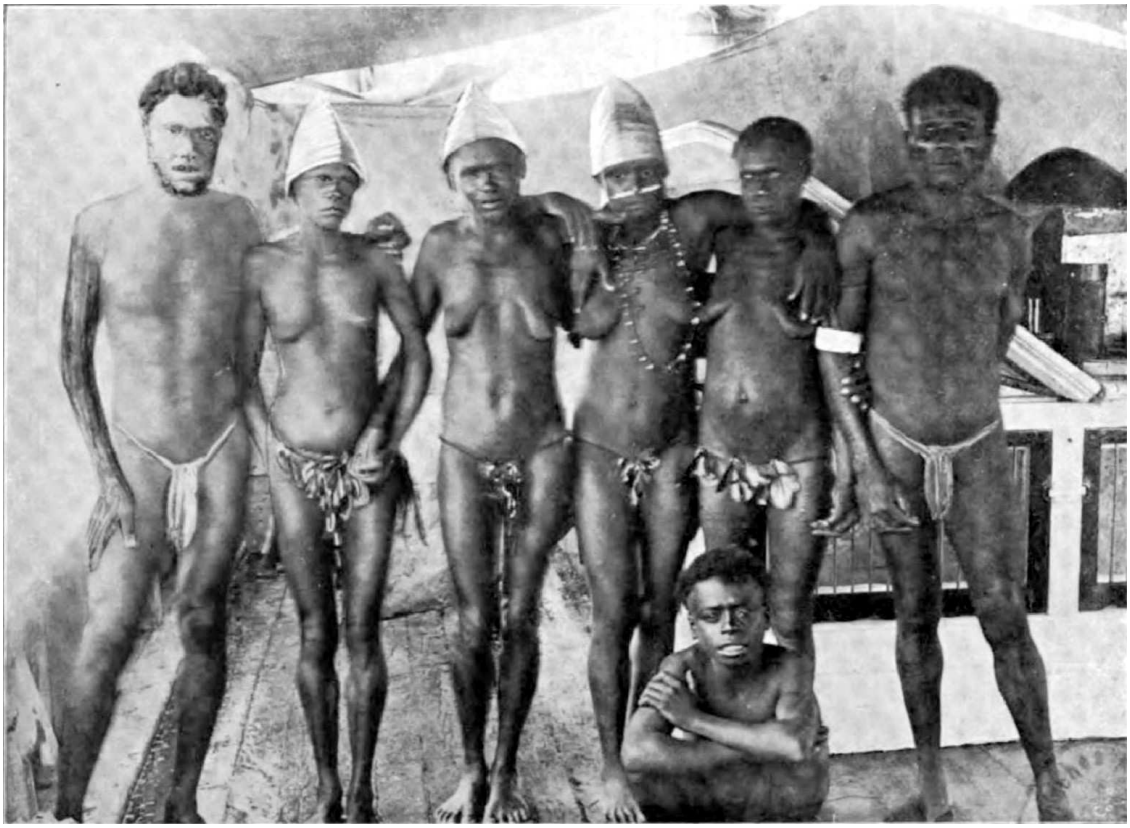


Figure 1.2: An early photo of 'New Hanover men and their wives', according to the original caption. Note the man to the right wearing shell armband, and one women with shell (?) necklace. From Cayley-Webster 1898, p 295.

16. Judging from the photographs that are available of the early colonial age, it is possible that the *kapil* was worn only by women who had passed puberty.

1.2.4 German annexation

The German imperial government took direct control of the colony in 1899, and developed an intense policy of coconut plantation backed by the hire of local workers. Albert Hahl, governor of German New Guinea from 1901 to 1914, 'estimated 100,000 people had been recruited in the colony up to 1913, of whom possibly 25,000 had died while under contract. About 6,000 New Guineans went to the German plantations in Samoa, and 20 per cent of them died on the job.' (Griffin, Nelson, and Firth 1979, p 42). This saw the establishment of a government post in Kavieng in 1900 (previously a traders' station had been erected on the island of Nusa, just across a narrow strait from Kavieng), and the appointment of Franz Boluminsky as district officer. Under the direction of Boluminsky, the German administration conscripted locals into forced labour in order to build the longest road on the island, which still bears his name, the Boluminsky 'highway', linking Kavieng to Namatanai, about 250 km to the south. Historical documents from this period bear witness to the development of the plantation economy on Lavongai. For the year 1913, a report of the *Neu Guinea Kompani* lists an area of 39 ha as being planted with 3,414 coconut palms in Ungalabu on Lavongai, whereas in 1903 the same report listed none (Ohff 2008, p 247). In 1914, a plantation owner named Albert Fischer is listed as owning the Lungatan plantation near Ranmelek; in Metawoi (Metevoe) a certain Otto Fröhlich is registered as a plantation owner; and in Umbugul (Umbukul) a Willy Kessner is also listed (Ohff 2008, pp 473-474, table 22).

Nowadays in Lavongai, when discussing the origin of plants, it is not uncommon for some people to state that there would have been no coconuts on the island without the Germans. The coconut palm is in fact very ancient in Oceania, and likely colonised many islands via natural means, thanks to its floating drupe. However, it is also a distinctly Austronesian plant that is associated with the Lapita cultural complex (Kirch 2021a), and its use by humans, for numerous ends, has a deep history in these islands that largely predates the arrival of Europeans. However, these remarks testify to the scale of planting of coconut groves which the Germans developed and to the lasting impression which this left on the local collective memory.

Heinrich Schnee, a judge and Deputy Governor of German New Guinea, also wrote about his time in the region starting in the early 1900s, and recounts anecdotes of Lavongai people interacting with crewmembers on his ship as they travelled around the island (1904, p 124). The turn of the 20th century therefore clearly marks the beginning of frequent and sustained interconnectedness between Lavongai people and the wider regional networks which the colonial enterprise was beginning to draw up, and the presence of foreigners on the island.

In this context, 'exploration voyages' continued. One of these, that has left us historical information about Lavongai, is the 1904 voyage of the HMS Möwe, in which the anthropologist Fritz Graebner of the Berlin Museum of Ethnology took part. He developed a diffusionist theory in an attempt to explain the cultural diversity he perceived in decorative patterns and carvings found on spears and canoes, that linked the northern part of New Ireland, Lavongai, and the southern part of New Ireland (Stephan and Graebner 1907, p 164). The expeditions physician, Emil Stephan, also published a book, which is mainly

about the local artwork and objects that were collected during the expedition (Stephan 1907). He died of backwater fever in Namatanai (Central New Ireland mainland) on 25 May 1908 and the naval doctor and anthropologist Augustin Krämer was sent to replace him for the remaining year of the expedition. Krämer was accompanied by his wife who was a painter and together they documented the life of numerous Central New Ireland villages (Krämer-Bannow 1916; Krämer 1925). Otto Schlaginhaufen, a Swiss anthropologist who was to become a leading figure in the eugenist movement (known in German as *Rassenhygiene*: 'racial hygiene') was also on the Möwe during this time (Schlaginhaufen 1908).

Another such exploration journey, known as the 'Sapper-Friederici expedition' after the two anthropologists Karl Sapper and Georg Friederici leading it, visited Lavongai in 1908 and attempted, also in a diffusionist perspective, to understand population movements throughout the region (Friederici 1909; Sapper 1910; Friederici 1912).

Around the same time period, Danish ethnographer Richard Parkinson arrived in the area. He would go on to stay there several decades, eventually publishing *Thirty years in the South Seas: land and people, customs and traditions in the Bismarck Archipelago and on the German Solomon Islands* (1990) which includes limited but very precise ethnographic descriptions of Lavongai. He also published a photograph album co-authored with Adolf Meyer (Meyer and Parkinson 1894, 1900) which contains some photographs from Lavongai, notably one showing, yet again, women wearing the *kapil* (Figure 1.3).

1.2.5 Missionary activity

It is during this period of direct German administration that Christian missionaries first started preaching in Northern New Ireland then in Lavongai. The London Missionary Society had begun to visit New Ireland as early as 1875, mostly sending Fijian preachers while Europeans remained in their headquarters at Rabaul (East-New Britain). In the first few years, this was not always very successful: many preachers were driven away, and a few were even killed. George Brown, the head of the missionary effort in the whole region in the late 1800s, lived in New Britain for decades (1908). The establishment of the missions was often a violent enterprise, with Brown even leading punitive expeditions himself:

> When a Fijian minister and three Fijian teachers were killed on the Gazelle Peninsula of New Britain in 1878, Rev. George Brown organized a retaliatory expedition. Nine of the ten Europeans then living on the peninsula, led by Rev. Brown, carried out the raid, in which at least a dozen villagers were shot, houses were burned, and gardens and canoes were destroyed. (Rubel and Rosman 2021, chap. 6, unpaginated).

It was not until the formal annexation of the region by Germany in the early 20th century that missionary stations were established on New Ireland permanently. The first of these was in Omo, where the Wesleyan Methodist Missionary Society established a base (Lomas 1981, p 12) and which to this day still houses the headquarters of the New Ireland United Church (the name which the local branch of Methodists later adopted). Although no direct sources I consulted confirm the dates of the establishments of the missions in Lavongai, it is most likely that the first one to have been created on the island was done

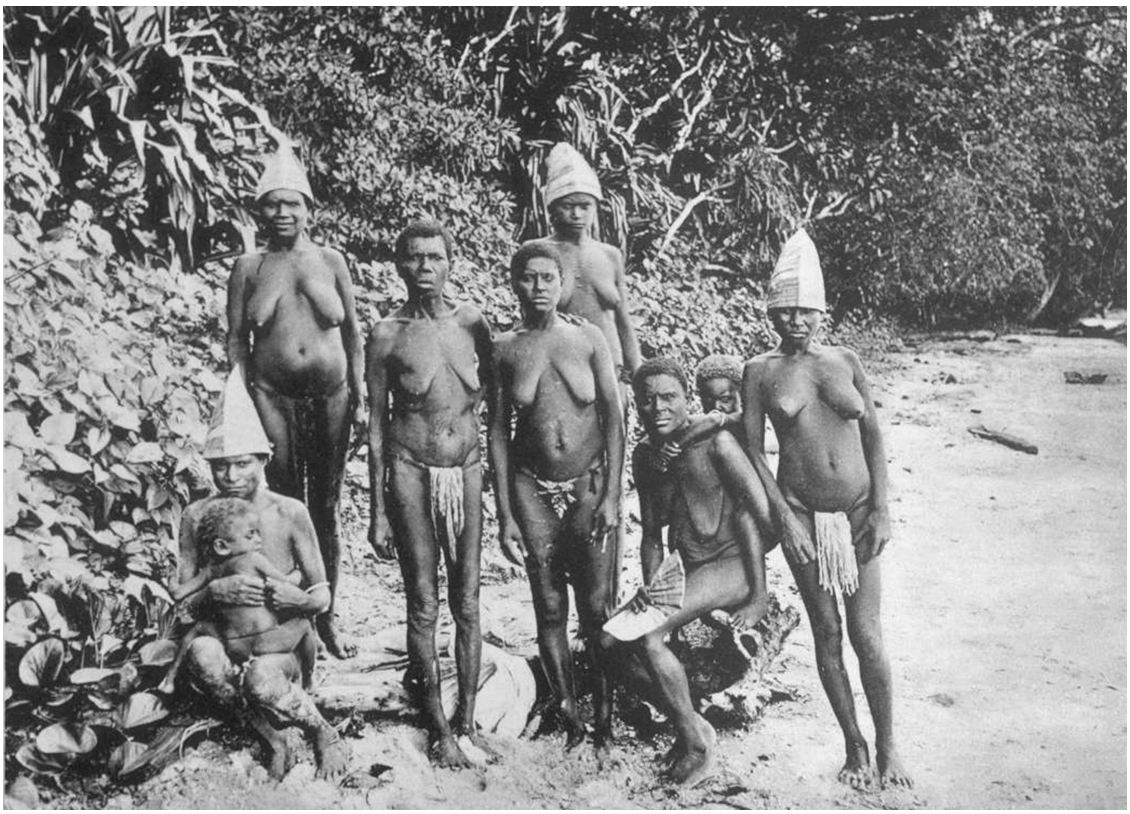


Figure 1.3: A photograph from the end of the 19th century showing a 'Group of Women [...] at New Hanover' (Meyer and Parkinson 1894, p 37), two of which have young children with them. Some of them are wearing *kapil* headwear.

so by these same Methodists at Ranmelek, in the southeast.[17] Roman Catholic missions were founded in the same period, settling in Lavongai village in the south and in Puas in the north.[18] All the missions were flanked with large plantations of coconut palms that provided revenue from the sale of copra. These two religious organisations had a form of 'agreement' by which they would not attempt to establish themselves in a village where the other was already present (Bloomfield 1960, p 13). This resulted in a chequered landscape of historically 'Methodist villages' interspersed with 'Roman Catholic villages', all around the island (Billings 1969, p 18, note 6). Nowadays, although Churches of various denominations usually cohabitate in the same village, there is still such an organisation to a degree, and where a large building such as the Catholic church of Lavongai village or Puas exists, other denominations are less present.

1.2.6 Towards independence and the contemporary period

Some of the events that had the most obviously lasting impact on Lavongai have taken place since World War I, and have involved considerable political and economic reorganisation of the region which took place both before and after Papua New Guinea's independence in 1975, and continue into the contemporary period.

The World Wars and colonial reshuffling

At the end of World War I, Germany lost all its colonies with the signature of the Treaty of Versailles. Various countries were then given mandates from the League of Nations to administer them. The mandate for German New Guinea, which comprised the northeastern part of the New Guinea mainland and the Bismarck Archipelago, known collectively as 'New Guinea', was granted to Australia, whose soldiers had occupied the region during the war, and who established a civilian administration there in 1915 (Griffin, Nelson, and Firth 1979, pp 47–48).

The Australians capitalised on German investment, essentially running the plantations that they had set up, even allowing German planters to remain and manage them, but taking the proceeds to Australia instead of Germany. German landowners were eventually expropriated, and large Australian firms bought the plantations and contracted ex-soldiers to replace those they had taken them from (Griffin, Nelson, and Firth 1979, p 53). The 'head tax' which all 'natives' had to pay each year ensured that locals continued to sign on to be workmen in the plantations, mines, and other Australian or Chinese enterprises, who were increasingly in control of retail in the territory. To this day, the stores in Kavieng are overwhelmingly owned by families of Chinese origin, and a number of the local elite also

17. Archives of the Wesleyan Methodist Missionary Society for this period are located in London (*Melanesian Mission archive*, 1848-1984, School of Oriental and African Studies University, London, https://archives.soas.ac.uk/records/MM) and in Canberra (*Records of the Methodist Missionary Society*, 1804-1865, National Library of Australia, Australian Joint Copying Project and State Library of New South Wales, microform, https://nla.gov.au/nla.obj-742488699).

18. Archives of the Roman Catholic missions in New Ireland that were held at Kavieng have been digitised by PAMBU (*Selected Archives from the Catholic Bishop's Office in Kavieng*, https://perma.cc/5NNF-MSDK). Other records for the MSC are held in a variety of locations in Port Moresby and elsewhere (Gibbs 2002).

have a Chinese background. This is the case, most notably, of Ian Ling-Stucky the current Member of Parliament for Kavieng District and Minister of Fiance, and of Sir Julius Chan, the current Governor of New Ireland Province, a former Prime minister of Papua New Guinea, and member of the first House of Assembly that drafted the country's constitution.

It is in this interwar period that the oral history which I was able to collect on Lavongai begins. People I discussed the past with remember that it was before World War II that new plantations were created under the control of Australians, notably along the south coast. The labour force was largely made up of people who are remembered locally to have been 'from Sepik'. The plantation overseers preferred to hire these 'foreign' workers, as they were considered less likely to 'cause trouble' because they were far from their home and had no qualm about the land that was being used for plantation. Nowadays, there are still in Lavongai a number of people who have 'Sepik' ancestors—as the local turn of phrase goes—usually a grandfather or great-grandfather.

At the dawn of World War II, Japan invaded the territories of New Guinea in a matter of days. Rabaul was occupied on 4 January 1941, less than one month after the bombardment of Pearl Harbour in Hawaii (Griffin, Nelson, and Firth 1979, p 73). Although the Japanese did not occupy Lavongai, they were present in nearby New Ireland (Underhill 2024, p 260). Their actions during the war greatly affected the locals (BJ Allen 1983; Thune 1989; Waiko 1991; Nolan 2019), leaving an impression that Japanese fighters are 'terrible' and 'vicious' which persists to this day. During fieldwork, several people recounted stories which they could not have experienced since they were born after the war, but which they obviously heard from their fathers and grandfathers. These involved huge warships and guns hidden in the forests in the Tigak islands around Kavieng. Several songs which people sing nowadays in Tungag also recount events from WWII.

The battle between the Australian and Japanese forces raged through New Guinea and the Bismarck Archipelago. Many Papua New Guineans joined forces with the Australians, and the interactions between them would deeply influence the locals for years to come (see also the film *Angels of War*: Daws, Nelson, and Pike 1982). Indeed:

> Only a few men who reached positions of importance during the war became prominent in civilian life. Most of the soldiers had travelled, they had seen what men could do, they were well-trained as soldiers; but they had few skills to enable them to transform village economies or to rise to high positions in Territory institutions. When opportunities began to open for Papua New Guineans to take positions of real power in the 1960s, the men who had demonstrated a capacity to lead during the war were too old and too lacking in basic education to run a modern state. Many were disappointed: they were unable to reach the goals that they knew men could reach, and they did not get the schools, hospitals and wages that they had been told that they had earned. (Griffin, Nelson, and Firth 1979, p 98).

This was to have a lasting importance in the genesis of what is still, to this day, one of the defining historical moments of Lavongai island: the emergence of the 'Johnson cult' (more on this below).

After World War II, Australia took on a new mandate from the League of Nations (soon to become the United Nations) that covered the unified territories of 'Papua and New Guinea'. This comprised the southern 'Papua' which was once a British colony and then

became an Australian 'Territory', and the north-eastern quarter of New Guinea and the Bismarck Archipelago, which had been German and then administered also by Australia but separately from the Territory of Papua. More than an economic asset, this was seen above all by Australian elites to be of key strategic importance for Australia (Griffin, Nelson, and Firth 1979, p 123), since the memory of the Japanese invasion at the onset of the war was still vivid.

The following decades however saw mounting pressure on Australia to move the Territory towards independence. This came all at once from within Papua New Guinea, from the United Nations, and from within Australia, where a growing share of public opinion and the elite opposed the maintenance of this colonial grasp on the northern neighbour (Griffin, Nelson, and Firth 1979, pp 138–174). Arrangements were thus made for the people of Papua New Guinea to elect representatives in a House of Assembly, and the progressive transfer of decision-making and power centres from Canberra to Port Moresby was undertaken.

The 'Johnson Cult' and TIA

When contemporary Lavongai people recount the history of their island, there is one event that stands out: the vote for president Johnson and the subsequent development of the Tutukuvul i sukal association, or TIA. This serves as a form of temporal horizon, a 'golden age' against which current times are evaluated (usually unfavourably).

The main sources on this part of Lavongai history are the publications of Dorothy Billings (1969, 1981, 2002). In these she recounts how, in 1964, the Australian colonial administration held the first national elections in the territory of Papua New Guinea. People were to select representatives from each district to sit in the House of Assembly which, in the course of the independence process, became the country's Parliament (Griffin, Nelson, and Firth 1979, pp 133–134). Six polling stations were set up around Lavongai, one of which was located in the southeastern village of Ranmelek, where the earliest Methodist mission had been established. When Australian patrol officers arrived there to conduct the polling, they found a blackboard that read 'We want to vote for Johnson of America. That is all.' 'Johnson' here refers to Lyndon B Johnson, 39th president of the United States of America from 1963 to 1969. When called to vote by the officers, people present shouted the same message, then left. At another polling station in Meteran people 'voted for Johnson' in this way also. At another two, Nonovul and Taskul, they did the same. Only at Umbukul, Neipuas, and Ungalik did the Lavongai people cast ballots in the way they were instructed to do so by the colonial officials (Billings 1981, pp 895–896).

There were several attempts in the following weeks by the administrators to explain to people that they should vote again and elect a representative, but those who had 'voted for Johnson' held fast and did not vote 'in the boxes'. Following this, people who had voted for Johnson also refused to pay taxes to the Australian administration, stating that they would only give money to the American president, and indeed, they made a collection and gave the money to the District Commissioner for him to pay for Johnson's trip to Lavongai (Billings 1981, p 897). He returned the money, trying once again to explain that all this was futile, and they should elect a representative to the House of Assembly.

The administration was quick to dismiss the Johnson movement as a form of 'cargo cult'. This terminology is regionally associated with the Western Pacific, although its popularity—spurred not least by its recurrent used in anthropology—goes far beyond that region. In the words of a recent review of the topic, the expression 'cargo cult'

> provided a handy label which could encompass a variety of forms of social unrest that ethnographers elsewhere tagged millenarian, messianic, nativistic, vitalistic, revivalistic, or culture-contact or adjustment movements. […] The label presumed that these Melanesian movements typically focused on the acquisition of 'cargo' or *kago* (supplies, goods) […]. (Lindstrom 2018).

Thus, having associated the Johnson vote with this type of movement, the Australian administration looked down on the Lavongai people's actions at this time both as a senseless tangle of misunderstandings and as a potentially dangerous distraction from more urgent developmental matters. Indeed, in several places around the colony, such 'cargo cults' had turned into full-scale local resistance movements to the administration (Schwartz 1962; Lawrence 1964). Patrol officers and district commissioners were consequently on edge regarding anything that looked even remotely 'cultish' to them (Billings 1969, pp 14, 16). They reacted to the Lavongai people's refusal to pay tax by a violent crackdown. In the following years, each time a census was conducted in anticipation of tax payment and when the tax itself was collected, men who refused to be counted or to pay were pursued, apprehended, and jailed as 'tax-defaulters' by the Australian colonial officials and their Papua New Guinean policemen. This period is remembered gravely by many living Lavongai men, including some I interviewed who were jailed themselves in this process. This is the case of Boniface, who was in his 20s at the time, and who was held for two months in Taskul, forced to labour on the government station there in harsh conditions (Boniface Fode, 2 September 2023). This continued for several years, until approximately 1968 when tax-defaulting became less and less tenable in the face of the Australian repression and this form of protest ceased.

Billings concluded from her research on the island that this 'vote for Johnson' was a form of protest, a way for the locals to express to their Australian 'masters'[19] that they were not satisfied with the way they had 'bossed them'. They wanted a new boss, and they wanted the most powerful of all, which was clearly the United States of America, judging by the formidable display of power that the 'Battle of the Pacific' during World War II had brought to their doorstep. In the words of one Lavongai man who spoke, in English, at a meeting called during the height of the movement by United Nations personnel:

> We do not want the Australians because we have been with them for many years and haven't got changed in our lives. We do ask the Australians not to govern us any more. We must wait for the USA has his turn. We do like the USA to teach us the best way how to live good, happy and useful lives. (Billings 1969, p 17).

Following this episode, a planter's association known as 'Tutukuvul i sukal association' (TIA) was founded, largely under the impulsion of an American Roman Catholic priest living in Lavongai, Father Bernard Miller (Billings 1981, p 919), with the express intention of harnessing the energy and motivation that had been evident during the vote for

19. The word for 'white man' in Tok Pisin is, still to this day, *masta*.

Johnson and subsequent tax protest. There had, in fact, been previous incentive by the administration to establish planter-cooperatives in New Guinea, starting in the 1950s:

> The introduction of co-operatives was part of a conscious effort by the Australian colonial government to coalesce new socio-economic and political ideas within existing social structures, reinforcing group unity at hamlet, village and district level. There was an underlying essentialist belief in 'native communal' living which, to the colonialist's eyes, aligned co-operative production and traditional 'native' economic exchange. (Underhill 2020, p 2).

These had limited success on Lavongai, but with the motivation gained in the Johnson movement and the administrative and logistical assistance of Father Miller, by most accounts TIA was a great success at least for some time (Billings 1969, p 19). It functioned in the following way: members of the association paid dues every year that were used to invest in shared machinery and tools. They had to pay their taxes to avoid being imprisoned. They also had the obligation to plant a certain number of coconut trees on land which they 'gave' to the association. They would participate in collective work sessions on plantations of the cooperative, cleaning undergrowth and tending to the palms. When the copra was harvested, it was taken to Kavieng, sold, and the proceeds were reinvested into TIA itself. As told nowadays, the organisation appears to have been rich beyond bounds: they had several ships, owned a large supermarket known as the 'TIA freezer' in Kavieng, tractors, cars, lawn-mowers, etc. This, truly, was the 'golden age' of Lavongai.

Nowadays, there are still—allegedly—people on Lavongai and beyond who claim membership in TIA, and are still 'waiting for America'. The main way that this manifests is in refusal to participate in elections. During the preparation of the electoral roll for the 2022 national election, the designated locals leafed through the list of names and pointed out 'this person doesn't vote, neither does this one, this one, nor this one…' They debated among themselves if the people in question should be struck from the roll. Eventually, they did not do this, but counted them, and provided the total to the electoral office with the intention of allowing them to save paper during the polling: there was no point bringing 400 ballots for Metevoe. Since they already knew that some 150 people wouldn't vote anyway, a mere 250 ballots would suffice.[20]

What exactly precipitated TIA's decline is never stated very clearly nowadays. The truth may simply be that the economic model of the cooperative, based solely on the sale of copra, was untenable in the long term. Locally, the slow decline of TIA is attributed by many to embezzlement of funds on the part of the management board. One decision that appears to have drawn ire and to be remembered even decades later is that successful schoolchildren who had obtained a place in university or other higher-education institutions saw TIA fund their tertiary education. This was done with the aim of developing a local workforce of well-educated Lavongai people. However, once they had finished their studies, having become accustomed to urban life, these people chose to remain in the cities where they

20. This may also explain some of the difficulties in obtaining reliable census figures, since to a degree, responding to a census questionnaire is considered to be admitting participation in 'government', hence as a betrayal of the ideals of the vote for Johnson. I did not investigate in detail who these people may be, nor did I seek them out as the matter appeared contentious, and I did not want to exacerbate dissension by asking too many questions.

had studied and could find meaningful employment. The result was a persistent feeling of injustice on the part of those who had never been given an opportunity to leave the island and study. The leadership of the association is also accused by some of having been deficient. From 1968—in the immediate aftermath of the vote for Johnson—until his death in 2004, the president of TIA was a charismatic and well-remembered man named Walla Gukguk. After his death, several people, including one of his sons, took on management roles in the organisation, and it is they who are usually accused of having brought the cooperative to its demise.

TIA is indissociably linked to the Johnson movement. For this reason, it has also been labelled as a 'cult' by opponents. This is true even on the part of locals who did not participate in its activities. Nowadays, if somebody is acting in a way that others consider 'strange', they may use the derogatory expression *kate kalt liklik*: 'he is a little cultish', to devalue the person in question. Such re-appropriation of the colonial perspective on the part of locals who scorn anything seen to be a 'cargo cult' is not uncommon in the region (see for example Hermann 1992). Walla's daughter Tukul W Kaiku, in an article published for a special issue of the journal *Global Bioethics*, edited by Billings, writes about 'the spiritual and or religious features [...] which have become a confused mess of notions of the Johnson Cult of New Hanover Island and its economic offshoot, the Tutukuvul I-sukal Association.' (Kaiku 2015, p 73). She describes what appears to be a millenarian aspects of the movement, stating that it is 'believed that at some destined time in the unknown future [...] a state of rapture will be unleashed and a new world will emerge resulting in the passing away of the present world. The faithful adherents of TIA will be taken away into this new world.' (Kaiku 2015, p 75).

Analysing the modalities of the vote for Johnson and the subsequent TIA movement thus lead to questioning how Lavongai people have received the message of missionaries who, at that time, had been present on their island for about half a century.

The role of Christianity

Christianity has been established in every part of Papua New Guinea through missionary activity for any time between a century and a half and seventy years depending on the areas in question. By the time the nation became independent in 1975, this had been so successful that the country's Constitution states in its preamble: 'WE, THE PEOPLE OF PAPUA NEW GUINEA [...] pledge ourselves to guard and pass on to those who come after us our noble traditions and the Christian principles that are ours now.' (Independent State of Papua New Guinea 1975, p 1). This predominance of Christianity is not confined to legal texts. The vast majority of the country's inhabitants identify as Christians (95.41 %) and are affiliated with one or another of scores of Protestant denominations or Roman Catholicism.[21] However, as with most statistical information regarding PNG, reliable data concerning religious affiliation is hard to come by and the validity of existing data is

21. The figure of 95.41 % is from the 2000 National Census, the latest one to be considered reliable (see Sub-section 1.1.2) as discussed by Philip Gibbs (2004). The author identifies many problems with this data. Moreover, there are no doubt difficulties which are invisible from the data itself. These include issues pertaining to the manner in which the questions on religion were asked, and to whom, during the censuses.

questionable. Nonetheless, Christianity enjoys a *de facto* monopoly and many Papua New Guineans act as if being Christian were a self-evident fact, or as if no other religion—and especially not the absence thereof—was conceivable.

For many decades, at least until World War II, and partly into the post-war, pre-independence era, missionaries in PNG were foreigners. Since the late 1970s, this has no longer been the case. On Lavongai more specifically, almost all religious roles are now held by locals, and the few who count as exceptions are from other regions of Papua New Guinea, usually from neighbouring New Ireland or New Britain. None of the pastors or lay Roman Catholic preachers[22] whom I spoke to on Lavongai were being paid wages by any of the denominations within which they served, although they did receive material support from villagers who helped build houses for them, provided them with land to garden on, and gifts of food, and they do avail themselves of the premisses and resources of their respective organisations when they travel to Kavieng, Rabaul, or further afield.

One of the milestones in the development of the local Christianity was the publication of a Tungag language New Testament. This was the work of a foreign couple, Lesley Fast from Canada and Marianne Fast from Holland, assisted by locals, all working under the auspices of what was known at that time as the Summer Institute of Linguistics, which according to its own website, is 'a global, [Protestant] faith-based nonprofit that works with local communities around the world to develop language solutions' and whose 'core contribution areas are Bible translation, literacy, education, development, linguistic research and language tools' (www.sil.org).[23] Arriving in the village of Umbukul, West Lavongai (Map 1.2), in 1986, the Fasts remained on the island until the year 2000, raising their children there for part of their youth. They published preliminary descriptive linguistics papers on the language, including a grammar sketch and wordlist (Fast and Fast 1989; L Fast 1990). They began by publishing three books from the old testament—Genesis, Ruth, and Jonah—then the Tungag translation of the New Testament: *Akus ro na palatung tanginang ani Iesu Karisto* (Wycliffe Bible Translators 1998).[24]

As in most of the country, the various flavours of Catholicism that are professed, preached, and (more or less) followed locally have a key sociocultural role. Nevertheless, it appears from my fieldwork that the exogenous Christian messages and practices have been incorporated locally in adapted forms. For example, Lavongai people still take strong stock of the way 'ancestor spirits' look upon their lives and consider that these ancestors can influence them in many ways. When describing ancestor figures from local myths, several

22. There are no resident priests on Lavongai, and Roman Catholic services are run by lay preachers known locally as *katiket* (catechists).

23. The Summer Institute of Linguistics has since been renamed to 'SIL International' and in 2024 to 'SIL Global'. The organisation partners with members of the Wycliffe Global Alliance of Bible translators, and the Tungag New Testament translation was published under this name. Most SIL linguists are initially non-professional but they receive training and support from academics and not infrequently go on to publish peer-reviewed works or obtain doctorates in linguistics and other disciplines (as is the case of Lesley Fast). SIL are notable for freely distributing both their publications (online at: https://pnglanguages.sil.org/resources), and software tools (https://software.sil.org/).

24. This was based on the United Bible Societies' Greek New Testament (Lesley Fast, pers. comm. 11 September 2024). The title translates as 'The good story and the new testament of Jesus Christ'.

of my interlocutors even used such strong expressions as 'they are the Gods of Lavongai[T12]' (Melis, 1 May 2022). Moreover, there are many ways in which what is stated by Lavongai people to be important for Christian religion is not effected in day-to-day life. In other words: there is a certain distance between discourse and practice in religious matters, for example concerning church duties which people do or do not attend to depending on other activities, or concerning the commandments related to marriage or adultery which, judging by the village court's agenda, are regularly breached.

There are competing claims to veracity and overarching importance from what might broadly, on the one side, be referred to as Christianity and on the other side as *kastam* (custom, tradition in Tok Pisin). Although at times these are brought into direct critical confrontation by Lavongai people, there is an endless search for a 'middle ground' or for forms of understandings that would encompass statements from both as being valid. Orators for example will make passionate speeches in which they appeal to the will of God, and in the same breath to the importance of customary practices such as the avoidance rules between opposite-sex cross-cousins (see Sub-section 2.2.1), or the importance of paying a brideprice before marriage (see Section 4.2).

When I asked, in Metevoe, during the village-wide socio-economic survey what denomination, if any, the respondents belonged to, only one man stated that he did not go to church. From what the others answered, five different denominations emerge (Table 1.1).

Table 1.1: Number of respondents identifying with each represented Christian denomination during the survey carried out with one person from each household in the village of Metevoe, in June and July of 2022.

Denomination	**Count**
Roman Catholic	20
United Church (UC)	13
Jehovah's Witness (JW)	11
Restoration Fellowship International (RFI)	7
Australian Local Church (ALC)	2
None	1
Total	54

Four of these denominations have church buildings in the village, while the last one (ALC) has one in neighbouring Tioputuk. The Roman Catholic church has a building in the neighbouring village of Neitalangus and one in Metevoe, at a location known as Iarpeles (see Maps 1.2 and 1.5), and both hold services every Sunday. There are also Seventh Day Adventist churches in two neighbouring villages, although nobody in Metevoe identified with this denomination. It is worth remembering here that the population of the village does not even reach 400.

This high ratio of Christian denominations and buildings to population tends to fragment and disperse people, and to cause a degree of confusion, or even frustration in some cases. Several of my interlocutors stated that what they referred to as 'new' denominations were

making everything 'too complicated' and 'confusing'. Indeed, just a generation or two ago, only the Roman Catholic Church and the Methodist organisation now known as the United Church were present on Lavongai. Other denominations which have arrived since are perceived by some, in particular the older men and women, as 'strange', and they scoff and complain at the various rules imposed on their adherents: no chewing of betel nut,[25] no smoking, no eating pork, etc.[26] Attendance at religious services appears to vary widely, and depends to a degree on the denomination. There are elements of everyday social life—outside of the Sunday services—that stem from Christianity. For instance, public gatherings (meetings, feasts, funerals) all invariably begin with an 'opening prayer' by whoever is the most notable preacher in attendance, and often also end with a 'closing prayer'. Another undeniable consequence of Christian influence is the fact that the bodies of all deceased people are now buried. This was not previously the case, as multiple funerary practices appear to have coexisted in the pre-Christian period, notably cremation which is still remembered by some older men but no longer practised nowadays (a topic I will return to in Section 4.3).

Lavongai people often say that the events described in the Bible are set on their island, that the stories told in the Bible are set on Lavongai, that marks of the Bible story are visible in the landscape, that the island is 'special' in this regard. Others, however, answer that this is 'a little cultish'. This kind of re-appropriation or 'indigenisation' (Sahlins 1993) of exogenous religious concepts and stories is common in the wider setting of societies where missionaries have been active—in Oceania as elsewhere (Gunson *et al.* 2005; Tomlinson 2019). These have been studied in Papua New Guinea by several anthropologists (see for example Jacka 2002; Goddard and Heekeren 2003; Robbins 2004; Handman 2010; Macdonald 2014). The particular status of Judaism as the 'original' religion of God's chosen people has led to several movements in which locals have claimed to belong to such 'Lost Tribes of Israel' in the country and neighbouring ones (Cox 2015; Dundon 2015; Newland and Brown 2015), and indeed in Southern Lavongai there exists a small group of people who say they practise Judaism.

However, the widespread adoption of Christianity does not mean that pre-Christian or non-Christian beliefs and practices are now entirely absent. Indeed, as the ethnography presented in this thesis will abundantly demonstrate, there are numerous instances in which Lavongai people explain the phenomena they observe through appeal to various forms of 'spirits', 'ghosts' or the intervention of deceased ancestors. Such statements exist alongside, and are sometimes articulated with discourse concerning God, the Bible, and Church (*lotu* in Tok Pisin and Tungag).

Public services

Another important aspect of the contemporary history of Lavongai is the layout of public services (health, education, and law and order) that has developed through the colonial and into the post-independence periods.

25. Betel is a mild narcotic used throughout Papua New Guinea, see page 65.
26. Jehovah's Witnesses, Reformation Fellowship International and Seventh Day Adventists all have such rules.

From the start of the colonial era in the region, the health of the local population was of concern to administrators, planters, and traders mainly insomuch as it influenced the workforce's ability to provide labour. A secondary consideration in this matter then became that of demography. Indeed, in the 1930s in particular, increasingly worrying reports of depopulation in the New Ireland region began to reach the British colonial authorities. The 'government anthropologist' Edward WP Chinnery collated many reports on this matter, then travelled to New Ireland himself in 1931 to conduct ethnographic and demographic investigations (1931).[27] He found that this depopulation was multi-causal, with one explanation being the large proportion of young men who were away at any given time from their villages working on plantations, another the rampant venereal diseases which, introduced by white colonists, were causing a widespread decrease in fertility (Chinnery 1931, pp 46–49).

Throughout the Australian colonial period, patrols by the administration were thus always accompanied by 'health orderlies', who administered treatment to villagers displaying signs of infectious diseases. A leprosarium was also created on the small island of Enelava (or Anelava, see Map 1.2), off the east coast of Lavongai that was managed by Catholic nuns.

Nowadays, the health needs of the population are the responsibility of the Provincial Health Authorities. These are tended to through the network of 'Health centres', 'Sub-health centres' and 'Aid posts' located around the island. For example, on the south coast, there is a single Health centre in Lavongai village, a sub-health centre in Metemana, and the village of Lavongai hosts an Aid post (Map 1.2). In Health centres and Sub-health centres, there are usually at least two nurses, but no medical doctors are present. In Aid posts there may be a single nurse, or even a single 'Community health-worker' (CHW), a title which is obtained after a one year course of medical training in nursing schools, such as the one in Lemakot on New Ireland mainland.

Throughout practically all the time I carried out fieldwork in Metevoe, the Aid post there was unmanned and in need of maintenance. The previous worker, I was told, had been involved in a violent dispute and left the village in 2017. Villagers had attempted to request from the Provincial Health Authority that a new worker be posted to Metevoe, to no avail: the area was deemed to be a 'trouble zone', where fighting was too frequent for a health worker to be posted.

This had one important consequence during my own presence in the village. I had of course brought with me medical supplies for most of the common conditions known to be experienced in isolated, pauperised, and rural tropical locations, for my own safety and health. However, it was impossible to refuse help to people who were suffering from ailments which it was evident, despite my lack of medical training, that these supplies could help them combat. Thus, it soon became part of my daily activities to provide plasters or painkillers, clean then dress serious wounds, measure the temperature and try to lower the fever of sick babies, perform rapid diagnostic tests and deliver medicine for malaria.[28]

27. Chinnery's archives are housed at the National Library of Australia and they contain a series, number 19, entitled 'Depopulation, 1919-50'; see https://nla.gov.au/nla.obj-299883205.

28. This is not an uncommon situation for foreign anthropologists working in Papua New Guinea to find themselves in. Jeff Kinch, during his fieldwork on Brooker Island in the 1990s, eventually opened his own

The people of Metevoe were finally fortunate, in March 2022, that a nurse, Lawrence Silau Ngoki, was ordered to report for duty at the Metevoe aid post. Thanks to his work, inhabitants of this area in south Lavongai can now receive first aid for their everyday ailments without having to walk two hours to Lavongai village or Metemana where the nearest health centres are located (Map 1.2).[29] My contribution in this context, aided financially by my family who were thankful towards the people of Metevoe for the warm welcome they provided me, was therefore to buy materials and pay for transportation to and from Kavieng in order to carry out minimal renovations on the aid post so Ngoki could begin work there upon his arrival.

Education in Papua New Guinea is currently separated into three levels: an elementary school is supposed to be present in almost each village, a primary school in each ward, and there are generally no more than a few secondary schools in each district. In Metevoe there is both an elementary and a primary school (Map 1.5). The nearest secondary school is in Konos in eastern Lavongai (Map 1.2); others are found in Kavieng and nearby on New Ireland mainland. There is also a 'vocational' school on Enelava (in the facilities of the former leprosarium), where those who completed primary education can learn a trade such as mechanics or agriculture. Higher education in other domains requires students to travel further afield, for example to Rabaul in East New Britain for teachers' college, or to Lemakot in New Ireland to train as a nurse or health worker. Many tertiary education courses are provided only in the capital, and impose a great cost in tuition as well as housing and food on the families of these students. Many families even find it difficult to pay the limited school fees that must be acquitted in order to enrol their children in elementary and primary school (from a few tens to a two hundred Kina depending on the years), a difficulty which is compounded by the large number of children in each family. The result is that children often go for several years without schooling, and a large share of those who do complete their primary education have mediocre achievements. There is also a clear lack of motivation for studying, since examples are numerous of students who put effort and energy into their education only to *ol palau e rina* (*stap tasol long ples* in Tok Pisin) according to a common expression: remain in their villages, idle and jobless just like those who did not go to school.

School is however the setting where two other languages than the local Tungag are first heard by children: English and Tok Pisin. Since independence in 1975, Papua New Guinea officials have considered the establishment of national languages as a key aspects of nation-building. There are four such official languages: English, which is the language of the administration, workers of the tourism sector, and the educated elite; Hiri Motu, which

aid post (pers. comm. 2022). Pierre Lemonnier also describes on several occasions helping people on his fieldwork site in New Guinea mainland with oral rehydration solutions or antibiotics (2006, pp 130–131).

29. Villagers insist that the posting of Ngoki to Metevoe was provoked by a conversation I had with a provincial health administrator whom I happened to meet during a funeral in Angat. Although I did mention the fact that Metevoe had an aid post that was in dire need of a workman during that conversation, I did not walk away from it thinking that this had left any sort of an impression on the administrator in question, and I personally doubt this had much to do with the matter.

is a vehicular creole language spoken in and around the capital city Port Moresby;[30] Papua New Guinea sign language, which evolved from Australian sign language and became official in 2016; and—the most widespread of all—Tok Pisin. Sometimes referred to simply as Pidgin or occasionally in linguistic publications from the 1980s as 'Neo-melanesian', this is a vehicular creole language that has a predominantly English lexical base but incorporates words from other colonial languages[31] and from local languages (Mihalic 1971, p ix). It has a grammatical structure that is close to the languages of the Bismarck Archipelago and New Ireland (notably Kuanua, a language spoken by the Tolai people of East New Britain, Mosel 1980; Keesing 1988).

People who grow up on Lavongai all learn Tungag as their native language. Shortly after they also learn Tok Pisin. This can happen when they start attending elementary school, or sooner in the case of children who have elder siblings who do so. Policy on the language of early education has varied in recent years in PNG, with a vernacular primary education system having been setup, then abandoned (Nagai and Lister 2004; Zeegers 2005; Franken and August 2011; Malone and Paraide 2011; Paraide 2014). According to my own observations, although the official language of education is now English, in effect, schooling in Metevoe happens mostly in Tok Pisin. Some teachers come from Lavongai, but most, especially primary school teachers, come from other areas in Papua New Guinea. The actual competence of these teachers in English—whether local or from beyond the island—is far from excellent, which ultimately results in them speaking either the local vernacular (when they are competent in it), or Tok Pisin to the children who, themselves, are only truly fluent in Tungag. Therefore, schooling is a formidable challenge for young Papua New Guineans, since it imposes on them the necessity to learn English in order to access general foundational knowledge such as the ability to read, write, calculate, and comprehend exercise instructions, despite this language hardly ever being used in active communication situations. The result is an inability of most students to speak English comfortably, despite them having at least partial passive competence.[32]

On a more subjective level, English is seen by Lavongai people to be a 'difficult' language, and those who attempt to speak English and fail to do so impeccably are mocked and ridiculed. When speaking of interactions with white people, inhabitants of Lavongai often used the sentence: *vei kila Ingilis anira!* (I hope they don't speak English to us!) This demonstrates the fear they have of being unable to understand and respond adequately, and thus to appear uneducated. Consequently, they are reassured when a white person speaks and understands Tok Pisin, and they become truly at ease when he or she can use even just a few words of the vernacular.

Tok Pisin on the other hand, is considered 'easy', to the point that parents appear not even to realise that their children are actively learning this language when they start going

30. Hiri Motu or 'Police Motu' is lexically based on Motu, an Austronesian language spoken in the area.

31. For example *pikinini* 'child' is based on the Portuguese *pequeño* 'small' (GP Smith 2008, p 188); or *raus* 'get out, be ousted', transparently adopted from German.

32. Research into the educational achievements of Papua New Guinea students supports my observation that there is a very poor level of formal education in general, and that even the small percentage of students who complete a secondary education obtain low grades on average (Kukari 2013; Magury, Lavu, and Webster 2021).

to school. This language is thus handled with more confidence by almost all adults, with the exception perhaps of some who have not attended school nor had an opportunity to live away from Lavongai.[33]

In the past, a significant number of Lavongai people used to be fluent in Tigak, the neighbouring vernacular language to the East. Some still say that they can understand Tigak-speakers, but I never met any truly bilingual individuals in these two languages.

As for law and order, what modicum of it exists is nominally in the hands of the Royal Papua New Guinea Constabulary, the national police force, which has an office in Taskul, on eastern Lavongai (that has been unmanned for years however, I was told). The police station in Kavieng is the nearest place where a law enforcement officer can be found, but when trouble arises in Lavongai and they are sought out, the response is all too often that the police do not have enough resources to mount an operation there. If an interested party is to provide fuel, food, and money to the officers, they will, occasionally, travel to Lavongai and seek out an alleged offender. On such occasions, there have been many instances in which villagers recount that police officers conduct themselves like mercenaries under the instructions of those who went to ask for the intervention: threatening families and friends of the people they are searching for so they will give them up, beating and torturing those whom they do apprehend, and occasionally killing suspects with firearms.[34]

The police force in Kavieng works in tandem with the branch of the National Court known as the District Court, which is located in the same town. The Papua New Guinea legal framework is inherited from the British and Australian colonial era (all the way down to the court dress, including wigs). Judges from the National court in Kavieng hear criminal and civil cases. Throughout Papua New Guinea, each 'sub-ward' (which on Lavongai corresponds more or less to a village) also has a Village Court, which is comprised of one magistrate, and one 'peace officer'. Both chosen among the inhabitants of the village, their receive a small salary from the ministry of justice but neither are professional. Villages are free to appoint who they see fit as a magistrate or peace officer. In the one case I witnessed—when the Metevoe magistrate John Songo Masngai died in 2023—this was done during a regular village assembly through a show of hands. Village court magistrates are tasked with resolving offences such as stealing, adultery, or antisocial behaviour. They do undergo some degree of training and they are required to abide by the national laws, but they are also given a degree of freedom to hear cases and make rulings based on what they consider to be their 'customary' way.[35] Quite often, they resolve disputes by pressing defendants and complainants into engaging in a public 'peace ceremony', during which traditional shell currency and a token amount of money are exchanged and apologies are

33. In practice, it is only necessary for people on Lavongai to speak Tok Pisin when a stranger arrives on the island, or if they themselves travel to a place where different language groups are present.

34. I am aware that these are grave accusations, but I heard of such behaviour on the part of police officers so often, from so many different people during my stay in Lavongai, that there is little room for doubt as to their truth. Judging from the existing literature, they are also perfectly credible (Kulick 1991; Macintyre 2008).

35. Melissa Demian (2021a, pp 151–179,b) has written on the way Papua New Guinea village courts have taken on a far greater social role than what was initially envisioned by the lawmakers who created them and on their interplay with 'grassroots' conflict-resolution practices.

made. Usually the same amount is given by each party, but court fines may also be required from an offender when there is no clearly identified victim with which to organise a peace ceremony with, which is rarely the case in my experience. In principle, these village court magistrates should have no part to play in serious offences such as assault, battery, rape, or destruction of property. In practice, they often find themselves in the difficult position of having to deal with such occurrences because there is nobody else available to do so. Since they have no means of enforcing their decisions, this constrains them to a delicate balance of persuasion, negotiation, and public admonishment of condonable behaviour. One must say that their success in maintaining order—if not always justice—in this manner can be very impressive.

Conservation and management

There are three local organisations in the Lavongai, and wider New Ireland area, that have special importance for the theme of marine interspecies relations. Although I will describe the work of these NGOs in more detail in a subsequent chapter (7), it is nonetheless important to present them briefly here as their interventions have impacted the relations between Lavongai people and marine animals in many ways.

The first is Ailan Awareness, a local non-governmental organisation (NGO) that was founded in 1993 which

> specializes in community-based marine conservation. […] Lovangai […] is the community from which Ailan Awareness emerged. The founders of Ailan Awareness—John Aini, Bernard Miller Aini, and Michael Ladi—are all from Lovangai and established Ailan Awareness in response to their observations of declining fisheries stocks in their home waters. […] Ailan Awareness works to raise awareness […] [and] has also been working to revitalize traditional management practices in Lovangai. (Aini and West 2013, p 1).

In Tok Pisin, *ailan* means 'island'. Nowadays, the organisation is led by John Aini and Paige West, Professor of anthropology at Columbia University in New York, also participates actively in its activities. Aini, West, and other NGO members including Michael Ladi or Boniface Fode have described their activities, objectives, and methodology in several publications. The most recent of these looks back upon three decades of experience (Aini and West 2013; Nason and Aini 2016; Aini *et al.* 2023; West *et al.* 2024). Their work has also been featured in news reports and published interviews (see for example: Gokkon 2018).

As John Aini put it to me,[36] the focus of Ailan Awareness's work is reviving and strengthening 'customary' knowledge in order to better look after the sea, the rivers, the land and the forest. The organisation is active around Kavieng, including on Lavongai, but also in northeastern New Ireland mainland.

This involves several concrete steps, most of which—true to the organisation's name—take the form of 'awareness' sessions: moderately formal gatherings during which Ailan

36. I had many informal discussions with John Aini, and conducted two recorded interviews with him (one in 2019, one in 2023) during which I asked him about his life history and his work with Ailan Awareness.

Awareness members and local leaders make speeches and encourage people to take collective ownership and responsibility for the management of their environmental resources. For example, one thing that John Aini insists on during such speeches is that people should not fish with the poisonous derris plant, nor should they throw rubbish in the sea. He also insists that people should build *rangama*, men's houses, and that young men should spend time there to engage in knowledge transmission with elders. Conversely, he says young women should spend time in the *haus kuk*, the 'kitchens' or 'cooking houses', so they can also receive knowledge from older women. In both cases, this would include knowledge of various plants that are used in magical, medical, or practical ways in everyday village life. There is also a social function to this injunction: John Aini speaks of the respect that younger people should learn to have towards elders, since it is this respect that will ensure they do not disregard rules they may enact or instructions they may give regarding various aspects of resource management. The typical example is that of a fishing prohibition: if young men do not listen to the instructions of their elders, then such a restriction will be ineffective since they will continue to fish regardless of the rules the elders have put in place (see Chapter 7).

Efforts to revive traditional knowledge are also carried out through the encouragement of language preservation: people should, in John Aini's words, 'hold onto their local languages, and know the names of plants, fish, and birds.' (John Aini, 8 September 2019). Indeed, his observation is that younger people no longer know specific vernacular names of common village flora and fauna and that vernacular languages are being impacted by their cohabitation with the vehicular creole, Tok Pisin. Use of Tok Pisin or English loan words in place of the 'proper' vernacular word is seen to be 'weakening' the language. Worse still in his view: some people born in urban settings and raised by parents who speak different vernacular languages are now only fluent in Tok Pisin, and 'don't know any *tok ples* [vernacular]', something which is also seen as an undesirable situation.

John Aini was also instrumental in enacting the 'Lovongai Marine Environment Management bill 2013', while he was president of the Lovongai LLG. This creates a legal basis for an LLG-wide but locally managed approach to marine management. The law provides for local committees to be set up in all villages where inhabitants wish to do so and allows them to enact their own rules that will be upheld by an LLG-level marine management body. In case of offences against these regulations, this allows for penalties to be handed down through the village courts. It took almost 10 years for this legislation to make its way through the bureaucracy in the capital Port Moresby, and finally took effect a few years ago.

More recently, another organisation has been working in Lavongai and the surrounding area on a similar topic: the Wildlife Conservation Society (WCS). This is an ancient international non-governmental organisation based in New York. Its presence is quasi-worldwide, and it has a regional 'Melanesian' office in Suva, the capital of Fiji, and a Papua New Guinea office at Goroka, in the Eastern Highlands Province. Since 2002, WCS have also had a 'field office' in Kavieng, from which programs concerning marine conservation

are carried out. Nowadays, it is the only foreign NGO to operate from Kavieng in the field of conservation.[37]

The Kavieng branch of WCS has mainly been carrying out two series of interventions in and around Lavongai in recent years. The first involves incentives and assistance in creating 'Locally Managed Marine Areas' (LMMA); the second concerns a large scale 'Marine Protected Area' (MPA) including a large area of sea belonging to the Lavongai LLG.

Establishing LMMAs was done through various training sessions during which problematic situations related to marine areas—such as overfishing—were discussed and people were invited to create 'management plans' that included rules such as a temporary ban on fishing, a ban on certain fishing methods, etc. Yvonne Wong, one of the Kavieng WCS employees, writes:

> The Wildlife Conservation Society (WCS) has been working with 13 island communities in western New Ireland Province to assist community fishers in sustainably managing their marine resources. Since 2016, this has been achieved mainly through the establishment of locally managed marine areas (LMMAs) in the 13 island communities [...] which are accompanied by community-driven fisheries management plans. [...] The site-specific fisheries management plans consist of marine management rules and penalties for non-compliance that were set by community residents.[38] (Wong 2020, p 24).

A second, and more recent series of interventions by WCS is directly related to the national 'Aichi target' of protecting 10 % of the national waters before 2025, which Papua New Guinea committed to at the fifth 'Our Ocean Conference' in Bali in 2018 (The National 2018; WCS 2018). As of 2023, this goal was far from being met. The efforts of WCS in Kavieng were therefore directed towards the creation of two Marine Protected Areas (MPA) in New Ireland Province: one comprising the Lavongai LLG, another the Murat LLG (which includes the island of Mussau). Several publications by Kavieng-based WCS employees outline the process used to create these MPAs (Booth 2021; Wong and Kuri 2022). The establishment of these two MPAs was officially announced by the organisation last November (WCS 2023), to mixed reactions on the part of John Aini in particular, who cautioned in a news article that some of the biggest challenges for such an MPA will be enforcement, that it be 'accepted fully' by locals, and for 'people to be clear on what they've gone into' (John Aini, quoted in Morse 2023). It is notable that the Lavongai MPA was

37. Another large international NGO, The Nature Conservancy, was previously active in the Kavieng area, and financed the production of biodiversity surveys in the early 2000s (Hamilton, Green, and Almany 2009). During this period, the organisation also sponsored a campaign against the use of dynamite, derris or other poisonous plants, and chemicals such as bleach for fishing, and focussed awareness on the protection of spawning aggregations of grouper fish (fam. *Serranidae*) in waters surrounding Dyaul island (Jeff Kinch, pers. comm. 30 November 2023).

38. The number 13 would appear to include only communities with which the NGO has engaged in a process of formalisation of their LMMAs, since there are many more communities that have enacted LMMAs of their own initiative, including Metevoe which is not part of the 13 considered in Wong's article.

made possible by recourse to the Lovongai Marine Environment Management bill which John Aini had been instrumental in setting up many years earlier.

Another organisation which is important to the topic of this thesis and is at least nominally present in Kavieng is the National Fisheries Authority of Papua New Guinea (NFA). This is a country-wide organisation which defines itself on its website as 'a semi-commercial statutory authority' with a 'vision' of 'Papua New Guinea fisheries developing into a strong, broad-based, diversified and value-adding industry that is globally competitive; domestically inclusive and functioning as a robust and sustainable source of government revenue, food and livelihood for the people' (see www.fisheries.gov.pg). Most of NFA's work pertains to the sale and management of fishing rights to foreign vessels and to the regulatory oversight of high-value fisheries such as bêche-de-mer (processed sea-cucumber, Hair *et al.* 2018, 2020; Mercier 2024). The NFA has facilities on the waterfront in Kavieng and is the tutelary agency of the National Fisheries College[39] located just outside of Kavieng. To my knowledge, no NFA employees have been to Metevoe in recent years. An NFA trap net fishery project did exist in the New Ireland mainland location of Sivasat (Jeff Kinch, pers. comm. 30 November 2023), a suburb of Kavieng in which many Lavongai people remain transiently during visits to Kavieng (Map 1.2), but this project has in all likelihood since been discontinued.

1.3 Spatial and economic organisation

When speaking of space, the main contrast which Lavongai people draw is between the village (*rina*) and the forest (*nei uten*). This is partially equated—at least in the discourse of coastal dwellers such as those of Metevoe—with another distinction which is made between the coast (*ngerelo*) and the inland areas (again, *nei uten*, 'in the forest', or *e fankul*, 'at the top').

As a considerable amount of time is spent travelling on the sea, the spatial perspective from this frame of reference is also important. In such contexts, a contrast is drawn between 'the deep sea' (*nei laman lung*) and the reef (*kuli liung*). A drawing which Michael Toreu Ottis made of the village of Metevoe viewed from the western side of the Voe estuary shows this outer reef edge, on top of which some coral rubble is rising out of the water Figure 1.4.

This means that people perceive two essentially symmetrical although distinct 'outsides' or fringes (see Table 1.2): the deep sea, of which the reef flat is not a part, and the deep forest. These are non-domestic spaces *par excellence*, they are the places where wild animals (and wild people, in some cases) are said to dwell. Activities carried out in each of these spaces are contrasted, since the village, gardens, and reefs are the areas where people spend most of their time, whilst the deep forest and deep seas are only visited transiently, in search of a specific resource, or while travelling through them.

39. Touted as PNG's 'leading fisheries and marine resources training and education institution' on the organisation's website (https://www.fisheries.gov.pg/national-fisheries-college), the Fisheries College trains fisheries officers and provides other fisheries related courses.



Figure 1.4: Drawing of the village of Metevoe, its fringing coral reef, and its hills, as seen from the western side of the Voe estuary. Colour pencil on paper by Michael Toreu Ottis, 2022, used with his kind permission.

Table 1.2: Simplified illustration of the way space is represented in speech and explanations of their island's geomorphology by coastal Lavongai people.

Deep forest (*nei vual, nei uten lava*)
Old fallow gardens (*talun*) Gardens (*matang*)
Village 2 (*rina*)
Shore (*ngerelo*) Reef flat (*nei bangang*) Reef edge (*kuli liung*)
Deep sea (*laman lung*)
Beyond the horizon, out to sea (*laman vavakapa*)

This is not a static, map-like representation of space, but an overall schematic generalisation. It is the way local discourse represents the village and outer environment.

1.3.1 Speaking about places

Lavongai people distinguish land (*kuli vunep*) from water bodies (all *laman*), and within these water bodies, they further distinguish salt water (*laman makasim*) from fresh water (*laman livus*). Fresh water bodies can be referred to by even more specific terms (such as *sung* 'large river' or *kavang* 'stagnant stream').

The sea itself is referred to by a relatively anecdotal compound term: *laman makasim*, 'salt water'. The fact that there is no single morpheme for 'sea' nor 'ocean' correspond to a certain absence of a need for it, but only because the inhabitants of the Lavongai coast prefer far more specific terminology to such a general overarching concept:

- *kuli bangang*: on the reef (on the reef flat)
- *nei kasung*: in the grassy area on the reef flat
- *kuli liung*: over the reef edge
- *nei mau*: in a 'chimney'-like hole that starts on the reef flat and exits in the reef edge
- *nei vangit*: in a large hole in the reef edge
- *ngerelo*: next to the shore, on the coast
- *kuli pies*: over a sandy bottom
- *ngere vatan*: next to dead coral or sea-boulders
- *nei los*: in the coral lagoon
- *ngere tongong*: alongside the mangrove
- *mete sung*: in the estuary
- *kunaur*: cape or point on the coastline
- *nei ring lung*: in the deep place (waters)
- *nei laman vavakapa*: in the far away waters (ie beyond the horizon)

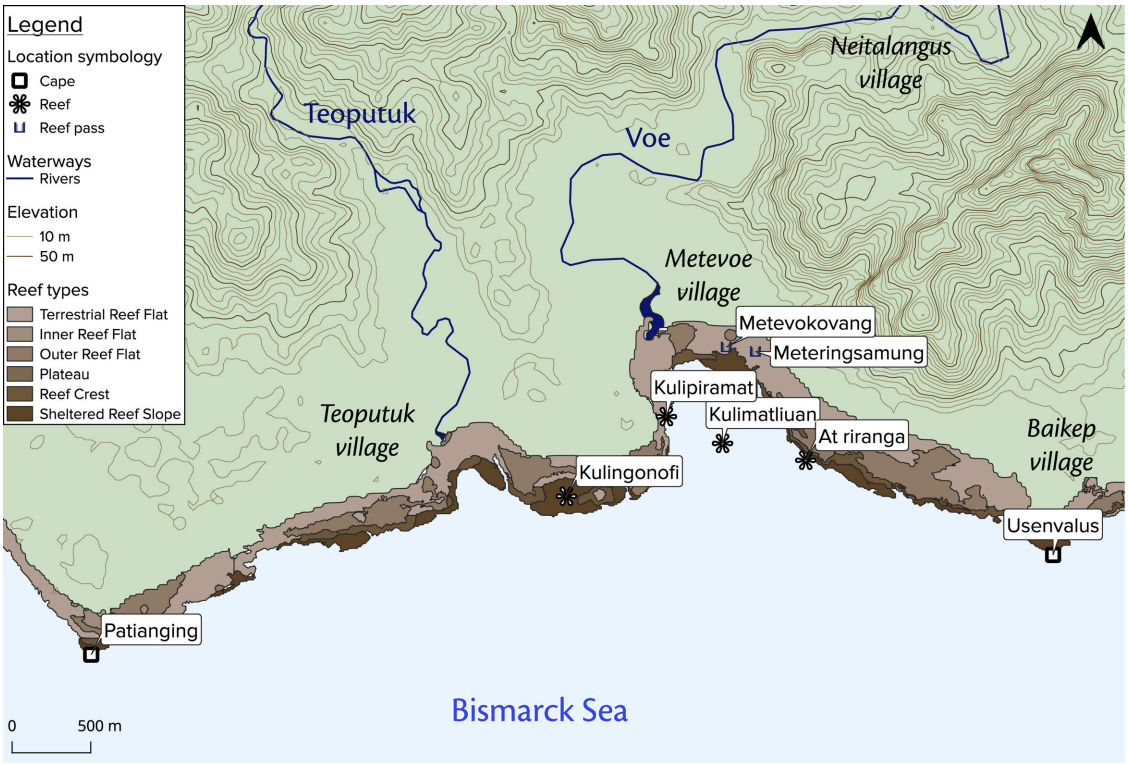
The breadth of the vocabulary used to designate areas of the coastal and near-shore waters is considerable,[40] and in day-to-day speech, the usage is for people to be very specific about which area is being spoken of. Thus, the need for such a vague term as 'sea' is absent, and its only use is to contrast it to that other common form of water: *laman livus*, 'fresh water'.

Beyond these terms used to describe parts of the marine space, specific toponyms are used to refer to locations along the coast (Map 1.4). There are names for specific remarkable reefs, for points, and for reef passes.[41]

40. Hélène Artaud also notes the density of the nomenclature for marine spaces among the fisher community of coastal Mauritania where she worked: 'The Imrâgən have precise knowledge of these partially invisible [underwater] mountains, backed by the particularly dense toponymy which characterises the marine area of the Bay of Arguin.[T13]' (Artaud 2013a, p 144).

41. These are areas where the reef edge is lower under the surface than elsewhere, forming a sort of channel, and allowing for safe passage of boats and canoes from the reef flat to the sea and vice-versa. Elsewhere, waves tend to form large surf on the reef edge which are hard to travel over in light crafts without capsizing or striking shoals.

On land, Lavongai people have toponyms for 'villages' (*rina*) and for 'places' (*ring*). For example: Metevoe is a village, located at the estuary of the Voe river on the south coast of Lavongai. Within it, at least fifty places are named, such as Ringsamung (literally 'the place of the *samung*', a type of fish), where I resided during my stay; or Neikuila, the furthest location to the southeast. Map 1.5 shows the density with which these toponyms are attributed to locations on the coast.

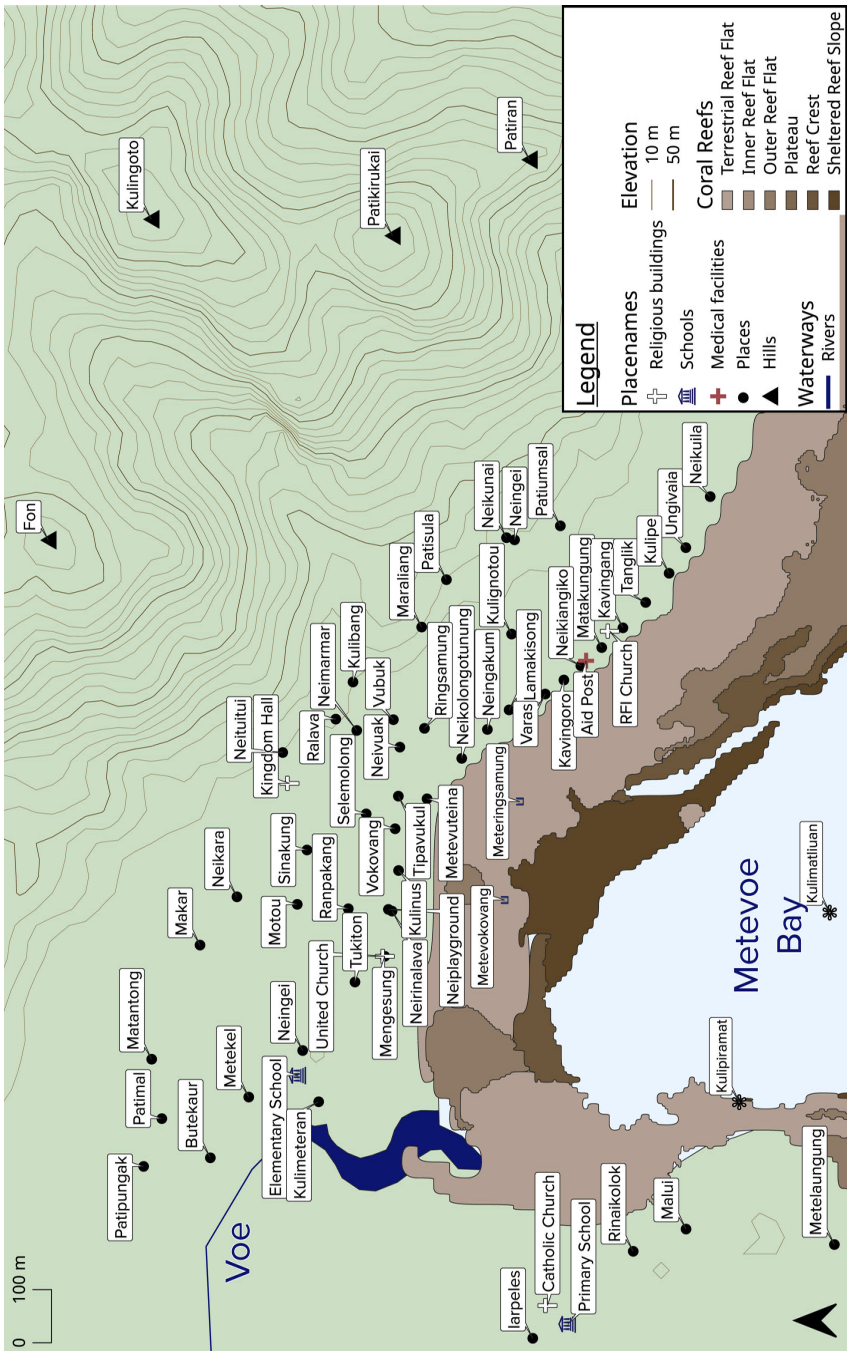


Map 1.4: Map of the south Lavongai around Metevoe, showing marine toponymy. Cartographic data from OpenStreetMap. Reef data from Allen Coral Atlas

Most place names have a meaning in Tungag that is understandable to contemporary speakers of the language. They often begin by a limited range of locator prefixes: *nei* (at), *kuli* (on top of), *mete* (in front of, at the estuary of), or *pati* (in a high place). The second component of such names is typically descriptive, as in 'Kulibang' which is formed of *kuli* (on top of) and *bang* (rock, boulder), and which refers to a place that is on a rocky outcrop overlooking the rest of Metevoe. 'Places' that are located within the village typically have between one and five households in them. There are also named places in garden areas, as well as in others that are currently neither gardened nor lived in.

1.3.2 Horticulture for local consumption

The main activity that sustains the people of Lavongai is subsistence horticulture. Not one household in the village-wide survey I conducted answered 'no' to the question 'do you



Map 1.5: Map of named locations within the village of Metevoe. Cartographic data from OpenStreetMap. Reef data from Allen Coral Atlas. Elevation data OpenTopography 2013.

have gardens?' Even the few wage-earners such as teachers or the nurse working at the Aid Post plant crops, although they tend to them irregularly.

A detailed study of the agricultural systems of Papua New Guinea was carried out by an Australian international development team in the 1990s, under the supervision of Robin Hide (2002). The report from this study determines a series of standardised 'agricultural systems' based on the types of crops grown, the duration of fallows, and environmental factors. For Lavongai, the report lists three agricultural systems that are characteristic of different ecoregions: 'insular, abundant sweet potato and absence of sago palm', 'coastal, presence of sago palm and fertile land', and 'interior, altitude above 100 m, single growth sequence before fallow' (Hide *et al.* 2002, pp 25–36). Metevoe is classified in the second system, described in the following terms:

> Located on the coastal fringe of Lavongai (New Hanover) Island below 100 m. Fallow vegetation is tall woody regrowth, more than 15 years old. Vegetation is cut, dried and burnt. Sweet potato and sago are the most important foods; cassava, taro, banana and coconut are important crops; other crops are Chinese taro and yam (*D. esculenta* and *D. alata*). There is variation between villages in crop patterns. Typically, sweet potato, taro and cassava are grown in separate garden sections. Taro is sometimes grown in separate gardens from other root crops, with interplanted banana. After one planting of either taro or sweet potato, a further planting of cassava is common before fallowing. Sweet potato is planted in very small mounds. Fish is an important food. (Hide *et al.* 2002, p 29).

My own observations made 30 years later confirm this statement in every respect.

In Metevoe, gardens are located on the flanks of three small hills, a short distance inland from the village. Walking from house to garden usually takes between 10 minutes and half an hour, a trip which villagers make at least once, and sometimes several times, each day. Gardens are mostly located on plots that have high declivity (see Figure 1.5) which means that travelling to and from them as well as working there, is arduous.

No specific techniques are used for improving the quality of the soil, and its fertility is ensured only through fallowing, with cultivation lasting at most five years (with different plants in succession, for example taro, then sweet-potato then banana) and fallow approximately fifteen.

A new garden plot is developed out of a forested area at the initiative of a single man. First, he clears the undergrowth and identifies the *pulis*, earth mounds that have been formed as a result of the accumulation of tree trunks and other plant material left on the edges of garden areas by generations of previous cultivators.[42] The *pulis* serve as indications of where the outer boundaries of the garden should be. Then, he enlists the help of a large group of men[43] in order to remove, in one or two days of intensive work, the remaining vegetation, and prepare the area for planting (this is known as *ngaut moso*). Clearance is done with bush knives and steel axes, and requires all the undergrowth to be cut or uprooted, piled, and burned, whilst larger trees are felled at waist height, and much larger ones may require building of a platform so that they may be felled above the

42. These may be identified with the 'rectilinear earth mounds' studied in Lavongai village by the archaeologist Matthew Leavesly (Leavesley 2001; Leavesley and Troitzsch 2007).
43. See details below, on page 67.



Figure 1.5: View of some Metevoe gardens, looking down onto the village and the reef. A small hut is visible to the top left, built by Ngumamailik to live in for short periods when tending his crops. 18 September 2023, Metevoe.

butressed-roots. In some cases, when trees are too large to be removed, they are girdled in order to kill them, and their base is set on fire. The trunks of felled trees of a 20 to 30 cm diameter are laid out to divide the garden into sections; both the tree trunks and the sections thus delimited are known as *ongoi*. The vegetation is left to dry for some time, then piled and burned.[44] The 'owner' of the garden—meaning the man who can claim to use or has made provisions to 'borrow' this piece of land from another (concerning tenureship arrangements see Section 2.3)—then convenes another day of collective work, with men and women present, to finish clearing the land of weeds and to plant crops (*ngal*, see Figure 1.6). Men use bush knives and digging sticks to remove the roots from the soil, burn them, and loosen up the ground. Women fetch cuttings of sweet potato or cassava, or bring shoots of taro or banana, then plant them. Although the full area is usually planted on this same day, with a variety of crops, each individual *ongoi* is considered to belong to somebody, and will thereafter be tended to and harvested by this person and his or her children exclusively (the *ongoi* are visible on Figure 1.6 and on each side the taro is visibly at different stages of growth).

Maintenance of gardens, such as weeding (*puna*, *sasal* or *purut*) and harvesting, is thereafter the responsibility of women, who are often accompanied and assisted to a degree

44. Vegetation is burned in patches, not over the full surface of the plot, thus providing only minimal nutrition from ash, contrary to a full-scale 'slash and burn' practice.



Figure 1.6: Drawing of a man planting taro (*ngal kirak*) with a bush knife and digging stick (*asu*). Colour pencil on paper by Michael Toreu Ottis, 2023, used with his kind permission.

by their children (unless a particularly large harvest is planned in which case men may assist with carrying vegetables back to the village). Most women go to the garden to weed almost every day, then harvest food to cook that evening and the next morning, day after day, and they do not store food in their houses for any longer.

The processing of sago (*ngavia*) is another important activity in coastal Lavongai villages (Figure 1.7). This is broken locally into two main activities that are assigned respectively to each gender. Felling the palm, cutting away a segment of bark and beating the starchy inner-flesh into sawdust is done by men (this is known as *sapal*, a word that is also the name of the specific sharp hammer-like tool used for this work). Meanwhile, women carry bags of the sawdust to a location where fresh water is available to wash the starch out of the solid remains, and allow it to decant then recover it from the water (this is known as *pongos*).

Sago is perceived locally as having a great advantage over other foods: people say that it is possible to eat it 'immediately', meaning as soon as it has been processed, whereas those foods that are planted must be patiently tended to for months before their harvest comes. In other words, sago palms are seen to grow autonomously (although people known who planted which sago grove), whereas gardens must be maintained. People also mention the fact that sago flour can keep for extended periods of time, even in the heat and humidity of a tropical village. In practice, this hardly ever happens, so great are the dietary needs of the inhabitants, or so ingrained is their habit of consuming food rapidly and harvesting anew on a daily basis directly from their gardens.

1.3.3 Fisheries

Another large part of the economy of the Lavongai cultural area concerns fisheries. Most Lavongai inhabitants live too far from the relatively large fish-market of Kavieng and are ill equipped to sell fish there. However, this can be a considerable source of revenue for the people living in the eastern-most part of the area, near the Tigak Islands, and on New Ireland mainland in the area around Kavieng. Moreover, entrepreneurial men from Kavieng occasionally travel west along the Lavongai coast with large insulated boxes full of ice, and sell fishing gear on credit to fishers as they go. When they reach the western tip of the island, they turn around, and as they travel back eastward they weigh and buy the fishers' catch, and pay them a relatively low price (compared to what is current in Kavieng), having deducted the value of the fishing gear. Finally, they travel back to Kavieng where they sell this catch.

In Metevoe, it is not uncommon for people to sell fish on one of the two weekly markets, and this is usually bought very rapidly. Most fish that is caught however is consumed by the immediate family of the fisher or gifted to more distant relatives or neighbours. Fisheries on Lavongai are, consequently, oriented more towards subsistence than sale. Fishing techniques and practices will be described in detail in a dedicated chapter (5).

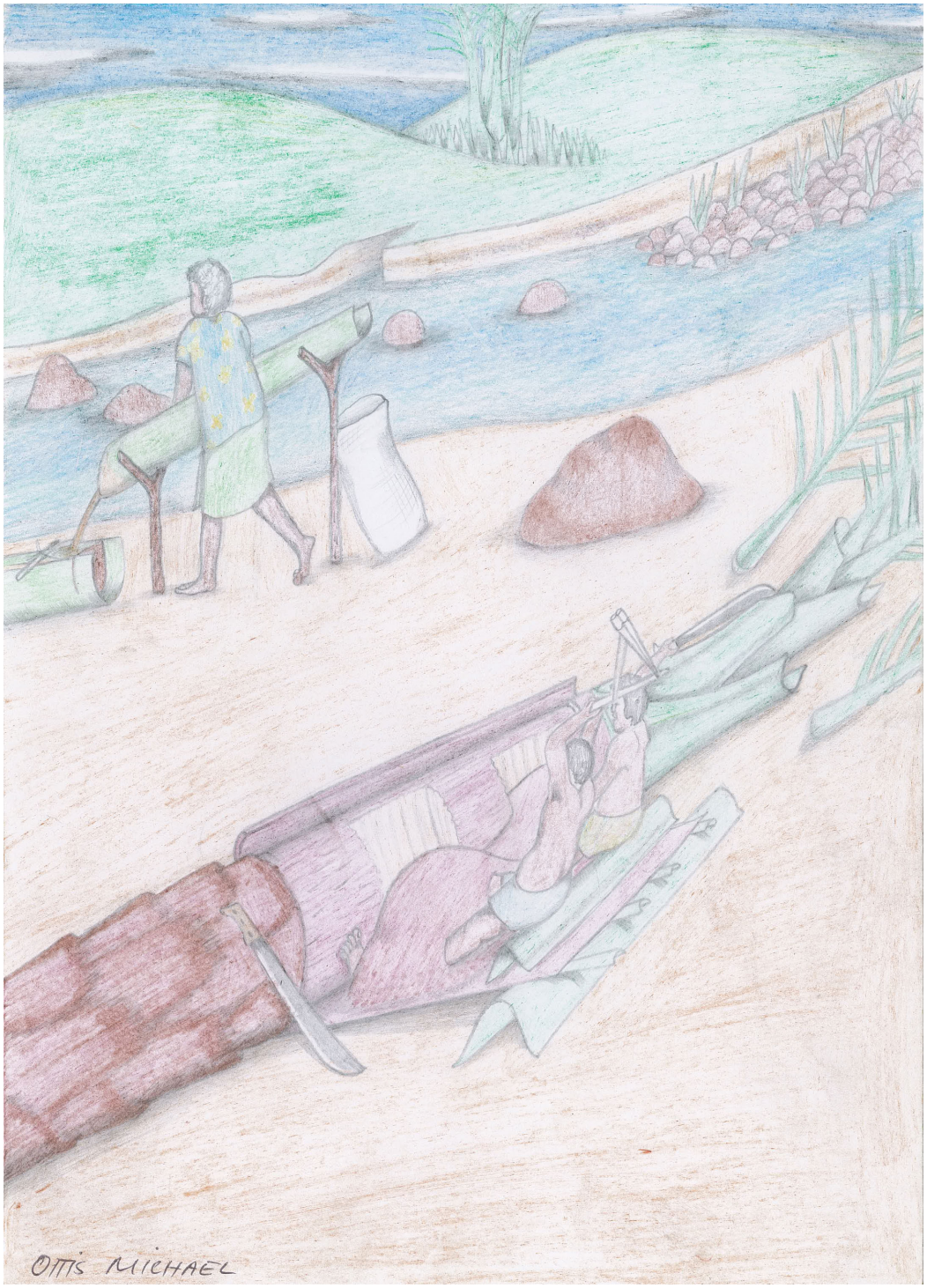


Figure 1.7: Drawing of a woman and two men processing sago: the men are beating the pulp of the sago palm while the woman is washing the starch out near a river. Colour pencil on paper by Michael Toreu Ottis, 2023, used with his kind permission.

1.3.4 Cash-crops and other money-making activities

People also cultivate 'cash-crops' that are sold either locally or in Kavieng to provide monetary income, as is the case in many rural areas of Papua New Guinea (for a detailed country-wide overview see Allen, Bourke, and McGregor 2009). The oldest and most abundant of these is coconut, which is sold in the form of copra in Kavieng to exporters. Although there are many groves of coconuts in Metevoe, and almost everybody has access to some, they are used mostly to provide coconut 'milk' for daily meals, or cut into fresh coconut flesh to feed pigs. Cutting and drying copra is quite a labour intensive task. Loading a bag of the finished product onto a boat to get it to Kavieng comes at a cost of at least K 10 for the freight per ~20 kg bag, plus K 50 if the owner accompanies the bag, and ultimately, the price at which this is bought is barely over K 1/kg (Kokonas Indastri Koporesen 2023, p 4), leading to a very slim margin.[45]

Another crop that Lavongai people produce both for their own consumption and for sale is areca nut (or 'betel nut', *buai* in Tok Pisin, *vua* in Tungag). 'Betel nut' is the common name used to refer to the seed of the areca palm (*Areca catechu*), which is chewed along with the seed pods of betel pepper (*Piper betle*) and lime powder usually obtained by cooking sea-shells or coral-rubble. It is consumed throughout South-East Asia and the Western Pacific, particularly in Papua New Guinea (Burton-Bradley 1979; Sharp 2012), for the light euphoria it produces during a short time after consumption, as well as its longer-lasting stimulant and appetite-suppressing effects. It is highly addictive and carcinogenic, especially when combine with tobacco in any form. Betel also plays a key role in socialisation, as gifting an areca nut or requestion one from somebody are frequent modes of interaction and chewing betel together is a common pastime. It is a good source of revenue for those who can plant and tend to trees effectively.[46]

Another cash-crop which used to have some importance in southern Lavongai was cacao (*Theobroma cacao*). This unfortunately fell prey to a parasitic moth known as the Cocoa-pod borer, which arrived in the region around 2007 (Yen, Waters, and Hamilton 2010), reducing yields to a trickle and causing most Lavongai people to destroy the cocoa plantations they had patiently tended to for years (the tree begins to produce fruit after five or six years). There are now very few trees in the area around Metevoe, the remainder being progressively cut down and used as firewood.

Vanilla is also a minor cash-crop that a few people on Lavongai have attempted to grow with some degree of success. The difficulty in this case appears to be at the export level of the process: the Lavongai growers I spoke with explained that there used to be vanilla exporters buying this product in Kavieng, but that some unscrupulous farmers tricked

45. Export of copra does however remain a profitable endeavour in PNG, as the export margin is consistently over 50 % (Kokonas Indastri Koporesen 2023, p 6).

46. In 2019 when I was in Metevoe, villagers were making trips to Kavieng with boatloads of areca nut, and returning with significant amounts of money. In 2020, a form of mould afflicted the areca palms in the whole of south Lavongai, rendering them unproductive and prompting villagers to cut them down. As of 2023, this has subsided somewhat, but newly planted areca palms have not yet reached full productivity and this cash-crop remains barely available. Worse still, having no productive areca palms in their village means that people living in southern Lavongai are themselves forced to buy areca nuts brought from other locations, since they are avid consumers of the product.

them by placing nails in the vanilla beans to increase their weight. Since the price per kilogram of vanilla is as high as K 200/kg, even a very small increase in weight can indeed lead to significant price changes. Consequently, the buyer apparently stopped procuring vanilla in Kavieng, and growers now say they have nobody to sell their production to.

During my presence in Metevoe in 2023, there was growing enthusiasm on the part of villagers about balsa (*Ochroma pyramidale*), as they got wind of exports currently being carried out from East New Britain (Jenkin, Minimulu, and Kanowski 2019). There has since been a Local Level Government project developed to distribute balsa seeds and train villagers to tend to the trees for eventual export. Nobody, to my knowledge, has yet sold any balsa on Lavongai however.

All the garden foods which villagers grow for their own use are also sold occasionally on the Kavieng markets by Lavongai women (for selling on markets is an exclusively female activity). The most prized foods there are taro and sago—although these are often in short supply—as well as greens, sweet potatoes, cassava, and bananas. To a lesser degree, there is a possibility of selling food products on small village-level markets. In Metevoe, these are held on Wednesdays and Saturdays in two different parts of the village. Women bring garden produce, men sometimes bring fish, and some women also prepare cooked food such as flour doughnuts, baked taro, cassava, or sago. However, the amount of cash in circulation in the village is low, and in general, all families produce the vast majority of their food themselves, hence the need to purchase from others is small. Another difficulty with this type of village-level sale comes from the fact that relatives may seek to buy produce on 'credit' (and seldom pay it back), or ask outright for a food item to be given to them for free; depending on the familial relation between asker and seller, it may be hard for the latter to refuse.

In Metevoe, between 2019 and 2023, it appeared to me that the land area in use for growing vegetables for sale was increasing, and certain villagers did complain of this phenomenon. This might be tied to the rapid population growth that is apparent from successive censuses, but it could also be a more direct consequence of the failure of other non-vegetable cash-crops: first cocoa (around 2007), then areca nut (around 2020).

In a Development Policy Centre (ANU) report that provides comparisons of 'return on labour' for the most commonly grown cash-crops in Papua New Guinea, Michael Bourke concludes that, among the subset of cash-crops grown on Lavongai, vanilla and betel nut are by far the most economically viable (2022). Indeed, these yield respectively K 165 and K 127 for one person's day's work. The next most viable Lavongai crop is sweet potato, for which the return is K 57 per person's day's work. Copra, on the other hand, is among the worst at barely K 4.

Selling pigs, including to people who come from New Ireland by boat in search of them, is another activity that Lavongai people can make a certain amount of money from. People who do not raise pigs, both in Metevoe and surrounding villages, and in Kavieng, will pay quite extraordinary prices for such an animal when one is required for funerary feasts and gifts. A pig of barely one year old, if reasonably large, can be sold for K 1,000 in Kavieng, or K 700 in the village. When a person dies in mainland New Ireland, boats sometimes travel out to villages such as Metevoe to come and buy pigs.

Since I first started fieldwork in Metevoe, in 2019, the number of pigs has very noticeably increased. Although I made no attempt to count their numbers, I know of many houses (including the one of the family I stayed with) where no pigs were found in 2019, a single pig or still none in 2021-2022, and several in 2023. This may be linked to the failure of the two major cash-crops of cocoa and areca nut, described above, that used to provide most of the villager's income.

Other activities that allow certain villagers to produce cash income are more anecdotal. Some engage in what is known locally by the Tok Pisin expression *wok maket*: resale of store bought goods. Nobody possessed what may have been called a 'trade store' in Metevoe during fieldwork, although it was usually possible to find somebody who had a few packs of sugar, coffee or rice for sale. This suffers from the same difficulties that bedevil the sale of local produce on the village markets: requests for credit, or free access to the products on the part of relatives. The cost of transporting such items from Kavieng is also considerable, meaning that margins are low.

Concerning salaried professions, Metevoe is home to three paid elementary school teachers (who receive between K 520 and K 600 per month) and a number who currently have no position also live there; six primary school teachers, none of which are locals (K 2,000/month); one village court magistrate who is, however, not receiving his salary (K 450/month); one village court peace officer (K 300/month); one community auxiliary peace officer employed by the LLG (K 1,200/month); and at least three political party local representatives who are quite discrete, meaning that some may receive such a salary without me having learned of it (variable amounts).

1.3.5 Collective activities

There are a number of activities which people in Metevoe state to be intrinsically collective, and which, on observation,[47] truly are, in particular: clearing forested areas in order to yield new gardens (*ngaut moso*); clearing ground and digging holes to plant a new garden plot (*ngal*); beating and washing sago as discussed above (*sapal* and *pongos*); building of houses (*bis lu*); and fishing with large nets (*maiak ta uvene*). The collective dimensions of these activities are socially codified, and people list in detail the modalities of how these activities should be carried out: who is meant to assist who, by doing what, and how the 'organiser' should 'look after' those who come to assist him.

For forest clearance, young men call on their extended same-sex sibling sets (*tasig*, either true same-sex siblings, or classificatory ones) and on their maternal uncles (*labag*). This is possibly the most arduous physical task that anybody attends to in horticultural work. It is done in groups of three to ten individuals, usually four or five.

47. One of the main statements of Dorothy Billings' thesis concerning the Lavongai people (1981) is that they have an 'individualistic' orientation to their sociality. My own ethnography does not corroborate this at all. Why our observations diverge is something which is now hard to answer. One factor which may have contributed is the specific historical situation of Lavongai village. At the time she was there, this village had been heavily influenced by the arrival of the Catholic mission, which had caused population movement and land reorganisation, as well as a shift in economic conditions.

Planting a new plot requires a similar group of men wielding both bush knives and digging sticks (*asu*) to remove roots and remaining branches, and also a number of women, who will carry the shoots from another garden and place them in holes dug by the men.

A few people have begun, in the last decade or so, to build houses out of sawn timber and roofing iron. However, most houses in Lavongai are still built from plant materials sourced from the forests and undergrowth around the village (an example is in Figure 1). The structure is made from a variety of wooden posts and beams. Thatch for the roofing is constructed from an elaborate overlay of folded sago palm leaves (*ngavia*) which are sewn onto bamboo struts to produce a tile-like structure (*ati*). Walls are made with several different techniques that mostly use a segment split from the back of a sago-palm frond (*kereng*) that is either woven or pinned to the wall in strips. Building a house is usually the work of a medium-sized group of men, often more than 10, particularly for binding the strips of sago thatch onto the roof with lengths of vine (*aisuk*).

After each of these collective working sessions, a large meal known as *oson* is provided by the 'organiser' (the man whose house or garden is being worked on). This term can be further specified: *oson i ngaut moso* ('collective thank you meal after cutting down the forest in a new garden plot'), or *oson i vil lu* ('collective thank you meal after building a house'). I partook in several such meals and witnessed many being provided. The previous day, before such a collective undertaking is started, the organiser must go fishing to provide meat for the *oson*. At the same time, the women who are closest to this man—his wife and other relatives—prepare a large meal, which this fish will be part of, and which is set to cook in the stone oven over night. The next morning, men rise early and do the work as fast as possible, then they comes back to the house, and it is the duty of the organiser to treat everybody who assisted to a large meal. There should be far too much food for the number of men involved, and anybody who walks past should be able to eat also, even if they did not do any work. The organiser should call passers-by and give them something to eat and drink from this feast. I was invited to several such meals during my stay in Metevoe, simply because I passed by a freshly roofed house where an *oson* was being held.[48]

Similarly, fishing in groups with a large net comes with a series of rules. When somebody who owns a large fishing net intends to go on a fishing expedition the next day, he puts the word out: 'tomorrow, there will be fishing'. Concurrently, his wife will undertake to cook a large meal, ready for all to share when the men return with fish. When people see him paddling out in the *vul uvene* (a canoe with a net on it) the next morning, they follow on foot. They sometimes go out for the whole day: fish their way down the reef in one direction, eat a few grilled fish while the tide is low, and then fish back towards the village as the tide comes up. People who spoke of net fishing insisted a lot on the importance of sharing the catch beyond the fishermens' families themselves. For instance, Gerard said that however many people go fishing, they must:

48. This contrasts with Dorothy Billings' observation that: 'Men built their houses themselves, with the help of their wives, and without help from their brothers or other men and women.' (Billings 1981, p 803). This is surprising to read since I observed multiple instances of collective work on housebuilding, and took part in many hours of collective production of roofing elements, with groups of men and women. Perhaps the situation which Billings observed in Lavongai was somehow unusual, particular to the Lavongai village, or perhaps things have changed since the late-1960s in regard to collective work organisation.

> think about all the houses [in the village]. You get back to the shore, put all the fish on the beach, separate them out, share them out. If men come out to fish with a net, and they ask a woman who is fishing on the reef to move out of the way so they can do so, then they will think of her later, and come and give her a fish from their catch, because they already know: she wants fish, since she was fishing. You should think in particular of widows, you cannot be greedy, you have to share.[49] (Gerard, 13 July 2023).

At the closing of this chapter, which gave an overview of 'life in the village', I would like to point out some of the key facts which it outlined. The main geographical observation concerning the island in the context of this thesis are the presence of large rivers and the implantation of the vast majority of the population either along the coast or near these rivers. This means that most of the island's inhabitants have access to some form of fishing, either in the sea or the rivers. We saw that local conceptions of space revolve around several major dualisms between land in forest, between coast and inland, and between the deep sea and the land. Toponyms are semantically rich and very dense in inhabited areas, but locations are also named in the forest and on the reef areas.

An important aspect of contemporary life on the island is the presence of two NGOs that are active in the field of durable management of marine resources. The first, a local one, Ailan Awareness, has been in existence since 1993, and develops an approach which emphasises empowering local communities to make management decisions, and reviving customary practices and language. The second, the Wildlife Conservation Society is a large global organisation based in New York, that has been present in Kavieng since 2005 and has conducted several training programs, and more recently piloted the establishment of two imposing Marine Protected Areas around Lavongai and Mussau Islands.

The economic situation of the island is one that combines subsistence horticulture, fishing, and pig-rearing with small-scale cash-cropping and resale of store-bought-goods. The main activities of most villagers involve tending to their gardens and fishing, both for subsistence and to produce surplus food to be sold on markets. The organisation of work is often individual or familial, but there are occasions when work is organised collectively, in particular for clearing new swiddens, for certain stages of housebuilding, and for fishing with a net.

49. Again, this contrasts with Billings' statement: 'The individualistic tendencies which control most New Hanover personalities find full opportunity for expression in communal fishing attempts.' (Billings 1981, p 800). Her examples on this matter however are ambivalent. She tells of a man who went fishing with a net from which fish were taken by others, leaving him with none (Billings 1981, pp 800–801). Then she writes that 'one morning [...] [Silakau] appeared with a fish for me.[...] I asked [...] if he had kept some for himself, and he said, "No, I am shooting them around to all the women, I am sorry for all the women, they all stand around with nothing."' (Billings 1981, p 801). I contend that neither case shows individualistic behaviour, but rather that both testify to the fact that people feel compelled to share prized food. Nobody would take the liberty of appropriating fish from somebody's net unless they have a close familial tie with the net owner. Similarly, thay cannot object when somebody ask for fish if they are in certain kinship relations (a young uterine nephews for example; see Sub-section 2.2.1). Moreover, providing meat or fish to women is a key social role for men in Lavongai society (Sub-section 3.1.4).

Overall, this reveals a strong involvement of Lavongai people with the coastal environment in which the marine nonhuman beings on which this thesis is primarily focussed are found.

Chapter 2

Social Organisation

> Their ethnographers make it clear that, in talking about people's effects upon one another [...] [New Guinea people] are [...] talking about what English speakers would call the world, the cosmos, nature-culture. The manner in which kinship is articulated will indeed bear on how the world is lived.
>
> M Strathern 2014, p 45

Introduction: Rinaiatukul, the foundational village

It appears fitting to begin this chapter, which presents the social organisation of Lavongai, by the origin story which the Lavongai people recount as being their own. Most, if not all adult Lavongai are able to tell this story. Naturally, each rendition contains variations, but in all these there are elements which are recurrent and an overall layout which is common. The following summarise them in a way I believe should be familiar to all Lavongai people and which they should find consensual:

> A long time ago, all the inhabitants of Lavongai used to live in a single village, called Rinaiatukul, far up in the mountains in the centre of the island. There, all Lavongai people were together, not differentiated into clans, and marriage was unregulated.
> At some point, a conflict appeared in Rinaiatukul around the fact that there was incest. This led to the establishment of the clan system. Each clan had its own specific area inside Rinaiatukul, where all members of a clan lived, and people were forbidden from marrying anybody from their own clan.
> Sometime later, the clans dispersed, and left in all directions, radiating out towards the sea, arriving eventually at the coast. The location where each clan first arrived on the coast and settled is now their respective coastal clan possessions (*tokosiangan*).

This story[1] does not tell of where, when, nor how the Lavongai people came to exist, however, it is the story of their 'origin' in the sense that it is from the location described that the island's inhabitants all 'set out'. It tells of their starting point. As the name of this village (Gloss 2.1) clearly indicates, Rinaiatukul is the village where Lavongai takes its 'stem', the 'foundational village'.[2]

(2.1) *Rinaiatukul*
rina i a-tukul
village GEN CAUS-stem/reason/base/foundation
'foundational village'

At least three aspects of this story require that the vernacular terminology used to recount it be analysed closely. First, there is what I have rendered in English by the word 'clan'. Lavongai people describe these divisions in their society with the vernacular term *patmanu* in the Southern dialect and *patmani* elsewhere, sometimes simply shortened to *manu*, which can be analysed as:

(2.2) *patmanu*
pat *manu*
head, main part, chief bird
'clan'

The primary gloss of *pat* is 'head', but it also refers to a leader, or the main part of something.[3] The term *manu* (Southern dialect, *mani* elsewhere) means 'bird', or rather 'flying animal' since it includes feathered and 'fury' birds also: the flying foxes (*malikom*) are also *manu*. The fact that the term for clan is derived from a root meaning 'bird' becomes intelligible when one notes that each clan is named after, and associated with one such animal: there is the Valus clan, named after *valus*, the Red-knobbed Imperial-Pigeon (*Ducula rubricera*), or the Nguma clan, named after the Bismarck Crow (*Corvus insularis*).[4]

Lavongai English speakers translate the concept of *patmanu* as 'clan' (or the Tok Pisin *klen*). This is however also a term that, in anthropology, holds a somewhat specialised meaning, one which requires that several terms be carefully defined, and in order to avoid confusion I will recall these definitions here:

- **Unilineal**: descent is said to be **unilineal** if it is reckoned through one or the other parent. This can be either **patrilineal** (also 'agnatic'), meaning traced through the father, or **matrilineal** (also 'uterine'), meaning traced through the mother.

1. Although it may also be described as a legend or myth, the Lavongai people consider it to be a true rendition of historical events, and refer to it as 'the story of Rinaiatukul' (*akus i Rinaiatukul*) and this is therefore the formulation I have retained here.
2. Various people gave indications as to where they thought this village might be located in the interior of the island, but I did not have the opportunity to travel to any of them. Archaeologist Matthew Leavesley was led inland by a group of Lavongai people in search of Rinaiatukul during a fieldtrip there in 1999 and 'walked in the bush endlessly but never found it' (pers. comm., 30 May 2024). Nowadays, there does not seem to be a settlement that is inhabited and bears that name.
3. Compare this to the double meaning of the Latin word *caput*: 'head', but also 'chief', 'leader'.
4. The full list of clan names will be discussed in detail in Sub-section 2.1.1.

- **Clan**: a unilineal descent group made of people who all consider themselves to be descended from a common 'apical' ancestor or ancestress (patrilineal: **patriclan**, matrilineal: **matriclan**) but who cannot trace the full line of descent which ties them to the apical ancestor or ancestress. A clan may include several lineages and can have a nonhuman being for an apical ancestor or ancestress.
- **Lineage**: a unilineal grouping of people who can name and trace their relationship to a common ancestor or ancestress. In the former case it can also be called **patrilineage**, and in the latter **matrilineage**.
- **Subclan**: a clan which is considered to be part of another clan but which conforms to the definition of a clan, not to that of a lineage. A clan can contain no subclans, several subclans, or subclans and lineages.
- **Moieties**: two groups that divide a society into opposing parts. In a society that has moieties, each member belongs to one and only one of the two moieties. Although exceptions exist, they are usually unilineal descent groups, and they can therefore also be referred to as either **matrimoieties** or **patrimoieties** depending on the type of descent reckoning. They may include clans, lineages, or be otherwise subdivided in complex manners, into 'sections' for example.[5]

The story of Rinaiatukul therefore founds what are, in anthropological terms, the clans of Lavongai: exogamous descent groups, implicitly matrilineal, that are the basic building blocks of the island's society.

The event which precipitates the creation of clan is also told with recourse to very specific terminology. This is almost invariably described with the use of a metaphor:

(2.3) *tangatangataut ta bosok*
tanga-tanga-taut *ta* *bosok*
REDUP-cut-get.angry/sulk OBL specific.plant
'cut up all the *bosok* in anger'

Some narrators, when telling the story, specify that this means *paruk* (incest, having sexual relations with a person with whom it is forbidden to do so), others use the metaphor without even explaining its meaning. *Bosok* is an unidentified edible plant that is sometimes grown purposefully near homes. Nobody offered any explanation as to why this plant was the one used in this expression, however it is remarkable that so many people who recounted this story used the metaphor when they themselves did not have a clear understanding (or at least none they were willing to share with me) of where its meaning was supposed to come from. If anything, this testifies to a high degree of repetition in the telling of this story, in quite a literal form. What is clear, despite the somewhat confusing use of this expression, is that the core of the story is to recount why it was necessary to create clans: this was to avoid incest and provide regulations for marriages.

The final segment of the story of Rinaiatukul mentions that each clan left the village and walked until arriving at the coast, where they founded their original 'coastal clan possession'.

5. This kinship vocabulary is used here in a way that should be consensual in the discipline; all these definitions are based on reference works in this domain and are not those of any specific author, see for instance: Radcliffe-Brown 1941, p 2; Murdock 1949; Read 2018.

This suggests that the whole space of the island, from its initial central settlement, all the way down to the coastal areas, was appropriated by specific clans.

The story of Rinaiatukul therefore makes a number of statements:

- the islands population has a common origin, and is united;
- division into clans is necessary to avoid incest;
- the clans all dispersed into various directions;
- each area of the island was first settled by a given clan.

And by making these statements, it appears to further two objectives:

- reconcile the seemingly antagonistic facts of unity and division into twelve clans;
- anchor the clan-land associations, from the ridges to the sea areas, in the distant past in order to confer maximum legitimacy upon it.

The story discursively wills into existence a past in which all these clans were 'related'. By definition, such a concept of 'related clans' is paradoxical. Either the clans have a common matrilineal ancestress and they are but one clan, or they do not and hence are not 'related'. The only—highly unlikely—genealogical solution to this paradox is for the clans to have a patrilineal relation: for a single man, or a number of closely related men to have fathered twelve initial clan ancestresses that had no prior matrilineal relation. But the story of Rinaiatukul does not tell of this; rather it considers that all the initial population of the island were related, too much so even, since the whole village was incestuous, in a form of 'undifferentiated kinship' that effaces the need to specify distant kinship relations where they are unknown or unknowable. Jason Roberts also identified this main goal of the story: 'Rina Atukul is significant because it is where the Lavongai all began as one family, living harmoniously together on one area of land. Even today, the Lavongai people all consider themselves related, to greater or lesser degrees, because of this common beginning.' (2024, p 45)

Claude Lévi-Strauss, in the landmark structural analysis of alliance practices and incest prohibitions, *The elementary structures of kinship* (1969), wrote that it is common for societies to have theories 'to justify the prohibition of incest by the harmful consequences of consanguineous unions', adding that these include 'numerous primitive [*sic*] myths suggesting this interpretation' (1969, p 30); the story of Rinaiatukul is clearly one of these. In highly pragmatic statements made during interviews, several people said explicitly that the aim of having clans was to 'organise' the people of the island, for purposes of work and marriage. Ideally, there should be no divisions in the island's population, the people of Lavongai are 'all one', but the clans are necessary, lest indefinite forms of social disorder be brought about by inappropriate unions.

2.1 *Keve patmanu, siksikei*: each and every clan of Lavongai

The Lavongai *patmanu* conforms to the canonical anthropological definition of a matrilineal clan: people belong to their mother's respective *patmanu*; clan membership cannot

change for any reason (even adoption) during life; each person is considered to be related to all other members of that *patmanu* through a common ancestress, despite not knowing exactly how they relate to her; for this reason clan exogamy is said to be necessary. It is notable that the story of Rinaiatukul, however, says nothing about the matrilineality of Lavongai society, which is taken as a necessity from the onset.

At the local level, there are few villages on Lavongai where any more than eight clans are represented, and in most villages around five clans are found. Clans are not very strongly localised: even though in each village there are two or three 'main clans' that have larger numbers than others, all of these clans are also present elsewhere. In other words: Lavongai people of all clans are and have long been quite mobile within the island. Nonetheless, these numerically dominant clans are presented as the 'original' ones: it is members of those clans who arrived in the village first and cleared the primary forest in order to make new gardens and erect houses, or they fought in ancient battles to take the ground from another clan. In this, the story of the clans is usually tied back into that of Rinaiatukul, although there are systematically segments of the story that are 'missing', corresponding to the time between when the ancestors left Rinaiatukul, arrived on the coast, and when the oldest ancestor's claim on the land is remembered.

When conducting the genealogical survey of Metevoe, it rapidly became apparent that remembered genealogies are relatively shallow. The longest genealogical chain that anybody could form contained six generations (including their children), and on average much less that that. Typically, most people remembered only the names of certain grandparents, usually grandmothers, and no further ancestors. There is a strong uterine (matrilateral) bias in these figures, starting from the first generation, and increasingly widening into past generations (see Table 2.1 and Figure 2.1), which, in a matrilineal society, is expected.

Table 2.1: Numerical data on 'completeness' of the genealogical dataset collected in Metevoe between 2019 and 2023, meaning the percentage of individuals in the dataset who also have all ancestors from the previous generation present in the dataset, for generations $n+1$ (that of ego's parents) to $n+6$. See also Figure 2.1. Generated by PUCK.

Generation	Overall	Agnatic	Uterine
$n+1$	94.20%	93.46%	94.93%
$n+2$	56.21%	51.47%	62.25%
$n+3$	26.29%	20.10%	36.27%
$n+4$	7.19%	3.27%	12.42%
$n+5$	1.73%	0.16%	3.43%
$n+6$	0.07%	0.00%	0.00%

2.1.1 On the number of Lavongai clans

Lavongai people usually distinguish twelve clans in their midst. The full list of these clans has, at some point in recent years, been put onto paper in a typeset document (Table 2.2) attributed to a man from Lavongai, Lensi Angele, who is said to have died in 2008. It states

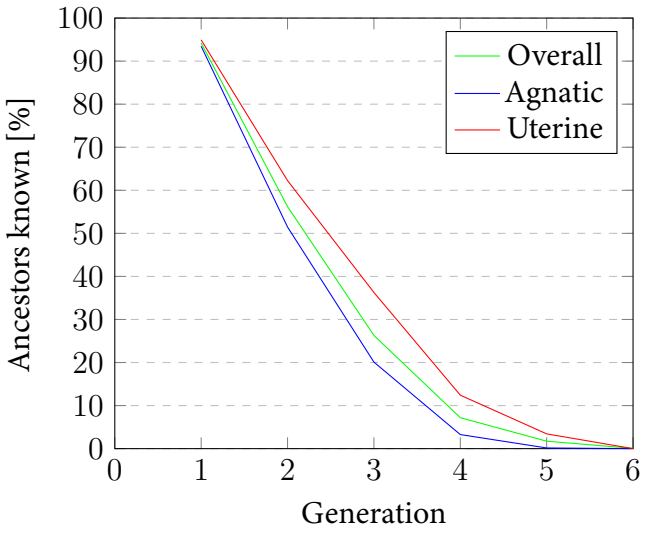


Figure 2.1: Plot of the 'completeness' of the genealogical dataset collected in Metevoe between 2019 and 2023. See Table 2.1 for the numerical data. Generated by PUCK.

(on the last line, to the lower right) that one of the clans, Uk, has disappeared because of 'non regeneration'.

Tukul W Kaiku and her son Patrick K Kaiku, both Lavongai-born scholars from the University of Papua New Guinea, published an article about the 'indigenous knowledge' of the Lavongai people. In this, they give an identical list of clans to the one produced by Lensi Angele and show them in the same—seemingly arbitrary—order (Kaiku and Kaiku 2008, p 58). Jason Roberts, who was on Lavongai in 2015 and 2016, also lists the same clan names as Lensi Angele and Patrick and Tukul Kaiku, in the same order, and refers the reader to the above article (Roberts 2024, p 222, note 8). Although none of these authors specified this to be the case, it is possible they had access (possibly indirectly through some of their interlocutors) to Lensi Angele's table. The table itself was probably produced in the 2000s, since it was evidently made using a computer, and Lensi Angele is said to have died in 2008.

However, investigators coming to the island had also compiled lists of Lavongai clans prior to the existence of Lensie Angele's table. The first to do so would appear to be Fred P Kaad, an Australian patrol officer who was posted to the Lavongai district in 1945. In a patrol report he wrote in 1951 based on his 1950 patrols, one finds a wealth of precise ethnographic detail, which is likely to be accurate since, by then, Kaad had already patrolled the entire district several times and written multiple reports. In his *New Ireland report n°16 of 1951*, he drew up the list of clans shown in Table 2.3. He refers to the names in the first columns as 'clan', and also by the vernacular name of these basic elements of social organisation: *patmani*. All the clans have a similarly formed name such as:

GENEOLOGY OF THE 12 TRIBES OF RINA (ATURUL - *of What is now known as*
LAVONGAI -NEW HANOVER ISLAND LENSI ANGELE

Nos	CHIEF'S NAMES OF EACH TRIBES	CLAN'S NAMES OF EACH TRIBES	PLACE OF ORIGINAL SETTLEMENT OF EACH TRIBES	CLAN'S ORIGINS OF TRADITIONAL DANCES OF EACH TRIBES	ROLE AND SPECIAL GIFTS OF EACH TRIBES
1	LAPAN VAUVAU	MANILAVA	MAUNG	KAMLO	CHIEF CLAN- PASSINGAN – Custodian of Authority over other Clans in initiating Unity
2	TOLOKVUAL	SUI	POTPOT	SUSUK	MASUNG- Custodian of observing in decision making & conduct of the society
3	AVANAKIT	VENGEVENGE	TIKILUM	SOKOMBUAL	MALIMALANG Custodian of Faith in Action -& observing assigned task in the society
4	~~LAPANDOSIK~~ LAPAUSAU PA	SILAU	KATANGANGAMU	KAMBAI	MALIRA SI LUK AIVA Custodian in observing LOVE MAGIC in the society
5	TAISPETAU	VALUS	TANGAKASUNG	LAUN	MARAS Custodian and observing of sorcery for good & evil in the socie
6	PAKUM	GILA	PATIVERUNGU	ANAMIS	TATAGAM -MARAMARAM Custodian of observing and maintaining good deeds in the society
7	TIVIANOK	IANGA	PATILASING	LANGMANUI	TANGATANGAI Custodian of observing and maintaining the practice of Art Cra & Culture in the society.
8	~~LAPLAPMOT~~ LAPANDOSIK	KANAI	PATIBAMALISA	MANTAPUR	SOG - FISHERMAN Custodian of observing the practice of good seamanship on fishing adventures
9	UNGVALOVO	SIAVUN	LUVA	SASALA	MALANGAS Custodian in observing the practice of guiding of the light through the sun in the society
10	VOKUINIPETAU	TIEM	PATIMALANG	VUAL	TUTUMAN Custodian and observation of the word of Truth – practice of tl True way of Life in the society -
11	PIRPIRIL	NGUMA	PATIVEONO	SUP	APOLOK VAP Custodian of re-generating good leaders in the society.
12	SAVANGROLE	UK	RUALIS	LUAI	LUAI ATUMAN Custodian of observing the practice of living in peace & harmony. (this Clan is not in existence due to non-re-generating

Figure 2.2: Photocopy of a table presenting information about 12 Lavongai clans (here referred to by the English 'tribes'), said to have been compiled by Lensie Angele, whose name is written on the paper in pen. Date unknown, possibly early 2000s. Full transcription in Table 2.2. See also Figure 2.3. Copy gracefully provided by Peter Raymond in November 2019.

Table 2.2: Transcription of a table listing clans of Lavongai by Lensi Angele. Corrections in original. The print from which this transcription was made is shown in Figure 2.2.

Nos	CHIEF'S NAMES OF EACH TRIBES	CLAN'S NAMES OF EACH TRIBES	PLACE OF ORIGINAL SETTLEMENT OF EACH TRIBES	CLAN'S ORIGINS OF TRADITIONAL DANCES OF EACH TRIBES	ROLE AND SPECIAL GIFTS OF EACH TRIBES
1	LAPAN VAUVAU	MANILAVA	MAUNG	KAPILO	CHIEF CLAN- PASSINGAN — Custodian of Authority over other Clans in initiating Unity MASUNG-
2	TOLOKVUAL	SUI	POTPOT	SUSUK	Custodian of observing in decision making & conduct of the society MALMALANG
3	AVANAKIT	VENGEVENGE	TIKILUM	SOKMBUAL	Custodian of Faith in Action -& observing assigned task in the society MALIRA SI LUK AINA
4	~~LANDOSIK~~ LAPANSAUPAI	SILAU	KATANGANGAMU	KAMBAI	Custodian in observing LOVE MAGIC in the society MARAS
5	TAISPETAU	VALUS	TANGAKASUNG	LAUN	Custodian and observing of sorcery for good & evil in the socie [*sic*] TATAGAM-MARAMARAK
6	PAKUM	GILA	PATIVERUNGU	ANAMIS	Custodian of observing and maintaining good deads in the society TANGATANGAI
7	TIVIANOK	IANGA	PATILASING	LANGMANUI	Custodian of observing and maintaining the practice of Art Cra [*sic*] & Culture in society. SOG - FISHERMAN
8	~~LAPLAPMOT~~ LAPANDOSIK	KANAI	PATIBAMALISA	MANTAPUR	Custodian of observing the practice of good seamanship on fishing adventures MALANGAS
9	UNGVALOVO	SIAVUN	LUVA	SASALA	Custodian in observing the practice of guiding of the light through the sun in the society TUTUMAN
10	VOKUINIPETAU	TIEN	PATIMALANG	VUAL	Custodian and observation of the word of Truth – practice of th [*sic*] True way of Life in the society APOLOK VAP
11	PIRPIRIL	NGUMA	PATIVEONO	SILIP	Custodian of re-generating good leaders in the society. LUAI ATUMAN
12	SAVANGROLE	UK	RUALIS	LUAI	Custodian of observing the practice of living in peace & harmony. (this Clan is not in existence due to non-re-generating)

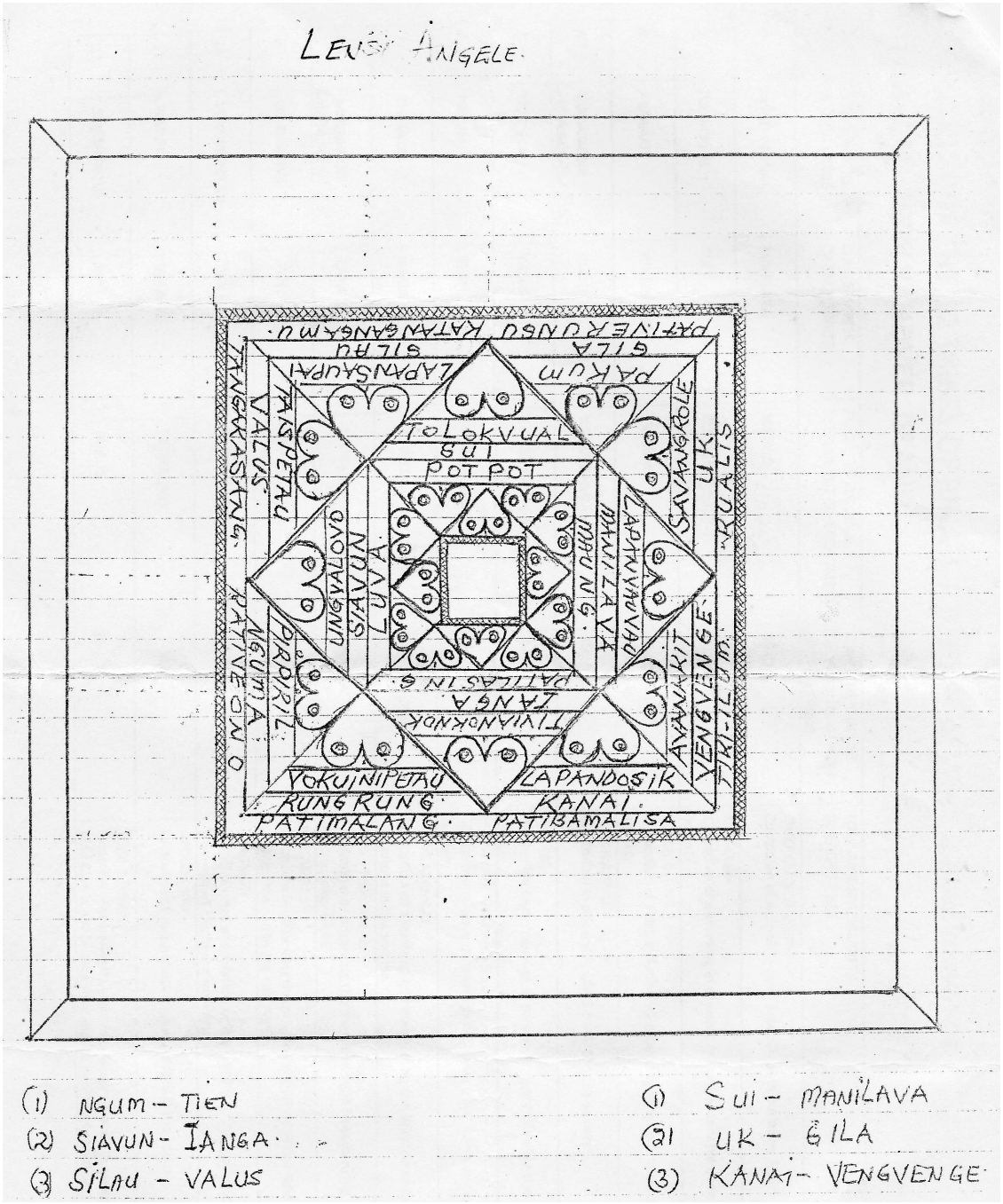


Figure 2.3: A graphical representation of the information regarding clans and clan leaders and original 'place of settlement' that is found in the table by Lensi Angele Figure 2.2. Compare this to Figure 2.4 and Figure 2.5. Copy gracefully provided by Peter Raymond in November 2019.

(2.4) *Makanvalus*
makan *valus*
person/creature pigeon
'Valus clansperson'

Regarding the root *makan*, Father Joseph Stamm, a Catholic priest who spent many years in Lavongai village and produced a preliminary grammar of the language (1958), wrote that the term was 'used to denote the plural with folklore people or folklore animals' (Beaumont 1988, p 9), which I disagree with, as it can clearly be used in the singular. I would propose that it translates as 'creature', in a general sense, including people, and Stamm also noted that many women had names of the form 'Makan[clan name][qualifier]', which remains true to this day. In these names 'qualifier' is an adjective or noun, often an amusing one. For example, in Metevoe, there is a Valus clanswoman called Makanvalussaulmat, where *saulmat* means 'to make the dead turn over', and Makanvalussaulmat something akin to 'the Valus creature that makes the dead turn over'.

Table 2.3: Late 1940s listing of the clans of Lavongai, as drawn up by an Australian patrol officer. Adapted from Kaad 1951, pp 6–8, with Tungag corrected to match contemporary practices.

Num.	Clan Name (patmani)	Totem Name (in Tungak)	(mani) Pidgin	English
1	*Makanmani*	*Manilava*	*Tarangau*	Fish Hawk
2	*Makankanai*	*Kanai*	*Kanai*	Seagull
3	*Makanianga*	*Ianga*	*Kalangar*	Parrot
3	*Makanvalus*	*Valus*	*Valus*	Pigeon
5	*Makannguma*	*Nguma*	*Kotkot*	Crow
6	*Makankiukiu*	*Kiukiu* *Siavun*		Kingfisher
7	*Makanvegevenge*	*Vengevenge*	*Kokomo*	Hornbill
8	*Makansui*	*Sui*		Swallow
9	*Makansilau*	*Silau*	*Kakaruk*	Fowl (bush)
10	*Makantien*	*Tien*		Starling
11	*Makangila*	*Gila*	*Malip*	Parrakeet

Dorothy Billings also produced a list of clans prior to the appearance of Lensi Angele's list. Drawing from her fieldwork in the late 1960s in Lavongai village, she identified the same clans as Lensi Angele listed but did not present them in the same order (1981, p 659). Billings also writes that her interlocutors thought both Gila and Uk clans were nearly extinct, perhaps found only in certain western locations on the island, or on the offlying island of Tingwan (Map 1.2). It is possible that Dorothy Billings met Lensi Angele's father, as the name 'Angele' appears in her thesis (see bottom left corner of Figure 2.5), although she does not explain who this person was nor how she interacted with him, Lensi Angele is likely to be this person's son as the father's name is often used in Lavongai as a surname nowadays (see page 100). The diagram in Figure 2.5 clearly shows the whole island divided

into 12 clan segments, as it has place names at the cardinal points: Ao to the west, Tioputuk to the south, Taskul to the east, and an illegible toponym beginning with 'Mete' to the north (Map 1.2).

More recently still, in the late 1990s, Ton Otto, a Danish anthropologist, carried out fieldwork in southern and western Lavongai and in the Tigak Islands, and in a footnote provides the following list of clans for Lavongai:

> The 12 clans of Lavongai are: Tien (small yellow bird), Siavun or Kikiu (kaokaburra), Nguma (crow), Yanga (parrot), Kanai (seagull), Manilava (eagle), Valus (pigeon), Vengevenge (hornbill), Silau (kingfisher), Sui (related to kookaburra), Maligom (flying fox) and Valuskaup (grey pigeon). The researcher found representatives of the first 10 clans in the villages visited and an additional clan called Gila, which is said to be split off from Yanga. (Otto, Turner, and Filer 1990, p 3, note 1).

This is notably different from the previous lists, none of which includes 'Valuskaup', which he translates as 'grey pigeon' (literally 'dusty pigeon') nor 'Maligom', the flying fox (*malikom*).

More general data comes from the 'village record books', which I was fortunate to obtain from the Provincial Village Books Office in a digital format. In Papua New Guinea, there is no central nor local register of births, deaths, and marriages. In theory, each ward member is responsible for collecting such information, and in South Lavongai, there is a designated 'ward recorder' who is tasked, among other duties, with updating the village record book in the entire ward. These list all the people who live in the village, consigning births, deaths, and movements. New Ireland Province began digitising these village books in 2020 (Post Courier 2020) and has setup an office in Kavieng for this purpose where records can be consulted.

In the data gathered by the provincial officials from the village record books for Lavongai LLG, there is a column named 'Clans' in which a great number of apparently different labels are used. With some corrections for obvious typing mistakes and regrouping of similar or synonymous names, a total of 16 groupings emerge (Table 2.4).[6] Of these, four are named after animals that I never heard a person consider to be eponymous with a clan. The first is Marmar, where *mar* is the Brahminy Kite (*Haliastur indus*); the second is Kik, where *kik* is a lorikeet, either the Red-chinned (*Vini rubrigularis*), Red-flanked (*Hypocharmosyna placentis*), or Coconut Lorikeet (*Trichoglossus haematodus*); the third is Malikom, where *malikom* is the flying fox, which Otto however did also list as a Lavongai clan; and the fourth is Manikeng, where *manikeng* is the Metallic Starling (*Aplonis metallica*). It is notable that all these clans (and Uk to which I will return) have less than 10 representatives each in the village book data (see page 81), an extremely low number compared to even the next least represented, Gila, which has over 300.

Although these labels stand out as not being referred to as clans by any other interlocutor, they can all be tied back to other clans through reference to the animals they are named

6. I refer to one of these groupings as 'INVALID', meaning these labels are either empty or a village name, which suggests the wrong column was filled in; another as 'FOREIGN', meaning that there is no doubt these clan name are from elsewhere than Lavongai. This leaves 16 names that are indeed Tungag words and could refer to a Lavongai clan.

after. The bird *mar*, Brahminy Kite (*Haliastur indus*), is a type of bird of prey that my interlocutors associated with clan Manilava, which is named after the eagle.[7] The bird, *kik* (lorikeet) was said by my interlocutors to be related to *ianga*, the Papuan Eclectus, (*Eclectus polychloros*), and all these birds are indeed parrots (order *Psittaciformes*). As for *manikeng* (the Metallic Starling) and *malikom* (the flying fox) my interlocutors associated both of these with clan Nguma, and the bird in question is indeed similar in appearance to *nguma*, the Bismarck Crow (*Corvus insularis*).

Table 2.5 summarises this information about clans taken from various sources. It shows that there are subtle differences between the clan listings obtained at various times, by various people, and with the ethnographic data produced in a contemporary setting. Clan Uk (which I will return to below) is not a clan either in Kaad's, Otto's, the village book's, nor my list. One commonality does stand out however: most lists contain 12 clans. Interestingly however, there is no consensus as to which those 12 clans should be.

The fact that there is a largely constant number of clans listed by the various sources on this matter, despite variation in their actual names, is remarkable, especially in light of the fact that this number does not match the contemporary data, neither my own nor that of the village books. One explanation could be tied to the influence of Biblical religion on the island. Many of my interlocutors stated an unclear yet direct link between these twelve clans of Lavongai, and the '12 tribes of Israel' mentioned in the Old Testament. It appears that people who have heard of the existence of these '12 tribes of Israel', have in effect identified the Lavongai clans with these Biblical tribes. In the Tungag Bible translation itself, the term *patmani* does indeed appear as the gloss for the English 'clan' (Wycliffe Bible Translators 1998, Genesis 10:5, 10:18, 10:20, 10:31 and 10:32), and it is also used to render 'offspring' (Wycliffe Bible Translators 1998, Genesis 19:32 and 19:34). It does not, however, appear anywhere connected with the number 12. All occurrences of the '12 tribes' or '12 children' of the patriarch Jacob are rendered by other words. The sentence from the English standard version of the Bible: 'All these are the twelve tribes of Israel.' (Crossway Bibles 2011, Genesis 49:28) was translated as:

(2.5) *Aongos vang sukana na 12 na matan vap suke i Israel*
all INTJ over there and 12 OBJ group people there GEN Israel
'Indeed, all of them over there, the 12 groups of people of Israel' (Wycliffe Bible Translators 1998, Genesis 49:28)

The sentence: 'the twelve tribes of Israel' (Crossway Bibles 2011, Luke 22:30) was translated as:

(2.6) *12 na patvap i Israel.*
12 OBJ group GEN Israel
'12 tribes of Israel.' (Wycliffe Bible Translators 1998, Luke 22:30)

The two terms *matan vap*, literally 'group of people', and *patvap*, derived from *pat*, 'head, leader', and *vap*, 'people', are general terms that are not connected to any level of social organisation in Lavongai, although bilingual Tungag and English speakers sometimes

7. On the identifications and local knowledge concerning birds see Appendix C.

Table 2.4: List of clans found in the Lavongai LLG village books, grouped according to variants that are synonyms, misprints, and translations into Tok Pisin (prefixed by TP:) or English (E:) of the main Tungag name.

	Variants encountered in village books	Comment	Count	% of valid
Nguma	Nguma, TP: Kotkot, Kol, Nguma (kotkot), TP: kotkot, Kol (Nguma), Nguma (Kotkot), TP: kotkot, kol, Kot, Nouma	Tungag terms *nguma* and *kol* are synonyms.	3093	20.55
Kikiu	Kikiu, Kiukiu, Siavun, Siavon, Sivun, Siavin, Siawun,Siavun Kikiu, kikiu, KIkiu	Tungag term *siavun* is often used to refer to *kiukiu* clan, although it means 'swordfish.'	2178	14.47
Manilava	Mani, Manilava, E: Eagle, TP: Maningulai, Mami, Mani Lava, Many, Mani lava, TP: Tarangau, Mani (TP: Tarangau), Mani TP: Tarangau, Mani (TP: tarangau)		2034	13.51
Tien	Tien, Tian, Tieng		1642	10.91
Sui	Sui, sui, Siu, Sui (Kingfisher), E: Kingfisher		1427	9.48
Ianga	Yanga, Ianga, TP: Kalangar, Yonga, Yangas, Ianga (Yanga), Ianag, TP: Kalanagar, E: Parrot, Yanag, TP: Malip		1202	7.99
Silau	Silau, silau		982	6.52
Vengevenge	Vengevenge, Kokomo, Venge, Vengvenge, E: Hornbill, Vengevene, Vengenenge, Vangvange		974	6.47
Valus	Valus, Balus, Valuls	Said to be 'extinct.'	817	5.43
Kanai	Kanai, E: Seagul, Kanaie, Kannai		357	2.37
Gila	Gila, Gilagila, Gilgila, Gula		326	2.17
Marmar	Marmar	Associated with clan Manilava.	7	0.05
Uk	UK (Dove), E: Dove		6	0.04
Malikom	TP: Bilakbokis, Malikom	Associated with clan Nguma.	3	0.02
Kik	kik	Associated with clan Gila or Ianga.	1	0.01
Manikeng	Manikeng	Associated with clan Nguma.	1	0.01
INVALID	(Not written), -, Not stated, Not Stated, Not Mention, Village, Taskul, Tunung, Umbukul Health center, Patrininial, Tanga, Local, Kavulik		263	
FOREIGN	Big Pisin, Bikpisin, Mani (Big Pisin), Bimoroh, Laurina, Lauriwa, Sombui, Chauka, Bakuk, Saitalai, Nenevele, Kapiakapa, Dok, Yiomba, Masaisao, Evele, Nagoa, Buali, Abulmosi, Topikina, Babien, Maleu, Baum, Mozotitin, Guria, Nawos, Manit, Mas, Mukmuk, Muruk, Pikalaba, Tutut (Yanga), Bimoroh (kokomo)		232	

translate either *patmanu* or *patvap* into English as 'family'. This is used in a vague sense, since when asked to define it, they respond by ascribing a very variable meaning to the term, ranging from the nuclear family (a couple and their children), to a whole clan, with many variations in between.

Although this 'local' interpretation of the Lavongai clans being identified with the '12 tribes of Israel' is both historically problematic, and highly at odds with the existing situation[8], these claims nonetheless affect the way Lavongai people perceive and describe their own social organisation. This obviously echoes the wider identification that people effect between the island and Biblical stories (as described previously on page 44).

The effect of this identification on Lavongai has been to mould the perceived social structure of the island into a simplified single-levelled division into a firm number of clans. That the reality is more complex is already obvious in the difficulty in identifying the actual number and names of clans and will become clearer in the following pages.

Regarding the clans in presence nowadays, one question remains as to the status of the Uk clan. Lavongai people state that this clan has 'disappeared' or become 'extinct'. This might have suggested a relatively recent population decrease leading to this extinction. However, in the table of Lavongai clans produced by Kaad over 70 years ago (Table 2.3), Uk is not one of the named clans. Moreover, the population has only ever been increasing in the region since there have been any form of census, therefore another explanation would seem to be needed.

Investigations carried out during fieldwork yielded an explanation for the apparently extinct status of a putative clan: Uk is simply not a 'Lavongai' clan. Indeed, if the data obtained from the village books is analysed in detail, it becomes apparent that the people who are entered under 'Uk (dove)' in the 'Clan' column, are a single family from Meteran. This concerned one woman and her four children. I discussed this family with people in Metevoe who knew this woman's husband and father of these children very well. They stated that the woman in question was not from Lavongai but from New Ireland. My interlocutors also drew my attention to another fact: that the names listed for this woman's parents are neither Tungag nor English names, and my interlocutors felt they sounded like mainland New Ireland names, possibly Nalik or Kara. The final piece of the puzzle comes from a list of clans given by Peter Lomas for the Tigak-speaking area near Kavieng where he did fieldwork in the 1990s. One of these clans is listed as 'Mokanuk (Neo-Melanesian [ie Tok Pisin]: Balus)' (1973, p 54). The clan names which Lomas gives all begin with this prefix, *Mokan*, an evident cognate of the Tungag *makan* used to refer to clans or clanspeople (Gloss 2.4). The meaningful segment in 'Mokanuk' is therefore the second part, the clan denominator itself, and that is 'uk'. Morevoer, since Tok Pisin conflates a great number of birds from the pigeon or dove family under the name *balus*, and the dove and pigeons are similar in appearance, there is little doubt that this New Ireland Mokanuk clan is indeed the 'extinct Lavongai clan' of Uk.

In conclusion: it appear that the most likely explanation for the apparent 'extinction' of the Uk clan on Lavongai is that this was never a local clan, but rather a neighbouring clan

8. To name just one problem: the Lavongai clans are matrilineal whilst the '12 tribes of Israel' are the patrilineal descendants of Jacob's sons.

whose members occasionally intermarried with Lavongai people. Subsequently, this clan was construed as being 'local but extinct' as part of an active adaptation of the clan makeup of the island designed to attempt to match the island's social structure with the Bible story of the '12 tribes of Israel'. What this also shows is a high degree of compatibility between the Lavongai and neighbouring social structures, with possibilities of intermarriage and adaptation of nonautochtonous clans into the local clan makeup.[9]

2.1.2 New Ireland social organisation: a regional comparative overview

Something that the people of Lavongai describe as a 'particularity' of their island's social organisation is the fact that it is divided into twelve clans, a fact which they contrast with their perception of what exists in New Ireland. There, they say, society is made up of only two exogamous groups, represented by two birds: the 'big bird' and the 'little bird'. People of Lavongai contrast New Ireland where there are 'just two birds' with their own social organisation where there are 'many birds'.

According to the ethnographies that have been carried out over the last century in locations throughout New Ireland, it appears that social structures in the region are everywhere governed by exogamy between matrilineal groups, the question is at which scale. Brigitte Derlon carried out fieldwork with speakers of the Mandak language, on the Lelet plateau of central New Ireland. In the section 'Moieties, clans, and lineages'[10] of her monograph about Malanggan sculptures[11], when reviewing the literature, she writes that:

> Among the language groups of New Ireland, those that are located in the northern third of the province recognise matriclans as the widest social unit, whilst the others group the clans into matrimoieties, much like the societies of the Duke of York islands, and the Gazel Peninsula. […]
> In all the societies where they are recognised, the moieties for which there is no generic term, are referred to by the names of two birds of prey: the osprey, *Pandion leucocephalus* and the eagle *Haliaetus leucogaster* […] clans […] make up each moiety. (Derlon 1997, p 25).

9. Researchers working elsewhere in Papua New Guinea have previously noted that the number of clans is often ambivalent and the subject of purposeful discourse. Stephen Lenvinson, for instance, concerning the social organisation of Rossel Island in Milne Bay Province, wrote that 'There are over a dozen major exogamous matriclans […] with a number of subclans. […] The actual facts are complicated by much fusion and fission […] counting fused clans as one, but recent fissions still as subclans of one clan, the number of major super ordinate clans for the purposes of exogamy seems to be about fifteen' and intriguingly, he too notes that 'informants often give the number of clans as twelve, and this number may have mythical sanction' (Levinson 2006, p 2), although he gives no more detail as to the nature of this 'mythical sanction'.

10. In French: *Moitiés, clans et lignages*

11. New Ireland is known, especially in anthropology, for the *malanggan* (sometimes spelled *malangan* or *malagan*, pronounced [malaŋgan]), a vast funerary complex notable for its wooden carvings and elaborate exchanges of pigs, taro, and other valuables (see Krämer 1925; Walden 1940; Küchler 1987; Gunn 1992; Derlon 1997; Billings 2007). Note that *malanggan* is not practised on Lavongai, nor in the neighbouring segment of New Ireland, but only further south, and this seems to have always been the case despite fleeting indications to the contrary (such as the descriptions of masks in Strauch 1877; Hydrographischen Amt des Reichs-Marine-Amts 1888, or the carvings described in).

Table 2.5: Lavongai clan lists sourced from Kaad 1951, pp 6–8; Billings 1981, p 659; Otto 1990, p 3, note 1; a table by Lensi Angele; Kaiku and Kaiku 2008, p 58; Roberts 2024, p 222, note 8; the village book data; and my own ethnography. English words given in parenthesis are translations provided by the source.

Kaad	**Billings**	**Otto**	**Angele**	**Kaiku**	**Roberts**	**Village book data**	**Own ethnography**
1 *Manilawa* (Fish Hawk)	1 *Manilawa*	1 *Manilawa* (eagle)	1 *Manilava*	1 *Mani* (Fish Hawk)	1 *Mani* (Fish Hawk)	1 *Manilava*	1 *Manilava* (White-bellied Sea-Eagle, *Haliaeetus leucogaster*)
						2 *Marmar*	[*Mar*: Brahminy Kite (*Haliastur indus*), linked totem of Manilava]
2 *Kanai* (Seagull)	2 *Kanai*	2 *Kanai* (seagull)	2 *Kanai*	2 *Kanai* (Seagull)	2 *Kanai* (Seagull)	3 *Kanai*	2 *Kanai* (Gray-backed Tern, *Onychoprion lunatus*)
3 *Ianga* (Parrot)	3*Yanga*	3 *Yanga* (parrot)	3 *Ianga*	3 *Ianga* (Parrot)	3 *Ianga* (Parrot)	4 *Ianga*	3 *Ianga* (Eclectus Parrot, *Eclectus roratus*)
					Langa		[*Langa*: transcription problem?]
						5 *Kik*	[*Kik*: a lorikeet, either the Red-chinned (*Vini rubrigularis*), Red-flanked (*Hypocharmosyna placentis*) or Coconut Lorikeet (*Trichoglossus haematodus*, linked totems of Ianga]
4 *Balus* (Pigeon)	4 *Balus*	4 *Valus* (pigeon)	4 *Valus*	4 *Valus* (Pigeon)	4 *Valus* (Pigeon)	6 *Valus*	4 *Valus* (Red-knobbed Imperial-Pigeon, *Ducula rubricera*)
		5 *Valuskaup* (grey pigeon)					[*Valuskaup*: linked totem of Valus]
5 *Gnuma* (Crow)		6 *Nguma* (crow)	5 *Nguma*	5 *Nguma* (Crow)	5 *Nguma* (Crow)	7 *Nguma*	5 *Nguma* (Bismarck Crow, *Corvus insularis*)
	5 *Kol*						[*Kol*: synonym of 'nguma']
		7 *Maligom* (flying fox)				8 *Malikom*	[*Malikom*: flying-fox, linked totem of Nguma]
					Kotkot		[*Kotkot*: Tok Pisin]
						9 *Manikeng*	[*Manikeng*: Metallic Starling (*Corvus insularis*), linked totem of Nguma]
6 *Kiukiu* (Kingfisher)	6 Kiukiu	8 *Kikiu* (kookaburra)		6 *Kikiu* (Woodpecker)	6 *Kiukiu* (New Ireland Dwarf Kingfisher, *Ceyx mulcatus*)	10 *Kikiu*	6 *Kiukiu* (Collared, Forest or Sacred Kingfisher, *Todiramphus chloris, T macleayii, T sanctus*)
Siavun			*Siavun*	*Siavun*		*Siavun*	[*Siavun*: synonym of Kikiu]
7 *Vegevenge* (Hornbill)	7 *Bengebenge*	9 *Vengevenge* (hornbill)	7 *Vengevenge*	7 *Venge-venge* (Hornbill)	7 *Vénge-Vénge* (Hornbill)	11 *Vengevenge*	7 *Vengevenge* (Blyth's Hornbill,*Rhyticeros plicatus*)
					Kokomo		[*Kokomo*: Tok Pisin]
8 *Sui* (Swallow)	8 *Sui*	10 *Sui* (related to kookaburra)	8 *Sui*	8 *Sui* (Kingfisher)	8 *Sui* (Swallow)	12 *Sui*	8 *Sui* (New Ireland Dwarf-Kingfisher, *Ceyx mulcatus*)
9 *Silau* (Bush fowl)	9 *Silau*	11 *Silau* (kingfisher)	9 *Silau*	9 *Silau* (Bush Fowl)	9 *Silau* (Bushfowl)	13 *Silau*	9 *Silau* (New Hanover Munia, *Lonchura forbesi*)
10 *Tien* (Starling)	10 *Tien*	12 *Tien* (small yellow bird)	10 *Tien*	10 *Tien* (Starling)	10 *Tien* (Starling)	14 *Tien*	10 *Tien* (Golden Monarch, *Carterornis chrysomela*)
11 *Gila* (Parrakeet)	11 *Gila*		11 *Gila*	11 *Gila* (Parrakeet)	11 *Gila* (Parakeet)	15 *Gila*	11 *Gila* (Singing Parrot, *Geoffroyus heteroclitus*)
[*Uk*]	12 *Uk*		12 *Uk*	12 *Uk* (Dove, extinct)	12 *Uk* (Dove, extinct)	16 *Uk*	[Not a Lavongai clan]
[*Korol* (Groper)]							[A fish, not a Lavongai clan]

On the east coast, she places the limit between the two organisations somewhere 'between the Nalik and Notsi [linguistic] areas' whereas 'on the west coast, the moieties used to appear further north, since Küchler (1983, p 77) mentions their previous existence in the Kara villages of Panamecho and Panachais.' (Derlon 1997, p 25). According to Susanne Küchler, in the area of the west coast where she worked in the years 1982 and 1983, there were indeed multiple clans and no moieties (1985).[12] However, contrary to what Derlon writes, Küchler does not mention moieties having ever been present there, and although the specific publication referenced by Derlon couldn't be located, Susanne Küchler confirmed this (pers. com. 19 January 2024). Therefore, it seems safe to say that moieties appear in the Notsi areas, and that Tungag, Tigak, Kara, and Nalik speaking ones have only exogamous matriclans.

The moieties are an 'extra' level of classification that is present in societies in the central and northern parts of New Ireland, and that take over some characteristics which clans have elsewhere. Specifically, the moieties are the largest exogamous units, and they are the units which are associated with birds. However, it is notable that the moieties coexist with clans, being a supplementary, overarching level. By this, I mean that each moiety 'contains' a number of clans. These are not 'sections' however, unlike what is found in Australia, since clans are not seen as subdivisions of the moieties, but rather considered to belong to one or the other. Moreover, the numbers of clans belonging to each moiety is usually odd (whereas by definition, there can be only an even number of sections).

Several ethnographers have consigned information regarding the clan organisation of Northern New Ireland, in the area where there are no moieties. Having carried out fieldwork near Kavieng in the 1960s and early 1970s, the anthropologist Peter Lomas wrote that

> the six named clans represented are, in the vernacular, Tivingau (Neo-Melanesian: Malip), Mokanuk (Neo-Melanesian: Balus), Makatitien (Tien or Tutut), Tivingur (Rowla), Makaniva (Tarangau), and Makanaga. Balus clan takes its name from the pigeon (*carcophaga rubicera Rp* [*sic*, rather: *Carpophaga rubricera*]) and Malip, from a small parrot (*lorius devittatus Hartek*) (Schnee 1904, p 282; Finsch 1914, p 163). Tien or Tutut is named for a black and yellow bird that Chinnery lists as a swamp pheasant (1931, p 123). Tivingur (Rowla) is a fregate bird and Makaniva (Tarangau) is a hawk. Chinnery lists Makanaga (he actually calls it Moga Naga) as a parrot (Ibid). (Lomas 1973, p 54).

These six clans are named, for three of them, after birds that are also associated with Lavongai clans: Valus, Tien, and Ianga. He further notes that: 'Immigrants from the New Hanover area, numerically significant only in two or three villages in the [Kavieng] peninsula, belong primarily to the New Hanover clans Kanai, Kotkot or Tien' and that 'some New Hanover Tien acknowledge a common origin with New Ireland Tien.' (Lomas 1973, p 54).

The German priest Gerhard Peekel lived in New Ireland (Map 1.2) during the early 20th century. He stayed in the village of Lemakot, in the Kara-speaking area of the island, where there are no moieties either. He writes that:

12. See also the monograph adapted from this thesis: Küchler 2002.

> from Kavieng to Tandis exclusively, there is a ten-class system with ten totems of completely equal status. In that area there are no linked totems. In Lemakot, as is the case in other regions, these marriage classes and the corresponding totems are labelled with outdated terms that are difficult to translate. In Lemakot they are called *pa-moko* and *pa-bung*.[T14] (Peekel 1926, p 812).

Peekel then lists the ten 'classes' (*Klassen*) and 'totems' found in Northern New Ireland (Table 2.6). Eight of these have a 'totem bird' that is also associated with a Lavongai clan: *tegom* with Manilava, *iok* with Nguma, *valus* with Valus, *uaia* with Ianga, *vabang* with Vengevenge, *raula* with Kanai, *munungak* with Manilava and *kanai* with Kanai.

Table 2.6: Clan names and associated birds as recorded in the village of Lemakot, in the Kara speaking area of Northern New-Ireland, by the German priest Gerhard Peekel (1926, p 812)

Clan names		Names of totem bird		
Pa-moko form	*Pa-bung* form	Kara	Latin	English
Pa-moko iva	*pa-bung tegom*	*tegom*	*Pandion leucocephalus*	Osprey
Pa-moko kalá	*pa-bung iok*	*iok*	*Pitta macklotti*	Magnificent Thrush
Pa-moko titin	*pa-bung tutut*	*tutut*	*Centropus ateralbus*	Cuckoo
Pa-moko ke	*pa-bung valus*	*valus*	*Carpophaga rubricera*	Pigeon
Pa-moko uáia	*pa-bung uáia*	*uáia*	*Electus pectoralis*	Parrot
Pa-moko máre	*pa-bung vabang*	*vabánga*	*Rhytidoceros plicatus*	Hornbill
Pa-moko rau	*pa-bung raula*	*raula*	*Fregata aquila*	Frigatebird
Pa-moko máf	*pa-bung mangaf*	*mangaf*	*Lorius hypoinochrous*	Lori
Pa-moko munungak	*pa-bung munungak*	*munungak*	*Haliaetus leucogaster*	White-tailed eagle
Pa-moko kanai	*pa-bung kanai*	*kanai*	*Sterna bergei*	Tern

More recently, in the late 1990s and early 2000s, the English anthropologist Graham Were carried out fieldwork in Madina village, a little further south from Lemakot, in the Nalik-speaking area of New Ireland. In his PhD thesis, *Pattern, Thought and the Construction of Knowledge: The Question of the* Kapkap *from New Ireland, Papua New Guinea*, he gives a listing of the clans that were represented during his fieldwork (2003, p 77). This information is very similar to that given, more recently, by a Brazilian Master's student in education science at the Coimbra University in Portugal, Cláudio Da Silva. From September to November 2016 Da Silva carried out a project in the same village of Madina and also in Luaupul, and produced information on these same clans (Da Silva 2017). I summarise the information they both provided on this topic in Table 2.7.

As can be seen from this information, a number of the clans in the Tigak-, Kara- and Nalik-speaking areas of New Ireland have names that are identical or obvious cognates of the Lavongai clan names. Moreover, these are also associated with birds, and some of the identifications that are provided for these birds show that the same species are involved in Lavongai and in Northern New Ireland. Thus, there appears to be a high degree of continuity in social organisation between Lavongai and the neighbouring language groups of New Ireland.

Contrary to the way Lavongai people speak about the social organisation of New Ireland, there are not only 'two birds' in place of their 'many birds', but a variation on the scale at which marriage prohibitions and associations of matrilineal groups with various birds

Table 2.7: Table of clans represented in the Nalik language area, giving their 'attributes' as stated in Were 2003, who writes that they are: 'Taken from the notes of Michael Homerang, the late Nalik *maimaai* [leader]' (2003, p 77), and from Silva 2018 for the names of 'totemic animals', who notes that: 'all the animals are birds, excepted the sea krait that is a snake' (2018, p 4).

Clan name	Attributes	Symbolic animal	English names	Scientific names
Moxomaaraba clan	A sea eagle, it has initiative and is able to produce results from this quality.	*a regaaum*	Eastern osprey	*Pandion cristatus*
Moxokala clan	A small bird of paradise that stays on the ground, this clan is believed to stay in one place but is influential, powerful and visionary.	*a rok*	Red-bellied pitta	*Pitta erythrogaster*
Moxomaaf clan	Named after the parrot, it is a clever bird which finds a way to achieve its goals.	*a mangaaf*	Coconut lorikeet	*Trichoglossus haematodus*
Moxokomade clan	A hornbill, this clan is able to perform difficult tasks well.	*a babanga*	Blyth's hornbill	*Aceros plicatus*
Moxotiring clan	Named after a bird from the seagull family, this clan has learnt the attribute o f patience and how it is used to get results.	*a dau*	Great frigatebird	*Fregata ariel*
Moxonuas clan	Named after a pigeon, this clan is said to appropriate stories from other clans and reshape them.	*a baalus*	Red-knobbed imperial pigeon	*Ducula rubricera*
Moxomunaa clan	Named from the eagle, this clan is said to be powerful and influential.	*a manungulaai*	White-bellied sea eagle	*Haliaeetus leucogaster*
Saraamanges	A snake from the Tabar Islands, not indigenous to the Nalik area.	*a xalawizi*	Sea krait*	*Laticauda* sp.

exist. They appear not to consider the fact—which I do not believe they can altogether be ignorant of—that their neighbours, the Tigak-, Kara-, and Nalik-speaking communities, are organised according to a similar clan structure as their own. In the offlying islands between Lavongai and New Ireland, intermarriage often takes place between people speaking the Tigak and Tungag languages. As I have shown in the previous section (2.1.1), at least one New Ireland clan has been represented as belonging to Lavongai when it suited attempts to adapt clan numbers to a Biblical inclination. Therefore it appears that such discourses on the part of the Lavongai form a more or less intentional effort to set their own social organisation apart from that of their neighbours, in a form of 'ethnogenesis' (Matsuda 2001) or particularisation of their culture. This is a common occurrence in Western Oceania, where the notion of *kastom* (also spelled *kastam*), meaning of customary, traditional, or ritual practice, is central to social lives. Such terminology is both the result of a conscious effort on the part of different societies in this region to set themselves apart from their neighbours, and a form of traditionalism, appealing to 'ways of the ancestors' to legitimise and guide actions in the present (see, for instance, among a vast literature on the subject: Tonkinson 1982; Jolly and Thomas 1992; Otto 1992; Keesing 1993; Schwartz 1993).

2.1.3 Of subclans or local clan segments

Within each of the Lavongai clans, there are various forms of subdivisions. The first, and most salient in day-to-day life, is what I will refer to as the local clan segment: the group of

people from a given clan who reside in the village. The people of Valus clan in Metevoe, and those of Valus clan in, say, Umbukul—although they acknowledge their clan relationship—do not consult their counterparts from the distant village when a matter which is nominally one for the clan arises. Rather, things are usually kept within the confines of the local clan segment. One of those local clan segments is generally said to be more deeply linked to the location in question, and others will be said to have come from elsewhere more recently. While there may, in places, be only one local segment of some smaller clans, this is only rarely the case for larger ones. Otto, using the term 'local section',[13] also noted this in the east of Lavongai:

> Clans are large groups and members of the same clan live in many different villages. The representatives of one clan in a single village constitute a local section of that clan. […] In Lavongai a village normally houses between 4 and 9 local sections of clans. Some of these groups are really small […] The number of […] big local sections of clans in a single village ranges from 1 to 4. (1990, p 3).

A further division of these local clan segments sometimes exists and is related both to ancestry and to historical migration and settlement. These segments fit the definition of a subclan, since they are a unilineal descent group included in another clan, and—like for a clan—members are not able to trace their own genealogy all the way to the ancestress they refer to in the history (which would have made them matrilineages). In practice, to take one example: in Metevoe, clan Nguma has several 'parts', some of which are seen as more 'ancient' in the village than others. People will make distinctions such as: 'these are not the same Nguma as us', or 'we are all Nguma but not from the same place'. Otto writes that:

> The picture becomes slightly more complicated, because a local section of a clan is sometimes subdivided again in two or more named groups. […] The origin of these subgroups is as follows. When the clans migrated to occupy new territory, they sometimes split again in smaller groups each under their own war leader. These sub-groups, which will be called subclans, followed their own route and left groups of people behind in various places. Sometimes two subclans would meet again in the same village. Another obvious reason for the presence of more than one subclan of the same clan in one village is marriage and the subsequent settlement of descendants. (Otto 1990).

In any village, although it may be hard to identify them, the local clan segment usually belong to more that one subclan. In other words, there are several groups of people who claim common descent from an unknown ancestress, and state that the other subclans of the same clan in the area are not descended from that ancestress. Nonetheless, since the subclan in question agrees that this ancestress was herself of that clan, they concur that all are ultimately related.

This intra-clan division may or may not coincide with another, which appears when examining the connection between clans and birds. Each clan is unambiguously associated by name with a bird. However, analysis of the vernacular word for 'clan' (detailed above:

13. I prefer to avoid the term 'section' since it has a specific meaning in anthropology, notably in kinship studies in the Australian context (see Dousset 2011, pp 107–109). This must be specified once again: Lavongai local clan segments are not sections since they do not encompass every member of the clan they are a subdivision of.

Gloss 2.2) points towards the existence of multiple associations between each clan and several birds. Since a clan is referred to by a word that means 'chief bird', one could surmise that *several* birds, rather than a single one, are associated with the social unit which is being referred to.

Moreover, in the table listing the Lavongai clans in Kaad's 1951 patrol report, the column that is labelled 'Totem Name' contains multiple entries for each clan. These are given in detail in Table 2.8.

Table 2.8: Table showing information about the clans of Lavongai, transcribed from Kaad 1951, pp 6–8.

Clan Name (patmani)	Totem Name (in Tungak)	(mani) Pidgin	English
Makanmani	Manilawa Manuanga Tanglik Mar Uneslik Taukik Matuk Orogo Paimani	Tarangau	Fish Hawk
Makankanai	Kanai Waigan Raula Tokokik Wugi Magmagkuwik	Kanai	Seagul
Makanianga	Ianga Suluk Maga Kik Mankuliton	Kalanga	Parrot
Makanbalus	Walus Lugma Walku Walik Tutumbo Kukua Muka Tonkulibebe	Balus	Pigeon
Makangnuma	Gnuma Kol Iok Manikeng Menluai Malikom Kinpula	Kotkot	Crow
Makankiukiu	| Kiukiu | Siavun		Kingfisher

	Kiakia Silia Turik Ragrag		
Makanvegevenge	Bengebenge Sib Mansu	Kokomo	Hornbill
Makansui	Sui Suikunanun Bokol *vokol* Suitogo		Swallow
Makansilau	Silau Pura Wurik Kiau Gaut Siog Kolka Manpukatuk Mankuling Kekei Waluk	Kakaruk Sikau	Fowl (bush) Wallaby
Makantien	Tien Rungrung Udmoso Gaus Tutut Soek		Starling
Makangila	Gila	Malip	Parrakeet
	Uk		
	Korol	Bigmaus	Groper

In this table, each clan is associated with several of what are referred to by the patrol officer, in English, as 'totems'. These are mostly names of birds, except in a few cases where they are names of other types of animals. A few of these words could not be understood by contemporary Tungag speakers, despite me inquiring multiple times. This could be due to them having been improperly transcribed by Kaad, to the terms being from a different dialect than the Southern one of my interlocutors, or to them simply not knowing this particular animal. However, I believe it is safe to conclude nonetheless that all these names refer to animals, even the few unidentified ones.[14]

Another column is labelled *mani* (bird), and is populated with a single entry per clan, that is roughly a translation into Tok Pisin of [bird] in the 'Makan[bird]' clan's name (Kaad writes 'Pidgin' in this column header, which could also be a translation back into English of

14. There will be much more to say about the animals named here and the perception my contemporary interlocutors had of them in subsequent pages, in particular in Chapter 8.

the Tok Pisin word for a bird, any bird: *pisin*). The last column gives English translations of these Tok Pisin terms.

It is interesting to note that in Kaad's table, although Uk—the purportedly 'extinct' clan—is not listed as such (there is no 'Makanuk'), this term is nonetheless present in the 'Totem Name' column. It is placed under clan 'Makangila', separated by a slightly wider space than other totems. The Tungag word *uk* does indeed refer to a bird, several species from the genus of the Fruit-Doves (*Ptilinopus* spp.) The implication in this discrepancy is either that, for Kaad's interlocutors, the *uk* bird was a totem of Makangila, or that its status was uncertain, anomalous, or marginal in some way. This would also be true of *korol*, a fish of the grouper—or in Australian English: 'groper'—family (fam. *Serranidae*), which also stands somewhat separate near the end of the table, not associated to any clan name.

In another context, these 'totems' were said to each be associated with a single subclan. I spoke with a man who had acted as a land mediator, a government-mandated position that seeks to resolve land-related disputes through local mediation. In this context, he had heard several disputes during which people argued their cases through an appeal to them belonging to a given subclan, which he explained to be associated with a bird. He gave me examples as indicated in Table 2.9.

Table 2.9: Table of the birds associated with some Lavongai clans, with their subclans and associated birds as listed by Tauan Som at Angat on 12 February 2022.

Clan Sub-clan	Associated bird
Manilava	generic 'bird of prey'
Manuanga	White-bellied Sea-Eagle (*Haliaeetus leucogaster*)
Mar	Brahminy Kite (*Haliastur indus*)
Tanglik	Osprey (*Pandion haliaetus*)
Valus	'pigeon' family
Valus tun	an unidentified pigeon
Valus isvun	Red-knobbed Imperial-Pigeon (*Ducula rubricera*)
Ianga	'parrot' family
Sinpitak	male, green, Eclectus Parrot (*Eclectus roratus*)
Suluk	female, red, Eclectus Parrot (*Eclectus roratus*)
Siavun / Kikiu	Large kingfisher
Siplik	Bismarck Black Myzomela (*Myzomela pammelaena*)
Kikia	Beach Kingfisher (*Todiramphus saurophagus*)
Sui	Small kingfisher
Sui	New Ireland Dwarf-Kingfisher (*Ceyx mulcatus*)
Sui tivil	Common Kingfisher (*Alcedo atthis*)

In any case, in the region, it is not rare for clans to be associated with multiple species, even when one is regarded as central. These other birds could be called 'secondary totems'; they have also been referred to in the anthropological literature as 'linked totems' (Lang 1909; Seligmann 1909).

Intra-clan divisions also exist that are referred to by names of the form *tus i* [name]. The word *tus* literally means 'breast', and two different interpretations were offered for the 'name' part of these denominations. Some people stated that these names were place names, and indeed, this is what Ton Otto wrote, also considering these divisions to be subclans:

> In Lavongai a subclan is named after a place, where the group once resided. It is called the eye (*mata*) of a clan (in North Lavongai) or the (female) breast (*tus*) of a clan (in South Lavongai) in that particular place. [...] Some of the subclans of the very large Tien clan[15] are, for example, 'Mata i Patituas', 'Mata i Malebang', 'Tus i Venge' and 'Tus i Pakai'. Patituas, Malebang, Venge[16] and Pakai are the names of places. (Otto 1990, p 4, text and note 3).

Others stated that the name is that of a woman who is said to be at the origin of a local clan segment. For example, in Metevoe, Tioputuk, and Meteran, the Valus clan is said to have two subclans referred to as *tus i Molik* and *tus i Molava*, where Molik and Molava are said to be the two daughters of Tangakasang, a woman described as the 'original' Valus.

Another example was given in a different land-mediation case, based in Tioputuk and which I was told about in Metevoe. In this, the Vengevenge clan was said to have three local segments named after places: *Kolongorangamut*, *Makanmenengitongong*[17] and *Paputukan*. These were further said to qualify how the clan segment had 'walked' after its initial division: *Kolongorangamut* means 'to wait and listen for the slit drum', and this segment was said to have stayed in the original village. *Makanmenengitongong* means 'person/creature of the changing mangrove leaf', and was said to have settled near a mangrove. Finally, *Paputukan* means 'who walks over/across' and this segment was said to have walked over the island to some distant location.

2.1.4 On the contentious nature of intraclan divisions

Despite all this evidence supporting the existence of what appears to fit the definition of subclans, on numerous occasions and with different interlocutors, when I asked questions about named divisions within clans, or indeed, when I attempted to raise any discussion of intraclan structures, I was met with forceful criticism. People insisted that such subdivisions were a self-serving distortion of the island's 'true' organisation on the part of whoever had suggested their existence. The arguments in support of the absence of such divisions

15. The village book data I obtained suggests that Tien represents only the fourth most populous Lavongai clan, with only 10.6% of entries associated with this clan, whereas 19.9% were associated with Nguma, 14.3% with Kikiu and 14.1% with Manilava.

16. Venge is the name of a bird, Blyth's Hornbill, and also that of a clan associated with this bird. None of my interlocutors knew of a place named Venge however so this would stand as an exception to Otto's account of the naming of subclans.

17. Although my interlocutors insisted these were place names, Makan- is a common prefix of female names. See Gloss 2.4.

centred around references to the foundational story of Rinaiatukul. They stated that all inhabitants of the island come from *sikei palau a um ur*: 'a single banana shoot'. By this metaphor, they mean that, despite being spread out over their island and broken up into several clans, they do, nonetheless, retain common ancestry, just as most plants they grow which are spread from one garden to the next by transporting a shoot remain, in their mind, of one 'flesh'. They therefore held that the only legitimate division of the island's population is the clan and stated that any attempt to designate other subdivisions was invalid, be that by a name such as 'Valus 1' and 'Valus 2', by bird names, or designations of the form *tus i* [name]. Otto also noted such resistance to the notion of subclans:

> a local section of a clan is sometimes subdivided again in two or more named groups. Those groups appear, in particular, when there are opposing or different claims on land. For this reason there is sometimes resistance to identifying the subgroups, because people fear that it might divide the local clan group. (1990, p 4).

These same people who refused any *papagal* (sharing, division) within the clans on such grounds did not however deny the reality of certain pragmatic distinctions in their midst. In particular, they did acknowledge that in the context of land-tenure decision-making (to which I will return in more detail very soon, Sub-section 2.3.3), specific clan members who had historical precedence occupying an area held greater weight than more recently arrived individuals of the same clan. They maintained, however, that this kind of division *should not be* associated with any other name than that of the clan.

What therefore becomes apparent in this discussion is that the issue of the social organisation of the island's population is a highly ideological and political one. Those who designate local clan-segments with various names may indeed be attempting to isolate that segment in order to associate it with what they claim to be an older and therefore more legitimate history of migration or land settlement, and perhaps gain the upper hand in disputes from which they stand to gain financially or materially. Conversely, those who push back against the evident existence of subclan-type distinctions, and respond with the story of Rinaiatukul, are effecting a reunification of the island's population, and striving to prevent division.[18]

The narrative of Rinaiatukul implies that the people of the island are, initially, all one group. It makes the distinction into clans legitimate or even necessary (to avoid incest), while not allowing each clan's own interests to predominate since all are 'one people'. This is because the story of Rinaiatukul is that of the 'single origin' of the island's people: the clan-based organisation is presented as a compromise; there was a 'bad' situation (incestuous relations) and in order to resolve it while keeping the unity of the island, some divisions needed to be created. The clans which resulted were exogamous by definition, but intermarriage maintained unifying bonds between them. Were it not for this story of Rinaiatukul, a tendency towards segmentation might have broken the population into various 'peoples' generations ago. This is a tendency which is suggested in particular by the strong dichotomy that people describe between 'coastal' and 'inland' populations (more on

18. Similar conflicting arguments hinging on the scale at which unity or division should operate have been noted elsewhere in Papua New Guinea, for example by Martin (2009), Dwyer and Minnegal (2018), and Leaver and Martin (2018).

this in the following chapter, on page 157), by the various dialects that exist in the Tungag language (see page 27), by the propensity that people show to join ever more numerous religious denominations (see page 44), or by the number of separate political groups that form and resorb at each election period. It can also be brought into perspective with the tendency Lavongai people have to set themselves apart from New Irelanders, as I showed above regarding how many 'birds' they consider them to 'have', despite clear continuities with their own social organisation.

2.2 Outline of Lavongai kinship

Thus far, I have elaborated on the way that Lavongai society is organised on a 'macroscopic' level, that of the clans and subdivisions within them that seem to exist with various degrees of contention. In order to move on from this level of analysis into a more detailed, fine-grained discussion of how individuals relate with each other, we must attend to the interpersonal manifestations of the social organisation. For clan membership is not just a token: because the clans are exogamous, because membership is matrilineal and cannot be changed throughout life (even following adoption), the clan which somebody belongs to is a central factor in determining the way they behave towards others.

2.2.1 Kinship terminology

The kinship terminology in use on Lavongai, as in much of New Ireland Province and Papua New Guinea, is of the Iroquois type. Its main feature is that father, and father's brother are referred to by a single term, *tamag*, which is different from the term for mother's brother, *labag*, and so too are mother and mother's sisters: *rinag*, where the term from father's sister differs: *kag manai*. Another related feature of such an Iroquois terminology is the fact that it distinguishes between parallel-cousins, who are classed as siblings, and cross-cousins for whom a different term is used (*magaug* or *ingag* depending on the relative-sex relation).

The full set of kinship terms is given in Appendix E. [19] All kinship terms which I discuss here are given in the first person singular form by convention, since the kinship terminology in Tungag uses nouns that require a possessive form. For a sentence to be grammatical with such a term, it must be adapted for the interlocutor, for example 'my mother' is *rinag*, whereas 'your mother' is *rinam*; 'my same sex sibling' is *tasig* whereas 'the same sex sibling of these two people' is *tasirilong*; but in each case I write *rinag* and *tasig*.

A few general remarks can be made concerning this terminology. One notable feature is its almost exclusive use of self-reciprocal terms, meaning one that fulfils the following condition: if person A refers to person B by an self-reciprocal term, then person B will refer to person A by the same term. The only exceptions are *tamag* (father), *rinag* (mother), *kag nat* (son), *kag kavulik* (daughter). Even where the reference terms are not self-reciprocal,

19. In particular, the reader is encouraged to read the following text while consulting the diagrams in Figures E.3 and E.4 for consanguineous relations, and Figures E.1 and E.2 for affinal ones where necessary. More detail on the exact meaning of each term in also given in this same Appendix E in a series of tables.

there always exists an address term which is. Whereas sister's son is *tipasig* and mother's brother is *labag*, both can also use the address term *kakai* which is self-reciprocal. Father is *tamag*, son is *kag nat*, and daughter is *kag kavulik*, however a father can also be addressed as *mamai* (an term that is rarely used now) or by the more recent loanword *papa*, and these terms are self-reciprocal since a father can call his children *papa*. Likewise, mother is referred to as *rinag* and this is not self-reciprocal, but the address term *nana* is, and a mother may call her children *nana*.

Another notable feature of the terminology is the presence of terms predicated on the relative sex of the speaker and the person referred to. One such term for example is *tasig*, 'same-sex sibling'. A woman speaking of her sister refers to her as *tasig* and so too does a man referring to his brother. On the contrary, *taug* is the opposite-sex sibling and will be used by a man speaking of his sister or a woman speaking of her brother. Bother *tasig* and *taug* are therefore relative-sex kinship terms.

The Tungag kinship terminology comprises a large share of relative-sex terms, which in itself is a relatively rare feature, known from only a few languages. Other terms are predicated on absolute-sex, and are used specifically for one sex and never for the other, for example *tamag* (father), *rinag* (mother), *kag nat* (son), *kag kavulik* (daughter). And finally, other terms can refer to members of either sex, for example *tivug* (grand-parent or grand-child), and *kag manai* (father's sister, and child of brother for a female speaker).

In Table 2.10, counts of the kinship terms broken down by relative-, absolute- and indifferent-sex are given, along with a count of which generations they concern. Since many terms are autoreciprocal, it is not possible to give detailed counts of which terms are used for relatives in generations N+1 or N-1, and similarly with the only term used between N+2 and N-2 relatives (grand-parents and grand children, all *tivug*).

What can be noted from an overview of these properties of the terminology is that all seven of the relative-sex terms are used between people who are of the same generation: siblings, cousins, spouse, siblings of spouse, and siblings of sibling's spouse. The absolute-sex terms are more often used (6 out of 8) for cross-generational terms with members of generations N+1 or N-1, as are almost all the indeterminate terms (5 of 6). From a search of the literature, it appears that there has been only one edited volume specifically concerned with relative-sex kinship terms, the French language *Sexe relatif ou sexe absolu ? De la distinction de sexe dans les sociétés* (Relative sex or absolute sex? On sex-distinction in societies, Alès and Barraud 2001). This book presents contributions from 11 authors, whose work is mostly focused in Oceania and Southeast Asia, with just one contribution concerning a South American society. Three societies from Western Oceania that have relative-sex terms are described: the Orokaiva of Oro Province in mainland Papua New Guinea, discussed in chapter 8 by Éric Schwimmer and chapter 9 by André Iteanu, the 'Aré'aré and Mono-Alu of the Solomon Islands, discussed in chapter 10 by Denis Monnerie. A long and detailed introduction by one of the editors, Catherine Alès, followed by an in depth analysis of the question of sex distinction in society by the other, Céline Barraud, put the book's topic into perspective with the anthropological issues of the times, in particular those relating to gender inequality.

None of the Tungag kinship terms make any use neither of relative nor absolute age. It appears that one such case used to exist but has been lost. Indeed, there are two words for

'same-sex sibling' in Tungag: one is *tungag* (which gives its name to the language), the other is *tasig*. These two words are clear cognates of others which are used to contrast relative age of the speaker and the person referred to in Oceanic languages: 'a common pattern [in Oceanic languages] is [...] where s.s. [same-sex] siblings are divided into those elder (*tua-*) or younger (*tari-*)' (Ross and Marck 2023, p 63). With their first person possessive suffixes, *-g*, the Tungag words fit this distinction, with *tunga-* stemming from the *tua-* reconstruction and *tasi-* the *tari-* one. However, the fact is that nowadays, in Tungag, no difference is made between these two terms, which are used as perfect synonyms: the same two people will refer to each other and address each other in one sentence with *tasig* and in the next with *tungag*. From this, I conclude that the distinction may have once existed in Tungag, just as it does in the reconstructed Proto-Oceanic described by linguists, but that it has been abandoned. Socially, this matches the fact that although older people are considered with some respect, being a relatively older sibling in a group of pairs does not give one any particular social distinction, a fact which Billings also observed (1981, pp 756–757).

Table 2.10: Counts of kinship terms (synonyms are counted only once) that are absolute-sex, relative-sex, or indeterminate-sex in Tungag.

Type	Count	Gen. 0	Gen. n+1 / n-1	Gen. n+2 / n-2
Absolute	8	2	6	0
- Male	(5)	(1)	(4)	(0)
- Female	(3)	(1)	(2)	(0)
Relative	7	7	0	0
Indeterminate	6	0	5	1
Total	21	9	11	1

2.2.2 Behaviour entailed by specific relations

A number of specific kinship relations are the object of prescribed behaviour. Almost every kinship relation is conceived of by Lavongai people as being associated with forms of behaviour that are considered appropriate, or with restrictions on behaviour. The only ones that have no restrictions nor prescriptions are all the relations of the nuclear family, extended to classificatory kin: all parent-child relations ('father': *tamag*, 'mother': *rinag*, 'son': *kag nat* and 'daughter' *kag kavulik*) and the same-sex sibling relation (*tasig*).

It must be noted that actual adherence to any form of 'desirable' behaviour varies dependent on many factors. First and foremost among these is the proximity of the people involved along a scale from genealogical to classificatory. For example, for a man, both his brother's wife (BW[20]) and same-sex parallel-cousin's wife (FBSW, or MZSW) are called *angtuaig*, as they are the wife of a same-sex sibling (*tasig*), and hence, in discourse,

20. Several abbreviations are used in the following pages, these have the standard meaning in kinship studies of: M=mother, F=father, S=son, D=daughter, Z=sister, B=brother, C=child, P=parent, W=wife, and

people will insist that the prescribed attitude is the same (one which I will describe in detail below). However, in effect, the behaviour will not be the same towards these two relatives, with much stronger adherence towards the 'true' brother's wife, than towards' the wife of the 'more distant' parallel-cousin.

The second factor is relative age: when a relationship is cross-generational, but the members are of a very similar age, they will rarely apply the prescribed behaviour as strictly as they would if they had had more divergent ages. Conversely, when a relationship between people of the same generation entails a prescribed behaviour, but they are of very different ages, they will not be very observant of the prescriptions.

A third aspect that causes variation in the level of adherence to prescribed conduct is their proximity during childhood. Among children no strong prescriptions are enforced by parents between any type of kin, and therefore where people have grown up enjoying a certain proximity, they may conserve it into adulthood even when the relation they are in prescribes less familiarity (something which Billings also noticed: 1981, p 872).

Prelude: on being polite when speaking Tungag

The most common word involved in 'politeness' in Tungag is *kalaro* or *kala ro*, literally 'it is good', meaning: 'that is OK', 'that is good', 'well', 'fine'. This is used in affirmative responses to state agreement, satisfaction, and express thankfulness. It can sometimes be translated directly as 'thank you' in English. There are also a number of stereotypical formulaic constructions which are used when making a request to do so in a respectful way. However, by far the most important aspect of producing a polite formulation is referring properly to people. Calling somebody by their name is, generally speaking, impolite. This is known as *posodek*, from *posong*, 'to name, to pronounce', and *dek* 'split, cut'. The correct way to refer to somebody is to make adequate use of a kinship term. The following examples give some notion of how this should be done:

(2.7) (a) *Tasi-g, me tapai* (Polite)
same.sex.sibling-1SG.POSS MTW for.now

'My brother, come here for a second'

(b) *Laimen, me tapai tasi-g* (Acceptable)
Laimen MTW for.now same.sex.sibling-1SG.POSS

'Laimen, come here for a second my brother'

(c) *Laimen, me tapai* (Impolite)
Laimen MTW for.now

'Laimen, come here for a second'

One should use 2.7 a, rather than 2.7 c which is *very rude*, but 2.7 b remains an acceptable compromise. When referring to a third person, Tungag speakers will typically resort to the appropriate kinship term used by their interlocutor for this other person, marked for second person singular possession:

H=husband. I also use the lowercase specifiers: ms=man speaking, ws=woman speaking, ss=same-sex, and os=opposite-sex.

(2.8) (a) *Ka-m* *nat* *ka-te* *maiak* (Polite)
POSS-2SG.POSS son 3SG-CONT fish
'Your son is fishing'

(b) *Tipasi-g* *ka-te* *maiak* (Acceptable)
sister's.son-1SG.POSS 3SG-CONT fish
'My nephew is fishing'

(c) *Hubert* *ka-te* *maiak* (Impolite)
Hubert 3SG-CONT fish
'Hubert is fishing'

Here, the logic is that one should use a third person referent kinship term, such as that in 2.8 a, rather than a first person referent kinship term such as that in 2.8 b, but both of these are better than using the proper name as in 2.8 c.

In Papua New Guinea, before the advent of colonial administrations, people generally did not have a 'family name'. When censuses began, in order to disambiguate between individuals who had the same names, *ad hoc* 'surnames' or 'family names' were created. In some areas, people of a given clan were all given surnames that were based on their clan's name; in others, people were given their father's name as a surname. The latter is what appears to have been chosen on Lavongai, although it is applied with considerable flexibility, a characteristic that is displayed by naming practices in general on the island. Likewise, women who marry tend to switch their 'surname' from the given name of their father to that of their husband.

Indeed, people often use different names throughout their lives, and it is common for several adults to name a child, only for time and common practice to eventually make one name more prominent than another, while never entirely effacing the first. All the people I spoke to or who were listed to me by their parents or siblings during the village-wide survey I conducted, have several names. A common number is three: one has been given by a parent at birth and was elective on their part; another is the name of a specific grandparent or maternal uncle which the child had been 'named after'; the third is the baptism name. Some Roman Catholics have yet another name given during their confirmation ceremony.

Regarding the second type of name, which people refer to as the *asan i rina*, the 'home name' or 'village name', this is frequently the result of the practice of *posong afok*, 're-naming' a newborn child with the name of a deceased person. For a girl, this is usually a maternal grandmother or mother, and for a boy a mother's brother or a maternal grandfather. The noun *asa-*, suffixed with a possession marker, can be used to refer to a person for which one has been named, for example: *Labag kate asag*, 'I bear the name of my mother's brother' (literally 'my mother's brother is my own name'). Many village names are also humorous in nature and refer to a behaviour or trait that somebody is considered to have. However, these names do not refer to the bearer, but rather to somebody else, and they are given to the child as a way to tease this other person (often the child's father or mother).[21]

21. For example, there is a woman in Metevoe named Nguramerica, which literally means 'America-mouth' and is intended to signify 'Person who always talks about America'. However, this is not because *she* was the

In any case, not calling a person by their given name—by any of them—is a practice that relates in complex ways to fears of sorcery. Fishing gives a particularly good illustration of this. Lavongai people say that if a person pronounces the personal name of somebody who is at sea fishing, then fish which he was about to catch, for example that had just taken the bait and was being reeled in, will break loose. Calling the name of a deceased clansman, known as *singai*, is also a way to 'curse' or 'bespell' in a negative manner somebody's undertaking, be it fishing or any other (this type of practice will be analysed in Section 6.4).

This practice also has a tendency to make kinship ties remain perceptible during all interactions (at least verbal ones), and makes it virtually indispensable to know what relation one is in with all interlocutors for a conversation to be possible.

Relations between *taug*: opposite-sex sibling

Several New Ireland societies appear to have strong rules regarding the brother-sister relationship (and its classificatory equivalent, opposite-sex parallel-cousin). Tigak-speakers of the Kavieng area (Lomas 1973, pp 143–144) as well as the Notsi-speaking people of Lesu village (also Losu or Lossu, see Map 1.2) practice avoidance between brothers and sisters—genealogical and classificatory alike (Powdermaker 1933, p 56). Among the Nalik-speakers of Madina, Graham Were states that the brother-sister relationship entails respect and lists a number of avoidance practices: physical distancing, not be seen laying down by the other, no mention of sexual relations in their presence (Were 2003, p 92). In the village of Mangai, in the southern part of the Tigak language area Billings also noted a strong brother-sister avoidance (1981, p 142).

In Lavongai, on the contrary, there does not appear to be any form of opposite-sex sibling (*taug*) avoidance. Brothers and sisters can and often do enjoy close and casual relations. During my stay in Metevoe, Elbi, the sister of my host Laimen, often visited from Angat in West Lavongai where she lives. She would always stay with her two other brothers, Melis and Bossimirik when she did, and practised no form of avoidance that I could notice.

Avoidance: *magaug* and *angtuaig*

The first person singular reference term for an opposite-sex cross-cousin is *magaug* (also reduplicated to *magmagaug*) or shortened by dropping the possessive suffix to *maga*.[22] More rarely, an old term which people understand but almost never use is mentioned:

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one 'always talking about America'; she received this humorous name before she could talk. It was her father, Lapansilputuk, who was an active member of TIA (see Sub-section 1.2.6) and spoke often of the organisation and the power of America, to the point that somebody got annoyed of this behaviour and started to call his daughter 'Nguramerica' to tease him. This nickname born out of a joke remained, and this woman still uses it as her true name to this day, sometimes shortening it as Ngurami.

22. The term for a same-sex cross-cousin is *ingag*, which is not often used either, see page 104. There is a tendency to refer to people who are one's *ingag* as *magaug*, thus effacing the relative-sex aspect of the relation and emphasising instead the fact of its 'crossness' (as opposed to parallel-cousins classed with siblings).

onongog.[23] All these terms are self-reciprocal, but are not commonly heard at all. Although they are also address terms, they are absolutely never used to address such a person, since they are the subject of a highly significant avoidance rule.

Avoidance between *magaug* is the prescribed behaviours between kin which is adhered to the most stringently on Lavongai. The rules of avoidance mean that when a woman wishes to walk within view of her *magaug*, she must wait for somebody to signal her presence, then for him to stand up, before passing far away. The essence of this obligation is that she should be walking 'beneath' him, and some women will also crouch as they pass by, and cover their heads. This practice of head-covering may be related to what is considered a 'traditional' women's head-wear on Lavongai: the *kapil* (as previously described on page 35). On this topic, Parkinson also writes that:

> Girls [...] [when they] get married [...] come under the hood. This is no metaphorical expression, since all married women, after their wedding put on a hood, *gogo*, made from pandanus leaves, which bears a distant resemblance to the old Prussian grenadier cap. This cap is always worn in the presence of men, and is taken off only when the woman knows that she is not observed. They are not very careful in the presence of boys and striplings, but etiquette requires that on the approach of an older, married man the *gogo* is immediately donned. This practice was introduced from New Hanover and has spread over a large part of northern New Ireland. In the [*malanggan*] wood carvings mentioned later, we find the female figures frequently wearing the *gogo*, a sign that that carving had been produced in honour of a dead wife. (Parkinson 1990, p 208).

This practice is in sum the same one which is still observed in 'shameful' situations nowadays: adult, married women cover their head in respect of their in-laws and opposite-sex cross-cousins.

Many prohibitions on use of space and the occupation of living arrangements bear on opposite-sex cross-cousins. A woman may not enter the house of her male cross-cousin. She will not even go up into a house built on piles if he has worked at its construction in any way, as this would equate to 'walking on him' metaphorically by stepping on his construction. She will not accept food from him nor share food from the same 'bundle'. She will not touch his personal possessions.

How this avoidance should be interpreted is uncertain. The most tempting conclusion would be that it is tied to the potential status of cross-cousins as marriage partners, as such prohibitions often are. Billings also made this inference: 'Since the avoidance obligation is much stronger between persons of opposite sex and of about the same age than between persons of same sex and great age difference; and since it usually becomes lighter with age, there must be a mating component motivating behavior.' (Billings 1981, p 858). Indeed, the same-sex cross-cousin, in particular, for a man, the daughter of father's sister or the daughter or mother's brother, is the closest person who is not of ego's clan. If the only rules governing marriage were those of clan exogamy, then this person might be a prescribed spouse, despite being 'genealogically' close. However, the overwhelming majority of my interlocutors stated that Lavongai people cannot and never have been able to marry their *magaug*.

23. I was given no explanation as to why this terms has fallen into disuse despite still being known. This may be related to the facts of avoidance towards opposite-sex cross-cousins, as discussed here.

Another relationship that is the subject of avoidance is that referred to with the term *angtuaig*: spouse of same-sex sibling or, reciprocally, same-sex sibling of spouse; in other words the 'brother-in-law' to 'sister-in-law' relation (ms: BW, ws: HB), extended to classificatory siblings also. It is associated with very strong avoidance, phrased as 'shame' or 'respect' (*mamaila*), with a pattern of behaviour that is identical to that between opposite-sex cross-cousins.

The fact that both these relations, opposite-sex cross-cousin and same-sex sibling's spouse, are the subject of similar avoidance cannot be simply regarded as fortuitous. It, once again, suggests there is a strong link between cross-cousins and potential spouse (more on this shortly Sub-section 2.2.3).

Some situations require that the avoidance rules involving *magaug* and *angtuaig* be 'broken', as it were, since such relatives are forced to utilise common spaces and be near each other on occasion. This requires that one 'buys back the shame' caused in these occasions, which takes the form of a token payment and occasionally of more formal ceremonies. I witnessed an example of this when a group of men from Metevoe, Tioputuk, Baikep, and Tovotokalas worked together on the old run-down Metevoe aid post in order to prepare it for the arrival of a new health worker. This aid post was erected in the 1990s, out of a standard pre-build wooden structure bolted onto raised steel posts. Since it was placed near the shore on sandy ground, some of the posts had rusted, and in order to stabilise them it was decided that their base should be encased in concrete. A group of men therefore worked for several hours under the aid post. After this, the health worker arrived, and started dispensing medical care, but there was a problem: the women who had seen their *magaug* or *angtuaig* working under the aid post refused to come up onto the elevated building. They were ashamed, respectful, *mamaila*, they said, because their *magaug* and *angtuaig* had crawled under the house, and therefore they could not go onto it.

In order to compensate for this shame, and make the aid post usable again for these women, a ceremony was performed on 2 May 2022. One cooked pig, five bundles of raw taro, and three packs of cooked taro and sweet potato were ceremoniously presented to the men who had worked under the house. Although from one perspective, it may have been expected that the men would have compensated the women, the local way of explaining this practice was to state the women are 'buying back their shame' (*samui mamaila*). Kolmaris, an elder Nguma man from Neitalangus, Lumaias, and Lamis from Tovotokalas all made speeches in which they explained that this ceremony was performed 'by the women', for the benefit of their male relatives who had worked on the aid post. Lumaias phrased this quite explicitly despite the characteristically euphemistic formulation:

> Yes, there is no big talk, or this is not a big thing. But the few women here, that's all, they have made these bundles of sweet potato to come and eat with their, their fathers, or their brothers, or whatever name it is, right. Properly, like, because they [the men] bent over under that building over there, to pour cement for those posts over there, that's all ah… Their packs of sweet potato indeed, which these women have made just to come and eat with their brother's and their father's and whatever names, before they go up, so they… Can be up on the… So they can go and get medicine high up [on the building under which the men worked].[T15] (Lumaias, 2 May 2023).

The reason these women wished to perform this ceremony had been stated by them publicly prior to it being organised: this was to 'buy off the shame' cause specifically by the fact their *magaug* (male cross-cousins) and *angtuaig* (brothers-in-law) had worked there. However, Lumaias, hesitantly, mentions only 'their fathers, or their brothers, or whatever name it is'. These two specifically named relations are not the subject of any particular avoidance on Lavongai. The fact that he did not mention the exact relations in question, choosing instead a vague allusion to other relations, of 'whatever name', can be explained by the fact that the terms themselves used to refer to the relationships subject to avoidance (*magaug* and *angtuaig*) are covered by this avoidance. They are very seldom used, certainly never so in public speeches. A common euphemism for *magaug* is *mamaila*, the word itself that designates the shame or respect that is the desirable behaviour to show towards one's opposite-sex cross-cousin, as in the following example:

(2.9) *Aina* *ang* *ka-te* *ka-g* *mamaila.*
woman DEF.POST 3SG-CONT POSS-1SG respect
'The woman in question is my "shame" [ie opposite-sex cross-cousin].'

The ceremony continued with the presentation of one string of *inangun* (shell money) and K 27 cash money which the women had raised for the occasion. There was a scramble as to who should receive these gifts, and ultimately, I was pushed forward and given the valuables since I had indeed taken part in the work under the aid post and was considered to be a suitable representative of the group of men.[24] After this, the aid post was considered accessible to the women; their 'shame' had been adequately 'bought', compensated for.

What this shows is that it is possible for an exchange of 'wealth', notably highly significant foods such as pig and taro, to effect an erasure of the feelings of shame or respect that are involved by these avoidance rules between *magaug* or *angtuaig*. This is characteristic of the region's way of organising social life through the interdependent circulation of people (in marriage or birth), nurture (through feeding, and care for children and relatives), and foodstuff (during ceremonial exchange) (Clay 1977; Foster 1990; M Strathern 2014; Bonnemère 2018).

Joking: *ingag*, *kag tamai*, and *iag*

The relation between same-sex cross-cousins, *ingag* (ssFZC, ssMBC), entails a mild form of joking. People say that one cannot ask anything of one's *ingag*, not so much because it is wrong to ask, but rather because the other person should be attentive to what his or her *ingag* needs, and provide it spontaneously. Should an intermediary (a child for example) be told to ask on one's behalf, then the *ingag* would have no choice but to grant the request.

Billings tells of older men who recounted that in the past, same-sex cross-cousins could not engage in combat when they found each other on opposing sides during warfare.[25]

24. In order to avoid any dispute around its destination, this money was immediately put towards buying sugar and coffee which we sat and shared late into the afternoon.

25. Billings recounts these war stories using the term *magaug*, since she did not record *ingag*, which is relatively unsurprising because Tungag speakers themselves often do not use this, preferring *magaug*, when they do not avoid the word altogether. It appears obvious however that she is indeed referring to *ingag*,

She also reports that, if his *ingag* was inside a war canoe, then it was impossible for a man to attack it (Billings 1981, pp 851–852).

It is also primarily towards *ingag* that the ritualised public joking of *leir* or *kurek* is directed, in particular between women. Since this also concerns *tamai* I will treat both relations together here.

The self-reciprocal term *kag tamai* is only spoken by men, and refers to a married man's wife's brother, or conversely to his sister's husband. The analogous term as spoken by a woman is *iag*: husband's sister, or brother's wife (as usual, these can be extended to the husbands and wives of classificatory siblings). These 'in-law' type relations can be relatively close and affectionate. They are usually laden with a polite reserve and a degree of respect, but not avoidance.

In at least one situation, a man puts considerable social pressure on his *tamai* (sister's husband): this is during feasts organised for funerary proceedings, when a parent of this sister and man has died. If one of my brothers dies while married—especially if he raised children—then the brothers of my brother's wife, my *tamai*, are expected to rise to the challenge of assisting me and my sister (their deceased brother's widow) in gathering food and other required necessities for such a feast. This became apparent on one occasion when I unwittingly caused a minor outrage during a funerary wake (*para*, see Sub-section 4.3.1).

Goman is a man of approximately my age from Lavongai village, who often works with John Aini under the guise of Ailan Awareness, and whom I met in Kaselok early during my first visit to Papua New Guinea. He had always been very helpful, accompanying me into Kavieng when I needed to go there, and assisting me with my work. I learned that his mother had died while I was in Kavieng, and wishing to be helpful to him. I asked other people what would be a good way to contribute, and was told that I should buy some rice, sugar, coffee, and other foodstuff and give them to Goman as a contribution for the inevitable upcoming feasts. With Laimen, we loaded several 20 kg bags of rice, a 10 kg bail of sugar packs, and several cartons of assorted food onto a boat which we were paying to be passengers on, and departed Kavieng for Metevoe at sunset. When travelling to Metevoe from Kavieng, boats pass Lavongai village, where Goman lives. I therefore asked the boat operator if we could call into Lavongai to drop off the gift of food.

We arrived around sunset to find a large crowd of mourners gathered around Goman's mother's body. He greeted us, and we presented our sympathies then unloaded the food. I expected the gift to go silently, but as soon as it was noticed, Haegar—a frequent and eloquent public speaker—stepped forth, and asked for everybody's attention. He then announced loudly that I had arrived and made gifts which he carefully enumerated, down to the last packet of instant coffee and tin of processed fish, before asking me to stand up so he could shake my hand, following which many other family members of the deceased lady also did. Shortly thereafter, Ladi, another charismatic orator from Lavongai spoke up, angrily this time. 'Where are the *tamai*?' he asked, in a damning tone. 'How is it that this white man knows our customs better than you do? Do you forget who you have married?' He was exaggerating for the *tamai* were present and they knew full well their

same-sex cross-cousins, as warfare was, and—when armed conflict does occur in modern times—still is a distinctly masculine activity.

customary obligations; they knew who were their allied relatives. Several of Goman's father's clansmen came forth, placed large gifts of pig, taro, and other food on the ground and made speeches to explain that this food was a contribution, that it was free, requiring no 'return gift', and also accompanying it with shell money.

This event highlighted quite clearly what I may expect, as a man, from my *tamai* if one of my brothers (or more generally clansmen, as classificatory brothers) dies: they must contribute generously and ostensibly to the preparations for the funerary feasts by giving gifts to the grieving husbands of their clanswomen. It is also a reminder of how in this region, a gift may be taken as a challenge, as a form of 'agonistic' offering, similarly to that which Marcel Mauss famously referred to (1954, pp 4–5). This is demonstrated by the indignant speech made by Ladi when I inadvertently made the first gift at Goman's mother's funeral wake. The flurry of activity on the part of those who were expected to be the most generous givers showed that each gift drew out another, in a slight but definite competitive spirit.

The practice of *leir* or *kurek* is related to both the *ingag* and the *tamai* or *iag* relationships. The word *kurek* is a general one that means 'tease', 'joke', or 'play a practical joke on somebody'. The other, *leir*, is more specific, and refers to a particular set of practices that are sometimes observed during feasts held in the context of funerary rites.

When a feast is finishing, remains from the food preparation are left, including the plant leaves used to make bundles of food (*kurip*) for cooking, and other leaves that are used to eat upon (*ngapat*). These must be cleared away by the people who are *polok* or *osongon* to the principal clan organising the feast, meaning, respectively those who are 'brought up by' or 'married to' somebody from that clan. For instance, if a Silau clansman has died, the feasts that take place during the funerary cycle will mainly be organised by Silau clanspeople: the brothers and *labag* (mother's brother) of the deceased. Those whose father was a Silau, or who have married a Silau are expected to contribute, to 'help' (*pakangai*), but they are not the organisers. And ultimately, they must also clean up the remains. As they do so, the occasion is ripe for *leir*: people from the organising clan chase after these *polok* and *osongon*, usually their *ingag* (same-sex cross-cousin) or *tamai* (ms: wife's brother or sister's husband) or *iag* (ws: husband's sister or brother's wife). They attempt to rub 'dirty' remains of food packaging on them, pig fat, or spray them with lime powder.[26]

Several men in Metevoe said that they had recently made a strong rule that such practices should be banned or at least remain reasonably 'calm'. This was considered necessary because some past forms of *leir* had been 'bad', too violent, and led to actual fights. In practice, I did observe this being done at practically every feast, so if this rule has had any effect, it is maybe to keep the joking more sedate, but definitely not to prevent it.

What people explained regarding *leir* is that the 'performance' of the *tamai* (ms: brother's wife and wife's brother) was judged in order to decide who would be the victim of the taunting. Anybody who was deemed not to have met their obligations in terms of assistance

26. This is used in the chewing of betel, see page 65.

towards the preparations of the feast would be a prime target of grease-spreading or beating with irritant plants (such as *ilas*, an unidentified stinging herbaceous plant).[27]

This practice tends to bring out a very clear 'us and them' dichotomy on festive occasions between the members of a clan and those who are *polok* ('brought up by', ie father's clan) or *osongon* ('married to') that clan. In the following pages, I will analyse this phenomenon I refer to as a 'quasi-dualist' structure in more detail. Although it evokes the moieties of Central and Southern New Ireland (Sub-section 2.1.2), it is not institutionalised by such a named dual partition, but rather contingent and multifocal, while still presenting a dual character. The pivot around which it centres is alliance, since in both cases, the articulation between a person's clan and that of their father, or between a person's clan and that of their spouse is such an alliance. In order to approach this 'quasi-dualist' structure I will therefore now turn to a presentation and analysis of this institution of marriage known in Tungag as *osongon*.

2.2.3 Clan membership and marriage

As in all societies, the concept of marriage—*osongon*—is central to the clan organisation of Lavongai, and more generally to all social life. The actual ritual and ceremonial proceedings involved will be described in more detail in the chapter concerning the life cycle (in Section 4.2), however, here I wish to analyse the importance that the institution has for the social structure more generally, by attending to the question: 'who marries who?'

Billings writes that in the past people used to marry their cross-cousins (Billings 1981, p 852). This is also something I was told once, by a single old man in Metevoe. However many other people, of all ages and genders, forcefully denied this was ever the case. It is probably more significant than such isolated statements that neither I nor Billings found any trace, even in rather ancient genealogies, of people marrying their cross-cousins on Lavongai. My own analysis is based on a dataset of 1035 individuals, comprising 263 unions of which 246 were recorded as 'marriages', and was carried out with the assistance of PUCK (the Program for the use and computation of kinship data, see `https://kintip.net/`; see also Hamberger, Houseman, and Douglas 2011). This showed that none of the unions I recorded were between cross-cousins, not even those considered 'extra-marital'. According to ethnographies of northern New Ireland, cross-cousin marriage was prohibited almost everywhere. Edward Chinnery who was appointed 'Government Anthropologist' in the early British colonial period, and who carried out a relatively short but extremely detailed and attentive anthropological survey of New Ireland, summarises the situation in the following way:

> Marriage is regulated by the clan system, that is to say, a man must marry out of his own clan. It is regulated still further by kinship. In most of the villages, marriage with the father's sister's

27. Although I produced a herbarium when I was in Lavongai, I lacked training and experience in this process and did not account for the very high level of humidity that prevailed during my prolonged stay in Metevoe. For this reason, the plants unfortunately were not preserved in a satisfactory manner and the entire herbarium had to be destroyed. I also attempted to enlist the assistance of botanists to identify certain plants from photographs, but this proved impossible save in a few limited cases.

> daughter or the mother's brother's daughter is strictly prohibited, and in some places this prohibition is extended even to the daughters of classificatory father's sisters and mother's brothers (Chinnery 1931, p 15).

Later ethnographies also support this in almost all linguistic areas where long term investigations have been carried out (for a summary of these, see: Derlon 1997, p 36, and refer also to Powdermaker 1933, pp 51–52). One exception where such a marriage may have been not only allowed but even preferred is the offlying islands of Tabar (Groves 1935a, p 239).[28] People in Mangai (New Ireland) also apparently told Billings that: 'marriage with a cross-cousin (*mokok*) of a different clan is considered a good marriage, but it is not prescribed' (Billings 1981, p 24). However, she later writes of the same location that: 'marriage between cross-cousins was considered a good marriage so long as it was not too close; partly because people thought [...] that it kept land matters straight.' (Billings 1981, p 138).

Maybe the discrepancy stems from a linguistic and semantic confusion. Indeed, it would be self evident to a Lavongai (and maybe to a New Irelander, including a person of Mangai) that it is prohibited for a man to marry the daughter of his father's sisters (FZD) or mother's brothers (MBD), since this seems to everywhere be true according to numerous ethnographies. Hence, when such a man uses the term for 'cross-cousin' in statements telling Billings this would be a good marriage for him, he may implicitly be thinking of a 'distant' cross-cousin, a classificatory one. In any case, it is certain that Lavongai people make a clear distinction between 'close' and more 'remote' cross-cousins, despite the classificatory nature of the terminology conflating them both under *magaug*.

Concerning the existence of a former prescribed or preferred marriage form, the truth may now be lost to history, considering the heavy influence of missionary activity and the generations of social change that have been brought about by rapid population increase, economic restructuring, and exposure to foreign influences. Missionaries, without a doubt, would have forbidden marriage between genealogical cross-cousins, although the attitude they might have had towards classificatory ones is more uncertain. This may have become ingrained in local practices, but it seems somewhat surprising that this would already have been the case so early on as during Chinnery's visit, when missionaries had barely been present for two generations. Although this might be enough time for certain societies that had been under the influence of the missionaries to change their practices, my own preference goes towards the hypothesis that this prohibition on marriage between genealogical cross-cousins is an older social fact in New Ireland.

Billings, writing about marriage in Lavongai village, focused her attention on what she saw as a paradox: 'the structural conflicts in the New Hanover system between matrilineal clan assignment and virilocal residence ideology separate people from members of their clan who are also their closest genealogical kin.' (Billings 1981, p 764). From analysis of residence patterns in Lavongai village, she concluded that there was a slight preference for virilocal post-marital residence, however clan exogamy and prohibition of cross-cousin marriage means that a couple will inevitably be raising their children on ground that

28. A transcribed interview in a more recent ethnography also suggests that in Tabar it may now be forbidden to marry one's 'cousin', presumably a cross-cousin (Gunn 1992, p 296).

does not belong to their own clan. On the contrary, marriage with a patrilateral cross-cousin would indeed have had all the advantages of keeping the land 'straight', without the inconvenience of being prohibited by clan exogamy.

There is, however, another 'solution' to this land and kinship conundrum: men simply need to marry a woman of their father's clan, any woman. Indeed, one need not marry one's patrilateral cross-cousin, in order to maintain orderly land tenure. Marrying any other member of one's father's clan is not considered incestuous, and even a 'distant' cross-cousin will likely be connected by some other kinship path, due to previous marriages, which will make it possible to avoid the shameful, prohibited relationship, and make that marriage possible.

Tukul Kaiku, in the text of a conference presentation given in 2013 at the 17th International Congress of Anthropology and Ethnological Sciences in Manchester writes of the rule of '*luk pok si ring i-polok*' which, she explains, 'states that an individual [should] marry a person from the clan who begot them. In so doing, they are cared for [by] relatives and live within the confines of their relatives' territorial area.' (Kaiku 2013, p 6). The literal translation of this rule is 'take back from the *place* where one was brought up', which, implicitly, means 'take one's spouse'. I emphasise 'place' here since this is literally the meaning of *ring* (in the citation), and it is notable that Tukul Kaiku refers in the English explanation of this rule to the clan of the father, thus drawing a parallel between place and clan. This is adequate, of course, in the context of the discussion of residence patterns, since clans are a key component of land tenureship arrangements (on which more will shortly follow Sub-section 2.3.3).

More specifically, this action of *polok* (a transitive verb here) is associated with the father, and the father's clan, who are said to *polok*—'to grow' or 'to bring up'—children. People refer to their father's clan as the clan they were *polok* by: *Nate Nguma, sikei nata polok ta Valus*, for instance, meaning 'I am a Nguma [clansperson], but I was brought up by Valus [clanspeople]' (there will be more to say about this notion of 'bringing up' in the following chapter, in Sub-section 3.1.4).

The consequence of people preferentially marrying somebody from their father's clan in this way would be that 'pairs' of clans would form locally, exchanging husbands and wives in alternating generations. This is what was already apparent in the conflation of the *osongon* and *polok* clans during the teasing and joking in ceremonies (*leir*, see page 104). This could also be tied to the way avoidance patterns are identical between opposite-sex cross-cousins and same-sex sibling's spouse, as I described above, which can be explained simply if people marry a opposite-sex cross-cousin (something which Billings also noticed: 1981, pp 871–873).

In any case, there is a vernacular qualifier for two such clans tied by intermarriage: they are said to be *palunsava*. This word is formed from two roots:

(2.10) *palunsava*
palun *sava*
embrace bind
'tied together by marriage'

Palunsava can be used as a euphemism for sexual intercourse (pers. comm. Tukul Kaiku, 4 July 2023), but in the context of clan organisation it carries no such connotation and is commonly used. Clemen explained in an interview what the concept involves:

> And it, Nguma… when they, when it… It's one of it's divisions. Inside the… They're the same, it is just one name 'Nguma', but they also went on a different path. When they left, from inland, and there were certain clans that went each with their own *palunsava*. Like this: some Nguma they went with the Valus. Those ones indeed, they came out to the shore here. And some other Nguma also went with the Silau, they came out to shore over there. And some other Nguma they were *palunsava* to the Mani[lava], they also came out to shore over there. It's 'same' [in English] for each one of the birds [ie clans], like that, all over the place. Yes my brother.[T16] (Clemen, 16 July 2022).

On the scale of the island, these associations can therefore be multiple: one clan can have several *palunsava* clans, each in a given location. For example, in the northern village of Neikonomon, where my host Laimen's mother was from, the local segment of Nguma clan is paired with the Manilava clan, not with the Valus nor Silau ones, as it is in Metevoe.

This tendency for clan-pairs to form has been noted also in New Ireland. Michael Gunn wrote of Tabar marriage practices that:

> A clear trend in marriage and residence patterns has emerged [...] Up until around the time of the Second World War a man tended to marry a woman from an affinal clan – his father's *matabu*, generally a woman who lived in a nearby village which had a number of other significant relationships with the man's village. These relationships would include a history of previous intermarriages. (Gunn 1992, p 110).

Hortense Powdermaker also noted this fact in Lesu in the early 20th century. However, she dismissed the statistical data as insignificant because she saw it as a simple consequence of the fact that people will obviously marry more in clans that are more populous:

> one clan never makes even fifty percent of its marriages into any one given clan of the opposite moiety, and [...] there cannot therefore be said to be any class system of interclan marriages. Percentages, however, such as forty-one and forty-four [of marriages between certain clan pairs], would seem to indicate some tendency for certain clans to intermarry. But a number of incidental factors, such as neighbouring residence of the two clans, might account for the tendency. (Powdermaker 1933, p 51)

This conclusion, although not invalid, is too hasty in my opinion. In order to determine how strong an influence clan membership, or father's clan membership has on marriage, the actual weight of other factors—such as those listed by Powdermaker—must be ascertained. If there is a tendency to intermarry, then the *palunsava* clan pairs will appear in disproportionate amounts relative to the population of these clans and to the detriment of possible marriages with other populous clans.

In Metevoe, genealogical data show that the major clans in terms of demography—Nguma, Valus, Silau, and Siavun—unsurprisingly account for the majority of marriages (Table 2.11). In order to evaluate the reality of the effect of clan prohibitions or ideology of alliance on existing marriages, this data must be brought into comparison with the overall population and the total number of marriages.

Table 2.11: Marriage data per clan pair, and prevalence of men and women of these clans in the general village population, for the eight most represented clan pairs (over 5 marriages). Derived from the Metevoe genealogical data produced during a genealogical surveys in 2021-2023.

Marriages			**Whole village population**	
Clan (husband-wife)	**Count**	**Pct**	**Men of husband's clan**	**Women of wife's clan**
Valus-Nguma	27	10.38 %	25.07 %	28.57 %
Nguma-Valus	22	8.46 %	30.99 %	31.25 %
Silau-Valus	19	7.30 %	15.21 %	31.25 %
Silau-Nguma	10	3.84 %	15.21 %	28.57 %
Nguma-Silau	9	3.46 %	30.99 %	13.99 %
Valus-Silau	8	3.07 %	25.07 %	13.99 %
Nguma-Siavun	7	2.69 %	30.99 %	7.74 %
Manilava-Nguma	5	1.92 %	4.51 %	28.57 %
⋮	⋮	⋮	⋮	⋮
Total	260			

The influence of demography can be factored out quite easily, simply by comparing numbers of marriages between members of clan X and clan Y and number of members of clan X and clan Y who are accounted for in the marriage statistics by means of a linear regression. The results of this analysis carried out on my own census and genealogical data collected through a village-wide survey in 2022, show that the stated rule of clan exogamy is indeed very strongly respected. This is relatively unsurprising, although it bears mentioning since there are many cases where such rules are breached regularly (LiPuma 1983). This comparison of marriage statistics to the general demography, broken down by clan, also shows that demography is an important factor for marriage, but that it is in itself insufficient to explain marriage patterns. This can be demonstrated by analysing the number of marriage partners available per clan, compared to the total population, and the number of marriages that take place within a clan. The maximum number of marriages that could occur for any given clan pair is the smallest number of adult members of a given gender for each clan in the pair. There can be no more [man of clan X]-[woman of clan Y] unions than the largest number between [men of clan X] and [women of clan Y]. By comparing, on the one hand, the proportion of men and women of each clan to the general adult population, and on the other the proportion of each clan pair in the total number of marriages, we can discern influences that are not purely demographic.

I performed such a comparison along three of the four possible types of clan pairings:

clan of the husband	clan of the wife
clan of the father of the husband	clan of the wife
clan of the husband	clan of the father of the wife

The last combination, between both partners' fathers' clans was never said to be signifiant by anybody and was therefore not analysed.[29] The results show that, in the data from Metevoe, although clan demography undisputedly affects who people marry, it is only a very small factor in explaining this. Therefore, based on this data, people in Metevoe do not simply marry more in certain pairs because those pairs are more numerous locally. The results also show that avoidance of same-clan marriage explains a large share—but not all—of the non-demographic causality.[30]

In summary, it is possible to verify statistically that a large share of the influence which clan membership or father's clan membership has on marriage is independent of demography and is hence an effect of sociocultural practices. Of this, clan exogamy has the strongest influence, a negative one, by prohibiting same-clan marriages; there is also a positive influence of the father's clan, in a kind of 'restricted exchange' format, but this is weaker than that produced by clan exogamy. The vernacular concept of the *palunsava* clan is therefore statistically significant. This numerical evidence adds to the ethnographic, which shows the quasi-dualist organisation at work in many aspects of social organisation, from avoidance patterns, to ritualised joking of *leir*, and the organisation of obligations for feasting surrounding funerary practices.

2.2.4 Does Lavongai kinship display Dravidian properties?

On first glance, it is clear that the Lavongai kinship terminology is of the Iroquois type. However, the presence of relative-sex terms, notably for cross-cousins, as well as the 'quasi-dualist' form of the clan pair associations suggest a possibly Dravidian social structure.

There has been a relatively long history of controversy, equivocation, and confusion concerning the Iroquois-Dravidian distinction and how it should be analysed. Often, ethnographers have overlooked the subtle differences between the two, notably because the kinship terms that are divergent between Iroquois and Dravidian terminologies are quite 'distant' relatives of ego (Hiatt 1971, pp 246–247). Alfred Reginald Radcliffe-Brown studied such a terminology found on the island of Ambrym in present day Vanuatu, calling it 'Dravidian-Australian'. He concluded that

> there is [...] some ground for the argument, that wherever we find the dual organization in Melanesia, it was at some time in the past associated with a kinship system of the Australian-Dravidian type. And [...] in the simplest and normal form of this system the marriage rule is that of the cross-cousin marriage. (Radcliffe-Brown 1927, p 344).

29. This was done using a linear regression with the demographic as the independent variable and clan pair in proportion of unions as the dependent variable, and yielded coefficients of respectively: 0.1586 with $p=1.2 \times 10^{-5}$; 0.1304 with $p=7.7 \times 10^{-5}$; and 0.1004 with p=0.0011. Hence, all datasets show strong validation of the correlation hypothesis (low p numbers), but very weak positive correlations, which means the demographic only has a small influence on the way people marry, but that this conclusion is robust.

30. This was shown by performing a linear regression with the demographic as the independent variable and clan pair in proportion of unions as the dependent variable, but excluding same-clan unions from the data. The dataset excluding same-clan marriages—equivalent to assuming that the clan incest avoidance rule is always obeyed—showed higher demographic dependency, with the coefficient increasing from 0.1586 to 0.2712 (p respectively of 1.2×10^{-5} and 7.32×10^{-10}), but even the coefficient of 0.2712 represents only a very low correlation between marriage pairs and demography.

In Lavongai, as I showed above, there is indeed a quasi-dualist organisation, and more attention must therefore be paid to the kinship terminology.

Lester Hiatt wrote, in a chapter entitled 'Dravidian-Iroquois: the Melanesian Evidence', that: 'Dravidian-type systems usually differentiate "cousins" (that is, the cross-cousin kin types) into several classes (by the criterion of relative sex) whereas Iroquois-type systems commonly do not' (Hiatt 1971, p 241) and goes on to specify that:

> in Iroquois-type systems the 'cousin' category is typically undifferentiated, while in Dravidian-type systems there are typically several 'cousin' categories—usually 'same-sex cousin, female speaker', 'same-sex cousin, male speaker', and 'opposite-sex cousin, male or female speaker'. (Hiatt 1971, p 244).

Tungag kinship terminology does have two different terms for opposite-sex and same-sex cross-cousins (respectively *magaug* and *ingag*).

Dravidian kinship is usually defined by use of a series of 'kinship equations', which imply a more or less tacit 'rule' of cross-cousin marriage. The Tungag kinship terminology does indeed satisfy far more of these equations than an Iroquois system normally would. Based on the criteria given by Per Hage in a more recent article on the topic (2001), we have:[31]

In the +1 generation:

MB	=	FZH	=	EF	≠	F	=	FB	=	MZH
labag	=	*labag*	≠	***almug***	≠	*tamag*	=	*tamag*	=	*tamag*
FZ	=	MBW	=	EM	≠	M	=	MZ	=	FBW
kag manai	=	*kag manai*	≠	***imog***	≠	*rinag*	=	*rinag*	=	*rinag*

Here Tungag differs from what is expected in a Dravidian terminology (bold terms) in that people do not refer to their spouse's parents by the terms used for mother's brother and father's sister, respectively, but by two specific terms reserved for that use: *almug* (spouse's father, or husband of daughter) and *imog* (spouse's mother or wife of son). These are non-classificatory terms and, apart from the fact that they are self-reciprocal (see below), they are not extended to any other relative, which satisfies the condition that Radcliffe-Brown stated: 'the characteristic feature of the [Dravidian kinship] type is that there are no terms for relatives by marriage, or in the few instances in which such terms are found they are not classificatory but specific for the individual relationship.' (Radcliffe-Brown, in: Dumont 1983, p 30). Tungag does, in this regard, satisfy the above equation with the caveat that there are two terms for relatives by marriage that are non classificatory but indeed specific.

In ego's generation:

man speaking:																
MBD	=	FZD	=	W	=	WZ	=	BW	≠	Z	=	FBD	=	MZD		
magaug	=	*magaug*	≠	***kisngag***	≠	*angtuaig*	=	*angtuaig*	≠	*taug*	=	*taug*	=	*taug*		
woman speaking:																
MBS	=	FZS	=	H	=	HB	=	ZH	≠	B	=	FBS	=	MZS		
magaug	=	*magaug*	≠	***kisngag***	≠	*angtuaig*	=	*angtuaig*	≠	*taug*	=	*taug*	=	*taug*		

31. As well as the usual abbreviations already defined above (Sub-section 2.2.2), Hage resorts here to some less frequent ones: P=parent, G=sibling, C=child, E=spouse.

Here, again, Tungag terminology differs from a Dravidian one in that there is a specific term for spouse (*kisngag*) which is not the term for cross-cousin; as with the terms for spouse's father and mother, this can be placed under the exception mentioned by Radcliffe-Brown, as the term is used solely for the spouse. Also, the terms for opposite-sex cross-cousin (*magaug*) and spouse's same-sex sibling (*angtuaig*) are different. However, there is a connection that can be discerned in behaviour: both the opposite-sex cross-cousin and the spouse's same-sex sibling are subjects of avoidance behaviour (see page 101).

In the -1 generation:

	os-GD	=	SW	≠	ss-GD	=	D
ms	*tipasig*	≠	***imog***	≠	*kag kavulik*	=	*kag kavulik*
ws	*kag manai*	≠	***imog***	≠	*kag kavulik*	=	*kag kavulik*
	os-GS	=	DH	≠	ss-GS	=	S
ms	*tipasig*	≠	***almug***	≠	*kag nat*	=	*kag nat*
ws	*kag manai*	≠	***almug***	≠	*kag nat*	=	*kag nat*

Once again, here, the terms that are problematic in a Dravidian reading are those for a son's wife or a daughter's husband, which are—in Tungag—the self-reciprocal terms *imog* and *almug* (father- and mother-in-law) and therefore depend on relative sex. These differ from the terms for 'nephew' and 'niece': (*tipasig* or *kag manai*, depending if they are of opposite-sex or same-sex).

One relatively functional albeit somewhat controversial (Hiatt 1971, p 244, note 13) way to differentiate Dravidian terminologies from Iroquois ones is by observing the terms used for children of cross-cousins. Indeed, as Hiatt (1971, p 244) specifies, in Dravidian terminologies children of opposite-sex siblings and of same-sex cross-cousins are classified with children of cross-cousins; whereas children of opposite-sex cross-cousins and of same-sex siblings are classified with children of siblings. This contrasts with the Iroquois system where all children of same-sex collaterals are classified as siblings and those of opposite-sex collaterals as cross-cousins. This can be visualised formally as in Table 2.12.

Table 2.12: Table summarising the 'comparison of sex of kin in same generation' (original caption) in Iroquois and Dravidian terminologies. // = same-sex, X = opposite-sex, Sb = classified with siblings, Co = classified with cousins. Adapted from Hiatt 1971, p 242.

Generation		Iroquois		Dravidian			
G+2	=	[indifferent]		//	X	//	X
G+1	=	//	X	//	X	X	//
Implies G0	=	Sb	Co	Sb	Sb	Co	Co

In Tungag, children of cross-cousins are called by terms that depend only on the sex of the speaker: *tipasig* for a male and *kag manai* for a female. Children of siblings are called by terms that depend on the sex of the child: *kag nat* (son) and *kag kavulik* (daughter). It

is only the relative-sex of ego and the cross-cousin that matters, not the relative sex of the grand-parents, and the terminology appears to be Iroquois, rather than Dravidian in this respect.

To conclude: although the Tungag kinship terminology fails to satisfy all the equations of a Dravidian terminology, this is only by a small margin (presence of terms for spouse and parents of spouse, whereas in a Dravidian terminology these should be classified with specific consanguines). However, it does display many of the distinguishing characteristics of societies where kinship terminology is Dravidian. The main one of these is the common avoidance practices that concern both opposite-sex cross-cousins and same-sex spouse's siblings. These do suggest the presence of the general principle that a Dravidian terminology 'reflects a rule of cross-cousin marriage: opposite-sex cross-cousins are potential spouses' (Hage 2001, p 489). Indeed, if one marries an opposite-sex cross-cousin, then this person's same-sex siblings become 'in-laws' (spouse's same-sex siblings), and these are precisely the people who, in Lavongai, are the subjects of similar avoidance practices to those applied between opposite-sex cross-cousins. However, as I have shown previously, there is no prescription of marriage with the genealogical cross-cousin in Lavongai, and appears never to have been any, despite certain fleeting suggestions to the contrary (Sub-section 2.2.3). What we can learn from this is that there is a *tendency* towards an underlying dualist structure, that would involve a cross-cousin marriage ideal, but—for some reason—this is not realised. The explanation could be, as Billings suggests, that it used to exists but was suppressed by missionaries, or that there was some other evolution away from the Dravidian social structure towards an Iroquois one, which left traces that I have isolated.[32]

2.3 From clans to land: local tenureship arrangements

In order to understand the impact that clan organisation has on everyday life on Lavongai, it is necessary to discuss another context in which clan membership is referred to: local tenureship arrangements.[33] 'Tenureship' is an old and often controversial topic in anthropology, since it draws together numerous economic, social, and political issues. In Papua New Guinea specifically, much scholarship has focused on the many facets of the topic of 'customary land' (see, among many others Hide and Crocombe 1971; Jessep 1977; Miles 1998; Weiner and Glaskin 2007; Colin, Delville Lavigne, and Léonard 2022).

32. Per Hage, in the aforementioned article concerning the linguistic evidence for Dravidian kinship systems in Oceania, cites the theory of linguist and anthropologist Nick J Allen as implying that 'Dravidian terminologies may evolve into Iroquois terminologies but not conversely' (Hage 2001, p 490). This might lead us to exclude the opposite hypothesis that the Lavongai terminology has acquired certain Dravidian features above and beyond the Iroquois ones, in this order.

33. This is a reference to Jeff Kinch's phrase, which he uses in his doctoral thesis, based on fieldwork conducted on Brooker Island, in Milne Bay Province of PNG (Kinch 2020, p 111). As Kinch explains, this expression is preferable to the more usual 'customary tenure', which is problematic not only because of the fraught nature of the notion of 'custom', but also because 'tenure' appears to suggest a rather rigid system, whereas 'tenureship arrangements' more adequately reflects the highly flexible dimension which these matters tend to have in the region.

From a legal perspective, the vast majority of land in the country is recognised as being 'customary land', meaning, in the terms of a PNG legal scholar, that:

> it is owned or possessed by an automatic citizen or community of automatic citizens by virtue of rights of a proprietary or possessory kind which belong to that citizen or community and arise from and are regulated by custom[…] This category forms just over 97% of the total land area. (Mugambwa and Amankwah 1996, p 118).

During the Australian colonial period, after World War II, there were several attempts by the administration to carry out land reform, since a formalised system of registered titles to land was seen by the administration as an indispensable step towards 'development' (Hide and Crocombe 1971, p 316). To this end, several 'Lands Commissions' were enacted by law, which:

> set out to construct a single map of all the tribal and clan boundaries in the country, which was to be based on the deliberations of 500 Land Demarcation Committees, each containing representatives of a small number of neighbouring tribal communities conducting their own land investigations and reporting the results to an expatriate Commissioner. (Filer 2006, p 67).

The least that can be said is that this effort was not met with any measure of success. Indeed— to illustrate with a more contemporaneous example—during fieldwork for this thesis, over 70 years after this ordinance was passed, and with nearly half a century of that time post-independence, there are no official boundaries for numerous levels of administration in PNG, much less so for individual or collectively owned land tracts. This is the case in particular of Wards (a subdivision of the Local Level Governments) and of Communities (also sometimes known as subwards, usually a village, or a neighbourhood in urban areas), none of which have any officially published boundaries.

In New Ireland in particular, Owen Jessep, who studied land tenure in the Barok area of central New Ireland mainland in the late 1960s and early 1970s, writes that:

> of the three proposed stages of declaration, demarcation, and determination leading to registration, only the first stage was carried out with any degree of success[…] Even in those parts of New Ireland where a degree of systematic demarcation may have been achieved, there were hardly any resulting determinations by the Commission, and thus no 'adjudication records' were prepared. (Jessep 1977, pp 320–321).

Hence, the current status quo is that communities manage their land in whatever way they see fit, with next to no intervention on the part of the State, and only minimal involvement by courts when somebody files an official complaint in this regard. The way land use is regulated in Lavongai, as will be shown in the following pages, is thus bound to the clan-based social structure.

2.3.1 Outline of Lavongai tenureship

The first thing that can be noted on the topic of tenureship is that, in an idealised way, people on Lavongai consider land to be ultimately owned by a clan. However, this is a far cry from the observable reality of things in everyday organisation of tenure and usage.

Although land tenure is fundamentally clan-based, there are many other methods of claiming a segment of land, other than being a member of the clan which the land in question is recognised as belonging to. Land is used for various purposes, the main ones being residence (ie building a house, other annex buildings such as a cooking hut and planting certain crops for ornamental-, medicinal-, or food-purposes), subsistence gardening, growing cash crops, gathering of non-planted materials (such as forest plants), and in marine areas: fishing and gathering of sedentary marine resources.

Where people in Lavongai *reside* is not a clear cut concept. Biographies which I elicited during fieldwork for people living in Metevoe show that, although many had never lived for any extended period of time outside of the village, most—if not all—had changed residence at some time within the village. A pattern which I noted for many couples, in this regard, was for them to settle for several years wherever the new husband had previously been living, but later to change residence and move to a different location. Some older inhabitants had lived in no less than 10 different locations in the village over the course of their lives. Large population movements, influencing several households, and at times almost the whole village, had also occurred during inter-village warfare, notably in 2005, 2007, and as recently as 2017. Finally, the friable sandy coastline has been receding in the last few decades, and some households have therefore had to resettle further inland to stay away from the encroaching waves. Residence, then, in light of my own ethnography, is something that people in Lavongai consider to be a form of flexible and temporary *usage* of a segment of land and does not correlate directly with 'ownership'.

Another way of looking at this question is to return to a distinction made by locals with regards to land. Indeed, there was a wide consensus among my interlocutors that there are two different types of questions when discussing land: 'who owns it?' and 'who can do one thing or another on it?' This might be referred to on the one hand as 'ownership' and on the other as 'usage', respectively. Residence, for the Lavongai people, is firmly in the realm of 'usage', since a house if well build and maintained will remain usable at most for 10 years, and usually less.

The first category, which I refer to as 'ownership', is the right to make decisions, to give orders regarding something (*vilsaupai*). This is in the hands of the clan to which the land is associated—usually in a rather undisputed way—and it is passed on from mothers to their children. It is backed up, when necessary, by stories and recent genealogies: the reciting of who one's parents and grand-parents are, their marriages, their movements, and what improvements or modifications they made in the place in question (such as planting fruit trees or clearing old-growth forest). These are seen as the legitimising tools of clan ownership of land. However, there are certain decisions that even a member of the clan 'owning' a piece of land cannot usually make alone. Especially when the matter involves allowing others who initially have no claim there to use a piece of land against some form of compensation, they will have to consider many other factors and to consult with other people. The first factor is the relative historical depth of his local clan segment's presence in the location. Is he a part of the 'oldest' local clan segment, or rather of a more recently arrived one? Land-related decisions will need the approval of the eldest men (or in the absence of an elder man, of the eldest woman) from the 'oldest' segment, and possibly also of the members of that local segment who have moved away and now live elsewhere.

The second category, 'usage', is typically applied to productive plantations such as sago groves and coconut trees, sometimes also cocoa, or areca palms. These relatively slow growing plants are all productive for several decades and hence last more that one generation; therefore people must justify their claim to use them. 'Usage' also includes the felling of trees for making canoes, the clearing of forested areas in order to plant a garden, or the building of a house. These activities are all carried out either by one man, or by a group of men assisting one of their peers. The results of such work is transmitted to the man's sons when he dies. It is common for a man to be using a piece of land to garden on or to have the habit of harvesting sago and coconuts from a specific grove because his father cleared the forest to plant that garden, or was the one who planted those sago palms and coconut trees. This does not mean he 'owns' that particular resource. Indeed, he will have to acknowledge the fact that these resources, being planted on a given tract of land, belongs ultimately to the clan which owns that land, which—if it is his father's, by virtue of clan exogamy—will be a different clan than his own. Therefore, he will have to share these resources with his father's sister's clansmen. This also means that these productive resources which he inherited from his father cannot, in turn, be transmitted to his own children. Upon his death, they will undisputedly revert back to the clan whose land they are found on.

These two forms or 'right' require constant balancing whenever a significant decision is to be made, or when somebody wishes to do something related to land (which, in a subsistence horticultural society such as Lavongai, is almost constant). It is the case both for members of the 'owning' clans, and for those from other clans who may by various unions and other historical movements of people have usage rights.

The need for such a balance is apparent in a term referring to an infraction to the good conduct in such matters: *tukapis*. This is a form of 'bad behaviour' (*lau rikek*) which my interlocutors in Metevoe chose to explain by resorting to the example of a coconut grove that was planted by a now deceased man. They stated that, although a surviving mother's brother (*labag*) of this deceased man is in effect the legitimate clan owner of his land, if he were to takes coconuts from a plantation which is on that land, without asking the deceased man's sons, then he would be committing the act of *tukapis*, he would be overriding or disregarding their rights as sons of the man who planted the trees. The way people explained the meaning of this term suggests two underlying principles:

1. that sons have a say regarding the use of that which their father created (in particular productive trees he planted);
2. that there is some form of 'ultimate right' in this matter that goes to the clan owning the land where these are found, since although they do have to ask, they do not have to defer to his wishes.

Therefore, anytime members of a landowning clan are making a decision regarding 'their' land, consultation with members of the clan or clans to which they are married, and to which their fathers belonged, will also be necessary. People expressed this need in a parable: if a clan were to make decisions about land matters without considering those of the clan to which they marry, they would be publicly shamed by asking if *mite pasal nami*

papalik: 'you all, do you walk alone?', implying 'did you settle here marrying back into your own clan?' This question provoked laughter at the idea of a clan settling somewhere without anybody to marry other than their own clanspeople, in essence, surviving by committing incest.

2.3.2 Vernacular terminology for land and place

Certain terms in the vernacular language of Lavongai refer to areas of ground or sea in ways that connote the tenureship status of the land in relation to the speaker. One of these is *vangai*, which can be glossed as 'possession', or possibly 'abode'. This term could, in my opinion, be a cognate of one of the oldest Austronesian words meaning 'canoe', **wanga*, as reconstructed by the Pawleys (1998, p 178). This evokes the concept of 'canoe' (in French *pirogue*) as a fundamental land delineation unit in Vanuatu (Bonnemaison 1983, 1989):

> From this day, the island has been dived into 115 'nations', or independent geopolitical groups, each associated with a 'canoe' or *niko*. There are one or several clans in each of these canoes, and they organise their social space around a network of important places that make up a territory of identity.[T17] (Bonnemaison 1983, p 6).

Elsewhere, he writes in a footnote that: 'In the traditional ideology, each of Tanna's territories is thought of as a canoe. These territories are named after, and correspond to, a traditional group which can be subdivided into sub-groups that each contain one of several lineages. [...][T18]' (Bonnemaison 1979, p 311, note 17).

This term *niko*, which according to Bonnemaison is from 'the language of Tanna'[34], does not appear to be a reflex[35] of the **wangai* Proto-Oceanic, despite this language being an Oceanic one. However, there is no doubt that conceptually, there is a commonality in the *vangai* of the Lavongai, the Proto-Oceanic **wanga*, and the *niko* of Tanna.[36]

The term corresponding most adequately to the concept in Tungag is *rina* 'village, home, place of origin, place where one belongs'. This has sometimes been thought by visitors to the island to be correlated with the quasi-homophone for 'mother', also *rina*, as when a patrol officer in the late 1950s wrote in his report that 'the term for "mother" is *rina*. It can also mean either "the home" or "the village". This would lead one to expect that the female enjoys a priviledged [*sic*] place in the village. In actual fact the female has an inferior status with little or no say in village affairs.' (Bloomfield 1960, p 20). It is also possibly what Jason

34. According to the Glottolog database, there are no less than five different languages spoken on Tanna, several of which have multiple dialects (see https://glottolog.org/resource/languoid/id/tann1242). Bonnemaison does not specify which of those languages the term *niko* belongs to.

35. In historical linguistics, the term 'reflex' designates a word in an existing or documented language that belongs to a cognate set that derives from a given reconstruction. For example, the English word 'we', the German *wir* or the Vedic Sanscrit *vayám* are all reflexes of the Proto-Indo-European reconstruction **we-i*, 'first person plural nominative' (Fortson 2004, p 127).

36. In the Tungag language, as far as investigations could reveal, there are no reflexes of the Proto-Oceanic **panua*, known for its Tahitian reflex *fenua* meaning 'land, village', but which also has cognates in other languages. The root **panua* has the wider meanings of 'inhabited area or territory'; 'community together with its land and things on it'; 'land, not sea'; '(with reference to weather) the visible world, land and sky' (Green and Pawley 1998, p 62).

Roberts had in mind when he wrote that 'the Lavongai have long conceptualized the land as a woman, and women are, at least in theory, the rightful owners of the land.' (Roberts 2024, p 43). However, although descent is matrilineal, these terminological similarities are fortuitous, since the word for 'mother' is pronounced [rinːa'], with stress on the second syllable and an elongated /nː/, whereas 'village' is pronounced [ri'na], with stress on the first syllable and short /n/. Two separate etymologies are made evident by the address term used for 'mother': *nana*. This reduplication of *na*, along with the irregular stress on the last syllable (instead of the expected second last one), suggests that the word *rina* for mother is a compound of *ri* (plural, honorific) and *na* (the actual root for 'mother'), as opposed to 'village' which is not an obvious compound.

Another important element of land organisation in Lavongai, both physically and conceptually, is the cordyline, a type of herbaceous plant (*Cordyline fruticosa*) that displays high variation in colouration and markings of the leaves, ranging from entirely green to entirely red or maroon, with a number of variegated types present. They are known by two names in the vernacular, *erenge* and *vang* (and also as *tanget* in Tok Pisin), with individual varieties having compound names on this base (such as *vang malisa*, the 'barracuda' cordyline, or *vang lili*). They are primarily used as land markers. People say that anywhere they are found, they indicate that people have previously lived, even if all memory as to whom and when has been lost. They are often planted along the edges of a residence area in villages and are frequently scattered in and around garden plots also (although earth mounds known as *pulis* are a more frequent way of identifying garden boundaries). Cordylines are also planted on grave sites. They are also cut and held in the hands or bound onto armbands for decoration when dancing. Finally, certain varieties are know to holders of esoteric knowledge to be useful for medicinal and magical purposes. In much of the region, even much of Oceania, this plant holds strong symbolic strength and is often used as a marker (Barrau 1957). Among the Maenge of New Britain, it is 'of particular importance in gardening and prosperity rites as well as in all purification rites' (Panoff and Panoff 1972, p 383). Among the Ankave of Highland PNG, the red and purple varieties are key elements of ritual life, in particular because of their association with blood (Bonnemère 1996, pp 183–185). Clearly in Lavongai, its use as a boundary marker, funeral site ornament, and during dancing and medicinal practices makes it one of the most significant non-food plants (although it is edible, its main role is not as food).

2.3.3 Local marine tenureship arrangements

This discussion of land tenure raises the related question of marine tenureship. On Lavongai, as elsewhere in coastal New Ireland, and quite like much of Western Oceania, there is generally no single and formal owner to any given area of ocean (see for example, among many such studies: Hyndman 1993; Hviding 1998; Foale and Macintyre 2000; Kinch 2003; Foale *et al.* 2011). However, it cannot so easily be said that anybody has the right to do there as they please. One important fact whenever marine spaces are concerned seems to be that the sea is not governed by the same clan-based organisation that is the basis of land tenureship arrangements. Nelson, a young man from Tsoi island, stated in a recorded interview that clan divisions, which normally organise tenureship on land, do

not apply in the sea: 'Because, if [we are talking about] the sea, there is no separation in terms of clans, in the sea. No. Separation in terms of clan only exists on dry land, the sea is open.[T19]' (Nelson, 18 May 2022).

Ton Otto, a Danish anthropologist, conducted a detailed survey of tenureship practices regarding marine resources in the area around Lavongai and the Tigak islands in the 1990s (Otto 1990, 1998). He writes that:

> In Lavongai […] management of water resources differs from land management. Whereas the land of a community is divided up over small land-owning clan groups, this is not so in the case of the sea. In general the sea and beach adjoining a village are considered to be the communal property of the villagers. Clan groups within the village, including the land-owning groups, do not claim exclusive rights to the sea and the reef or parts thereof. (Otto 1998, p 242).

He further specifies that the system, much like land rights, is highly dynamic and fluid:

> systems of proprietary and usufructuary rights are not static. They are in a process of change as a result of confrontation with and application to new circumstances. It is therefore essential that a historical perspective is applied to the discussion of rights to natural resources. This is a safeguard against giving undue importance to what is a temporary state of a system in change. (Otto 1990, pp 6–7).

In Lavongai, marine tenureship is not based on clan usage but rather on proximity of one's residence to the area in question (with those living in the 'adjoining village' having priority over 'outsiders'). However, a family tie to somebody in the village can also serve such a purpose, and a number of Metevoe inhabitants, for example, frequently paddle their canoes over to good fishing reefs in the neighbouring village of Tioputuk (Map 1.2), where they do not nor have ever resided but where they have kinship ties.

Finally, marine tenureship arrangements can vary considerably according to the purpose for which people are fishing or harvesting resources such as sedentary invertebrates (shells, bêche-de-mer) in the area in question. Here an important distinction is made between captures for one's own consumption, or family consumption, and captures that are to be sold and will therefore produce revenue. Whilst the former is commonly very open, and people do not oppose such forms of use, the latter is frequently the cause of vexation and conflict.

In a discussion concerning the existence or absence of 'customary' tenure of marine spaces in Papua New Guinea, Nicholas Polunin writes that:

> I have come across little evidence of well-developed traditional ownership of marine areas along the southern Papuan coast of Papua New Guinea. By contrast, there are several references to tenure for the northern coast and islands […] the Trobriand Islands, […] on Tanga Island, off New Ireland, […] on New Britain and […] on Ponam Island, off Manus. Although this summary suggests that ownership of marine areas has developed widely in the region, it hardly supports the notion that marine tenure is, or has been, universal. (Polunin 1984, p 269).

His hypothesis is therefore that marine tenureship arrangements must have a historical and social significance, since elsewhere they were not present. He later adds that:

> Crocombe (1971) explain the absence of ownership of mangrove forest by the people of Marshall Lagoon by lack of expenditure of labor in establishing or improving mangroves as a valuable resource. The labor comes only in harvesting the resources and in preparing them after they have been gathered. Another example is afforded by tidal stone weirs which are constructed on reef flats to catch fish: at least on Aua Island (Pitt-Rivers 1925) and on Ponam Island (Carrier 1981) to the west and north of Manus, respectively, these are owned. (Polunin 1984, p 272).

This means it is important to note exactly what is being referred to in the context of marine tenureship arrangements, for it is unlikely that a single rule will apply to a fish trap, an area of deep open sea, or to a particularly fish-laden estuary.

Ton Otto makes a similar observation when he writes that

> The question of marine boundaries has to be specified by asking the additional questions of boundaries for what and for whom. Most people seem to agree that they have an exclusive right to harvest the sedentary species such as trochus and beche-de-mer in the area claimed by their village. Outsiders always have to ask permission if they want to collect these things. Concerning fish, the situation is somewhat different. Fishing for one's own consumption is considered to be free and boundaries do not apply in this case. Some people, however, maintain that it is still better (and certainly more polite) for outsiders to ask for permission. Fishing for commercial purposes is again the exclusive right of the owners of the sea area and outsiders are always required to obtain prior permission. There is, however, a marked distinction between neighbours and more distant outsiders. (Otto 1998, p 245)

In summary, whenever the need arises in a marine space, the flexible aspect of these tenureship arrangements mean that there will be discussion, possibly contention, and even conflict, or eventually forms of consensus or tacit acceptance, regarding what can be done and what cannot where and by whom. Justifications for such discussions involve one of a few main arguments: proximity of the individual's residence to the fishing ground, proximity of one or several of his or her ancestors' residence's to it, reasons for fishing, community standing of the individuals or groups in question, and ultimate aim of this fishing or harvesting effort (monetary or subsistence-based).

These arrangements are what is visible, pragmatically, in everyday practices. However, there is also an ideological discourse that reveals a different aspect of tenureship in marine spaces on Lavongai: the concept of *tokosiangan*. Recall that in the story of Rinaiatukul, the clans dispersed from the centre of the island and progressively made their way to the shore. The locations where they arrived initially are known as the *tokosiangan* of these clans. This is a key term for understanding the relation of the Lavongai clans to marine spaces; it refers to a place, that in which people 'step to come towards the sea':

(2.11) *tokosiangan*
toko siang-an
step towards.the.sea-DER
'coastal clan-based possession'

The term *siang* has a principal gloss of 'down', but it can also mean outward (from an enclosed space), westward, or out to shore (from inland), and it is perhaps the most

complex here. Its meaning in this context is clear however, since it is from the interior that the clans are dispersing, and that the movement is 'towards the shore' or 'towards the sea' (see the discussion of the antonym *alak* meaning 'up, inland, into a closed space, eastward': KE Fast 2015, p 96).

The concept of *tokosiangan* takes on its full meaning through the shared Lavongai knowledge that each clan can stake an original claim to a number of coastal and marine spaces around the island: their *tokosiangan*. The story of Rinaiatukul and of the dispersion of the clans thus provides an ideal division of the land into segments, from the ridge to the coast, each belonging to a clan. This notion was represented graphically by one of the people who told me the story of Rinaiatukul, as can be seen in Figure 2.4. In this drawing, Gregory Ravis explained, there are *pulis*, lines that separate each clan's possessions, inside Rinaiatukul, the area coloured in light blue. The outside circular boundary is the edge of Rinaiatukul, and beyond the confines of the circular village, the *pulis* are prolonged indefinitely, and Gregory Ravis stated that where they arrive at the sea is where each clan has its *tokosiangan*. The lower segment has an arrow with no name, and this is where the putative twelfth clan, Uk, is supposed to have resided. A very similar drawing appears in Billings' thesis, with no explanation however concerning the circumstances of its production—other than a note indicating that it is a 'Diagram of clan origins' (Figure 2.5).

This concept may also be tied back into the 'Place of original settlement of each tribes' which is mentioned in the table listing the Lavongai clans attributed to Lensi Angele (Table 2.2). For each clan, this column lists a place name, and one could have surmised that these were the initial locations where each clan had its *tokosiangan*. However, five of these twelve begin with the prefix *pati-*, which, when used in a place name, means 'on top of', and is often used to compose toponyms that designate ridges and hilltops. Moreover, these place names are relatively generic, meaning some of these toponym designate several locations on the island. A search of the National Statistics Office and United Nations census data from 2011, which lists place names and coordinates, showed that none of them were listed, not even with orthographic variations.

I questioned many people as to where their own *tokosiangan* was located and how they knew that was where it is. Most answered with a highly specific location, on the intra-village level (as listed on Map 1.5), meaning they had precise knowledge concerning where this type of possession was located, and that they are very fine grained (not, for instance, simply 'in Metevoe'). Moreover, they answered by specifying, unambiguously, that it was because that was their mother's *tokosiangan* or that of another matrilateral ancestor, that they knew it was their own.

For this reason, although clans are not the prime pertinent level on which to analyse marine tenureship arrangements (as Nelson stated, or Ton Ottos wrote) they are not without bearing on them. Indeed, claiming that an area is one's *tokosiangan* is a strategy that I did witness being leveraged in arguments about marine resource use, in order to affirm a more profound right to the area in question than somebody who might be 'just a resident'. This is of great importance to people who reside far from the sea, of course. Before the arrival of store-bought, refined salt, they would walk down with hollow sticks of bamboo to fill them with seawater for cooking. They would also come down to their *tokosiangan* to fish. Nowadays, the *tokosiangan* is also a notion that is called upon in order

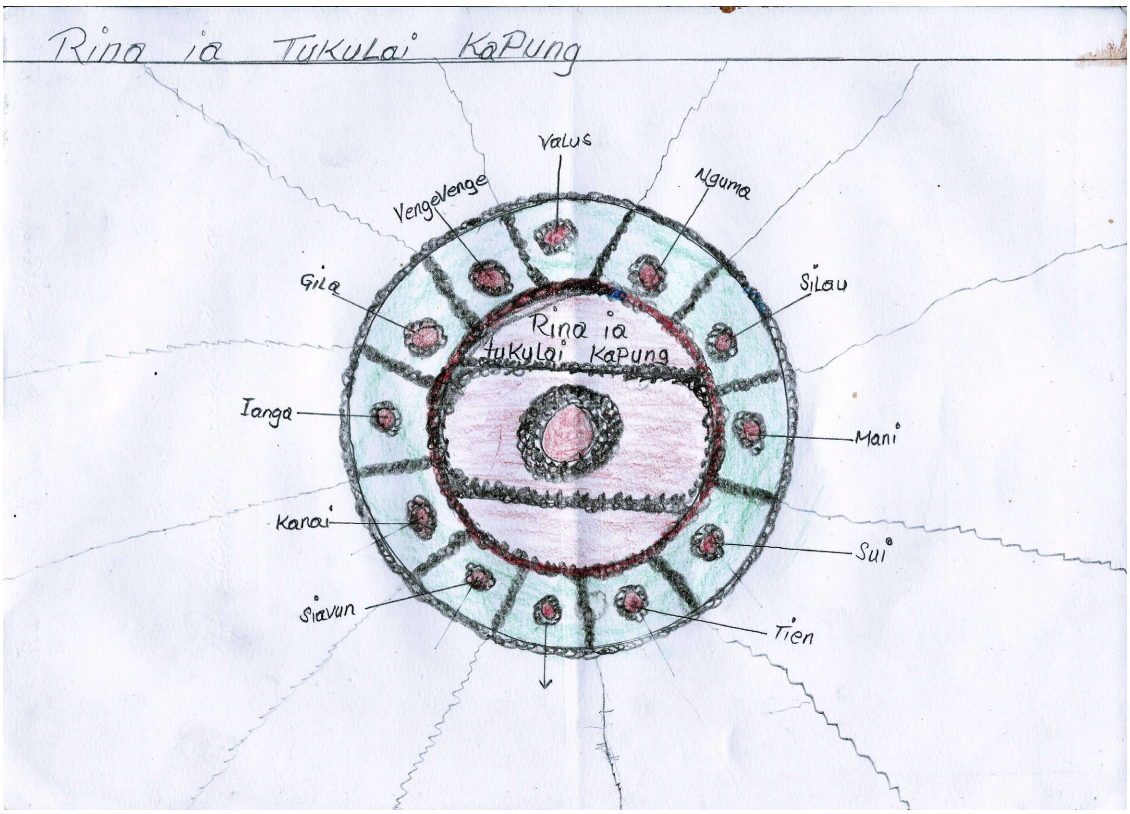


Figure 2.4: A drawing of 'Rina ia Tukulai Kapung' (literally 'the village where everything was founded' or 'the village of foundation and covering up'), representing divisions that were put in place in the village to separate each clan's land. Drawing by Gregory Ravis, 13 November 2019, used with his kind permission.

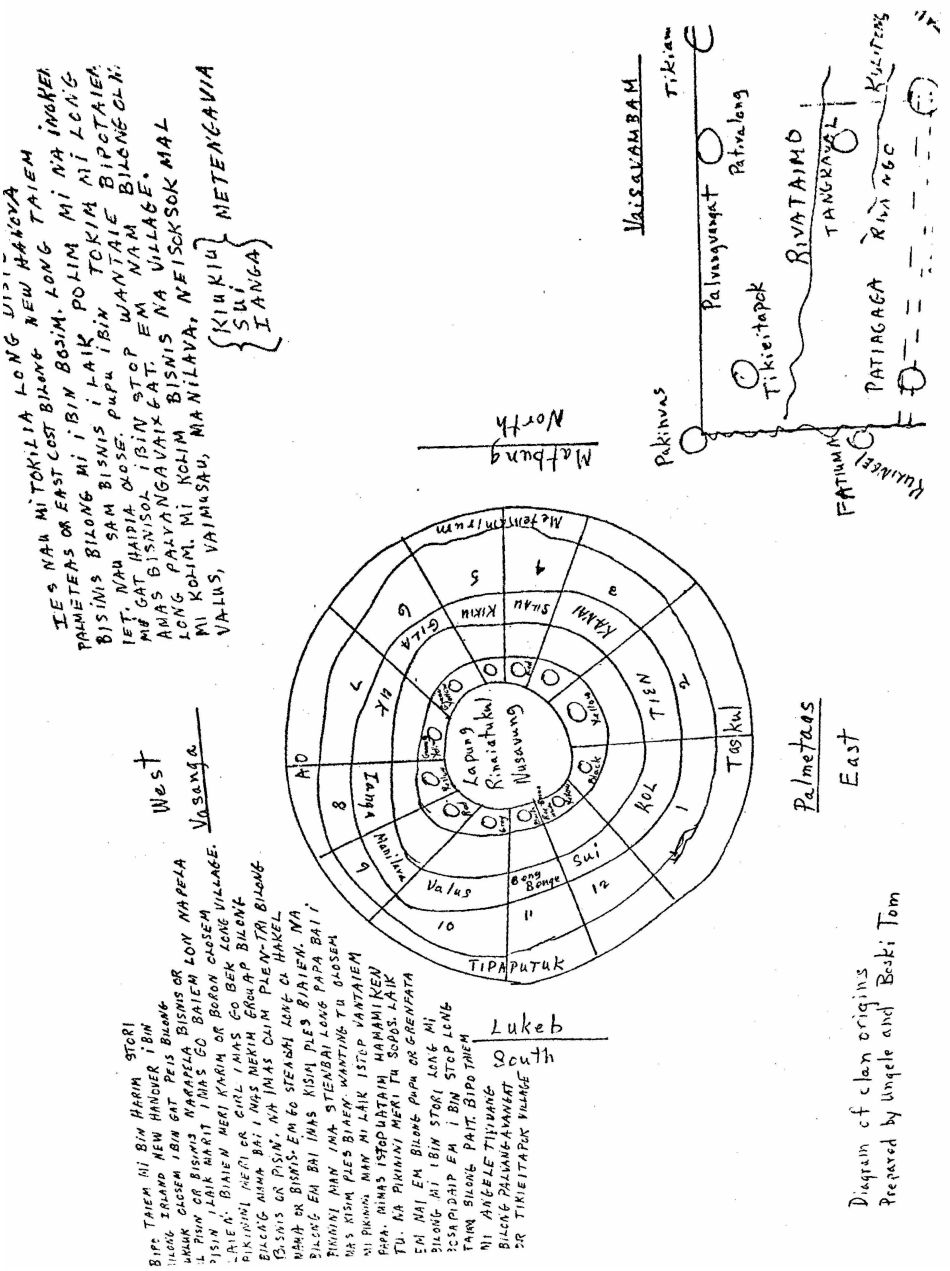


Figure 2.5: A series of sketches and drawings, containing the text 'Diagram of clan origins. Prepared by Ungele and Boski Tom' in a different hand (probably Dorothy Billings') which probably should be 'Angele and Boski Tom' as the short text to the top left is signed 'Angele Tivivang of the Palvangavangat village or Tikieitapuk'. Compare this to Figure 2.4 and Figure 2.3. From Billings 1981, p 658 + 8 unnumbered.

to anchor relations between people, reef, and sea areas in a distant past, when attempting to convince people to behave in a specific way towards these places (much more will be said on this matter in Chapter 7). The following catch phrase is often used in public discourse: *aiveven kam mete tokosiangan*, 'look after the area in front of your coastal clan possession'.

Chapter conclusion: social organisation

The story of Rinaiatukul tells of how the inhabitants of Lavongai all originated as one people in the centre of the island, then divided up into clans, and dispersed from this initial settlement to all corners of the island. It contains the root of one of the most important social rules that govern contemporary Lavongai society: that of matrilineal clan exogamy, which is presented as the necessary solution to a previously incestuous situation of unregulated marriage.

The Lavongai clans are named after and associated each with one main bird and a number of others birds and animals. Sources vary as to which clans exist on Lavongai, but first hand data shows that there are 11 extant clans. Discourse concerning clans however states that there are 12 (of which the list varies, once again), no doubt in an attempt to align the island's social organisation with the '12 tribes of Israel' under the influence of Christianity.

A number of clans have identical names to those found in neighbouring New Ireland. Interestingly though, Lavongai people claim no relation between their own and these clans, and even seem to believe that New Irelanders are everywhere organised into a moiety system, with no clans and 'only two birds: a large one and a small one'. Indeed, in Central and Southern New Ireland there are matrimoieties that coexist with clans and subsume them. There are no such moieties on Lavongai, but this is also the case in Northern New Ireland, among Tigak-, Kara- and Nalik-speaking societies, a fact which Lavongai people, in such discourses, disregard. A seemingly 'disappeared' clan, Uk, was shown to be a New Ireland clan that may have sporadically intermarried with Lavongai people but never had the status of an autochthonous clan. It is now claimed to be a 'lost Lavongai clan', most likely in order to bolster the narrative stating the presence of 12 clans on the island.

What can undoubtedly be termed 'subclans' are also present, both through localisation of clan segments, known as *tus* (literally 'breasts'), and by association with a bird that is seen to be 'similar' or otherwise associated with the clan's main eponymous bird. Thus, for instance, there is a local grouping of Manilava clanspeople (associated with *manilava*, a generic bird of prey, in particular the White-bellied Sea-Eagle, *Haliaeetus leucogaster*), who state they are associated with another large bird of prey, *tanglik*, the Osprey (*Pandion haliaetus*). Through this association, these subclans set themselves apart, which can be done in order to activate divergent land claims. Discourse on these matters is highly contentious, and some people reject any discussion of intra-clan divisions—whether into named subclans or otherwise—arguing that these are superfluous by referring to the story of Rinaiatukul. This, alongside the apparent ignorance of the similar clan structure of their New Ireland neighbours, speaks to the opposed yet co-occurrent tendencies towards ethnogenesis—the tendency to form a 'Lavongai' identity—versus schismogenesis—the

tendency to reinforce one's belonging to a dialect group, a clan, with the extreme forms leading to separation into distinct cultural groups. Similar tendencies are at play in many societies, and both appear to be present on Lavongai where clan-based social organisation is concerned.

An analysis of the kinship terminology and kinship relations showed the system to be of the Iroquois type. An avoidance relationship exists both between opposite-sex cross-cousins (*magaug*) and between a man and his brother's wife (or reciprocally from a woman towards her husband's brothers, *angtuaig*). This suggests that opposite-sex cross-cousins could be preferred spouses, since if a man marries his cross-cousin, then for his brothers this woman is both a cross-cousin and a brother's wife, meaning the two relations that entail avoidance collapse into one. Moreover, a respectful joking relationship exists between a man and his wife's brother (or reciprocally a man and his sister's husband, both *kag tamai*) as well as between a woman and her husband's sister (or reciprocally a woman and her brother's wife, *iag*). This is epitomised by the practice of *leir*, teasing, or practical joking, which takes place at public events, notably feasts, and involves striking or placing dirty remains of food on the *tamai* and *iag*. These practices create a partition between two poles: the clan organising the feast and those whose father is from this clan, or who married a person of that clan. Such a phenomenon can be viewed as a 'quasi-dualist' organisation to Lavongai society, that pivots around marriage and the concept of the *palunsava* clan. This word refers to clans that have exchanged marriage partners repeatedly over generations, a situation which can arise if people marry a person of their father's clan (for instance, but not only, an opposite-sex cross-cousin). Statistical analysis of marriage data showed the reality of this effect even when factoring out dominant demography. Thus, the question arose of whether the Lavongai kinship system may be Dravidian, and not simply Iroquois. A number of the required kinship equations are satisfied, but the children of opposite-sex cross-cousins are all classified according to relative-sex, and there is no impact of the opposite-sex or same-sex nature of the relation in the superior generation, which is contrary to what occurs in Dravidian systems. Therefore, the kinship system does indeed seem to be Iroquois, despite the presence of this quasi-dualist organisation and the ambiguity concerning marriage between cross-cousins. These two factors, in any case, are strong structuring tendencies to the social organisation of Lavongai.

Finally, clan membership is also the pivot point of all claims to resources and occupation of space, be this a piece of land, or an area of sea. The local tenureship arrangements involve a double distinction between use and property of land, and between dry areas and the sea. All areas of land are conceptually the 'property' of a clan. However, usage rights can be incurred through more that clan membership, including through marriage or via compensation payments made by a man to another clan. Although clans are 'owners' of the land, they must also take into account people from allied clans. When members of one clan wish to alienate a piece of land, they must negotiate with their allies: *ri osongon* (those who are married to a clanswoman), and *ri polok* (literally 'those we were brought up', meaning begotten and raised by a clansman). Regarding marine spaces, in contrast, clans do not formally appropriate sections of the seascape. It appears at first glance that the most pertinent factor allowing access to marine resources for harvest or fishing is proximity of one's residence. However, the story of Rinaiatukul also justifies a more profound claim

to coastal areas and their resources: the notion of *tokosiangan*, the 'coastal clan segment'. This is reputed to be the place on the shore where a clan first arrived on its path out of Rinaiatukul. By claiming that an area is their *tokosiangan*, people can legitimise access to it, even if they reside far away. This is of course indispensable for inland people, who might otherwise have no access to saltwater, nor marine animals for food.

Chapter 3

Constitution of Beings

> To inhabit the open [world] is [...] to be immersed in the incessant movements of wind and weather, in a zone wherein substances and medium are brought together in the constitution of beings that, by way of their activity, participate in stitching the textures of the land. [...] every being, as it inhabits the world, gathers it up in its own particular way.
>
> Ingold 2011, p 121

Introduction

This chapter attends to the practices and discourse which Lavongai people employ concerning what I shall be calling the 'constitution of beings'. By this, I refer to the processes and influences that are seen to contribute to making beings—humans and nonhumans alike—into what they 'are'. On the one hand, it will be important to notice how nonhumans are considered by Lavongai people to be involved in this process of 'making a human being'. On the other, it will be equally necessary to attend to the ways in which nonhumans are considered to be similar or divergent from humans with regards to their constitution and development. In essence, I will be asking: what is, and what makes a human or nonhuman 'person' for coastal inhabitants of Lavongai? How are beings, including humans and nonhuman animals seen to be constituted? How are newborn beings seen to be 'moulded' into becoming 'themselves'?

Various dimensions exist to these questions. One of them involves local conceptions of procreation and ontogenesis: the way in which beings come to exist. Another is related to those events which unfold in the development of a being after birth and during growth.

Yet another concerns the way in which different beings are defined, distinguished, named, and categorised, since it is through such linguistic operations that people attribute their developmental and genealogical properties to beings.

This chapter will proceed first with a section outlining the practices and discourse of the Lavongai people about conception and procreation in human beings. It will present the local conception of gendered roles in this regard, then attend to the actions carried out at birth. Following this, attention will be given to the way substances are seen to circulate between parents and children, and in what way. Finally, it will expand on the notion of *aiveven*: 'care', which is key to understanding interactions between parents and children. Since this involves keeping away dangerous substances, a more general discussion of local discourse concerning polluting or dangerous substances will ensue. In a second section, the chapter discusses the 'making of' nonhuman beings, meaning the way Lavongai people described their reproduction and growth, in particular in the case of marine animals. Finally, in a third section, the importance of nomenclature and classification in describing how different types of nonhumans grow and develop leads to a discussion of the criteria that are used to classify nonhuman beings, in particular concepts of behaviour and location that tie back into the way humans are seen to develop and grow. Throughout the chapter, these concerns with reproduction, growth, development, and classification will begin to lay the foundations for the ontological approach that is developed more fully in Chapter 8.

3.1 Making a new human being

3.1.1 Gendered roles in procreation

As analysed in Chapter 2, Lavongai social organisation is largely arranged around matrilineal descent. In discourse, people link this with the certainty that characterises the connection between a mother and her children, a certainty which contrasts with man's ability to deny being the father of a child.[1] This is analogous to the ancient Roman legal principle: *mater semper certa est* (the mother is always certain), and is something which is true in all societies. However, this is far from sufficient, since not all societies have matrilineal descent reckoning as a consequence of the relative uncertainty inherent in paternity, despite this being present everywhere.

In a relatively close setting to that of Lavongai, Branislaw Malinowki famously represented the inhabitants of Kiriwina island in the Trobriand archipelago (Milne Bay, PNG)—who also have matrilineal descent reckoning and speak an Oceanic language related to Tungag—as believing in a form of 'virgin birth', meaning they consider that women are able to procreate without ever having had intercourse (Malinowski 1916, pp 412–413). This is one among a number of highly controversial cases of societies (notably in Australia) which ethnographers claimed had no knowledge of the father's role in procreation. Such assertions were usually followed by equally vivacious rebuttals by other anthropologists claiming that such basic understanding of the role of fathers in procreation was univer-

1. I did observe this to occur on Lavongai, in cases where the man in question told me he was well aware of being the father; such a situation therefore involves a calculated lie.

sal (on this controversy, see Rajačić and Škorić 2021; also Shapiro 2018, pp 41–42). In the Trobriand case, Malinowski recounts that, for the people of Kiriwina, procreation requires the participation of a *baloma*, a form of 'spirit' that enters into the mother's womb during gestation, and plays a key role in generating this new human being. They further explain that coitus is important for this to occur, as it is thought to 'open the womb' so a *baloma* may enter. In a number of cases however, Malinowski's interlocutors told him of women who were considered to never have had intercourse and did nonetheless receive a *baloma* and subsequently give birth to a child. Moreover, Malinowski also linked this belief to the social organisation that places high emphasis on the relation between a child and his mother's brother, rather than on the relation between father and child.

On Lavongai, people will almost systematically comment on how newborns—boys as well as girls—have the 'face' (*naunau* or *nono*) of their father and consider this as 'proof' of this man effectively having engendered the child. From this, it is apparent that there is a clear idea regarding fathers having a part in conceiving children and that no such form of belief in a 'virgin birth' is present. Moreover, although the relation between child and mother's brother (*labag*) is close, and in many ritual occasions young people follow instructions from this man who is from their own clan, rather than those of their father, the main emphasis in caring for children is inside the nuclear family.

Regarding Kiriwina, Malinowski's own assertions on the 'virgin birth' theory varied, and subsequent fieldwork has largely rejected his interpretation of the ethnographic data (E Leach 1966; Weiner 1976, p 122; Mosko 2017, pp 9–10). Annette Weiner who investigated these matters in Kiriwina, many years after Malinowski, writes that the cases she heard of in which discourse resorted to 'virgin birth' as an explanation for an unexpected pregnancy were expressed in public and aimed at avoiding accusations of adultery. Weiner found that when a woman carried a child outside of marriage or in the absence of her husband, she would tend to accuse somebody else of having used magic to command a *baloma* to enter her womb and produce this baby, while still knowing full well who she had intercourse with (Weiner 1976, pp 120–122).

Similar discourse exists on Lavongai also, where a number of stories tell of women having intercourse with 'hidden beings', either in their homes during their husband's absence, or when sleeping alone in a 'forest house' (*lu i nei uten*, a form of temporary hut which is often erected when large amounts of garden work are required in a location that is a certain distance from the village). These beings usually take on the form of snakes, something which might be interpreted as a phallic symbol. They may cause a women to subsequently give birth to an 'unusual' child, one with a deformity, or cause her great pain followed by a miscarriage. Rarely, they may lead to the birth of an 'ordinary' baby, but one who will then fall ill or have some form of difficulty. The truth about these pregnancies having been caused by a 'hidden being' will then be elicited during healing sessions by magicians who are able to enlist the aid of *anit*, spirits of deceased ancestors.

However, in most cases, Lavongai women make no great mystery, once they are pregnant, of who the father of their child is, even when they are not married to the man in question, and occasionally even when they conceive with another man that the one to whom they are married (although this can be highly dangerous to them, as the violence of husbands

towards their—alleged or truly—adulterous wives is common, unsanctioned either by courts or by popular opinion, and brutal).

3.1.2 Birth

Birth is entirely the purview of women in Lavongai society. Because of the highly gender-divided nature of social life there, it was challenging for the male researcher I am to gather any significant data on feminine activity, and for this reason, practices surrounding birth proved especially difficult for me to investigate. Discussing these topics with those few women with whom I had relaxed relations was not often possible, and only one or two did eventually speak freely with me on the topic of childbirth. Men not only shied jokingly away from such matters, but even acted in a way that suggested they were afraid to witness the birth of a child. Nonetheless, several women were pregnant during fieldwork in Metevoe, and several childbirths occurred. Informal discussions on this topic also yielded some insight into the Lavongai people's conceptions on procreation and ontogeny—most of these with men, but also with a small number of women who were not too uncomfortable talking of such matters.

In recent years, according to my own data, approximately half of the births recorded for Metevoe families happened in a Health Centre (usually in Lavongai village or in Metemana, and when complications arise sometimes in Kavieng; see Map 1.2). When this is the case, a trained health worker will assist the woman in labour. However, when I discussed this with the health workers themselves, they explained that whenever both male and female workers[2] or nurses were present to assist with birthing, the male practitioners never did so. In smaller Aid Posts where no female Health Worker are available, pregnant women are instructed to go to another location.

Another example of the way that men vigorously shy away from these matters was evidenced by a story told to me by Laimen. A pregnant woman from Metevoe was entering labour, and a group of men were asked to rush her to Lavongai village health centre by motor boat. Laimen was manning the engine, and as they boarded the boat and motored away, the woman gave birth in the boat. As the men understood this was what was happening, their main preoccupation was that they should see none of it, and so they went to great lengths to erect a 'wall' out of a plastic canvas and hold it in place so as to hide the woman and her newborn child while still heading to the Health Centre.

Women explain that, after birth, the *lu i popo*, literally the 'baby's house', meaning the placenta, must be recovered, then placed in a coconut shell and buried in the home, under the location where a cooking fire is found, inside the first section of the main house (not in an exterior cooking hut that many dwellings have nearby): 'The placenta, we take it and bury it. We put it inside coconut shells, two coconut shells, and it goes under the ashes, in the house. As time goes by, it will rot, and there will be nothing left, it will become ground.[T20]' (Anna, 29 June 2022).

2. The Community health worker or CHW is a health practitioner who has completed a one year practical and one year apprenticeship course in a medical training institution in PNG. They staff the 'Health Centres' or 'Sub-health Centres' under the supervision of one or several nurses, and may sometimes also work in the smaller 'Aid Posts' on their own.

This is said to be necessary in order to keep the placenta 'warm' and prevent disease from affecting the baby. Some women also consider that this is done because the placenta is 'a woman's thing', and it would not do for it to be left where animals might find and eat it, or to let it float out to sea where fish may also consume it and then be caught and eaten by men: 'We [the women] do not want to throw women's things into the sea, because it is the place for fishing, and the fish are going to eat it, and we will fish, and that will give us illnesses.[T21]' (Anna, 29 June 2022). From this it becomes apparent that the substances that are left after birth are seen to be dangerous even in such a secondary way as when they are eaten by a fish that may then be eaten by humans. The fact that it is buried inside the house shows that it is however considered important to keep it 'close by', and the localisation of this burial point beneath the fire follows a preventative health imperative for the infant, as failure to do so would allow the placenta to become 'cold'.

In the case when women give birth in a Health Centre, the workers are not always open to this practice, and they usually take the placenta and dispose of it, sometimes by throwing it into the sea, which my interlocutors considered 'wrong'. This is one reason why women frequently refuse to make the journey to the Health Centre when labour approaches (for an example of similar difficulties in the Massim Archipelago see: Mallett 2001).

Various forms of prescriptive discourse also exist regarding what should be done during gestation and in the period after birth. In both cases, prohibitions are imposed on mothers because certain foods are said to be detrimental for the fetus during gestation, or to the newborn when breastfeeding. This is the case of many fish, in particular *samung* (sea chubs, *Kyphosus* sp.) and *vukata* (triggerfish, fam. *Balistidae*), which are said to be detrimental if eaten during the gestation period. They would *vil bat a selen i popo*: 'block off the baby's path' (ie cause the birth canal to remain closed). I could identify no particularities to these families of fish, neither in their reproductive behaviour nor their appearance, that may have led Lavongai people to consider them harmful to a human fetus.

However, the largest share of the prohibitions begin after birth, as is commonly the case in the region (Bonnemère 1996, pp 168–170; Jolly 2001, pp 181–183). For a period of several weeks, a woman must fast when she has recently given birth (*ingus mol*). She can eat garden tubers (taro, cassava) and leafy greens, but she cannot eat any turtle meat, shark meat, nor the flesh of most fish, and no coconut milk. Among those foods that are prohibited is eel flesh, and this is the crux of the story of Okas and the Maliuliu eel (for a full transcription of this story in Tungag and its translation into English see Appendix F). In this, two women are near a river when a very large eel eats one of their garden tools (a half coconut shell used to remove weeds). The villagers eventually dig out the eel, kill it, cut it up, and share it among themselves. However, because they did not discard the bile sac properly, the eel forms anew, then takes on the appearance of a man, and thus disguised returns to the village. He then calls all who ate any of 'his' meat to gather around him, before opening a crack in the ground and drowning them in a great flood of his sweat. The woman whose coconut was initially taken had not eaten any eel: she was fasting, abstaining from eating fish meat because she had recently given birth. Thus she was spared from the flood, and became the first progenitor of the Siavun lineage in that area.

Women stated that this fasting on the mother's part must continue until the baby's 'body/skin arrives' (*pukun kala serei*). This is said to take place a few weeks to one month

after birth, and it could be understood in several ways, due in no small part to the polysemy of *pukun* (either skin or body). The explanations I was given were confusing to a degree, but I believe it may have to do with the fact that black-skinned babies are born with a comparatively light complexion, some even appearing entirely white, before gradual exposure to sunlight causes their skin to darken. This sign is combined with another indicator to determine the time when the fasting can come to and end: the condition of the navel. When the stump of the umbilical cord that remained on the baby is thoroughly dried, and falls off, then the right time to end the fast is considered to have come. If a mother were to eat these forbidden foods before then, the baby's skin might develop boils or abscesses, and the navel might swell up.

The mother will then start to break this fast (*sikop*, a term reserved for this particular fast-breaking): at first, she may eat only mangrove and reef seafood such as crabs (*ngakum*) and shells (*kang* for instance). Then, the father will catch a 'proper' meal of fish, and a small feast will be organised, during which the mother will partake of the fish and subsequently be able to eat all these foods again. At this time, a plant is used by men versed in esoteric knowledge to give strength to the baby: a piece of *pupuang* bark (unidentified plant, note that *puang* means 'to dry out') is chewed and then *tip* (spat in mist) into the child's mouth.

3.1.3 Shared substances

Ingestion of certain substances by the mother, either during pregnancy or breastfeeding, is therefore seen by Lavongai people to influence the child's development. Men also avoid any of the bodily substances—notably blood—that are the result of childbirth, and refuse to even witness the event.

These considerations raise the question of how bodily substances are seen to flow from one generation to another, how they may be similar or different, common or novel between parents and children. Such a concept of 'shared substances' between relatives is something that was mentioned by many people in a number of different situations. One such case was when explanations were given quite spontaneously by my interlocutors to justify the avoidance practices between opposite-sex cross-cousin (*magaug*, see page 101). It is frequently said that their 'blood is similar' (*rangai kate kuvul*). In another situation, during a public ceremony in which John Aini was gifting a string of shell money to a representative of Silau, he made the following humorous comment predicated on the fact that his father was a Silau clansperson:

> Silau [clan]! Your semen engendered me, come here! You ejaculated, your strong blood is in me. This little son of Valus [clan] here wants to strengthen the many things you have mentioned already, standing together, standing with the children, standing with the seven clans, standing with the eight clans, standing for the future here, thank you very much Silau [clan][T22].

The link here between 'ejaculating' and 'blood' is immediate: a Silau ejaculated, hence Silau's 'strong blood' is in him. That John was comfortable making a humorous comment in this context can be tied into the joking nature of the relation between *ingag* (same-sex cross-cousins, see page 104). Indeed, any same-sex member of the father's clan who is of a

similar age to ego can be considered as a classificatory *ingag*, and the joking relation that exists between these relatives becomes the referent behaviour in this case.

On another occasion, during a group interview, when discussing education and the role of the father in bringing up children, Boniface Fode made the following observation, comparing the situation of an 'actual' child fathered by him and a child that might have been the product of an adulterous union:

> Although I might have a number of sons, nevertheless, if one son has been begotten by somebody else… […] My teachings, it is possible for my child to obey them because of blood. Right. Well, a different blood, the blood of somebody else, this will eventually cause him to fail to listen to me, and he will not follow my teachings nor my instructions. It's like this: it will be impossible for me to look after [this child] properly.[T23] (Boniface Fode, 1 September 2023).

Boniface is stating a direct link between the fact that a father has 'given his blood' to a child, meaning he is his genitor, and the propensity of this child to listen, learn, and obey. Beyond the rather surprising consideration that consanguinity is a precondition for obedience, the implication is once again that the father's 'blood' is in the child.

This led me to include the following two questions in interview: 'do a newborn child and the father share the same blood?' and 'do a newborn child and the mother share the same blood?' To these, answers were always positive, but somewhat surprisingly, they were both for the father, and for the mother, who are all seen to pass on their blood to children equally. Some interviewees further specified that children carry the blood of both their parents, as well as that of their grandparents and of their ancestors before them. Hence it cannot be said that blood is considered to be contributed only by the father, even if this is what is emphasised by men when discussing a father and child's connection.[3] A number of people also remarked spontaneously on how it was paradoxical, in this regard, that Lavongai society gives more weight in descent to the matriline, when they regard the child as being equally consanguineous with the mother and father. This is also reflected in the almost entirely symmetrical kinship terminology (Sub-section 2.2.1), which makes no distinction between patrilateral or matrilateral siblings, cousins (parallel or cross), nor even between mother's brother and husband of father's sister (both *kakai*).

In many Highland Papua New Guinea societies, there is a strong link between the conceptions regarding procreation and ontogeny on the one hand, and male initiations on the other. Pascale Bonnemère writes of 'the need to construct a male person (in contrast to the spontaneous passage from girlhood to motherhood)' (2018, p 155) which she documented among the Ankave (see also: Bonnemère 2009). This has been noted in other Highland societies also (Meigs 1976; LiPuma 1979), and Bonnemère analysed comparative data from 26 different societies to show that

3. Compare this, for instance, to the way the Ankave, a patrilineal society of Highland PNG, consider that 'children grow in the womb through the action of the mother's blood alone. Furthermore, since there are no substitutes, mother's milk is the only food available to babies […] The father's role in the reproduction of human beings is thus diminished.' (Bonnemère 2018, p 2). Although in the conceptions of the Ankave's neighbours, the Baruya, the father's semen is the principal substance that contributes to the formation of a child, therefore requiring repeated coitus during pregnancy (Godelier 1986, pp 51–60).

> indigenous [Papua New Guinean] conceptions regarding humours form the substrate of representations regarding production and constitution of the person, and they allow us to approach many questions from a complementary angle, such as individual's forms of belonging to kinship groups, the relations between men and women, or representations concerning the individual and social identity.[T24] (Bonnemère 1990, p 102).

As will be detailed in the next chapter (Section 4.1), certain phases of the life cycle are punctuated by 'initiation-like' practices on Lavongai, but it is safe to say there are no large-scale compulsory initiations, and there have probably never been any. Certainly, there is nothing comparable to what is observed in Highland societies, and the practices that do take place and have initiatory aspects are not seen as indispensable in any way; they are all rather optional and elective. Other Island Melanesian societies that have matrilineal descent do however practice systematic male initiations (notably in the Solomon Islands: Ivens 1927; SM Mead 1973; Davenport 1980), meaning that matriliny itself is an insufficient explanation of this absence. There may however be a link between the absence of male initiations on Lavongai and the local discourse stating that men and women contribute equally to the substances of which a child is constituted. In a sense this discourse obviates the need to make men into anything 'more' than what they are, in order for them to be adequate fathers, despite the 'vulnerable' position into which they are placed by the matrilineal ideology. To resolve the latter point, all that is needed is to state—as people often do—that a father has given blood to the child, to emphasise this fact in discourse. Although the belief in symmetrical contributions of father and mother is present, there is no corresponding need to state this for women, for in this matrilineal context their connection with their children is a sociological given.

3.1.4 *Aiveven*: looking after, on care and nurture

Once a child has been conceived, birth has taken place, and he or she has begun to grow up, the actions of the parents and others towards it continue to be enlightening with regards to conceptions of how beings are constituted. The notion of *aiveven* (or its allomorph *aveven*[4]): 'looking after' or 'care', is central to the understanding of relations between parents and children. Incidentally, it is also key to understanding relations between larger groups within Lavongai society, and—last but not least—between humans and nonhuman beings. In the most fundamental sense, this word means 'to care for' or 'to look after' and might even be used to say 'look out!' when somebody is in danger. However, *aiveven* is also said to be the quintessential father's responsibility towards his children. For instance, in this excerpt from a public speech by Andrew Kasau in Metevoe: 'As a man, you must look after your family [in English] in front of your house, and you will become a true man.[T25]' (Andrew Kasau, 11 April 2022). Looking after (*aveven*) one's family is the path

4. In linguistics 'When a morpheme [a unit of meaning] is realised by a series of different morphs [ie pronunciations] [...] the alternative realisations are called allomorphs.' (Finch 2000, p 107). Here there is only one unit of meaning, 'to look after, to care for', but it can be pronounced either [a͡iβeβen] or [αβeβen] without altering the meaning, and neither form is attached to a dialect, so they are not 'variants'. Stamm also noted that certain diphthongs can be replaced with just the first vowel without altering the meaning in Tungag, such as with *tan* or *taun*, two allomorphs meaning 'time' (1988, pp 4–5).

to becoming a 'true man'. It is up to men to look after their children, and when queried as to what this means, people develop the concept into the following three threads:

- **nurture**: feeding, in particular with meat and fish, which gendered division of social roles assign as male prerogatives (contrasted with the female role which is to produce starchy staples by working in the garden);
- **providing**: making the basic tools of day-to-day life available, such as clothing, pots for the child's mother to cook with, cutlery, etc. (nowadays this involves finding money);
- **protection**: house building in order to offer shelter and keep the child away from harm.

Public speeches on the occasion of a man's death extol how he was a 'good father', who 'looked after' his family, providing all kinds of valued foods, and 'things'. Moreover, the term *aiveven* is used also to refer to the actions involved in giving a warm welcome to guests, which, once again, is a task assigned to men. When visitors arrive, it is considered good form to greet them with food and—if the house has any—with coffee, tea, and sugar (all relative luxuries bought at a high cost in Kavieng). The visitors should be given far more food than they could possibly eat, always the best part of whatever is currently available, which might mean they will get the whole of a single fish that would have fed all the family if no guests were present. In other words, *aiveven* glosses as 'hospitality' as well as 'care'.

One key aspect of the discourse on these matters is that it occludes the role of women in providing the vast majority of food eaten by a family (including their husbands, and their husbands' guests!) People speak of the few fish that are caught by men, or of the single pig that a man speared years ago, but the day-to-day production, transport, preparation, and cooking of tubers—which for a majority of meals constitute the only sustenance—are hardly ever mentioned. This discrepancy between practice and discourse is not particularly surprising. The way it should be understood, I propose, is as indicating that it is an 'obvious' implicit duty of women to perform childcare, feed their families and carry out household tasks. It does not require discourse nor admonition, it is a given. Men, in contrast, can choose not to look after their family, and some do, leaving a first wife and her children to live with a new wife, for instance, which is something I never heard of any woman doing (on marriage, see Section 4.2). Therefore, it is necessary to place a discursive emphasis on the 'correct behaviour' that a 'true man' is expected to have: to take care of his children.

Roy Wagner, writing of the Usen Barok in central New Ireland, describes a similar paradox in the following way:

> The father, it is said, did not *have* to give his gift of life and nurturance to his wife and children, their clan, and the moiety that contains it. He gave it freely, of his own will, and therefore paternity is treated as an honorific role—an act of giving and creativity. The ultimate sense of this is summed up in the ethic of *malum*, respect accorded the other moiety out of sorrow for its bereavement (in the general sense, over the deaths of all who have served as vivifiers of one's own moiety). (Wagner 1986, p xvii, original emphasis).

Brenda Clay writes about the *nanga* (mother) in Pinikindu village (or Pinikidu, Map 1.2) in mainland New Ireland that:

> In analyzing the Mandak procreation ideology, I was frustrated at first by the blank looks that always followed my question: 'What does a person receive from his nanga [in procreation]?' While people had ready answers about what was received from the procreating father, many could not find an appropriate response at all to the nanga question (Clay 1977, p 53, insertion in original).

Likewise, Robert Foster, who did fieldwork in the Tanga Islands, offlying the New Ireland mainland to the southeast, writes that:

> relatedness through men is [...] enshrined in a kind of lineage pair bonding or relationship named *fat kinaf* ('bound cross cousins'). [...]
> Tangans construe patrilateral relatedness as both the source and product of the matrilineage [...] and consequently exploit these relations on both counts in reproducing the matrilineage through mortuary feasting. Thus it is paradoxically the negotiation and management of patrilateral relations that effectively and performatively articulates the clearest expression of unilineal descent—the matrilineage itself. (Foster 1988, p 73).

Foster, Clay, and Wagner's comments brings us back to the quasi-dualist organisation of society evidenced in the previous chapter (Sub-section 2.2.3). Indeed, people often say that the father's clanspeople as a whole are conjointly responsible for *aiveven*. The clan of the father is known as 'the clan that I grew from', 'the clan that brought me up' or 'the clan that raised me' (*kag patmani i polok*), but also as 'the clan that looked after me' (*kag patmani i aiveven*). With this in mind, it becomes clear that what is being emphasised in discourse is the food which circulates between the clan of the father and that of the mother and children. This is what enacts the core of *aiveven*. A mother feeding her children is simply a duty, since they are her clanspeople. A father feeding his children is, on the contrary, an actively valued gesture.

Although this provision of food and every day necessities is one of the main components of 'looking after' others, in particular children, it also encompasses the need to keep away dangerous substances. Caring is all at once providing for the perceived needs, and shielding from the perceived dangers of life. But what must be kept away, from the Lavongai people's perspective, in order to properly care for children, or any other being for that matter?

3.1.5 Pollution, danger, dirt

At least since Mary Douglas' classic essay, *Purity and danger: an analysis of the concepts of pollution and taboo* (1966), anthropologists have recognised that in every society, there are culturally determined substances which are considered to cause 'pollution', to be 'dirty', and ultimately to represent some for of danger. Sullying by such substances is opposed to an imagined condition of 'purity'. Although the existence of these concepts is a universal, what is defined as pure and, in opposition, what is defined as a source of pollution varies somewhat, including within societies of Western Oceania (see, among many other works on the topic: Meigs 1978; Buckley 1988; Bonnemère 1990; Akin 2003; Malbrancke 2016; Herdt 2019). To summarise: in general, it is female substances that are considered 'dangerous', or substances associated with women, in particular menstrual blood.

There are several substances which are handled and referred to by Lavongai people in ways that indicate their 'dangerous' or 'polluting' nature. These are:

1. menstrual blood;
2. all substances related to childbirth;
3. faeces (but not urine);
4. elements used in the preparation of food, remains of cooked food, and refuse from the preparation of food.

The first, menstrual blood, is something which is avoided at all cost, at least by men.[5] It is hardly ever mentioned in any situation, except to explain to an inquisitive ethnographer that it must be avoided and even then in periphrases. When food is found to be cooked poorly, or somebody fears they have become ill from eating a spoiled meal, they will often say that it is because the woman who cooked it was menstruating, indicates that women are not supposed to cook for anybody during this time.[6]

The practices previously described as *mamaila* (shame, respect, avoidance) on the part of women towards their *magaug* (opposite-sex cross-cousins) and *angtuaig* (sister's husband, husband's brother) also testify to these conceptions of female substances as being dangerous for men (see page 101). The fact, in particular, that a woman must not be 'higher' than a man is related to the way menstrual blood—the polluting substance *par excellence*—comes from between their legs.

On one occasion, when travelling by boat from Kavieng to Metevoe, I had an opportunity to discover just how strong the feeling of aversion is which men have towards any chance of female pollution entering into contact, even indirectly, with them. I drank from a large bottle of water, and placed it on the floor of the boat next to me, still partly full. As the boat rolled back and forth in the waves, the bottle eventually shifted until it was under a bench which a woman was sitting on. Noticing this, a young man shouted from behind me to move the bottle. I had, by then, understood the strong aversion that men had to anything being 'below' a woman, and so I simply nodded and moved the bottle. Later on, this man wished to wash his mouth after chewing betel nut, and asked for water. I handed him this bottle but he refused it. Nobody else had any to offer him, but rather than reconsidering just how 'soiled' that bottle may have been, or simply waiting, he used a grimy plastic bailer that had been bobbing up and down in the fuel-stained sump of the boat for months, scooped up sea water, and used this to rinse out his mouth!

3.1.6 Section conclusion: human ontogeny

Lavongai conceptions of how to make a new child therefore hinge around the concept of *aiveven*, which incorporates notions of care, nurture, and protection. The local conceptions of corporeal substances show that there is both a flow of blood from one generation to the

5. The reason I limit my statement to men's behaviour here is that I only observed this. It could be that women similarly consider their own menstrual blood with aversion, but I was never in a position where I felt it would be appropriate to discuss this with any woman.

6. However, in all the time I spent in Metevoe, where the same women were constantly providing cooked food to me and others I lived with, I never noticed any times when they obviously stopped doing so and which may have indicated that they feared their food would be inappropriate to eat because of them menstruating. This belief is therefore perhaps not as strong as some would like it to be, or the fact I was an unusual stranger may have made this point mute to them.

next on the father's and mother's side. Discourse however, in both cases, emphasises the father's role in *aiveven* and in transmitting blood. What now of their conceptions of such ontogenetic and procreational processes beyond the human?

3.2 Making nonhuman beings

Of course, Lavongai people have ample opportunity to observe the reproduction of village animals such as pigs or dogs and can describe these at length. However—and more in line with the subject of this thesis—they also have detailed knowledge of the reproductive process of many marine animals, including relatively cryptic ones such as small fish, prawns, and jellyfish.

During semi-structured interviews,[7] I asked people 'how do fish produce offspring?'[T26] This led respondents to present how they observed fish aggregating in large numbers and stated that this was when they conceived. Others who were frequent divers recounted that they had seen fish of the same species going by pairs, and surmised this might have been a male and a female 'going after each other' (*angusing*), in other words: engaging in courtship behaviour. Although this suggests that the role of a male fish in producing offspring is assumed to exist, nobody made it particularly clear how they were considered to contribute. There was no mention of fish semen for instance, not of any actual copulation, despite mentions of male and female fish 'being together' being necessary for reproduction.

They also explained that when they catch a female fish, part of the innards is called *mas*, just as fish spawn is. By this name, they refer to the ovaries, which have a grainy aspect that is evocative of fish spawn (Figure 3.1). This, they said, contains the future offspring of the fish. The small specs that make up the spawn are eventually placed by the female somewhere: under a stone, or for some fish in the sand on the seafloor, especially near the mangroves or in seagrass beds. Later, these grow, become 'strong' (*kit*) and turn into huge numbers of small fish.

A number of exceptions were noted to this general reproductive mode of fish. Sharks were said by Lavongai people to produce live offspring, rather than eggs,[8] as were dolphins. They also mentioned having seen turtles laying eggs in the sandy beaches of the island and noted that this made it the only 'fish' (turtles as 'swimming animals' are included in *ien* with other fish) that did not put its eggs in the water.

Some respondents stated that fish do not look after their offspring once it had developed, however others said that, once they had been laid, the male fish defended the eggs against predators. They had various notions regarding stages of development for various fish. Many, they said, develop under shaded areas, in particular under aggregations of floating driftwood and other materials that form at sea. Such an aggregation is known in Tungag as an *alus*, and they are known to be good fishing grounds since they act as 'natural' fish aggregating devices (Dempster and Taquet 2004). A clear association was also stated between the size of a fish as it developed from juvenile to adult, and the depth of water.

7. The full guide in English and its original Tungag is available in Appendix G.

8. Sharks reproduce via a form of ovoviviparity, or lecithotrophic oviparity, meaning they produce eggs that remain inside the mother's body until the offspring matures.



Figure 3.1: Iatilda holds the ovaries of a freshly butchered fish (here a small *atin*, a type of tuna, fam. *Scombridae*) and explains what it is: the Lavongai people known that this organ is only found in female fish, and call it *mas*, a word which also designates fish spawn once it has been expelled by the female. It is considered edible, at least in this species. 20 September 2023, Metevoe.

Juvenile fish are seen to dwell in the seagrass and shallow mangrove waters, and then, as they grow, to go out to progressively deeper waters.

There is one particular fish known as *riranga* for which Lavongai people have very detailed knowledge, in particular in relation to its development.[9] This is a small fish in the goby family which has the particularity of being—in ichthyological terms—amphidromous, meaning that it has distinct life stages during which it dwells in the sea, and in rivers successively, but this is not related to spawning. The Lavongai people give detailed descriptions of how these fish are considered to develop from spawn to adult form. They explain that the adult form of *riranga*, called *lenge*, live in fast-flowing headwaters of the island's large rivers. There, they lay eggs under stones. These eggs grow, and when they hatch the small 'glass-like' larvae drift down the current to the sea, where they grow progressively larger. Later, they return to the estuaries as postlarvae[10] and aggregate in large numbers, then continue up the rivers again, growing through several stages as they do, before becoming adults in the headwaters. Throughout their ocean-bound development phase, up into the

9. This is the subject of much more detailed description in an article that was, at the time of writing, under review (Collins *et al.* 2025). I will also provide more details on the interaction between Lavongai people and *riranga* in Section 9.4.

10. 'Postlarval fish' or 'postlarvae' are fish that have grown beyond the larval stage, which is the first one after the egg hatches, but which have not yet reached a 'juvenile' stage.

estuarine and riverine ones, the Lavongai people name a number of development stages of *riranga* with specific terms. These are, from the smallest to largest:

- *vunep*: literally 'ground, soil, earth', this is a reference to the fact that the fish are still so small that if caught, they will be barely more than gravel, and are not seen as fit to eat at this point;
- *kisimerung*: no explanation was given for this name;
- *manikvalsilang*: *manik* means 'creature, animal', *val* 'like' and *silang* is an unidentified fish;
- *riranga*: the generic name for the family, this is the right stage to fish for them;
- *ra*: this stage is only found in the rivers, it is darker than *riranga* but not yet adult;
- *lenge*: adult form, divided into:
  - *lenge susu*: still somewhat juvenile, distinguished by red margins on fins (Figure 3.2);
  - *lenge makmakangan*: small black spots on flank.



Figure 3.2: Photo of a *lenge susu*. This is said to be a juvenile form of *lenge* by the Lavongai people, and it is characterised as such by the red markings on the dorsal fins. The caudal fin was damaged during capture. Identified as *Sicyopterus cynocephalus* by Clara Lord (Collins *et al.* 2025). 28 December 2021, Metevoe.

The complexity of this nomenclature for what is, in the Lavongai people's own view, a single fish testifies to the high degree of attention this animal has received on the part of the Lavongai (I will discuss the sociocultural importance of *riranga* in much more detail in Section 9.4). It also suggests that we may gain insight into local conceptions concerning the constitution of nonhuman beings by attending to the discourse and in particular the vernacular terminology used when referring to such nonhuman beings. To this end, I will now question the ways in which terms referring to nonhuman beings are defined, how these beings are grouped into categories, and where Lavongai people perceive similarities or differences between them.

3.3 Ethnotaxonomy and constitution of nonhuman beings

The terms 'ethnoclassification' or 'ethnotaxonomy' are often used in the anthropological literature to refer to such 'local' or 'vernacular' conceptions of nomenclature, groupings, or differentiation of living beings (but also, occasionally, of rocks, geological features or other inanimate 'things', Dwyer 2005). These terms are used in social anthropology to refer to a domain of knowledge that is anchored in a given sociocultural setting. This might seem problematic, as the use of the prefix 'ethno-' could be taken to assume that there are 'non-ethno' fields of knowledge that are in some way epistemologically privileged. It might suggest that *some* domains of knowledge that do not require this prefix are uninfluenced by the sociocultural setting in which they are embedded. This is what Edvard Hviding points out when he writes that: 'Used as prefix, "ethno-" indicates a field of "native" knowledge relative to a canonical counterpart within non-"ethno-" Western science; it indicates that the specific field of knowledge is that of the observed rather than of the observer.' (Hviding 2003, pp 265–266).

However, scholars have shown that all sciences, 'Western' or otherwise, are forms of ethnoscience (Harding 1997; Ellen 2004; Zucker 2020). Indeed, no scientist is without sociocultural attachment, neither is he nor she uninfluenced by the setting within which the scientific discourse is delivered. Technology studies (Guesnerie and Hartog 1998) and the sociology of science (Latour 1989, 1991) have shown this to be true even in those most reputedly 'hard' of sciences: physics, chemistry, etc.

Writing here about the 'marine ethnotaxonomy' of the Lavongai people should therefore not be taken to mean that such knowledge is in any way being presented as 'simply subjective', relatively to some other idealised 'objective' form of knowledge. Use of this term is an acknowledgement of two things: first that I am myself not an ichthyologist, that I am therefore ill-equipped to judge the wider adequacy of the Lavongai knowledge to the data available from scientific sources, which, in any case, is not the point here; second, that the knowledge in question is 'ethnologically' situated, meaning framed in a specific cultural context. This is of course key, since the aim of this study is to articulate the way Lavongai society involves coastal nonhuman beings. It is also epistemologically indispensable, since no classification is a perfect and definitive reflection of the realities of phylogeny (inheritance and descent ties between species). As the historian Arnaud Zucker points out: 'both the scientific classification—which no doubt does not deserve this singular form—and the classes which it proposes are temporary and imperfect, virtually obsolete, and can in no way be used to evaluate a cultural or folk classification.[T27]' (Zucker 2020, p 215). And he points out that for this reason: 'The fundamental contribution of anthropology on this point is to bear witness to the real and culturally significant practices of classification operations, to manifest the functional plurality and fecundity of classificatory angles[T28]' (Zucker 2020, p 215).

I make no claim of giving a full ethnotaxonomical analysis here, however, I aim to present the sets of living beings which the Lavongai people use and attempt to explain how they are framed in their own discourse and presentation of them. This draws on one

of the main outcomes of this study: the inventory of Lavongai marine ethnobiological knowledge (available in full in Appendix B).

3.3.1 Outline of Lavongai marine ethnotaxonomy

Although there is no simple morpheme referring to 'all living beings' in Tungag, the word *to* glosses quite precisely as 'life', and therefore the noun phrase *keve nem to* is at times used to mean '[all] living things', including animals and plants, but not minerals.[11] One level 'down' in taxonomic generality from 'living things', there is a term which Tungag native speakers who also know Tok Pisin or English often present as meaning 'animal', which is *manmanik*. Another, possibly more commonly used meaning of this term is 'ant'. In the sense of 'animal', the use of *manmanik* is usually restricted to land animals, and if asked to list which beings they consider to be *manmanik*, Lavongai people respond first and foremost with pigs and dogs, the most common domestic animals. Therefore whilst it is not wrong to consider *manmanik* to broadly signify 'animal', the actual meaning conveyed in any giving situation may vary quite widely.

There are also a number of terms which refer to broad categories of animals. These are for instance *ien*, fish and other swimming animals such as dolphins or turtles, or *giem*, shells (see Table 3.1 for a list of such categories).

Table 3.1: Broad classificatory terms used in Tungag to group marine and coastal animals, with an approximate gloss for each, and the number of recorded taxa that each one contains.

Tungag name	Approximate gloss	Nbr.
ien	fish, dolphins, turtles…	271
manu	birds, bats, flying foxes	123
giem	shelled molluscs (mono- and bi-valves)	32
ngakum	crabs	19
ieung	marine animals that aggregate near shore	12
pula	sea cucumbers	11
oto	prawns	9
ral	corals	4
Total		481

In this regard, a comment must be made on the inclusion in Table 3.1 of the term *manu* or *mani*, birds, bats, and flying foxes.[12] It is an indispensable part of this list because a large number of the birds of Lavongai are true ocean-dwelling birds (such as *kanai*, terns, subfam. *Sternidae*; or *vokol*, the Pacific Reef heron, *Egretta sacra*). Also, and maybe most

11. Inclusion or exclusion of 'hidden beings' (Sub-section 3.3.4) from the category of 'living' was not clearly indicated by my interlocutors.

12. In the southern dialect of Tungag, the word most often used for 'bird' is *manu*, whereas on the rest of the island it is the dialectal variant *mani* that is preferred. Consequently, in the southern dialect, *mani* is usually understood to be short for *manilava*, the White-bellied Sea-Eagle.

of all, *manu* are of prime significance to the Lavongai people, as discussed previously (Section 2.1), and any analysis of their relations with marine animals that left birds aside would be lacking from the onset.

During fieldwork, 371 terms referring to marine taxa were consigned, as well as 123 taxa included in *manu*. Among all these terms, a number refer to classification levels that are intermediate between the higher order categories listed in Table 3.1 and the name of a specific animal. This is the case in particular within large families such as *ien* or *manu*. Almost all of these 'intermediate' taxa are of the 'generic' type, meaning that they are named after one specific taxon that they include, and which can be referred to as their 'prototype', but they also include some other taxa that are named differently. Tables 3.2 and 3.3 gives the full lists of these generics.

One comment that can be made on this taxonomy is that it is remarkably complete with regards to birds. Michael Tarburton's 'New Hanover Island Bird Checklist' lists 118 species and subspecies sighted and reported in the scientific literature for the island (2014). The Birds Of The World dataset, which was used during fieldwork to elicit names, listed 181 birds as present in the region in November 2021 (Billerman *et al.* 2020). The Lavongai taxonomy, although it does not align with the scientific identification of these birds, has a completion ratio of at least 67 %, and probably more, since there are certain New Ireland birds that are not present on Lavongai (notably the one that is figured on the province's flag, the Ribbon-tailed Drongo, *Dicrurus megarhynchus*).

In contrast, a 'Checklist of the marine and estuarine fishes of New Ireland Province' reported that 'a total of 1325 species in 153 families were recorded from the region […] [including] 142 species in transitional waters and 1264 species in marine habitats, and 54 species in freshwater habitats' (Fricke *et al.* 2019, abstract), and this does not include sea-mammals such as dolphins, nor turtles, contrary to the way Lavongai taxonomy defines *ien* (fish and other swimming animals). However, of these, the authors of the checklist also note that: 'A total of 1068 species occurs on coastal and inshore coral reefs of 0–70 m and associated habitats, so-called shorefishes.' (Fricke *et al.* 2019, p 337). This is the number that are possibly accessible to the inhabitants of coastal Lavongai, and therefore we can calculate a percentage of completeness based on this, which is much lower than for birds, at approximately 25 %. This is unsurprising for several reasons. First, fishes—even 'shorefishes'—are hard to observe without diving equipment, and clearly harder to observe at all than birds are. Second, many of the distinctions which ichthyological publications make between species are extremely fine, and it would be an extraordinary feat for people with no magnifying glasses nor underwater photographic equipment to have noted these differences. Moreover, what previous works in ethnotaxonomy have shown is that classifications are based on those criteria that seem pertinent locally, and that there is no reason for these to align with the criteria that have been chosen for speciation by naturalists and biologists.

3.3.2 Liminal or aberrant beings

Not all named taxa fit unambiguously into the large categories described above. Indeed, a number of animals are 'liminal', 'aberrant' or 'unaffiliated' (Berlin, Breedlove, and Raven

Table 3.2: List of 'generic' type taxa, meaning taxa that have a sub-taxon with the same name, as well as other sub-taxa, within the marine ethnotaxonomy of Lavongai. Generics for *manu* (birds) are in a separate table (3.3).

Tungag name	**Approximate gloss**	**Nbr.**
tuna	eels	16
tuna i nei sung	river eels	(9)
tuna i nei laman makasim	sea eels	(7)
kulava	trevallies	11
vasa	specific trevallies	(2)
kunga	groupers	10
umutung	specific groupers	(2)
pai	rays	9
atin	tunas	8
mangava	parrotfish	7
veua	sharks	7
on	turtles	6
aruma	needlefish	5
kungung	soldierfish	5
osang	emperors	5
riranga	*Sicyopterus* spp. (gobies)	5
lenge	adult forms of *riranga*	(2)
vai	snappers	5
tingang	specific snappers	(2)
von	goatfish	5
inavu	sardines	4
kiva	pufferfish	4
salau	unicornfish	4
sala	sea urchin	3
tuma	jellyfish	3
volo	octopuses	3
kovoi	sleepers	2
malisa	barracudas	2
mok	squids	2
rauan	mullets	2
Total in generics		133
Of total taxa recorded		371

Table 3.3: List of 'generic' taxa within the large category *manu* (birds, bats, flying foxes), meaning those that contain a sub-taxon with the same name and also other sub-taxa; see also Table 3.2 for the other marine generics.

Tungag name	**Approximate gloss**	**Nbr.**
ianga	Parrots, Lorikeets, Finches	9
sip	Sunbirds, Warblers, Myzomelas	8
uk	Fruit-Doves	5
valus	Pigeons and Cuckoo-Doves	5
vokol	Herons, Egrets	4
kanai	Terns	3
tien	Monarchs	3
manikeng	Starlings	2
sui	Kingfishers	2
Total in generics		41
Of total taxa recorded		123

1973, p 216). This variability might be attributed to the different competence or knowledge of my interlocutors. However, the data must be appreciated in its entirety: for the vast majority of marine animals, nobody who I asked to discuss a specific taxon had any hesitation regarding which category it belonged to. Hence, the simple fact that for some this was not the case, and that hesitation, refusal to classify into any category, and variable classification did occur points to a certain 'classificatory abnormality' or 'aberrant' quality of these taxa.

For instance, depending on the interlocutors, *volo* (octopus), *rusa* and *mok* (two types of squid) are variably described as being *ien* or not; a number of crustaceans such as *putput* (the coconut crab) are variably described as *oto* (prawns) or *urnamung* (lobsters).

Maybe because of this liminal, or unclassifiable quality, the octopus plays a central role in a myth involving the Ngono Manolos:

> There was an evil *pukpukis*, a shape shifting being[13], called Manuangaineimiring[14], who was making many bad rules, who imposed things on the population of Lavongai, and who ate other people. The Ngono Manolos heard of this, and decided they were going to stop him. They were in the south of the island, near Patianging the place where they grew up (Map 1.4). First, they went to find Manuangaineimiring, who was in the North, in Neipuas (Map 1.2). They walked there, and saw him: he had taken the form of a giant *kwila* tree. They came back

13. See Sub-section 3.3.4.

14. This name can be broken down into four morphemes: *manuanga* means 'wide bird' and usually refers to the eagle; *i* is a genitive marker; *nei* a locative; and *miring* is translated by Stamm as 'fig tree' (1958, p 52). The word *ion* was used to designate ficus trees in the location and time I carried out fieldwork, and *miringu* was used for the fig fruit, so Stamm's translation is cogent with my own data here. Hence Manuangaineimiring probably means something along the lines of 'the eagle in the fig tree'.

> south, and went to find help. They went to the lagoon in Meterankang (Map 1.2), and there they paid with shell money to enlist the help of *kauga*, a small, blue coloured sea shell. They went back north, and came to the river Mose, where they once again paid shell money to *volovololik*, a small octopus, so he would come and fight Manuangaineimiring with them. *Volovololik* got into a half coconut shell, and floated along on the surface of the sea, and all together they went to Neipuas.
> When they arrived there, they put *kauga* at the base of the *kwila* tree that was Manuangaineimiring, and told the small shell to cut at the roots with his sharp edge. Meanwhile, *volovololik* extended some hands up into the tree, and with his other hands held onto the ground, and started to pull. The Ngono Manolos threw stones to break the tree's branches. *Kauga* then said: 'I have finished cutting the roots, try and pull *volovololik*', and he pulled, but the tree was still strong. Defiantly, the Ngono Manolos asked Manuangaineimiring: 'soon the sun will rise and who will it find here, you, or the two of us?' Manuangaineimiring replied: 'very well, it will find you two.' The Ngono Manolos triumphantly exclaimed: 'we have killed you!', and the *kwila* fell down. *Volovololik* then dragged the tree until it came to lay across the rivermouth, where it can still be seen to this day. The evil Manuangaineimiring died that day, but the tree still has leaves, and although it has fallen it is still alive. .

What is of interest in this myth is the central roll that the 'tiny' octopus plays. It travelled to the site of the battle with Manuangaineimiring inside a half coconut shell, clearly suggesting it is a very small animal. Then, it extended its 'hands' (tentacles) all the way from the ground up to the top of a large tree, at which point it had obviously grown in size. This is indeed—within moderate proportions—an unusual property that octopuses have: since they are devoid of any hard organ apart from their 'beak', they are able to compact or extend their body over a considerable amplitude. There is possibly also a 'supernatural' component to the octopuses powers in this myth. It is not an 'ordinary' animal, and hence it has 'extraordinary' capabilities to fight and defeat another extraordinary being.

Another class of animals, the mudskippers, *korongak*, have a distinctly liminal quality, since they are fish, but unlike others in this family, they are able to live both outside and inside the water (Zeehan Jaafar and Murdy 2017).These are found in mangroves, on the outskirts of the village. They are not eaten, and this is explicitly because of the 'in-betweenness' that they display: neither truly fish, nor terrestrial animal. However, they do have a use: collected, then cooked, they can be fed to dogs or pigs that are too 'angry', in order to calm them down. The reason for this is to be found in an analogy of behaviour which the Lavongai describe: the fish are seen to be 'laying down' and to be calm, relaxed. Therefore, feeding them to a dog or pig is considered to impart a similar attitude to it, and to curb any aggressive behaviour it may previously have had.

The particular nature of such 'unclassifiable' beings has been noted by anthropologists on several occasions. In the same essay in which she analysed the notions of purity and pollution, Mary Douglas (1966) considers the cross-cultural regularities concerning which animals are eaten and which are not. One key dimension she identifies is that animals must be 'fit for their type'.

> Culture, in the sense of the public, standardised values of a community, mediates the experience of individuals. It provides in advance some basic categories, a positive pattern in which ideas and values are tidily ordered. […] Yet they [these categories] cannot neglect the challenge of aberrant forms. Any given system of classification must give rise to anomalies,

> and any given culture must confront events which seem to defy its assumptions. It cannot ignore the anomalies which its scheme produces, except at risk of forfeiting confidence. This is why, I suggest, we find in any culture worthy of the name various provisions for dealing with ambiguous or anomalous events. (Douglas 1966, p 40).

This is also what the analysis of the Lavongai people's conceptions regarding *volo* (octopus) or *korongak* (mudskippers) shows: there is an interaction between the perceived aberrant qualities of such beings and their cultural treatment. However it also shows how there is no simple causality, since in some cases these aberrant taxa are edible, in others they are not.

Commenting on Douglas' essay in an equally important article on the subject of unclassifiable beings, Ralph Bulmer writes that her theory states pollution:

> is associated with things that are out of place in terms of the order which a society seeks to impose upon itself and on the universe it occupies. But the trouble is that things can be out of place in so many different ways, in terms of so many different, even if linked, dimensions. (Bulmer 1967, p 22).

Taking the example of the cassowary, a flightless bird, among the Karam (or Kalam) of Highland PNG he explains that:

> the statuses which these creatures occupy in the totality of Karam activities and thought are complex, and [...] to understand both their special taxonomic rank and the particular rules which govern their slaughter, handling, and consumption, one has to take an extensive body of ethnography into account. (Bulmer 1967, p 21).

Essentially, he is warning about the concrete challenges that are faced when attempting to understand classifications and their anomalous creatures, and insists on the importance of a thorough ethnographic grounding of the ethnobiological data, which cannot be detached from its sociocultural basis.

3.3.3 Salient categories and classificatory criteria

Classifying beings involves perceiving differences or commonalities, and based on these creating groups of similar beings. The vocabulary which is used to describe commonality is that of appearance: such being 'looks like' (*kate ararai kuvul ve...*) or is 'similar to' (*kate kus val...*) another. Kinship terminology is often used to describe connections between animal taxa. When probing the Lavongai ethnotaxonomy, it was not uncommon for people to describe different types of fish, considered to be very similar, as siblings. This applied in particular to taxa that could be of differing colours, if each colour was named in a distinct way. These fish would be considered 'related' in the same way siblings are. I was once told, for instance that *mataiang ke tasina i tasuan*: the Blubberlip Snapper (*Lutjanus rivulatus*) is the same-sex sibling of the Humpback Red Snapper (*Lutjanus gibbus*). These fish are, in the contemporary scientific nomenclature, both from the same genera and do indeed have similar aspects (compare Figure 3.3 and Figure 3.4), and for this reason they are considered by the Lavongai people to be 'siblings'.



Figure 3.3: Photo of a *mataiang*, identified as a Blubberlip snapper (*Lutjanus rivulatus*) by Philippe Béarez. 18 July 2022, Metevoe.



Figure 3.4: Photo of a *tasuan*, identified as a Humpback red snapper (*Lutjanus gibbus*) by Philippe Béarez. 18 July 2022, Metevoe.

But what criteria do Lavongai people use to establish such classifications? What traits do they focus on when stating that one being is similar or different to another? Ethnotaxonomy has long established that size, flamboyant colours, or dangerousness, for instance, tend to cause the taxa concerned to be overrepresented or otherwise emphasised in local taxonomies (Berlin 1973, p 261). However, these are not the only criteria that are considered by vernacular classifications.

Basic denominational criteria

A number of taxa have 'binomial' names, meaning they are referred to by one of the aforementioned generics (Table 3.2), followed by another term which specifies and differentiates it from others in the same generic category. The full list of binomial names of fish consigned during fieldwork, with glosses for the ones which could be translated, is shown in Table 3.4.

To give a few examples: within the taxon *vasa* (small trevallies), Lavongai people name a specific fish *vasa olos*, and the word *olos* refers to an animal's large and fine appendage; this could be a long tail feather in the case of a bird, an antenna in the case of a crustacean, or, as here, an elongated fin in the case of a fish (Figure 3.5). Another type of *vasa* is *vasa bulu*, where *bulu* is borrowed from the English 'blue', a colour for which the Lavongai appear not to have any term (Figure 3.6).

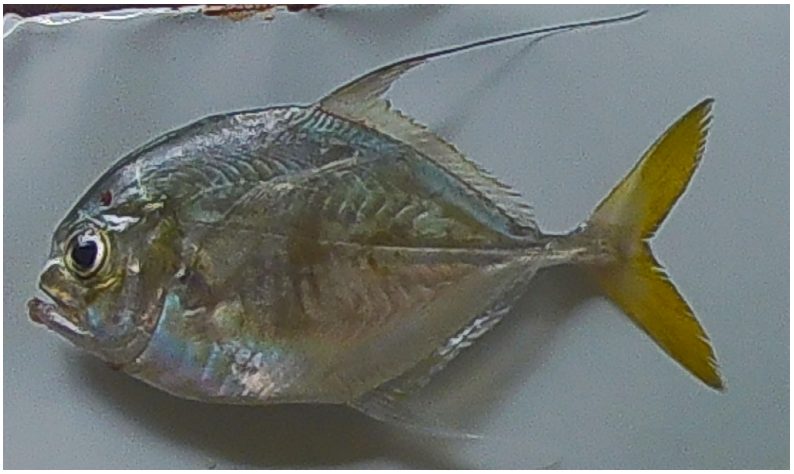


Figure 3.5: A fish known as *vasa olos* in Tungag. The word *olos* refers to the long stringy fins of the fish. Identified as a Bumpnose trevally by Philippe Béarez (*Carangoides hedlandensis*). 2 May 2022, Metevoe.

Analysing the ones among these designators that could be translated shows that they are predicated on four types of qualifiers (the number of taxa concerned is in brackets):

- aspect (16): these qualifiers refers directly to the fishes' aspects, either by giving their colour, or some other description;
- comparison (7): these qualifiers are names of some other animals which the fishes are being compared to;
- behaviour (3): these qualifiers are descriptions of the fishes' behaviours;



Figure 3.6: A fish known as *vasa bulu* in Tungag. *Bulu* here is a loan word from the English 'blue'. Identified as possibly being a Bluefin trevally by Philippe Béarez (*cf Caranx melampygus*). This fish is perceived to have a blue tint by Lavongai people, and although this is not visible on the dead specimen pictured here, in the water, Bluefin trevallies are indeed of a rather brilliant blue colour. 11 February 2022, Metevoe.

- category (2): the qualifier *ien*, 'fish' is used for two fishes to differentiate them from other animals;
- usage (1): a single qualifier refers to the usage that is made of the animal, specifically this is *pula sok*, a sea cucumber which must be 'rubbed', *sok*, in order to remove the 'dust' which is on its body.

Table 3.4: Binomial fish designations extracted from the list of fish names collected during fieldwork, with a proposed gloss and categorisation of the qualifier.

Binomial	Translation of qualifier	Type
atin korkor		
inavu rangrangis	smooth (absence of scales)	aspect
kiva ien	fish	category
kiva langlang		
kovoi lapang		
kovoi raping	slimy	aspect
kulava maut		
kulava olos	long feather-like appendages	aspect
kulava pasikei	goes alone	behaviour
kulava utun		
kulava vil		
kunga sinsinalai		
lenge makmakangan	green	aspect
lenge susu	breast, milk (Tok Pisin)	aspect
makan vokovokoterei	floats on its side	behaviour
mangakapung i tingang	of *tingang* (other fish)	
ngovo ien	fish	category
pai kokong		
pai mani	eagle	comparison
pai mata	eye	aspect
pai vikangus	wide tail	aspect
pai viklutuk	? tail	aspect
pan pai	ray	comparison
pirak si		
pula sok	rub	usage
pula ta ingua	of hidden creature ('devil')	
pula ta niu	of coconut	aspect
pula vongho	pig	comparison

[Continues on next page]

[Continued from previous page]

Binomial	Translation of qualifier	Type
salai kungkungangus	wide hands	aspect
sala rangai	blood	aspect
salasala ta pengeg	of ?	
samung salik	draw, write	aspect
tingting rangamut	slit drum (very large)	comparison
tuna gila	parrot	comparison
tuna kolok	dust	aspect
tuna sel	catch	behaviour
tuna ungis		
tuna vongho	pig	comparison
vai arenge		
vai kari	curry (ref. to colour of innards)	aspect
vai vongho	pig	
vain rina	village	
vasa olos	long feather-like appendages	aspect
veo atin	tuna	comparison
volo ingua	hidden creature ('devil')	
volo ta mus	of hidden creature ('white trickster')	
volo ulen	moon	comparison
vongho suang		
vukata kut	fire	aspect
vukata ta vilivili	of ?	

That aspect is the most used criteria to specify the names of these animals is unsurprising (Bulmer, Menzies, and Parker 1975, p 273), and comparison is also a frequently encountered method of nomenclature and classification among ethnotaxonomies worldwide (see Ellen and Reason 1979). However, behaviour is a more rarely encountered and conceptually more engaging trait to classify animals upon. It says something of the knowledge Lavongai people have of these animals, and also may tend to perpetuate this knowledge, as referring to the creature by a word qualifying its behaviour informs whoever hears this for the first time that this is how the animal should behave.

Classification predicated on behaviour

In this regard, one category that was previously mentioned in the list of overarching, general classificatory terms stands out: *ieung* or 'marine animals that aggregate near shore'. This term designates a cross-cutting category, one that overlays and joins other categories of marine animals, and into which the Lavongai people place a number of diverse taxa. It can be analysed in the following way:

(3.1) *ieung*
ien *ung*
fish come.to.shore
'marine animals that aggregate near shore'

At first, from the analysis of this word, *ieung* would appear to simply refer to 'fish' that come near the shore. However, the term implies a more specific behaviour than that: *ieung* are marine animals that come from deeper seas into shallow coastal waters or even into the tidal areas of large riverine estuaries; they come at certain times then remain only for relatively short periods; more importantly, they come in very large groups. Most of the animals in this category are indeed part of the larger family *ien*. It includes *riranga*, a type of goby mentioned above (and to which I return in Section 9.4), but also *rauan* (mullets, *Mugilidae* spp.) or *manganai* (Pacific Longnose Parrotfish, *Hipposcarus longiceps*) and also *mingol* (unidentified glass eels). However, some terminal taxa are never classified in the group *ien* when discussed specifically, but they are nonetheless referred to as *ieung*. This is the case, for example, of *ngo* (a small freshwater prawn, *Atyoida pilipes*) and of *salasala ta penge* (a small unidentified crab) (see Table 3.5). The key point here is that these diverse juvenile marine animals that stay near the shores in very large numbers at specific periods of time are grouped together under the name *ieung*, based on this specific behavioural trait. That they are, or are not, *ien* is not a factor in the application of the term.

Overarching category	Taxon	Identification
ien	*inavu*	A herring (*Herklotsichthys* sp.)
	manganai	A parrotfish (fam. *Scaridae*)
	mingol	Juveniles of an eel (fam. *Anguillidae*)
	rauan	A mullet (*Mugilidae* sp.)
	riranga	A goby (*Syciopterus* sp.)
oto	*ngo*	A prawn (*Atyoida pilipes*)
ngakum	*salasala ta penge*	[Unidentified immature crab]

Table 3.5: List of terminal taxa included in *ieung* showing that these are part of several of the large overarching categories (see Table 3.1), and not simply a subset of *ien* (fish).

Therefore, despite the etymology of *ieung*, it does not refer only to 'fish' (*ien*) that 'come to shore' (*ung*), but also to various types of marine animals, even ones that are not fish, as long as they adopt this behaviour. There is also an obvious emphasis on the schooling behaviour: none of these animals 'come to the shore' as an individual, but rather, they all come in large groups, meaning this is also a key distinctive feature of what *ieung* means. There is however another term that refers to fish behaving in a distinct schooling manner, this is *ataltal*, which can be glossed as 'school in a circling pattern (of fish)'.[15]

15. *Taltal* refers to a roll of dried pandanus leaf (*aran*) which is the base material which sewn capes and headwear are made from (see Figure 4.9). During the preparation of these rolls, long pandanus leaves are split, then rolled into discs of approximately 80 cm diameter and left to dry. This object is an evident basis for the metaphor of fish 'schooling in a circle'.

We can infer from the significance of such a cross-cutting category that these behavioural traits by which it is defined are particularly salient for the Lavongai people, even to the point of surpassing aspect as a defining characteristic. In part, the existence of this specific terminology for a multiplicity of different living beings is due to the fact that some of these animals are important food sources. Despite being small in size, they arrive periodically in extreme numbers, and can be caught in large quantities by using specific techniques (this is the case in particular of *riranga*, as will be discussed in Section 9.4).

For example, in order to catch the small prawn, *ngo* (*Atyoida pilipes*) the technique is as follows. When they arrive from the sea, these animals swarm into the small winding streams that run through the hilly terrain of South Lavongai. As they do, people wait for them to start crawling up onto the stones and boulders that line the river beds. When they have climbed a certain distance out of the water, up these vertical surfaces, a bowl is held under them, then with a mouthful of water, the fisher will *tip*: 'spit in a mist'. This is a 'technique of the body' (Mauss 1935) which is often used on a day-to-day basis to eliminate excessive saliva produced when chewing betel, but also with chewed plants, when they are used for medicinal or magical purposes. The contact of the water spray causes the prawns to release their hold on the stone, and as they fall, they are caught in the bowl (see Figure 3.7).



Figure 3.7: Teresia stirs a pot of *ngo* (a prawn, *Atyoida pilipes*), caught by her 12 year old son Aini with the 'misty spit' method (*tip*). She is cooking it by placing a hot stone directly in the food and stirring it (this is known as *silsilo*). *Ngo* are grey to white when caught, and their flesh turns orange as they are cooked. 1 April 2022, Metevoe.

Finally, the presence of *ieung* also tends to attract larger predators, such as tuna or bonito, that are valued for their abundant meat which is said to taste good. Added to this 'natural' attraction which they cause on the predators, *ieung* can be used by fishermen as bait to

target these larger fish. Their presence usually lasts for a period ranging from a few hours to several days, and therefore facilitates the capture of valued species of large fish.

However, other *ieung*, in particular *salasala ta penge*, are not eaten at all, nor used as bait, but they do come in large groups up to the shore, periodically, meaning that it is the two aspects of this behaviour that are the focus of the term.

Classification predicated on 'place'

Another important distinction that the Lavongai use when referring to and classifying living beings is place. Within the three life form categories of *ien*, *ngakum*, or *giem* there are a number of sub-categories of living beings that are based on *where* the taxa are found. For example, among all members of the generic *tuna* (eels), people readily distinguish between *tuna i nei laman livus* (fresh water eels) and *tuna i nei laman makasim* (sea eels), the latter including in particular moray eels (fam. *Muraenidae*), but also some eels from the *Anguillidae* family that are found in estuaries and occasionally venture into the sea. Another fish for which this distinction is made is *va* (in the river, a goby, *Rhyacichthys* sp., in the sea a sea perch *Parapercis millepunctata*). More generally however, when discussing fish, Lavongai people tend to make this duality they perceive among living beings explicit: certain taxa are 'of the sea', others 'of the river', even when their names do not reflect this. Such a classification is situated at an intermediary level between the large overarching categories (Table 3.1) and the lowest 'species' level taxa.

However, there are also more subtle ties between living beings and the places where they are considered to 'belong'. Let us return to the example of *riranga* detailed above: as each named stage in the development of the small goby follows on from the previous one, there is a divergence that can occur into two possible branches: *riranga* normally go up river, and become *lenge*. However, some of these *riranga* will be 'left behind', and they will develop into a different fish: *silang* (unidentified, possibly a sandperch, fam. *Pinguipedidae*). Both *lenge* and *silang* are considered to come from the same juvenile forms, but what differentiates them is the place they grow up in and eventually live in. At the start of the animals' lives, there is only one taxon from the locals' perspective; as the fishes grow, this single taxon then diverges into several, depending solely on the location they live in. Recall that one of the growth stages of *riranga* is named *manikvalsilang*, which means 'creature like *silang*'; this is the stage at which Lavongai people say it can be seen that the two adult forms come from the same juvenile.

Another duo of beings is looked upon locally in a similar way: *uae* (the saltwater crocodile, *Crocodylus porosus*) and *tavun*, or *palai* in Tok Pisin, which is 'a lizard, a gecko, an iguana' (Mihalic 1971, p 148), here probably the Western Pacific monitor lizard (*Varanus indicus*). For the Lavongai people, *uae* and *tavun* are 'paired' in an engendering/locational relation: when an *uae* lays eggs on the shore, those that are in the water will eventually become adult *uae*, but those that stay on dry land will become adult *tavun*. Conversely, when a *tavun* lays eggs on the shore, the young that emerge there will be *tavun*, and those that emerge in the water will be *uae*.

These examples reflect the general rule which people state that there are, for all creatures, 'versions' that are 'of the sea' and others 'of the rivers'. Lavongai people therefore draw an

intimate link between place and species. An individual animal's taxon is not determined only by birth, but also influenced by the place it grows in, the place it belongs to. This is revealing with regard to the way Lavongai people envision procreation and development of marine nonhuman animals.

This distinction could be brought into parallel with the perception which Lavongai people have of the relation between humans and the spaces they occupy. Indeed, for them, the rivers are the domain of 'forest dwellers', whilst the sea is that of 'coastal dwellers'. This is the strongest of all divisions that my interlocutors made in their own perception of spatial occupation on the island. People who live near the shore, *ri vap e ngerelo*, are contrasted on a daily basis with those who live in the interior, *ri vap e nei uten* (literally 'people of the forest'). When asked what was different between life in the interior and life near the coast, my interlocutors emphasised the differences in which protein sources are predominant (on the coast there is sea fish and seafood; in the forest, hunted game and river fish); availability or absence of coconuts which are milked to make the food 'tasty' (on the coast there are coconuts; in the interior there are none); ease of access to external objects and goods (on the coast they are accessible; in the interior they are not); accessibility of schools, health centres, and other 'services' (almost all implanted on the coast); among others.

However, a more 'ideological' distinction between groups of people from the interior and groups from the shore also exists. People on the Lavongai coast sometimes describe their inland counterparts as 'ignorant' (*vap tav nas*) or 'backward' (*tau ni sasakol kari selen i to*, literally 'unable to change their way of life').[16] Not all such characterisations are pejorative. For instance, coastal Lavongai people also describe the language spoken by people of the interior as more 'pure', less 'degraded' by terms from the vehicular Tok Pisin, which are regularly borrowed by speakers of Tungag; they are said to be more knowledgeable in the 'customary ways' (*laulauan ti ri vap aino*, literally 'ways of the people from before'). These are articulated with the absence of schools and the lesser contact with outside people which inland inhabitants are said to have (Table 3.6).

This dichotomy must be understood against the backdrop of the more general conception that Lavongai people have of space and place. As explained in the previous chapter, local clans are conceptually associated with specific locations on the coast by the story of Rinaiatukul and the concept of *tokosiangan*: the coastal clan possession or coastal place of first settlement. In this description of the island's sociospatial organisation there are no specifically 'inland' clans: all are represented as having their own *tokosiangan* (one, or several of them). It is not on the clan level that the distinction between coastal and inland people operates, but on a cross-cutting, island-wide one. On the lineage or local clan segment levels (Sub-section 2.1.3) there are certain groups that are described as being 'from inland' and others as being 'from the coast', as was the case, for example, in

16. Clearly, many of these characterisations are overly generalising, and they should be considered as stereotypes. Given the mobility of all Lavongai people within and around their island, it would be surprising that any such dichotomy could be born out empirically. That it is easier for those lucky communities that have a school or a health centre nearby to access such services is obvious, but even in coastal locations these are far from always being functional, and inland villagers' children do attend school by coming to live with relatives nearer to the shore.

Table 3.6: Perceptions that coastal inhabitants of Metevoe have and value judgements they make (= neutral, + positive, - negative) concerning differences between inland and coastal settlements regarding living conditions and people.

Category	**Coastal**			**Inland**
Living conditions				
Protein source	Sea fish, sea food		=	Game, river fish
Coconuts	Abundant	+	-	Rare
Manufactured goods	Abundant	+	-	Rare
Services (health, etc.)	Present	+	-	Rare
Churches	Present	+	-	Rare
People				
Education	Educated	+	-	Less educated
Attitude to modernity	Open	+	-	Backward
Attitude to *kastam*	Disdainful	-	+	Respectful
Tungag language	Mixed up	-	+	Pure

the aforementioned dispute that took place in Baikep between a number of Vengevenge lineages.

Procreation and 'place' are therefore both considered to be determinants in the constitution of beings. Both the engendering aspect of the parents and the locational aspect (where a being belongs to) are important in the Lavongai people's conception of what constitutes a being, and in this, the coastal-inland axis appears central, be it for humans or nonhumans. Similar dichotomies—where they are not outright oppositions—to this one between inland and coastal people have also been noted in much of Western Oceania (see, among others: Bonnemaison 1983; K Schneider 2011, 2012, 2016; Hviding 2018). This centrality of 'place' to the very definition of what or who an individual *is* has also been documented in several other societies in the region. James Leach, writing about the inhabitants of the Rei coast in Madang (PNG), explains that

> everyone is particular because they are actively and consciously constituted in unique relations to others—their bodies are different (see Viveiros de Castro 2009, pp 238–41) because they are grown from *particular places and particular nurture*, contain different relations to others through unique myths and histories. (J Leach 2012, pp 260-261, my emphasis).

Leach calls attention to two singularly important notions (emphasised above): place and nurture (see also his monograph aptly entitled *Creative land: place and procreation on the Rai Coast of Papua New Guinea*, 2003). As I showed previously concerning the role of fathers in raising children, nurture is central to the work of *aiveven* (care) which is discursively framed as the paternal role. In this section, I have shown also how place is central to the ideas that Lavongai people have on constitution of beings both human and

nonhuman alike. In doing so, our attention is also drawn to the ontological nature of these considerations. The way beings are seen to be similar or distinct in behaviour or constitution is a fundamentally ontological issue, one to which I will return in more detail once the other aspects of marine interspecies relations on Lavongai have been presented (in Chapter 8).

3.3.4 *Vap i nei siva mun*

Aside from humans and animals, Lavongai people also describe and interact with a number of other beings which were once aptly referred to by one of my Metevoe interlocutors as *vap i nei siva mun*, 'beings from hidden places' (Misirau, 15 September 2023). These are grouped together and singled out because of this property which they all share: normally, they are invisible or hard to catch sight of, because they remain in 'hidden' places. They are not, *per se*, invisible, since people see them at times. They are not 'supernatural', since they are part of this world just as we are, or pigs are, however 'they do the kind of things that we are not able to do[T29]' (Elubi, 3 July 2022), meaning they have extraordinary powers or abilities. These differ from one type of being to another as I will now describe.[17]

Kipang, *makanketket*, *pukuntab* and *karak*

Kipang and *makanketket* are two paired categories of ancient humanoid beings, and are associated with 'the old days' of Lavongai. *Kipang* are masculine, whilst *makanketket* are feminine; both are said to be long-haired and white-skinned humanoids. They have been present on the island since before 'true humans' arrived. In the deep past, *kipang* and *makanketket* engaged with the more recently arrived 'true humans' in many mythical stories. These early 'true' men and women were known respectively as *pukuntab* and *karak*.

In myths that recount the heroic actions of these ancient humans, specific *kipang* have names and play negative roles, tricking or taunting the human heroes. This is the case for example of Kipangitangtangkam (literally 'the *kipang* who tries to imitate but fails') who faces the human hero Tonvalval (see Appendix H). Or of Kipangiroliu (lit. 'the *kipang* who removes the good') in another myth in which he is the evil step-brother of Pukuntabmutinga.

Nowadays, some people say that *kipang* and *makanketket* still exist, but that they hide in the deep forest, or in caves, and nobody claims to have seen any.

Kusingan

Kusingan are another kind of ancient being from Lavongai. The action of walking, balanced, across a log that has been placed over a stream or river for this purpose is known as *kusing*.

17. For the descriptions that follow, I draw on my own ethnography, since several people described such beings to me quite spontaneously, vividly, and independently from one another. I also make use of an unpublished manuscript which Tukul W Kaiku was kind enough to show me and which we discussed on the phone, entitled *Lovongai, New Hanover, Cultural and mythical beings* (Kaiku 2021), in which she lists and describes a number of these beings.

The name *kusingan* is derived from this verb and refers to the fact that *kusingan* live inland, on the high keels of the mountains, where they have to 'balance' like a person walking on a log laying over a stream.[18]

Kusingan are described as huge humanoid beings who used to live on Lavongai in ancient times, alongside the heroic human beings of mythical times. They are said to have had limited intelligence. For example, a myth tells of how a *kusingan*, who had come down to the coast to catch fish, when returning inland, saw a tree move in the wind, and thinking this indicated the tree wanted fish, placed one on a rock for it.[19]

Nowadays, it is a form of light insult to refer to somebody who comes from inland Lavongai as a *kusingan*. This implies they are backward, primitive, uncivilised, echoing the contrasted values associated with inland and coastal places and people as described previously (on page 157).

Pukpukis

Rather than a definite, nominal category, the term *pukpukis* is often used as an adjective to mean that a being can change its shape. This is what characterises a *pukpukis*: an ability to take on multiple forms. Usually, the forms in question are specified to be snakes (*kene*), sharks (*veo*), crocodiles (*uae*),[20] or monitor lizards (*tavun*).

The qualifier *pukpukis* is sometimes applied very generally to all kinds of beings that have this ability to change form. Some Lavongai when asked to list who could be referred to as *pukpukis* gave names of mythical human heroes such as Natmailik and even listed 'God'. A number of specific *pukpukis* are named and described in vivid detail by Metevoe inhabitants as being present in the surrounding area nowadays. They are tied very directly to the local kinship network. Their behaviour and that of humans who are said to have met them is conditioned and influenced by these kinship ties.

Two important examples of these in Metevoe are Moremore and Tautau (or Tatau). A short version of the story of Moremore is given below, formed from the composition of several people's versions, notably Lumaias and Melis who both stated they are acquainted personally with Moremore.[21]

> A woman, Talaia, and her husband Kelo lived near the river Voe. They slept one night in the forest together. There, a snake had intercourse with Talaia without her knowing. Later, she became pregnant, and she was in great pain. When she gave birth, two snakes emerged from her womb. Astonished and appalled, Kelo threw them into the river Voe. The two snakes

18. This is a form of hyperbola, since the mountains of Lavongai are geologically old and weathered and show very little steep relief.

19. This myth obtained hearty laughter from the audience when told in a public gathering at Baikep (Raphael, 4 March 2022).

20. In Tok Pisin, the word *pukpuk* means 'crocodile'. Recall that many words of Tok Pisin which have their origins in the Bismarck Archipelago have cognates in Tungag. The Tungag word for crocodile, *uae*, has been determined by historical linguists to be a cognate of Tok Pisin *pukpuk*, itself a reduplication of *puk*, both of which derive from Proto-Oceanic **puqaya* (Osmond and Pawley 1998, p 252).

21. The group of singers and dancers from Metevoe known as *Moremore Kalja Grup* (Moremore culture group in Tok Pisin) bears this name in honour of the encounter between this *pukpukis* and Melis and Lumaias, two of the group's frontmen.

drifted down the river, and one of them washed aground in Butekaur, where people—not recognising that it had been engendered by a woman—cut it in half and killed it. The second one survived: it was called Moremore. It went and hid in a sago swamp, dug holes there, ate people's pigs and dogs. It lived there for years.
Another man lived in the village at that time, Polos, father of Kolmaris.[22] He referred to Talaia as 'mother', and therefore to Moremore as 'brother'. One day, Polos and his wife went hunting in the area that Moremore was inhabiting. Polos heard his dogs barking, and thought they must have cornered a pig, but when he caught up with them, he saw they were barking at Moremore. Polos called out to him to spare the dogs: 'hey, Moremore!' But when he did this, Polos' wife was next to him, and she was Moremore's sister-in-law, so Moremore was greatly offended.[23] Moremore left the area, and hid in the forest. He moved around often, until he finally settled in a cave above the Metevoe locality of Neikuila.

The relationship between this semi-human being and the rest of the villagers is conceived of in kinship terms. He was born of Talaia, and this gives him a place in the Metevoe relational tree, and inscribes him in a clan: Nguma. Although he does display the extraordinary shape-changing ability—large pig, white-skinned human, half-snake half-lizard—his ontological status leans far more towards the human than that of any other nonhuman does, by virtue of these kinship ties.

Another such *pukpukis* is called Tautau. He too is inscribed in local genealogies, and is said to be related to Moremore: they refer to each other as same-sex cross-cousins (*ingag*). His prime appearance is that of a monitor lizard (*tavun*), but he too is a shape-shifter. Tautau had a long lasting relationship with somebody called Clemenis (sometimes shortened to Clemen). This man had befriended Tautau and gave him regular gifts of taro, shell money and pig. In return, the *pukpukis* gave Clemenis decorative attire (*maus*) and taught him magical knowledge that allowed Clemenis to organise powerful dances, during which the dancers under his direction would display amazing performances. But Clemenis made one crucial mistake: he enrolled his sister's sons (*tipasig*)—young men from his own clan—in the dance, rather than young men from Tautau's clan. As a consequence Tautau was angered, and caused the death of Clemenis.

Tautau is said to resides in the sea, between Metevoe and Baikep. The reason for this is that, after the story above in which Moremore fled Metevoe and hid in the forest, he came upon Tautau, and they agreed to a partition of their living space: Moremore would stay in the forest, and Tautau would change into a sea-snake (or possibly a moray eel) and go under water.

Although some people place Moremore and Tautau firmly in the local genealogies and distinguish them, telling stories in which they interacted, others say that they are in fact the same creature, and that those who distinguish them are confused.

22. During my fieldwork Kolmaris was an man aged approximately 50. This relation therefore gives a temporal and genealogical anchor to this story.
23. The relation between a man and his brothers' wives, or sisters-in-law (*angtuaig*) entails strict avoidance, and pronouncing the name of a man in front of his sister-in-law is highly insulting.

Masalai

The type of being known as *masalai* is a highly ambivalent, zoomorphic creature. The main property of a *masalai* is that it is associated with a very specific location, to the point that it is almost consubstantial with the place where it is found. People do not speak so much of such and such a *masalai* but rather of a specific *ples masalai* (*masalai* place) or in Tungag *ring akuskuk* (place with a story). Although the term *masalai* is used in Tok Pisin throughout Papua New Guinea (see Zimmer 2012; Lindenbaum 2024), it is also used within Tungag speech, and Mihalic (1971, p 131) indeed lists the Tok Pisin term as originating in Lavongai. Since one of Gerald Messner's interlocutors in Tabar told him that the term comes from the Kara language (1990, p 80, note 6), it is likely that the word had cognates in several New Ireland languages before being adopted into Tok Pisin.

Summarising the literature concerning various language groups of Central and Southern New Ireland, Brigitte Derlon writes that every clan in this area 'recognises as its place of emergence a site having a particular configuration (reef, mangrove, spring, boulder, cave, large singular tree, etc.), associated with the presence of a zoomorphic supernatural entity (pig, dog, snake, or shark for marine sites)'. It is this place and entity that 'legitimise land tenure on the part of this social unit' and these 'are both generically referred to by the same term in Neomelanesian: *masalai*.[T30]' (Derlon 1997, p 27). The situation on Lavongai is not so clear. Although there may be associations between specific clans and a location where a *masalai* is found, this is not always specified very clearly. What is true of these beings, however, is that they are said to be either dangerous or benevolent depending on the clan of an approaching person. If the 'right' person visits a location where a *masalai* is found, he or she should not fear it, whereas the 'wrong' person would be in danger. The *masalai* will take on the form of a large snake or crocodile on land, or of a shark or moray eel in the sea and will bite and perhaps kill the intruder (I will discuss this association between clans and *masalai* in more detail in Sub-section 8.2.3, more specifically on page 409).

Mus

Yet another category of 'hidden beings' are known as *mus*. These are described as white-skinned people from the forest that have very long fingernails and live in treetops, in particular in the tops of large ficus trees. They are also said to have blue-green bones which are sometimes found in the forest.

Many people say they have seen them, although when they do, the *mus* usually take on the form of a familiar person. Teresia for instance recounted that when she was a young girl, she once walked alone up the Ralava stream to fetch drinking water. There, she met her grandfather, who asked her to follow him into the forest. She started after him, but turned around because she was called back by her parents. When she arrived back at the village they asked her what had taken so long, and she replied that she had been following her grandfather. When they heard this they understood: 'it was not him, they said, your grandfather has been here with us all along, it was a *mus* that was trying to trick you.'

There are several ways that a *mus* who has taken the appearance of somebody else can be uncovered: the first is through its inability to cross a stream, since *mus* will refuse to

step over water. Another is to catch a glimpse of their buttocks: instead of the normal human buttock, a *mus* has 'nothing', its back is flat, straight, all the way down to its legs.

Mus are said to be good fishermen. Metevoe villagers tell of a man, Matailumai, who once found fish near a river that had been caught and strung on a vine (this is known as a *kama ien*, a 'string of fish'). He took these fish, only to realise that it in fact belonged to a *mus*, who promptly appeared and started to argue about the catch with him. They had a physical altercation, and the long fingernails of the *mus* clawed out one of Matailumai's eyes, leaving him one-eyed for the rest of his life.

Not all *mus* are equally inimical to humans however, on the contrary, if one is to befriend a *mus*, then he will provide great assistance. They might help build a house; if somebody is working all along building a house, and the next morning it is finished, people will interpret this as meaning that a *mus* helped him.

Similarly, if somebody goes away into the forest then comes back with pig, food, or other valuable things, this will be seen as an indication that a *mus* gave it to him. The premise is that *mus* will share what they have with anybody who befriends them. This, on one condition: this must remain a secret. Indeed, *mus* are also described as 'the kind of people who sulk' (*vap taut*), which they will do if one who has received such gifts from them tells others where they got them from.

Metevoe villagers tell of one specific, named *mus*: Lumadep. His particular ability was also fishing, specifically in rivers. He owned a special single-tipped spear. With one throw of this spear in the river he could catch the whole length of the spear worth of fish. One day, Lapanlus, the father of Aidis (a woman who was living in Neitalangus during my fieldwork, aged approximately 60) met him and watched him for a while. Then he did a bad thing: he took the *mus*'s spear where it lay by the river and he stole it. Lapanlus used it to fish for a while and caught many fish, which people correctly interpreted as him having been in relation with a *mus*. What they did not realise however was that he had stolen the spear. Eventually, since he had not asked the *mus* for this tool, one day when Lapanlus left the spear in his house, the *mus* came and took it back. After this, his extraordinary fishing ceased.

Provided one does not offend them, the 'way of the *mus*' (*laulauan ti ri mus*) is therefore to share (*sasagi*).

Ainanvuangai

Ainanvuangai are another type of hidden being. They are women who stay in hidden places. They are 'true women', that have white skin, and people see them sometimes, but mostly they remain hidden. They live in swamps, and one can notice their presence by the fact that in some places, the liquid that runs from the swamp is coloured red: these are the faeces of *ainanvuangai*.

Anit

Whereas all the previously described hidden beings have substance and bodies, the ones known as *anit* are not corporeal, they are 'spirit-like' or 'ghostly'. The word *anit* is often

translated into English by those Lavongai people who give such a correspondence as 'spirit of a dead man'. *Anit* are specific individualised beings that are associated with a deceased man (and never, to my knowledge, to a deceased woman). To some degree, they can be considered to constitute a remnant 'part' of this man, one which lingers on and can interact with living people. They are sometimes considered to be responsible for illness, and healers state that they can see them in some circumstances and converse with them to identify the cause of the *anit*'s discontent which is causing the illness. *Anit* are also called upon by practitioners of magical action in order for them to give power to the magic in question. They are the source of the potency of these practices (I will go into more detail on this matter in Sub-section 6.4.2 and Section 7.4).

Matatun

Another form of 'hidden beings' are said to emerge from discarded blood: the *matatun*. If somebody bleeds into a cupped leaf or a container of any sort and this is discarded in the forest, then a *matatun* will emerge from it. This is a kind of non-corporeal being that can cause suffering or illness in others and that has the appearance of the one who's blood it grew out of. Some healers, when they use magic to search for the source of somebodies suffering, will describe a *matatun* that has emerged from the blood of a specific person and is causing the illness. The cure will then involve a token payment to the 'real', living person who's blood was spilled and turned into this particular *matatun*.

Ingua

Another 'ghostly' type of being which Lavongai people describe is known as *ingua*. This is sometimes translated into English as 'devil'. Indeed, *ingua* are a form of malevolent spirit, one that is intrinsically harmful and dangerous. They are said to communicate by whistling, and for this reason it is very rare for Lavongai people to whistle innocently. If somebody does so, especially when it is dark or while they are hiding from sight, this can be taken as a very serious act, almost as a form of curse, since it may call *ingua* or it may suggest that the person whistling is one him- or herself.

Billings wrote that 'An *ingua* is just a *tamberan* in pigin, Makios said; just "the thing that chases children," not a real spirit of the dead.' (1981, p 866) which is consistent with the notion that *ingua* are somewhat indistinct, and that the spirit of a dead man is known more specifically as an *anit*. However, in Tok Pisin, *tambaran* are defined as 'the spirits of ancestors' and Mihalic specifies that 'since these must be placated, this is often synonymous with malign spirits' (1971, p 190). I therefore find both the characterisation that Makios made of *ingua* and the fact that Billings minimises the importance of the term here surprising. It is true that most illnesses caused by invisible beings tend to afflict very young children, as these are said to be the most vulnerable.

One point of note is that the island of Tingwan is named after these beings. The name, it was explained to me, derives from the following construct:

Tingwan
tin *ingua* *-an*
nest malevolent spirit DER
'the malevolent spirits' nest'

This takes on its full meaning when one learns that one of the place where Lavongai say that their dead travel to after death is this island group (a topic I will return to in Sub-section 4.3.2).

Chapter conclusion: constitution of beings

This chapter discussed how Lavongai people conceive of the constitution of beings, meaning their notions regarding procreation, ontogeny, and what makes beings similar or distinct. Its aim was to carry out the analysis of this aspect of social life while attending both to human and nonhuman beings.

In the first section, the differential contributions Lavongai people assign to men and women in procreation and early childcare were outlined. Through this, it was shown that there is no form of belief in 'virgin birth' as has been claimed for other societies: Lavongai people ascribe an unambiguous generative role to men. Furthermore it was shown that men are emphasised as having 'shared blood' with their children, despite people also stating that both men and women contribute blood in a similar way. This can best be understood as a way of highlighting men's roles in the context of a matrilineal society, where it might otherwise be obviated. This might be linked to the fact that Lavongai people do not practise any form of male initiation, since where these exist in other societies such rituals have been shown to be related to considerations regarding the necessity of 'active construction' of male personhood in order to fully become fathers.

However, this can be nuanced by the way the concept of care (*aiveven*) is discursively framed as a man's responsibility towards children, despite women carrying out a far larger share of childcare duties and producing the majority of the food consumed on the island. To be a 'true man' is not simply intrinsic to one's gender, and although it does not require initiation, men must provide nurture to their children, meaning meat or fish, in order to be a 'good' father. Care also means protection, and this implies keeping away 'dangerous' or 'polluting' substances. This applies to children, but caring adequately for nonhumans also involves keeping away similar substances.

In a second section, I presented the local conceptions concerning the constitution of beings as they apply beyond the human realm. The Lavongai people's knowledge of the phases of reproduction and development of a fish known as *riranga* shows remarkable detail in this regard. This also draws attention to the importance of language and taxonomy for the conceptions people have of nonhumans.

For this reason, in the third and final section, I analysed the way Lavongai people designate and classify nonhuman beings. An outline of the Lavongai marine ethnotaxonomy showed that the behaviour of nonhuman beings, and the location they are considered to 'belong to' are important factors in their classification. Thus, the group *ieung* includes

quite a varied selection of marine beings—of which *riranga* is an example—that share the common behavioural trait of 'coming up near the shore in large numbers, periodically'. Members of the category *ien* (fish), and others such as *tavun* (monitor lizard) or *uae* (crocodiles), are attached to one taxon or another depending on *where they are from*, despite being seen as stemming from the same juveniles. The people of Lavongai consider such location-related identifications of animals to be embedded in their very being. Interestingly, they also draw similar distinctions among humans: people are considered to be 'of the forest' or 'of the coast' and this is said to be reflected in their behaviour. This level of distinction however cross-cuts that of the clans, since all clans have representatives both inland and on the coast.

A key aspect of ontogenesis—which anthropology of Western Oceania has highlighted now for some times—is that the processes that lead to the constitution of beings are something of a balancing act between 'individuation' (literally 'creation of an individual') and inscription of this individual in one or several collectives (Foster 1990; M Strathern 2014). Here we may discern a clear distinction in the analysis of human versus nonhuman development. Indeed, whereas humans are individuated at the same time as they are inscribed in their collectives, it is hard to perceive any degree of individuation of animals. Fish are subsumed under the name of their 'species', the family, the group of similar beings to which they are seen to belong and ultimately, assimilated. Despite the *processual* and *conceptual* parallels drawn in this chapter, in a way, animals remain prototypes, individual exemplars of an ideal or typical being that they at once represent and belong to. However, to conclude that this is indeed how Lavongai people think of nonhumans would be too precocious. As the following chapters will show, throughout a number of specific interactions with certain nonhumans, multiple levels of individuation, distinction, and 'personification' are effected within the ranks of *certain* types of animals.

Chapter 4

Life Cycle

> Throughout the life cycle of a person, […] exchange enables men and women to maintain complex networks of interdependent relationships. […] Death finally makes apparent the reality that all social relationships are at best tenuous. […] The extraordinary attempt to avert the entropy of death reaffirms the mammoth achievement that each living person creates and sustains throughout a lifetime of social interaction.
>
> Weiner 1976, p 85

Introduction

Building on the two previous chapters that proposed analytical descriptions of the Lavongai people's social organisation and conceptions of ontogeny among humans and nonhumans, the following pages will present data on three life cycle events: 'coming of age', marriage, and death. These are important moments that involve most of the villagers and absorb a large share of their energy and attention. They are presented here in a 'linear', chronological way, as they would unfold in the life of a single individual, but on the scale of the society, all three are intimately tied together.

Although none of these life cycle events are centrally predicated upon relations with marine animals, nonhumans are present at a variety of levels, and these do play key roles. Thus, the data presented here, although it departs at times from the core of the thesis' theme, is not extraneous to it.

4.1 Coming of age in Lavongai

As stated in the previous chapter (Sub-section 3.1.3) Lavongai people have no obligatory, generation-wide initiations practices for young women nor for young men which would happen as they 'come of age',[1] and could be compared to those which are practised in mainland New Guinea societies (cf Barth 1975; Bonnemère 2004; Lemonnier 2023). However, even on mainland New Guinea not all societies have such initiations (Gell 1975, p 331), and this does not mean that 'nothing happens' between when a person is considered to be a child, and the moment of adulthood.

What does stand out in previous ethnographies of New Ireland as resembling a form of initiatory practice, is the 'first public dance performance'. In the south of New Ireland, having worked among the Lak people in the Siar language area, ethnomusicologist Paul Wolffram writes that: 'the first performance of a young dancer is perceived as a significant moment.' (Wolffram 2013, p 216). On Lavongai also, the first public dance of a young man is an important occasion which is marked by a ritual known as *kavak*.

4.1.1 *Kavak*

On 24 June 2022, Catholic parishioners in Neitalangus (a hamlet near Metevoe proper) were celebrating what they referred to as 'feast day', which I would later understand to be the 'Feast of the Sacred Heart'.[2] On this occasion, dance performances were presented. As one of these was ongoing—a *kanai* (tern) dance—I noticed a young woman came forth from out of the crowd. Advancing at a purposeful pace, she walked into the group of dancers and came up to one boy. She extended her arm—obviously holding something—and after making a circular gesture around the boy's head, she placed whatever she had been holding in his mouth. All the while, the boy continued to dance, trying to keep up with the synchronous movements of his comrades despite the distraction. She then turned around and sat back down in the crowd. No sooner had she done so, that another woman stood up, and performed the same ritualised gesture: she held something in her hand, circled around the same boy's head, then placed it not in his mouth this time but in the arm band of one of his dance ornaments. At this point I could make out what it was: a K 2 note. These women were giving token amounts of money to the boy (Figure 4.1).

I asked the people sitting beside me what was happening and was given a single word as an answer: *kavak*. Pressed by my puzzled gaze, Paul Maras explained: 'They are giving money to him. They're happy to see that he is dancing well, it is the first time they have seen the boy dance. It's like this: they are opening the path for him to continue dancing.[T31]' (Paul Maras, 24 June 2022). The depth of signification of this ritual is complicated by the fact that *kavak* is a polysemic term and glosses all at once as:

1. break down a dam, release water from a dam;

1. This title is a reference to Margaret Meads' bestselling work, *Coming of Age in Samoa* (1928).
2. This has been part of the Catholic liturgy since the mid-17th century, and stems from a vision which Margaret Mary Alacoque claims to have had of Jesus in Paray-le-Monial (France) asking her to dedicate this particular feast to honour his heart (Alacoque 1915, p 102), at a specific date which can occur between 29 May and 2 July because it is based on a lunar calendar.



Figure 4.1: Kete (blue t-shirt, orange sarong) is placing a coin in the mouth of Pensa, after having rotated it around his head, as he dances a *kanai* (tern) dance under the direction of Kolmaris (to the top left, with a red cap). She is his classificatory *manai* (father's sister), and this action is called *kavak*: it gives the young man 'permission' to continue dancing in public on such occasions and expresses her satisfaction and joy at seeing him do so. Still from a video, 24 June 2022, Neitalangus (Metevoe).

2. experience one's first menstrual period (for a young woman);
3. castrate (in particular a pig); and
4. perform a ceremonial public gift of money to a young man dancing, by his father's sisters (*manai*, genealogical or classificatory).

They further explained that *kavak* does not necessarily happen on the first occasion a boy dances, but simply the first time that a particular *manai* (father's sister) sees him doing so, and that it is done in theory by all the *manai*, or more generally by all the women of the clan that *polok* (grew, brought up) the boy. In this case Pensa who was dancing, is the son of a Nguma clansman, and one of the women who put a coin in his mouth was Kete, also from clan Nguma. There is no close familial link between Pensa's father and Kete, but they refer to each other as classificatory opposite-sex siblings (*taug*) by virtue of them belonging to the same clan and being of a similar age. Hence, Kete is Pensa's classificatory father's sister (*manai*). The *polok* clan, as previously explained (on page 109), is the clan of the father, the one that 'engendered' or 'brought up' the child. The key notion here is that of nurture, and the fact that the gesture involves placing something in the child's mouth may be tied symbolically to this nurturing aspect of the father's clan, although nobody said so.[3]

My interlocutors also insisted, concerning the term *kavak*, that it is the same word that has all four meanings: open a dam, castrate, first period, and this ritual performed by the *manai* of a boy dancing. At least three of these—the first dance, first period, and opening of a dam—can easily be seen as connected through a link between this practice and puberty, coming of age, and the 'opening up' of one's sexuality and availability to marriage. However, the relevance of castration is harder to understand, and requires that we delve a little deeper into the villagers' relations with pigs.

As far as I could tell, male piglets that are born in the village are systematically castrated in Metevoe. This is done in order—according to local explanations—to influence the animals' behaviour. Indeed, uncastrated boars are seen as problematic: they roam around, refuse to stay at home, and will eventually incur a neighbours' anger by digging around for food (*swang*) under decorative plants around houses, or destroying gardens (which are not fenced). This mirrors what is observed in general in the region: 'Throughout New Guinea, most young male domesticated pigs are castrated between about two and four months of age [...]. The stated purposes of castration are usually to render the animals more docile, and to improve or hasten their growth and/or the development of fat.' (Hide 2003, p 83). The consequence of this action is that village sows can only reproduce because there are males that live with no care from the villagers in the surrounding forest. Forest and village pigs are therefore essentially consanguinous, as is generally the case in New Guinea and surrounding islands, a fact confirmed by genetic analysis (Hide 2003, pp 13–14).

To return to the term *kavak*: since castration is said to be necessary in order that the piglets do not roam around the village or the nearby gardens too much, it is undeniably a taming gesture, one that aims to increase the 'domesticity' of the animals. It seeks to increase the animal's conformation to the ideal behaviour that a village pig should display.

3. Another ritual practice involves describing a circle around somebody's head with a piece of food before giving it to bite: this is the entry into mourning of *mal*, to which I will return later in the chapter, on page 203.

Perhaps this is the link then, between the different meanings of the term *kavak*: an adult male pig should be castrated, and this action therefore marks its entrance into adulthood, just as an adult man should dance (and eventually seek a wife) with symbolic 'permission' from his father's sisters, and an adult woman has menstrual periods. All these operations could therefore be seen as occasions of 'opening up the dams' that hold back juvenile humans or piglets, in Tungag, they are all instances of the same action: *kavak*.

That dancing and coming of age are related was also made evident in an exchange I had with some men from Metevoe, as they described a group of New Ireland men who had presented a dance at a festival in Kavieng. They made several remarks about the age of the people dancing and said that the group was made up 'entirely of married man, no young men at all!' (*vap osongon papalik, kovek i nat tanginang!*). This could have been meant as a positive comment, meaning 'they don't let children force their way into the dances', or as a disparaging one, meaning that grown, married men should not be dancing. Either way, the pivot around marriage clearly ties the dance into the passage which occurs when coming of age.

4.1.2 Dancing

The action of *kavak* by a boy's father's sister (*manai*) constitutes a clear way of marking the 'coming of age' of boys. That this happens during the first public dance highlights the importance that these activities have in Lavongai social life.

Public song and dance performances are a frequent activity, and are known conjointly by one of two synonyms: *malmalang* or *mika* (also used with a reduplication: *mikamika*), rendered in Tok Pisin by the term *singsing*.[4] In most cases, groups of people will propose a song and dance performance at somebody's request when another public event is organised. Groups of dancers, known as 'culture groups' (*kalja grup* in Tok Pisin) exist, which are semi-permanent formations with one or several men leading them, and which may remain inactive for periods of time before 'reactivating' at somebody's request. People do not, to my knowledge, organise a dance for the sake of having a dance, and the groups do not usually practice unless a performance is imminent. Songs and dances are occasionally performed during feasts in the context of funerary rituals and—more commonly nowadays—they happen when a religious or political leader asks for one. This typically occurs when the congregation or political party must welcome people who are coming from outside (the further away they are from, and the more 'important' these people are considered to be, the more lavish the performance), and frequently involves payment of up to a few hundred Kina.

Most dances are considered to 'belong to somebody'. When watching a performance, people will say: 'it is Lamis' Moiang [dance]' (*kate moiang ti Lamis*) or 'it is Beari's Silip [dance]' (*kate Silip ti Beari*) for instance, where Moiang and Silip are two dances, and Lamis and Beari two men who composed variations of them. However, the composers do

4. There is a specific term that means 'to sing' or 'song', *tangam*, however Tungag does not make it easy to refer specifically to a dance. In some cases, *mika* should be understood to simply refer to the actions, the dance of a song-and-dance performance, but this is usually not self-evident, as shown by the fact that, when a *malmalang* involves no singing but has only percussion and dancing, people resort to long periphrases.

not invent these entirely. A 'composition' (*pirpirikai*, from the root *pirik*, 'to choose') is always a variant of an existing form. It will be immediately recognised by any listener as being one of the set 'forms' which dances always take on. Most of the types that people named for me during fieldwork are found in the table of clans drawn up by Lensi Angele (Figure 2.2 and Table 2.2), but a few others were also mentioned. Table 4.1 summarises the data obtained on songs and dances during fieldwork and shows how several types have multiple variants.

Dancing is a highly gendered activity, and Table 4.1 indicates whether dances are considered to be those of men or women, where applicable. This gendered division appears to have existed for a long time, as the naturalist Cayley-Webster reported witnessing men's dances on the one hand, and women's ones on the other on the Tungag-speaking northern Lavongai island of Kung in the late 19th century (1898, p 284). Gender determines differences in the performances that are carried out, in way they are prepared, and in the way they are received. Men and women will only rarely dance together, despite some dances not being assigned specifically to either gender.

Before a dance is presented publicly, several days of preparation are necessary, and this is one of the key aspects in which male and female dances diverge. Young men usually congregate with one or several older men who have knowledge of dances and songs in a relatively secluded area to practise. This may happen in a remote place, outside of the village, or it may be in the village, in which case an enclosure (*babat*) will be erected around the practice grounds. This may be interpreted as a form of 'shyness', as not wanting a half-rehearsed performance to be seen, but it seems more important to Lavongai men that these preparations not be witnessed by women because they comprise secret magical actions.[5] Inside these enclosures, the men eat and sleep together, practise, and prepare their decorative attire.

When women are preparing a performance, they act very differently: they do not make any particular effort to hide, and they practise in the village. Contrary to the dances performed by men, which are generally accompanied by songs and instrumentation performed by other men as they dance, women often dance to recorded music played on portable speakers (the so-called 'boom box'), which people refer to as 'action songs'. Compared to men, women also place less emphasis on aesthetic considerations and wear very little if any decorative attire.

One key aspect of dance practices on Lavongai, as elsewhere in New Ireland, is the use of magic. The actual performance is preceded by a preparatory period, involving the body decorations dancers will wear, learning of the songs and dance movements, but also magical preparation. Male dancers enter seclusion for this purpose, whereas—to my knowledge—women never practise any form of seclusion in preparation for dances. A hallmark of these preparations is the need to fast. A potent 'magical' oil called *ku* is prepared, and used on the skin,[6] causing it to shine and have a 'good appearance' (*ararai*

5. Although the practice of the dance is done in hiding, it does not appear that the singing is in any way secret, since anybody on the outside of the enclosure can readily listen to this being practised inside without it posing a problem.

6. The Tungag term *pukun* is sometimes translated by English speakers as 'skin' and sometimes as 'body'. They also consider this *pukun*, skin/body, to be a signifier of health (or lack thereof). It is through its

Table 4.1: List of dance types practised on Lavongai.

Type	Signification	Name (or first line)	Gender	In Maras	Composed by (year)	Angele	During fieldwork…	
							Seen dance	Transcribed
Anamis			F/M			Yes	No	No
Aparapara	*para* = to stay awake		F	No		No	No	No
Kakas			F			No	No	No
Kambai			M	No		Yes	(Article)	No
Kanai	tern		M	No		No	(Photos)	No
Kapilo						Yes	No	No
Kui	to blow wind instrument, to play music	(*Veo ring vulusi*)				No	No	Yes
Kui	to blow wind instrument, to play music	*Ngono manga*			Valusnungui (~1990)	No	No	Yes
Langmanui						Yes	No	No
Laun						Yes	No	No
Liu	to pass		M			No	No	No
Luai	peace	*Luai i lungatan*				Yes	No	Yes
Luai	peace	*Rai i Nano*				Yes	No	Yes
Makisong						No	No	No
Mantapur						Yes	No	No
Pu		(*Na ri ianga*)				No	No	Yes
Sasala			M	No		No	Yes	No
Sasalai			M	Yes		No	No	No
Silip	Tok Pisin: sleep	(*Ungua, sinung kalumi*)	M/F		Beari (~2000)	Yes	Yes	Yes
Sokombual		*Kisong*	M	Yes		Yes	No	No
Sokombual		*Lamut lambe*	M	Yes		Yes	No	No
Sokombual (Moiang)	*moiang* = hornbill	(*Pua tasig, ke si ta moiang*)	M	Yes		Yes	Yes	Yes
Sokombual (Moiang)	*moiang* = hornbill	(*Rai, malpasuk a moiang*)	M	Yes	Lamis (2016)	Yes	Yes	Yes
Sokombual (Moiang)	*moiang* = hornbill	(*Na kan si moiang*)	M	Yes		Yes	No	No
Solomon	ref. to Solomon Islands		M	No		No	Yes	No
Sulai tur	*sulai* = push; *tur* = a ginger		M	No		No	Yes	Yes
Susuk	redup. of *suk* = to sew		M	Yes		Yes	No	No
Vual	deep forest	(*Nag matung magus i*)	M		Grand-father of Kambi (~1950)	Yes	Yes	Yes
		Na vang lili		No		No	No	Yes
		Kalip		No		No	No	Yes
		Malikom		No		No	No	Yes

ro, note the shiny appearance of the young men's skin on Figure 4.2, which is due to the application of *ku*). Robert Eves, who did fieldwork on the Lelet plateau in New Ireland notes that:

> Considerable attention is paid to the aesthetic enhancement of the dancers' bodies and, as in other parts of Melanesia, the skin is the focus of much of this attention. [...] a shiny, glistening skin indicates a healthy and desirable dancer[...]. This can be achieved by the consumption of materials that impart those properties to the dancers' skin, or by applying substances, such as coconut oil. [...] Love magic can also be used, and involves the addition to the coconut oil mixture of plant material believed to create desire (A Strathern 1985, p 124). This, of course, suggests the dance cannot easily be characterised as fulfilling a singular purpose but is a much more complex event, encompassing the realisation of desire, beauty, power and fame. (Eves 2004, pp 353–354).

Eves also points to other instances in Papua New Guinea where this is the case, quoting O'Hanlon (1983, pp 600–601) and A Strathern (1985, p 132; see also Lemonnier 2006, p 88). Wolffram similarly wrote of the preparatory phases he had to submit himself to in order to take part in dances among the Lak people of southern New Ireland (2013, p 216) and mentioned that magical substances were used to 'enhance' the performance (2006, p 117).

Likewise in Lavongai, dancing is a multifaceted undertaking, during which much is at stake, all of this with heightened social pressure from the many eyes which are on the performance. It is preceded by a series of technical and magical interventions on the dancer's body. The main considerations behind these preparations are aesthetic.

That in Papua New Guinea and other countries of Western Oceania, artistic pursuits are interrelated with notions of power is something that has been noted and debated intensely by anthropologists for centuries. Brigitte Derlon and Monique Jeudy-Ballini thus write that 'aesthetic judgement is indissociable from the performance's impact.[T32]' (2014, p 115). Sandra Revolon has also shown that there is a link between power, the ability to 'please' the spirits of ancestors, and the 'shiny' aspect of various artefacts or natural phenomena, among the Solomon Island people of Aorigi (2006, 2012, 2018). The inhabitants of Aorigi consider that:

> just as the invisible entities have great appetites for the best food, they are also sensible [*sic*] to the aesthetic attributes that decorate the objects used to worship them. [...]
> the iridescent marks imprinted on the surface of magical objects indicate the presence of entities and their capacity for action. By producing these objects, men give themselves the ability to act on the invisible entities. (Revolon 2018, p 38).

Although Lavongai people do not formulate things so explicitly, there is coincidence between the aesthetically pleasing nature they lend to shiny aspects, particularly the shine of oil on skin, and power to influence people and events through magical means.

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appearance that health is judged, and by application on the skin that a number of local medicinal practices function, as Jason Roberts also noted (2024, p 97). In Highland PNG, Andrew Strathern noted the skin was also the locus of 'shame' (1975).



Figure 4.2: Dancers from the Moremore culture group advance to greet the candidate in the 2022 General Election, Ian Ling-Stuckey, as he arrives on the Aid Post grounds in Metevoe for a campaign rally. 21 June 2022, Metevoe.

Two important dances: *Pukmaras* and *Kambai*

Two particular ensembles of Lavongai dances stands out from the others: the first is known as *Kambai*, the second as *Pukmaras*.

Kambai has several particularities: one lies in the presence, during the performance, of a kind of installation known as a *vakal*. This is a large section of a tree that has shapes carved onto its base, is painted black, white, and red, and stood up in the centre of the dance ground with wooden carved effigies and food hanging from its branches. Another particularity of this dance is that its performers, before they present the *Kambai* song and dance, will do what is known as *agil* or *tagil*: they come and sing in people's living areas, and expect a payment of shell money (*inangun*), pandanus mats (*pelek*) or pork, before they will leave.[7] The *Kambai* dance is associated, through a myth, with *ri valuka*. *Valuka* refers to Brown's pademelon (*Thylogale browni*), usually called a 'wallaby' in English. Lavongai people appear to associate the *valuka* (wallaby) with forms of supernatural power. It is said, for instance, that they have *rangai tauia*, literally 'rich blood'. In essence, their blood is 'powerful', so much so that, if a wallaby is shot by a spear, then Lavongai hunters say

7. This is very similar to the practice of *tutupar* and *varlapang* of the *Dukduk* figures in the context of the *tumbuan* dances of Southern New Ireland and Northern New Britain (Sack 1972, p 98; Tateyama 2016, p 30).

they have observed that it will immediately run to the nearest river before dying, in order that its blood may be washed away and not touch the ground.

Kambai is described in a contribution to the proceedings of an ethnomusicology conference that took place at the National Research Institute in Port Moresby in 1993 by Augustine Abo, who, according to the editors, 'comes from Lavongai village, New Ireland Province. At the time of the Conference, he was completing his Diploma in Music at the University of Papua New Guinea (UPNG).' (Reigle 1995, p 266). His presentation describes a *Kambai* dance organised in Lavongai, presumably in 1993, and which was performed by a large group of men specifically on Abo's request. He describes the *vakal* in much the same way my interlocutors did: a large tree that is stood up in the centre of the dance ground and decorated in secret within an enclosure (Abo 1995, p 137). He lists the following carvings as being present on the *vakal*: 'wallabies, fish, birds, snakes, lizards, canoes, paddles, human faces, knives, axes, and spears.' (1995, p 137).

Billings also wrote about *Kambai*, remarking on the fact that it was the dance which people spoke of the most, and which they were the most enthusiastic in singing the songs of for her recorder (1981, p 1697). Billings describes the *vakal*'s carvings[8] as including human figures, aeroplanes, fish, wallabies, and a crocodile (1981, p 1703). She writes that 'many of the same dances are performed in New Hanover as are performed in New Ireland: they are called by the same names (e.g., Solomon, Sakambul), and they look very much alike.' (Billings 1981, p 1697). However, she considered *Kambai* to be 'a dance that was indigenous to New Hanover (and not known elsewhere)' (1981, p 1697). What she must not have known was that in Central New Ireland there is a very similar practice called *Kabai* or *Kaba*. At the time of her writing, this had only been documented in relatively obscure sources, such as the autobiography of one of the earliest New Irelanders to train as a Methodist missionary: Ligeremaluoga or Osea, who wrote of the *kaba*: '*Kaba*: This was a very strong wood, and a very precious thing to us, and belonged entirely to the chieftains. [...] The tree is cut off at about 6 ft. from the ground, and the roots are carefully dug about so as not to cut them. The tree is lifted out intact.' (Ligeremaluoga 1932, pp 10–11). Edgar Walden, a German ethnographer who worked on Lavongai in the early-20th century had also made note of the fact that '*Kambai* is a Malangan of the Bagail people near Kavieng[...]. The *kambai*-festival is mainly held on the islands between New Ireland and New Hanover.[T33]' (Walden 1940, p 32). Later however, several ethnographers documented this practice in more detail, notably Roy Wagner among the Barok-speakers (1986, pp 198–199) and Graham Were among the Nalik-speakers (2003, p 51) both in Central New Ireland mainland. It is therefore hard to ascribe a specific 'place of belonging' to this cultural practice of *Kambai*, *Kabai* or *Kaba*.[9]

The family of dances known as *Pukmaras* or *Maras* is singled out among those that the Lavongai practice as being 'special' for many reasons, some of which overlap with those stated about *Kambai*. The term *maras* literally means 'poison', 'sorcery', 'magical substance',

8. Although she did not record the term by which this is known locally.

9. In any case, Eves (2004) provides ample evidence of movement and communication of cultural forms and practices, certainly throughout New Ireland and smaller neighbouring islands, but also to New Britain and perhaps further afield. Therefore, it is somewhat dangerous to attempt to ascribe historical origins to anything observed nowadays in the region.

or 'powerful substance'; the term *puk* in this case is a noun meaning 'that which is said' (it is usually a verb meaning 'to speak'; in this form, it has many synonyms and is scarcely used at all in the southern dialect, with terms such as *dang*, *mengen*, *akus*, or *antok* being preferred). *Pukmaras* could therefore be glossed as 'talking about magic/sorcery'.

The dances of *Pukmaras* are spoken of with reverence and in a grave tone by all who mention them: they are clearly to be taken seriously. *Pukmaras* takes the form of the preparations for men's dances described above: an enclosure is erected, and a group of men—young and older—remain secluded there for some time to learn the dances and their associated magic. However, *Pukmaras* stands apart from other dances in how strict its rules are and in the existence of a hierarchy of participants. There are the initiators of *Pukmaras*, those who can organise a dance, and who are known as *vaitas*. They may bring new young men who have never taken part in the dances into the enclosure, and these young men becomes *maratiptip*, initiants (sometimes pronounced *moratiptip*, Billings uses the latter spelling: 1981, p 865).

I did not observe any performances of a *Pukmaras* dance, much less the inner workings of the enclosure, since the last such occurrence which people could recall had taken place in 2005. However, I did speak to several men in Metevoe and surrounding villages who had been *maratiptip*, who—in their own words—had 'been inside the *Pukmaras* enclosure' (*nata palak nei bat i Pukmaras*). I was also fortunate enough to discuss the practice at length in two recorded interviews with a *vaitas*: a man named Patrick Topania,[10] from the village of Ungat. Patrick claims to be the last *vaitas*:

> We, we were four *vaitas*. Linus died, my father died, my sister's brother Maraspit has died. […] I'm the only one still here. So, I could still do it on my own. I could tell people: 'we are standing up the dance'. I give the order like this: 'OK, tell the community that, we are pulling this big dance up.'[T34] (Patrick, 22 Juny 2023).

In the late 1960s, Billings had spoken to three *vaitas*, who claimed to be the 'last' ones themselves, none of whom have names that appear to correspond to those given by Patrick (namely: Pasingantakai, Maripas, and Makios, 1981, p 864). This suggest that transmission did occur between the moment when these three *vaitas* thought the practice doomed, and now, and therefore the same may happen or have happened before Patrick dies.

What then of the details of *Pukmaras*? According to my interlocutors, before a young man was brought into the enclosure as a *maratiptip*, his parents would receive a token gift of betel nut, in a gesture known as *atokol* (*a-* is a causative prefix, and *tokol* means 'to chew betel nut'; *atokol* therefore means 'cause [somebody] to chew betel nut'). The *maratiptip* would go into the enclosure and remain there for what is described as a long time (several months, maybe a year?) The most important aspect of the *Pukmaras* enterprise seemed to be the existence of many very strict rules that applied to *maratiptip* while in the enclosure. Patrick listed these during our interview. The first was obedience:

10. Patrick is known colloquially as 'Doctor Topania', because his father, Topania, was a health orderly during the colonial times, which earned him the nickname 'Doctor's boy', eventually shortened to 'Doctor' then passed on to his son Patrick.

> the most important part of getting this song going is that they must come to listen, to be people who listen. They must not fail to listen. And when they are disobedient over there, indeed, trouble will find them. Because poison [maras] will come. So, poison, meaning that bad things will happen. Yes.[T35] (Patrick, 22 July 2023).

The implication here is that the name of the dance, *maras* or 'poison' is a clue to its power: if a *maratiptip* had disrespected the rules, this 'poison' would have caused him harm.

The second restriction Patrick mentioned is that the *maratiptip* could not step over each other (Patrick, 22 July 2023). As discussed previously it is a mark of disrespect to be 'higher' than somebody (see page 101), and this—as no doubt in many societies—is epitomised by the action of stepping over their body. The fact that in *Pukmaras*, a member's body deserved 'respect' meant that it was an even stronger prohibition than in everyday life to step over them.

Yet another prohibition between *maratiptip* also pertains to the notion of respect: they could not take each other's possessions without asking (Patrick, 22 July 2023). This is common on a day-to-day basis outside of the enclosure, usually for petty things kept in a basket such as betel nut, tobacco, a cigarette lighter, etc.

People who were in a *Pukmaras* enclosure did not fast, and on the contrary, they were supposed to eat a lot, to get 'fat', on meals prepared outside; however, women who were menstruating could not prepare food for them (Patrick, 22 July 2023). This restriction, again, ties into considerations of purity, and the respect owed to the body, as menstruating women are considered 'soiled', and the food they might prepare would not be suitable for the *maratiptip*.

Another important rule of *Pukmaras* was that nobody was allowed to see the *maratiptip* under any circumstance during their seclusion. They did leave the enclosure, but only at night, to collect the plants and other materials necessary for the preparation of their costumes, and magical substances used in preparation of the dances. When they did so, they would blow into a kind of flute made from a short piece of bamboo, known as a *vek*, to warn away anybody who might see them. If the *maratiptip* were seen, they would drop down to the ground, and remain laying there until somebody came and 'bought' them with shell money (*inangun*) and pandanus mats (*pelek*).

Most people I spoke to who had *not* been inside a *Pukmaras* enclosure, mentioned that there were 'hardships' to be endured during the seclusion, with several stating that *ilas*, a stinging plant (unidentified large-leafed plant, not *Urtica* sp., possibly *Dendrocnide* sp.), was used, with *maratiptip* either—depending on the versions—being whipped with it, or having to sleep on it. However, none of the *maratiptip* I spoke to made any mention of these practices, nor did Patrick. This could be interpreted either as a simple omission, or as meaning that this was not practised but simply used as a form of 'threat' for non-initiates, or perhaps that in the last decades the practices have become less violent and this aspect has been omitted.

It is notable that it was not sufficient for a person to have been a *maratiptip* once in order for him to be allowed to bring others into the enclosure, teach others these dances, or even perform them in public without being under the supervision of a *vaitas*. All these actions were the privileges of the *vaitas*, and if anybody else were to spread any such

knowledge outside of the group of *maratiptip*, they would have died immediately, as people indeed claim happened in instances where *maratiptip* who were not *vaitas* made public performances of the *Pukmaras* dances.

When I asked Patrick how one becomes a *vaitas*, he revealed that *vaitas* is a hidden name for *vurume*, the fruit of the red pandanus (this type of pandanus is called *karunga*[11]), and that this is the key to their power. Saying that somebody is a *vaitas* therefore refers to the fact that he has been generously covered in a 'blood-like' substance—in Patrick's and the other *maratiptip*'s words—produced from the processing of red pandanus fruit *vurume*.

Pascale Bonnemère has shown that the juice produced from the red fruit of certain pandanus trees (*Pandanus conoideus*, the red pandanus, known in Tok Pisin as *marita*) is also considered to be a substitute for blood among the Ankave-Anga who live on the borders of Gulf, Eastern Highlands and Morobe provinces. She writes that 'in informant's discourse as well as in myths, the juice extracted from the fruit of this tree is definitely blood, and it is by virtue of this symbolic contiguity that a prohibition exists on its consumption in many circumstances and that it plays a part in male initiations.[T36] ' (Bonnemère 1996, p 181).

Patrick explained that *maratiptip* also receive some juice from the red pandanus, though much less than the *vaitas*: 'the big men who are leaders, they are called *vaitas*. But the *maratiptip*, just [...] a small piece cut off from it, indeed. [...] A small piece cut off of *vurume*, that is called *maratiptip*. And *vaitas*, you are talking about the whole thing. For which you are "the boss" [English].[T37]' (Patrick, 22 July 2023). Patrick seems to be stating that the word *maratiptip* means 'small piece of *vurume*', but this interpretation is unclear. Another possible interpretation of the etymology of *maratiptip* would be that it is formed of a contraction of *maras*, and a reduplication of *tip*, which is the action of spitting something in a mist, something which is semantically tied to *tipus*, and is used to impart the power of a substance onto something or somebody in the context of magical practices.

The question then becomes: who can decide to make somebody into a *vaitas*? To this, Patrick responded that there is yet another role in the *Pukmaras* hierarchy: that of *sokoalis*. He gave the example of his father and grandfather:

> Those two indeed, those who are both called grandfather, Bavongo and Iaman, my father [...] they paid the two of them, they gave areca nut to them to say that they are both *sokoalis*, they call them a pair of *sokoalis*, the two who were going to come and learn to teach the song.[T38] (Patrick, 22 July 2023).

The term *sokoalis* can be decomposed into *soko [rangamut]*, 'beat [the slit drum]' and *alis*, 'give'; they are men who 'beat [the slit drum] and give'.

Participants in *Pukmaras* are therefore graded into three hierarchical levels: *maratiptip*, the 'plain dancers'; *vaitas* the initiators of the dance, who can call new *maratiptip* into it; and *sokoalis* the seasoned *vaitas* who can confer the *vaitas* role to other *maratiptip*. This evokes the varied assortment of social institutions that have been referred to in the anthropological literature as 'graded' or 'secret societies', which are present in many

11. In Tok Pisin, the obvious cognate *karuka* or *karuga* means pandanus (Mihalic 1971, p 107). Mihailic writes that this term comes from New Ireland, and the Tungag *karunga* is therefore one of its possible origins.

localities throughout the Solomon Islands, Vanuatu, and insular Papua New Guinea (Bell 1935b; MR Allen 1967; Sack 1972; Herdt 1990; MR Allen 2000; Dousset 2024). These often involve seclusion, and then public performances of dances and other rituals at the 'coming out' of seclusion.

In her thesis, Billings analysed *Pukmaras* (which she referred to as *maras*) as 'an institution of male seclusion and initiation' (1981, p 864). She considered it to have practically disappeared in the 1960s, under the strictures of both the missionaries who disapproved of it because of its 'promiscuous' nature, and of the colonial officials for whom the seclusion was incompatible with census duties. In her view, it was a residual form of male initiation that might in the past have concerned most young men, although she doubted that it was ever very prominent.

It is doubtful that *Pukmaras* was at any point in the past a society-wide, generationally obligatory initiation. Many of the 'hallmarks' of such initiations are absent (as summarised for example in the following analysees: MR Allen 1967; A Strathern 1970; Hage 1981). By no account did *Pukmaras* ever concern all the young men in an age group, something which is an integral part of the definition of an initiation rite (Van Gennep 1960, pp 65–75; Turner 1969); the age at which young men or boys could be 'recruited' as *maratiptip* appears to have been extremely variable, with even married men sometimes been included; and more importantly, it is not tied into any form of discourse concerning the 'masculinity' of boys, their adulthood, nor their procreational capabilities.

Billings' main interpretative claim concerning *Pukmaras* is that it 'gave an opportunity to activate on a larger scale a kind of behavior that characterizes New Hanover's interpersonal relationships: exclusive behavior.' (Billings 1972, p 872). It is certainly true that *Pukmaras* is an institution that produces 'distinction': some are 'inside', others are 'outside'. However, this is not its sole aim. By presenting *Pukmaras* here alongside *Kambai* and other Lavongai dances, I wish to focus attention back onto that which, for all my interlocutors, was the core of these practices: to produce stunning, powerful dances. A well performed dance is inherently 'powerful', a term Tungag-speakers often borrow from English to describe a good dance: *kate* power *a rikek luak!* 'it is horrendously powerful!' It will strike those who see it. Another key aspect is the way dancing creates peer-groups, under the tutelage of an older man, a 'magic-man' in Abo's terms, or a dance leader of some form.

Viewed under this angle, there is not so much which singles *Pukmaras* out from other dances: for these also, there is often seclusion; for these also young men are recruited along non-genealogical paths (at a village or hamlet level); these also involve magical practices that aim to make the dancer's bodies more aesthetically pleasing, and the dances more potent. I believe that what may have existed before is a more widespread variety of such local, 'secret societies' which organised dances to attempt to 'show their power' to other neighbouring groups. That nowadays, people speak of *Pukmaras* and *Kambai* as being two exceptionally dances that stands apart from all others suggests that they must have ranked high on such a scale of inter-locality dance-competitions. It should not, however, justify them being treated differently.

The analytical viewpoints of Eves and Wolffram in Central and Southern New-Ireland therefore seem appropriate for understanding Lavongai dances, and I concur with Eves when he writes that the dances 'display the much greater efficacy of the magicians and

shamans [magicians who organise dances] […]. Dances, then, are assertions of power, agency and identity in that expanded regional space' (2004, p 359), something which Wolffram similarly identifies as a key aspect of these performances which 'are declarations of identity or selfhood at multiple levels.' (2013, p 216).

Dancing: becoming birds?

In this important social context, the presence and relevance of nonhumans is notable. Two dance types are named after birds: *Kanai* (tern) and *Moiang* (hornbill), both 'totem' birds, respectively of clan Kanai, and of clan Vengevenge. Indeed, the hornbill has two names in Tungag: *moiang* and *venge* or its reduplication *vengevenge*.[12] Observing the dances that correspond to these types, one further notes that they involve the dancers imitating the animals in question.

As Table 4.1 indicates, *Sokomvual* is a dance that is associated with *Pukmaras*, and *Moiang* is a form of *Sokomvual* that is less 'sacred', that has been 'released' from the requirement to create an enclosure and train *maratiptip* before a performance can be presented. In *Moiang*, dancers wear cloths dyed in bright yellow, and in their mouths they hold pieces of wood carved in the shape of the hornbill's prominent beak (Figure 4.3).

This particular dance is apparently both ancient and widespread in the region, as various authors have noted its existence in New Ireland since the early 20th century. Lewis writes of a *Sogombua* dance performed at Lesu in the Notsi language area of New Ireland mainland, in 1954 (1969, pp 136–140), and in a photograph reproduced in his monograph (Figure 4.4) dancers can be seen holding in their mouths what appears to be wooden carvings shaped into hornbill beaks.

When discussing dancing and singing in Lavongai, there is a specific configuration of what is considered 'immutable' or essential in a song and dance, and what is considered to be open for adaptation. When somebody witnesses a song and dance and refers to it as *mang sikei a Moiang* (a certain *Moiang*) for instance, what they are identifying is above all the dance patterns, the 'actions' (*aksen*, as Lavongai people say in Tok Pisin), and the 'decorations' (*maus*). The lyrics are composed by the specific 'owner' of a song, on the melody that is identified as that of the type. Finally, body decorations follow a relatively set form, even though they may be customised to a degree by the individual performers. What this shows is that the 'essence' of a song and dance is in its choreography. And here, the guide appears to be the birds themselves. For if the *Moiang* dance obviously echoes the bird in the use of the decorative beak, the gestures which the dancers make are also those of the bird. They sit on a branch, then extend their wings and 'fly around', bob their heads from left to right, swipe the air with their 'beaks' in a gestures which the long mouthpiece emphasises. Dancing a *Moiang* dance means acting like a *moiang* bird.

12. In *The Lexicon of Proto-Oceanic* (Clark 2011), Ross Clark reconstructs several cognate sets for the name of the hornbill. The Tungag *vengevenge* and its likely cognates from Kara, *vabang* (Peekel 1926, p 812) or Nalik *babanga* (Silva 2018, p 4), belong to the set reconstructed to 'POc *binam', which contains the form *bina* from a number of Papuan-Tip and Southeastern-Solomonic languages. *Moiang* on the other hand does not appear related to any other term used to refer to the hornbill in neighbouring languages. Even the only non-Austronesian neighbour, Kuot, makes use of the cognate loan-word *bəŋabəŋa* (Lindström 2002, p 178).



Figure 4.3: Melis (green shirt) prepares a group of boys and young men to dance a *moiang* (hornbill) dance in order to welcome candidates for the 2022 general election from the National Alliance party. They are wearing the required costumes for this dance: bright yellow clothing and sculpted-wood hornbill beaks in their mouths. Some also have other sculpted bird or snake shapes on their heads. 26 June 2022, Metevoe.



Figure 4.4: The original caption reads: 'Dancers in Sogumbua dance at Nou, March 11, 1954, shown wearing feathered headdresses and carved and painted birds' head mouthpieces. Photograph, PH Lewis [...]'. Adapted from PH Lewis 1969, p 137.

Sandra Revolon and Anne Di Piazza, writing of a similar dance from Aorigi in the Solomon Islands, in which performers take on the position of birds taking part in a feeding frenzy, make the following remark:

> the dancers draw on and simulate their postures and gestures from the behavioural repertoire of the various species involved, in order to accentuate their 'actional qualities' (Eczet 2020) and their proprioceptions. Their actions are executed from the point of view of the imitated beings, which are, in this case, considered as prototypes.[T39] (Revolon and Di Piazza 2022, p 129).

In the other dance that is named after a bird, the tern (subfamily *Sterninae*), carvings representing the bird are used in the case of the more elaborately prepared performances. In all renditions, the dancers make a series of actions that imitate the behaviour of the birds. First they kneel down, and fold their arms behind their back, as the birds fold their wings along their sides when drifting on the waves, and the dancers' bodies sway back and forth (Figure 4.5). Then, in a second movement, the dancers stand, arms extended into two characteristic 'V' shapes, as the birds' wings are, and the dancers move around, imitating the flying birds (Figure 4.6). Then the arms are folded back again, and pushed forwards, imitating the birds as they swoop down to pick fish out of the sea.



Figure 4.5: Performers of a *kanai* (tern) dance, directed by Kolmaris (centre with the red cap) adopt the 'sitting' position, with their 'wings' folded behind their back. As they sit, they sway their shoulders lightly from one side to the other rhythmically, as the birds bob in the waves. Picture extracted from a video by the author, taken on 24 June 2022 at Neitalangus (Metevoe).

Only men's dances imitate birds, which recalls what Eves writes about the people of Lelet Plateau in mainland New Ireland: 'The different dancing styles of men and women are important because they show how gender conceptualisations become embodied' (Eves 1994, p 70). On Lavongai, this is significant considering the association between coming of age and dancing. According to his analysis, Lelet men are valued for being 'lightweight' and 'buoyant', and the dances they perform are correspondingly energetic and animated by



Figure 4.6: Performers of a *kanai* (tern) dance, directed by Kolmaris (centre with the red cap) adopt the 'flying' position, with their arm-wings in the characteristic V shape the birds can be seen with in flight. As they move around the dance ground they gently wave their arms up and down rhythmically. Still from a video, 24 June 2022, Neitalangus (Metevoe).

sweeping, wide movements. Women on the other hand are valued for their restrained and reserved qualities, and their dances reflect this, with much less ample movements (Eves 1994, pp 69–73). Lavongai people's dances show a similar gendered dichotomy in that men's dances are assertive and energetic, whereas women's ones are far more reserved. The former inspire awe, whereas the latter are often mocked by the audience. The qualities listed by Eves of being lightweight and buoyant clearly correspond to properties that are those of birds.

4.2 *Osongon*: marriage

As described in previous chapters, the Lavongai people have a formal alliance institution, a type of 'marriage', which is known in Tungag as *osongon*. There is an auto-reciprocal address and reference term for 'spouse', *kisngag*, which is used exclusively for this relation, and people who are married are known as *ngono angkisnganan* ('a pair of mutual spouses').

Polygyny is not frequent, but it does occur. Polyandry on the other hand is not possible[13] and 'adulterous' women often receive harsh sentences from the overwhelmingly male courts[14]. Polygyny, although officially condoned by all Christian organisations in the country, is not necessarily frowned upon by the local preachers, and I thus heard of men who had married several wives successively while still attending religious services. In practice, it is more common nowadays for a man who wishes to marry another woman to become estranged from his previous wife, who will remain with the children while their father leaves to live elsewhere with the 'second wife', who is in fact more akin to another single wife. In the past, this appears to have been more frequent, even until relatively recent periods of Australian administration (Bloomfield 1958, p 3, 1960, p 6).

In any case, for a marriage to be recognised as such, it must be celebrated by a ceremony composed of certain formal proceedings, the most important of which is the payment of a brideprice.[15]

4.2.1 Marriage proceedings and ceremony

Before a marriage ceremony takes place on Lavongai, the preparations can be long and involve the bride and groom to be, their parents, and more generally members of the future spouses' clans. The initiative of seeking to marry usually lies with the man, who will tell his own parents of his interest in a particular woman. In theory, the 'proper procedure' would then be for someone to make a token payment to the woman's family on the man's behalf (typically this would be done by his *labag*, mother's brother, or any other man from his own clan). This pre-payment is known as *asaking*, and it is typically made of one string of shell money (or it might, nowadays, be a small amount of cash, for instance K 20). It is given to the prospective bride's parents. This payment is said to 'buy the shame' that is caused by the request and to 'open the path' for the future proceedings. If the parents of the bride are against this marriage (and possibly if the bride herself indicates to them that she is), then the payment can simply be refused at this point.

It is not uncommon for a young woman who does not wish to marry a particular man to be forced to by her parents, or for them to refuse to let her marry the man of her choice. This can be the cause of severe distress, so grave that it is said to be the main reason young women commit suicide. Genealogical investigations showed that even in the small village of Metevoe (less than 500 inhabitants), at least three young women[16] had indeed died

13. Although, paradoxically, marriage data I collected shows that the mean number of spouses per men is 1.07 and per women it is 1.14, which may suggest women change partners more than men do in the course of their lifetime. These are likely to both be underestimated, since I sometimes found out some time after data was collected that despite careful questioning, previous unions had been omitted, usually because my interlocutors did not consider this information to be relevant, or because they were ashamed of it.

14. I met two women who had been jailed several years for adultery, at least one of whom had also been violently beaten by her husband and bore the stigmata, before being dragged to court.

15. I observed two marriage ceremonies closely while in Metevoe, in two hamlets of the village: the marriage of a woman named Ngurdesi and a man named Bosngurmal in Metesik, and that of a woman named Molina and a man named Ioanes at Valsonge, both in 2022.

16. It was not uncommon for women who had died to be entirely omitted from sibling series during these genealogical investigations, which then became apparent when asking parents—who less frequently made

in recent decades after committing suicide when their parents tried to force them into a marriage or refused that they marry the man they wished to (respectively in 2020 aged ~22, 2013 aged ~20 and the late 1990s aged ~18). The most common method of suicide is by ingestion of the root or the juice of the *tua* plant (*bun*, several plants in the derris family, *Derris* spp.), as has been the case for centuries in New Ireland more generally (Holland 1938). This is toxic to humans and can cause death when consumed in considerable quantities, although many who consume it do apparently survive (Ambrose and Haag 1936; Chesneau *et al.* 2009).[17]

Aside from disagreement between parents and children about marriage, another difficulty that can arise in this context is for a couple to form before an *asaking* payment has been made. In such a situation the woman's father and brothers may become very angry. Promptly making the *asaking* payment might then assuage this rage and avoid a conflict, but this is not always enough, and I was told of several violent altercations that arose in such situations. The marriage ceremony itself may then be the only way to resolve the conflict, and becomes a form of *luai*, a 'peace ceremony', rather than the public proclamation of a new union which it otherwise appears as.

This is precisely what happened in the case of Ngurdesi and Bosngurmal in 2022. Ngurdesi came to live at Metesik, where Bosngurmal lives, without having asked anybody's permission, and with no marriage ceremony having been performed. For this reason, Isia, a charismatic and vocal Silau clansman of the Metesik hamlet of Metevoe, and classificatory *labag* to Bosngurmal (the latter is his MMZDDS), made the following speech at the ceremony. In this, he is referring also to Ngurdesi and her brothers as 'sister's children' (*kakai*) although they are in a more distant classificatory relationship to him than Bosngurmal who lives with him:

> Because, I will admit it with her: my sister's daughter here [Ngurdesi], she didn't follow the path. She didn't talk with Lapanuok and Ngisa [her brothers] before she came over here. She didn't talk with these two lads nor her mother. When she arrived here, I ran [to her parent's house]. I ran to sort things out for her. When the two of them heard the word about their sister, that she had come to sleep in my house, I am grateful that they did not get angry, they did not say a single thing. And they... when they heard, they heard with... with shame. They were angry! But they did well and stayed silent.[T40] (Isia, 2 June 2022).

He then gave four taro bundles and one string of shell money to each of Ngurdesi's brothers and spoke again: 'And to compensate for their, listening, with their shame, from them hearing about their sister, I remove it [the shame] indeed on this day, from my two sister's sons. Well, and the two of them should hold Bosngurmal as a brother in-law indeed.[T41]'

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such omissions—to name their children. This may be due to a form of stigma being attached to suicide. Therefore, I write that 'at least' three women died in this way because other deaths of this type may be missing from my dataset.

17. When I once asked if young men committed suicide in a similar way, the group of people I was discussing this matter with—several women and at least a dozen men—laughed heartily and asked why that would ever be the case. They said that only women were 'stupid' enough to think that it is a good idea to eat something that is 'fish poison' (since this is the main use of *tua*, see Sub-section 5.3.3). Billings, however, writes that she 'heard of two suicides in New Hanover. One was that of a young girl who drank poison, and the other was that of the big man, Peter Yangalissmat. He also drank poison.' (1981, p 1648).

(Isia, 2 June 2022). Finally, Lumaias, the brother of Takungalas, Ngurdesi's mother, made a short speech thanking Isia, and Takungalas made a return payment of one string of shell money and K 60 to Isia.

Such a 'peace ceremony' is not part of 'normal' marriage proceedings, and if the *asaking* payment is made up front, accepted, and the couple and their family are all in agreement that the marriage should happen, then none of this is necessary. In the latter case, the families must collect valuables for the marriage, both for the brideprice, the 'return-gift' that follows the payment of the brideprice, and for the feast. Therefore, it can take some time once a marriage has been decided for it to occur.

The brideprice was traditionally paid mainly in shell-money (*inangun*) and in sewn pandanus mats. The strings of shell-beads used in many societies in the New Ireland region as a customary currency are known by the Tok Pisin word *mias* (pronounced [mi:s]). Shell-money used around Lavongai is made mostly in small islands offlying the mainland to the north. It is composed of a small orange-red marine-gastropod's shell, *kovas* (the Orange-mouthed Top Shell, *Chrysostoma paradoxum*), and a variety of other mollusc shells (Simard *et al.* 2022). The production technique (see Figures 4.7 and 4.8) requires breaking the shell into small fragments, drilling a hole in the centre of the fragments, then threading them on a length of string and 'rolling' them between abrasive stones to obtain a regular cylindrical stretch of small shell discs between 3 and 10 mm. A note by the German anthropologist Franz H Strauch, who was on the Gazelle when he visited Lavongai in 1875, indicates that the original name of an individual shell disk used for the production of *inangun* may have yielded the contemporary term used for 'purchase': *samui*. Indeed, commenting on the decorations that Lavongai people wear, he writes that:

> The following were also worn as jewellery: […] beaded cords (of various types), made of […] 'shell beads' […]. Shorter strings of this type were worn around the neck, longer ones both around the neck—hanging down on the chest—and around the hips, almost always in a single coil. They were found less frequently on men than on women, who also used them to fasten their aprons.
> These 'beads' are called *samui* (as are European glass beads).[T42] (Strauch 1877, p 45).

Thus, the fact that the brideprice is known as *samui aina*, where *aina* means 'woman', may in fact be a direct reference to this now disused name for the shell discs that make up *inangun* shell money.

The pandanus mats are often called *karunga*, after the specific pandanus plant from which leaves are sourced, or *pelek*, a more specific term for the sewn product. Another term, *paruak*, refers to a bundle of these sewn pandanus mats as they used to be accumulated specifically for the payment of brideprices. People speak of the brideprice with a verbal construct: *samui aina* or *seu aina*, both of which literally mean 'to buy a woman'. A traditional brideprice required a considerable amount of time to prepare, as on average one *paruak* contained at least 20 *karunga* of approximately two metres by one and a half. These were a woman's craft; they were produced by a mother through a sewing process called *pakalak*, rolled up, and stored in the house waiting for her son's marriage (Figure 4.9). Other uses for *pelek* include wrapping the body of a deceased person before burial (Section 4.3). It is also notable that this pandanus is the same one from which the

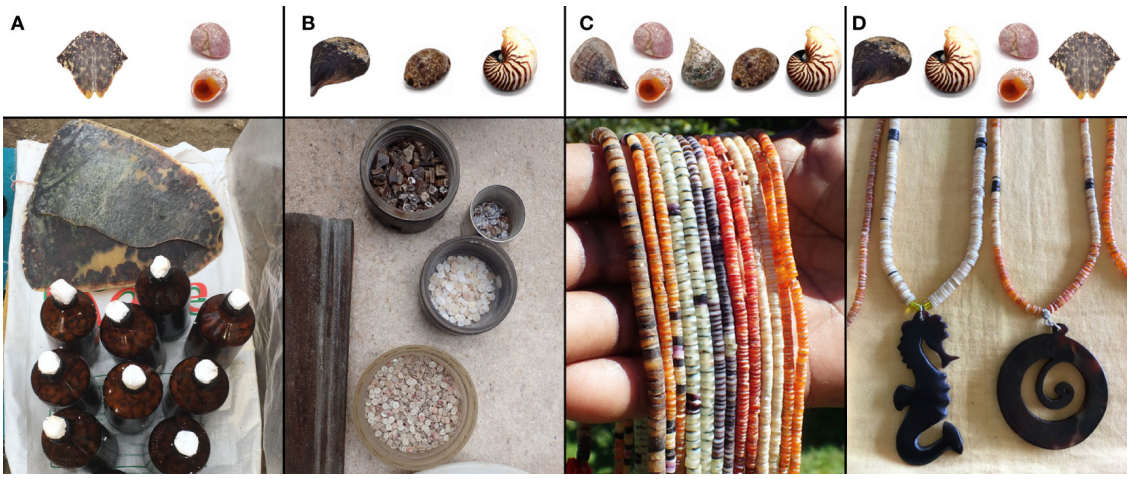


Figure 4.7: 'Examples of marine taxa utilized within the shellcraft sector of the Tigak Islands at various stages of production.' (Simard *et al.* 2022, figure 1). The original caption also gives a detailed list of species used.

red fruit is taken for the preparation of a blood-like liquid used in the context of *Pukmaras* secret dances (Sub-section 4.1.2).

However, since 'state' money (Australian shillings, and now the Kina of independent PNG) has been in circulation in the area, this has been used as a part of the brideprice and now seems to have entirely replaced *paruak*. Moreover, the last few decades have seen an increase in the amounts of cash expected as a brideprice. For instance, when Boniface Fode married in the 1970s, he paid K 10 to his wife's parents and many *paruak*; when Total married in the 1980s he paid K 80 and a few *paruak*; when Laimen married in the 1990s he paid K 150 and no *paruak*; and for the wedding of Ioanes and Molina in 2022, the brideprice was K 500 and no *paruak*. However, the amounts paid in Lavongai remain relatively low, in comparison with Bougainville where they now reach several tens of thousand Kina (François-Xavier Faucounau, pers. comm. 2024), or the area around Port Moresby where they can reportedly be in the 'hundreds of thousands' of Kina (Niesi 2023).[18] The bride's family must also prepare a 'return gift'. When the brideprice was mainly made up of *paruak*, the payment from the man's family to the woman's was known as *paruak atok*, and the return gift as *paruak sokol* (*sokol* is an allomorph of *sakol*: 'change' or 'exchange'). Nowadays the return gift is composed mainly of food and a token amount of cash. Shell money is not systematically exchanged but is nonetheless present in most ceremonies.

The ceremonies I witnessed were widely attended by many from Metevoe and the surrounding villages, and at least the close members of each future spouse's respective clan living in the area were present. First, there were speeches by important men who

18. This is no doubt tied to the fact that wage employment on Lavongai is virtually inexistent, and therefore the amount of available cash money is minimal compared to these urbanised or periurban areas.



Figure 4.8: Two people making shell currency (*inangun*) with an string-powered hand drill. Colour pencil on paper by Michael Toreu Ottis, 2023, used with his kind permission.



Figure 4.9: A woman is *pakalak*: sewing up dried leaves of *karunga*, a pandanus, to produce a type of mat or cape known as a *pelek*. Colour pencil on paper by Michael Toreu Ottis, 2023, used with his kind permission.

were relatives of the bride and groom or local leaders. Then, the exchange of brideprice and return-gift was made without much emphasis and without announcing the amount. Following this, the entire attendance lined up to shake the hands of the newlyweds and provide a small gift of money and a household item. These gifts were carefully inventoried, the money was counted, and the results were announced.[19]

A feast was then shared, made of food that was provided—first and foremost—by the bride's family, as well as food which had been prepared the previous evening and brought by the attendants as a contribution. At Ioanes and Molina's wedding, there was no pork but generous quantities of fish accompanying the tubers; at the wedding of Ngurdesi and Bosngurmal, the meal included pork and, once again, large amounts of fish which had been caught in the river Voe by fishing with poisonous plants (Sub-section 5.3.3). Here we begin to see the importance that fishing takes on in such contexts: although a quotidian meal can very well be made up of nothing more than garden vegetables such as sweet potatoes, cassava, or bananas, for a feast such as that given on a wedding, Lavongai people insist there must be *abus*: 'meat'. In certain circumstances, notably funerals, this must be pork (see Section 4.3), but for any other feast, the most common accompaniment is fish. This is possibly tied to the fact that in feasts surrounding death, pork represents a substitute or analogue of the 'life substance' of the deceased (which needs no substitution in other types of feasts). Indeed, Pierre Lemonnier, through a comparative analysis of the role of pork in various New Guinea societies, has shown that: 'some New Guinea cultures bestow crucial roles to pork in compensation procedures, and in the periodic replenishment of the fertility of beings and things[T43] ' (Lemonnier 2007, p 48), although he does note this is not the case everywhere. His hypothesis is that the key is in female nurturing and control over the growth of piglets: 'attributing to the animal [the pig]—or not doing so—the characteristic of being a substitute for life is correlated with the share of female work involved in its growth and reproduction.[T44]' (Lemonnier 2007, p 49).

4.2.2 Post-marital residence

The discourse of Lavongai people on post-marital residence and on the inheritance of land-tenure rights contains an inherent ambiguity. On the one hand, men say that it is good for a wife to come and stay with a man when she marries, and in effect, this is what usually happens during the ceremony of *osongon*, which is also known as *atatung aina*, 'to see off a woman', since the family of the bride go with her to the groom's house. This is usually in the area where the groom's own parents live, although it is considered important for a young man to build his own dwelling in a somewhat independent location before

19. For example, at the wedding of Molina and Ioanes, Nguma clan gave two cooking pots, two bowls, 40 plates, 18 mugs, six t-shirts, two pullovers, two strainers, 14 pieces of soap, two packs of salt, a piece of cloth, 32 spoons, a pack of washing soap, for a total of 114 objects, as well as K 132. Valus clan gave two cooking pots, two bowls, 20 plates, 28 spoons, 17 mugs, three pieces of cloth, two t-shirts, a pack of salt, one piece of soap, and one woven pandanus mat (*pelek*), for a total of 76 objects, as well as K 80.10. The total amount of money was therefore K 212.10.

considering getting married.[20] In any case, wherever the groom may reside, after the *osongon* ceremony, the bride's parents return home without her.

A Tungag expression of sorts states that *ri anitun kite vul i katang, ri aina kite vul i dal angfok*: 'men are canoes that are on wooden blocks, women are canoes that are dragged back and forth'. This is a reference to the fact that people often keep an 'everyday' canoe on the beach, where it can be easily dragged to the water without much effort, but will put a more important, less commonly used canoe further inland, on wooden blocks. The implication is that men should not have to move, but that women should. This is tied to the fact that men, after death, leave *vatnaim*: landmarks such as groves of sago palms or large fruit trees which they planted. These will be associated with their name and serve as memorable elements of a location's usage history. In the past, another way that men could associate themselves with a segment of land was through conquest in war, as it is said that Nguma clan obtained the land they now claim in Metevoe, for example.

However, people also say that, due to the matrilineal nature of clan-membership and the fact that land 'belongs' to clans, a family should live on land that belongs to the mother's clan. This allows them to have their gardens, their plantations of cash crops etc. on land that they will easily be able to transfer to their children.

This contradiction means that a man can either choose his own best interest and remain on his clan's land, or he can favour his children's interests and accept to live as an 'outsider' on his wife's land. As discussed previously (Section 2.3), in effect, it appears that many families reside successively in different locations. It may be that, following this logic, they tend to live on the man's land during the first years of a marriage, then move to the woman's land.

4.2.3 A word on non-married couples and incest

Demographic data collected in Metevoe concerning 263 unions (including deceased people) shows that most men and women living together had indeed been formally married through the payment of a brideprice. This, *a fortioti*, means that these marriages were approved of, and therefore none of them were same-clan marriages, which are considered incestuous.

Among the handful of exceptions of people living together despite not being married, two same-clan unions exist, as well as two cases of children being conceived by same-clan parents with no form of cohabitation taking place. Two points are of note however in this regard. First, people do not characterise the same-clan couples as being 'married' (*osongon*), since none of the ceremonial undertakings that normally accompany such an occasion have been carried out, and most importantly no brideprice has been paid; these couples are said to be 'just living together'. To my eye, they are not readily distinguishable from others, and do not seem to be the subjects of stigma, despite such unions being

20. In research carried out in West Lavongai in 2008, SIL linguist Lesley Fast recorded people engaged in assigned 'persuasive speech' exercises. An older Lavongai man, Vat, insisted that 'when a man reaches marriageable age, he should move to a separate location, build a house and set up his main living place there' (L Fast 2018, p 374) and lamented that young men now too often choose to stay with their parents and get married without having moved to a separate location, thus increasing the responsibility of the parents.

denounced in discourse as 'bad' (*rikek*). Second, these are unions between people of the same clan but from very distant villages, and they are in each case unable to trace even any remote common ancestors. When I spoke to members of such a same-clan couple, they stated that they would not have considered forming a couple with somebody from their own clan and their own village. That, they said, would have been incest.

4.3 Death and funerary practices

By far the phase of the life cycle that has the most impact on Lavongai society is death. As far as can be ascertained from existing data, the people of Lavongai have a short life expectancy.[21] It is clear from living in even such a small village as Metevoe, that deaths are frequent, and I recorded 21 deaths between 2019 and 2023, out of a population of less than 500. These cause a quasi-constant stream of obligations, as feasts and rituals ensue that last several years, and during which almost all aspects of social life are involved in one way or another.

I was able to directly observe each of the different feasts that make up this funerary cycle—not for any one person since they are spread out over far too long a period—but for several whose death's, therefore, ranged from while I was present, to a few years previously, or even many.

4.3.1 The funerary cycle

Funerary practices on Lavongai have evidently undergone some deep changes following Christianisation. Prayers are said in public by pastors or lay Catholic preachers at all stages of the handling of such events, and these involve various ceremonial steps that are recognisable even to a non-Christian as belonging to the Biblical tradition. However, there are many elements to these funerary practices that diverge markedly from what is prescribed by the latter. Although a full comparison of ancient and modern practices would be arduous given the paucity of early sources, it is possible to identify to some extend the changes that have happened and the permanence of older elements, thanks to the few high-quality sources.[22] Both prior ethnographers of Lavongai, Dorothy Billings and Jason Roberts, describe the funerary practices which they were told of, although they say they did not observe them (Billings 1981, p 873; Roberts 2024, pp 212–213). Billings even reports, concerning one of these feasts, the *vag* that '*Wag* [=*vag*] is the name of a feast given some time after the death of a person, in honor of the dead. I did not see one, but I heard about some, although some informants said they were no longer held.' (Billings

21. According to World Health Organisation estimates, in 2022, life expectancy was 67.4 years for a Papua New Guinea woman, and 63.4 years for a man (WHO 2022, p 94).

22. The most ancient and at once reliable work concerning pre-Christian funerary practices in the region is that of German-born, Danish anthropologist Richard Parkinson (1844–1909) who wrote *Thirty years in the South Seas: land and people, customs and traditions in the Bismarck Archipelago and on the German Solomon Islands* (originally published in German in 1907 and translated into English in 1990).

1981, p 873). The following is therefore the first published description of the full Lavongai funerary cycle that is based on direct observation as well as local descriptions.

A funerary cycle on Lavongai comprises the following stages:

Moment after death	Funerary cycle stage
0	*para*: funeral wake and vigil
~2 d.	*kepkepai* and *alulus*: burial and first feast
[next morning]	*sablai popot*: small taro (*popot*), cooked and wrapped in pandanus mats, are 'smashed' (*sablai*) on the grave; small feast
~7 days	*konmanas* or *amanas mopong*: 'eat hot' or 'heat the grave'; modest feast; optional initiation of formal mourning (*mal*); the date for the future *kualava* is announced
~1 year	*kualava*: very large feast; abundant gift-exchange; burning of possessions of the deceased and their house; optionally lifting of mourning (*pit mal*)
~2 years	*vag*: settle any remaining debts; largest of all feasts; only held if there is residual resentment or 'unbalance' after the *kualava*; important men 'make a name' for themselves through gift-exchange and feasting

Para: the funeral wake and vigil

In Lavongai, when somebody dies, the body, in most cases, is kept in the person's house, where a wake is organised. A vigil is held, and people remain with the body day and night. During this time—as news of the death reaches them—villagers and relatives living farther away come and spend some time with members of the deceased person's family who are at his or her side and provide supporting gifts of food. The wake continues throughout the night, and for this reason the whole process is known as *para*, which literally means 'to be awake' or 'to stay awake'. Occasionally, a rough, temporary structure, a 'house of mourning' (*haus krai* in Tok Pisin, literally 'crying house') into which the body is placed for the duration of the wake, is erected, although according to older men, this practice comes from New Ireland, if not further afield.[23] The 'traditional' place where people held vigil over the body of a deceased person is in the very home of that person, which becomes known as *vainsaulmat*:

(4.1) *vainsaulmat*
vain saul mat
place turn dead
'place where the dead was turned'

23. Describing what he observed when somebody died in New Ireland (although he does not state where exactly), Parkinson also mentions such a building (1990, p 210).

During this time, a coffin is made from planks, plywood, and nails. Once it is completed, the body is placed into this box, sometimes wrapped inside a sewn pandanus mat (*pelek*), and this is left unsealed until the burial. Decorations made from bright fabric or plants (notably banana stalks, sago palm fronds, cordylines, and crotons) are placed around the house and the coffin, and the area in general is cleaned up: the grass is cut, and waste is gathered and burned.

As previously described (on page 105), it is during the wake that ostensible food contributions are expected to be made by 'the brothers in-law' (*tamai*), the men married to sisters of the deceased person's sons. This food will contribute the bulk of the feast of *alulus*, which is held on the day of the burial, but will also serve to prepare more quotidian meals for the visitors coming to participate in the wake. This is supplemented by occasional gifts from village leaders, prominent men of the area, and by whatever food the family of the deceased themselves can scrape together at short notice. It is a common saying, for this reason, that when somebody dies, there is much 'trouble' (*maiten*, literally 'heavy, weight, pressure') related to food: because many people will come to one's house in this time, and it would be impolite not to have food ready for them. Firewood must also be gathered in abundance for cooking, and it is now common for a generator and some bulbs to be borrowed from the various people or institutions such as schools in the area who have such possessions, to have light throughout the night. Contributions of fuel for the generator, or money to purchase fuel are therefore also welcomed at this time.

One such example of an affine contributing occurred during the wake for John Songo Masngai (12 December 1964–9 July 2023), the former village court magistrate of Metevoe, a Nguma clansman. Isia (the same man involved in the wedding of Bosngurmal and Ngurdesi described above, page 189) made a large gift for the *alulus* feast (Figure 4.10). Isia and Mata, John's widow, both belong to clan Silau. Isia addressed John's brother and sister on behalf of his clan and explained that the gift before him comprised of one cooked pig, six bundles of a half-dozen taro, six baskets of sweet potato, and three 10 kg bags of rice was for them, and that he was giving it because John Songo had been 'our father' (*tamara*), implicitly 'father to Silau clanspeople'. This gift was an acknowledgement of the fact that John Songo had looked after Silau children: the daughter and six sons whom Mata and him had together. Isia was stating that they too wanted to 'look after' John Songo's brothers and sisters, in this time of need.

Kepkepai and *alulus*: burial and first feast

In some cases, if the family has enough money to do so, a body may nowadays be transported to Kavieng to be placed in the morgue, allowing more time to spread the word of the death, for relatives living far away to travel back for the proceedings, and to prepare for the burial. On the contrary, if a family is entirely destitute and cannot count on support from relatives to organise a wake, then burial may occur the very next day after death. I witnessed this when the child of a young couple died; not only was it said that for a child the wake was less important, but villagers also commented on the fact that this couple had very few gardens, and few relatives nearby, and could therefore not have organised a prolonged wake.



Figure 4.10: Silau clanspeople, led by Isia (yellow shorts, only partly visible), make a gift of food to Michael Toreu and Elubi (not visible on the photograph), brother and sister of the deceased John Songo. 16 July 2023, Metevoe.

Barring these two extremes, it is usually on the second or third day after death that relatives of the deceased and most of the inhabitants of nearby villages gather for the burial itself. This is known as *kepkepai* (formed on the root *kep*, 'to dig'), *mo* ('to bury'), or more generally *taun i magus* ('time of sadness').

What becomes of a deceased person's body itself is the aspect of funerary practices that has, by all accounts, changed the most since Christianisation. It appears that the remains of dead people used to undergo a variety of treatments in the region, only one of which was interment, whereas nowadays, everybody is buried after death in a wooden coffin. I was told of a variety of practices that have fallen into disuse, notably cremation:

> The deceased is placed on a chair, and he spends one last night with everybody in the men's house, before he is cremated. The remains from the funeral pyre, the ashes, are then taken to sea, to specific places, that depend on which clan the deceased man was from. These ashes are called *tip*. If the *tip* are put in the wrong place at sea, in the place for another clan, then the water will begin to 'boil'. Some of the places in question are Kunauritangis, Kulingonofi, Kulipiramat, and Meteneiaran. The places have *masalai* [Tok Pisin: guardian spirit animal] guarding them. Once, Tamok, a man from Metevoe [...] went fishing at Meteneiaran and was bitten by a shark there. This shark was a *masalai*. Meteneiaran is where they would put the remains of men from Valus clan. (Gregory Ravis, 12 November 2019).

Parkinson writes that in New Ireland, cremation was the primary mode of disposal of bodies, giving an elaborate description of the process which he obviously observed in detail, adding that 'on New Hanover the funeral procedure is similar [to that in New Ireland]' (Parkinson 1990, p 211). This included the construction of a 'catafalque' of a size proportional to the importance of the deceased. The body was then burned with wooden carvings and the liver of the deceased was eaten with ginger by young men present (1990, pp 210–211). As Gregory Ravis did for previous Lavongai practices, Parkinson describes the recovery of certain remains after cremation, and their reuse in further rituals (1990, p 211). However, after giving this detailed description of one cremation, Parkinson also comments that there were variations in the New Ireland practices, and that even before Christianisation, burial was not unusual (1990, p 211). He explains that the corpse was sometimes placed in a sitting position for some time in a dwelling—much like Gregory Ravis described (1990, pp 212–213)—after which it was either buried, or disposed of at sea (1990, p 213).

Parkinson also remarks that cremation, interment, or 'burial at sea' were followed by a large feast (1990, p 211). This is also an important part of the proceedings on Lavongai, where a large meal, the *alulus*, is prepared and set to cook in stone ovens the night before a burial and is shared by all present after the body has been interred.

The location where somebody is buried is of importance. Generally, this is near their place of last residence, typically close to their house (as was the case for John Songo in 2023). When a person has been away for several years, to Port Moresby or elsewhere, then the 'place of origin' of a person may be chosen for burial and the body will be moved back to the village with which this person is considered to have the strongest ties.

Sablai popot: striking small taros on the grave

On the day of a funeral, when the feast of *alulus* is being prepared, any small taro (*Colocasia* spp.) that were included in the harvest or gifts of food are set aside. These will be cooked in separate food bundles in the stone oven, after the main feast is over, so they are ready for the next day. Such small taro are known as *popot*. This term may be related to *popo*, which means 'baby', since there is a parallel from other ethnographic contexts in Papua New Guinea where such small taro are called 'baby taro', and are culturally significant (Nombo and Leach 2010; Nombo, Leach, and Anip 2021).[24]

The next morning, these bundles of cooked small taro are then taken to the grave by women of the deceased person's clan. They are ritually 'smashed' (*sablai*) on the grave (Figure 4.11), then taken by people who are married to a clansperson of the deceased, or whose father was from the clan of the deceased, to their own homes, where they are allowed to eat them. No other food is provided on this occasion for any other guests.

The emphasis on the specific growth stage of the taro in the ritual of *sablai popot* is surely significant, since there is no discourse tied to the quality of these taro, in terms of taste for example. The terminological analogy—if founded—would signify a correspondence between humans and taro, at least as far as growth goes. The *sablai popot* ceremony is organised by the clanswomen of the deceased, for those who are 'looked after' by this clan, meaning those who are the offspring of males of this clan. Recall, on this topic of 'looking after' (Sub-section 3.1.4), that Lavongai people consider it to be the father's duty—and by extension that of his clan—to 'look after' the children he engendered, and that this principally takes on the form of feeding, of providing nurture. This is related to the 'quasi-dualist' nature of Lavongai society where matrilineal clan membership is contrasted via alliance and male parenting to the 'opposite' clan of the father/spouse. This Lavongai practice is an example of a 'particular cultural logic that wraps death, sex, and food into a salient conceptual bundle.' (1990, p 431), as Robert Foster eloquently puts it regarding similar feasting practices of the inhabitants of Tanga, an island offlying mainland New Ireland.

The *sablai popot* stage in the funerary cycle emphasises both the gendered and clan-based separation in the manipulation, 'smashing' (ie ritual 'destruction') and then consumption of a particular food: taro in its 'infant' form. The rest of the ritual cycle, although it also has other aims, continues to strive towards maintaining the continuity of this underlying social order. As Roy Wagner writes eloquently of the relationship between paternal and maternal clans among the Barok people of central New Ireland mainland:

> The father, it is said, did not have to give his gift of life and nurturance to his wife and children, their clan, and the moiety that contains it. He gave it freely, of his own will, and therefore paternity is treated as an honorific role—an act of giving and creativity. The ultimate sense of this is summed up in the ethic of *malum*, respect accorded the other moiety out of sorrow for its bereavement (in the general sense, over the deaths of all who have served as vivifiers of one's own moiety). (Wagner 1986, p xvii).

24. It was James Leach who brought this parallel to my attention, following a seminar presentation in which I discussed the Lavongai funerary practices (Collins 2022).



Figure 4.11: A *sablai popot* ritual: women from clan Nguma sing a short song (top and bottom left), then smash bundles of small taro upon the grave where John Songo Masngai was buried the previous day (bottom right). 18 July 2023, Metevoe.

Although Lavongai society has no moieties, the same logic applies through the quasi-dualist structure that takes on similar functions, and which similarly connect clans through nurture and mutual involvement in funerary practices.

Konmanas and *mal*: keeping the grave warm and mourning

A few days after burial, the feast of *alulus*, and the *sablai popot* ritual have occurred, there is another feast that takes place, on an occasion known as *konmanas* (sometimes shortened simply to *manas*, literally *kon*: 'chew', here 'eat' and *manas*: 'hot'). This is said to be held to 'keep the grave warm', and it is also sometimes referred to as the feast of 'warming up the grave': *amanas mopong*.

The main role of *konmanas* is to show support for the surviving close relatives of the deceased, to let them know they are not alone. This can be particularly important if a person dies whose local ties were stronger than those of the person they were married to. Indeed, in such a situation, the surviving spouse is left 'disconnected' from the local social network, since the link that used to connect him or her has been severed by this death.

The fact that supporting the close kin of the deceased is an important undertaking in and of itself for *konmanas* was made clear to me through personal experience. While I was living in Metevoe in 2022, I learned after a visit to Kavieng, where I could contact my relatives in France, of the passing of Simone, my partner's grandmother, whom I was very close to. When I shared this sad news with my hosts in Metevoe, a few days later, they organised a *konmanas* in her honour, to 'be with me', to support me in my grief. For most of that afternoon, I fished on the reef flat with a group of young men, to provided meat for the feast. Several women worked in their cooking houses, preparing taro and sweet potato bundles in the stone oven. At nightfall, we gathered in front of my house, and although there were only a dozen or so of us there, we shared the meal in the 'typical' way Lavongai people share feasts: with the food spread out on rows of banana leaves placed on the ground. As we finished eating, Laimen rose and asked for everybody's attention:

> Ok, well, thank you everybody. Thank you to the women for cooking. Thank you to all the young men who went fishing so we could have meat to go with the food. We are all together tonight because there has been trouble that has come to the family of our brother, Mark, in France. It is about his wife's grandmother. We are here to *konmanas* for his wife's grandmother, to show that we recognise what has happened, and to be with him. That's all, thank you. (Laimen, 30 May 2022).

Konmanas is also the occasion on which somebody may choose to take a form of mourning vow known as *mal*.[25] If the deceased person is a man, then his widow is a possible candidate for such a vow, but others may also take it. *Mal* is always a voluntary undertaking. It involves somebody renouncing the possibility to 'appear beautiful', which means more precisely that they cannot cut or comb their hair nor dress with colourful clothes for a period of time starting at this ceremony and running until another ceremony is

25. In some cases, such vows are taken at the *alulus*; this is what Roberts reports (2024, p 212), and also occurred in one of the burials I attended, whereas in all other cases the mourning vows were taken at the *konmanas*, as local exegesis indeed states they should be.

performed for the lifting of the vow.[26] According to the earliest texts concerning Lavongai, the most common decoration that people used to display, at a time when no clothing was worn, consisted in placing colourful substances and forming the hair into ornamental shapes (Strauch 1877, pp 41–42; Brown 1881, p 220). In essence therefore, what is being done by not cutting one's hair in *mal* is to refrain from tending to one's own appearance. This goes with the wearing of black clothes, and not wearing any *maus* (decorative attire) to suggest that *mal* is mostly a prohibition on appearing beautiful.

There are several types of *mal*:

- *mal dungai*, *mal rungai* or *mal rungrungai* (all meaning 'sadness *mal*'): the least restrictive form of *mal*, it implies not cutting, combing nor washing one's hair, and dressing with 'sober' clothes (black or dark, no colourful garments) until the *pit mal* ceremony ('cutting of the *mal*');
- *mal rangrangis* ('clean *mal*'): the form of *mal* that a widow might perform for her deceased husband, it involves all the restrictions of *mal dungai*, but also a prohibition on eating pig and taro;
- *mal kiki* or *mal visuk* ('dirty *mal*'): the 'hardest' form of *mal*, which as well as all the restrictions of *mal rangrangis* prohibits washing any part of one's body. This is a grave undertaking, and if it is left to go on for more than a few weeks, people say the mourner could die.

Mal can have several motivations. The first is to *dungai*: to mourn, to think back on somebody, to remember them, to show one's attachment to somebody who has gone. Another possible motivation is as a form of challenge to the clanspeople of a deceased relative, sometimes known as *mal apag*.[27] Indeed, when somebody from one clan has died, and a person from another clan performs *mal* for them, it will be the responsibility of clanspeople from the first clan, of the clan 'for whom' the *mal* is performed, to 'buy back' the hair of the mourner. This requires a show of the clans' ability to mobilise, organise their productive resources, and amass quantities of shell money, pig, and taro to present to the mourner during the *pit mal* ceremony, usually at *kualava*. Another possible motivation is for a person whose standing within the clan of the deceased is uncertain (for example a recently married spouse of a child of the deceased whose marriage is controversial), or who has been accused of not being a 'good spouse' for instance, to show their attachment to that clan by adhering to the restrictions of *mal*. Finally, another motivation to take a vow of *mal* is in support of somebody else who is doing so: for instance, when a deceased man's wife begins such a mourning period, a clanswoman of the deceased may take a similar vow immediately after, and therefore 'balance out' the pledges and the required payments for the lifting of the *mal*.

An entry into the *mal* mourning period took place when the funeral ceremony for the death of John Songo Masngai was performed in 2022. On this occasion, James Vokunga

26. Concerning the most notable aspect of the mourning practice: not cutting, combing nor decorating one's hair, Parkinson also noted that, in New Ireland, similar practices existed (1990, p 211).

27. Despite inquiries, I could find nobody who knew the meaning of the term *apag*, beyond its use in the expression *mal apag*.

Lalevien stood and addressed 'the people of Metevoe'. He started by stating his genealogy, explaining that Ngurlogo, John Songo's mother, came and gave birth to him in Metevoe, and that her sister, his mother, gave birth to him in the north: they were therefore 'true brothers' (in what, to us, would be a classificatory sense). People clapped loudly at this, marking their approval with the practice of *pini*: explaining how relatives are connected through their genealogy. He then asked Mata, John's widow, to sit down on a chair and the crowd gathered around. He gave her shell money and said that he was 'buying this hair' (*samui a ung ke*). They placed black clothes on Mata, signifying another prohibition: that of being 'decorated', of wearing beautiful clothes (Figure 4.12). A woman from Nguma clan then took a piece of taro and after making a loop around Mata's head, gave her a bite and took it away, before doing the same with a piece of pork, indicating the last prohibition on eating these two foods. This action of circling one's hand around the head then placing the food in the mouth of the person taking the vow of *mal* is analogous to the one performed during the *kavak* ritual, when the father's sisters of a young boy indicate their approval on first seeing him dance in public (Sub-section 4.1.1). It is unclear however in what way these two actions relate.[28]

John Vokunga continued by explaining that Mata could no longer cut her hair, that she should dress in black, and could not eat taro nor pork until the *kualava*, when the people of Nguma would cut the hair themselves.

Then his assistant who was carrying the *inangun* around his neck next to him cried out: '*Angasig! Angasig! Angasig*' (voluntary financial assistance), calling the Nguma clanspeople to give contributions. A bowl was placed on the ground and a line formed for modest cash contributions to be made. They gave Mata the money along with some cut pork, a pile of three bundles of a half-dozen taro, one basket of sweet potato, a 20 kg bag of rice, and a bail of sugar.

Next, another woman from Nguma, Maria, the daughter of a sister of John Songo's mother, and therefore a *taug*, a classificatory sister, to him also took a *mal* pledge. Saul, a Silau clanswoman, gave her the last bite in the same way as the Nguma women had to Mata, holding a piece of taro and making a circular motion around her head, then placing it in her mouth to eat. The speaker announced that her hair would be cut by the Silau at the *kualava*. People of Silau clan were also called to *angasik* for Maria, and the money was gifted to her along with two live pigs, some taro, sweet potato, and 20 kg of rice. With this, the ceremony for the start of *mal* was complete.

Although *mal* is most often observed by women, it is not impossible for a man to engage in this type of mourning vow. At the 2019 Metesik *vag*, an old man named Igua who had come all the way from Neipuas, in north Lavongai, for this feast, explained that he had not cut his beard since the death of Nevuak, his classificatory sister (he is her MZS, see Figure 4.17), to 'remember her' (*tingting long en*), but also to show that he was angry with his relatives living in the south, because none of them had sent word to him that she had died. In other words, this was both a form of *mal dungai* and *mal apag*.

28. One possibility is that the analogy is to the encircling of the neck with a string of shell money, which is done with a similar gesture also.





Figure 4.12: John Songo's close clan-relatives, Nguma clanspeople from North Lavongai led by James Vokunga Lalevien (orange t-shirt), dress Mata, his widow, in black clothes and give her shell money, in the ceremony asking her to perform *mal*: a mourning vow which involves not cutting her hair, and wearing no 'decorations', until the *kualava* feast for which the date was set a year later. 16 July 2022, Metevoe.

In what may only be exceptional circumstances, even children are, on occasion, put forth by their parents as candidates for this practice. I was told of a five-year-old boy who had performed *mal* in memory of his paternal grandmother, at the request of his father.

Finally, if it has not already been done at the time of *alulus*, *konmanas* is the occasion for the date of the next feast, *kualava*, to be decided. This is usually quite a long time after, because it requires considerable preparation: food must be planted in large quantities, and wealth must be amassed for gifts. Since all this cannot be done in a short period of time, the date of a *kualava* is typically set at least a year in the future.

Kualava, the big fire and *pit mal*, lifting the mourning

The next feast in the cycle is known as *kualava*, a word which means 'the big fire'. Indeed, a central aspect of the proceedings is to burn the possessions of the deceased, as well as the remains of his or her house, if need be, especially if it was used as a *vainsaulmat*, as the place where the body was kept during the wake (Sub-section 4.3.1). It is a considerable undertaking and requires that the clanspeople of the deceased prepare very large quantities of garden food and pigs both for a large feast and for gifts.

I witnessed two such *kualava*. The first was a modest one which took place at Neikuila, a neighbourhood of Metevoe (Map 1.5), in 2021. This *kualava* saw the burning of the remains of what had been the house of Ngurlogo, a woman born around 1945 and who had died on 21 July 2014. On this occasion, numerous highly emotional ceremonial gifts were made to July, Ngurlogo's widow, notably by the adoptive children they had looked after together, and by Ngurlogo's clanspeople inhabiting Neikuila, where July still dwells with his new wife. This was done to signify to July that he was welcome there, since he originally came to live in this part of the village because the land belonged to Ngurlogo's clan. The gifts of shell money and food meant that, despite Ngurlogo's death, which 'severed the link' between July and the Nguma clanspeople, they were still happy for him to be there with them.

Another, much larger *kualava* took place at Kulimeteran (a neighbourhood of Metevoe), in 2022. This concerned several deaths that had occurred in recent years: those of Pelman (a Valus clansman), Delsi (Nguma clanswoman), Sulan, and John Marianas (both Manilava clansmen). It was organised mainly by Lisom (Valus clansman), genealogical bother of Pelman, and his wife Sili (Nguma clanswoman), parents of Delsi, as well as Dori's classificatory brother Peter Taman, and a half-brother of Sulan (though their mother, Makanvalusmailik), Paul Maras, who also acted as 'speaker' (Figure 4.13).

The first step of this *kualava* was the performance of the *pit mal* ceremony to end the mourning period of several women who had taken such a vow. The expression *pit mal* literally means 'cutting the *mal*', an image which refers to the fact that a core aspect of the ceremony involves resuming the mourner's ability to comb and tend to his or her hair by cutting the first snip of it in public. If the person has also abstained from eating pork and taro, the mourner will be fed a piece of each of these foods in public, thus marking the lifting of the prohibition on these two foods. Finally, in the case of a widow, the *pit mal* ceremony marks the moment when it becomes permissible to remarry.

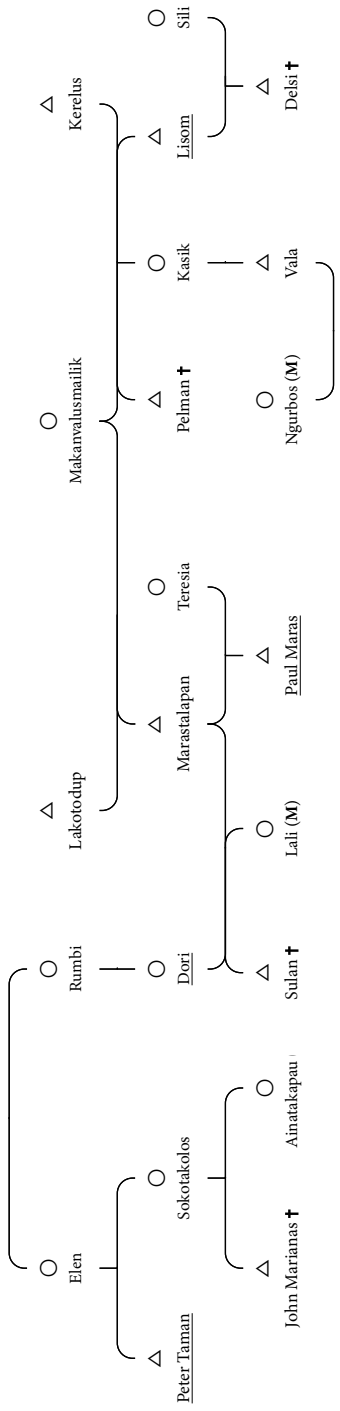


Figure 4.13: Kinship diagrams showing the relations between main organisers (underlined) of the Kulimeteran *kualava* and their relations to the deceased people who were concerned by this *kualava* (†); (**M**) indicates a person who performed *mal* (see page 203).

In the case in point, Ngurbos, the wife of Vala, the sister's son (*tipasig*) of Pelman, and Lali, the sister of Pelman, had respected *mal* in Pelman's memory. The relation between a man and his mother's brothers, his clansmen, is an important one, and losing a *labag* is an event almost as grave as losing a father. Ngurbos had therefore taken a *mal* vow in support of her husband. Lali and her husband Wily explained why: 'they do this to think about the good [deeds] of older Pelman,[29] to think about the big fish he brought, the pig, when he bought them clothes or decorations.[T45]' (Wily, 5 June 2022). Pelman was a Valus clansperson, and it was therefore Valus women who cut the hair of Ngurbos and Lali in the *pit mal* ceremony.

After this had been performed, numerous 'thank you' gifts were prepared, ostensibly laid out in neat piles (Figure 4.14). Reading out of a small book, Paul Maras announced who the gifts were for: people who had assisted when Pelman, Delsi, Sulan or John Marianas had died, or during preparations for the feast.



Figure 4.14: Lisom (holding the white bucket) instructs young men from the oven house, identifiable by their red sarongs, as they share out the food that has been prepared as gifts into 10 separate piles during a *kualava* ceremony. 5 March 2022, Kulimeteran (Metevoe).

Once these piles of food had been taken away by their respective recipients, banana leaves were laid out and the food for the day's feast was brought out of the oven houses. The amount of food was considerable, with almost one bundle of cooked taro or sweet potato for each guest, as well as sago cakes and dried tubers, all of this accompanied by generous amounts of pork.

Three large fires were then stoked, and Paul Maras specified which was for which clan: from left to right, the first was for Manilava (the clan of Sulan and John Marianas), the

29. Willy speaks of 'older Pelman' because a younger man also bears this name.

second for Nguma (Delsi) and the third for Valus (Pelman). Certain possessions of each of these deceased were brought out and placed on the fire. As the flames engulfed the clothes, food was piled up over them: large bunches of ripe bananas and packs of taro. As soon as this food had been released, people whose father was from the respectively clans of each of the deceased, rushed towards the corresponding fire and recovered as much of the food as they could (Figure 4.15).

In an instant, all this was over, the food had been removed and nothing was left but the clothes. Looking over the flames engulfing their loved one's possessions, a few women—Dori the mother of Sulan, Sili the mother of Delsi—stood over the fires, stoking them with sticks so nothing would remain, and wiping tears of grief from their eyes (Figure 4.16).

The crowd then dispersed, taking along bundles of unfinished food from the feast. The work was complete, these last traces of the deceased had been removed, those who had helped had been thanked, and the ties had been strengthened between those who remained: the purpose of *kualava* was fulfilled.



Figure 4.15: Part of the *kulava* proceedings: clothes of Pelman, a deceased Valus clansman, and food are placed on a fire (top). Immediately after, people whose father was a Valus, or who are married to a Valus clasperson rush to recover the food (bottom). 5 March 2022, Kulimeteran (Metevoe).



Figure 4.16: Dori (red dress) cries as the clothes of her dead son Sulan burn on the Manilava clan fire, and Peter Taman (right, black sarong) watches over the proceedings. At the centre, in the background, a woman is carrying away a bunch of bananas that she just recovered from another fire (Figure 4.15). 5 March 2022, Kulimeteran (Metevoe).

Vag: final balancing gifts

What could be left to do after all these rituals have been performed, feasts have been shared, and gifts exchanged? In some cases, nothing: it is not uncommon for an 'uncomplicated' death, among a well settled clan, to be 'finished' at *kualava*. However, in some cases, there is still 'work' to do, and one final, even larger feast is held: the *vag*. This aims to ensure all are settled, happy (*toron vinga ro*, literally 'have a good belly'), to end all worries (*lomlomonai duk*), and to settle any remaining debts incurred during the previous stages of the funerary cycle.

It can also have a more personal aim on the part of the organiser, one that leads us into the domain of power and ostentation. Indeed, holding a *vag* is a considerable undertaking, and whoever can organise such a feat is sure to 'make a name' for himself, to become a 'big man' (*anitun lava*), a *pasingan* (prominent man, speaker), and to create a lasting impression on others of his ability to mobilise resources. In one word: *vag* can be a show of power as well as a way to settle the obligations incurred after a death.

Indeed, these feasts are a prime occasion for speech making, and Lavongai society has been noted by several outside observers to place a strong emphasis on public discourse. Billings wrote of the importance of the 'verbal arts' in Lavongai.[30] She writes that: 'It is probably the verbal arts in which the Lavongais excel. Their skill with language, the frequent use of metaphor and of the subtle rhetorical question, their interest and ability in storytelling: these features I observed. But I did not study their language or their stories.' (Billings 1981, p 1705). She also noted (1981, p 1705) that Stamm, who did learn and study the language extensively, made the observation that the language was particularly rich and expressive:

> the Lavongai language is the finest of all the Melanesian languages I have ever learned and I learned six others. No other Melanesian language has such a flexibility of expression, and I dare to say that any modern book can be translated into this language without unduly forcing the original text. (Stamm 1958, p 1).

I concur both with Stamm that the language is very expressive and fluid, replete with metaphorical constructs and vivid imagery, and also with Billings that public speech is a very important aspect of Lavongai sociality. It is what allows important men to make a name for themselves during events such as *kualava* and *vag* (see page 217).

One such *vag* took place in November 2019, in Metesik (a hamlet a short distance from Metevoe). As this was early in my first stay at Metevoe, I did not have any command of Tungag, and was quite ignorant of the whole operation. Consequently I was not able to take a full account of each step, in particular during the gift exchanges and speeches; the information provided here is therefore mostly gathered from later discussions with participants in the *vag* and their family.

The 2019 Metesik *vag* was organised originally because of the death of two women: Nevuak, who died around the year 2015, washed away by a sudden flood of the river Voe as

30. She also noted the impossibility for her to further interpret them because she did not learn the local language: 'I cannot do justice to the verbal arts in either place [New Ireland nor New Hanover], but I think that this is probably a much more serious omission in New Hanover than in New Ireland.' (Billings 1981, p 1696).

she and her husband were attempting to ford it;[31] and Lasmat who died of old age around 2017. The man who planned this *vag* was the aforementioned Isia (page 189), the husband of Nevuak's daughter's daughter, and a classificatory son of Lasmat (he is her MZDS, see Figure 4.17). It also happened that barely a few months earlier, in July, Tus, the daughter of Isia's half-sister (same mother, other father) had died of an illness at the age of 45. The long-organised feast in Metesik was therefore also an occasion for the family of Tus to thank those who assisted them in caring for her during the last months of her life, even though this was not initially what the occasion was supposed to attend to.

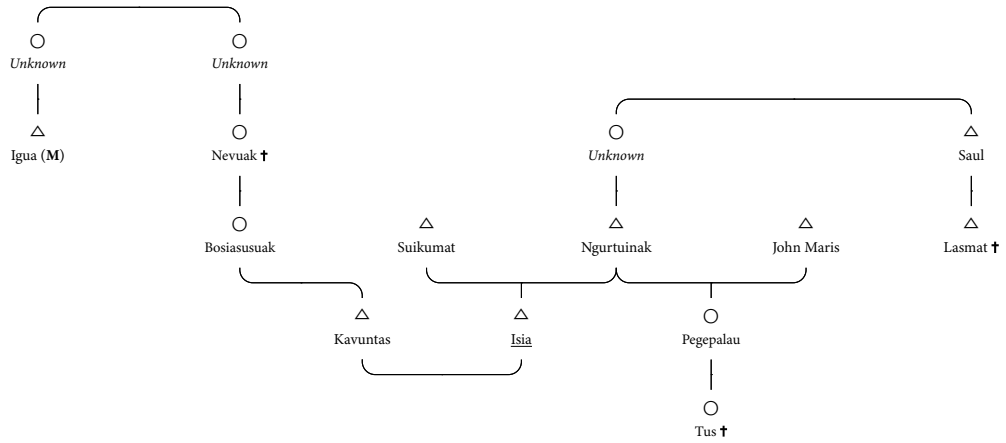


Figure 4.17: Kinship diagrams showing the relations between the organiser of the Metesik *vag*: Isia (underlined), and his relations to the deceased people (†) who were concerned by this *vag*. (**M**) indicates a person who performed *mal* (see page 203).

The *vag* was prepared first by the construction of a men's house (*rangama*) many months before, for the young men participating in the preparations to live in. An exceptionally large cooking house was then built nearby, with the help of these young men. Isia and his wife Kavuntas kept and fattened a dozen pigs for over a year in preparation for this *vag*. In the months leading up to the *vag*, they also amassed large quantities of food (taro, sweet potatoes, sago, etc.) through heavy garden work and by purchase.

The night before the *vag*, many women took part in the preparations. They collected specific ginger plants known as *tur*, which they placed on the graves of Lasmat and Tus, who had been buried nearby (Nevuak's body was never found, so she had no grave), and left there. Then, as night began to fall, they recovered the ginger plants and marched in a procession to the cooking house, 'pushing' the *tur* in front of them, and singing as they went:

(4.2) *Meleng, a i sulai ka-mi tur*
drift DET GEN push POSS-2PL specific.ginger

31. Lamis, a prominent man from Tovotokalas, a few hours walk inland, northbound from Metevoe, composed a song that recounts this occasion. This is transcribed and translated in Appendix I.

'Drifting, push your gingers,'

Meleng,	*si*	*na*	*kuikui*	*ro?*
drift	who	DET	wind.instrument	good

'Floating, whose is this good wind instrument?'

This song's meaning evokes the fact that the spirits of the deceased are considered to be 'drifting' around the graves, or in the forest, and by 'pushing' the ginger plants the women are leading them into the oven house so they may participate in making the feast a success. In the words of an older Metevoe man, when the women sing this song in a procession from the grave site, or the forest, into the oven house 'they are calling the dead man.[T46]' (Leti, 15 July 2022). With this, they took place in the oven house, and started the long repetitive work of peeling vegetables, and tying leaves and food into bundles to cook (*vokom*).

Late in the night, after all the preparations for the feast were complete, with the food placed in the oven, the women relaxed and started to *aparapara*: they stayed awake (*para*), through the night, and sang songs, accompanied by loud rhythmic beating on dry bamboo shafts. All around, the mood was festive: those who had spent weeks preparing for the feast were satisfied it was now ready to commence, and they relaxed, some of the young men drinking alcohol, others chewing betel nut and smoking tobacco until eventually they fell asleep in the men's house, leaving only the women keeping watch over the oven.

The next morning, guests started to arrive early and were greeted with a first batch of food—mostly rice cooked in large pots—and coffee. The actual proceedings would not begin until later in the day, by which time several hundred people had filled the modest hamlet of Metesik. Early in the afternoon, a group of United Church missionaries from East New Britain who happened to be present at that time were invited to speak and pray. A local reverend, James, from Umbukul in West Lavongai, who was accompanying them, gave a long sermon in Tungag. Lines of banana leaves on which the meal would be shared (*ngapat*) were placed on the ground, and food was brought out of the oven house. The priest blessed the food, and in a loud chorus of satisfaction, all began to eat from the bundle placed nearest to them.

This first round had barely been finished when the young men who had distributed the food returned and added a second round. The speaker called all those who had wandered off to come and eat again. As the second round of food was still partly eaten, a third, then a fourth was placed on the *ngapat*. I was asked to come and eat some more, and as I explained I was full, my neighbour urged me back: 'just pretend to eat, then you take it home for later' (*german kaikai tasol, na kisim i go long haus*). The hallmark of a good feast is that people should not only be full, but they should have food to take home and give to anybody who did not attend.

A series of gift exchanges then took place. Isia started by standing next to a large pile of pig, taro, and rice, calling Lamis and explaining that these gifts were for the people of Tovotokalas (an inland village located north of Metevoe), who had participated in the search for Nevuak when she was carried away by the flood. Women, relatives of Nevuak, came forward and placed a total of five strings of shell money around Lamis' neck. Isia explained that he was thankful to Lamis, despite having been involved in fighting with

him in the past—even recounting the anecdote that he had been shot with a spear by Tovotokalas warriors, right here in Metesik.

Others made gifts that aimed to settle arguments that had emerged during the organisation of previous feasts in the funerary cycle of Nevuak. Finally, a number of gift were made that concerned the passing of Tus, which had not yet been 'solved' in previous feasts.

With this, the crowd dispersed, most taking with them some left over food, or gifts. What this had achieved, beyond the 'finishing off' of the deceased people's memories, was that it sealed Isia's standing as an important man in the local community.

Sonatoto: eating with the living

Another type of feast is sometimes organised by important men, for themselves, before they die. This is known as *sonatoto*, derived from *to*: 'life', and explained as meaning 'eat [with a man] while he is still alive'. This is similar to a *kualava* held in remembrance of a deceased person, except that it is organised by the man in question as he feels he is nearing death. The justification for doing this is said to be that it relieves one's children and clanspeople of the 'weight' or 'trouble' (*maiten*) of having to organise the funerary cycle. This I observed on one occasion, at the initiative of Kolmaris, a man living in Neitalangus who had a persistent cancerous lesion on his lip[32] and was afraid he might die soon.

Such a feast is essentially an occasion to thank those who have recently done something for which any form of debt might be considered to exist, and to settle any outstanding conflicts so that, after death, no 'large work' is needed on the part of the relatives of the deceased. For example, during Kolmaris' *sonatoto* in 2023, Vala, a man who is not a close relative of Komaris' but who lives nearby in Neitalangus, apologised for his recent misbehaviour towards Kolmaris' after having received a gift from him signifying that this conflict should end.

Wolffram also documented a similar practice among the Lak people of southern mainland New Ireland in a film entitled *Rubber's Kastom* (in Tok Pisin: 'the customary work of Rubber'), where Rubber is the name of an elderly man who considered that none of the younger generation were 'fit' to carry out the customary work which his death would involve, and therefore resolved to perform it himself before passing (Wolffram 2005).

Important men: feast organisers, orators and fighters

The general practice of feast making and gift exchange is known nowadays by the Tok Pising expression *kastom wok*: customary work. This is something that, at first glance, might appear to be a rather exogenous overarching category for what, locally, is always more specific (sharing of food, *sasagi*, a feast for the funeral, *alulus*, for burning a deceased person's belongings, *kualava*, etc.) When asked if vernacular terminology existed that might equate with this concept, Lavongai men proposed *gulang i taun ang*:

32. Oral cavity cancers are a leading cause of death in Papua New Guinea. Betel nut and tobacco are highly carcinogenic substances and are widely consumed, including by Kolmaris (Thomas *et al.* 2007; Garg, Chaturvedi, and Gupta 2014; Kelwaip *et al.* 2020; Warnakulasuriya and Chen 2022).

(4.3) *gulang i taun ang*
game GEN time POST.DEF
'the game of this specific time'

The expression draws a direct parallel between 'play' and customary work. Certainly, there is a degree of amusement in the way Lavongai people participate in customary work. Men challenge each other with large gifts; people eat large quantities of prized food; dances are performed and enjoyed; there is singing, laughing and playful teasing between cross-cousins and in-laws (*leir*, see page 104). There is also a seriousness to some of the proceedings, which means it is not inherently contradictory that this 'play' should also concern serious matters. I believe Lavongai people would stand by the generalisation that nothing which they do is ever entirely serious or entirely playful: they are eminently able to laugh even about grave matters, or to take playing and joking very seriously.

Concerning the more serious aspects of customary work: this happens to be the context which is conducive to attempts by certain men to attain a degree of power, or to single themselves out by their eloquence, their organisational and their relational capabilities. The term *pasingan*, which survives mostly as a prefix to men's names,[33] is a form of 'title' that is used to refer to such a man: one who is an organiser of feasts, a speech-maker, who prepares and announces gifts of food. It is not a 'title' that is inherited, nor is there any particular ceremony or process that eventually earns one the right to be called *pasingan*, it is simply a matter of fact, usually honoured mostly after a man's death, if at all.

In the past, there used to be a well established process that could mark a man's status as a *pasingan*: climbing upon a *pata i merengen*, and performing a vast ceremonial distribution of food 'for no reason'. The term *pata* is polysemic, meaning all at once 'bench', 'bed', 'platform' and 'shelf'. In this context, it used to refer to the central element of such a ceremony: a raised platform onto which bundles of taro were heaped, and on top of which the man being 'raised' to the status of *pasingan* would stands. *Merengen* is a term I find very hard to gloss, despite asking multiple times for explanations as to its meaning. It concerns both the act of giving gifts, and speech itself; it involves the action of naming a recipient of a gift, and evokes the image of 'powerful talk', of words that have consequences. What a man who has been placed on the *pata i merengen* says, happens: if he says 'this gift goes to such a person', then the gift is given to that person. Billings wrote of what she called *pata* as a form of 'traditional feasting' (1981, pp 874–875).

I never observed such a ceremony, and I doubt they are practised very often nowadays. My own information on this comes both from John Aini, who was the subject of such a ritual, and Boniface Fode, the older man who 'put John on the *pata*'. Boniface explained the '*merengen*' quality thus, in a group interview in which Ladi and Total also participated:

Ladi: and dad [Boniface] [...] he sat John on the platform.
Mark Collins: right, so teach us about this kind of work.
Boniface: they call it the *merengen* platform. When you want a man to go up on the *merengen* platform, well [...] I bless it, so that platform becomes a *merengen* platform. But, it is a

33. In the village book data, of 4061 unique names (baring multiple orthography for a single name which was not de-duplicated), 60 or 1.5 % begin with *Pasingan* or *Passingan*.

> platform on which one stands. You go up onto it, you stand on it, well, you *merengen*, don't you: you make gifts. You make gifts, you name people… you name somebody, and at the same time his taro, or whatever, is given. It is laid out, indeed: 'for who, and for who, and for who', the bed is. Yes, that is the *merengen*'s job indeed: he speaks, right!
> Total: *merengen* 'means' [in English] to talk, he is a man who speaks. Well, you are on the platform, and you speak.
> Boni: he is a man who speaks, and he is a man who knows well, 'how' [English] to lay out the things, the layout of the things. In the future, for all the 'sorting out' occasions, the finishing off of a dead person occasions, there will be one indeed, later on he will be on the *merengen* platform. Each and every thing, all the problems that come from a death, and this, and that, and that. […] I put Takavis [John Aini] on the platform.[T47] (Ladi, Boniface and Total, 03 May 2022).

When asked if he himself had been 'on the bed' in such a way previously, Boniface replied that he indeed had, that his genealogical father had done so (*mamai a korong*, literally 'my dad, straight').

The *pasingan* feast-organiser, gift-giver and speech-maker can be contrasted to another form of leader: the *vosap*, literally: 'one who strikes'. This is used to refer to a leader of a fighting group. The existence of the term suggests that fighting, at least at some point in the recent history of the island, was a frequent enough occurrence that a specific term for 'fight leaders' was pertinent. Nowadays, the term is used by some Christian denominations to designate God, although others prefer '*Pasingan*', and still others use the English term 'God' in Tungag speech.

Billings never mentions the term *vosap*, and only uses *pasingan* in men's names without analysis its meaning, and writes that 'Traditional fighting in New Hanover came to an end during the German period of administration, preceding 1914.' (1981, p 839). Although the period of Australian administration was no doubt one where policing was tighter (see Sub-section 1.2.6), that fighting ever 'came to an end' is no doubt too optimistic of a statement, even if the overall sentiment that in the past warfare used to be omnipresent as opposed to the current era where it is sporadic no doubt stands. More recently, Roberts failed to make the distinction between *vosap* and *pasingan*, writing simply that: 'leaders of the […] clan [are] called *vosaps* or *passingans*. These leaders were typically elder males chosen by the community to act as local authorities on custom, issues involving land, and leaders during times of conflict.' (Roberts 2024, p 47).

That fighting has been a part of Lavongai social life for generations can be discerned in the way people nowadays remember past events and recount them. It is also evidenced by the accounts made by colonial officers in their patrol reports (Kaad 1949, p 2) and in the more colourful and less factual accounts of early voyagers (Cayley-Webster 1898, p 285).

Ascertaining the scale, importance, or modalities which fighting would have had in the past on the basis of these sources appears unrealistic. Fighting was no doubt, and to a degree still is, part of the regulation of social life on Lavongai, since no meaningful action on the part of the governmental law and order forces is carried out on the island.

In all this, discerning how being a *vosap* used to confer power on the men in question is almost impossible. *Vosap* proper are now more heroic figures of the past, although

on inquiry, when asked 'could this person be called a *vosap*', it was not hard to obtain affirmative responses concerning a number of men whose role in recent armed conflict was notorious. Indeed, there are still vivid memories among all living in Metevoe of not so distant 'troubled times' (*taun i maiten*): widespread and brutal spear and knife fighting that seems to flare up, then die down periodically, during which practically all the houses in the village get burned, women and children flee into the forest and hide in makeshift dwellings for weeks, and many men are injured, a few even killed. It is clear that those men who are apt leaders and strong fighters in such a context attain a degree of power, and that this persists even beyond the 'troubled times'. Whether or not they are called *vosap* is immaterial: they are 'big men' because of their past success as fighters.

In 2021, John Aini succeeded in joining in 'peace talks' a large number of fighting leaders, of *vosap*, who had been involved in numerous incidents over years. They formed a 'Peace Committee', and in an imposing ceremony on 8 December 2021, they burned then buried hundreds of spears in front of the Lavongai village Catholic church, signalling a long-lasting peace (*luai pitik*) which, to this day, seems to be holding, thanks to the incessant efforts of the Peace Committee to intervene whenever violence erupts.

4.3.2 Discourse concerning an 'afterlife'

Despite Christianisation, and the apparently universal acceptance of some theory of heaven and hell which Lavongai people now seem to have,[34] they still widely know of and sometimes defend several 'old beliefs' concerning what happens to deceased Lavongai. One of these places the emphasis after death firmly in the Oceanic realm: it involves dead people going to an island known as Tingwanimat, literally 'Tingwan of the dead'. Gregory Ravis said the following on the matter:

> Here, when somebody dies, he goes over the sea. He stops at Patiangin, the isolated rocky islet just off the point that is west of Tioputuk, after Matselen, and rests there. Then, he continues towards the west, and passes on an uninhabited island near Tingwan: Tingwanimat. Nobody lives there, and you can see footsteps in the sand, that indicate that a dead person has passed there. People from elsewhere in Lavongai probably follow a different path. (Gregory Ravis, 12 November 2019).

After spending some time in Tingwanimat, the deceased Lavongai people—at least those from the south—continue their journey towards another place, in the Musau chain of islands, known as Mait:

> When they die, indeed they die here, and they [...] speed in the water. Like... if I have died here [...] I'll also go. [...] We are going westward, to Tingwan, [...] we are going to Musau, to the place that they call 'Mait'. [...] people leave their footprints on they way over there, and they go westwards. [...] When people see the footsteps, they know that a dead person has passed there already, he has followed his path. Indeed, he left footsteps on his way past as he was going to disappear.[T48] (Clemen, 16 July 2022).

34. Christian theology itself is far from unanimous concerning the existence, location or form of an afterlife—heaven, hell, paradise or any other form. Contrary to popular belief, the Bible is not very clear on these matters, and it is a matter of religious philosophy and of doctrine on the part of various denominations what is to be believed on these subjects (Walls 2007).

After explaining this, Clemen pointed out the way Christianisation has modified Lavongai people's conceptions of these matters, making these old 'beliefs' disappear (Clemen, 16 July 2022).

Other discourse and theories concerning the afterlife also exist, albeit in a more discrete fashion, among Lavongai people. One of these is related to the so-called 'Johnson Cult', and to a form of millenarian thought that, although rare, is defended by some. Patrick Kaiku presented some of these conceptions in an article for a special issue of *Global Bioethics* edited by Billings (see her introduction 2015a):

> The Johnson Cult had, and still has, among its adherents the notion of an underworld, an afterlife world with underground tunnels, and a land of deceased ancestors. It was whispered among listeners that America was the underworld afterworld, where deceased ancestors of the Lavongais went at death, got reincarnated, and lived. (Kaiku 2015, p 74).

Nobody I met ever defended this notion directly in my presence, but people told me of others whom they considered to hold these beliefs. As discussed previously, notably in regard to the writings of Billings (see page 41, also Billings 1969, 2002), the so-called 'Johnson Cult' was initiated as a protest against what Lavongai people considered to be negligence and unfair conditions at the hands of the Australian colonial administration in the late 1960s and early 1970s. Although principally political in nature, it incorporated certain elements of the millenarian movements that were frequent in the region at that time, and it is some of these which Patrick Kaiku considers to have persisted into the 21st century:

> The religious features of the Johnson Cult of New Hanover Island have appeared mostly in relation to certain spiritual notions conjured up since contact with two US army surveyors in 1963. The religious features discussed here relate to the notion of America and the USA as the underworld afterworld, in the invisible spirit realm, inhabited by deceased Lavongais. In that realm, deceased Lavongais were reincarnated and assumed white skin. (Kaiku 2015, p 76).

In any case, the existence of multiple non-Christian elements in the conceptions of Lavongai people about death is evident. Chiefly among these is the widely-held notion that *anit*, spirits of deceased people, continue to be active in the world of the living, causing illness when angered, and that they can be 'called upon' by certain men holding esoteric knowledge to perform magical actions (a topic I will return to in several subsequent chapters Sub-section 6.4.2, Section 7.4, and Sub-section 8.2.3).

4.3.3 *Manteng i masung*: magical practices to ensure satiety

Feasting is a central element in all the steps of the funerary cycle. These practices actualise a number of important values that Lavongai people hold to be central to their sociality, in particular the virtue of commensality, 'eating together' (*angan kuvul*), the fact that the food must bringing 'satiety' (*masung*), and sharing (*sasagi*).

The first point is emphasised in a comparison which Lavongai people often make between themselves and the feasting habits of New Irelanders: on Lavongai, everybody eats 'together' from the same long row of banana leaves spread on the ground (*ngapat*)

onto which bundles of food are placed, whereas in New Ireland, the food is served for each individual on a single pile of small leaves.

The second point, concerning satiety, is realised through the application of a body of magical practice known as *manteng i masung*. The term *manteng* refers to special forms of knowledge, magic, and actions. *Masung* is the generic term for satiety: upon finishing a meal people say *nala masung*, 'I am full'. These practices of *manteng i masung* are therefore those that are designed to ensure that food cooked during a feast will bring satiety to the guests; as the practitioners themselves put it: 'you eat only a little bit of food, and you feel full up' (*kute angan a fok lik palau, na kula masung*).

During fieldwork, I was fortunate to be allowed to participate with a group of men in *manteng i masung* for a feast. This was at my request but with the support and acceptance of Melis (a close friend and the elder brother of Laimen, my host), the leader of this magical work. The context was the following: John Balane, a relatively wealthy man (a retired nurse) from Metevoe, wished to 'sort out' (*itoiton*) various issues relating to land, resolve certain resentments concerning past violent conflicts, and settle debts. Although this was not performed specifically in memory of a recently deceased person, the preparations for the feast were identical.

John had two oven houses erected in order to prepare food for an abundant feast. Through purchase, and by receiving supportive gifts from relatives, he amassed considerable amounts of food and shell money. A few days before the feast, John directed a group of young men to erect a monumental cement slab onto which were engraved the names, dates of birth and death of a number of his ancestors who had 'lived and died' there. On the day of the feast, he made gifts to prominent men representing local landowning clan segments, in lieu of 'settlement' to strengthen his claim to the land where he wished to build a 'permanent' house in Metevoe village. He gave gifts of appreciation to those who had assisted in various parts of the preparations. He invited a man called John Niven from a neighbouring hamlet to formally 'make peace' during another large-scale gift exchange. Indeed, for many years, the two Johns had been at the head of groups involved in sporadic but violent fighting. Several men were killed, and many others injured in this conflict, and John Balane, fearing for his life, had fled to his wife Makansiavun's home village in the north of the island. The peace ceremony with John Niven was thus an indispensable step to enabling his safe return and resettlement to Metevoe.

Magical preparations were said to be indispensable to this feast. Such *manteng i masung* aims to ensure that the feast will 'turn out well' and produce *masung* (satiety) in many people. It also aims to afford the cooking and feasting enterprises a form of magical protection, since the success of a feast can only be obtained by guarding against ill intent, against any attempts at sorcery or interference from a third party. As can be imagined from this presentation of John Balane's objectives in organising this feast, there were many aspects of the proceedings that may have caused jealousy or resentment. Feasts of this kind are, in general, moments of heightened tension, and in such situations, fears of sorcery or malicious doings abound.

For these reasons, when preparing the feast, Balane called on Melis, well known in the village for his 'magical abilities', in particular with regard to the specific work of *aiveven imun* (looking after the stone oven). This work began well in advance, on 26 December

2021, and carried on with increasing intensity until 7 January 2022, when Melis, his son Joshua, a relative of John Balane called Latopok, other young men, and I entered seclusion and began fasting inside the cooking house, for the meal to be ready on the next morning, 8 January. Melis made his son Joshua responsible for one oven, whilst he supervised the other himself, checking Joshua's work periodically. Five more young men manned each of the two ovens, slept there, and participated in the magical activities, carrying out a large portion of the labour, and helping to ensure a continued presence in the *haus kuk* (oven houses in Tok Pisin), a presence that is required from the moment the work starts. Latopok assisted Melis in a similar role to Joshua's, although it was evident Melis was not sharing as much of his knowledge with Latopok as he was with his son.

For two weeks before the feast, Joshua, Latopok, and other young men assisting them slept in the cooking houses. They fasted and collected plants during the night when nobody could see them coming and going. Melis and I joined them on the evening of 6 January, two days before the feast, when the preparations became more intensive. From that moment on, we could no longer eat anything except fruits, we could drink no liquids, and we could not wash. Failure to obey any one of these rules would have resulted in something ruining the feast: the oven house might have caught fire, rain might have poured down, the food might have gone bad or been uncooked.

The men had gathered many different plants in the forest. The previous day, they had extracted several litres of water from fresh coconuts. Early on the morning of 7 January, we woke and began preparing the plants. These where shredded and pulverised in various ways, then soaked and wrung out in the coconut water, before being left to steep in it. Once this 'secret' preparation had been performed, a number of women joined us in the cooking house and proceeded to peel the huge quantities of vegetables (mostly taro and sweet potato) that had been amassed there. They also had to obey the fasting rules, could not drink and could eat only fruit. In each of the two cooking houses, there was a 'chief woman' supervising the work of the younger ones; in the one where I was it was a member of John Balane's close family, in the other it was Melis' wife Iatilda. Before the women started peeling the taro, a specific plant was used as a *makinga* (a magical rubbing substance). While holding a bundle of the plant in one hand, a young man and I went from taro bundle to taro bundle, rubbing this *makinga* on our free hand, then rubbing the same hand on the taro to impart into it the magical quality of *masung* (satiety).

Peeling the vegetables took most of that day. As this process was progressing, the women spread out the tubers on banana leaves, and one of the young men sprinkled them with the coconut water we had prepared earlier. After the peeling operation, the women began the tedious and meticulous work of bundling the food in leaves of *irip* (possibly *Phrynium giganteum*).

Magical plants were then placed in the *imun* itself, the stone oven, and the cooking operations started. These are seen by the Lavongai as being the most crucial; it is then that most is at stake, and it is also, objectively, the most painful for the participants in these preparations, because the cooking house fills with smoke as the fire is lit, and it is forbidden to exit it at this stage. Indeed, cooking houses built in preparation for feasts on Lavongai are invariably dark, windowless, and poorly ventilated. They are built in this way because the preparations are secret and must be hidden from view. From a materialistic

perspective, they would be much more comfortable if they were open and aerated, but the need for secrecy predominates.

As the fire grew in intensity, producing abundant and acrid smoke, Melis extracted a scraggly ginger plant from his basket, which he told me he had 'sung over', meaning that it had been magically prepared. He gave it to Latopok, who bit off part of the root and spat this chewed ginger into the flames (Figure 4.18). This, Melis told me, was to control the flames, so they would not set fire to the cooking house nor, on the contrary, die out.

Once the fire started to burn in a more stable way and glowing red through the stones, Melis and the others visibly relaxed, and celebrated quietly, exchanging a few congratulatory pats on the shoulder. The most critical phase was over; the oven could now be left, and we were allowed to exit the cooking house. However, we still could not eat, drink, nor wash, and we continued to return periodically to the cooking house throughout that day.

Once the oven was hot, we spread out its stones and placed the food into it, before covered it up again, and finally putting a layer of banana and 'wild taro' leaves over the top. The day's work was done, and the feast would begin the next morning with the extraction of cooked food from the oven.

Patrick and Tukul Kaiku, in their article concerning Lavongai 'traditional knowledge', also describe the magical activities involved in this form of feast-making magic (*manteng i masung*, 2008, p 59). They write of the objectives of this magic: 'In the art of feast making (*vil angan*), the "miraculous act" of complete nourishment is sought. The challenge that is proposed to the custodians of this knowledge system is how they can satisfy the hunger of many guests with any available quantity of food.' (Kaiku and Kaiku 2008, p 59). The main body of knowledge of the workers of *manteng i masung* is related to plants that are needed for the ritual to be successful. These must be collected once a certain degree of fasting and preparation has begun, without being seen by anybody in the process. Spirits of deceased men (*anit*) are called upon to ensure the feast has the powerful ability to bring satiety. They also write of the 'need for preventative measures against jealous or competing rivals' which are known as *babat* (literally fence, protection, or barrier) (2008, p 64).

The work of the men looking after the oven ends with the distribution of the food bundles, a task known as *sasagi* (literally 'to share', Figure 4.19). Patrick and Tukul Kaiku also emphasise the importance of *sasagi* (sharing) which they define as: 'the art of food preparation, handling, sharing and hospitality to invited guests and the wider community.' (Kaiku and Kaiku 2008, p 58). The ethos of sharing food is, of course, also present outside of the context of celebratory feasts. Whenever somebody passes by a house, if food is being prepared, they will invariably be called over and presented with a plate. When men go fishing, it is common for them to catch fish but to return home empty handed, because they have met somebody on the way home with their catch in hand and felt compelled by rules of generosity to give away some of this prized food. Several Metevoe women thus told me of their husbands repeatedly going fishing, landing with a good catch, but arriving home with no fish because they had gifted it all on their way back.



Figure 4.18: Seen through the smoke of the raging stone oven, Latopok bites off a piece of magically activated ginger then chews it and spits in a mist onto the flames. This is done to control the fire. 7 January 2022, Metevoe.



Figure 4.19: As the feast organised by John Balane is about to begin, food packets (*vokom*) are distributed onto banana leaves (*ngapat*), used as a form of 'table' to eat around. Sharing out the food (*sasagi*) is an important task carried out by the men who 'looked after the oven' (*aiveven imum*). Melis (white t-shirt, centre left) is directing the process, and he insisted that I wear a black sarong and participate. Photo by John Songo, 8 January 2022, Metevoe.

Chapter conclusion: life cycle

What preoccupies the people of Lavongai the most revolves around three key moments of their life cycle: the funerary obligations set off by each new death, the requirements incurred by marriage, and dances that are practised at most public events (including some funerary feasts). At every one of these steps, relations with nonhuman beings are present in multiple ways.

The central values of commensality and sharing are expounded and acted out during the several year-long funerary cycle. This aims to renew the ties that have been severed by death and ensure a balanced flow of nurture. During life, Lavongai people place an emphasis on the circulation of food from a father (lets say, clan A) to his children (clan B, that of his wife and, by virtue of the quasi-dualist organisation, of his own father). Childcare thus supposes that A gives to B. On the social level, this is represented by the fact that a person is said to have been 'grown' (*polok*) by members of his or her father's clan, here clan A. In death, the flow of gifts takes the inverse path. If this father from clan A, married to a woman of clan B (whose children are from clan B) dies, then people from clan B, in particular this man's step-brothers, the *tamai*, must make gifts to the clanspeople of the deceased—from B to A—thus reciprocating the flow of nurture of childcare. Reciprocally, it is the *polok* and the *osongon* (those from clan B) who alone will eat the small taro of *sablai popot*, and who get to keep the food which they retrieve from the fires of *kualava* for themselves, both of which are provided by the deceased person's clan (A) in token 'counter-gifts'. Those of the 'father's clan' are thus compensated for their nurture in these ceremonies, and a balance is maintained.

The role of the father towards his children is said to be to 'look after' or 'care for' them (*aiveven*). Importantly, it is also to the term *aiveven* that Lavongai people resort when describing what should be done to marine life in general. 'We must look after the fish, the reef, the sea', they say. The question, of course, then becomes: how does one look after these? Much as it is the case concerning father-child relations and relations between allied clans, nurture is a central aspect of the relation between human beings and marine life. I will therefore return to this key notion of *aiveven* in several of the following chapters (Chapters 6 and 7).

Funerary feasting also contributes to the persistence of relations with invisible beings. Indeed, despite Christianisation, 'spirits' of the dead are considered to be involved in social life for years after death, and certain men are able to communicate with them and call on their support in magical endeavours (something which I will also expand upon in the following chapters, in Sub-sections 6.4.2 and 8.2.3 and Section 7.4). For this to be successful, the dead must be properly 'finished', meaning that the funerary cycle must be adequately completed.

The ceremonial undertakings that accompany marriage are centrally predicated around an exchange of brideprice (*samui aina*). Despite its evolution in kind, this persists, and foregrounds inter-clan alliances, actualising, here too, the quasi-dualist clan-pairings of the island's society. Local currency which is made from the shells of marine invertebrates remains a part of most brideprices, despite the introduction of government-issued currency which is now the main component of these transactions, whereas pandanus capes (*pelek* or

karunga) that used to be the other main element of brideprices are falling into disuse. Shell money, produced in the northern area of Lavongai Island, is usually bought by southerners nowadays for marriage and funerary obligations, and provides a significant economic opportunity for those who can access the necessary raw materials. This is assumed by most authors to be one of the reasons for the existence of 'centres of production' of shell money: the inhabitants of areas where land is less fertile and shell resources are more abundant would have resorted to producing the currency in order to trade it for foodstuff (as described for New Ireland by AB Lewis 1929, p 15; see also the famous example of the Kula from Milne Bay: Malinowski 1922; Damon 1980; Leach and Leach 1983).

Kavak, a ritual practised by his father's sisters when a boy first dances, is another occasion in which the quasi-dualist organisation of social life is brought to the forefront. Because the practice involves the father's sisters (and in a classificatory sense, therefore, all the father's clanswomen) and ties into sexuality, desirability, and coming of age, it places cross-clan alliance in marriage at the centre of the Lavongai people's social organisation, within the framework of the *palunsava* local clan-pairings. Some of the most common dances are made of imitations of birds. Although these birds are those for which certain clans are named (Section 2.1), there is no direct association here: it is not only young men of the Kanai clan who dance *Kanai* dances for instance. This hints to a complex interrelation between birds and social structure, which will be an important topic that Chapter 8 will attend to in detail.

Despite the centrality of these three events of coming of age, marriage, and death, on Lavongai the practices that accompany them are only loosely structured. Variations exist in the way boys are involved in dances that signal their passing to an 'adult' stage of life; the way marriage is organised and effected; and the way the many stages of feasting to 'finish the dead' are deployed over years after death. People make clear statements about how most of these *should* occur, but through several observations, it becomes clear that there are variations in their realisation. More specifically: in *kavak*, boys do not *have to* dance, and their father's sisters do not *have to* express their approval by performing the ritual; some do, others do not. In marriage, the normal manner of 'buying the shame' with *asaking* then organising a ceremony during which a brideprice is paid is well known and said to be 'the right path', but many couples do not follow this, choosing to live together sooner (at the risk of angering the bride's family), and the actual content of the brideprice varies. In funerary rituals also, concerning the *mal* mourning vow, there are no obligations on this matter, and the moment at which it is commenced, or the modalities are all flexible. Similar observations have been made throughout New Ireland for nearly a century (PH Lewis 1969, p 11; Lomas 1973, p 118; Brouwer 1980, p 170; Bolyanatz 2000, p 161), suggesting that it is not so much a 'breakdown' of these institutions that is occurring, but rather that this flexibility has always been present and therefore is inherent to them. The region's inhabitants have clear ideas on what is to be done in each of these situations, but the exact way this should be realised is–quite literally—open to discussion. This flexibility in the realisation of social imperatives must be kept in mind during the rest of this presentation on marine interspecies relations, as these are embedded in the island's social fabric and there is no reason to believe they would stand as an exception with regards to this flexibility.

Overall, the roles of marine animals in these key phases of coastal Lavongai people's lives attests to their importance and mean that it is often necessary for men and women to engage in relations with them. The following chapters will attend to the ways in which they do so, to some of the problems which this causes, and to the underlying anthropological issues that these relations bring up.

Chapter 5

Fishing Tools and Techniques

> As a result of his regular association with fish-getting activities, the average male native [of Tanga] has an amazing knowledge of the habits, types and value for food purposes of the innumerable varieties of fish found in the adjacent water. […]
> To the lad with the spear, fishing is a game. But to the older man, with family or clan obligations such as the provision of ordinary food on the one hand, or contributing towards feasts on the other, fishing is a much more serious business, and one that must be organized in such a way as to ensure success.
>
> Groves 1934, pp 432–433

Introduction

This chapter describes the ways in which Lavongai people obtain fish and other marine animals from the waters around their island. It presents ethnographic data on fishing techniques. Its approach to these fishing techniques is rooted in the examination of technical processes, tools, and objects used in the marine spaces. As the French anthropologist Pierre Lemonnier writes:

> At any given time, techniques form the backdrop of people's material life as well as part of their systems of meaning. Of course, the meanings people confer upon the world embrace material

> culture, so that deciphering the logic of their symbolic systems necessarily passes through that of their technical systems. Conversely, the quantity of food they can produce and eat, how much they sweat while carrying firewood, nets of sweet potatoes or children, or the time they spend in traffic jams, are part of their being members of a specific culture. (Lemonnier 1993a, p 27).

Here, I examine the techniques and technical systems that relate to the topic of marine animals, and ask, to paraphrase Lemonnier: 'how do people sweat when fishing?' Indeed, in order to edge closer to an understanding of the logics that underlie marine interspecies relations in the coastal Lavongai context, it is necessary to grasp the ways in which the people and the animals involved carry out these interactions and what makes them possible. Which crafts to they use to navigate on the sea? How do people fish? Who uses which fishing technique? How have these techniques evolved? What can we learn from these possible patterns of assignments and evolution?

To further this goal, I will try to follow the indications of André-George Haudricourt who wrote that the methodology of cultural technology studies involves documenting 'their full social and ethnic contexts' as well as 'the vocabulary related to these activities'; who also drew attention to the importance of 'iconography: drawings, paintings, sculptures' which 'provide representations of gestures and tools' and to the central role of 'linguistics: the study of technical vocabulary, chiefly special words, those that are not used in everyday speech[T49]' (Haudricourt 1987, pp 42–43).

In the following pages, I will attempt to do so in three sections. First by attending to the prevalence of fishing, meaning its frequency and importance in the village of Metevoe. Second, by paying attention to a type of tool which is central to many a fishing technique: the vessel (canoes and boats, in this case). Third, by describing and analysing in detail the fishing techniques of the Lavongai people.

5.1 On the prevalence of fishing

A first approach concerning these fishing activities comes from the answers given to a socioeconomic survey administered to at least one person in each household of the village of Metevoe in 2022. In this, a question asked participants to rate their own assiduity in fishing, from 0 (I never fish) to 5 (I fish several times a day). The distribution of the results is shown in Table 5.1. This indicates that only 2 women and 3 men out of the 56 who responded to the survey stated that they 'never fish', in other words that over 90 % of those questioned are at least occasional fishers. The mean and median values differentiated by gender indicate that there is a higher self-reported intensity of fishing on the part of men than of women, which shows that gender will be an important factor to analyse here.

Another question was asked to all respondents: 'does anybody else fish in your household'. In their answers, they listed: 20 sons, 10 daughters, 9 wives, 6 husbands, 1 mother, and 1 sister (for a total of 47 people). In the group of 20 respondents (10 women and 10 men) who answered with a 0 or a 1 to the question 'how often do you fish' (meaning people who fish very little or not at all), their responses to the question 'does anybody else fish' show all households have at least one person who fishes at least occasionally (Table 5.2). Moreover,

Table 5.1: Self-reported intensity of fishing efforts. The table gives respondent counts for each level on a scale of 0 (never) to 5 (several times a day) broken down by gender. Median value: 2 (women: 1, men: 2); mean value: 2.29 (women: 1.89, men: 2.48).

Counts	**Intensity**					
	0	1	2	3	4	5
Women (total: 19)	2	8	2	5	1	1
Men (total: 37)	3	7	9	9	5	4
Men and women (total: 56)	5	15	11	14	6	5

by adding up the 11 people who said they fish either 'everyday' (4) or 'several times a day' (5), with the 5 other people in the household referred to as doing so by the respondents who themselves do not fish or fish only rarely, we can conclude that nearly a third (16 out of 56 or 28 %) of the village's households have somebody in them who fishes frequently.

Table 5.2: Reported intensity of fishing efforts on a scale of 0 (never) to 5 (several times a day) for another person in the household of the respondents who answered that they never fish (0) or only rarely do so (1) themselves.

	Intensity					
	0	1	2	3	4	5
Count (total: 20)	0	7	3	5	3	2

Another question which was asked in the survey is 'when did you last eat fish'. In Table 5.3 the answers to this question are tabulated as a count of days since the last time respondents stated they ate fish, with 0 meaning 'today', 1 'yesterday' and 7 'last week' for instance. This shows that the mean duration since last eating fish is one day, meaning that most people in the group investigated ate fish the previous day. Since the survey was administered over approximately two months with no particular selection in the moment at which it was administered, we may infer that it is likely that a majority of Metevoe inhabitants eat fish every two days.[1] Again, the data broken down by gender shows a significant disparity in the mean value, with men reporting that they ate fish more recently than women.

The importance, from a plainly quantitative perspective, of fishing for this coastal Lavongai community is therefore apparent, and a gendered division is clear both in labour and in consumption of fish meat.

1. No effort was made to randomise or avoid bias in the selection of the moment at which the survey was administered, and consequently its results should not be over interpreted on the temporal component. Although responses were noted as precisely as possible (for example: 'an hour ago', or 'this morning') analysing them at a more granular level than the day would not yield significant results.

Table 5.3: Answers to the question 'when did you last eat fish?' The table gives respondent counts for each number of days since last eating fish. Median value: 1 day (women: 1, men: 1); mean value: 2.46 days (women: 3.63 days, men: 1.86 days).

Counts	Days ago						
	0	1	2	4	7	10	14
Women (total: 19)	3	7	3	1	2	1	2
Men (total: 37)	6	19	5	3	4	0	0
Men and women (total: 56)	9	26	8	4	6	1	2

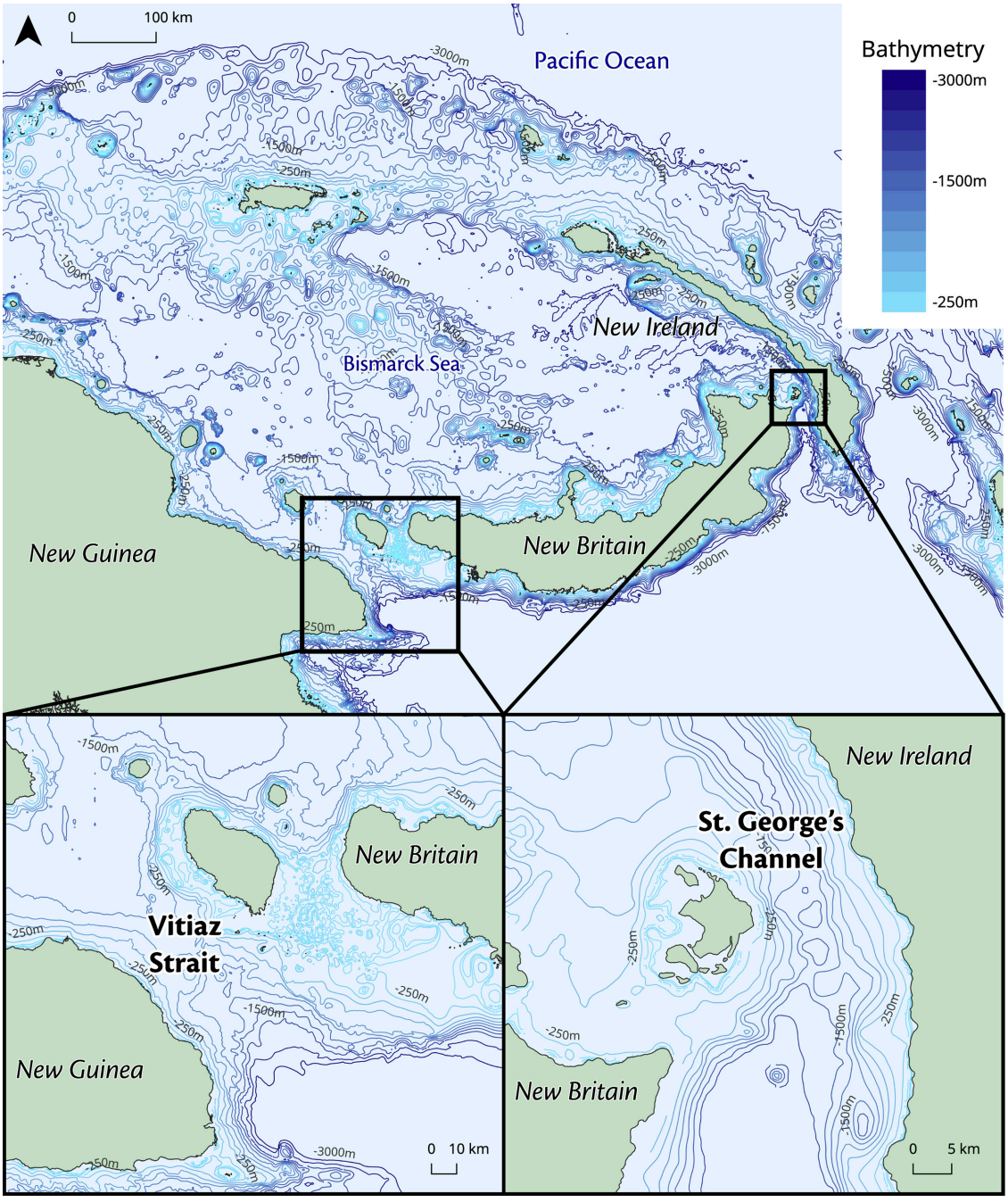
5.2 Fishing vessels

Among the most important tools used to obtain fish from the marine environment are the crafts that allow people to move into deeper waters in order to practise certain fishing methods that are only usable there. On Lavongai, where there are no roads nor motor transport available, and where footpaths are numerous but of poor quality, using some sort of seagoing crafts is by far the most convenient way to travel any distance. In order to understand the significance of the Lavongai people's vessels and associated terminology, a brief outline of the history and archaeology of navigation in the area is required.

At the time of the first peopling of the Bismarck Archipelago (as described in Subsection 1.2.1), the mean sea levels were much lower than nowadays, and many landmasses which today are disconnected were joined. Geologists estimate that the lowest which the sea-level has been since the expansion of humans out of Africa was during the last glacial maximum ~20,000 years ago. The level of the oceans are thought to have been approximately 130 m below what they now are at this time (Peltier 2002; Ludt and Rocha 2015). New Ireland and New Britain were nonetheless separate islands, themselves cut off by many miles of open seas from the ancient continent of Sahul, encompassing Australia, New Guinea and Tasmania—from which humans migrated to the Bismarck Archipelago. As Map 5.1 indicates, the Vitiaz Strait which separates New Guinea from New Britain and its offlying islands, and St George's Channel, which separates New Britain from New Ireland, are both several tens of kilometres wide and have depths of over a thousand metres. However, there is a clear line of sight to the destination in each case. In south western New Britain there are peaks over 1,500 m of altitude, which are visible at sea level for 138 km,[2] and Vitiaz Strait is less than 120 km wide. In Southern New Ireland, the mountains rise to over 2,000 km which would be visible for 159 km where the strait is 60 km wide. Therefore, even when sea levels were much lower than present, getting from New Guinea to New Britain then New Ireland required the capacity to navigate. Consequently, at least 42,000 years ago, humans living in the Bismarck Archipelago had some means by which to cross

2. The line of sight from sea level l for an object that is elevated to h above sea level is simply calculated as: $l = \sqrt{2Rh}$ where R is the earth's radius of 6,371 km.

relatively large stretches of open sea (see also Anderson 2013; Bailey 2013). This is usually assumed to have been a form of raft, which would have been used only under clement weather conditions.



Map 5.1: Map indicating bathymetry in the Bismarck Archipelago, highlighting the depth of the Vitiaz Strait and of St George's Channel. Bathymetric data by the GEBCO Compilation Group (2019). Cartographic data from OpenStreetMap.

Certain older Lavongai people recount their memories of a kind of sea-going improved raft, called *tip malai*,[3] which used to be constructed by lashing together several sections of tree trunks, the ends of which had been carved into rough semi-rounded prow and stern shapes. Although I did not observe such crafts in use in Lavongai, people described them to me, and they confirmed that they were analogous to the ones shown in a photograph taken in Tabar in the 1930s by William C Groves (Figure 5.1).



Figure 5.1: Two rafts in Tabar in the 1930s (on the edges of the photograph). Part of the original caption reads: 'the morning of the third day—the day of launching [a new fishing net]. The magician, with leaf clump, moving around the net, *kititir* [a special float] in middle, and performing the magic' (Groves 1934, Plate III).

Herbert Cayley-Webster, the naturalist who visited Lavongai in 1889 (see Section 1.2), also wrote of a man who befriended him, and who came to his vessel anchored near the island: 'by himself on one or two logs of wood lashed together', which in his view was because: 'the natives had no canoes here, stating that they did not know how to make them. I suspect it was owing to their extreme laziness, however.' (Cayley-Webster 1898, p 297). Not only is this comment by the naturalist overtly diminishing, it is also plainly

3. Even native Tungag speakers concurred that this name has a curious ring to it. It might in some way be derived from the word 'Malay', referring to the geographic region or country, but no information on the origin of the word could be obtained.

erroneous since several decades earlier, in 1875, the 'Gazelle expedition' had seen large sewn-plank war canoes on Lavongai (page 33). What this man was using was, however, most likely a similar 'improved raft' or *tip malai*.

Later, when the second wave of human peopling arrived, the 'Austronesian migration', it came not from the main landmasses via short trips at sea, but from the Ocean (as discussed in Sub-section 1.2.1). Archaeological remains of canoes from the these times are absent, but it is generally agreed through historical and comparative linguistics that the Austronesian-speaking people introduced to the region many innovations, in particular naval technologies, during this expansion (Horridge 1995, p 144). This must have included some forms of sailing canoes that would have likely been equipped with outriggers, and sailed through the method of shunting, where the mast is moved from one end of the craft to the other in order to come about (Di Piazza 2015). In any case, the technology in this domain was drastically renewed with the arrival of speakers of Austronesian languages who directly or indirectly introduced both sailing and new types of crafts. Subsequently, colonisation and the arrival of mass-produced foreign goods modified the technical landscape of navigation once again.

Nowadays, the most visible crafts on the coast of Lavongai are the so-called 'dinghies': fibre-glass hulled, 23-foot open boats driven by 40-horse-power outboard engines, which are ubiquitous, more generally, in PNG waters (Kinch 2020, p 93; Foale *et al.* 2024, p 102, see also Sub-section 1.1.1). These are hardly ever used for the sole purpose of fishing around Lavongai. When travelling with paying passengers, skippers routinely troll for large fish with hand-held lines, large hooks, and artificial lures bought in the stores in town. But the relatively high cost of fuel precludes any purposeful fishing expeditions, except perhaps in the neighbourhood of Kavieng where a well-attended market for fish exists on Thursdays and Fridays. This however hardly concerns the Lavongai people at all, since their island is too far away, and there are so very few who have any means of keeping fish refrigerated long enough to transport it there.

The term that people on Lavongai use to refer to these 23-foot boats is *kati*. Since it is distinctly not a loan word from any of the European languages in presence (neither German, nor English), the question arises: what did the Lavongai people use this term for before large single-hulled, flat-bottom crafts of this sort were brought into the area by foreigners? A partial answer is to be found in the first volume ('Material culture') of *The lexicon of Proto Oceanic* (Ross, Pawley, and Osmond 1998). In this, linguists reconstruct a Proto-Oceanic term, **kati(R)*, which they define as a '(small) outrigger canoe or canoe hull' (Pawley and Pawley 1998, p 180), and quote Alfred Haddon and James Hornell who wrote that on Lavongai, the word *kati* means 'large outrigger canoe 50 or more feet in length' (1936, p 141).

In a sense, the Western boats have effectively taken the place, and the name, of yesterdays *kati*, since such large outrigger canoes have disappeared from the coasts of Lavongai, and the largest locally made vessels are now at most 8 metres (approximately 26 feet) in length. However, older people do remember their parents and grandparents using larger sailing-canoes to travel around the islands. These would be the property of elder men, who kept the mast, rigging, and sail in the men's house (*rangama*) when it was not being used, and these elements of rigging are spoken of as having been important, relatively rare,

and prestigious objects. Indeed, it was never all craft that were equipped with sails, but only those specifically designed to travel medium to long distances, and fishing vessels in particular were propelled by paddles, as continues to be the case today.

An historical photograph (Figure 5.2) taken in 1945, just as the Australian administration was taking back control of the territory after Japanese occupation, shows a number of sailing canoes on the shore of Lavongai island, most likely somewhere in the north.[4] These crafts appear to be long and narrow monoxylon outrigger vessels, equipped with a type of gaff- or lug-rig: a vertical mast is visible, as well as two spars of differing lengths bearing a sail. One of the spars can visibly be hoisted via a rope and block system fitted to the mast-head. In all likelihood, these were for short-distance-sailing as they would not have been suitable for longer trips. On this photograph, among the visible crafts there are a number which are not equipped with sails, either because their rigging has been stowed away, or because they are only meant to be paddled, not sailed.

When I showed this photograph to some older men in South-Lavongai who said they had used sailing equipment in their youth, and asked them how they would designate each piece of the rigging, I obtained only terms deriving from English. This suggests that the type of sailing canoe that was being used when the photograph was taken may have been exogenous. Therefore, we may posit that sailing, which was introduced during the Austronesian migration, could have fallen into disuse long ago. Exogenous sailing techniques may then again have been introduced by missionaries and colonists in the 19th century, at which point they were learned anew by locals—under English names this time—only to be abandoned again as the outboard engine appeared in the second half of the 20th century.

Although sails are no longer used at all around Lavongai, people continue to carve monoxylon canoes that they equip with outriggers and use with paddles in order to travel short or medium distances (longer distance travel is systematically performed in motorboats), and especially to fish in coastal waters. Since motorboats are used mostly for travel rather than fishing, the need for wooden canoes remains present for this later use.

The generic term used in Tungag for 'canoe' is *vul*. Two types are distinguished, depending on the width of the opening, and on the patterning of the prow decorations. Depending on these criteria, the term *vul* is further qualified by one of two adjectives: *vul tuman* or *vul lasakup*.

A *vul tuman* or 'true canoe' is defined as having a very narrow opening to its monoxylon hull, and thus, the person manning it should not need any kind of plank to sit on: they can simply sit on both sides simultaneously, with legs crossed inside the opening (see Figure 5.3 for an example).

The other type of canoe, *vul lasakup*,[5] (Figure 5.4) differs from the *vul tuman* in that its opening is wider than that of *vul tuman*, and it has specific shapes carved directly into the mass of the wood of the hull at the prow and stern (see Figure 5.5). *Vul lasakup* require

4. The caption reads 'Lai bay' (see Figure 5.2), however, there is no locality named 'Lai' in the area: this term is used in the north of the Tungag-speaking area to refer to 'the mainland' by inhabitants of smaller outlier islands, and this may therefore be a case of miscommunication when somebody asked about the locality's name.

5. Nobody offered any analysis nor translation of the term *lasakup*.



Figure 5.2: The caption associated with this photo in the Australian War Memorial archive reads: '[...] ocean-going canoes with sail used by the natives at Lai bay. Captain Shand [an Australian New Guinea Administrative Unit (ANGAU) district officer] is inspecting ANGAU areas on New Hanover'. Public domain. Photo by The Australian War Memorial, 23 October 1945, location uncertain, Lavongai Island (?).



Figure 5.3: A recently carved *vul tuman* (literally 'true canoe') belonging to Eddy, pulled up onto the beach at Metevokovang. 27 May 2022, Metevoe.

some form of plank, or bench-like construction in order to be able to sit comfortably on them. Such a 'bench' is usually made with three pieces of roughly hewn wooden planks, in the shape of a Π (one can be seen inside the craft on Figure 5.4).

There is a marked similarity between the 1945 canoes of Figure 5.2 and those that are to be found nowadays around Lavongai. Similarly shaped prows to those of what was described to me as characterising *vul lasakup* can be seen, especially on the bottom left of the ancient photograph (compare Figure 5.2 and 5.4).

Both *vul lasakup* and *vul tuman*, can be used in an amphidromous way (meaning they can be paddled in either direction). However, people uncompromisingly designate one end as the 'front', and the other as the 'rear' of the canoe.

Michael Toreu Ottis spontaneously produced a drawing of the work of carving canoes (Figure 5.6) for me as part of a series depicting 'Lavongai village life'. When we discussed this picture, he began by describing how carving canoes is something that people still do on the island, implying that it should appear somehow to be an antiquated practice that one would have expected to die out: 'Here, people nowadays, right now, they… This work, carving canoes, right now they are still going it, yes. There are canoes indeed, that we can see.[T50]' (Michael Toreu, 16 July 2022). He then explained the way this type of work happens, something I had previously had the chance to observe when I paid for a canoe to be made for my own use in 2019. Canoes are carved by a relatively small number of specialists. These are all men, never women, usually between 40 and 70 years old. They



Figure 5.4: Pastor Gideon Buka's *vul lasakup*, near his house in Metevoe. The small plank-based construction onto which one sits, but which is not fixed to the hull, is visible inside the canoe. 1 April 2022, Metevoe.



Figure 5.5: Detail of the prow of Pastor Gideon Buka's *vul lasakup*, showing the characteristic 'flat' segments that are left when carving the point. These differ from one *vul lasakup* to another, depending on who carved it. 1 April 2022, Metevoe.

posses specialised tools: several axes and a type of concave steel adze or 'gutter adze' known as a *grimuk* (possibly a Tok Pisin word), which is used to hollow out the hull. These men carve canoes in exchange for money, usually between K 40 and K 100 depending on the craft's size. The tree may be taken from the land of the person who wishes to purchase the canoe, or a relative, but it is not usually provided by the specialist, who will walk to the place where the tree is felled to carry out his work.

On a *vul lasakup*, there are 'patterns' carved into the prow, which distinguish it from the stern, and are identifiable to a certain canoe maker (Figure 5.5). These usually consist in a plane, level part that extends beyond the end of the hull itself horizontally, and, on each side, of raised segments that people sometimes refer to in Tok Pisin as *banis* (fence, barrier). A short glance at the patterns of a canoe will be enough for most people to identify its maker. These prow and stern patterns are invested with particular importance. This is evident in the care taken by the carver when making them, but also in the practice of hiding them under leaves when leaving the unfinished canoe over-night during construction (see Figure 5.7). One possible explanation both for the identifiable quality of the decorations and their importance, might be that they are likened to the carvers totem bird. Indeed, Jean Neyret, in his French language book about Oceanian canoes, writes of the 'Type III, Lavongai Island, model 1' (Figure 5.8) canoe that: 'A bizarre sculpture adorns the prow and stern. These ornaments represent, so it is said, the head of a cockerel. A slight raised rim finishes the upper edge of the canoe at its extremities[…].[T51]' (Neyret 1959, p 172). The cockerel and chicken are collectively referred to in Tungag as *pura*, and in the list of Lavongai clans and 'totems' drawn up by Kaad, a patrol officer, in the early 1950s, we find *pura* listed, associated with clan Silau (Sub-section 2.1.3). Nowadays, the designs that are carved into canoe prows are not as elaborate as the one described and represented by Neyret, however they do appear to be significant nonetheless. More investigations would be in order to allow for a better understanding of this aspect of Lavongai canoe-making.

Canoes can be carved out of several species of trees. However, a sizeable majority of the canoes I observed were said to have been carved out of *malmal* (the Moluccan albizia, *Falcataria falcata*), which is soft-wooded and fast-growing. For this reason, it is both easy to carve with hand-held tools and tends to provide long straight trunks with few knots that form a favourable base for a monoxylon canoe (and indeed, it is used elsewhere for this in Southeast Asia, see: Ellen 1985). However, canoes made out of this wood were only of medium durability, their hulls tending to crack after just a few years of use.

Canoe making is a task which is shrouded in a number of prohibitions. Women are not usually allowed near a canoe until it is finished, and they are explicitly forbidden from stepping over an unfinished hull. If this rule were broken, then the canoe would not 'turn out well', it would be a 'bad' canoe, and fishing in it would yield poor results.

Several methods are used for the fixation of the outrigger (*saman*) to the canoe, a process known as *ngakngak*. The most common form of fixing is made of two cross-pieces (*inau*) (sometimes three on larger canoes). At least two fixing techniques are used to connect the cross-pieces to the outrigger. One (shown in Figure 5.9) involves the use of a *sokotung*. This is a ⊥ shaped piece of wood placed on the outrigger and bound to the cross-piece and to the outrigger with vines (or, more recently, with fishing line). The lashing also uses a *karas*: a smaller ⊥ shaped piece placed on the cross-piece and bound to it and to

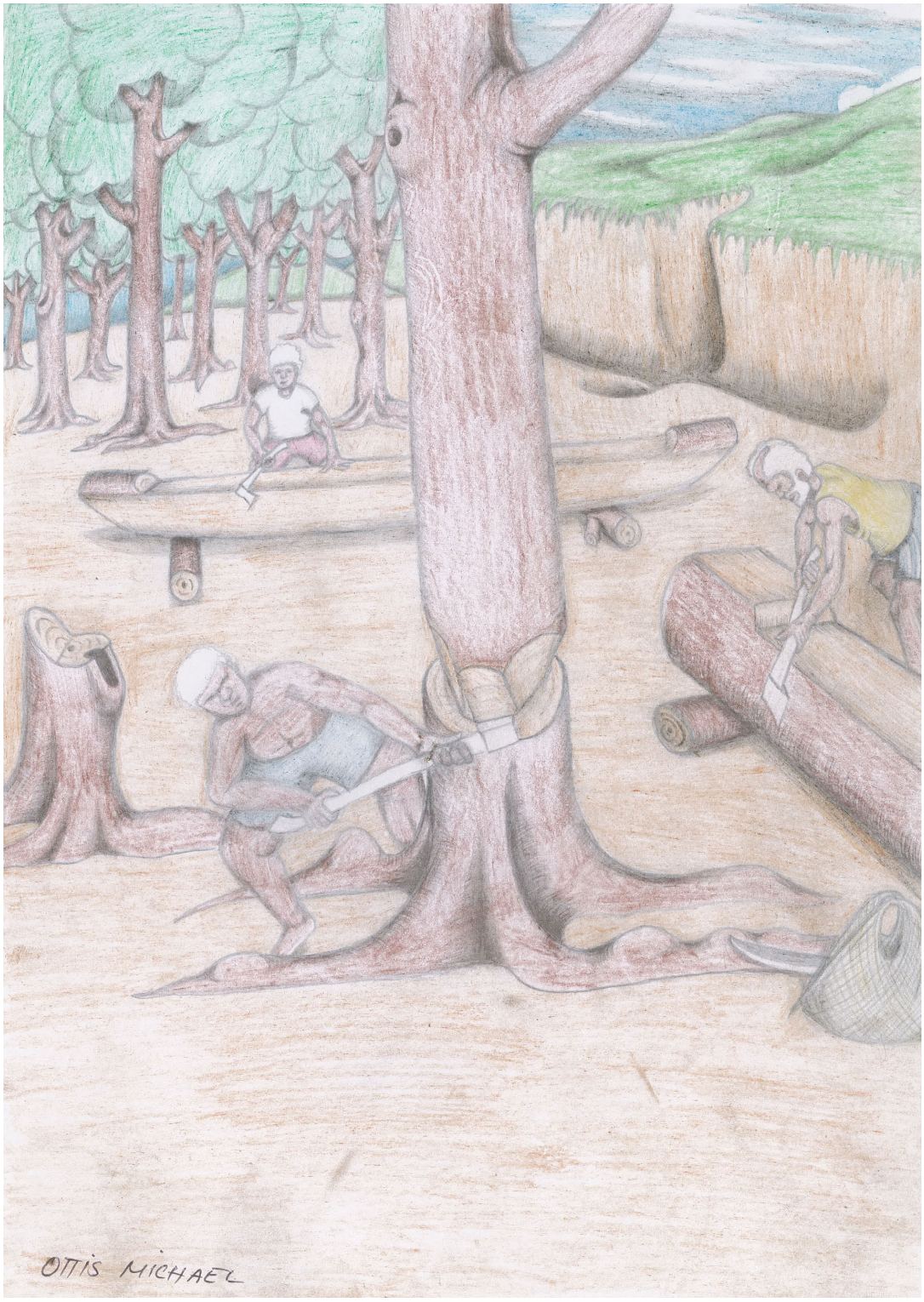


Figure 5.6: Three men carving canoes: *sal vul* or *tanga vul* in Tungag. Colour pencil on paper by Michael Toreu Ottis, 2022, used with his kind permission.



Figure 5.7: In the evening after a day's work carving a canoe that I ordered from Tomande, a canoe maker, the prow and stern are covered with leaves. 8 October 2019, Metevoe.

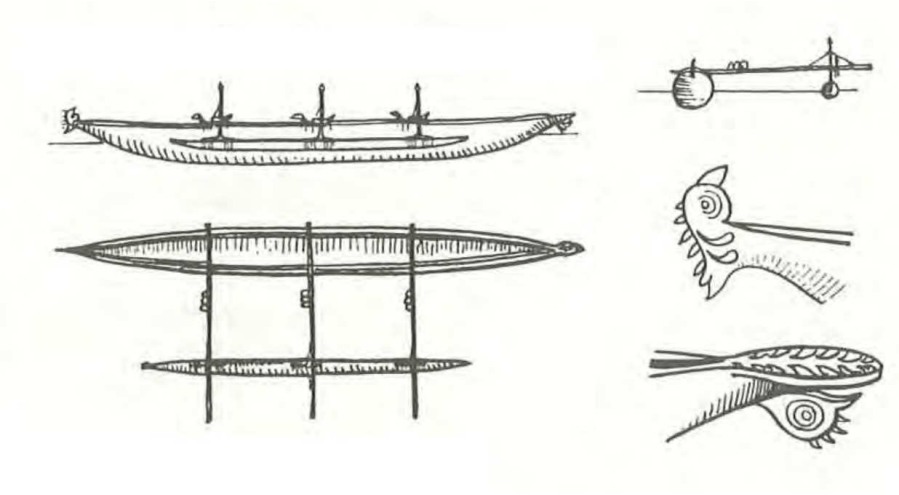


Figure 5.8: Sketch of a Lavongai canoe with cockerel-head prow- and stern-decorations. Adapted from Neyret (1959, p 172).

the *sokotung*. The *sokotung* is made of strong wood taken from mangrove trees, and the superior extremity is carved in a slightly stylised way, with a rounded tip.

Neyret distinguishes five types of canoes in the northern part of New Ireland, two of which are from Lavongai (Neyret 1959, p 172). He notes that canoes are known as *bul* there.[6] Of the two listed as being from Lavongai he writes that the first is similar to others found in Tabar and in neighbouring Northern New Ireland, with sculpted prow and stern representing a cockerel (as discussed above, page 240). The second is a 'rough' canoe. Both are described as having an outrigger attachment system that is similar, with two or three cross pieces linked to the outrigger with a single ⊥ shaped piece of wood bound to the outrigger itself and lashed to the cross pieces with thread. The top of these ⊥ shaped pieces are carved in ornate figures and have streamers of plant fibre attached to them. The most common contemporary lashing which I observed in Lavongai is similar in many respects to this one, with the only difference being the substitution of the *karas* for the thread lashings.

Another type of outrigger fixing which I observed on Lavongai does not use ⊥ shaped piece but involves driving small pieces of wood or steel (such as a piece of small-gauge concrete reinforcement bar) directly into the outrigger, vertically, and then lashing these to the cross-pieces. This is seen for example on Figure 5.4, and is similar to another type listed by Neyret as being typical of Central and Southern New Ireland.

These lashings have therefore obviously persisted over generations. Aside for the marginal substitutions of certain materials for others (such as nylon thread used for bind-

6. The deformation of *vul* to *bul* is understandable considering that the initial consonant is realised as /β/. Neyret also reports use of the term *kalev* for 'hull', which does not correspond to any of the vocabulary I collected, but may conceivably be a deformation of *kalip* which means 'to paddle a canoe'.

ing, rather than vines), and despite all the other technical evolutions that have taken place in this domain, where paddle-powered monoxylon canoes are concerned, there has been a high degree of permanence in the construction techniques and forms produced.



Figure 5.9: Annotated photograph of one common type of Lavongai canoe outrigger fixation. 27 May 2022, Metevoe.

A number of terms are used both to describe sections of canoes and body parts (see Table 5.4). Other anthropologists have noted such correspondence between words referring to body parts and craft elements, as well as the strong symbolic ties that link boats or canoes to the people who produce and use them in many different societies in Oceania and Southeast-Asia (Coiffier 2001; Ivanoff 2001; Sather 2001; Damon 2016).

Another stage in building and tending to a canoe is to rub it with a specific algae known as *moi*, that is blown onto shore during storms and dries into a white crispy substance. This is done in order to make it white (more beautiful), to give it protection against shipworms (Teredo navalis), and also to ensure that it will always return with a bountiful catch of fish. This action is known as *makinga*, a general verb that does not apply only to canoes, but means something along the lines of: 'to impart a certain power or ability to an object by

Table 5.4: List of terms used both to refer to canoe parts and to body parts.

Tungag term	English gloss for	
	A body part	**A canoe**
ngungus	ribs	flanks of hull
nono	face	prow decorations
pat	head	prow
pukun	body/skin	hull
songus	(from *ngus*: ribs)	to carve flanks of hull

rubbing a plant on it'. This is also done, for example, in warfare, to make weapons 'never miss their target' when thrown, or 'very dangerous' when swung.

Another kind of canoe which the Lavongai people quite emphatically distinguished from the two types of *vul*, is called *mon*. They describe this as differing from both *vul* in having vertical freeboards (see Figure 5.10). For the Lavongai people, *mon* usually have outriggers similar to those of *vul*, but some older people remembered *mon* that had none (which is never the case of *vul*). Such outrigger-less *mon* could also be carved with a perpendicular aft section in order to fit outboard motors on them. None of this type of craft could be found anywhere I visited between 2019 and 2023.

From New Ireland, through much of the Bismarck Archipelago, and as far south as the Solomon Islands, in many different languages, the term *mon* refers to large sewn-plank canoes (Hornell 1932; Doran 1974; Horridge 1995; Sheppard 2021). These, where they exist, are of considerable size, constructed with no outrigger. In New Ireland Province, there is evidence of people constructing such *mon* up until the mid 20th century, as can be seen, for example on Figures 5.11 and 5.12. Recall that among the earliest anthropological sources concerning Lavongai, the 'Gazelle expedition' recorded the presence of war canoes build from planks on Lavongai in 1875 (page 33). It would appear that the knowledge of how to construct such canoes has been lost in the last few generations, and in contemporary Tungag, the word *mon* no longer refers to an assembled-plank craft. *Mon*, nowadays on Lavongai, means only a monoxylon craft that has vertical freeboards, as opposed to the round-sided monoxylon crafts that are referred to as *vul*. This term therefore appears to have been recently repurposed in this way following the disappearance of sewn-plank crafts which were present in the past, and the Tungag word *mon* is a 'deceptive cognate'. If these canoes were indeed principally used for warfare, the imposition of colonial rule which put an end to medium- and large-scale fighting might explain the demise of this canoe building technique (even though violent conflict is far from having disappeared).

It therefore appears that, with the exception of sewn-plank canoes, each one of these technical solutions (raft or canoe; paddling, sailing, or fuel powered engine) that offer answers to the question of 'how to get about at sea' persisted into the introduction or appearance of the next. This reflects the continued use for the more ancient form of



Figure 5.10: A canoe on the beach at Metevoe, belonging to Alfred, who is from Manus. It was considered unusual by inhabitants of Metevoe, who referred to it as a *mon* and not a *vul*, the usual term for a canoe (for example Figures 5.3 and 5.4). 1 April 2022, Metevoe.



Figure 5.11: Photo of the prow of a plank canoe, found on the first page of Stephan and Graebner 1907. The caption, in German, reads: 'The headman of King with his *mon*'; King is located on the Western coast of Southern New Ireland, in the Kandas linguistic area.



Figure 5.12: Photo of a 'large plank canoe (*mon*)' (Bell 1935a, p 358) in the Tanga Islands which lay Northeast of New Ireland mainland. Photo by FLS Bell, 1933, Lufunkomo (?).

technique even past the introduction of a newer one. Indeed, although contemporary Lavongai people clearly agree that it is more convenient to use a petroleum-powered outboard engine and a small boat to travel to Kavieng, they do not use these for fishing due to the high cost of fuel, leaving an important space for paddle-powered canoes.

5.3 Fishing techniques

Let us now turn to the ways in which Lavongai people today use their vessels and other tools for fishing. Several classifications of fishing methods exist (Leroi-Gourhan 1945, p 69; Monod 1973; Gabriel *et al.* 2005, pp 507–515). The contemporary references classification on this topic, used by many scientists and policy makers, is the 'International Standard Statistical Classification of Fishing Gear' (ISSCFG), produced by the Food and Agriculture Organisation of the United Nations (FAO), which was last updated in 2021 (He *et al.* 2021). This uses a 'two tiered' system, which classifies gear first into a 'category' then into a 'subcategory', and 'focuses on the physical characteristics of the gear, how it is operated and the mechanism of fish capture' (He *et al.* 2021, p 4). This classification framework was created in order to facilitate comparison over multiple locations and societies and to produce meaningful statistics. I will be using it here as a base on which to describe the fishing techniques I observed the Lavongai use, or heard them describe to me, in order

both to be exhaustive and to make the present data as easily comparable as possible. A full list of fish capture methods observed or otherwise documented during fieldwork on Lavongai is given in Table 5.5 and includes the relevant codes in the ISSCFG classification for comparison purposes (see He *et al.* 2021, pp 2–3). The following pages will describe some of these techniques in more detail.

The 2022 village-wide socio-economic survey (Table 5.6) shows that the most common fishing equipment is the hook and line, of which 40 and 37 households out of 55 were respectively equipped in various quantities (ranging from 1 to 90 rolls, with an average of 8.65 rolls per household, and from 1 to 25 hooks, with an average of 6.2). Spear fishing equipment was also ubiquitous, with 42 households equipped with goggles, 39 with at least one kind of spear (up to a maximum of 7 spears in one household, with an average of just over 2). Fishing vessels were rarer, with only 14 households having any type of canoe (maximum 3) and 3 having a single boat (one of which however had no outboard engine). Finally, nets were the rarest of all fishing implements, with only 8 households having access to one net at most.

With this quantitative data in mind, let us now turn to a qualitative description of the fishing techniques which I participated in and observed in Metevoe. I will focus here on the areas and biotopes in which each fishing method is used, the types of fish they tend to target, and on their specific associations—when these exist—with a category of person or another, in particular with a specific gender.

5.3.1 *Ngaungaul*: fishing with hook and line

The various methods of fishing that rely on hooks and lines are collectively known as *ngaungaul*,[7] a term which may be derived from *ngaul*, 'to pull something up' (Tukul Kaiku, pers. comm. 1 August 2022), and which has now largely been supplanted by the English loan word '*uk*'. All the equipment used for hook and line fishing is manufactured abroad, and purchased in stores in Kavieng: hooks, lines, as well as the occasional swivels, lures, plastic rolls to furl the line onto, and sinkers.

The plainest method of hook and line fishing is handlining. This is practised on the reef flat, mostly by women and girls (Figure 5.13) and requires only a small hook, a short light line wrapped onto a roller and some bait. The latter range from starchy foods such as banana, sweet potato, cassava, or coconut, to small pieces of fish, with one of the most common baits for handline fishing being hermit crabs (Table 5.7). The roll of line is wound onto the roller (any cylindrical object, usually a plastic or glass bottle left over from some supermarket product; occasionally a piece of bamboo), and this is held in one hand, while with the other hand the fisher twirls the baited hook over her head, before throwing it a short distance and letting it drift. This technique is used most often near the reef edge, especially in reef passes. It yields only small individuals of species such as *manga*, *mangava*, *manganai* (all types of parrot-fish, *Scarus* spp.); *kainga* (a type of wrasse, fam. *Labridae*);

7. In Metevoe, where people speak the southern dialect of Tungag, this word was presented to me as the 'true vernacular name' for hook and line fishing, however, others considered it to be from the northern dialect.

Table 5.5: List of fish capture methods used on Lavongai, as distinguished by the inhabitants of the island, with corresponding codes in the ISSCFG classification (see He *et al.* 2021, pp 2–3).

Method	**Vernacular name**	**Code**
Fishing (general)	*maiak*	NA
Net	*uvene*, *kalava*	07 / 10.7
drifting gillnet near reef edge, striking surface with hands	*tavu*	07.2
pull in a circle	*tak uvene*	07.3
set gillnet	*atu uvene*	07.4
pull on reef flat, with group running to scare fish	*sasang*	10.7
Stone or earth entrapments		08.5
stone entrapment on reef	*polepole*	
half-moon stone entrapment in river	*aulen*	
damn to dry off a section of river	*lau*	
Hook and line	*ngaungaul*	09
in a river, for eels	*amui*	09.1
from reef flat, shore	*maiak kuli bangang*	09.1
from a canoe		
bottom fishing with metallic sinker	*asisiangai*	09.1
bottom fishing with stone and coconut leaf sinker	*kove*	09.1
trolling	*asasalip kuli vul*	09.5
from a boat		
trolling	*asasalip kuli kati*	09.5
Spear	*so*, *rauraung*	10.1
goggles, single-tip spear	*rauraung ta mansikei*	
goggles, multi-tip spear	*rauraung ta supsup*	
goggles, spear-gun	*rauraung ta masket*	
from canoe, long single-tip spear	*makmakanai*	
Fishing at night with light	*limang*	NA
goggles, and spear	*muip vong* or *limang ve sula*	10.1
standing on reef flat with a machete	*limang ve kaip*	NA
Toxic substances		NA
with derris	*tua*	
with other toxic substances	*sarak*	

Table 5.6: Results of a village-wide survey of fishing-equipment conducted with at least one occupant of each Metevoe household in June and July 2022, for a total of 55 respondents.

	Lines, in rolls (10m)			Hooks		
	Small (<60 lb)	**Big**	**Any**	**Small (<N°9)**	**Large**	**Any**
Non-0 responses	38	15	40	35	18	37
Minimum (non-0)	1	1	1	1	2	1
Maximum	30	60	90	20	10	25
Mean value	4.64	4.02	8.65	4.27	1.93	6.20
Median value	2	0	2	5	0	5
Standard deviation	7.11	10.01	15.35	4.98	3.20	6.92

	Nets		Canoes			Boats	
	Count	**Mesh (inches)**	***Vul tuman***	***Vul lasakup***	**Any**	**Hull**	**Engine**
Non-0 responses	8		10	9	14	3	2
Minimum (non-0)	1	2	1	1	1	1	1
Maximum	1	3	1	2	3	1	1
Mean value	0.15	2.31	0.18	0.18	0.36	0.05	0.04
Median value	0	2.25	0	0	0	0	0
Standard deviation	0.36	0.37	0.39	0.43	0.70	0.23	0.19

	Spears				Goggles	Torch
	Single-tip	**Multi-tip**	**Spear gun**	**Any**		
Non-0 responses	29	24	21	39	42	30
Minimum (non-0)	1	1	1	1	1	1
Maximum	5	3	3	7	4	2
Mean value	0.80	0.62	0.62	2.04	1.27	0.62
Median value	1	0	0	2	1	1
Standard deviation	1.06	0.83	0.91	1.85	1.01	0.62

kalang (Black-banded snapper, *Lutjanus semicinctus*); *osang* (emperor fish, *Lethrinus* spp.); or *tingting* (Yellowstriped goatfish, *Upeneus vittatus*).

Women often practise this type of fishing in groups and are frequently accompanied by their sons and daughters. There are at least two important consequences to the fact that children fish in this way. First, it is their gateway into fishing in general. Initially, very young children accompany their mother and forage on the reef flat by hand or with a digging stick, for seashells. As they grow older, they too will fish with small hooks and lines, help with finding bait, and bring back their first fish. Second, this is one way in which children can obtain their own meat (*abus*). Indeed, although adults capture the largest share of fish, it is not necessarily in this way that children obtain most of this type of food. For the rules of precedence that apply to food on Lavongai do not favour children. Any food, and especially prized food such as fish and other meats, go first and foremost to guests. Ostensibly giving the best share to guests is part of what constitutes 'good manners' (*lau ro*) on Lavongai. A very well mannered guest might, in return, eat only a small share of this large plate, before passing it on—something that is not in any way considered rude but, on the contrary, is yet another show of *sasagi* (sharing), the epitome of *lau ro*. The second 'category' of people to be served well portioned shares of food are adult men. Only then will any remaining meat or fish be dished out to children, and last of all to women. Fish that is caught by a child, on the other hand, escapes from this pattern of food sharing and can be cooked and eaten there and then by him or her.



Figure 5.13: Three young women rest on a fallen coconut trunk while out on the reef flat fishing with hook and line. The box which one of them is holding contains hermit crabs that are used as bait. 21 December 2021, Neikuila (Metevoe).

Another, apparently marginal, line fishing method—the only one mentioned on Lavongai which uses a pole—is known as *amui*. This is a targeted method which aims only to

capture eels in rivers. Using a short supple stalk taken from a ginger plant (*Zingiber* spp.), a few metres of line, and a hook onto which a grass hopper (*bibo*) is fixed, the bait is pushed under a stone where an eel is known or suspected to be hiding. If it bites, the pole is pulled away, detaching it from the line to which it is only loosely tied, then the line is pulled in by hand.

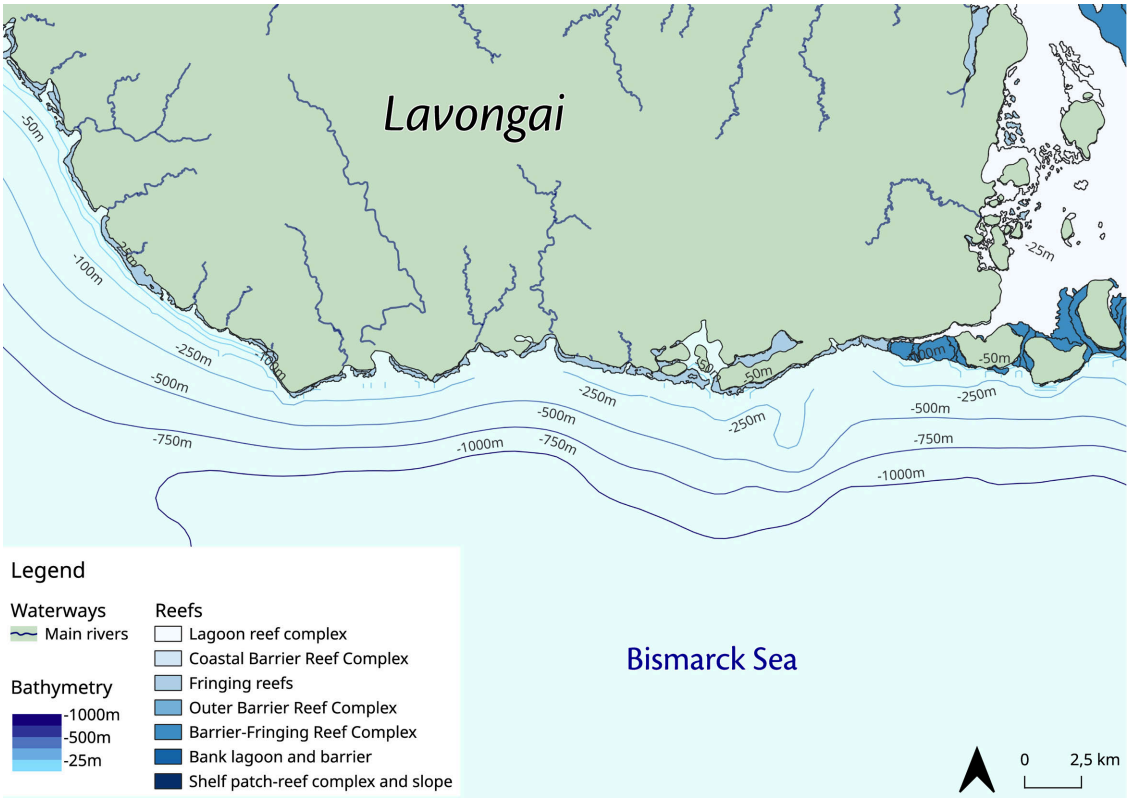
In contrast to the 'standing' type, hook and line fishing from a canoe is practised almost exclusively by adult men. Both men and women explicitly state that a fishing canoe should not be used by women, lest it become ineffective for further fishing. This echoes similar prohibitions and discourse relating to female pollution that are present during construction of canoes (as discussed above on page 240). Should a woman need to travel at sea, she must use a specific, usually larger canoe, that is not used for fishing but reserved for journeying along the coast.

There are also many avoidance rules that exist between men and women (dependent on their kinship relations, see page 101), and a general modesty that causes men and women to avoid close physical contact in public. This is true even between spouses and relatives for which the kinship relation is not specifically associated with avoidance. This makes travelling together in the same craft at the same time quite difficult, to say nothing of fishing together. Some rare women (only one, in Metevoe), however, do in fact own their own fishing canoe, and use it to fish with the same hook and line methods that are usually the purview of men. In the one case I knew of, this appeared to cause no particular condemnation, but the case certainly stood as an exception, perhaps one that people had grown used to and no longer had any comment about.

Generally speaking, canoe-based hook and line methods can be broken down into two categories on Lavongai: bottom fishing and trolling. Bottom fishing with hook, line, and sinker on a relatively long line is called *asisiangai*. This is practised from a canoe in waters just outside the reef edge (approximately 100 metres depth), inside the neritic zone,[8] and seldom any further out to sea (note how sharply the south coast bathymetry increases on Map 5.2; waters over 250 m depth are found barely a kilometre from the outer edge of the fringing reef). Hooks are baited with a variety of fresh baits: octopus or small fish, often caught by spear fishing or trolling near the estuary, or the reef edge (Table 5.7). Bottom fishing is sometimes done with a home-made wooden reel mounted on planks fixed to the canoe, but only a handful of fishermen have build such a tool for themselves. These are similar to what is referred to as 'the FAO wooden fishing reel' (McKenzie 1985).

Another type of bottom fishing is called *kove* and relies on the use of coconut-tree leaves and fist-sized stones. One places two leaves in a cross pattern and wraps the stone in the centre. A baited hook is then pricked through the tip of the bent up leaves, and the whole construction is left to sink, by paying out line until the fisher feels that the stone has reached the bottom. Then, by suddenly jerking the string, the stone is released as the hook is torn free from the lead. Finally, the line is rapidly pulled up to produce a 'swimming upwards' motion of the lure or bait, or it is left near the ocean floor to drift (see

8. The 'neritic zone' is the part of the ocean where sunlight still reaches the seafloor; this generally reaches up to depths of approximately 200 m depending on the conditions.



Map 5.2: Map of south Lavongai showing rivers, reefs, and bathymetry of the Bismarck Sea. Bathymetric data from GEBCO Compilation Group 2019. Reef data from UNEP-WCMC *et al.* 2010. Cartographic data from OpenStreetMap.

Figure 5.14). According to Jeff Kinch (pers. comm. 15 June 2023, see also: 2020, p 95), this fishing method is likely to be a recent import from Southeast Asia.

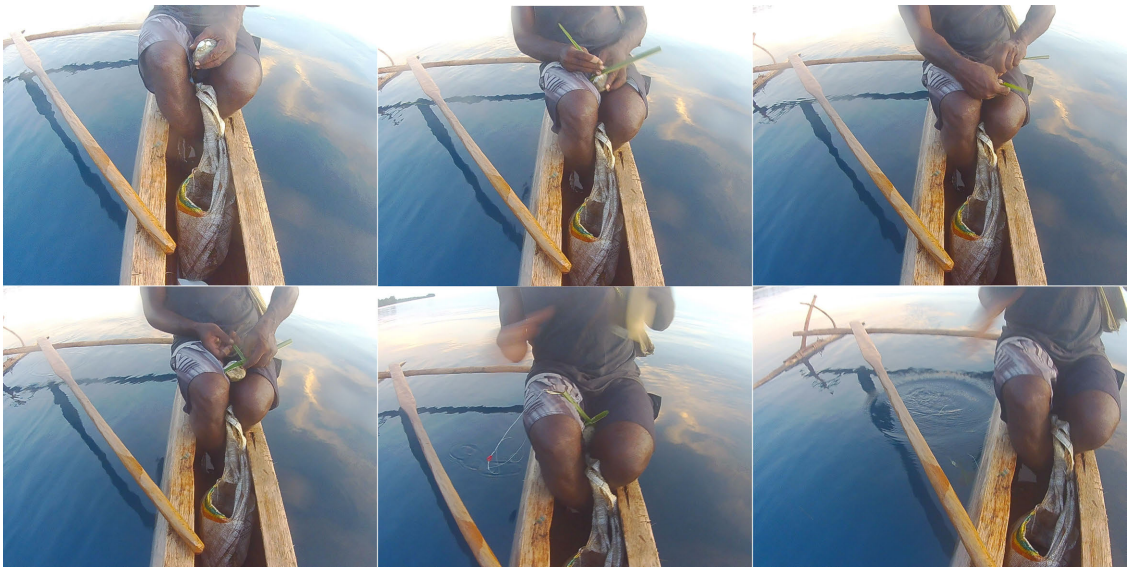


Figure 5.14: A composite of several photographs showing Laimen fishing with the *kove* method from a canoe. 16 Novembre 2019, Metevoe.

Such 'bottom fishing' yields a variety of demersal[9] carnivorous fish species, such as *kuitalisa* or *linglingro* (snappers, fam. *Lutjanidae*), *kulava* (trevallies, *Caranx* spp.), *mataiang* (a genus of snappers, *Lutjanus* sp.), *purpur* (grunters, fam. *Haemulidae*) (among at least 39 named taxa reported to be caught by this method).

The second hook and line method commonly employed from a canoe is trolling, known in Tungag as *asasalip*. This involves fishing from a vessel while trailing a hook equipped with bait or a lure. *Asasalip* is also a preferred method for finding bait when fishing from a canoe. To this end, a man will paddle his craft near the river mouth and drag a line with a small hook. This is usually baited with nothing more than an improvised lure such as a piece of plastic or shiny metal (see also Table 5.7).

The technique can be quite successful when performed from a boat, with the use of various artificial lures such as rubber squid imitations. In a 1987 South Pacific Commission handbook on trolling, Preston, Chapman, and Watt write that this is a common practice in the whole region, which is performed in particular as an opportunistic fishing method during travel (1987, p 5). Around Lavongai also, boat operators seldom use these crafts exclusively to fish, but rather troll when carrying paid passengers or cargo. The exception would be when an *aut* is sighted: a feeding frenzy of bait fish, bonito (or other predator fish), birds, and sharks.

9. A demersal aquatic species is one that lives on or near the seafloor.

Table 5.7: List of baits used for hook-and-line fishing with number of fish types that are said to readily take this bait.

Count	Tungag name	English name	Latin name
		Bait fishes: 21	
13	generic 'bait fish'		
5	*malus*	Bigeye scad	*Selar crumenophthalmus*
4	*inavu*	type of herring	*Herklotsichthys* sp.
4	*riranga*	type of goby	*Sicyopterus* sp.
2	*sira*	Needlefish	*Belone belone*
2	*tuna*	Eels	fam. *Anguillidae*
1	*uling*	unknown fish	
1	*uruk*	unknown fish	
1	*tingting*	Yellowstriped goatfish	*Upeneus vittatus*
1	*vai*	type of snapper	*Lutjanus* sp.
		Artificial: 29	
15		piece of plastic	
5		drinking straw	
4		condom	
4		fake squid plastic lure	
1		store bought lures	
		Invertebrates: 24	
12	*katu*	hermit crab	*Paguridae* sp.
3	*mok*	larger type of squid	
3	*rusa*	smaller type of squid	
2	*volo*	octopus	
1	*au*	larger hermit crab	*Paguridae* sp.
1	*ivo*	Fat innkeeper worm	*Urechis* sp.
1	*kapatin*	Sago palm weevil	*Rhynchophorus ferrugineus*
1	*karule*	type of crab	
		Plant-based: 8	
3		banana	
2		coconut	
1		cassava	
1		sea grass	
1		sweet potato	
		Total: 95	

5.3.2 *Aut*: fish feeding frenzies

Aut are important events for all fishers in South Lavongai. They are a singular and complex form of marine interspecies relation that emerges from the interaction between several types of fish, birds, and—whenever they can—humans. These large aggregations of marine animals form when a school of bait fish is driven to the surface by predators such as tuna or mackerel (in the family *Scombridae*; these include skipjack tuna, *Katsuwonus pelamis*, and the several species known as 'bonito' in the tribe *Sardini*). Seabirds such as terns, frigatebirds, and petrels are also attracted to the opportunity to feed on the little fish which swim near the surface in their attempt to flee the predators. Finally, sharks and other large carnivores are attracted to the frenzy and take what they can (including, on occasion, birds). Whether they are already at sea or still on land, fishers are always alert to the presence of flocks of birds flying in a large plume formation. Normally frigatebirds fly in a long line, and terns are perched on flotsam. When they change behaviour and start to fly in a circular motion, then descend in turn to the water before rising again, fishers know that an *aut* has formed.

Ethological studies have shown that when such frenzies take place, the predatory fish enter a state of excitement that leads them to strike at practically anything: small fishes, lures, even the glimmer of a plain hook on a line can be enough to attract their attention (Havard Duclos 1972; Yuen 1977; Litaay *et al.* 2021).

This type of interaction involves people on the island who are not fishers, since even children who notice an *aut* will shout out and raise the attention of their fathers or older brothers. It also rests upon multiple layers of reasoning as to the behaviour of a range of species of animals. Effectively 'interpreting' an *aut* requires that the fishers know the behaviour that the birds adopt in reaction to these aggregations and use this as an indicator of the predatory fishes' presence. However, they also observe far more subtle cues in the birds' behaviour. Lavongai fishermen say that the size of the bird flock and their degree of agitation informs them as to the size of this particular *aut*. Small *aut* may dissipate rapidly, and if they sight one of these that is located quite far from the shore, they may choose not to paddle after it. Larger *aut* on the other hand tend to remain for a long time, and even when distant fishermen will usually make the effort to paddle towards it, such is the expected yield of fishing there (for instance the fish in Figure 5.15 were captured in less than 10 minutes). There is much at stake in evaluating these factors as finely as possible, so as not to waste time and energy, or even take risks out on the high seas, pursuing a group of fish that is already far out of range.

There are even more entangled and subtle interpretative processes at work however. Fishermen say that they can judge what size and type of predatory fish will be present from the behaviour of the birds. They say that their degree of excitement and how often they dive towards the sea indicates the size of the predatory fish. Since the birds are primarily concerned with the bait fish, this means that a fisherman tying the behaviour of the birds to which predator fish is present is doing so through three levels of interaction: human (1) [watching] bird (2) [hunting] bait fish (3) [fleeing] from predator fish.

The Lavongai people do not vest in this type of fishing as much symbolic nor ritual importance as certain other societies do. In other locations, the importance of these



Figure 5.15: A catch of tuna in Laimen's fibre-glass boat, who caught them with Melis and Ngisavaitas, during an *aut*, a feeding frenzy. Small fish are visible in the boat: they were in the tunas' mouths. 9 April 2022, Metevoe.

fish is such that people's behaviour towards them has been described as a 'bonito cult'. This is the case on Aorigi, in the Solomon Islands, where these phenomena have been studied by Sandra Revolon (2018) and previously by William Davenport (1980). Revolon and Di Piazza are currently studying elaborate dances of the Owa people of Aorigi in which performers successively take on the roles of each species involved—birds, sharks, or tuna—and show that all three, along with humans, are engaged in 'relationships of interdependence, a cardinal value in the Owa ethics[T52]' (Revolon and Di Piazza 2022, p 135). There, bonito are indispensable to the initiation of young men, and special canoes are built for their capture (Maranda and Revolon 2013, p 31). Particular associations between purposefully-built canoes and bonito fishing have been noted in places such as Tonga (Bataille-Benguigui 1984) and elsewhere in the Solomon Islands (Hocart 1935; Scott 2014).

Although they appreciate them for their meat, Lavongai fishers do not use bonito fish in any such way, nor do they appear to have ever constructed specialised canoes to pursue *aut*. Nonetheless, fishing in *aut* is a very effective way of capturing large quantities of a valued fish, and people on the coast are often on the lookout for these plumes of circling birds. When the cry is heard '*Aut! Aut!*' all men who have access to a craft put to sea, and children leap up and down on the shore hoping for a hearty meal of tasteful fish. The key stage in this process is of course to have identified where the fish are, and from the shore, were it not for the birds, this would be impossible. Frigatebirds (*raula*), terns (*kanai*), and

other birds which participate in *aut* are therefore a invaluable companions to fishers. As discussed previously (Sub-section 8.1.3), these birds are some of the main ones that are imitated by Lavongai men during their dances. Although these are not performed in an initiation context on Lavongai, the data provided by Revolon and Di Piazza on Aorigi nonetheless suggests a deep and highly significant association between these birds and the Lavongai people, centred around their joint role in the fish feeding-frenzies of *aut*. There will be more to say on such associations and interrelations when I later explore the wider conceptions which Lavongai people have of the properties of living beings in Chapter 8.

5.3.3 *Tua*: poison fishing with derris

Several fishing methods involve the use of plants containing ichthyotoxins, or fish poisons. The main one, which gives its name to the practice, is *tua*, a family of climbing plants known in English as derris (*Derris* spp., see Figure 5.16). Other plants which have similar effects on fish but which are not related botanically, include *ororoi*, *mandina* (unidentified trees), and *malsi* (*Albizia* sp.) Other plants are known to the Lavongai to be useful when mixed with ichthyotoxins and placed in water in order to stupefy fish. For example, a tree that produces a 'soapy' sap, *malmal* (the Moluccan albizia, *Falcataria falcata*), is used with other plants because the combined juices will spread out further in the water and reach more fish.

This type of fishing is common in the region (see, among many others Malinowski 1918, p 90; Leblic 1995; Rickard and Cox 1986). The practice is not confined to the seas, since Pascale Bonnemère noted in the 1990s that the Ankave-Anga, living in the fringe Highlands of Papua New Guinea, sometimes practise poison fishing in rivers, during the dry season (1996, p 137). However, since then, all forms of fishing with toxic substances have been prohibited in PNG, by the 1998 Fisheries Management Act that states: 'No person shall [...] use [...] chemical, poison or noxious substance or material [...] for the purpose of killing, taking, stunning, stupefying or disabling fish or in any way rendering fish more easily caught. [...] [these] include [...] bleaches [...] preparations containing rotenone [...].' (Papua New Guinea 1998, pp 94–95). Not only is this law currently unenforced, but it also came as a surprise to many a Lavongai person to learn that it existed.

All marine life is at least potentially affected by these poisonous substances, and the method is therefore not specific at all. The main active compound found in derris, called rotenone, is highly toxic for fish. During collective work in Metevoe aiming to document local knowledge concerning the fish of Lavongai waters, people often joked that I could write *tua* down in the 'which fishing method is used to catch this fish?' column for *every* entry. In effect, there were over 60 taxa out of approximately 300 listed which they considered to be particularly susceptible to being caught by poison fishing.

People in Lavongai also often stated that *tua* is detrimental for 'the reef' more generally. The toxicity of this compound for corals has been demonstrated *in vitro* only with high concentrations of the product (Downs *et al.* 2010), and *in vivo* for certain specific corals only using purified rotenone (Jaap and Wheaton 1975). The available evidence thus suggests that concentrations of rotenone obtained by non-industrial methods of derris root fishing would be quite harmless to corals themselves. This is all the more true in



Figure 5.16: A leafy branch and an inflorescence of *tua siapan*, *Derris elliptica*, collected by Melis Beling at Metevoe, 26 May 2022.

places such as Metevoe, where fishing with derris is done primarily on the reef flat, which is not where the bulk of the live coral is found since it is intertidal and dries periodically. This is not to say that corals are not, currently, undergoing a process of decay; simply that derris fishing is likely to be of lesser concern than anthropogenic rises in the temperature or in the acidity level of the oceans, for instance. It is not to say, similarly, that fishing with ichthyotoxic substances of any kind is harmless for fish populations. Indeed, since all fish, including juveniles and larvae, are affected, these methods could cause failures in population recruitment and ultimately extirpate certain species from locations where such fishing is practised often.

In line with this reasoning, in recent years, various changes in the perception of *tua* have occurred, and this fishing method, although it is still widely used, has also become the object of passionate disparaging discourse for the reasons explained above. This has led to initiatives that seek to ban the practice locally, in addition to the already existing—but ineffective—nation-wide prohibition. The effects of such bans are, however, somewhat limited, and the topic is a complex one involving the respect that people have for rules, how substances are perceived to be detrimental or not to marine life, and where responsibility is seen to lie for 'looking after' them (more detail on all these topics in Chapter 7).

One way people reconcile the modern discourse on *tua*'s detrimental effect on fish populations with past practices that are assumed to have been more virtuous, is by contrasting the way these poisonous plants are currently and were previously used. Three specific manners of using poisons apparently existed around Lavongai. I witnessed people using only one of these three. This involves reducing the plant to a pulp by striking it between stones, then placing it in the water over the target area of shallow waters—either on the reef flat or in relatively slow-moving waters of rivers—and wringing the plant material out to release the poisonous liquid it contains (in the case of derris this is a white juice that has the appearance of soapy water). Aquatic animals that are in the vicinity of the plants will be affected, and either die or float to the surface, stupefied, where they can be collected easily.

Two other methods of fishing based on the use of poisons were described to me as having been used in the past. One is known as *mis tua*, which literally means 'to chew derris', a practice which must be carefully distinguished from *kon tua* or *angan tua*: 'to eat derris' which refers to suicide (see page 188). This involves putting ground up derris in one's mouth, then diving near the reef and spitting the juice into a hole in the reef in order to stupefy or kill a large fish which has been seen to be hiding there, forcing it out of its hole. The third method which also used to be practised involves a poisoned bait: one first captures a crab, and partially hollows it out, before filling it again with pounded derris. Then this crab is left on the seafloor in a place where fish can readily find it, and when they come to scavenge on it they approach the poison which, again, stupefies or kills them, and they will float to the surface where they can be collected. Both of these now disused methods would indeed have been more selective than the one used nowadays.

5.3.4 *Sog ta uvene*: fishing with a net

Net fishing is among the oldest methods that there are traces of in historical documentation. Indeed, the report of the Gazelle's 1874-1876 research expedition notes about Lavongai that:

> nets were used for fishing. [...] The nets are rectangular or square in shape, and are equipped with ropes, or are longer and rather narrow, and are equipped with stones and floating blocks. The use of the first was not observed; the second are dragged on the seafloor in shallow waters, after having been placed there for some time with the help of blocks. Several such nets were bought, as was a pack of new blocks for the nets, and the material which the nets are made from, which is probably also used for the ropes.[T53] (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 222).

Nowadays, there are several fishing techniques that involve the use of nets, all of which are practised exclusively by men. As elsewhere in Oceania, people of Lavongai have used fishing nets of various sorts for many years. According to men who grew up in the mid to late 20th century, these used to be crafted from several types of plant-based threads. One in particular was produced from the bark of the *katap* tree (paper mulberry, *Broussonetia papyrifera*). The term used to refer to nets, *uvene*, is cognate of the one used in Tok Pisin *umben* (from Tolai *ubene*) and belongs to a set for which related words are found throughout Oceanic languages (Blust 1982; Osmond 1998, p 213). Another term, *kalava* is also sometimes used, and refers first to the web of a spider and by analogy to the fishing net (such a double meaning has been noted in other Oceanic languages, including Tolai for *uvene*, see Osmond 1998, p 213, 2011, p 409).

When I was there, between 2019 and 2023, there were no plant-based nets to be found on Lavongai, and nobody claimed to hold knowledge of how to make them.[10] Nylon monofilament nets on the other hand are now largely available, although they remain relatively expensive to the average Lavongai person's budget. Indeed, a nylon gillnet cannot be purchased in Kavieng for less than K200, and will cost up to K600 depending on its breadth, depth, and mesh-size. For this reason, they remain relatively rare pieces of equipment, and during the survey of fishing gear, I found that only eight households out of 55 had one (Table 5.6).

The nets sold in Kavieng are all equipped with plastic floaters and lead sinkers and are used in several ways. The least labour intensive method of fishing with a gillnet is called *atu uvene*, 'to set a net' (literally 'to stand a net'). This involves placing it perpendicular to the shore over a sandy bottom, in waters approximately two to four metres deep, and securing it to some form of anchor. The fisher then returns to the shore, and watches the

10. Billings wrote this on the topic of fishing nets in the 1960 and 1970s that: 'Most of the fishing that took place in Lavongai village in 1967 involved the big government-owned net that Keith Hill, an Australian of the Department of Agriculture and Fisheries, brought to the village. [...] There was only one other large net in the village: that of Bangarat, who had made it, and who complained that no one came to him to learn how.' (1981, p 800). These observations by Billings imply that she was present during a time of technical change and adaptation. Previous practices of net-making were being discarded, and the knowledge about foreign-made fishing nets was being imparted and integrated into the local practices by colonial officers aiming to edge Papua New Guineans towards 'economically viable' enterprises such as commercial fisheries (on the latter topic, see also Underhill 2024, pp 257–304).

net from there, checking it periodically for any catch. This is done in particular at times of *molong*, when heavy rain inland has caused muddy run-off from the large rivers. At such times, the waters of the estuaries become clouded with nutrient-laden sediment, which attracts fish, notably medium-sized predators that readily become entangled in nets. This method will yield fish such as *pantavuang* or *panto* (both *Trichiuridae* spp.), *aruma* or *sira* (both needlefish, respectively *Tylosurus* sp. and *Belone belone*).

The most effective and at once most decried methods of fishing with a net is called *sasang kuli bangang*: 'running on the reef flat'. This involves many—usually young—men lining up on the coral flat at high tide, with two of them holding the extremities of a gillnet in a semi-circle, while the others run in a coordinated manner towards the net, driving fish into it. This method is one of the most productive the Lavongai people have at their disposal, and is therefore used only when a 'special occasion' requires large amounts of fish such as feasts for weddings, public gatherings, or funerary rituals.

This type of fishing causes disturbance, both because it is noisy, and because it muddies the shallow waters on the reef flat. This, combined with the method's tendency to allow the capture of large amount of fish in a short time, have made it the object of restrictions in Metevoe (see Sub-section 7.1.2), as elsewhere in the region (John Aini, pers. comm. September 2023), but also in wider Oceania, as is the case, for example, on Taha'a, French Polynesia (Aurélien Esgonnière du Thibeuf, pers. comm. September 2022).

A variant of this method, *tak uvene*, to 'pull a net', involves setting the net in relatively shallow water, drawing it into a circle then collecting it up immediately. There is no team of men running, contrary to the *sasang* technique, so this can be used by just two people, each one holding an extremity of the net. In Metevoe, it is often carried out near the river mouth, in water just deep enough to stand in, sometimes with nets large enough to bar the river mouth entirely.

Finally, *atung uvene kuli liung na tavu* is yet another method of net fishing which the people of Lavongai distinguish. This means 'stand a net near the reef edge and strike the surface of the water' (cf *tavatava*: 'clap'). This technique, sometimes simply called *tavu*, is carried out by letting a gillnet drift in deep water, just off the reef edge, and with a group of men swimming around the net and striking the water with their hands in order to drive fish into it. It yields a different makeup of fish than netting on the reef flat, with fish such as *lokot* (*Pterois volitans*), *tasuan* (*Lutjanus malabaricus*), *umutung* (*Aethaloperca rogaa*) or *ievata* (*Pseudobalistes flavimarginatus*) being captured in nets thus employed.

5.3.5 *Polepole*: stone entrapments

One fishing method is of particular interest to the Lavongai, as a historical practice that is being 'revived'. This is known as *polepole*: a permanent or semi-permanent walled entrapment constructed out of piles of coral stones, arranged in specific locations on the reef flat in the shape of a semi-circle. A pile of stones, in general, is called a *ngoto* (*ngoto* is also a verb that means 'to pile stones up'), and this less specific term is sometimes used as a synecdoche for *polepole*. These traps possessed a form of 'door' that would be left open to allow fish to enter at high tide, then closed again with stones as the tide came down.

In Metevoe, Gregory Ravis, a man in his late fifties, knows of this kind of fish trap and states that some were present in Metevoe and Tioputuk when he was younger. He spontaneously produced the drawing in Figure 5.17 in my absence, then brought it to me in order to explain how a *polepole* functions.[11]

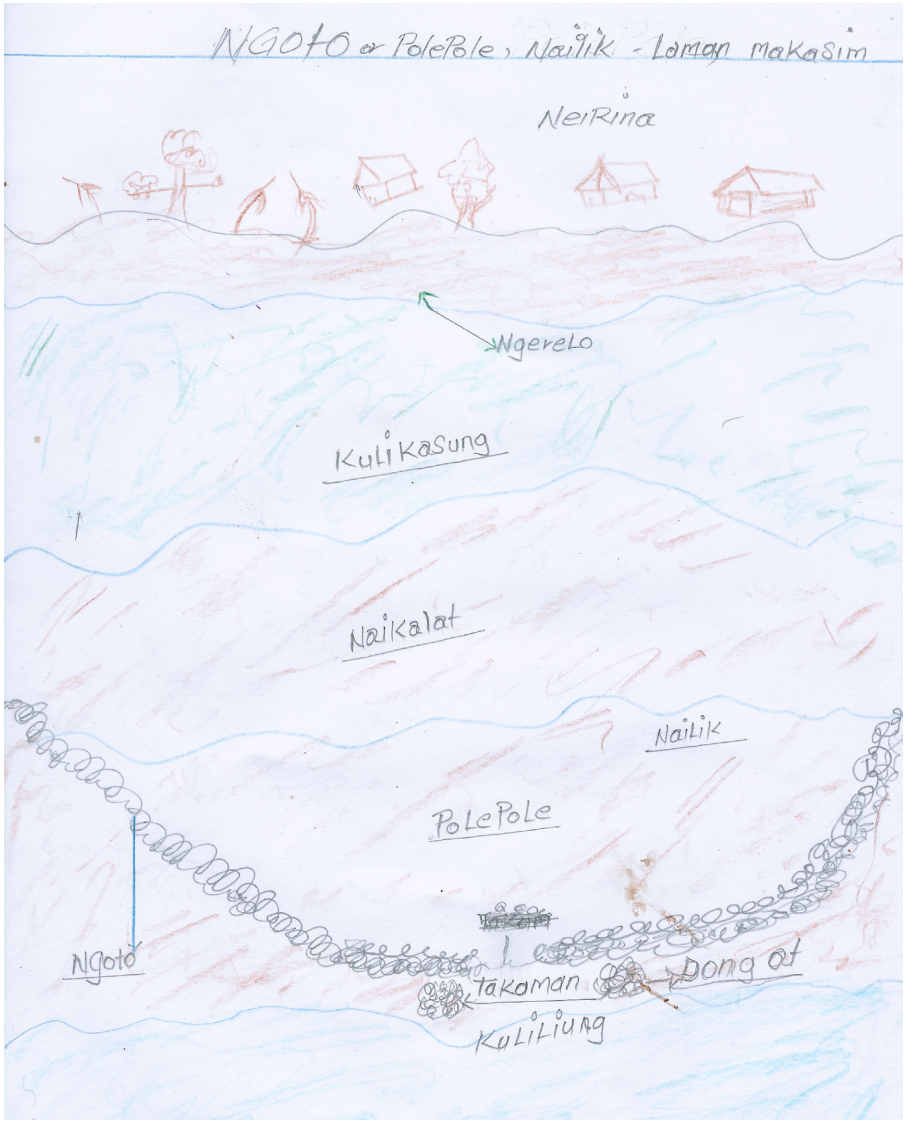


Figure 5.17: Drawing of the Lavongai coast showing a *polepole*: a stone fish trap, built using a *ngoto* (pile of stones). *Neirina* refers to the village; *ngerelo* the beach or coast; *kulikasung* the intertidal area (*kasung* is a marine plant that grows on the reef flat); *neikalat* refers to the part of the reef flat that doesn't dry, even at low tide; *nailik* [or *neilik*] is a pool of water isolated on the reef flat at low tide; *takaman* refers to the traps door; *dong at* to the stones that are set aside in order to close it; *kuliliung* is the reef edge. Colour pencil and black pen on paper by Gregory Ravis, 12 November 2019, used with his kind permission.

11. Note that this drawing is also featured in Collins 2021.

When we spoke in Port Moresby in August 2022, Tukul Kaiku, who grew up a few villages to the west along the southern shore of Lavongai, in Meteran, remembered people in her home village building such traps on the reef when she was young.

People from Lavongai village involved in the activities of the NGO Ailan Awareness (of which Michael Ladi, Dali Tolimba, and Ben Maivis) also discussed what they observed in their village a few decades ago when several *polepole* were still present. They described them as 'ancient' and somewhat mystical or arcane devices, and were very interested with a parallel they perceived between such water traps, and similar stone constructs they saw on land. During a presentation made with Paige West at the University of Hawaii at Manoa on 13 March 2024, titled 'Decolonizing Conservation in the Pacific', John Aini once again mentioned this terrestrial pile of stones shaped like a fish trap and puzzled as to its purpose. He used this as an example of what he termed the 'mystical' aspect of Lavongai people's relations with fish (Aini and West 2024, 01:08:13). John Aini also explains that *polopole* have multiple purposes: they are all at once 'traditional' fish traps, havens for fish to hide in, and sea-walls that protect the coastline from waves caused by storms striking at high tide, and hence curb coastal erosion (Aini and West 2024, 01:06:40).

Aini and West had previously written about the *polepole* in a description of the work performed by the NGO Ailan Awareness. They referred to it as 'a traditional fish aggregating device' (2013, p 2), and stated that it has virtues in the context of marine resource management. Such *polepole* have effectively almost all fallen into disuse, but Ailan Awareness members have been encouraging the island's inhabitants to build them again. More recently, they wrote that, thanks to their joint work revitalising the practice:

> fisheries experts from the communities with Ngoto report increased access to fish biomass, increased diversity in catch, and increased attention to lifecycle and seasonal prohibitions meant to increase stock numbers and sizes. All of these communities also report that Ngoto are slowing coastal erosion and creating space for water to go during storms and king tide events, thereby lessening the effects of climate change related coastal events.
> We offer this brief description of Ngoto on Lovongai as an example of coastal engineering that reintegrates rather than disintegrates Indigenous lifeways. (West *et al.* 2024)

I analysed some of the motivations and consequences inherent to this 'revival' in an article based on fieldwork conducted in 2019 (Collins 2021). In this article, I leveraged the concept of 'friction' used by American anthropologist Anna L Tsing in a similar context, in which various actors were interacting around conservation issues on the Indonesian island of Borneo in the 1990s. She defines such 'frictions' to be constituted by: 'the awkward, unequal, unstable, and creative qualities of interconnection across difference' (Tsing 2005, p 4). I pointed out various instances of frictions which exist between divergent worldviews held respectively by the people living in Lavongai, members of Ailan Awareness, and members of the Wildlife Conservation Society (WCS). In line with Tsing's observations, I proposed that such instances of friction are indeed: 'tentative and contingent collaborations among disparate knowledge seekers and their disparate forms of knowledge' and that these 'can turn incompatible facts and observations into compatible ones' (Tsing 2005, p 89).

Much like the changing attitude towards fishing with poisonous plants, this shows that fishing techniques have contrasting values attached to them. All technological solutions

to a problem (such as 'how to obtain fish for tonight's meal', or 'how can I satisfy my customary obligation for an upcoming feast') are not equivalent when considered in their sociocultural context. What is approved in one place might be frowned upon in another; what is preferred at one time period might be left aside some time later. The role of cultural values in choosing fishing methods is a theme that will be developed in Chapter 7.

5.3.6 Spear fishing

Similar to net fishing, spear fishing is also a very old fishing methods, described in the Gazelle's report: 'Spears [...] were used for fishing. The spears are either relatively short simple pointed sticks, or longer sticks to which tufts of wooden points are fixed with raffia, in a similar way to that which is found in New Guinea.[T54]' (Hydrographischen Amt des Reichs-Marine-Amts 1888, p 222). The naturalist Cayley-Webster also describes people fishing with spears from a standing position, in a canoe:

> Natives were to be seen, as we went along, in all directions, some here and there standing upright in their canoes with spear in hand, on the look-out for fish to bring me in exchange for the fragrant weed [tobacco]; others running along the shores, and all frantic with the excitement of having a ship amongst them again. (Cayley-Webster 1898, p 282).

Several fishing techniques involve the use of a spear (*sula*). Two types of spears are commonly used, both made of a bamboo shaft. They vary only in their tip: *mansikei* (literally 'he who has one [point]', Figure 5.18) is a single-tipped spear, and *supsup* is a multi-tipped one.[12] Both are nowadays usually made with sharpened steel elements attached to the bamboo in order to serve as the working end. Either a relatively short length of concrete reinforcement iron is used for the *mansikei*, or several small nails, or sections of umbrella ribs are repurposed for the *supsup*. They are ubiquitous tools, with 39 households out of 55 having either a single-tip spear, a multi-tip spear, or a speargun (Table 5.6).

All the fishing methods that rely on the use of a spear are highly gendered and only ever practised by men.

Using these kinds of tools, two fishing methods can be practised: either diving or spearing from a canoe. Diving is a 'modern' fishing technique, insofar as it requires a pair of goggles, which can be bought for a few kina in Kavieng (and are therefore found in 42 of the village's 55 households according to my survey, Table 5.6). Wearing these, men spear fish with long *mansikei*, along the reef edge, or with shorter *supsup* in shallower waters (including rivers). Spears are not usually thrown, but rather thrust without letting go of them. They are sometimes equipped with a small length of rubber which is used to project them with force at the targeted fish or invertebrate. A variation on the hand-spear fishing method is based on the use of a number of different minimalist hand-crafted spearguns. At their simplest, these are made out of an approximately 1 metre long thin steel rod with a piece of heavy rubber elastic used to project it, guided only by the fisherman's hand. A more elaborate version is known as *masket* (a loan-word from the English 'musket') and is

12. The word *supsup*, meaning 'multi-pronged spear' exists in Tok Pisin, and Mihalic indicates that it was borrowed from New Ireland languages 1971, p 186.



Figure 5.18: Ray extends his *mansikei* (single-tipped spear), with a parrot-fish (*Scarus* sp.) on it, to hand it to another young man just to the right, out of the frame, who is collecting the catch while Martin (red t-shirt) and Nathan (under water) are on the lookout for more fish. 30 May 2022, Metevoe.

a home-made speargun, wrought out of wood, steel, and two pieces of heavy rubber, that shoots thin rods of steel (often repurposed umbrella ribs). Spears are used in particular to capture octopus from under coral formations, or reef dwelling fish such as *manga*, *mangava*, *manganai* (all types of parrot-fish, *Scarus* spp.), and also by experienced divers to catch *kulava* (trevally, *Caranx* spp.), *aruma* (*Tylosurus* sp.), or *malisa* (barracuda, *Sphyraena barracuda*).

Another spear-fishing method, the one described by Cayley-Webster, was used in the past on Lavongai. This consisted in spearing fish with a very long spear while standing in a canoe and was called *makmakanai*. I never observed anybody performing *makmakanai*, however it was named by people as a recently used fishing method. Nowadays, fishermen do bring spears with them when they head out to fish in their canoes, but these are used only after having dived into the water with goggles, in order to procure bait. In the past, no doubt before the arrival of imported goggles, this *makmakanai* may have been the favoured mode of spear-fishing.

5.3.7 Fishing with a light source

Another local series of fishing techniques is referred to broadly as *limang*: 'to fish with a light' (literally 'to give light').[13] These are exclusively masculine, and the purview mostly of youngsters.

In the past, the method used to produce light and draw fish to the surface was to carry a number of dry coconut fronds in a bundle strapped in a basket on one's back. These were lit successively, using each one to light the next, and thus it was possible to walk about on the reef flat at night and produce light for some time. Nowadays, those who wish to fish on the reef at night usually use a battery powered LED torch. These are popular items that can be bought for a few Kina in Kavieng and have also been the object of recent 'development projects' during which they were handed out to specific inhabitants by local elected representatives. The hand which is not holding the torch is armed with a spear or a plain machete, which are used to spear or 'cut' fish as they swim under the light. Alongside this reef-top, standing fishing method, another technique which Lavongai people consider to be a form of *limang* is diving with a waterproof torch. Such torches are sold in Kavieng for at least K 45; a price which, added to that of the goggles and other tools, makes the technique an intermediate one in terms of cost: more expensive that hook and line fishing, but not so much as fishing with a net. According to the survey, 30 out of 55 households were equipped with a waterproof torch (with a maximum of 2).

Chapter conclusion: fishing tools and techniques

This chapter was devoted to the tools and techniques used in fishing on Lavongai and that enable many of the islanders' interactions with marine animals. A first quantitative approach through a village-wide survey shows that all households in the coastal location of Metevoe have at least one regular fisher in them and that around a third have people who fish either 'every day' of 'several times a day'. Fishing is therefore clearly an important activity.

The observation of contemporary fishing vessels on Lavongai, when analysed in light of available historical, pictorial, and linguistic information, shows that evolutions have occurred, and are still occurring, in the local uses of such technologies. The introduction of new types of crafts and propulsion in the 20th and 21st centuries led to a rapid shift in navigation practices and habits, away from wind-powered and towards the increasingly overwhelming use of petrol-powered water crafts. This applies to all medium- to long-distance travel and must have taken place in the last two to three generations. The vocabulary that is used to describe the rigging of a sailing craft by the last few living members of generations to have sailed is however entirely derived from English, which suggests that sailing practices may have died out before the arrival of colonists and missionaries, and been re-adapted from them, only to die out again a few decades later with the arrival

13. This is an example of a category which does not align easily with the standard classifications of fishing methods, since a light source would only qualify as an accessory fishing implement, and the principal fishing gear would be used to classify the method: hook and line, spear, etc.

of the outboard engine. Sailing would have been a relatively specialized, hard-learned, and exclusive kind of knowledge, and although it has been entirely abandoned as a means of sea transport, it is remembered as an impressive practice. For inshore and near-shore fishing, the paddle-powered monoxylon canoe, a technological set that has a historical depth of several millennia in the region, has endured through the colonial period, and into the contemporary post-colonial one.

Many factors have undoubtedly influenced these changes and this notable permanence: profound modifications of the exchange networks following colonisation and introduction of foreign trade goods; increasing monetisation of the local economy; the end of warfare and raiding under threat of arms from the colonial officers; and in the modern era, accessibility of new manners of powering a craft, namely money to buy—or political connections to be gifted—a boat.

Fishing techniques themselves have undergone certain quantitative changes, and the source of the materials used as fishing tackle has gone from being endogenous (mostly plant-based fibres) to exogenous (store-bought nets, lines, and hooks). It is however hard to ascertain if these changes in materials have in fact produced any deep modifications of the techniques associated with them. In some cases, new tools have clearly displaced what used to be common ancient techniques. This is the case of diving goggles, which have caused spear fishing standing in a canoe (*makmakanai*) to be entirely replaced by spear-fishing while diving. However, other techniques may have changed only marginally, such as fishing with a net which could have been done similarly with plant-based tackle as it is nowadays with nylon nets. Line fishing also existed prior to the introduction of nylon monofilament and steel hooks, but the synthetic materials enable certain techniques that would have been impractical with plant-based ones (such as bottom fishing with a reel and a several hundred metre long line).

Fishing is an activity that involves complex interspecies interactions. The context of an *aut*, a feeding frenzy, is an important example of this: during these aggregations of bait fish, predator fish, birds, and sharks, fishers observe which birds are present and how they behave to infer which predator fish will be there, and—in turn—how they will behave. This allows keen fishermen to then paddle or motor out to meet them, and fish in the frenzy by trolling. Two of the bird species that are chiefly concerned by these *aut* are terns (*kanai*) and frigatebirds (*raula*). In the clan system, both are associated with a clan, Kanai, and there are dances in which men imitate these birds (a topic I will return to in Sub-section 8.1.3). This draws attention, yet again, to the symbolic importance of these birds and of the human-bird-fish triad for Lavongai people—furthering the conclusions of the previous chapter and feeding into the upcoming analysis of Chapter 8.

On the sociological level, the examination of Lavongai fishing practices shows that children start gathering food from the reef and fishing at a very young age, and their catch, although usually quantitatively very small, is important for two reasons. Firstly: it is formative. From collecting sedentary or almost immobile resources, children gradually progress to fishing with hooks on the reef flat itself, then near the reef edge, and eventually to diving with goggles and various weapons (spears, spear guns), methods that target bigger species and yield larger catches. Secondly: whatever a child catches, he or she usually eats almost entirely him- or herself. Given that children get only a very small share

of any catch obtained by adults, they are very enthusiastic for the activity, and tend to practise it as soon as they have the chance.

Moreover, most fishing techniques are assigned to a particular gender. Overall, women fish on the reef flat and in the shallow sandy areas near the estuary, using small hand-held hooks and lines, and they collect sedentary species by hand, while men use canoes, larger hooks on fishing lines, and nets to fish both near shore and in slightly deeper waters. James G Carrier investigated the social and anthropological aspects of fishing techniques on the small island of Ponam, offlying Manus some 280 km to the West-Northwest of Lavongai in the late 1970s and early 1980s. He noted that because of 'desultory raiding and petty warfare which was endemic in pre-colonial Manus' (1982, p 911), fishing techniques used out at sea were reserved for men, and women fished only with those that could be practised from the shore, out of concerns for their safety. However, by the time of his investigations, this ancient 'sexual division of labour' had been practically abolished as warfare came to an end, allowing women and men to use the same fishing techniques, which one would expect to be possible nowadays also on Lavongai. That this is not the case could indicate that it is the particular tools associated with certain fishing methods that are perceived by Lavongai people to be gendered (ie that canoes, spears, and nets are male tools).

Finally, throughout this presentation of fishing tools and techniques, it was apparent that these do not all share the same 'moral worth', that they are not all 'as good or bad as each other' from a sociocultural perspective. Fishing with poisonous plants, for instance, has been a favoured method in the region for centuries at least. Lately, however, this method has begun to receive criticism in light of exogenous information that indicates its nefariousness to fish populations, and therefore make it a threat to the animals' reproduction. Indeed, despite it having been banned in the whole country for over two decades, it is still a common practice around Lavongai, meaning that those who are becoming aware of its harmful potential are increasingly moved to act locally in attempts to curb its use. This aspect of local regulation of fishing techniques and practices is a subject I will attend to in detail in Chapter 7.

Before that, however, there is an aspect of the relations between Lavongai people—or more specifically between certain Lavongai men—and fish which must be attended to: the practice of 'fish-calling'.

Chapter 6

Atu Ien: Fish-calling

> Fishing, an activity of great economic importance and a favourite sport all over the Trobriands, ranges from a purely economic pursuit to almost a magicoreligious ceremony. In fact, the *kalala* fishing [in spawning aggregations] in Labai is surrounded with more numerous and more stringent taboos, and is more bound up with tradition and ceremonial than any other social activity in the Trobriands.
>
> Malinowski 1918, p 92

Introduction

How does one ensure that, when going out to sea, there will be fish to be caught? Better still: can one make fish come to land, where they will be readily caught? As described at the beginning of the introduction to this thesis, some Lavongai men have knowledge of elaborate bodies of practice that they claim influence the behaviour of fish, allowing them to call the animals near the shore—among other feats. Such an action is referred to in Tungag as *atu ien*, literally 'to make fish stand up', which more figuratively means 'to place fish [here]' (ie near the shore). I will be referring to this as 'fish-calling'. These propitiatory fishing activities can be analysed as types of 'magical actions'. Placing fish-calling in the framework of this larger anthropological phenomenon brings fish-calling into perspective with other similar action elsewhere, and other related actions performed on Lavongai. Indeed, fish-calling shares many properties with other forms of magic that are practised on the island. Detailed analysis will show how fish-calling is based on the use of plants,

involves a complex interplay of relations between practitioner, 'ancestor spirits', and specific fish, and revolves around the key concepts of nurture, knowledge, and power.

A similar body of practices and knowledge from New Ireland mainland is known as 'shark-calling', and it is from this that I have adapted the name to refer to Lavongai fish-calling. Shark-calling is well known both in anthropology (Groves 1934, 1936; Platten 1954; Köhnke 1974; Rubel and Rosman 1981; Brouwer 1983; Messner 1990; Nason 2018) and in the general public, thanks in no small measure to the remarkable film by Dennis O'Rourke and Chris Owen, to which the anthropologist Elizabeth Brouwer contributed (O'Rourke and Owen 1982, see also Bonnemère 2022, pp 192–195).[1] Shark-calling involves certain men practising propitiatory magic on land, then going out to sea on a monoxylon outrigger canoe. Out in deep waters, a shark is then 'called' using more magic, and a type of rattle made from halved coconut shells threaded on two round handle-like loops of rigid vine. Once a shark appears, it is drawn even closer to the canoe by using a baitfish fixed to a stick. When near enough, it is captured with a type of lasso, made out of a loop of cord passed through a wooden propeller-like device. This is placed around the neck of the shark, and the propeller serves either to protect the fisherman if he can keep hold of the rope, or as a float in case he cannot. Finally, the shark is hauled aboard and clubbed to death. Shark calling is not present on Lavongai and may never have been. It is now only practised in New Ireland in a few localities, by a handful of men, mostly on the west coast of the northern part of the island. According to early ethnographies of the region, in particular those of Powdermaker (1933, p 172) and Groves (1935b, 1936), the practice was previously also present on the east coast of New Ireland, at least in the villages of Lesu (or Losu) and Fissoa, as well as on Tabar (Groves 1935b, p 349).[2]

As the following pages will show, the Lavongai practice of fish-calling can be compared in many ways to the magical preparations made before shark-calling. I will introduce this practice by turning to a very well known Lavongai myth: that of *tanglik* and *mar*.

6.1 The myth of *tanglik* and *mar*

Lavongai people consider the Osprey, *tanglik* in Tungag (*Pandion haliaetus*, Figure 6.1), and the Brahminy Kite, *mar* (*Haliastur indus*, Figure 6.2), to be related: they state that both are large carnivorous birds that are similarly 'shaped'. Nonetheless, they also distinguish these animals by one key aspect: their diet. While Lavongai people know that *tanglik* feeds almost exclusively on fish, they say somewhat disparagingly that *mar* feeds off carrion and small land animals, despite also living on the coast. *Tanglik* is therefore the epitome of a good fisherman, whilst *mar* subsists only on what is considered to be less desirable or even distasteful game.

1. The topic of shark-calling even features regularly in news media around the world (Overton 2000; Fleet 2012; Spierling 2012).

2. Snaring sharks on a loop or rope is not a form of fishing that was exclusive to New Ireland. Malinowski reports similar techniques in the Trobriand Islands (1918, p 89), and an Oceania-wide map compiled by Bengt Anell shows 39 different locations where 'shark-snares' were used (1955, p 56).



Figure 6.1: An Osprey, 'in flight with a fish kill' (from the caption of the original). Adapted from the original uploaded to Wikimedia Commons (CC-BY-SA licence). Photo by Sumeet Moghe, 6 March 2021, Bhigwan, India.



Figure 6.2: A Brahminy Kite. Adapted from the original uploaded to iNaturalist (CC-BY licence). Photo by Afsar Nayakkan, 8 September 2019, Kattampally, India.

In addition to these two birds of prey, the myth involves a third character: *Kipang*. This word refers to a category of quasi-humans that are associated with 'the old days' of Lavongai. *Kipang*, as discussed previously (Sub-section 3.3.4), are beings who have been present since before 'true humans' occupied the island. They have been forced or scared away from where humans now dwell and inhabit only a few secluded places, such as caves. In myths, they appear as the 'original' people of Lavongai. In some myths, when 'true humans' confront 'evil' characters, specific named *kipang* will play this negative role, tricking the human heroes or causing them trouble.[3] Many contemporary popular stories also tell of encounters with remaining *kipang*.

Here is a version of the story of Osprey and Brahminy Kite told by Lumaias, and for which Melis was also present and added emphasis and details at times.[4]

> Lumaias: *Kipang* initiated Brahminy Kite to fishing magic. Osprey was sleeping in the house. First, *Kipang* and Kite waited for Osprey to fall asleep. When he was really asleep, they started initiating together regarding the plants for fishing. And when… While *Kipang* was teaching Brahminy Kite… Osprey woke up, and lay there in silence, in the house. He made them believe that he was asleep in the house, and he heard everything they were telling each other about…
> Melis: … instructing him.
> Lumaias: *Kipang* was instructing him about the plants that need to be collected, the plants that must be rubbed, and the things that must be sung, the formulas that must be sung for fishing, to call the fish to the shore. All these things, Kite learned them. The two of them finished chatting, at night, they had an exchange. They weren't telling each other stories, but they were engaging in transmission [of knowledge]. *Kipang* gave Brahminy Kite all the plants for fishing.
> Melis: All the knowledge about fishing.
> Lumaias: So that he would know all… the small things that he would need when came the time to go to… They woke up in the morning, the next day after doing that, Brahminy Kite was still there, Osprey left. He collected all the plants that *Kipang* had talked about. He did all that, then he set off to go fishing. He fished, then he came back. *Kipang* was surprised that […] Osprey was fishing so well. He… ordered Brahminy Kite to go fishing, because it was Brahminy Kite who had heard all his teachings. Brahminy Kite left, he just flew around, just flew over the sea, and he didn't catch any fish in the sea, so he went inland into the forest. He went into the forest, and he went and looked and he found *siem* [a large stick insect], the meat from the forest. He collected a lot of them, and he went back out of the forest, and he gave them all to his grandfather *Kipang*.[5] That's it, this is just a short story like that. Brahminy Kite looks for stick insects in the forest, and the one who listened to all of *Kipang*'s instructions, Osprey, he goes fishing in the sea. That's the end.[T55] (Lumaias and Melis, 21 July 2022).

After stating that the story was finished, Lumaias in fact went on:

3. This is the case for example of Kipangitangtangkam the 'Kipang who tries to imitate but fails' in the myth with Tonvalval (Appendix H).
4. Since the word *kipang* is very specific, I have used it without translation here.
5. Here, Lumaias represents the bird as referring to Kipang as his 'grandfather'. Unfortunately, I missed this important detail while he was recounting the myth and did not question him any further about it. It could be simply that, as in all polite speech in Tungag (see page 99) a kinship term was required here, and because the Kipang character is ancient in this story, Lumaias chose the term 'grandfather', which can also mean 'ancestor'.

> Lumaias: There is a specific plant, *moi*, a plant that is in the sea, that *Kipang* told Brahminy Kite about. Osprey went and got just that one. He rubbed with it. There is a song that goes with it.
> Mark Collins: He rubbed… his body. Did he rub his body with it?
> Lumaias: Yes, yes… he rubbed, he rubbed a spear with it. […] And so, there are the little plants from the forest, and [parts of] trees too, that need to be collected, that have to go with it, with this *moi*, and he fishes properly.[T56] (Lumaias, 21 July 2022).

As I asked Lumaias what Osprey rubbed with the spear, I referred to the only thing I thought a bird could rub anything onto: its body. Indeed, the verb used by Lumaias, *makinga*, is an action verb that means 'to impart a certain power or ability to an object by rubbing a plant on it' (these are used in particular in canoe making, see page 244). This part of the myth that represents the bird as using a spear therefore shows that the animals have human behaviours. Other details show that the boundary between human and bird in this story is blurry: the birds fly around, yet they sleep laying down, in a house; collect plants; perform magical rituals; use hand-held tools such as a spear; etc.

Let us consider a passage of Lumaias' narration that allows us to infer which kind of knowledge is being transmitted here:

(6.1) *Ka-te pini i-a ta ri uriuri ti luk, ri makinga, au, ri […]*
3SG-CONT instruct OBJ-3SG OBL PL plant OBJ get PL rubbing.plant well PL
nem ti tangam, lingan ti tangam ni maiak, ti songo ni ri ien,
things OBJ sing formula OBJ sing BEN fish OBJ sing BEN PL fish
na ri ien ki palak.
and PL fish 3PL come.to.shore
'He is instructing him as to which plants need to be collected, the rubbing plants, also the things to sing with, formulas needed to sing for fishing, to call the fish, so they come to shore.' (Lumaias, 21 July 2022).

Almost all the important elements of fish-calling magic are present here: two categories of plants must be collected, the first is *uriuri* which is a vague word meaning 'grasses' that is often used to refer elliptically to 'magical plants', the second is *makinga* which means 'plant that can be rubbed on an object to give it magical properties'; the 'formulas', *lingan*, that must be sung. What might be seen to be missing here is a preliminary fasting stage, which is indispensable in contemporary fish-calling practices, as I will show in the following pages.

The fact that this myth is very well known tends to show that fish-calling magic is a well established tradition and that it is thoroughly integrated into Lavongai social life. This is one of the defining characteristics of magic, according to Hubert and Mauss, who went so far as to write that:

> Magical rites and the entirety of magic are, first and foremost, traditional facts. Actions that are not repeated are not magical. Actions that all members of a social group do not believe to have efficacy are not magical. The forms that rites take is highly transmissible and is sanctioned by opinion.[T57] (Hubert and Mauss 1902, p 14).

Fish calling has the following distinct characteristic: it is discussed in public; socially sanctioned, meaning it is spoken of by those who do not know it as something benevolent and desirable; yet it is also a secretive craft, one that is practised in hiding by specialists, by men who 'know'.

The myth of Osprey and Brahminy Kite was told, in this case, by two people who do have considerable magical knowledge, but who are not, as far as they told me, fish-callers. It provides a concise and detailed overview of what parts of fish-calling practices *are* 'public knowledge'. This contrasts with the more secretive elements that are known only to fish-callers themselves: specific names of plants (usually secret ones), which part of the plant to use, how to process it (scraping, beating, etc.), and especially the specific songs or formulas that must be sung or recited. In the words of one fish-caller: 'a tree has bark, and it has flesh. I have all the flesh of this knowledge.'[T58] The 'tree' here is the knowledge of fish-calling, and metaphorically this fish-caller was indicating that many people know the surface of the practices, without knowing them in depth, whilst he did. James Leach recounts the existence of a similar dichotomy between what is 'public' knowledge regarding plants for gardening magic, and what is known only to specific individuals, among the people of the Rai Coast in Madang Province of Papua New Guinea (J Leach 2012, pp 259–260; which refers to Nombo and Leach 2010).

This myth of Osprey and Brahminy Kite also illustrates the seeming 'evidence' with which fish-calling magic explains the Osprey's fishing ability: how else would an animal be such a good fisher, if it were not for his knowledge of specific magic? Such reasoning is often present wherever magic is concerned: the best proof of its existence and efficacy is in the *post-hoc* observation of the successful outcome of what could, *a priori*, have been considered an uncertain enterprise. In other words: if a man does something that might fail but that does not, then the explanation offered after the fact will most likely be that he had performed some magical action, or that he was, at the time, endowed with some extraordinary power because he has magical knowledge. This tends to suggest that fish-calling magic is made up both of such series of technical actions and of an ensemble of subtly balanced public and secret explanatory discourse. Let us now go into more detail concerning the 'flesh' of these practices.[6]

6.2 Ethnography of fish-calling

'Fish calling' is made up of a series of activities that are carried out in great secret by a man, never by a woman. During the whole process, nobody should see the fish-caller, else the magic would have to be started again, from the beginning. First, this man must fast (*alal*) by abstaining from eating certain types of food and from drinking. The rules of fasting were stated in varying terms by the different practitioners, but two common themes emerge: there is a focus on 'dryness', and for the foods that are allowed, methods of cooking should be those least associated with women.

Concerning the first reason given, the practitioner must not drink water, and to remain hydrated he can only use coconut water from certain varieties of coconuts, or he can eat

6. Without, of course, disclosing any of the 'secrets' involved—few of which were shared with me anyway.

fruit. Moreover, those foods which he can eat must never be boiled, and sago, a type of food which appears dry but is produced by washing it with large amounts of water, is also forbidden. It is by reference to the 'dryness' of these foods that people specifically describe the fasting practice: *kute angan kolo* (you are eating dry [food]). As for the second type of reason given, sago is also concerned by a prohibition on eating food produced by women, since they are the ones who wash it. The method which men tend to use when cooking in the men's house, and gardening or hunting in the forest is to roast root crops or bananas over an open fire. This method is very seldom used in household cooking; when women produce the daily meals of starchy staples, they usually boil them with green leafy vegetables and coconut milk, in water. They sometimes also use a stone oven, but the preparations and cooking time involved in this method make it more cumbersome.

The fish-caller must also respect the rule of *atailai*[7], avoidance, remaining out of sight and touch of all women, and he cannot, *a fortiori*, sleep with his wife. There is a somewhat joking expression that is used to refer to the fact of breaking this prohibition: *kute angan ien tu bat*. Literally this means 'you are eating the fish that stands and blocks the path [of other fish]', but what it really says is '[while performing fish-calling] you are doing something that will make the magic ineffective', the implication being, more specifically that the person is having sex with a woman (Gotan, 19/07/2023). In practice, avoidance is made possible by dwelling, for the time the procedure takes, in the *rangama* (men's house) if the fish-caller himself owns one, or sometimes in a small forest-cabin built specifically to afford himself a secluded space for such matters.

This is very similar to what is described in the context of shark-calling, in particular by Brouwer: 'Before a man can put to sea in the hope of catching a shark he must have conscientiously observed the rules of abstinence and avoidance that would purify his body for the task he intends. […] He must also avoid any physical contact with his wife or any woman.' (1983, pp 59–60). Shark calling preparations are also noted to be secretive: 'rites are done in secret even from the fisherman's family' (1983, p 60).

In Lavongai fish-calling, the practitioner may need to submit to fasting and avoidance for anywhere between 24 hours and several weeks before carrying out the magic, depending on which specific practice he intends to use. During this time, he must go at night into the forest without being seen and collect specific plants.[8] These plants must then be placed into a basket made from coconut leaves, bundled into a package called a *kurip*, before being deposited in the sea, on the reef flat, under a pile of coral stone (*ngoto*, a general term for all piles of stones). In the process, songs are sung or 'formulas' are pronounced. In almost all cases, these song address the *anit* of the practitioner: one or several powerful 'spirits' of deceased men, the strength of which will be necessary for the magic to succeed (see Sub-section 6.4.2).

7. Kaiku and Kaiku (2008) write of avoidance as being *alalai*, but my interlocutors used *atailai* or its reduplication *atatailai*. KE Fast (2015, p 212) glosses *atailai* and *atatailai* together as 'adj special, taboo'. Although *alalai* and *atailai* seem to differ considerably, I therefore believe they are allomorphs of the same lexeme.

8. The fact that plants are gathered at night may be done because of the discretion it offers, or because they are considered to have different properties when harvested at this moment. No specific explanation was given to confirm or invalidate either possibility by fish-callers.

What are the aims of this procedure? What is the fish-caller attempting to do? People say that these magical practices aim to influence the behaviour of fish. The specific goal of each practice varies: there is magic to call fish, in order for them to come near the shore; there is magic to 'fix' them, to hold them in place in a specific location; magic to move the fish to another location; magic to make the fish leave, hide elsewhere should a competing fisher be present, or should the practitioner wish to punish somebody by preventing him from catching any fish; finally, some of the plants that are placed in the sea are said to be eaten by fish, and 'to nourish' the fish is an important goal unto itself. Some plants are not considered to be eaten, but to act simply by virtue of their decomposing (*tameng*) in the water and spreading their smell. There exists a series of associations between a specific plant and a specific marine animal (this could be a fish, but also the octopus, for instance). One or several plants will be used to call one type of fish, and another plant to call another. Table 6.1 summarises the data collected about these practices.

The fish-caller determines that he has performed the magical actions correctly and that this was successful when the bodies of the fish themselves change and when their behaviour is modified. When fish have 'heeded the call' of the fish-caller, there are visible signs of this in their bodies: in particular, they have traces of the plants that the fish-caller had laid out for them to eat in their faeces. Moreover, their behaviour is modified just as the magic aimed to do: large groups of fish of the type that was called by the use of a specific plant appear very close to the shore.

One of the fish-callers interviewed (Lapan, 15 July 2022) described in detail the procedure used to call *aruma* (a type of needlefish, *Tylosurus* sp.) For this specific magic to work, the practitioner must fast during a whole week, and partake of the few foods that he is permitted only after dark. These are to be roasted over a fire, and therefore cannot be boiled.[9] During this preparation period of fasting and avoidance, the practitioner gathers the required plants and hides them in the forest. A combination of three plants is needed. These must be collected, hidden during the time of fasting, then, one morning, early before anybody is awake, the fish-caller must bundle them, and go down to the shore to place them in the sea, on the reef flat. At this stage, another level of analogy is found: whilst the scraped bark of *nuk* is simply placed loose in the bundle, in the case of the two other plants, whole leaves are used and must be placed *perpendicularly* to the shoreline. Specifically, they must lay with their *tukul* (base, stem) towards the shore, and their *veles* (leaf tip) towards the sea. This is said to 'point the fish' into the shore (see Figure 6.3): the 'base' of the leaf representing the *nono* (face) of the fish and the leaf tips representing its *vikvik* (tail). Should this be reversed, the magic would indubitably fail, the fish-caller told me with insistence.

This first three-plant preparation must be accompanied by a second, in order to *pakakit* (lock) the fish. This means that, even once they have been called by the first three-plant combination, they must still be induced to remain 'locked' near the shore. The procedure

9. As previously indicated, this can be interpreted in two ways: on the one hand it is related to the dryness of the food; on the other hand it is tied to the avoidance of women that is also imposed during such magical practices, since boiling food is a common female technique.

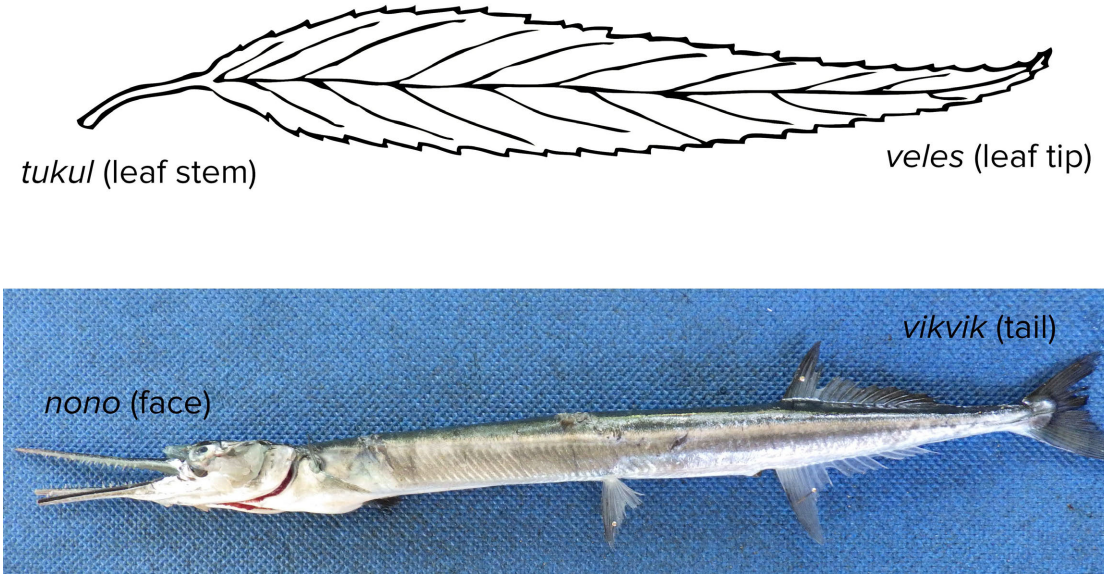


Figure 6.3: Diagram showing the way fish-callers associate the shape of *aruma*, a needlefish (*Tylosurus* sp.) and that of a leaf. This draws two correspondences between the face of the fish (*nono*) and the leaf-stem (*tukul*), then the tail of the fish (*vikvik*) and the leaf-tip (*veles*). Fish caught by Daniel Laimen. Metevoe, 3 August 2022. Leaf sketch own work from public domain base image.

is essentially the same: plant material (referred to by secret names) is collected, placed in a bundle under a pile of stones on the reef.

Once all these plant material bundles have been placed on the reef, the practitioner is free to eat, drink, and go about his activities without observing any more avoidance rules. He will have to wait approximately five days for the plants to *tameng* (decompose, go rotten), and it is then that the needlefish will come. As they do, they must not immediately be fished. The first few needlefish must be 'respected', and the fish-caller will forbid anybody from catching them. If this is not done, then the fish will turn back, and their true numbers will not be seen. With this restraint on the other hand, the *kitmat tuman luai* (true power) of the magic will become apparent: huge needlefish will come right up to the shore, into shallow waters on the reef flat. Once the fish-caller grants permission to catch them, then a simple swipe of a bush knife will be enough to kill one.

To summarise, the outline of the magical activities which must be carried out in order to call fish is the following:

- hide from all potential onlookers;
- perform *alal* (fasting) and *atailai* (avoidance of women);
- collect a series of specific plants;
- prepare a *kurip* (bundle) with the plants;
- sing songs, or pronounce formulas;
- place the plants on the reef flat under a *ngoto* (pile of stones); and

- wait for the plants to *tameng* (decompose).

Table 6.1: List of fish-calling practices that were described by fish-callers (designated by pseudonyms), sorted by description, and indicating what they involve: fasting, songs, which fish are concerned, which birds are named, if they call upon spirits of deceased men (*anit*), and which plants they use.

Fish caller	Short description	Fasting	Song	Fish	Birds	Anit	Plants
Bernard	Ask *kanai* (terns) to make *inavu* come the next morning	No	Yes	*inavu*	*kanai*		
Bernard	Ask *vokol* (herons) to make *inavu* come the next morning	No	Yes	*inavu*	*vokol*		
Jonah	Ask fish directly to stay in the reef passage	Yes	Yes	*malus*; *inavu*			Yes, unspecified
Pasingan	Call *aruma*	Yes	Yes	*aruma*; *ursingo*	Yes		*nuk*: Java cassia (*Cassia javanica*)
Lapan	Call *aruma*	1 week	No	*aruma*		Yes	*pula ta vokol*; *ngarkui*; *nuk*: Java cassia (*Cassia javanica*)
Alphonse	Call *inavu*	3 days	No	*inavu*		No	*ringtamani*; *volomatainaro*: type of wild ginger (*Zingiber sp.*)
Gideon	Call *inavu*	1 month		*inavu*	*kanai* (?)		*vokop*; *ringtamani*; *ei kanai*
Martin	Call *malus*			*malus*			Yes, unspecified
Shane	Call *olo*	Yes	Yes	*olo*			*topok*
Jonah	Call fish near the shore	3 days	Yes	Several, unspecified	*vokol*		Yes, unspecified
Pasingan	Call fish near the shore	3 days	Yes	Several, unspecified			*pulpulis*
Shane	Call fish near the shore	Yes	Yes	Several, unspecified		Yes	*kat* (*Macaranga aleuritoides*)
Bernard	Call *inavu* near the shore	1 day	Yes	*inavu*		Yes	
Wilson	Call octopus						[Secret name] (*Trevesia* sp.)
Shane	Cause fish to school rather than disperse	Yes	Yes	Several, unspecified		Yes	*kainarum*: Hauili fig tree (*Ficus septica*)
Gideon	Clean the sea so other magic will work			Several, unspecified			*vungkitas*

[Continued on next page]

Fish caller	Short description	Fasting	Song	Fish	Birds	Anit	Plants
Alphonse	Feed *inavu* so they will be tame and remain near by	3 days	No	*inavu*		No	*vunvun*
Wilson	Feed *inavu* so they will be tame and remain near by	Yes	Yes	*inavu*		Yes	*vunvun*
Alphonse	Feed *inavu* with specific sand for them to remain near by	3 days	No	*inavu*		No	No
Wilson	Feed *inavu* with specific sand for them to remain near by	Yes	Yes	*inavu*		Yes	No
Gideon	Make fish 'bunch together' rather than spread out			Several, unspecified			*marokot*
Willie	Make fish only bite own hook; prevent others from catching fish	No	Yes	Several, unspecified			No
Pasingan	Make fishing nets and lines effective		Yes				*toi*
Jonah	*Makinga* (rub) a weapon to make it precise and powerful	Yes	Yes				Yes, unspecified
Nelson	*Makinga* (rub) to make canoe or spear effective	Yes	Yes			Yes	*moi tanglik*
Bernard	Move fish from one area to another (agonistic)	Yes	Yes	Several, unspecified			Yes, unspecified
Pasingan	*Pakakit* (fix the fish, hold them there)	Yes		All	Yes		*ringtamani*
Lapan	*Pakakit* (fix) *aruma* near shore	1 week	No	*aruma*		Yes	*amas makuk*
Alphonse	*Pakakit* (fix) *inavu* near shore	3 days	No	Several, unspecified		No	*amas*
Gideon	*Pakakit* (fix) *inavu* near shore	1 month		*inavu*			*sarak*
Pasingan	Reinforce lungs for diving		No			No	*dule*
Pasingan	Reinforce a net before first use		Yes				*sese*

6.3 *Vau*: fish-calling as a relation

A central concept for the understanding of fish-calling is one called *vao*, *vaou*, or *vau* (pronounced with an emphasised diphthong: [βa͡o], almost [βaa͡o], which is why transcription is hesitant). This concept embodies multiple levels of significance that weave a rich, detailed, and highly relevant anthropological tapestry of human-fish relations on Lavongai.

In an article written by the two Lavongai-born scholars Tukul W Kaiku and her son Patrick K Kaiku, four 'examples' of 'indigenous knowledge' are described, one of which is called 'fish nurture', 'fish farming', or 'sardine farming' (Kaiku and Kaiku 2008). What these names refer to is precisely what I have termed 'fish-calling' since they write of the 'Lavongai person who nurtures sardine (*inavu*) or any fish species for that matter' (Kaiku and Kaiku 2008, p 63). They base this article on their own knowledge, and refer also to discussions they had, in their home villages of Meteran in Southern Lavongai, with a practitioner named Gregor. In this, they explain the importance of the concept of *vau*, and offer several definitions of the term. A first polymorphic definition is found in the section about *manteng i masung* 'practices for producing satiety' (see Sub-section 4.3.3):

> *vau* is used interchangeably to mean *a 'vessel'* from which the *anit* [spirit of a deceased man] can easily emerge when summoned. So [...] [the man who has knowledge of *manteng i masung*] is the complete embodiment and intermediary of the art of *manteng-i-masung*. He is said to have attained the *state or level* where he is a host, facilitator and channel of supernatural power (Kaiku and Kaiku 2008, p 61, emphasis added).

Here, *vau* is used as a substantive referring to a person who is a 'vessel' through which the *anit*, the 'spirit' of a deceased man, can 'emerge'. The term is also used as an adjective, referring to the quality of such a person when he has attained the 'state or level' which confers upon him this quality. *Vau* therefore indicates a degree of mastery in magical practice.

In another section of the article, Patrick and Tukul Kaiku describe fish-calling and emphasise again the importance of the notion of *vau*: 'the enlightened man *vau* [...] is literally a half-man, half-spirit.' (Kaiku and Kaiku 2008, p 63). In this passage, the *vau* man is no longer a 'vessel' for another invisible being (the *anit*), rather he *himself* is 'half-man, half-spirit'. A few pages further they write: '*After the first successful appearance* of the sardine or fish under the care of a traditional fish nurturer, he immediately acquires the *vau* (half-spirit, half-man) status. This means that he has unlimited power within his human body to summon the fish.' (Kaiku and Kaiku 2008, p 65, emphasis added). *Vau*, in this passage, appears as a state that a ritual practitioner does not have inherent in him, but which he is said to be in only *after* he has performed the necessary preparations, that is, when he has performed all the required actions of fasting, fetching the needed plants and reciting the required songs, and after the fish have shown themselves in return. Thus, *vau* is associated with specific behaviour on the part of the animal, not only on the part of the person. This is confirmed in the following passage: 'The fish that adhere to the call of their nurturer are known as Maltamana. The fish hear or feel the presence of their nurturer and promptly find their way to the place where the *kaning* [previously defined as:

"herb mixtures that are sensed by the fish" (p64)] was transplanted under the *ngoto* (piled stones/boulders on the reef)'. (Kaiku and Kaiku 2008, p 65). The fish-calling magic effects a transformation in the fish, as well as in the human practitioner.[10] We now learn that the *specific* fish that 'adhere to the call of their nurturer' have a name, *maltamana*, which can be analysed in the following way:

(6.2) *mal-tama-na*
[?]-father-3SG
'his father [?]'

This is a key term to grasp in order to understand the practice of fish-calling. When I discussed its meaning with people in Metevoe, they said that its most common use is to qualify a child who is displaying a behaviour evocative of his father's own actions. In other words, if a boy is adept at some task that his father performs well, then the boy is said to be *maltamana*. It is also used to mean the boy is 'well behaved' and 'listens [to instructions from adults]'. Applied to fish in the context of fish-calling, one of my closest interlocutors in Metevoe explained the dichotomy between fish that are *maltamana* and those that are not in the following terms: 'Indeed, the fish that has a father, that one is *maltamana*. The fish that are just spread out are just wild fish, all over the place, they don't have a father.[T59]' (Melis, 29 July 2023). The relation between the fish-caller and the 'nurtured' fish is therefore conceptualised similarly to that between father and child.We previously saw (Sub-section 3.1.4) that in Lavongai society, the role of the father is depicted as being one of *aiveven* (taking care, looking after). Melis stated of *maltamana* fish, that 'somebody is looking after them[T60]'. He then insisted on the importance of feeding, of nurture: 'They [fish-callers] keep feeding them, in the ways that are used to "work" fish, with sand and those things.[T61]' (Melis, 29 July 2023). Practitioners of fish-calling magic whom I interviewed described the plants they placed in the water during these magical activities as 'food for the fish'. This was the case even when the species involved were not specifically noted for being plant eaters. For example, *malus* (the Bigeyed Scad, *Selar crumenophthalmus*), which the Lavongai themselves know full well to feed off crustaceans and smaller fish larvae, is nonetheless 'called' by enticing it to eat plants.

The terminology of 'nurture' is also used several times in the article:

> To acquire and replicate control over the reproductive and *nurturer role* of Mother Nature, a series of rituals must be performed and plant species must be used. [...] The human agent acts as a *nurturer* when he establishes or erects the *ngoto* (piled reef stones/boulders) on the reef and locks (*ngoms*) the herbal mixture under the pile of reef stones/boulders. (Kaiku and Kaiku 2008, pp 63-64, emphasis added).

The fact that the action of calling fish is likened to that of feeding or nurture is highly significant since the 'nurturer-nurtured' relationship is one of the conceptual pivot-points of social life on Lavongai (as elsewhere in the region, see Clay 1977; Foster 1990), and as demonstrated in previous chapters (Sub-section 2.2.3), it is the cornerstone of the *palunsava* clan-pairings that structure the island's society.

10. These kinds of transformations can be analyses as impacting the physical properties of the fish and humans, and by this their behaviour. I will return to this topic in detail in Chapter 8 and also in Section 9.3.

Reciprocally, the term *maltamana*, when used regarding a son, also implies 'good behaviour' on his part, he should be 'good' and listen to his father. Indeed, Melis also stated that: 'All they [fish-callers] need to do is call the fish, and they will come close by.[T62]' (Melis, 29 July 2023). In other words: the *maltamana* fish listen to the call of their fish-caller as a child should listen to the words of his father. This brings us back to the concept of *vau*: the manner in which this binds together the fish-caller and those *maltamana* fish, the ones that 'heed his call'—to paraphrase P and T Kaiku—was reflected in remarks that Laimen and Julius made in 2022. These two men are not, themselves, fish-callers, but were close interlocutors during my fieldwork. When I asked them what they considered *vau* to be, Laimen first gave a similar definition to that found in the article: 'a man who knows some things very well, who has a lot of experience'. When I ask if they meant that statement in relation to 'customary practices' (*wok kastom*), they acquiesced: 'there are people who are *vau* for *inavu* [herrings, *Herklotsichthys* sp.]' (Laimen, 15 April 2022), meaning: 'concerning the magic for calling herrings'. They also explaining that the state of condition of being *vau* bonds together a specific man and specific fish. Indeed, the fish which 'heed the call' of the ritual practitioner can themselves also be said to acquire a *vau* quality. This term therefore refers to the state of practitioner and *maltamana* fish *together*, insomuch as they are *linked* through the magic of fish-calling. Laimen explained:

> the fish that are *vau*, those that have eaten the plants that the man gave them, they don't get killed when you fish. […] Those fish come when you call them, and they bring with them many others that are not *vau*. When you go down to the sea to fish, the ones that are *vau* go away, they go somewhere else, and the ones that you catch are the stupid, the ignorant ones [meaning 'those that are not *vau*'] (Laimen, 15 April 2022).

Therefore, the fish-calling practices create two 'categories' of fish, just as they create two 'categories' of men, those who are, and those who are not *vau*. Between the man and the fish, a type of bond is created by these 'feeding' or 'nurturing' practices that endures over time. Julius continued: 'an important man […] knew how to *atu inavu* [bring sardines to the shore]. Between the times when he called them, the sardines would go elsewhere but they were *vau*, so he could call them back any time' (Julius, 15 April 2022). This statement portrays the quality of being *vau* as a form of 'remnant power', something that is latent in the person or the fish even when the magic which enacts it is not being performed, but which can be 'awoken' at any time. Another fish-caller spoke of *vau* as being a form of 'memory', of reminiscence, and pointed to the fact of having long ear-hair as a visible sign of being *vau*, since it is said to come with age.

A fish-caller I shall be calling Jonah spontaneously used the term *vau* when we were discussing the fish-calling magic that he knew. I wrote the following in my notes: '[This song is one that you] sing at night, either on the shore, or in your canoe, to make the fish used to your body, your person. [When this happens,] it is called *vau*: the fish know you.' (Jonah, 10 February 2022). He also confirmed independently the general facts that Julius and Laimen had explained about *vau*: 'Well, you dive near… the things [fish], they know… they know you, right! Because, it… for us, in our vernacular language here, in Tungag, we see it as "*vau*".[T63]' (Jonah, 10 February 2022).

He told me that *vau* refers to the fact that the marine animals 'know' the fish-caller. He emphasised the shared medium in which the two evolve when he spoke of the person diving in the water, and insisted on this moments later: 'It's like this: when you… when you become *vau*, you dive in the sea, you see… see fish following you in the sea![T64]' (Jonah, 10 February 2022). This statement is notable because it draws our attention to the physicality of the interaction. There is usually no contact between the fish-caller and the animals involved. The majority of the practices used for fish-calling are carried out on land, and only the plants that are used by the ritual practitioner are placed in the water for the fish to smell them, or eat them. Despite this, the fish can sense the *vau* quality of the fish-caller when he enters the water to dive. Laimen and Julius also mentioned this physical aspect of *vau* when he states that *vau* 'really is a thing to do with the person or the fish's *body*. Once the magic has been performed, the man is *vau*'.

Gotan is an inhabitant of Metevoe who explained that he had participated as an assistant in fish-calling activities, without himself claiming to be able to perform them. He said that, in the context of fish-calling: 'the body of the fish has slime on it[T65]' (Gotan, 19 July 2023). It is this slime (*raping*) that causes non-*maltamana* fish which are near to *maltamana* ones to be drawn towards the shore also, through a type of 'contagion'. This substance comes from the plants used during the magic: 'the strength of the plants is fastened to the body of the fish, and they go near other fish and they pull them.[T66]' (Gotan, 19 July 2023). They draw the other, non-*maltamana* fish to the shore, and it is those that can be caught.

He continued by saying that this powerful substance can also influence people, and this explains why the fish-caller does not allow anybody to fish when the first of the called fish appears near the shore. Indeed, at this point: 'the strength of the plants is still present on the fish's body.[T67]' (Gotan, 19 July 2023). It also means that after the magic has been completed, the men who have participated must be 'cleansed' of the slimy substance: 'the slime from the plants is on the fish's body, and us like them, it gets on our body.[T68]' (Gotan, 19 July 2023). Thus, when the fish-caller decides that it is time to fish, he washes the bodies of the men who participated with water that has had magical plants infused in it.

Jonah also told me that fish are attracted to a person who is *vau*, even stating that this can be true to the point of excess. Indiscriminate, excessive use of such magic can cause many kinds of marine animals to be 'attracted' by the fish-caller's *vau* quality, not only the fish he intended to influence by using the magic. Jonah explained this by taking the shark and 'sea snakes' (moray eels, or possibly sea kraits) as archetypical examples of 'bad' marine animals: 'However, it can be a bad thing. […] When you dive, all kinds of fish. Sharks swim inland after you. Snakes from the reef edge, truly bad fish.[T69]' (Jonah, 10 February 2022). The key, he then explained, is in the correct use of such knowledge, in the adequate dosage. Used too much, it is dangerous—it could attract 'bad' creatures—but used 'within reason', that is not the case: 'But it is not like it searches for you that much, when you […] do it too often, all the time, just a few [times], [you would have to do it very often] to really attract all kinds of things.[T70]' (Jonah, 10 February 2022).

The term *vau* therefore carries contrasted significations that do, nonetheless, converge into a coherent whole. In a sense, *vau* is untranslatable. It is one of those key concepts onto which attempts at definition founder, and precisely for this reason, because it is an

ethnographic puzzle, I believe it has much to teach.[11] Unravelling the multiplicity of meanings in such pivotal concepts points towards their cultural value and importance. *Vau* calls to attention the manner in which Lavongai people intertwine multiple aspects of their relations with marine animals, because it is all at once:

For men	**For fish**
– *quality* of specific men who are 'seasoned masters' of magical practices	– *quality* of specific fish that heed the magic of a fish-callers
– *state* of a man (and/or of his body) while magic is being used	– *state* of the fish who are eating the food of the fish-caller

Vau weaves into a tight nexus the concepts of *nurture* (feeding the fish, feeding people with fish), extraordinary *power and knowledge* (the ability to perform magic), and *relations with ancestors* (the *vau* man as a 'vehicle' for the *anit*).[12] Exploring this nexus is one of the central enterprises of the present thesis, and if *vau* is to illuminate it, many secondary questions need to be answered: how does fish-calling magic fit into and compare with other practices that can be viewed as 'magical action'? How does the relation to fish developed through fish-calling compare with others, in particular those with hunted animals, or with domesticated animals? What are the conceptual and ontological underpinnings of the state of *vau* which can be reached by certain men and certain fish? In what way are the *anit* mobilised, spoken of, and related to? I will address those questions in turn in the following sections.

6.4 On magical action

Fish-calling is one of several similar forms of magical action. First, it might serve to recall an important point that has been largely agreed among anthropologists for some time: that magic, sorcery, witchcraft, or bewitchment are essentially particular manifestations of a same phenomenon, distinguished mainly by the benevolent or malevolent nature of the practitioners aims (Evans-Pritchard 1937, pp 387–389; Firth 1938, pp 153–154; Tambiah 1990). From the perspective of the Lavongai people, these are very different things, as it is not the same for them to attempt to use a piece of hair or a nail clipping off one's

11. The philosopher Barbara Cassin has shown how 'untranslatable' terms often point towards key concepts in her discipline, and I believe the argument applies equally well to anthropology. Of course, nothing is rigorously 'untranslatable', but by this Cassin refers to terms that have complex yet unified semantics in one language, and cannot be rendered in a similarly unified way in others (2014).

12. There is also a degree of ambiguity that stems from the discourse on *vau* that multiple interlocutors have: some present it at a quality which magicians attain after rigorously following the fasting and other procedures involved, and which they keep even after the magic has finished; whilst others consider it to be a state that the magician is in when practising his magic. These are not incompatible however, and I believe the notion covers both conceptions.

neighbour to make him or her ill through 'black magic', and to use incantations to ensure one's garden grows well. However, the Lavongai people do relate these practices inside a common semantic field which includes:

- *maras*: 'poison'; but also 'magic';
- *amaras*: 'to poison', 'to perform sorcery', but also 'to perform magic';[13]
- *tangam*: literally 'to sing', used to mean 'sing upon something' to refer to the action of singing a song that gives magical properties to a plant, a tool, or lime (*kap*);[14]
- *lingan*: 'formula', 'recitation', 'to pronounce a formula'; and
- *makinga*: 'plant that can be rubbed to impart magical properties to something', 'to rub a plant on something to impart magical properties to it'.

Although this vocabulary is not always specific to magic (*tangam* and *lingan* can also be used for non-magical songs and formulas), it does serve to specify somewhat the domain of 'magic' (and sorcery).

As we have begun to see with fish-calling, the criteria through which magical action is distinguishable from 'ordinary' action are *power*, *ability*, and *knowledge*. That which is considered to be (more or less fairly) an average ability, one that all people should possess, that is shared by most, is not magical. That which requires some extraordinary power, ability, or knowledge is. Let us consider a situation in which somebody on Lavongai resorted to this very word, 'magic', in English, to explain his thinking. As Melis and I were passing by the house of a man named Ken, in late 2021, the latter had recently found a stone adze buried in the undergrowth while cutting the forest in order to start a new garden. He showed Melis and I his finding, and Melis commented: 'The ancestors used to cut the forest with this. But look at it: it is impossible to cut a big tree with this if you don't have some powerful "magic" [in English]. The ancestors didn't go to church, but they made miracles with their ginger. I know how to do that too, for some things.' (Melis, 21 December 2021). The key notion here is that of the 'impossibility' of the task. Melis has his conceptions, based on experience cutting trees with steel tools, of what is and is not possible to do with stone ones, and his reasoning would no doubt be shared widely on Lavongai in this regard. Therefore, since he also knows these tools to have been used in that way, the only conclusion is that there must have been something extraordinary that the ancestors used to make the impossible happen. To him, magic is a knowledge base which makes impossible tasks become possible. Here, he speaks of knowing how to wield ginger, which is a key plant-element in many magical activities: one must know how to collect it, which type, where, when, must know the chants to use in order to give it power. All this is what enables a magician to 'perform miracles', to *do* magic. Another point of note in this statement by Melis, is the fact that he spontaneously draws a parallel between

13. Overwhelmingly, nowadays, Tungag speakers use *maras* and *amaras* in a negative sense to refer to poison, sorcery, or nefarious magical action. However, this is not the only meaning of the term: Dali, an older woman from Metevoe, once explained that a deceased man called Saling practised beneficial forms of magic by saying *igenen maras ta Saling: amaras matang, amaras kauvek…*, 'Saling was a magician: [he could perform] magic for the garden, magic for dogs…' (Dali, 1 August 2023).

14. People say, for example: *tangam niu ani mang sikei a vongho lomoi*, 'sing over a coconut for a misbehaving pig' or *tangam kap ani natlik malepen*, 'sing over lime for a sick child'.

'magic', which he identifies with the ancestors, and modern-day church-going, which in effect is implicitly depicted in this quote as being a comparable source of power.

Language specific to the domain of magical action is also found in the story of Osprey and Brahminy Kite. Lumaias introduced his narration by the following sentence:

(6.3) *Kipang ka-ta asiang a Mar ta uri i maiak*
Kipang 3SG-PST involve OBJ Brahminy.Kite OBL specific.plant GEN fishing
'Kipang initiated Brahminy Kite to the plant for fishing.' (Lumaias, 21 July 2022).

Lumaias used the word *uri* to describe what Kipang was initiating Brahminy Kite to. This refers—usually in the reduplicated form *uriuri*—to short plants, especially grasses. Here, I do not believe it refers specifically to this type of plant, but rather that it is used as a metonym to mean 'some kind of plant'. Tungag speakers often refer to specific things by way of euphemisms, parabola, metaphors, and roundabout descriptions, rather than a single word, even when such a word exists, and the more emotionally, socially, or conceptually charged a concept is, the greater the chance becomes that a person will make such an oblique reference to it, instead of calling it by its name. Magic is a prime example of this. Ginger is hardly ever called *mai* in magical contexts, this precise name being substituted by the much more generic *um*,[15] which means 'stand' and is used to describe any bunch of plants for which the most relevant part grows under the ground, and that has multiple stalks coming from one place, such as sweet potato or ginger (see below, Sub-section 6.4.1).[16]

The vernacular terminology relating to magic emphasises the reliance that such practices have on certain objects, usually plants, and in particular on ginger—especially when the magic is socially valued, rather than considered 'evil'. It also tends to depict 'magicians' as knowledgeable individuals who hold certain specific abilities, and are accustomed to manipulating specific things. However, nearly all speech relating to magic is oblique and makes use of euphemisms, metaphors, and diagonal references.

There is another aspect of the local conception of magic that must be considered. Since magic is not without bounds, and since there are not an infinite number of ends that can be met with magical means, what do people on Lavongai consider that magic can be used for? Asking a question of this type directly in Metevoe yielded a very clear and rather limited set of enterprises for the success of which people deemed magic to be useful, if not indispensable. These were the following:

- 'Fish calling' (*atu ien*);
- Preparing feasts (*manteng i masung*, Sub-section 4.3.3);
- Preparing hunting dogs (*solo kauvek*);
- Gardening (*itoiton matang*);
- Dancing (*mikamika*, Sub-section 4.1.2);
- Protection from evil or misfortune (*babat*);

15. This is a form of 'hidden speech' that is sometimes referred to in Tok Pisin as *tok bokis* and is common throughout the region.
16. The word *um* contrasts with the related word *tum*, which also glosses as 'stand', but which is used for plants that grow in bunches with long stalks, for which the emphasis is less on the subterranean parts, and more on the aerial. This is the case of sugarcane or banana.

- Healing (*malepen*); and
- Love magic (*malira*[17] or *pupulu*).

The inclusion of healing here is with good reason. First of all, the Lavongai people quite unanimously included this in our discussions about which actions can be aided by 'magic'. They are all part of the same form of action; they are all traditional forms of knowledge that are the subject of a shared belief in their efficacy. In short, they are all one form or another of a technique in the Maussian sense of 'an action which is *effective* and *traditional*' (Mauss 1935, p 75, emphasis in original).

Although magic is inherently secretive, I was able to obtain information on these activities by discussing fish-calling in depth with several practitioners—as previously described—through participant observation in the preparations for the feast organised by John Balane (see Sub-section 4.3.3), by observing the magical preparations for a dance (see page 174), as well as through discussions both with specialists (in particular of gardening, hunting, and healing magic), and discussions with non-specialists about the more 'public' aspects of magical activities. Another important source of information regarding plants used for healing practices is a 1983 article that lists the 'Traditional Medicinal Plants of New Ireland, Papua New Guinea', part II of which is dedicated to 'New Hanover Island'.[18] Through all these sources of information, several key facts concerning magic emerge.

First of all, as far as I could tell from my position as a man investigating in the context of a relatively strict gender separation, magic is the purview of men.[19] Almost all men do claim familiarity with some form of magic used for healing, or gardening for instance. However, there are, for each of these, certain well-known specialists, who may be asked to perform a magical task by other less knowledgeable or less confident men. This can be done as a favour or against payment (usually in food and betel nut and occasionally for small amounts of money). Groves also reports that, on the island of Tabar, people paid specialist magicians in the context of collective fishing enterprises, similarly to what I observed in *manteng i masung* feast preparations on Lavongai (1934). In Tabar, this was

17. According to Mihalic, the word *malira* or *marila* is Tok Pisin and originates from languages of the Gazelle Peninsula (1971, p 130). However, he specifies in the preface to the dictionary that words marked as coming from this area of New Britain are often also found in the languages of New Ireland (1971, p 56). My interlocutors in Lavongai use the word as part of Tungag, with no impression that it is a loanword. For this reason, I believe it is likely that is was present in Tungag before the appearance of Tok Pisin.

18. This article, published in the *International Journal of Crude Drug Research*, was produced as a collaboration between chemists from UPNG, local health workers in Taskul (East Lavongai), and researchers at the Lae Herbarium who identified specimens collected on Lavongai (Holdsworth, Pilokos, and Lambes 1983).

19. In many parts of Papua New Guinea, accusations of sorcery are, nowadays at least, levelled more often at women and can lead to severe abuse, torture, and assassinations. This is known under the appellation of 'sorcery accusation related violence' (SARV, see Forsyth 2015). There does not seem to be any straightforward explanation as to why 'magic' or 'sorcery' are considered to be more the purview of men or of women in different societies in the region. Forsyth and co-authors conducted a four year in-depth qualitative and quantitative study of SARV in Papua New Guinea and found 'distinct gendered patterns of [sorcery-related] accusation in different regions. The gender split of victims of accusation incidents across all provinces borders on even (46 per cent female). However, there is a considerable variation among provinces, ranging from 16 per cent of the accused being female in Bougainville to 93 per cent in Enga.' (Forsyth *et al.* 2021, p 2). I would surmise from my own experience that the percentage is far closer on Lavongai to that of Bougainville than to that of Enga.

done as much as a means of ensuring the magicians would *not* use their magic to hinder the fishing, as it was to ask them for active magical assistance in the matter (Groves 1934, p 444). This applies to Lavongai feast-preparation magic, since an element of antagonism is always feared in that context (Sub-section 4.3.3). It also exists in fish-calling, since there are procedures that can be used to 'move the fish away' from one place, should there be reason to do so. This was associated in the discourse of fish-callers with a guardian-like role on their part; they would move the fish if somebody had done a 'bad' deed. It was also associated in some instances with the notion that fishermen could be 'stealing fish', meaning that such antagonistic magic which could move fish away might be used against people whose right to fish there were contested, in particular those from far away villages. This is a possible explanation when somebody fails to catch fish: they might then suggest that it was because another person had performed agonistic magic to keep the animals away. If a fish takes the hook but is lost on pulling it up, this is systematically attributed to the action of a third party on land. *Singai* or *sisingai* is a verb that, literally means 'to shout' or 'to call out'.[20] This term also refers to a sort of 'curse': if somebody calls out a person's name when he or she is fishing, then the fish that is on the hook will escape, or some part of the fishing equipment will break. This can be accidental—for instance if somebody asks where a person is by calling them by name in their absence[21]—or it can be intentional, as done in particular when there is jealousy between fishers.

6.4.1 Plants in magical action

Knowledge of magic in general is often equated with 'having' a specific plant, meaning having knowledge regarding its selection, collection, and use. A person might say, for instance: *nate toron a ei ti uok kauvek*, 'I have a plant to "work" dogs [ie make them into good hunters]'. Indeed, to my knowledge, practically all magical activity on Lavongai involves at least one plant, and usually several. Appendix J presents the list of plants that are associated with a form of magical actions either by my interlocutors, by Holdsworth, Pilokos, and Lambes (1983) or Roberts (2024).[22] This shows that plants are rarely used for several magical aims, since only 11 out of 68 named plants are used in more than one type of magical activity, and only 8 are used for multiple aims inside a single type, for a total of 17 plants with multiple uses. Here, there are two important limitations however. First, it is possible that plants listed below could be used in certain magical practices without anybody having told me. For example, only two plants were explicitly named as being used for gardening magic, however, many more exist that were not named but referred to only vaguely, by terms such as 'a type of vine' or 'a kind of tree'. Second, since I was unable to identify many of the plants, and did not even see a number of them, some of the

20. Although *singai* is understood in the southern dialect to mean 'to call, to say something', it is hardly ever used there and speakers of the southern dialect associate it with the northern one. Speakers of the southern dialect will prefer the term *songo*, which is a synonym that is used in all dialectal variants, and has identical meaning.

21. Recall that it is considered 'rude' in Lavongai to refer to a person by their name and that being polite rather requires the use of the adequate kinship term; see page 99.

22. The reader is encouraged to consult this appendix where necessary while reading the following pages.

different names that are listed in the table may in fact refer to the same plant.[23] Indeed, there are plants on Lavongai that have several names, which will be used depending on the context in which they are employed. Thus, in both cases, the number of plants with multiple uses would be increased, and the figures given here should be read as minimums.

In any case, the exceptions—plants that are used for various aims or in various types of magic—allow for insight into their role more generally in magical action. The one which stands out the most for being used in five of the seven types of magical activities and also for having the highest number of possible uses for healing, is ginger (*mai*, *Zingiber officinale*). On Lavongai, as elsewhere in the region (Biersack 1982; Bau and Poulsen 2007; F Panoff 2018, pp 131–132), and more generally in New Guinea, ginger is the quintessential 'magical plant' (as discussed on page 288), and Roberts even writes of one of his interlocutors explaining that 'ginger (*mai*) is like "the amoxicillin of the bush,"[24] and […] it is used to treat all kinds of issues ranging from skin infections to stomach troubles to muscle aches.' (2024, p 106).

The perceived ultimate efficacy of ginger in the local magical repertoire is also linked to one of the key factors that Lavongai people consider to yield magical potential: temperature. Ginger is regarded as a 'hot' plant, which is related in their view to the pungent taste of its root. More generally, many healing actions involve heating or cooling parts of the body. This can be done by applying a plant to the skin that has been heated over a fire (an action known as *tun* when done in particular with a plant leaf). Roberts also noted this manner of using plants for healing (2024, p 97). Other magical actions explicitly aim to raise the temperature of that which is being acted upon: dogs noses and innards should be 'heated' so they will be 'angry' and 'bite at pigs' during hunting, for instance, and this is why they are given irritant or outright toxic plants (albeit in small quantities) during the magical actions aiming to make them into 'good hunters'.

Another such plant that has many uses in magical contexts is *bau* (the cassowary plum, *Cerbera floribunda*). Indeed, Holdsworth, Pilokos, and Lambes note that it is used for the treatment of malaria and blackwater fever (in combination with ginger), for expectant mothers to assist delivery of the child, for relief of hepatitis, for the treatment of gonorrhoea, and combined with other plants to increase fertility. This amounts to a total of five different healing uses (as many as were given for ginger, although the latter has uses outside of the healing category which is not the case of *bau*). Almost all parts of this plant are in fact toxic to humans, especially the seeds, and the white milky sap is irritant even to the

23. The opposite confusion, where a single name might refer to several plants is also quite possible. In order to ascertain to what degree vernacular names of plants are mono- or poly-specific from the perspective of scientific nomenclature, greater efforts in plant identification would be required, which were not a part of this study because of the limited time and difficult field conditions involved.

24. Amoxicillin can indeed be a truly life saving medicine: a wide range of bacteria are sensitive to it, and it is very safe. However, to fully comprehend this remark, it must be noted that the aid posts around Lavongai are so poorly stocked and that the inhabitants have such a limited understanding of the workings of pharmaceutical products, that this one substance that is often available, 'amox'—as it is known—has come to be seen as a form of panacea. I received many requests from people in Metevoe to provide them with 'just one little pill' of amoxicillin, for complaints ranging from tropical ulcers, to back pain, shoulder aches, and even headaches. Needless to say, I honoured very few of these, but provided what care I felt most appropriate.

skin (Forster 1992; Quigley and Fenwick 2019), which again, suggests an association between the 'heat' caused by the plant (irritation), and the magical properties which Lavongai people attribute to it. Holdsworth, Pilokos, and Lambes (1983, p 164) also cite a dictionary of plant uses (Usher 1974) that lists the cassowary plum as being used for poison fishing in the Marquesas, in French Polynesia. It was not listed as an ichthyotoxin by any of my Lavongai interlocutors, nor as a plant used for fish-calling.

Another plant that is notable for its use in multiple types of magical action is *tua tanglik*, what locals consider to be an endemic derris plant, as opposed to *tua siapan* (literally 'Japanese derris', *Derris elliptica*) which they see as a more recent introduction.[25] The epithet *tanglik*, Osprey, associates this plant with fishing. Indeed, this animal is an exclusive and highly visible piscivore (Figure 6.1). Lavongai people who describe the plant and name it also explicitly mention that this nomenclature refers to the myth of *tanglik* and *mar* which I recounted above (Section 6.1) in which the birds learn from a humanoid ancestor which plants are needed for fish-calling. The fact that this type of *tua* is named after the bird of prey echoes the dual nature of the plant's action—both toxic and magical—in the context of fishing.

Still another plant has the same epithet, *tanglik*, as part of a binomial: *moi tanglik*. *Moi* are types of algae (unidentified), of which Lavongai people distinguish two kinds: 'plain' *moi* comes in small clumps and has small leaves, whereas *moi tanglik* has larger leaves and forms bigger clumps. *Moi*, as described previously (on page 244) is used in canoe building. *Moi tanglik*, on the other hand, is not used for this purpose but is part of the list of plants some men know how to use for fish-calling magic. This was also explained to me when I heard a rendition of the myth of *tanglik* and *mar*. Hence, here again, an association is drawn by Lavongai people between *tanglik*—the fisher *par excellence*—and fish-calling magic. The 'fisherman-fisherbird' association fits into the symbolic system of the Lavongai people insomuch as the clan system itself draws correspondence between people and birds (a topic already introduced in Section 2.1 and which I will explore in more detail in Chapter 8).

As for *tua*, it is a very versatile magical plant, being mentioned in four out of seven different types of magic, including for fish-calling, feast making, preparing hunting dogs, and gardening. This is no doubt linked to its potent poisonous nature (for marine life as well as humans, see page 188). Indeed, part of the rationale of magic for making dogs hunt is to make the dogs 'angry' so they will 'want to bite pigs'. For this purpose, the plants that are selected are deliberately ones that are considered to be *makarik* (irritant, rough). Similarly, in *manteng i masung*, the coconut water preparation that is made with many plants—including both kinds of *tua*—and sprinkled on the uncooked tubers before they are placed in the oven is said to be aimed at causing people to feel satiated (*masung*) after eating only a little food. The local reasoning is here that the poisonous nature of this plant

25. The name *siapan* which is the local pronunciation of 'Japan', might suggest that people believe the plant to originate from that location, but this is not the case, since the only suggested provenance I was given was New Ireland mainland. In fact, *siapan* is used here as a reference to the Japanese occupation during World War II. Because of the violence of the encounter between locals and Japanese soldiers (Section 1.2), the name has become a generic denomination for something that is considered dangerous or very strong.

makes it also be 'powerful' and that using a very small amount will cause no harm, but on the contrary makes it possible to harness the power of the plant.

All 48 other plants are involved in magical activities in ways that appear to associate them tightly with a specific use. Aside from ginger—the only true 'magical panacea'—and the handful of other examples given above, there are few truly multi-use magical plants on Lavongai. This is coherent with the conception that a plant's magical use is 'inherent' to it, through its morphological traits (shape of the leaves or fruit; colour of its sap, etc.) or because of some property that singles it out among others (powerful toxins, seasonal variations, etc.) It is also related to the fact that certain plants are not widely known to have a certain use in magic but are used only by a single or a few people in quite a 'personal' way, acquired through empirical investigation of their effectiveness within the conceptual framework of magical reasoning (via the similar aforementionned analogies in shape, colour, etc. or by perceived powerful characteristics of temperature or toxicity). The secretive nature of magic also means that transmission from generation to generation is very restricted, which limits the number of uses known to exist for a plant.

Other aspects of magic can be understood thanks to the reaction that people had to my participation in the magical preparations for John Balane's feast. Several villagers made comments about this indicating it had surprised, amused, or confused them, drawing attention to the ambivalent nature of the practice of *manteng i masung*. After the feast was over, Hilary Balane, a man from Metevoe—the *tipasig* (sister's son) of John Balane whose name he carries—sat next to me and thanked me profusely for my participation in the magical work to prepare the feast. Talking very quietly, he said that a lot of people were wondering *iu wanem kain man?* (what kind of a person I am), and explained himself in this way: 'people who look after the ovens [with magic] are forest people who haven't gone to school, but you have gone to school, a lot! And so you shouldn't be doing this.' What Hilary Balane is saying here is that 'magic', although considered important, and valued, is a thing which only 'backward', 'uneducated' people from the 'bush' truly know about. He then added, breaking into a laugh: 'When you go away, you're going to bring all the Lavongai *tewel*,[26] all our *anit* [ancestor spirits], with you.' (Hilary, 14 January 2022). This calls attention to another aspect of magic, that which 'gives its power' to magical action: the *anit* or 'ancestor spirits'.

6.4.2 *Anit*: spirits of powerful, knowledgeable ancestors

Anit is generally translated vaguely as 'spirit' both by Lavongai English-speakers and by linguists (KE Fast 2015, p 212). It is undoubtedly a reflex of the Proto-Oceanic reconstruction **quanitu*, about which Meredith Osmond writes: 'We can be confident that POc **qanitu* (from PAn **qaniCu* "ghost, spirit of the dead") referred to "ancestral spirit"'. (Osmond 2023). In places around New Guinea, missionaries also chose to adopt cognates of *anit* from the local vernacular languages to refer to God in their bible translations and sermons (Pech

26. This Tok Pisin word refers to the 'soul (especially of a dead person), a spirit, a devil.' (Baing and Volker 2010, p 108).

1985; Tryon 1994, p 705; Stewart and Strathern 2001, p 96). Lutherans, more specifically, used the word *anutu* (Capell 1969, p 156).

Lavongai people use the term quite specifically to refer to the spirit of a specific deceased man (not a 'vague' spirit, but that of one named man) who had some particular power or ability during his life, and who is still in communication with the living.[27] Practitioners of magical action will call upon an *anit*, sometimes by naming them explicitly, in order to give power to their magic. In this way, the word can be used verbally:

(6.4) *Ka-te* *anit* *ta* *laba-na* *ta* *Pasingan.*
3SG-CONT spirit.of.dead.man OBL mother's.brother-3SG.POSS OBL Pasingan
'He is [giving power to an action by] calling on the spirit of his mother's brother Pasingan.'

The man who is called upon as an *anit* has usually died recently, at most a few decades ago. Most men who 'have' an *anit*— meaning who are in a position to call upon such a deceased man—did not name the person in question for me. In a few cases, I was given a specific name and therefore learned of the relation between practitioner and *anit*. From these, it appears that men preferentially call upon the *anit* of their mother's brother, genealogical or classificatory (*labag*). In some cases, this deceased *labag* is the one who had taught the rituals, chants, and plants directly to him during his own life time, and he continues to be called upon in the chants after his death. A specific *anit* is called upon because he had a form of magical knowledge in the domain in which the practisioner wishes to enlist the *anit*'s assistance. Lumaias summarised this with two examples:

> Like… If Melis is a man who performs magic to make hunting dogs. He is a man who performs magic to make hunting dogs, [so] he will call specifically upon… his two fathers. Yes. Well, his two fathers, the two of them will give power to the dog, so that the dog bites pigs. That is how things go with *anit*. Well, I call upon Varas, because Varas is [was] a man who heals. […] He told me what I should do. And I call upon him specifically because that's his work. He is a man who can heal. That's it. That is how *anit* is. You cannot call upon a man who doesn't know how to do that particular work. You call specifically upon the man who knows that work. And he gives power to the work you are doing.[T71] (Lumaias, 17 July 2022).

A person can also be referred to as an *anit* while still alive; this is known as an *anit manas* (literally a 'warm *anit*', meaning one who is not dead). This is the case when a magician calls upon an older man, one who is considered to be knowledgeable regarding the type of magical action for which he wishes the *anit* to lend his power. In such a situation, the reasoning is that, by calling upon this *anit manas*, one accesses the power of his deceased *anit* indirectly.

In any case, the *anit* are the crux of the matter wherever magic is involved, in particular in fish-calling. No magician is capable, by himself, of performing magical action without the assistance of an *anit*. Patrick and Tukul Kaiku give the following definition of an *anit*:

27. The term *anit* is not used, to my knowledge, to refer to spirits of deceased women, because the knowledge of magic in question is highly gendered and guarded as a men's prerogative (see page 290).

> '*Anit*' in New Hanover society can be translated as 'spirit'. In Lavongai Island cosmology however,[28] '*anit*' is a supernatural being of the supernatural realm and is said to be an active force of a person, an animal or a plant to enable these to perform miraculous deeds. '*Anit*' is rare and has to be invoked. (2008, p 59, note 2).

I believe that when Patrick and Tukul Kaiku write that the *anit* is said to be 'an active force of a person, an animal or a plant' they do not so much mean that they *are* the active force, but rather that they *give* force to these things: the practitioner, the animal (dog in hunting magic, or fish in fish-calling for instance), or the plants that are used in all magic. Indeed, in interviews, people used the Tok Pisin form *powerim*: give power to, to refer to what the *anit* do within the context of magical action. That they are 'rare',[29] 'must be invoked' and 'enable [...] the miraculous deed' (ie magic) is indeed how my own interlocutors described *anit* also.

Patrick and Tukul Kaiku emphasise again how magical practices are not possible without recourse to the power of *anit*:

> The use of plants or herbal intermediaries must always be reinforced with the appropriate body of rituals or procedural rites that summon the specialist spirit (*anit*) in that particular art. The Lavongai artist believes that in every art or act of beneficial significance to the welfare of humans, there is always a guardian or specialist *anit* that must guide the processes of its self-manifestation. (Kaiku and Kaiku 2008, p 59, note 2).

The authors use the terms 'art' and 'artist' to mean, respectively 'magical activity' and 'practitioner of magical activities'.

When dealing with fish-calling more specifically, the article emphasises the importance of the link that the practitioner must have with an *anit*: 'The fish has a brain and to summon its obedience, the enlightened man *vau* who is literally a half-man, half-spirit must have the legitimate "*anit*" (spirit).' (Kaiku and Kaiku 2008, p 63). Here, the term *vau* is presented as meaning 'enlightened' but also 'half-man, half-spirit'. As discussed above (Section 6.3), the term refers to the state that a man attains when he has reached a high degree of 'mastery' of a magical technique (this is what 'enlightened' should be understood as meaning here). This passage, by linking the *vau* quality of a magician to the *anit*, and describing the former as a state of 'half-man, half-spirit' shows that the power of the magician is tied intrinsically to that of the *anit*. His ability to influence the fish is subordinate ('must have') to the existence of a tie between the man and a dead man's 'spirit', an *anit*. The manner in which Patrick and Tukul Kaiku refer to the fish is also quite specific: they mention the fact that it 'has a brain', which should, I believe, be understood

28. This way of distinguishing between 'New Hanover' and 'Lavongai Island' seems to hint on the one hand to the modern, post-colonial, Christianised society, and on the other to supposedly more ancient, pre-Christian practices and conceptions of the invisible realm. Although there are indeed two names for the island, one vernacular and the other colonial, it is not, to my knowledge, common practice to use the two terms in such contrasting ways. 'Lavongai' and 'New Hanover' appear to me to be used synonymously in everyday speech.

29. Of course, deceased forefathers are not rare, however the specific series of conditions that such a person must fulfill to be an *anit* mean that few dead men can actually be called upon in this way. They must have had some magical ability, which must have been known to the practitioner, and their relation must have been such that the *anit* will 'agree' to assist the magician.

to mean that it is possible to communicate with it, in order to ask it to behave in one way or another. In this way, the fish-caller is able to ask the *maltamana* fish to come close (for example), bringing other 'naive' fish for people to catch along with them.

Brouwer also notes the importance of 'spirits' in shark-calling and distinguishes several types: 'The spirits of ancestors, the wild spirits of the bush, and the spirit of Moroa the creator.' (Brouwer 1983, p 56). In shark-calling, the ritual preparations can make use of 'relics of dead clansmen or women', which is something that a single Lavongai fish-caller also mentioned, saying he had kept teeth of one of his *anit* and ear-hair from the other. Furthermore, Brouwer insists on the involvement of 'dead clansmen or women' in a way much akin to the Lavongai fish-caller's reliance on *anit*:

> [The shark-caller] then begins to chant the names of all his ancestors, beginning with the oldest; as he does so he throws onto the fire small pieces of fish. These ancestors were great shark-callers and he asks their help in catching a shark the next day. […] This method of […] calling on the ancestors is considered to be a form of prayer to the dead to assist their clansman in his efforts. (Brouwer 1983, p 60).

In effect, what is present in Lavongai fish-calling as in New Ireland shark-calling is a chain of perpetuation of knowledge and power. Men learn their magic from their forefathers, who were 'powerful' men, able to perform actions that 'ordinary' ones could not. After the death of these men they continue to call upon their power to give strength to their own magic. Hence fish-calling is an exercise is cultivating good relations with the *maltamana* fish as much as it is in remaining in contact with the *anit*.

6.5 The aim of fish-calling: on 'wild' and 'tame' animals

The notions of 'wild' and 'tame' are often applied to fish on Lavongai. When somebody on Lavongai says that a fish is 'wild' or 'tame' they are referring to the behaviour and actions of the animal: fish that are 'wild' avoid humans, those that are 'tame' allow themselves to be approached.

Fish-calling is said to act on this character of the fish. It is described explicitly as aiming to create a relationship between fish-caller and fish causing the latter to become 'tame', easy to approach, receptive to the bidding of the fish-caller. This is what leads Patrick and Tukul Kaiku to write of these practices as amounting to 'fish farming' (Kaiku and Kaiku 2008, p 63).[30]

Anthropologists have long shown that the concepts of 'wild' and 'domestic' display immense variation between societies—where they even exist (M Strathern 1980). The works of Jean-Pierre Digard (2003), or more recently the volume edited by Stépanoff and

30. As far as I am aware, nobody on Lavongai actually has a 'fish farm'. There have been attempts to develop such an enterprise though: in 2021, Ben Ottis and his son Julius Misirau dug an approximately five-metre by five hole near a spring in Metevoe, then let it fill with water with the aim of making a fish-pond. Ben explained that he would be procuring fish suited for this enterprise, that he could feed with small pieces of cooked cassava, and that he intended to sell these fish's offspring after feeding them up. As far as I know, this project was not brought to fruition for unknown reasons.

Vigne (2018), clearly show how domestication is a continuing, reciprocal, and sometimes reversible process.

From a zootechnical perspective, it is fair to say that there are no 'true' domesticates on Lavongai. Although pigs, dogs, and chickens all live in Lavongai villages, where they are fed, tended to, and generally considered to be 'owned' by somebody, people do not select which of these animals breed with one another, and therefore they fall short of the strict definition of 'domesticate'.[31] However, Lavongai people do make a clear distinction between *vongho i rina* (village pigs), also referred to as *vongho i aiveven* (pig that are looked after) and *vongho kei* ('wild' pigs) or *vongho i nei uten* (forest pigs, ones that are hunted with dogs and spears). There are several terms in Tungag that gloss, at least superficially, as 'wild': *kei*, *loi* and *lomoi*. The first two are synonyms and are applied to animals to indicate that they are not domesticated, that they are not from the village. The last, *lomoi*, qualifies such animals, but it is also used in a somewhat metaphorical sense to qualify people or their behaviour. I may refer to somebody as *lomoi* if that person is avoiding me, for instance if he or she has done something to anger me and does not wish to confront me.

One key aspect of the wild/tame opposition on Lavongai, is that it is possible to render a 'wild' animal more 'tame' with magic. For example, to make a wild boar become 'tame', one can *tangam niu*, literally 'sing [over] a coconut', in order to give it magical powers, then feed that coconut to the boar, in order to make it possible to approach him.[32] Even when pigs are born in the care of humans, certain actions aim to prevent them from being 'wild'. This starts from a young age, as they are weaned from their mothers and tied by a leg to a post in a corner of the cooking hut. They are held frequently, spoken to softly, manipulated, and cajoled. They are usually named at this stage and 'given' to somebody who will be considered as their owner (*votauk* or *votau*).[33] Piglets are also fed leaves of the *tua* plant (derris, *Derris* spp.), which have been prepared with magic to prevent the animal from wandering off.

Fish-calling is another way that 'wild' animals can be made more 'tame'. Talking of fish that are not *maltamana*, or in his words those that 'do not have a father', Melis made the following comment:

(6.5) *Ri ien ki-te tung angvolai ki-te ien kei palau pulakai,*
PL fish 3PL-CONT stand spread out 3PL-CONT fish wild just all.over.the.place
ki-te kovek i tama-ria.
3PL-CONT NEG POSS father-3PLPOSS

31. Recall that male piglets are castrated around the age of four to six months, and therefore the only way that a 'domestic' pig population continues to exist at all is because forest-dwelling boars reproduce with village females (page 172).

32. Such a coconut is considered to be dangerous for humans: if it were eaten by a young child or a woman their bowels would swell up, and they would die.

33. This is done quite independently of any request on the new 'owner's' part. I was thus told one day that a recently arrived piglet, named Samung, was 'mine', without my having asked nor done anything to prompt this as far as I could tell. Being designated as the 'owner' of this pig came with no obligation to me. The animal was still fed coconut flesh morning and evening, mostly by the women and middle-aged children of the house.

> 'The fish that are spread out are just wild fish, all over the place, they don't have a father' (Melis, 29 July 2023).

Note the use of the term *kei* (wild) here: fish that are not in a relation with a fish-caller, those that are not *maltamana* or 'have no father' are 'wild'.

At times rather than idioms of wild, fearful, wary, or jumpy (all of which exist), terminology relating to temperatures is used when discussing the wildness or tameness of animals. For example, Eddy once commented that his pigs had spent days in the forest before eventually returning and that at this point: 'their teeth were cold, their bellies were cold[T72]' (Eddy, 24 August 2023) because they had been in the 'cold' forest. Consequently, it was necessary to cook 'real food' (*fok tuman*), meaning garden food—which for pigs is sweet potatoes, bananas or cassava, but not taro which is too prized—and to add salt to it, then to feed this food to them with the soup it was boiled in, still warm. All this, in order to entice the animals to want to remain in the village once again, to 'tame' them anew, by applying heat. The fact that this food is prepared like it would be for human consumption is not what Eddy emphasised, as he rather explained that the heat and the saltiness were the most important aspects of the practice. Recall that one of the ways in which the magical potential of plants is discussed is also through their perceived 'temperature', and that this is one of the effects of the plants aiming to make dogs into better hunters (on page 292).

Temperature and saltiness in regard to food are correlated for the Lavongai, since the term *livus* (cold) is used as the antonym of *makasim* (salty). The association between wild pigs being cold and tame ones being warm, and of the salty food contributing to tame them, also fits into a general consideration of the village as being a 'warm' place, the place where there is shelter from the elements and warm fires, whereas the territories beyond the periphery of the village—the forest on the inland side, or the distant ocean to seabord—are considered cold places. This series of associated dualisms align with the 'wild-tame' axis (as shown in Table 6.2) to form a 'matrix of contrasts' to use Strathern's expression (1980, p 177), in a way that has been classically studied by structural anthropology (Lévi-Strauss 1963a; Héritier 1996).

There are also indications that the 'wild' or 'tame' characteristics of animals are thought of as being somewhat hereditary. When Lavongai people discuss pigs' coats or colours—a topic which they are tireless about—one particular aspect, *ngaito*, brown with a white mark on the forehead, is said to be that of 'wild' pigs. If a village sow carries a piglet that has such a coat, then people will expect it to be hard to handle, to be 'wild', and to require extra care in its 'taming' process, lest it leave for the forest and never come back.

A brief note here must be made of the animals that are taken by Lavongai people from the forest and tended to with the main aim of providing company or amusement; social facts that could be loosely referred to as 'pet-keeping'. Dorothy Billings reports that a child kept a hornbill as a pet in Lavongai village when she was there, something which did not end well for the bird:

> I mentioned to Tombat that Montau had not come to see me for a few days. (Montau was the name of his pet bird, a toucan [actually a hornbill] that he had raised from babyhood. It flew around the village, but they did not take it to the bush, lest it be unable, or unwilling,

Table 6.2: 'Wild'-'tame' and some associated dualisms in Lavongai discourse.

kei, *loi*	–	*i rina*, *i aiveven*, *rokorokot*
wild	–	tame
nei uten	–	*e rina*
forest	–	village
nei laman vakapa	–	*e ngerelo*, *e rina*
deep sea	–	the shore, the village
livus	–	*manas*
cold	–	hot
livus	–	*makasim*
not salty	–	salty
livus	–	*dual*, *kitmat*
weak	–	powerful

to return home.) Tombat: He is dead. […] Piskaut's child [Ladi] hit it on the head with a plank. (Billings 1981, p 1631).

What Billings reports as being the name of this pet bird, Mantau (likely misspelled by her as 'Montau') is in fact a substantive that can refer to any tame bird, and possibly to any tame animal (John Aini, pers. comm. 21 January 2024). It might aptly serve as a gloss for 'pet' in general and can be analysed as follows:

(6.6) (a) *mantau*
manu *tau*
bird master
'bird that has a master (ie tame bird)'

(b) *mantau*
manmanik *tau*
animal master
'animals that has a master (ie tame animal)'

The contracted prefix *man-* is used in many words with either the meaning of *manu* (bird), *manik* or its reduplication *manmanik* (animal), and sometimes as a contracted form of *makan* (creature) in women's names.[34] The Tungag Bible translation makes use of a term derived from *mantau* to translate the fact that creatures can and have been 'tamed' (James 3:7): *amamantau*, which can be analysed as:

34. A woman in Metevoe whose name is Makanmanilogo was thus often called Manmanilogo, with the transformation *makan* → *man*.

(6.7) *amanmantau*
a-man-mantau
CAUS-REDUP-tame
'cause to become tame'

Kirsten McGavin is a scholar whose research focuses on the concepts of identity, belonging, and mobility in Papua New Guinea and the Pacific. Her mother's mother was born and raised on Lavongai, although McGavin herself grew up in Australia (pers. comm. 28 May 2020). She also writes about hornbill-keeping, stating that 'our clan's symbol is a *kokomo* [hornbill]' (McGavin 2016, p 59) and recounts the following anecdote: 'My great grandmother "kept" a *kokomo* [hornbill] (our totem) with her in Rabaul; it had a habit of stealing people's washing off their lines, and people would report back to my great grandmother, "Your *wantok* [person who speaks the same language as you, kinsmen] has taken my laundry again!"' (McGavin 2016, p 70).

I also observed instances of birds being cared for with no apparent aim other than amusement. For example, when I travelled to Angat in 2022, one household was keeping two *kik* (Red-flanked Lorikeets, *Hypocharmosyna placentis*) that had been taken as chicks from their nest and would perch quite willingly on people's shoulders while being fed. Similarly, in Metevoe, Willy had found a young flying fox in the forest and was caring for it, referring to it as belonging to his son, and feeding it cooked sweet potato and other starchy foods. Several people told me of keeping hornbills, found in the forest as juveniles. There was a man in Tioputuk who apparently found, tamed, and raised a young Osprey which would fly around then return to his house. Juvenile land mammals are also occasionally taken as pets when happened upon in the forest: I was told of a young wallaby that a Metevoe resident, Ken, found in the forest and gave to his son Jason (barely a few years old at the time) for him to care for. The animal apparently met an unfortunate end when somebody left fuel accessible to it, which it drank, causing its death.

The social facts of 'pet-keeping' have been studied by anthropologists, mostly in the United States (Shell 1986) or Europe (Talin, Christian 2000; Servais 2016), but also in Amazonia (Erikson 1987; Fausto 1999; Erikson 2000; Cormier 2003; Costa 2017; Zuppi 2022). On Lavongai, most pets are presented as belonging to a child (Jason's wallaby, Willy's son's flying fox), which tends to suggest that the owner-pet association is not seen as a very important nor serious one by adults, and pet-keeping can therefore be seen as an accessory activity. Moreover, it does not appear that pets are considered to have any specific properties because of this pet quality that would not otherwise be present were they not being cared for by somebody. Nobody handles dead pets with any kind of ceremony nor deference, and they might well be eaten upon their death. In fact, it does not appear that eating a pet is avoided by any particular category of person in Lavongai, not even those who cared for it. This goes against anthropological accounts from Amazonia since 'the refusal to eat one's own pets is a well-documented generic fact among Amazonian Amerindian societies (Erikson 1988, p. 30; Erikson 2000, p. 20-21).' (Zuppi 2022, p 24). Here, unlike Amazonia, there is no question of a pet animal being 'adopted' by the people who care for it, nor of it being treated as kin of any sort.

Pet keeping therefore appears as a somewhat marginal social-fact, and contrast strongly both with pig-raising and fish-calling, both of which are comparable in the way Lavongai speak of them as aiming to make the animals less 'wild'. As shown above, the exegesis which people make of the practice of fish-calling associates the relation between fish-caller and *maltamana* fish with the father-child relationship. 'Tame' fish, unlike pets, are *not* killed, much less consumed, and although other fish from the same species might be killed, these are not the specific individuals that are in a relationship with the fish-caller, but only the 'naive' or 'wild' ones accompanying them.

Chapter conclusion: fish-calling

To the question 'how does one ensure that, when going out to sea, there will be fish to be caught?' certain Lavongai men answer by resorting to magical practices which I refer to as 'fish-calling', a type of magical activity. This chapter was an exploration of these practices and the way they fit within Lavongai magical activities more generally.

The way magic should be analysed in anthropology is an issue that has long caused debate. From the early works of Frazer (1890), Rivers (1924), Evans-Pritchard (1937), or Malinowski (1948), to recent publications on the subject (J Leach 2012; Mosko 2017; Laugrand and Simon 2018; Eves 2023), through centuries of divergent approaches and discussions (Gell 1988; Tambiah 1990), it has never ceased to be a topic of interest in social science. Here, the purpose is not, of course, to revisit these centuries of debate, but to describe and attempt to understand the place of magic in the Lavongai people's relations with marine life. The forms of magic which Lavongai people distinguish are quite rigorously circumscribed and pertain to well identified domains of fishing, gardening, hunting or healing for which non-magical techniques and magic coexist. Indeed, most fishers cannot practice fish-calling magic since it is known only to specialists, and they are therefore content with fishing with no recourse to magic. Conversely, the men who do perform fish-calling are not exempt from knowing also how to prepare a fishing line, bait a hook, determine where fish might be, paddle a canoe there, then stabilise it, paddling with one hand and holding the line with the other.

One important aspect of understanding the role of fish-calling magic in the wider context of Lavongai relations with marine animals lies in the fact that fish-calling does not abolish the agency of the fish. On Lavongai, if somebody finds no fish to catch when they go out with their canoe and hooks, they will say that it is because the animals were not present: the time was wrong, the fish were already satiated, or a rival fish-caller had asked them to move away. Hence the conclusion that no room is left for chance in fishing: it is an operation that can fail, but not for want of 'luck'; a causal factor for failure will always be identified *post hoc*. In fact, this is where magic fits into the local rationalisations of successful fishing: if somebody regularly fishes very well, it will be assumed that they are knowledgeable of some form of powerful fish-calling magic, just as I showed the myth of *tanglik* and *mar* could be analysed (Section 6.1).[35] Therefore, Lavongai fish-calling also

35. This contrasts with the analysis that Malinowski made of Trobriand fishing, which he considered to be a response to uncertain or dangerous conditions that prevail in this activity when practised on the high

forms the basis of an explanatory framework that allows for good or bad outcomes of the fishing activity to be made clearer after the fact.

The subtlety of fish-calling resides in which end, precisely, is sought. Listening closely to fish-callers' discourse shows that the aim of their practices is to influence the behaviour of marine animals, but this is not done by overriding the fishes' agency, by 'forcing' them into becoming easy to catch. The experienced fish-caller attains an extraordinary state of being known as *vau* by having knowledge of, and practising the right magic. After having fasted and avoided women, he must collect the correct plants, and call the names of powerful and knowledgeable ancestors (*anit*) upon which he relies to give efficacy to his magic, and finally he must place the plants on the reef, and sing the adequate songs. By this process, he creates durable bonds with certain fish, those that heed his call and that are said to be *maltamana*: they are fish that 'have a father'. Through these actions, relations that are akin to a father-child one are thus created between the fish-caller and these particular fish, and the fish-caller is said to be looking after (*aiveven*) these fish, in a clear analogy to the way a father looks after his children. This is far from being a simple imposition of the will of the fish-callers upon unsuspecting fish that would then become easy to capture. It is the opposite since it consists in creating and maintaining bonds with certain animals and spirits, in order for them to assist in the fishing at a later time. And it takes place in a way that leaves both the fish's agency intact, even relying on it (for the fish to taste the plants and appreciate them in particular).

This influence on the fish's attitude is also spoken of as making them easier to approach, less 'wild'. This is analogous to operations carried out on pigs. *Maltamana* fish are said to be 'tame' and opposed to other 'wild' ones. Pigs too exist on a continuum of 'forest pig' to 'village pig', and some village pigs are seen to be more 'tame' than others. Various actions are carried out on these village pigs to make them less 'wild'. However, in both cases, these actions do not abolish the animals' agency and seldom constrain them (for pigs, only briefly when they are young). On the contrary: they entice or cajole them into doing something through either magical or suggestive means. This is reminiscent of the way Lionel Simon describes the interactions with pigs among the Mentawai people of Indonesia. He writes of 'soft constraints' (*contraintes douces* in French) and explains that 'by appealing to the intentional and affective qualities of the garden pigs—and by looking upon these interspecies exchanges under the light of reciprocity—the Mentawai finally translate macabre intentions (to capture and kill) into friendly terms.[T73]' (2021, p 206). Fish-calling similarly aims to create privileged relations with *maltamana* fish that are spoken of with a father-child analogy, something that is not the case of pets.

In the following chapter, we will see that the notions of 'looking after' marine animals is not mobilised solely in the intimate and secretive interactions between fish-callers and their *maltamana* fish. There are contexts in which powerful public discourse and decision-making encourage people to behave in specific ways in order to 'look after' the reefs, oceans, and living beings therein. This is where the practice of a fishing prohibition known as *vala* fits into the sociocultural landscape of Lavongai.

seas (1918). Malinowski's thesis is analysed and reappraised by Craig Palmer (1989). On the aleatory nature of fishing more generally, see also the works of Paul Jorion (1976) and Aliette Geistdoerfer (1987).

Chapter 7

Vala: Customary Fishing Prohibition

> Seldom have words been borrowed from a vernacular language with such fruitful and diverse consequences, and with such contrasted interpretations, as those concerning the 'taboo'. Gone from the status of archaic relic (Lévi-Bruhl 1931) to that of ecological regulator (Johannes 1981; Colding, Folke, and Elmqvist 2003; Cinner 2008) in the last decades, the taboo appears to have sparked the most radical of critical reversals.[T74]
>
> Artaud 2014

Introduction

> Mark Collins: what is *vala*? What do people do?
> Clemen: people sit down together and they make a rule that: 'we close off this piece of area like this with a *vala*. […] We *vala* this piece of area here, and so that people will listen, we stand up an *anit*.'
> Ben Ottis: they say the name of a certain important man…
> Laimen: …who has died. He has died. He died a long time ago. A number of important men are named, a number of dead men. And [the people naming them say:] 'we are standing up a prohibition on this place here, in the name of these people, to the effect that there will be no more… fishing, until the time comes that we make a decision to fish, and then people will fish.'[T75] (Clemen, Ben Ottis and Laimen, 27 July 2023).

In 2021, when I arrived in Metevoe on my second visit after a year away, I could not help but notice something which had not been there previously: a large signboard, flanked

by two forked wooden sticks, all of which had been painted white, and around which a number of cordylines were planted (see Figure 7.1). *Kara vala neke* (here is our *vala*) said Laimen, my host, with an uncharacteristic dash of pride in his voice and on his face.



Figure 7.1: Laimen returns from anchoring his boat at Meteringsamung and passes near the *vala* monument, a signpost with two large V-shaped sticks painted white either side, and around which cordylines have been planted. 1 December 2021, Metevoe.

After previously spending three months in Metevoe in 2019, I had returned to France and written a Master's thesis based on the data collected in the village which I had in fact entitled *Vala*. Indeed, during the three months I spent in Metevoe in 2019, it became clear that relations between the Lavongai people and marine animals were heavily influenced by this practice. Upon my return, I was pleasantly surprised, and very curious, to find an example of this practice right on my host's doorstep. Of course, many questions arose. Who had set up this *vala*, precisely? What were its modalities? What did people think of it?

In this chapter, I will present the data and results from this inquiry into the Lavongai institution of *vala*. I will begin in Section 7.1 by presenting a 'case study' of the *vala* which was put into effect in Metevoe in 2020. By describing the modalities of its enactment, the ceremonial work that was carried out for its opening in 2022, and by comparing it with other similar practices in neighbouring societies I will isolate four key aspects of the practice, which will be developed in the following sections. In section two, I will attend to the way *vala* draws upon the tropes of 'tradition' or *kastom*. Section three will show that it is a form of 'hybrid' practice, which testifies to changing modalities of marine interspecies relations in the contemporary age of climate change and global threats to biodiversity. In section four, I will explore the involvement of the *anit* (spirits of deceased men) as

interlocutors of the living when instigating such a prohibition, and analyse their role in enforcing it. In the fifth and last section, I will turn to the way that social constraints, discourse and appeals to Christian principles and Biblical texts are also involved in the enforcement of the prohibitions of *vala*.

7.1 Case study: the 2020 Metevoe *vala*

First, a word on the sources of information I will be relying on here. Above all, this will be my own observation of the workings of the Metevoe *vala*, on a day-to-day basis, up to and including the 11 July 2022 ceremony which effected the *vala* prohibition's removal. The village-wide socio-economic survey which I carried out also included questions about the *vala*. Moreover, during semi-structured interviews I asked all interviewees the same open questions about the *vala*, and this topic was also discussed in many of the other free-form interviews which I carried out.

7.1.1 Context of the creation of this *vala*

The work of the two NGOs operating in the area, Ailan Awareness and WCS, that both call on people to 'manage' or 'conserve' marine life is important in order to understand the backdrop against which the Metevoe 2020 *vala* emerged. Both NGOs undoubtedly influenced the manner in which the inhabitants of Metevoe conceive of *vala* and of interactions with marine life more generally. This is explicitly stated on occasion, such as when Misirau said in an interview that 'Us, indeed, with Laimen and me we went to their [Ailan Awareness'] work, so we would also know a little, to their customary work in Lavongai. They bound lots of pigs for the men [ie the *anit*] whose names they had pronounced.[T76]' (Misirau, 27 July 2023). Ailan Awareness has had a noticeable presence, and no doubt an even stronger impact in South Lavongai, since the NGO's creation in the mid-1990s (see page 52). This is true especially of the area around Metevoe since John Aini, one of the founders and current managing director of the organisation, is from the village of Lavongai, a few kilometres east (Map 1.2) and has strong familial ties in Metevoe. The NGO has organised numerous public meetings in Metevoe in this time.[1] In a recent paper

1. I attended two Ailan Awareness meetings in Metevoe: one on 29 October 2019 where John Aini and a group of volunteers accompanied a WCS team carrying out the 'phase 1' consultations for the Lavongai MPA, and another on 4 February 2022 which was concerned primarily with carbon trade. This is carried out under the guise of the REDD+ program: 'a climate change mitigation approach designed to incentivize developing countries to reduce carbon emissions from deforestation and forest degradation', defined as: 'reducing emissions from deforestation and forest degradation in developing countries' (UN-REDD Programme *et al.* 2016, p 1). It allows polluting parties to 'offset' their carbon emissions by paying a third party in a developing nation to engage in conservation of a forested area. The reasoning is that if this had not been done, the area of forest may have been cut, leading to carbon emissions. The proponents of this scheme consider that this is equivalent to 'capturing' the amount of carbon which *might* have been emitted by its deforestation. In PNG, there exists only the barest legal framework for such an undertaking, and even less enforcement of the existing regulations. There have already been many documented instances of so called 'carbon cowboys' abusing locals to sell carbon credits on the international market, returning very little benefits, if any, to the communities in question (Leggett and Lovell 2012; Babon 2014; Gavara-Nanu 2020). In the most egregious

on the topic, John Aini, Paige West, a number of Ailan Awareness members, and other co-authors refer to these meetings as 'the Ailan Awareness road show', which they define in the following way:

> Staff working with the organization meet with communities or groups who have contacted them with a problem. [...] The revised road show consists of presentations about Ailan Awareness's previous work, discussions about what the community wishes to understand or change and a clear discussion about the Ailan Awareness methodology. (Aini *et al.* 2023, pp 5–6).

People in Metevoe know and respect John Aini, in part because of his family ties there, in part also from his time as an elected president of the Lavongai Local Level Government (LLG), from 2013 to 2019, and through his relation to Martin, his brother, who was an elected member of the Papua New Guinea parliament for Kavieng district for two terms, from 2002 to 2012, and Minister of Defence under Prime Minister Michael Somare (Chin 2007, p 201). When they talked about *vala* in the meetings I attended, the members of Ailan Awareness mainly used it as an example of how traditional or 'customary' practices could be used for conservation, usually within a list of other such practices (notably *polepole*, as discussed previously Sub-section 5.3.5). They presented these as methods for allowing reliable access to desirable marine resources such as fish for food, and as a positive undertaking, for their 'traditional' dimension. In the words of Aini, West, and their co-authors:

> *Vala* describes a form of sociospiritual ecological practice whereby people with deep ritual knowledge and experience call on that knowledge, their relationships with their ancestors, their ecological knowledge and their relationships with certain marine species in the work they do to create favourable conditions on a reef. These favourable conditions are both material, insofar as they increase the abundance of desirable and useful species, and social, insofar as they smooth relations between living persons, spirits and ancestors. This smoothing of relations maintains the health of people and the environment by acknowledging the ongoing social relationships between the living and the dead. The practice of *Vala* is both this sociospiritual practice and the practice of placing a marker made of the branch of a tree onto the reef to indicate to others that the area has been ritually enhanced and protected and that there is a taboo against using it. Because of the sociospiritual work of *Vala*, anyone who fails to adhere to the restrictions that were placed on the reef by the ritual expert is in danger of falling ill or dying. Areas or places become *Vala* areas through this combination of practice, demarcation and the local understanding that an area has been 'worked on' by a ritual expert. (Aini *et al.* 2023, pp 3–4).

People in Metevoe described Ailan Awareness by way of a contrast drawn between '*kastom*' (customary practice, tradition) and 'science', stating that the organisation is 'interested in' the former, opposing them in this to other organisations, particularly WCS, which they describe as being 'interested in' the latter. John Aini does indeed mobilise such a dichotomy between the exogenous practices of organisations such as WCS, and his own organisation with its emphasis on a local provenance, for instance when he said in a public speach in

cases, this has even been carried out by forestry companies that subsequently cut the forest they had received money, on behalf of locals, to protect (Babon, Filer, and Allen 2023; Long, Bali, and Murch 2023a,b).

Metevoe that: 'WCS is an international organisation, an NGO that is based in the United States, we, Ailan Awareness, we are village lads (*mangi ples*).' (John Aini, 24 Mai 2022). When discussing what the contents of Ailan Awareness's discourse is, the overwhelming majority of people in Metevoe answered with variations around the concept of *aiveven*, 'looking after'. Indeed, John Aini often makes statements such as this one: 'We haven't come here to do politics [reference to the ongoing campaign for the national elections at the time], but to talk about loving the forest, the earth, the sea and the rivers… We are here to put a strong emphasis on the fact we have to love and look after [*aiveven*] the forest, ground, sea and rivers.' (John Aini, 24 Mai 2022).

The practice of *vala* sits precisely at the intersection of these two concepts of 'customary practice' and 'looking after'. The question then becomes: how does Ailan Awareness suggest that people should 'look after' marine life in a 'customary' context? When I asked John Aini how he suggests people go about doing this, he gave me a very pragmatic answer: he lets each community decide what they want to do, in what one might call a spirit of 'every little bit helps'. This is also reflected in the aforementioned article, which states:

> Ailan Awareness believes that once its staff have provided their expertise and resources, communities must maintain sovereignty over their own projects. […] Although Ailan Awareness provides ongoing consultation for plan revisions and refinement, at a fundamental level Ailan Awareness believes these Indigenous epistemology-based marine resource management plans/*Vala* areas belong to their partners, not to them. (Aini *et al.* 2023, p 8).

John Aini does talk of *vala* in his public speeches and certainly casts the practice in a positive light, but, in the Metevoe case at least, he did not—to my knowledge—tell people to set up such *vala*, nor did he offer any particular instructions on the practice. Ailan Awareness have doubtless contributed to casting *vala* in a positive light, drawing parallels between the 'customary' and the 'modern', and thus providing enhanced credibility for these ancient practices. *Vala*, in these discourses, is portrayed as a 'good' thing, and it is contrasted with the action of fishing with poisonous plants, *tua*, which John Aini never loses a chance to point out is a 'bad' thing, because it kills all kinds of marine life, from large fish, through small ones, all the way to plants and corals.[2]

> What makes us think that it is all right to burn the forest in the way we do now? We are reproducing a lot, and the population is increasing, but we are not ready, the ground isn't sufficient, and we are too numerous. Climate change is arriving, we have to stop using poisonous plants to fish and stop burning the forest. (John Aini, 24 Mai 2022).

This instruction is well anchored in people's minds, as shown by the following statement by a young man from Metevoe: 'It's been a while, my brother, that the Ailan Awareness people have come here to carry out awareness, to talk about derris fishing and all those kinds of things.[T77]' (Clemen, 27 July 2023).

The only other conservation organisation which operates in the region, and undoubtedly influences locals' perceptions of *vala* is the Wildlife Conservation Society (for a detailed

2. As discussed previously (Sub-section 5.3.3), the ichtyotoxins found in *tua* (*Derris* spp.) kill large numbers of juvenile fish, which is doubtless detrimental to the overall health of the reef ecosystem in the medium to long term. However, the toxicity of the main active compound found in these plants, rotenone, specifically for corals, is dubious at best.

presentation of the organisation and its work in Kavieng and surrounding areas, see page 52). Since the onset of WCS's operations in New Ireland Province, in 2005, various teams associated with the NGO have come to Metevoe, among many other villages along the coast of Lavongai. The aims of these visits have varied: many have concerned locally managed marine areas (LMMAs), and since the onset of the marine protected area program (MPA) in 2019, all three rounds of consultations on this topic have taken place in Metevoe.[3]

When I asked them about the purpose of these visits by WCS, people living in Metevoe usually framed them as being 'teachings' and almost invariably referred to the visits themselves with the term 'awareness'. In fact, their aim was to obtain free prior informed consent (FPIC) from the villagers regarding the implementation of the MPA. These interventions regarding the MPA never involved anybody asking villagers to establish any form of village-level protected area, since the MPA—which has since been instigated (Morse 2023; WCS 2023)—is island-wide. However, previous WCS interventions had presented the 'LMMA' as a tool which people could choose to implement themselves and as a solution to the problems which WCS personnel point out to people as threatening marine ecosystems in the region: unsustainable fishing pressure from population increase, improved effectiveness of fishing thanks to modern tools, and destructive fishing methods.

The perception that locals have of WCS is that of a possible source of 'cargo for conservation', or in more analytical terms, as providing 'direct' or 'integrated incentives' for conservation (on this contentious topic, see Kinch, Anderson, and Anana 2009, pp 27–28; Melick, Kinch, and Govan 2012; Barclay and Kinch 2013). They speak of conservation methods proposed by WCS not as inherently good, for the increased access to marine produce they may provide for instance, much less for the intrinsic value of preserving biodiversity, but as a good thing nonetheless because of the hope they have that WCS will eventually 'give something back' if they follow the 'rules of WCS' adequately. The reality of this possibility was all the more tangible because people in the village had memories, even many years after this event, of WCS employing locals to work for them during a biodiversity survey in the mangrove to the southeast of Metevoe. Several times, people stated that they hoped WCS would once again return to provide such *papakangai* (assistance, help), and clearly made this appear as conditional on them implementing a successful set of rules regarding fishing in the village's waters. By this they meant that, if they did not 'do as WCS say', then the organisation would surely not provide such employment opportunities or other assistance. This is the sentiment Misirau expressed, when he said that leaders had instructed people in the village to fish:

> with the fishing techniques that the… yes, good fishing techniques which WCS […] like. Like this: don't use […] small-sized nets. Don't fish at night with goggles. Just fish with the good fishing techniques. […] We told them [Metevoe villagers]: 'lets fish with these fishing techniques, lets do this until we wait and see that they… WCS will come to us with some kind

3. WCS teams visited Metevoe for the first stage of the consultation for establishing the Lavongai LLG MPA on 29 October 2019, for the second at an unknown date in 2021 and for the third on 23 May 2022. I attended the meetings for the first and third stages in Metevoe, and although I did not attend that for the second stage, I was in the West Lavongai village of Angat when another WCS team called there on 10 February 2022 for the same purpose, and I did therefore attend at least one meeting in each.

> of projects, or some outlooks on the ways to help with fishing for people in the village. [For example] they say they will put a FAD in place.'[T78] (Misirau, 27 July 2023).

It is in this context[4] that people from Metevoe got together in early 2020, to form a 'Marine Committee': a semiformal group, each member of which was given specific responsibilities, and which was tasked with creating and enforcing rules related to the village's reefs and near-shore marine area. This included one representative from each of the eight clans present in Metevoe,[5] along with a Chairman, Vice-chairman, Secretary, and Treasurer. With an eye on enforcement, the village court magistrate was also included. This Marine Committee then held internal meetings and spoke during public gatherings, ultimately arriving at the instigation of a *vala*.

When I asked Nick, a member of the Committee, to explain what their thoughts had been when creating the 2020 *vala* in Metevoe, he started by answering that WCS had come to do some 'training'. This refers to the first stage of consultations for the preparation of the Lavongai LLG MPA, indicating a certain misunderstanding here, since the goal of that consultation was in no way to encourage villagers to create a *vala*. He went on to explain that: 'we settled on this idea indeed: we got all eight clans[T79]' then, during the ceremony instigating the *vala* 'we stood up with our cordylines, and we named our ancestors [ie *anit*]. Me, I named my ancestor.[T80]' He then went on spontaneously to justify why he saw this as necessary: 'We saw that people had no respect for our fishing prohibitions [so] we named the spirits of dead men.[T81]' (Nick, 16 July 2022). The initiative was therefore inspired by the WCS consultations and years worth of Ailan Awareness' presence, and it involved *anit* in response to the 'lack of respect' people had had towards previous *vala*.

7.1.2 Layout, regulations, and penalties

Let us now explore what the specific requirements of this *vala* were, what rules the Marine Committee enacted, and what they asked of people in the village.

Layout

First, the Marine Committee carried out a form of zoning. The coastline of Metevoe was broken into four sections, which were assigned different sets of prohibitions. These were

4. My own presence in the village in late 2019 may also have played some part in the matter. Indeed, it was well understood by most people that my work was focused on relations with the sea and its living fauna. It was not rare for people to associate me with WCS, and the organisation does have one white employee in Kavieng—who has never been to Metevoe. Although I took every possible occasion to dispel such an association it was hard to explain the purpose of an anthropological study to many people. My presence was often framed positively by the villagers: the head teacher of the primary school once stated in a public speech: 'Mark is here now, he will go back to his country soon, and write a book about Metevoe. He is going to put Metevoe on the world map.' (Ben Tangkam, 19 November 2019). After my departure, there may have been renewed interest on the part of villagers for this topic of marine management, precisely *because* I had been asking questions about it.

5. There are members of more than eight clans in Metevoe, but some of them are only represented by a small number of individuals, and these clans were therefore 'joined' with larger ones in the context of the Marine Committee.

described on the large sign post placed in the centre of the village coastline (Figure 7.2). The representation of the coastline is highly schematic on this drawing. Behind the paper that was placed over the signpost, a previous attempt to explain the layout of the various prohibitions can be seen, in the form of a less anamorphic coastline map. However, this was subsequently covered over by several sheets of stapled white paper on which the four areas were sketched symbolically.

The focus of the *vala* is in area 3, which is marked as 'restricted' and aims to provide 'spill over', meaning that an abundance of fish should establish themselves there, procreate, and the subsequent increase in numbers should cause them to 'spill over' into the adjacent areas where they can be fished. This is one of the arguments both Ailan Awareness and WCS make when encouraging people to create such prohibitions: rather than *preventing* people from accessing much needed fish, they will ensure *more* fish are available in the neighbouring areas. Area 2 is a variation on area 3, it is marked as 'seasonal', and is designed to mostly be closed to fishing, but to have periods during which it can be accessed when the need arises. Areas 1 and 4 are, by contrast, both 'open, multi-use', meaning that in theory, all types of fishing activities are allowed there.

Regulations

Despite some of the village's seafront being described, in the layout, as 'open areas', certain rules were enacted by the Marine Committee with the intention of these being in place at all times, in all areas, including these otherwise 'open' ones. This includes a total ban on three forms of fishing:

- *Tua*, fishing with poison plants, in particular derris;
- Fishing with small-meshed gillnets (mesh-size of at least 3 inches allowed); and
- *Sasang*, fishing with a net on the reef flat by running in a large group to chase fish into the net.

A caveat was however added to the last prohibition on running to catch fish in a net: in exchange for a fee of K 50, paid to the Marine Committee, people could still be allowed to use this method, when preparing a feast, for example, in area four. Moreover, in the 'restricted area' or *vala* itself (area 3 and, when not 'seasonally' open, area 2), all fishing and collecting activities were forbidden. Note that access was not prohibited, neither in canoes, boats, nor on foot. Indeed, motorboats regularly travel up to shore through this area since it includes one of the village's main reef passages (as seen on Figure 7.1).

Penalties

Nick explained that penalties had been determined by the Marine Committee for poaching or other forms of rule-breaking. For fishing in the *vala*, a fine of K 50 could be imposed, and if the offender did not have that amount of money, then he or she would have to give two baskets of garden food, and these baskets would be brought to Kavieng and sold on the market, with the proceeds being handed to the Marine Committee. However, Nick added that although the Marine Committee were aware of some rule-breaking, nobody



MET-SUB-ward...
MARINE PROTECTED AREA
Locally managed marine area / Marine protected area

Neikwila	Area one open, multi used zone (1)	Kavingoro	Area two seasonal zone seasonal closure	Neikolongotunung	Area three restricted area spill over	Mengesung	Area four open multi used zone (2)	Neisung (River)

Figure 7.2: Photograph and transcription of the sign placed at the centre of the *vala* monument. The vertical words are toponyms identifying coastal locations that mark boundaries (see Map 1.5). The sea, roughly to the South, geographically, is represented at the top, and the coast to the bottom. Photograph 1 December 2021, Metevoe; own transcription.

had received sanctions at that point because the Committee felt it was best to provide warnings first, and to continue to speak of the rules in community meetings on Mondays.

The fact that the village magistrate, John Songo, had been included in the Marine Committee also testifies to the fact that forms of institutionalised sanctions such as fines were deemed necessary in order to enforce the rules laid out by this body.

Knowledge of the rules among inhabitants

In the village-wide marine socio-economic survey to which at least one member of each household in Metevoe responded, a question was phrased in the following way: 'list each and every rule which the Marine Committee have enacted in Metevoe.'[T82] This yielded the results that are presented in Table 7.1.

Table 7.1: Categorised answers to the question 'List each and every rule which the Marine Committee have enacted in Metevoe', asked June-July 2022 in each household of the village (56 respondents, 188 answers). These are sorted into three groups: 'all' (A1 to A9) are rules that respondents apply everywhere; '*vala*' (V1 and V2) only in the restricted area, and 'general' (G1 to G7) concern other rules. Categories are annotated for their status: 'local' (L) when the rule does exist locally, 'external' (E) when it exists in some other legislation but not in the local rules, and 'absent' (A) when it exists in neither (G4 was considered too vague to annotate).

	Answer category	**Nbr of respondents**	**Status**
A1	no poison fishing	46	L/E
A2	no undersize nets	21	L
A3	no net fishing	17	A
A4	no pollution (rubbish, excrement)	7	A
A5	no fishing with spears	5	A
A6	no catching of small fish	3	A
A7	no running to chase fish into nets	2	L
A8	no spear fishing at night	2	A
A9	no trolling with hook and line	2	A
A10	no catching turtles	1	E
A11	no fishing with small hooks	1	A
A12	total ban on fishing	1	A
V1	ban on some methods	41	A
V2	total ban on fishing	8	L
G1	boundaries	12	L
G2	fines and penalties	6	L/E
G3	customary obligations	5	A
G4	respect	5	
G5	seasonal closure on a given area	2	L
G6	infraction causes imprisonment	1	L

These three 'village wide' rules were mentioned respectively: for A1, 'no poison fishing', by 46 people; for A2, 'no undersized nets', by 21 people; and for A7, 'no running to chase fish into nets' by only 2 people. The fact that there were rules in force in the *vala* was mentioned by 49 respondents, and of these, 8 stated correctly that the ban was total, while the answers given by the 41 others who spoke of this suggested, with varying degree of precision, that some methods were allowed. No specific questions were asked about the boundaries of the restricted area since these were materialised by numerous sticks stood in stone piles on the reef, however a few respondents volunteered information about them anyway (G1, 12 respondents). Only 2 respondents mentioned the existence of a 'seasonal' closure area. Moreover, quite a high number of respondents stated rules that were never in effect, such as A4, a ban on leaving polluting substances (either plastic, or food remains) in or near the sea, and using the sea as a toilet (7 respondents); or A5, a village-wide ban on fishing with spears (5 respondents). The total number of responses that are absent both from local and external regulations is 39 (21 % of the 188 responses given).[6]

These 'absent' responses are enlightening, since they reflect common assumptions about what *should* be good rules for people to enact regarding the sea, that were nonetheless not made into rules by the Marine Committee nor any other entity. This is the case for statements which were grouped here into answer A4, 'no pollution (rubbish, excrement)', and which include such responses as 'no throwing of rubbish into the sea', including plastics but also food waste, or 'no going to the toilet on the beach nor on the reef'. A WCS employee once expressed surprise at similar responses they had obtained when consulting villagers of Lavongai on what they thought could be done to protect their marine resources. The incoherence for this employee was that 'polluting' substances included such biodegradable matter as leaf packaging used for cooking of food in the *imun* (stone ovens), which are not a 'problem' for the marine environment, as far as biological science and hence the science-based WCS are concerned. In the report giving the *Outcomes from the community consultation process with 100 communities in Lovongai and Murat Local Level Government Jurisdictions, New Ireland Province*, Yvonne Wong, one of the WCS Kavieng employees who carried out the consultations, list one of the perceived threat which Lavongai inhabitants porportedly identified as 'pollution and locally-discarded plastics waste' (Wong and Kuri 2022, p 24). This is, I believe, a reformulation by the WCS employees in an attempt to fit what they see as an incoherent statement by locals into their own comprehension of which substances are nautious for marine environments and which are not. At the end of this process, the 'community driven' MPA law contains provisions that prohibit 'the disposal of locally-discarded plastics, glass, metals and other non-biodegradable waste onto the beach' (Booth 2022, p 31).

Nick mentioned that previously, before the creation of the *vala*, the area near the shore had been used as a toilet. When the prohibitions were put into effect, people started to respect their *mete tokosiangan* again, the 'area of sea in front of where they have customary clan rights'. *Mete tokosiangan* is a common trope used as an analogue of 'on one's doorstep',

6. This could be increased to 80 (43 % of all responses), if the 41 answers suggesting that some fishing methods were allowed in the restricted area are included, but this would be a dubious way of counting these answers since they are only partially inexact, and only so by omission, not by direct statement.

when talking about the sea in Tungag. Moreover, when people speak of 'respecting' an area of sea, the most common way they mention of doing this is to not defecate near the water. This is one element of the 'proper care', of the *aiveven* ('look after'), which marine spaces are said to require.

Others stated that remains of food, such as leaf wrappings that are left after a feast, should not be placed in the water. In the same manner, certain men stated that women who are pregnant, or who are menstruating, should not go into the sea nor into any streams: they should wash on dry land, with water scooped out of streams and not bathe in them. These are all substances that are considered 'powerful' and somewhat 'dangerous' to men. In essence, these answers should be understood to mean: 'in order to *properly* look after the sea and the living beings from the sea, we should not pollute that area, we should keep dangerous substances away from it'. This resonates with other situations in which notions of pollution or dangerous substances were present (Sub-section 3.1.5). Concerning *vala*, this shows how the notion of 'care' or 'looking after' (*aiveven*) mobilised in relation to the sea, reef and animals of the sea, demonstrates continuity with those that are mobilised towards human beings. For the people of Lavongai: 'looking after' is done by attempting to fulfil the same set of conditions and by distancing the same potential dangers from whoever one wishes to care for. The reasoning and motivations are essentially the same for all actions that are carried out to this effect in each situation, whether looking after a child, 'the reef', or any other being.

How such care is put into motion, what is done to carry out this *aiveven*, depends, on the other hand, on the case in point. This brings us to the major component of the work that was done in the context of the Metevoe 2020 *vala*: its opening ceremony.

7.1.3 *Vala* opening ceremony of July 2022

In what Metevoe inhabitants described as the 'traditional' form of *vala*, the period during which fishing is prohibited ends when an 'opening ceremony' is carried out.[7] This involved a large amount of 'customary work' and precedes a collective fishing expedition in the previously closed area, followed by a feast during which people consume both the food presented for the customary work and the recently obtained fish. In the case of the Metevoe 2020 *vala*, this opening was indeed the focus of much of the villagers' attention and was many months in preparation (Figure 7.3 and Figure 7.4).

Planning and preparation

To organise the opening of the Metevoe *vala*, the Marine Committee met on several occasions, and the topic was brought up during regular community gatherings. The villager's main preoccupation regarding this opening ceremony was pigs. Because each clan had called the name of an *anit* (spirit of a deceased man), pigs, taro, and shell money

7. In referring here to the ceremony as an 'opening' I follow the locals' terminology (*tavas vala*: 'to open the *vala*') which emphasises the fact that after this ceremony, the area becomes 'open' to fishing. This choice of terminology on their part is meaningful, since the ceremony could also have been considered as a 'closing' of the prohibition period.



Figure 7.3: The *vala* 'monument' has had its signboard freshly painted, and the grass trimmed around the poles and cordylines. This was one of the first steps in several months' worth of preparations leading up to the opening ceremony. 31 January 2022, Metevoe.



Figure 7.4: Close-up view of the signboard erected to mark the 2020 Metevoe *vala* or 'Locally managed marine area'. The last line reads 'Cared & managed duMRMg [during?] 2020', a reference to the year the *vala* was created. 31 January 2022, Metevoe.

would have to be produced to 'buy them off'. This action is known as *langai*: it is a payment accompanying a request to these *anit* for them to lift their protective grasp off the area. These three requirements—pig, taro, and shell money—make up what could be called the 'typical bundle' which is required of all customary work, in particular for funerary obligations, marriage, and dispute resolution, not only in Lavongai, but in much of New Ireland Province (Powdermaker 1931; Bell 1937; Groves 1937; Bell 1946, 1948; PH Lewis 1973; Bainton and Macintyre 2016). More than the two others, the pigs were of particular concern to villagers in Metevoe. Indeed, their feeling (and to a degree, their pride), was that gardens in the area were particularly productive, notably for taro, and many men in each clan already possessed several strings of shell money, which could also be purchased for as little as K 50. Pigs, on the other hand, caused more worry. Indeed, not 'just any pig' was going to be adequate in such a situation. During a Marine Committee meeting on 28 January 2022 (seven months before the actual opening ceremony), William Stanley, one of the village's elementary school teachers, stated that the pigs must be 'of a good size to be able to remove the *anit*,[T83]' to widespread approval. The pigs would therefore have to be relatively large. Moreover, the fact that this very public ceremony would see each clan produce their pig, taro, and shell money before the assembled villagers and guests from neighbouring localities, meant that there was an element of competition involved.

Although the number of pigs in Metevoe and surrounding villages is quite considerable, larger pigs were scarce, and their monetary value was high. The issue therefore became a financial one. During the months preceding the opening ceremony, each clan held various fund-raising activities. Almost all clans required a fixed contribution from each member. In the case of the Nguma clan, this was K 10, K 5 and K 2 respectively for each man, woman, and child. Other clans brought baskets of collectively provided vegetables to town in order to sell them and raise money. Some clans were fortunate enough that a pig owner voluntarily provided their animal free of charge for the purpose of the *vala* ceremony. In the end, most of the clans who bought a pig did so from a member of their own clan, who sold it at a lower price than its potential value.

Less than two weeks before the ceremony, at a Marine Committee meeting on 27 June 2022, each clan gave a breakdown of the price of the pig they had procured, and the current balance of their funds available to buy it. In response, I offered to lend my own, partial monetary assistance, and asked the gathering what they thought would be most equitable: should I give each clan an amount proportional to that necessary for them to match the price of their pig? An amount inversely proportional to the number of people in each clan, in order to assist the smaller clans more? Or should I give an equal amount to each clan? The response was unanimous and came very rapidly: the 'right way' was for me to give equally to each clan, regardless of other considerations. And so this is what I did: I gave K 50 to each one of the eight clans of the village, and another K 50 to the youth group, which was also required to provide a pig for the ceremony.

People also set about preparing the grounds in front of the *vala* monument, in Neiko-longotunung, for the event. First, they cleared the area of grass and undergrowth. Then, they erected numerous buildings which they felt would be needed for this event.

The first they referred to as a 'grandstand' or 'stage': an approximately 6 meter by 4 meter structure made from sawn timber, stood on 1 meter posts and covered by a bare roofing

frame. This had been made with money belonging to the local branch of the Kavieng District Development Authority (KDDA), known colloquially as the 'Structure' (*straksa*), but the 'youth group' had provided the labour to build it. It had initially been erected near the aid post, close to the house of the KDDA Area Coordinator, and was still there when the work for the *vala* opening began, but a group of young men dismantled it and moved it to Neikolongotunung.

In recent years, sheets of roofing iron have been handed out to families in New Ireland Province under the guise of multiple 'development programs', notably by the KDDA. Villagers consider that the 'right way' to make use of this roofing iron is to place it on a sawn timber frame and make what they refer to as a 'permanent house'. They contrast these to the houses they generally live in, which are crafted out of whole branches, with sago-thatch roofs, and other locally sourced materials, and which last for 'only' 5 to 10 years before they must be removed and rebuilt.[8] Since sawn timber is expensive, or hard to produce with the tools available in the village, many of these sheets of roofing iron are unused. In preparation for the *vala* opening ceremony, many of them were lent. A number were thus used to cover the 'grandstand', others to make temporary 'stands' or stalls. The organisers insisted that each clan must have its own such stand, flanked by a small cooking shelter: a sago-thatch-roofed building under which a fire could be lit to cook rice on, and boil water to make coffee for the people in the adjoining stand.

In order to make the area around the grounds safe, coconuts that may have dropped nuts on people were cut down, and their trunks were sawn up into billiards to sit on. Areca nut plants that were by then unproductive or even dying (see Sub-section 1.3.4) were also cut down to make posts for the stands and benches to sit on. Bamboo was carried from the forest to be used as construction materials and make other benches. A few rusty nails, odd pieces of rope, vine, or even repurposed mosquito net strips were used as lashings to hold the structures together.

Meanwhile, other preparations were progressing in a more discreet setting. Women were practising their 'items': group dances they intended to present at the event.

One final stage in the preparation was carried out during the night prior to the first day: an enclosure was erected around the *vala* monument, out of yet more roofing iron sheets and some woven sago leaves.

First day (11 July 2022)

On the morning of the first day of the ceremony, I awoke at dawn, rose, and walked down to the grounds of the *vala* area. Plumes of smoke were already wafting from the cooking shelters, and the women stoking their fires waved to me in silence as I walked around. Somebody stuck a head out through the coconut-frond door of the central enclosure which had been erected the evening before around the *vala* monument and called to a clan leader. I asked if I could enter too and was waved in with a smile. Inside the enclosure a large group of men were gathering. Each clan's 'customary' donation to the *anit* had been piled up: live

8. In any case, houses made of timber tend to have a rather limited lifetime in such a tropical environment, and there are 'permanent houses' in South Lavongai, built less than 25 years ago, that are almost entirely derelict.

pigs, raw taro, shell money, and cooked food. The pigs were laying on their sides, bound to sturdy sticks, their excrement from most of a night spent laying there near them. The taro had been made into large piles. Near each pile, men—young and old—representing their respective clans, stood under colourful banners, created for this occasion, bearing paintings of each totem birds and the name of the clan. A few also bore other inscriptions, such as the Nguma clan's banner which read 'Rinaiatukul' and 'Pativeono' (Figure 7.5) which are two place names, the first referring to the original village from which all Lavongai inhabitants are said to have come, the second to the first settlement place of the Nguma clan (Section 2.2). Shell money hung from decorative strands of sago fronds bent into an arch over the *vala* monument. Under this arch, a table had been placed, and on it were bundles of cooked food, neatly laid out in a regular pattern. There were only men in this enclosure.



Figure 7.5: Two young men plant the banner of the Nguma clan (associated with the Bismarck Crow, *Corvus insularis*) in front of its stand. The banner is made of black material, colour of the crow, and the Nguma clanspeople visible on this picture are also wearing black clothes and soot on their faces, which was described as being the crow's *maus* (decoration, clothing, disguise). The banner bears the inscriptions 'Rinaiatukul', 'Pativono' and 'Nguma Tribe', under which a logo has been drawn made up of the outline of Lavongai island in green, topped by a crow's bust. 11 July 2022, Metevoe.

Once all the clan leaders were present, two men struck the slit drum for a few seconds, ending with a resounding thud, a discreet 'shhhh' to which all present answered by a howl that shook the iron roofing and resonated in the cool morning air. This was something I

had come to recognise as a typical 'call', one which is used to start songs and dances, and which is generally addressed to a crowd, to call them so they may look upon the dance. In this case, the call was addressed differently: we were hidden inside the enclosure, and none among the villagers were supposed to see the ensuing ceremony. However, the close attention of other beings was required: the *anit*, and it was them who were being called.

The clan leaders gathered solemnly about the table, and each in turn, made speeches. Starting with John Songo, representing clan Nguma, they stepped forth, placed a hand around the *erenge* (cordyline) that they had planted near the monument many months before, and talking directly to their *anit*, they made eight speeches which are worth quoting *in extenso*. John Songo began:

> [...][9] and I know that you have helped care for the reef for all your descendants, for tomorrow, in Metevoe. And thank you very much. I know that, in the future, you will strengthen that which we have organised to achieve here, or organised for the future of Metevoe. Thank you very much. Later, I will uproot your cordyline and free you.[T84]

In this, John Songo used the expression *nala purut suai anim* to refer to what he intended to do later. This can be analysed as:

(7.1) *na-la* *purut* *suai* *ani-m*
1SG-PRF uproot entirely BEN-2SG
'I entirely uproot you'

Since the second person to which the discourse is addressed is the *anit*, but the use of the verb *purut*, 'to weed, to uproot, to pull up a plant', is consistent only with it referring to the cordyline, this formulation shows a degree of amalgamation between the *anit* and the cordyline, and the two are being fused discursively. Recall that this plant is very important and holds strong symbolic value in Lavongai as elsewhere in the region, notably in relation to death and burial (as discussed on page 120).

The second to come forth was Nick, representing clan Kanai. He too addressed his *anit* directly, calling him by name:

> Grandfather Poroto, a very good morning to you. I am a young boy who grew up under your legs, and a boy from the Kanai clan. I am standing in the daylight here this morning to remove the shame I have caused you, and I want to ask that you grant us the things that we have decided, and that you continue to look after our reef. So, thank you very much grandfather, and I hereby remove the rules, and I myself will make my own rule. Thank you, and thank you very much.[T85]

He was followed by Leti, representing clan Silau,[10] who named nobody, but addressed a general group of his deceased grandparents: 'Ah… Few grandparents, [I am addressing

9. As John Songo began to speak, I scrambled for my recorder and started it just a moment too late, which is why the first part of this speech is missing.

10. The representative of Silau clan in the Marine Committee was a woman: Anna, however, this ceremony was performed exclusively by men, and she was not invited to participate. As far as they knew and that I can tell from collected genealogies, Leti and Anna have no close consanguineous connection, despite being part of the same clan. The do however have an affinal relation: Anna is the sister of Mataode, who married Jacob, who is the brother of Lumpalau who married Leti, therefore Leti is ZHZH of Anna.

you] because I stood this cordyline up for your hands. You [used to] carry salt, and carry seashells inland, but now, the time has arrived for us to remove you entirely. But bless our reef, our *vala*, and make it so that fish come up to the shore for now.[T86]' He is speaking here of the fact that his parents and grandparents did not live on the coast, but inland, in the village of Patirina (see Map 1.2). They would therefore have had to travel down to the shore on foot to fetch seawater to salt their food, as well as other sea produce such as shells and fish. Referring to these facts is a way for Leti to legitimise his call to these forefathers within the context of the *vala*, despite them being inland rather than coastal people.

Next Kevin spoke for the 'youth group', talking to his eponymous classificatory grandfather:

> Grandfather Kevin, I say thank you very much for upholding the custom of looking after, the custom of working together, which has come up thanks to your name, and I say thank you for… Because you looked after, I saw what was obtained by your looking after the reef pass, so, later, I will remove your cordyline and free you, and thank you.[T87]

The key word in this speech is clearly *aiveven*: 'to look after, to care for', which occurs no less than three times.

Moremore, representing clan Manilava, spoke next, addressing his mother's mother's father, Kiapmo (shortened to 'Kiap'):

> Yes, grandfather Kiap a very good morning to you. My time to uproot your cordyline and free you has come. I say thank you very much for your respectful behaviour, and for how you look after [the sea] with us, and everybody has looked up to your name, and later I'll finish entirely the fact that I called your name here, I'll uproot your cordyline and free you, and thank you very much for your looking after with me, and keep on giving your very best blessing to our reef, so that later we continue to recognise respectful behaviour.[T88]

Then Laiamatarus ('Laia') spoke, representing clan Vengevenge:

> Forefathers, thank you very much, a very good morning to you all. Thank you very much for looking after this reef here, and we… I'm standing here representing the young children, and we have been able to lay a piece of talk on your heads, and maybe later today, we will pull up and uproot your cordylines and free you. Thank you.[T89]

Then Kilisan, representing clan Sui[11]: 'Sorry, forefather, thank you very much for going along with our request and our rules on the path to respectful behaviour. Thank you, later I will uproot your cordilynes in your name, and you [inaudible] later today I will make decisions, and pull up and uproot [inaudible] for our reef.[T90]'

The gathering then realised that Samuel, representing clan Siavun, was missing. Another prominent Siavun man, named Anton, was sent for and arrived soon after to make the following speech, producing a string of shell money from his woven coconut-leaf bag and holding it up as he spoke: 'All right, *kakai* [mother's brother], because you are a live *anit* of this *vala* here, or… This gift [of shell money], later, I will hand it to you, and I will

11. The representative of the Sui clan within the Marine Committee was Peter. Kilisan, who is also from clan Sui, had hardly ever participated in the Marine Committee meetings, but stood in for Peter at this point for an unknown reason.

uproot this cordyline here. I know that you make fish school in circles in the *vala*, and the fish in it, there is lots of meat in it. Yes. Thank you.[T91]' Despite him not having heard any of the other speeches, Anton's is very similar to them in its layout and formulation. This can be interpreted to mean that the ceremony involved *by necessity* such speeches, rather than it being one that happened to have been chosen by John Songo, and that others were 'imitating'. Hence the general objective of these speeches can be inferred from their comparison: to thank the *anit* for having made the fish in the *vala* abundant, for having 'looked after' it, making people 'respect' the prohibitions, and to ask them to release their guard and allow fishing. However, the fact that almost all men mention the uprooting of the cordyline and the presence of food and shell-money demonstrate that the materiality of the ritual is important. It is not simply a 'formula' that is being recited and will be intrinsically effective, actions must also be taken, and transformation of materials must be carried out for the customary prohibition to be effectively lifted. This can be viewed as a form of multimodal communication with the *anit* (a topic I will return to in more detail in Section 9.3).

As with Silau, the representative of Valus clan in the Marine Committee was a woman: Emilia. As with Silau, she was not present inside the enclosure. Contrary to Silau though, no man came forth to speak for Valus at that time. Later, outside of the enclosure, both Emilia and Roslin did speak for their respective clans and uprooted their cordylines.

Finally, Lamis spoke. He is neither a member of the Marine Committee nor a specific clan representative. He is a member of Nguma clan, that John Songo had already spoken for, and which Kevin, speaking for the youth group, is also a member of. Lamis spoke because he is a charismatic leader from Tovotokalas, a hamlet of Patirina, the inland community located a few hours walk north of Metevoe, a former *vosap* (war leader), turned chairman of the 'Peace Committee' (see page 219). As such, he is an important figure in the area, being both respected, and somewhat feared.

Lamis stepped forward, placed both hands on the edge of a table covered in cooked food bundles, and closed his eyes (Figure 7.6). Speaking in a deep, warm voice he addressed the *anit*:

> All right, our grandparents, it is a good morning, we are standing here, as children. We cannot see you and you cannot see us, but we know this: that you are with us. Thanks to the good behaviour coming from the head and the heart of the *mus*, you are people who share. We want your good behaviour to be with us at all times. There is all this shell money hanging here, there is food that is laid out here, with all these decorations. We would like you to see our pain, and see that our thoughts go to you. We know that you will see our good behaviour, at all times in the future. We are making a final speech this morning. All our grandparents, we would like your good behaviour to look after us at all times, and that there be no end to it. We submit our request to you, we would like things to be like we have asked them to be forever, which is the way we wish them to be. You place magic plants into our piece of sea to make fish easy to catch. We give it [this area of sea] to you for you to bless it. Thank you, along with all your good behaviour, we want to acknowledge these. We are all 'family' [in Tok Pisin], as we stand here. We are standing here representing all of you, and we are asking you here this morning. With that, we give our thanks to you, and we would like you to look after us, at all times. Thank you for now.[T92]



Figure 7.6: Lamis (to the left) makes a speech to the *anit* for the opening ceremony of the Metevoe *vala*, while (ltr) Hubert, Bernard, Leti, and other men unseen in this frame listen on. He is standing before a table covered in cooked food packets, in front of a decorated monument upon which shell money has been hung (visible with a red tuft of thread at its extremity, to the right). Still from a video, 17 November 2022, Metevoe.

After this, we all emerged silently and discretely from behind the fencing and went to our clans' respective 'houses', where we sat to drink coffee and eat breakfast.

As people started to gather, and while we were waiting for the 'guests of honour' to arrive—namely John Aini, Michael Ladi, and other Ailan Awareness members—Kevin spoke into a microphone connected to a portable amplifier. He told people who had since arrived about the morning's proceedings in the following terms: 'the three of us [*sic*] requested of the few *anit*: "you carry the piece of ficus from the sea here, then we[12] all fish".[T93]' This formulation makes use of the term *sokotuk*, which means 'to ask respectfully'. There are several words available in Tungag to refer to a request, and the specific connotation of *sokotuk* is that of deference, of a humble request.[13] It has also been used since Christianisation as one of the translations for the concept of 'prayer'.[14] Indeed, the ceremony which had taken place in the enclosure that morning displayed many similarities with Christian prayers that I previously had the opportunity to observe in

12. Here, Kevin resorted to the Tungag third person plural inclusive, *tara*, which, since the start of the sentence is a second person form addressing the *anit*, means that he is saying 'us, including the *anit*'.

13. Other verbs used in Tungag to ask for or request something include *aikut*: 'ask a favour, ask somebody for something', and *sui* or *susui*: 'ask a question, ask something', both of which are less deferential and more mundane than *sokotuk*.

14. The English word 'pray' can also be rendered by *posong*, literally 'pronounce, name, say'.

Lavongai: people bowed their heads; speeches were made in highly codified and deferential ways; and they used voices with a deep tone and rapid pace. Another term which Nick used in his speech to his *anit* that morning in the enclosure is part of the usual vocabulary of Christian prayer: he asked that his grandfather 'truly bless our reef' (*alomonaus a ro luai a kamem bangang*). The term *alomonaus* can be analysed as:

(7.2) *a-lomon* *aus*
CAUS-think breathe
'bless'

Alomonaus is formed of two roots: *lomon*, 'to think' and *aus*, 'to breathe', and bears a causative prefix, which derives VERB into 'cause to become VERBed'. In the Bible translation, the English 'bless' (and derivatives 'blessed' or 'blessing') is usually translated by the expression *poso atauia*, which is constructed as follows:

(7.3) *poso* *a-tauia*
say CAUS-powerful
'bless'

Poso atauia therefore means, literally, 'to cause to become powerful by speaking'. This form is used over a thousand times in the Tungag Bible translation, whereas *alomonaus* is used only six times. There is a high likelihood that *alomonaus* was derived from existing roots during the process of Bible translation, and that it was not used prior to that, although it would have had meaning. In other words: while the meaning of *alomonaus*, in Nick's use of the term, is 'to bless', there is also little doubt that he means this in a Christian sense. Nick participates very often in church activity in Metevoe, and on those occasions he regularly makes public prayers and speeches during service. This shows that there is a parallel between the interactions Lavongai people have with their *anit* and those they have with the Christian God, either because the former has been influenced by Christianisation, or because the local adaptation of the Biblical tradition has been inspired by previous practices that involved *anit* (and possibly a little of each).

The expression *ion i nei laman* in Kevin's address to the crowd literally means 'ficus tree in the water'. Here, it refers to the pieces of wood that were stood either side of the *vala* monument. When explaining the process of setting up a *vala*, Boniface referred to these as *tavatal*:

> Boniface: *tavatal*, they stand up a… to fence off the thing.
> Mark Collins: *Tavatal*? What is that?
> Boniface: it is a certain piece of wood, that is placed in front of the door on the way inside to an enclosure. It is… like this [holds up hands in a V shape].[T94] (Boniface, 3 May 2022).

Here, Boniface is describing a part of what I have referred to as the *vala* 'monument': a wooden stick which is placed vertically, such as those that were on the sides of the signpost in Metevoe (Figure 7.1). These *tavatal* resemble forked branches which are planted in the ground and must be stepped over to enter into a men's house enclosure in New Ireland mainland, and which are highly visible in front of most men's houses there (and have been for at least a century apparently: Figure 7.7).

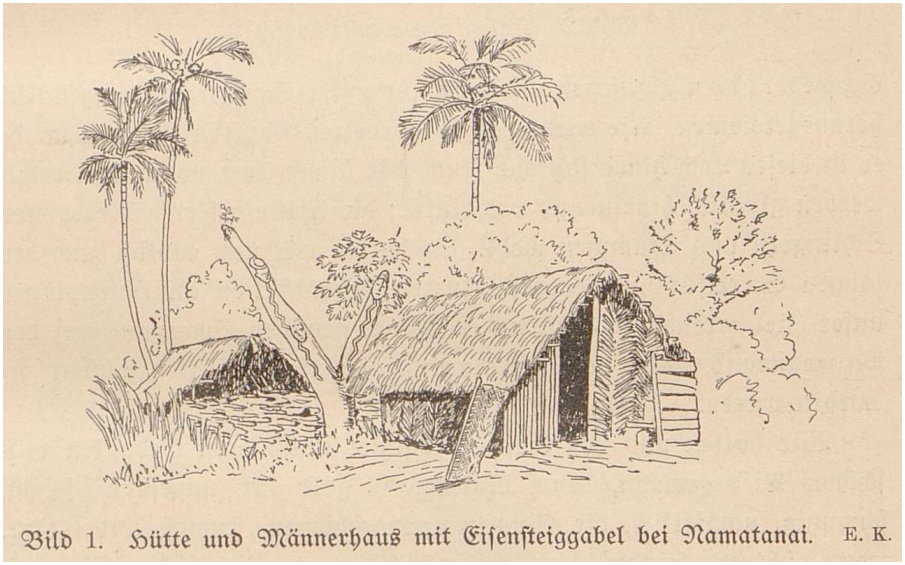


Bild 1. Hütte und Männerhaus mit Eisensteiggabel bei Namatanai. E. K.



Bild 80. Einsteiggabel in Rehenedel. A. B.

Figure 7.7: Two drawings by Elisabeth Krämer-Bannow representing fork-shaped pieces of wood near men's houses in New Ireland, produced from scenes she observed in the early 20th century, respectively captioned: 'Hut and men's house with an entrance fork in Namatanai' (1916, p 5), and: 'Entrance fork in Rehenedel.' (1916, p 164). [T95]

Throughout the morning, people arrived from neighbouring hamlets and villages of Teoputuk, Baikep, and the inland village of Patirina. John Aini and other Ailan Awareness members arrived from Lavongai around midday. They were accompanied by a team from the Conservation and Environmental Protection Agency (CEPA), who had travelled recently from Port Moresby. This CEPA team, led by Bernard Suruman (Marine Protected Area branch manager), explained that they were preparing for an online meeting of the Coral Triangle Initiative,[15] during which each country aimed to show a short video showcasing some local adaptations to climate change or local initiatives towards marine conservation. They were in contact with John Aini, who suggested they could come to the *vala* opening ceremony in Metevoe. They had visited prior to this, on 24 May; on that occasion, they asked publicly for permission to come to the *vala* opening and film the proceedings, to which the villagers assembled there agreed.

Once all the guests had arrived, the 'program' started. Paul Maras, the VPC chairman, made some opening remarks, then the clan leaders and youth were invited to return into the enclosure. Gideon, the Metevoe United Church pastor, said a prayer in Tungag in which he insisted that the 'creation' had been made by God once and for all, and that people were responsible for looking after it, since God would not create another one. He then called a group of people to come and sing a hymn, also in Tungag, accompanied by a guitar.

When the hymn finished, the slit drum resounded from inside the enclosure, and the numerous men in it sang two songs at the top of their lungs. These songs were ones which I had heard them practise the previous night, late into the darkness (see the transcription and a comment on these songs in Appendix K). As they neared the end of the second song, they destroyed the fence dramatically, breaking the coconut fronds at their lashings, and pushing over the corrugated iron sections, and the crowd massed around them.

Lamis then spoke, pacing back and forth, waving his arms, screaming, at times his voice breaking into tears. His speech emphasised the way this gathering is good because it brought each person into his clan group, 'connected' people to their clan (he used the English word 'connect' multiple times within his Tungag discourse). By this, he was obviously calling for more clan integration. Indeed, as described previously, the clan structure is seen by Lavongai people as their principal mode of social regulation and a 'strong' clan structure as the best way of producing order (Section 2.1).

Nick then spoke as a representative of the Marine Committee in general and gave a string of shell money, some pig and taro to Kolmaris—taken as a representative of Nguma clan. This was done, he explained, because Lumaias, a Nguma clansmen, had tied a string of shell money around the cordylines that had been planted at the installation of the *vala*, in order to 'strengthen' it. Nick described this action by Lumaias in his speech as something of a 'failure' on the part of the Marine Committee, since it took the 'strength' of Nguma clan to make this *vala* effective. Lumaias and John Songo, the village court magistrate (and hence another prominent local man), both Nguma clansmen, also stood by Kolmaris as he received this shell money. John Songo then gave a return gift to the Marine Committee, preceded by a speech.

15. See `https://www.coraltriangleinitiative.org/`.

Following this, each clan in turn performed the removal of their cordyline. The first to do so was Kanai, represented once more by Nick (see Figure 7.8). His intervention, which I quote in full here, demonstrates his masterful command of Lavongai oratory, which he is well known for in Metevoe, and it is a good illustration of the tonality of most speeches that were made following his:

> Well, ok. Thank you, a very good day or good afternoon to us all. I am standing here, as a young man, a lad from clan Kanai. I am standing here in front of this *vala* because of a bad thing that I have done. I called out the name of my grandfather, he is a Kanai clansmen. And I see things in the following way: that I disrespected him, when I called out his name. But it is also a very good thing, and I am thankful, that my grandfather has contributed, and is contributing a lot, to the look of the reef, and that there have been changes, in the way people listen. And I wish to thank my grandfather, for that which I have done. Now, I am standing here, it is like this: I am apologising, and I am actually taking away the [responsibility for making] rules, which I had placed upon grandfather, so that this responsibility may come back to me, and I myself will make rules again. So, with this, I am standing here, and I am glad to remove my grandfather from under the rule, and I am pulling out this cordyline.[T96]

This speech contains, essentially, three movements. Nick starts out by saying he has done something bad: he called his grandfather's name in public. He continues by saying that, despite this being a bad thing, he sees it as having had good consequences, referring implicitly to the high compliance that people displayed for the fishing prohibition. Finally, he 'relieves' his grandfather of this responsibility for looking after the *vala*, placing it back on his own shoulders by removing the cordyline that symbolises the involvement of his grandfather in this enterprise.

The key aspect of this speech is in the 'guilt' that Nick expresses for having called out the name of his grandfather. Indeed, in general, addressing a person in Tungag is a relatively strictly codified exercise, and to do so in an inappropriate way will be regarded as a lack of respect (see page 99). Calling upon an *anit* is done by name and is therefore, also, a shameful act for which forgiveness must be sought.

The speeches, gifting of pig, taro, and shell money to the *anit*, and public uprooting of cordylines continued, with Emilia standing for Valus, then Kipang for Vengevenge, John Songo for Nguma, and Moremore for Manilava. In the latter's case, there were certain complications. Indeed, Kiapmo, the *anit* whom Moremore had called upon when instigating the *vala*, was from the 'wrong' clan. He was Moremore's mother's father, and therefore not a Manilava, but a Valus clansman. Moremore should have called the name of one of his own clansmen, and the reason he called on Kiapmo is unclear; although this man was a blood relative of Moremore's, it should have been obvious to him that he was from another clan than his own, and hence was not the 'appropriate' deceased man to call upon as an *anit*.

Before he was able to 'pay off' this *anit* in the public ceremony, and in order to clear up this 'mistake', Moremore publicly placed one *inangun* around the necks of two women from the Valus clan: Bosiasusuak and Kavuntas. Their relation is as follows: Kiapmo had a sister called Nevuak, who is the mother of Bosiasusuak, who is herself the mother of Kavuntas. All Kipamo's brother's and maternal uncles were dead in 2022, so these two



Figure 7.8: Nick Pasinganlangit, representing clan Kanai, makes a speech in front of the *vala* monument, during its opening ceremony. Next to him is the red cordyline which he is about to uproot. In front of him are baskets of sweet potato and other food, and around his neck he is wearing a string of shell money, all of which are for the *anit*, his grandfather Poroto. 11 July 2022, Metevoe.

women were his closest clan relatives, which explains why the compensatory gift of shell money went to them.

Following Moremore's intervention, Roslin spoke for Sui and removed the cordyline that was planted for her clan. The next to speak was Anton, for clan Siavun. He too had to perform an 'extra' step in his customary work, because—as he had mentioned that very morning in his speech in the enclosure—the *anit* he had called upon was still alive, what is known as an *anit manas* (literally a 'hot' *anit*). It is indeed possible, when calling an *anit*, to do so with a living person, and the implication is that it is 'via' this living *anit* that one is calling upon the power of one or more deceased ones (Sub-section 6.4.2). Anton therefore gave one string of shell money, a live pig, and a large amount of taro to his *kakai* (mother's brother), Lupalau, a man from Metevoe now living in Meteran, a few kilometres along the coast to the west (see Map 1.2). Siavun clan thus had to provide extra food, including another pig, as well as a second string of shell money, compared to all the other clans, since one set of gifts was taken away and cooked for the next day's feast, and the other handed specifically to Lupalau.

Once Anton had finished, Isia came forwards for clan Silau, taking the place of Anna who was the clan's representative in the Marine Committee, and finally Kevin for the 'youths' of Metevoe. He too performed an 'extra' step in his customary work. This is because the *anit* that Kevin chose is unusual. As far as my genealogical records show, there is no consanguinity between this *anit*, also called Kevin, and the young Kevin. They are of the same clan, Nguma, but they belong to two distinct local branches of this clan.[16] However, the younger Kevin is indeed named after the elder, which likely signals a degree of friendship or proximity between Kevin's parents and the deceased Kevin. Possibly for this reason, when Kevin removed the cordyline he had planted in his classificatory grandfather's name, young Kevin and other Nguma clansmen, Lumaias and Kolmaris, made a ceremonial payment of one *inangun* to the deceased Kevin's widow: Anna (Figure 7.9).

Once all the Marine Committee clan representatives had spoken, made their gifts in order to *langai* the *anit*, and removed the cordylines, Isia asked them to stand in line. In what he presented as a gesture of support, he gave them each one string of shell money, amounting in total to eight strings, which in financial terms is a heavy burden, at K 400 at least, and which is even more significant in terms of its symbolic strength. As he did so, he stated: 'I am a leader in the community. [Long pause]. And I am also somebody who uses derris a lot, I admit it before your eyes.[T97]' More than an admission of guilt, or an apology, this impactful ceremonial gesture was a way to involve himself belatedly in something to which he had paid little attention until that day. Isia was not involved in the Marine Committee; as he himself said, he blatantly disregarded the rules they enacted; moreover, he had caused trouble just a few days before the ceremony by bringing up the controversial topic of tenureship in the *vala* area, by claiming that it was located within clan Silau's *tokosiangan* (coastal clan possession). He did not mention this last issue in

16. As detailed in Sub-section 2.1.3, although the island's clans are considered to be unified by Lavongai people, in most villages, larger clans have several distinct 'local segments'. This means that members of each segment can trace their common origin, but they cannot connect both segments back genealogically.



Figure 7.9: During the *vala* opening ceremony, Kevin (with the *kapil* headwear) holds up the 'youth group's' cordyline which he has just uprooted. Anna (visibly weeping, lower left of the image), the widow of the man whom Kevin called upon as an *anit* is walking away after receiving a string of shell money from him. 11 July 2022, Metevoe.

his speech before giving shell money to the Marine Committee but simply said he wished to thank each clan leader who participated for their efforts in this context. He also said that he was giving the shell money: 'with my good will, and with the following request: that tomorrow, we stand together once again to make rules over this reef here, for these children, for ever.[T98]' This was essentially a form of power play, and what it accomplished was twofold. First, it allowed Isia to place himself in the limelight, and to strengthen his own position as an 'important man' in the community, as somebody who has the ability to make rules, to tell people what to do. In a nutshell: it increased his power. Second, it added the power which Isia does wield as a respected 'big man', to the Marine Committee's own power, and in turn, increased the compliance they could expect from the community when enacting rules.

However, such power play rarely goes without reaction, and indeed, immediately after Isia gave shell money to the Marine Committee, Pasinganagom, Kolmaris, and Kilisan made return gifts of shell money to Isia. This can be interpreted as them attempting to thank Isia in return and also as attenuating Isia's ability to claim importance in this context, since they were in essence 'rising to his challenge'.

After this, John Aini stepped forward to perform his own 'customary work'. He too had come with a string of shell money for each clan representative, and he accompanied it with a gift of taro and pork to each. This amounted to a very sizeable monetary investment,

since he would have had to purchase eight exemplars of all three of these valuables, for several thousand kina (Figure 7.10). The people who came forth to receive his gift were not all the representatives who had been participating in the Marine Committee, but rather other men, some of them quite young and not usually in prominent positions.



Figure 7.10: John Aini makes a speech in the centre of the clearing before the *vala* monument. He has strings of shell money (*inangun*) in his hands which he is about to give to each clan representative of the Metevoe Marine Committee. He has also amassed gifts of taro and pig to accompany the shell money, which are placed in separate piles, visible to the left behind him. Small posts with signs on them indicate where each clan's representative should stand to receive the gifts. 11 July 2022, Metevoe.

Once John Aini had completed his round of gift giving to each clan, the clan representatives of the Marine Committee (with Isia for Silau in Anna's place, and Kilisan for Sui in Roselin's place), as well as Kevin representing the 'youths' were asked to stand together around a large pile of taro (Figure 7.11). Each one placed a hand on the pile, and Lumaias tied a string of shell money around these hands, symbolically 'binding' them together within this context of 'looking after' the *vala* area. As Lumaias did this, Lamis spoke into the microphone and explained that Lumaias was:

> representing the Peace Committee here, […] he is holding tight each and every clan here, under the peace that has come from his pain and sweat. And the Peace Committee blesses all the clan leaders here, so that there isn't a single, not a single disrespectful behaviour any more afterwards.[T99] (Lamis, 11 July 2022).

By this, the Peace Committee—represented both by Lamis and Lumaias—was essentially being supportive of the Marine Committee's work and adding their weight to the objective of enforcing this *vala* in Metevoe. The relevance of this point is considerable, as Lamis and many of the other members of the Peace Committee live in the inland village of Patirina. Although their nearest access to the sea is via the coastal village of Ungat, it is also possible for people from Patirina to follow the river Voe down to Metevoe, and that is where most of them consider their *tokosiangan*—their coastal clan possession—to be located, meaning it is there they would, theoretically at least, have the strongest claim to fishing rights, despite not living on the coast themselves. Past attempts to close off fishing in given areas have at times met with resistance from people inland, some of whom would come and fish, ignoring the rules either deliberately or through an honest lack of knowledge. The support of the Peace Committee therefore signalled a wide agreement, beyond the seaside villages, that this *vala* was a 'good' thing and that the Metevoe Marine Committee should be supported in its undertaking.

With this long day of speech-making, gift-giving, and 'customary work' completed, the crowd dispersed, and each clan gathered the food that they had amassed to present to the *anit*, as well as the various gifts they had received from John Aini and others, and took them to the locations they had respectively chosen to cook in. Late into the night, the men butchered dozens of pigs, cut them up into segments, wrapped them in pandanus leaves, and placed them in their respective *umpilum* (buried stone ovens). Meanwhile, in numerous cooking shelters throughout the village, the women set about peeling piles of vegetables, in particular taro, and heating up the *imun* (over-ground stone ovens) before packing the food into banana and *irip* (*Phrynium giganteum?*) leaves, binding them tightly, and setting them to cook throughout the night under the heated stones.



Figure 7.11: The Marine Committee gather around a pile of taro to receive a customary gift of food and shell money from the Peace Committee. Left to right: Emilia (clan Valus), Nick (Kanai), Moremore (Manilava), Kevin ('youth group'), Kilisan (Sui, standing in for Roslin), Isia (Silau, standing in for Anna), Anton (Siavun), John Songo (Nguma), and Kipang (Vengevenge). Behind them, Lumaias (orange t-shirt) prepares to give them shell money; on the stage, Lamis is speaking. 11 July 2022, Metevoe.

Second day (12 July 2022)

The next morning at dawn, as the tide was going down, a group of young men went out into the *vala* and fished with a large gillnet. They collected all the fish into a canoe, which was then paddled up to the shore, where a large crowd gathered to witness the product of this fishing in the previously prohibited area. The fish were emptied from the canoe onto the sand (Figure 7.12) where they were separated into eight equal piles, one for each clan. This was a key moment of the whole procedure. In several speeches and discussions thereafter, this amount of fish, described as quasi-miraculous, was presented as the 'proof' that *vala* is effective and beneficial, since it showed that, when people collaborate and respect the prohibition, large amounts of fish can be obtained.

As the fish were being cooked, the villagers went through what had been chosen as the day's 'program'. This was composed of a series of 'items' performed by groups of women from certain clans, which took the form of coordinated group dances performed to musical pieces played from the sound system, interspersed with more speeches, by Nick for the Marine Committee, Lamis for the Peace Committee, and John Aini for Ailan Awareness.

John Aini's speech, in a mixture of Tok Pisin and Tungag, insisted on the importance of respect (*mamaila*), and also referred to this abundant catch of fish which all had witnessed that very morning:

> And our culture, our ways of visiting each other, our ways of sharing, our ways of calling each other by the right kinship term, these have no meaning unless this word is also a part of them: respect [*mamaila*]. Today, you can see the fruit of respect. Respect for our reef. Respect for the [Biblical] creation. Respect for words, these words that were here before, that are here now, and that will remain alive for ever, for words are the basis for all good things.[T100] (John Aini, 12 July 2022).

The culmination of the day's proceedings were the dance performances put forth by clan-based groups of women. As women of a given clan, for example Valus, were dancing, other's who were married to a Valus clansman, or whose father was a Valus clansman, started joking with the dancers. They attempted to scare or destabilise these other women by rubbing 'dirty' remains of plants used for cooking or pig grease on them. One woman even threatened a dancer with a pig's skull. This is known as *leir* or *kurek*, a ritualised form of joking that is typically performed at public gatherings, notably during funerary ceremonies, between *ingag* (same-sex cross-cousins) or *tamai* (opposite-sex sibling's spouse or spouse's opposite-sex sibling; as discussed on page 104). The fact that such 'ritualised joking' was present on this occasion means that this customary work performed for the opening of *vala* is considered to be similar to funerary-cycle feasting.

Once all the clans that wished to present an 'item', and all the leaders wishing to make speeches had come forth, John Aini made one last intervention to officially 'close' the *vala* area to fishing once again. This was not a ceremony that would definitively allow fishing in the *vala* area, it was a temporary opening that would allow for the *anit* to be 'paid off' (*langai*) after which the prohibitions would be reinstated.

Finally, all the food was brought out and shared onto the carefully laid out *ngapat*, the lines of banana and coconut leaves around which people gather for feasts: taro and pig that had been cooked the previous night, as well as fish from that morning were shared



Figure 7.12: On the morning after the opening of the *vala*, a canoe full of fish which have just been captured by young men in the previously closed area is emptied onto the shore. They are mostly emperorfish (*Lethrinidae*), of which many are probably Blackspot Emperor (*Lethrinus harak*). 12 July 2023, Metevoe.

around. The full weight of the crowd then became apparent as people emerged from their various clan houses and moved in from surrounding areas to partake in the feast. In the many months I spent in Metevoe, I had never seen such a large gathering (Figure 7.13) and never did again, however major the occasion.



Figure 7.13: A large group of people from Metevoe, Teoputuk, Baikep, and Lavongai share the feast of the opening ceremony for the 2020 Metevoe *vala*. 12 July 2022, Metevoe.

One week later (19 July 2022): burning the cordylines

One week after this opening ceremony, the villagers of Metevoe gathered again for the 'last piece of work' in this *vala* opening ceremony: the burning of the cordylines. After uprooting them on 11 July, each clan had carefully kept this important plant, with the intention of destroying it the next week.

In the early hours of the morning on 19 July, young men fished once more with several gillnets, on the reef flat, in the area where the prohibition had been in force for the past two years (Figure 7.14). Another group of slightly older men also fished in the deeper waters beyond the reef edge (*kuli liung*), with another gillnet, using a method known as *tavu* (discussed above on page 263). Once again, the fish that resulted from this operation were carefully shared out into eight equal piles, each of which was given to a clan's cooking shelter, where women set about cooking them for the day's feast.

Without any announcement, a fire was lit discretely in the centre of the field, and those who had kept their clan's respective cordylines since their removal ceremony, a week earlier, came forward with them to place them in the flames. No clapping ensued. No speeches were delivered. As the cordylines were burned, a man named Kolnauris, who held no particular responsibility in the Marine Committee nor the village, stood beside the fire,



Figure 7.14: A week after the *vala* has been opened, young men fish in the area where all forms of fishing were previously forbidden to provide fish for the feast to burn the cordylines. 18 July 2022, Metevoe.

holding in his hands a few fish. After the last cordyline had been placed on the flames, he finally put this bundle of fish on the fire, and stood back. As they burned, Laimen referred elliptically to the *anit* as he shouted out from across the field: 'put some fish in the fire for "those people" [ie the *anit*]', and Kevin spoke into the microphone explaining that: 'they are not fish for us to eat, but they will stay in the fire, I want them to be entirely burned.[T101]' (Kevin, 18 July 2022).

With this 'sacrifice' complete, preparations were made to serve the food. Three *ngapat* (lines of banana leaves onto which food is laid) were placed on the ground—one for the men, one for the women, and another for the children—bundles of cooked tubers were brought out and laid evenly along them, pig was shared around into each bundle, and finally the fish which had been caught that very morning in the *vala* was also shared out.

7.1.4 Widening our perspective: comparative data

The anthropological, conservationist, and biological literature concerning 'traditional' forms of marine resource management in Oceania is ample. Such practices have been widely described and studied in Oceania. In the area where Polynesian languages are spoken—geographically in Central and Eastern Oceania—the term *rahui* is used to refer to a temporary ban on fishing in a given area (Bambridge 2016). Such practices have also famously been documented in Palau over 50 years ago by the biologist and anthropologist



Figure 7.15: Martin (green t-shirt) comes forth holding the cordyline for his clan—Siavun—which was removed from the *vala* monument a week earlier, to burn it while Kolnauris, standing nearby, holds fish caught minutes before in the *vala*. Kolnauris then places these fish in the flames. 18 July 2022, Metevoe.

Robert Johannes (1978, 1981). There are also sporadic accounts from such countries as Tonga (Bataille-Benguigui 1999), Vanuatu (Calandra 2018, §13-24), or the Solomon Islands (Hviding and Baines 1994), as well as Papua New Guinea (Feary *et al.* 2010; Mitchell 2023). Since the present thesis is not focused solely on the *vala*, but has a wider scope attending to all forms of interrelation between the Lavongai and marine life forms, this is not the place to attempt a full review of this abundant literature on 'customary' or 'traditional' marine conservation in Oceania. However, certain neighbouring cases from analogous ethnological, ecological, and cultural contexts in Papua New Guinea must be explored.

In 2019, when first arriving in Papua New Guinea to conduct anthropological research into marine interspecies relations, I conducted an interview with a man from mainland New Ireland's Tigak-speaking area, Parilo Gelson. This man claimed to have been born in 1914,[17] which would make him—at a 105 years old—by far one of the oldest men in the area, and for this reason, it was suggested by locals that I should speak to him.[18] When I asked him if he could tell me some stories about how things used to be when he was younger concerning the sea and fishing, he gave me the following answer:

> They used to close off the sea. All the things that were inside the sea, they used to forbid them, so that people couldn't go into the sea. They couldn't look at the things in the sea. They were entirely forbidden. Afterwards, there was a time where, they would lift the prohibition. Lift it again, and people would go inside to get fish. While it was forbidden like that, they couldn't go into the sea, it was really forbidden. It was for them, all our ancestors, they were there. Under 'custom', it is forbidden for people to go into the sea. And to me, it seems that, it…it is *bisinis* ['business' or 'affairs' in Tok Pisin, but also 'family', 'relations'] that relates to the sea. And regarding stories about the sea, this is the first one among them.[T102] (Parilo Gelson, 9 September 2019).

His recorded interview shows that an institution akin to the Lavongai *vala* existed also on New Ireland mainland in the mid 20th century. The comments that Parilo made on it also emphasises the fact that, just as in *vala*, 'ancestors', who may be compared to the Lavongai *anit*, were of importance.

Still very close to Lavongai, Ton Otto, a Danish anthropologist, carried out investigations into marine tenure in the mid-1990s (marine tenure around Lavongai was discussed in Sub-section 2.3.3). In this short ethnographic inquiry into the topic, carried out over a period of three months, he noted the existence of 'traditional' prohibitions in the Tigak islands, which are adjacent to Lavongai, but where a different language is spoken. In this area, he writes that:

> In the past a person could put a temporary ban on the use of a particular part of the reef. He could do this when he was applying magic (*timiniem*) to that piece of reef to attract fish. This was often done to secure a big catch in preparation for a feast. The area would be marked

17. Although it is difficult to verify this exact age, since he has no identifying documentation of any sort, it is clear the man is not far from this age, as one of his sons, Lengei, who did have identity documents, died in 2020 at the age of 72.

18. This suggestion reflects a tendency to defer to the opinion of elders and has been noted by many researchers in New Ireland, and more generally in societies of Oceania (Chowning 1979; MR Allen 1984).

> by poles (*bale*). Nowadays this way to restrict access is not practised any more. (Otto 1998, p 242).

The Tigak term *bale* appears to be a cognate of the Tungag *vala*, something that is made all the more likely by the fact that Tigak is the closest relative to Tungag in lexical terms.[19] Two aspects of this observation bear comparison with the situation in Lavongai. First, the fact that the *bale* was said to be used in the context of 'magic' used to attract fish. This resonates with the already apparent connections between fish-calling and the practice of *vala* (on which I shall expand momentarily in Section 7.2). Second, the familiar 'past tense'; in Lavongai, as in the Tigak-speaking area, *vala* and *bale* are said to have been practised before, but to no longer be, save in the case of the 'revival' undertaken by the NGO Ailan Awareness (more on this also, in Section 7.3).

The use of magic to effect a fishing prohibition is also described by Jeff Kinch, farther to the south within Papua New Guinea, in the Louisiade Archipelago in the province of Milne Bay: 'In the past, across the Louisiade Archipelago it has been a common practice to declare a portion of reef closed when someone of importance dies[…]. In the Misima language area, this practice is called "*tawakaus*"' (2020, p 152), a term which: 'comes from the practice of marking a particular tree to be closed to cutting or harvesting, the process being where "*silam*", "magic" is used' (Kinch 2020, p 152, note 29). Here, we also find the close association between the practice of closing off a fishing ground, and deceased people. In the Louisiade Archipelago, the aim of these closures was apparently to provide a reserve of fish that could later be used for feasts in the course of the funerary rites. In Lavongai, people denied that *vala* was used in such a purposeful way for specific deaths. However, the logic is analogous, since the deceased ancestors are involved in the 'protection' of the prohibited area and are recipients of 'gifts' on its opening.

In that same region of PNG, we find another probable cognate of the word *vala*: *gwala*. This practice is described in two paired short documentary films: *Gwala Rising in the Bwanabwana Islands* and *Gwala is Life*[20] as well as in an article by David K Mitchell of the NGO Eco Custodian Advocates (2023). These present a similar practice to *vala* from the island of Anagusa and others nearby also in Milne Bay.[21] In the first film, a frame of text reads: 'Gwala is the traditional practice of setting aside a reef or forest area to allow

19. Clive Beaumont, a linguist who worked on the Tigak language in the 1990s and 2000s, estimated that approximately 66 % of the vocabulary from these languages is cognate (Beaumont 1988, p vii). Several methods can be used to quantify lexico-statistical correlation, but Beaumont does not specify which one he used. To give some frame of reference, using what is known as a 'wordlist comparison', English and German have approximately 60 % cognancy (Eberhard, Simons, and Fennig 2023).

20. These films, Gordon (2018) and Gordon (2019), were produced as a 'partnership […] between the [United Nations Development Program Global Environment Facility] Small Grants Programme, a national not for profit organisation Eco-Custodian Advocates, and Open Boat Films which uses the power of short film to showcase traditional methods of indigenous practices in natural resource and environmental management.' (PNG UNDP 2019).

21. Coincidentally, in 2019, the very first day that I spent in New Ireland Province, John Aini welcomed me and, the same night, invited me to a gathering in Kaplaman (Map 1.2), a few kilometres from Kavieng, during which he showed the film '*Gwala is Life*', and two WCS employees made presentations on the threats that coastal populations are facing in regards to fisheries and encouraging them to establish 'locally managed marine areas' (LMMA).

the ecosystem to recover' (00:01:46). Interviewees describe a similar situation in Anagusa and neighbouring islands to that of Lavongai: *Gwala* is said to be an 'ancestral' practice which was no longer used, and which people are now actively reviving in order to counter multiple perceived threats to marine ecosystems. They speak of *gwala* as a prohibition, installed on a reef area by placing a decorated vertical stick on it. They say that this helps to 'manage' or 'look after' the marine resources, and produces abundant fishing yields thanks to the 'spillover effect', or when the community decides to open the *gwala* temporarily and fish there. According to the film, one of the main instigators of the Gwala revival is a man named Madiu Elama Peter, a local elected representative (ward counsellor) of Anagusa, who goes so far as to say that: '*Gwala* is a way of life, it's a day-to-day practice, that we want to push and encourage the new generation to capture and practice day-to-day. Because in *gwala* there is sustainability, in *gwala* there is management, in *gwala* there is respect, in *gwala* there is life.' (00:13:55). This presents a very similar discursive framework to the one used by members of Ailan Awareness in favour of *vala*. Central is the concept of 'respect' (*mamaila*), a complex one, since the term is used without specifying to what this respect should be given. In Lavongai, when enquiring about the beneficiary of this 'respect', people answer that it is owed all at once to the 'reef' in general, the fish that live there, the (living) people who set up the prohibition, and the dead people who were called on as *anit*. The implication is that what people are talking about here is far more than 'conservation of resources', and involves aspects of general social behaviour, of that which is or is not 'appropriate' ('good' behaviour) in relations both between humans and between humans and nonhumans.

Institutions in the region that involve such prohibitions on fishing therefore appear to present a series of similarities, beyond the materiality of a planted stick on a reef flat. Specifically, these are:

1. seen to be 'old' and embedded in forms of 'traditional' magical action;
2. currently undergoing forms of 'revivals' under the influence of exogenous considerations regarding conservation;
3. centred around relations with 'spirits' of deceased men; and
4. relate to forms of 'good behaviour'.

Every one of these aspects of the *vala* is important to analyse in depth.

7.2 Whence? The role of *vala* in fish-calling

First, we will attempt to analyse how *vala* stands in relation to that most timeless of anthropological dichotomies: the one which articulates 'tradition' and 'modernity'. On the one hand, *vala* is framed by locals as something that is inherently an element of their '*kastom*', of customary or traditional practice. On the other hand, discourse also connects the practice, or certain aspects of it, to 'science'. The aim here is not to question the antiquity, much less the 'authenticity' of *vala*, such that it may be observed nowadays. All sociocultural practices undergo processes of change and adaptation, and it is to these that the following pages will attend.

Recall that, in his speech addressed to the *anit*, in the early hours of 11 July 2022, Lamis said: 'Our grandparents […] You place magic plants into our piece of sea to make fish easy to catch. We give it [this area of sea] to you for you to bless it. Thank you[…]. With that, we give our thanks to you, and we would like you to look after us, at all times. Thank you for now.[T103]'.

What of these 'magic plants' that the *anit* are said to place 'into our piece of sea to make fish easy to catch'? This evokes the fish-calling magic described in the previous chapter, but what relation does this have with *vala*? The term that Lamis is using must be analysed more precisely:

(7.4) *Mi a-sarak ka-mem buk laman.*
2PL CAUS-plant.for.fish POSS-3PL.EXCL piece water
'You cause our piece of water to contain plants that make fish easy to catch.'

When I asked about the meaning of *asarak*, I was told that fish-callers use the expression *tepe sarak* to refer to a basket full of plants that they place in small rivers with the aim of influencing the behaviour of fish. *Sarak*, people surmised, might be the hidden name of a plant, one that some fish-callers might know how to use in order to influence fish in a certain way. They compared the term to *amamakarik*:

(7.5) *a-ma-makarik*
CAUS-REDUP-itchy/uncomfortable
'make uncomfortable'

The word *makarik* is used to qualify a plant or some foodstuff and indicates that it has an irritant, itchy, or uncomfortable effect. As analysed previously (and see also Appendix J) plants that exhibit such qualities are often used in magical preparations. For instance, any substance (plant, liquor, medicine, etc.) that exhibits this property will be considered appropriate to give to a dog during magical action designed to make the animal into a good hunter. The exegesis of this association between irritant plant and good hunting is that the 'heat' that will be felt on the dog's part as a result of being forced to ingest such a substance will cause him to be 'angry' and to want to 'fight with' or 'bite' pigs during the hunt. In the case of magic used to influence the behaviour of fish, the role that is devoted to plants placed in the water varies immensely (this was discussed at length in Section 6.4). *Sarak* is one such plants that is said to make 'tame' fish come close, and thus to facilitate the eventual capture of other 'non tame' fish which they bring with them.

The link between *vala* and fish-calling in fact goes much deeper. The first time I ever heard the Tungag word *vala* was in 2019, during an interview with a fish-caller. Speaking in Tok Pisin, this man nonetheless used the Tungag word, *vala*, no doubt for want of a fitting translation into the vehicular creole. He used it to refer to a stick, a piece of wood that he said must be stood vertically in a *ngoto*, a pile of stones under which he would have previously placed a bundle of plants in the context of magical action aiming to influence the behaviour of fish. This stick, the *vala* proper, in his description, needed to be stood there in order to signify to all who would pass by that the area was undergoing magical action intended to call fish. The aim was to prevent people from fishing or collecting any

marine animals in the vicinity, lest these activities hinder the efficacy of the magic. He stated that it was important for everybody in the village to show respect by heeding the warning of the *vala*. If they failed to do so, the magic would not work.

Years later, in a 2022 interview with several people present, at Lavongai village, when I questioned them directly about what a *vala* consisted of, Matare stated: 'The role of *vala*, when a man like him [Boniface] calls sardines, or calls fish [with magic], they put a *vala* in place, they close it [the area of sea] with a *vala*, because him, he is really calling these fish.[T104]' (Matare, 3 May 2022). In this response, Matare was referring elliptically[22] to Boniface. Born in 1943, and nearing 80 years of age at that time, Boniface is an exceptionally old man by local standards,[23] and for this reason people often turn to him when they need information regarding 'traditional' Lavongai practices. During this interview 'Boni' was present, and it was well known that he possesses knowledge of fish-calling magic. What Matare was stating here, under the assenting gaze of Boni, was that *vala* constitutes one of the fish-caller's tools. Much as the fish-caller speaking in 2019, Matare was explaining that *vala* is something that is used by fish-callers to signal that the area of reef involved must not be entered.

The specific expression which Matare used: *vala bat*, is enlightening. This construction uses what linguists working on the Tungag language have called a 'compound verb',[24] and has two roots:

(7.6) *vala* *bat*
traditional prohibition fence off
'prevent access by means of a traditional prohibition'

Such verbal compounds cannot coherently be formed from all combinations of verbs, but only from those that describe actions carried out either simultaneously, or in close temporal succession, with some semantic connection between them. They tend to produce dense images: in just two words, verb compounding can produce a semantically rich picture. *Bat* is a verb which is often found in the last position of a compound verb construct. The meaning of such a verb phrase is that one is 'doing something in a way which blocks/fences off'. Consider these two examples:

(7.7) (a) *sinung* *bat*
sit fence off

22. Such indirect references to people are common on Lavongai because it is unpolite to refer to somebody by name, and kinship terms—the polite alternative—are often ambiguous; see page 99.

23. Recall that estimates of life expectancy were 67.4 years for a Papua New Guinea woman, and 63.4 years for a man in 2022 (WHO 2022, p 94).

24. Lesley Fast, the SIL-affiliated linguist who, with his wife Marian, translated the New Testament into Tungag, noted that: 'There are many cases of double actions that are expressed by compounding two verbs into the usual slot in the VP [verbal phrase]. In most cases these verbs are not changed in any way and can also stand on their own.' (L Fast 1990, p 26). His daughter Karin Fast, who grew up speaking Tungag, wrote nearly 40 years later that: 'Compound verbs are two verb stems which occur directly after each other and which both predicate the subject together. They share person, tense, aspect, mood etc. markers. There is no change to the verb stem except that in some cases the first verb is shortened. […] Any verb can be put in the second position, but there are also a number of verbs which can only occur in the second position and cannot occur as the main verb in a clause.' (KE Fast 2015, p 20).

'sit in the way'

(b) *mika bat*
dance fence off
'block by dancing in the way'

There is a form of constraint on the first verb in this series: it must be an action which one can perform in order to block somebody's passage or deter access to a location, or prevent something more generally. The fact that *vala*, used as a verb, can combine with a term such as *bat* in a compound verb therefore says something of the semantic field in which the concept belongs: the action of *vala* is something that can be done at the same time as, and coherently with, that of 'fencing off', of prohibiting access to something. But verbs which are used in a verbal compound are never pure synonyms either; therefore, the use of *vala* in the compound *vala bat* indicates that it is not simply a 'plain' closing off that is being referred to. There is 'more to it' than that: the extra components of *vala* itself.

The core of the practice of *vala* is its implication of the *anit* in what would otherwise be a simple prohibition on fishing. During a recorded group discussing regarding *vala* on 27 July 2023 with several men in Metevoe, a clear distinction was made between what they called *vala palau* (make a plain *vala*) and that of *vala ta anit* (*vala* with an *anit*). They listed examples of past 'plain' *vala* initiatives that had not been respected, in which people would poach. In a previous interview, Nick, a member of the Marine Committee, had explained: 'We realised that how ever many *vala* we set up before, we would set them up, but people wouldn't respect them.[T105]' (Nick, 16 July 2022). Teresia also mentioned this same tendency to disregard previous prohibitions that had been set up: 'If they [the Marine Committee] just say "don't go fishing", some people won't listen and be corrected.[T106]' (Teresia, 18 July 2022). The specific previous attempt made by August, the village court's 'Peace Officer', at Kulinus (a neighbourhood of Metevoe; see Map 1.5) was often mentioned. In 2019, this prohibition was supposed to be in effect during my three months stay. According to my interlocutors at the time, people had 'no respect' for it, meaning some still fished there. Clemen recounted during a group interview:

> August did it first, brother, he put a *vala* in place. But he just put the *vala* in place without any customary work. And when they would go to spear fish along the shore, they wouldn't listen to him at all, they would spear fish along into his area, and when he tried to correct them, they would run up to him with their spear guns armed. As if they would shoot him, brother. They wouldn't listen at all.[T107] (Clemen, 27 July 2023).

The way a *vala* is put in place therefore does indeed play an important role in conditioning people's behaviour towards it.

Boniface stated that there was an indissociable link between the action of creating a *vala* and that of calling on an *anit*:

> Mark Collins: what does it [a *vala*] do? What kind of work?
> Boniface: *vala* is fencing off. Right? Fencing off with an *anit*.
> Igua: they fence something off with an *anit*.
> Boniface: like, this reef pass, they've fenced it off with an *anit* already. Yes.
> Total: *vala*, indeed.

> Boniface: the *anit*, he who is dead, that's all, you…
> Igua: you call him.
> Boniface: … you call him.
> Total: cordylines, indeed, they stand them up.
> Boniface: a number of cordylines. […] They stand up a… to fence off the thing.[T108]
> (Boniface, Igua, and Total, 3 May 2022).

From this perspective, a 'plain *vala*', in which no *anit* is called, is no *vala* at all, and the word should not be used in that case. This dialogue makes the importance of the *anit* for *vala* very clear and points once again to the plants that are key: cordylines. Daniel also emphasised the strong ties between *anit* and cordylines, when he stated that the clan representatives had 'put cordylines on each and every *anit*' (Daniel, 27 January 2022). This formulation is similar to that which was chosen by a group of men who stated that they had 'erected a cordyline on the *anit*' to describe what was done during the instigation of the *vala*.[25] This obviously relates to the way men addressing their *anit* on the 11 July 2022 ceremony in the enclosure tended to amalgamate the *anit* with the cordylines, in expressions such as *nala purut suai anim*: 'I uproot you away and free you' (see page 319). Cordyline are systematically grown on graves on Lavongai, and they are one of the most symbolically significant plants for the island's inhabitants (Sub-section 2.3.2).

Anton Siavun, asked by John Aini to explain what *anit* were, responded: '*anit* is the mystical mystery of this island here, Lavongai.[T109]' (Anton Siavun, 4 August 2023). What he meant by this is that they are an unknowable force which *belongs* to the island of Lavongai, in the sense that they are a strong part of its identity. *Anit*, in this perspective, are considered to be key aspects of the 'traditional' or 'customary' spiritual practices of the Lavongai people. Recall also, from the previous chapter, that *anit* are key to magical action (Sub-section 6.4.2).

7.3 Where to? *Vala* hybridised in conservation and management

On multiple occasions, people in Metevoe opposed two forms of *vala*. On the one hand, they described the 'traditional' *vala*, one founded on the call to *anit*, stemming from the need to sanctify an area where fish-calling is or was being practised. This had been used in their view for generations and continued to be used in places. On the other hand, they spoke of a contemporary form of *vala* which they said they practised under the guidance of Ailan Awareness, and by drawing on the interventions of WCS and other outside agencies. Misirau phrased this very explicitly in a group interview in 2023, speaking of 'the work of science' (in English within his Tungag) and of 'customary work' (in Tok Pisin, *wok kastom*):

> The people from Ailan Awareness, first, they just came to do the work of these MPA areas here. Completely under the work of science, right. But, people didn't respect them. Lots of

25. It could be argued that this formulation should be interpreted to mean simply 'in their name', but I believe that it reflects a more literal conception of 'where' the *anit* are seen to be located: they are in the ground, where dead people's bodies are interred.

> people didn't respect that work, these *vala*, when they instigated them. People would fish with derris in them, they would fish with nets, they would poach in them. So, because people here… they saw that, because people here… respect customary work, they tried to… join it together with… science together with traditional, hum… the customary work, right. So, they said, indeed, that they would do customary work on this *vala* here, and when you do your *vala* you do it along the path of *kastom*, with customary work. […] And this kind of *vala*, we started one here, they did so in Lavongai. And it appears that people have respect for this *vala*. For this kind of *vala*. This way of doing *vala*.[T110] (Misirau, 27 July 2023).

This is explicit: 'traditional' and 'scientific' *vala* are seen to differ through the latter's use of a combination of 'customary work' and 'science'. This is therefore a third type of *vala*, beyond the 'plain vala' and the '*vala* with *anit*' which were previously distinguished (see page 345). In essence, the 'plain *vala*' is a simple prohibition and should not truly be called *vala*; the *vala* with *anit* is 'traditional', and the 'scientific' one adds yet more elements to its functioning while still calling on the *anit*.

A key feature of this new type of *vala*, according to Misirau, is that certain fishing methods are seen to be 'good', and specifically, fishing with derris is strictly prohibited. Misirau insisted upon this, several times, such as here:

> But when you open it [this 'non-traditional' *vala*], you don't fish in it with derris, as you would in a traditional *vala*. You just remove it following the road of *kastom*, but you fish in it with the fishing techniques that… the good fishing techniques that WCS […] like. Such as: you don't use […] small sized nets, you don't fish at night with goggles, you just fish with the good fishing techniques.[T111] (Misirau, 27 July 2023).

Misirau returned to this topic of 'good fishing methods' later on during this group discussion: 'this *vala* is to sort out the fish again, so that they come and stay, and people fish for them with different kinds of ways of fishing. Not in the kind of way we have of doing it with *vala*: when the time comes, keep fishing with derris.[T112]' (Misirau, 27 July 2023). The above suggests that fish are not made to feel welcome when people fish with derris, since in order for them 'to stay' the suggestion is to use 'different kinds of ways of fishing'. Later, Misirau expanded upon a certain disagreement which had surfaced among villagers as to the truly detrimental nature of this fishing method, exposing some of the tribulations that the Marine Committee endured on the road to setting up this *vala*:

> People said that they make the fish come up into the clear with derris. With… but that was a bit of a challenge to us, as in: is that true? Because derris destroys all… 'marine life' [in English]. It destroys the fish, it destroys the octopuses, it destroys the corals, it destroys all the things in the sea. It doesn't just kill fish, it kills all kinds of creatures from the sea, and it also destroys their place to grow, their place to lay eggs in, on the stones and all those things. It destroys everything inside them. That's why we really don't want derris. […] They… We explained well to certain people, because when they saw people fishing with derris over there [points towards Baikep], they said: 'well now why don't these people here, the [Metevoe] Marine [Committee] also talk well and allow us to collect fish here too, in this *vala* here'. Well, we explained well to many people and they understood well.[T113] (Misirau, 27 July 2023).

Misirau says that people opposed to the ban on derris fishing state that they do nothing more than *tua sarak a ien*, which can be glossed—awkwardly—as:

(7.8) *tua* *sarak* *a* *ien*
fish.with.derris plant.for.fish OBJ fish
'put derris into the water to make fish easy to catch'

When Lamis thanked the *anit* during the *vala* opening ceremony, recall that he had said they *asarak kamem buk bangang*: 'place plants to make fish easy to catch in our piece of reef' (see Gloss 7.4). This, and the use Misirau reported that people had made of the term *sarak* here show that it has an overall positive connotation. Its use alongside *tua* therefore suggests that derris is not perceived, historically, so much as a problematic nor polluting substance, but as an element among others of the plants that can be used to influence the behaviour of fish. There is a continuity here with the practice of fish-calling, in which numerous plants are used to entice fish to do various things: remain in a given location, move over to another, be easy to come close to, or show themselves. None of these are seen as 'bad', nor intrinsically 'dangerous'.

Another particularity of this 'hybrid *vala*' which Misirau emphasised is its open-ended nature, the fact that the Marine Committee intend to maintain it for the foreseeable future:

> And this *vala* here, it is a *vala* which we will look after, and it will stay for many many years. We won't end it, this *vala* here. It will start just once, and then stay until we die, and this *vala* here will stay. So that it can help the sea, so that the sea is full of fish once again. Because our sea has no more fish in it. Otherwise, we are afraid that there will once again no longer be any fish in it.[T114] (Misirau, 27 July 2023).

Note that Misirau justifies the need for a *vala* by the low numbers of fish that he says they have observed in their waters, in comparison with the past. This also echoes observations made by many fishers in the village, on multiple occasions. Older men recalled with nostalgia times when they would fish with hook and line for barely an hour and return with several large fish, lamenting that nowadays one could fish all morning and return with barely a few small ones.

Overall, the detailed analysis of the Metevoe 2020 *vala* offered above by Misirau illustrates some of the tensions that exist between its 'traditional' and 'modern' aspects. Key to this discussion are the perceived intentions of Ailan Awareness or WCS, conservation organisations with their own agendas and perspectives on issues such as prohibiting and conserving marine resources. In order to understand how the ideas that have been provided and encouraged by Ailan Awareness have been received in the context of *vala* in Lavongai, we can learn from a short film entitled *Vala North*[26] for which Ailan Awareness was a local partner and in which the NGOs members are central characters.

The topic of *Vala North* is specifically the Lavongai practice of *vala*. John Aini, founder and managing director of Ailan Awareness, is interviewed in the film and describes *vala* as 'our traditional way to manage and protect these [marine] resources. The *vala* is a mark to stop any activity from happening in a particular area. So that is basically what it does. It is a *tambu* [prohibition].' (00:04:20). Another interviewee, Kenny, says that the work of *vala* aims to 'look after the fish', and that he 'does not want the fish to be wild.[T115]'

26. The film *Vala North* was directed by the same film-maker as *Gwala is Life*, and produced with the same funding (Stephani Gordon 2019).

(00:08:08). This echoes statements made by my own interlocutors, who denounced certain behaviours as causing fish to become less tame and more wild. For example, Elubi and her husband Ben Ottis commented favourably on the prohibitions on fishing imposed in the context of *vala*, because 'it doesn't make them [the fish] completely wild, because there is no spear fishing, right, nor net fishing, or whatever, over there [in the *vala*], to make the fish wild.[T116]' (Ben Ottis, 3 July 2022). By this, Ben means that the *vala* allows fish to become, or to remain, 'tame'. This is explicitly opposed to allowing people to resort to fishing techniques considered disruptive, loud, disrespectful, such as *sasang ta uvene nei bangang* (running on the reef to scare fish into a gillnet, see page 263). Using these techniques would make fish remain far from people; it would make them wild.

There are specific fishing techniques, in particular spear fishing such as *makmakanai*, using a long spear while standing in a canoe, that require the fisher to get very close to the fish (see page 267). When I discussed this technique with a group of older men in Kaselok, which included Kenny who spoke in *Vala North*, they stated that their parents and grandparents employed them often, whereas nowadays they were rarely used. They were of the opinion that the fish which their ancestors caught by this method must have been less wild than the contemporary ones, since otherwise it would have been impossible to catch them with these methods. Fish nowadays cannot be approached in this way, they said, because young people are fishing with torches at night, running on the reef-top with gillnets, and 'making the fish wild'. In the past, on the contrary, fish 'were under the good care of the ancestors.[T117]' (Kenny, 1 November 2021). This clearly echoes the practice of fish-calling in which the magicians are said to be 'looking after' the fish (Section 6.3) and aiming to make them 'less wild' (Section 6.5).

This 'tame' behaviour of fish is also tied to the notion of order, of cleanliness, of organisation. People from South Lavongai comment on the way that West Lavongai fish swim around in well ordered groups, in schools of one species. Such remarks, which were made several times by different people, confused me at first. What is so surprising, I thought, about fish schooling in this way, something that, from my perspective 'fish just do'? Only after further discussion and by noticing that this notion of 'order' was also used to describe the behaviour of other animals did I understand that it was a comment on the appropriate way for animals to act. 'Tame' fish in this perspective are those that uphold this notion of order, that are in their place and behaving adequately. It was ultimately a comment on the West Lavongai people's ability to take good care of their fish, making them 'behave' adequately. This ties back into fish-calling being said to enable men to 'tame' fish (as discussed in Section 6.5). In other words: be it through fish-calling, by selecting the right fishing methods, or by instigating a *vala*, the Lavongai people are seeking to make fish more 'tame' and less 'wild'.

Nelson is from Tsoi-Mamion in East-Lavongai (Map 1.2) and worked several years as a 'community facilitator' for WCS.[27] He stated that even when one's goal is to 'look after'

27. WCS works with Tungag-speaking 'community facilitators' on an ad-hoc basis, paying them a daily stipend to travel around the island in motor-boats with the permanent staff and to participate in various 'sessions'. These 'facilitators' are not on any form of permanent payroll, nor are they required to do any work for WCS outside of these 'session' or 'field-trips'. I spoke to a number of people who had been employed as community facilitators. Some were teachers, former teachers, others comparatively highly educated people

marine life, prohibitions cannot be left in force at all times: 'There must be a time to take, and a time to look after [marine resources].[T118]' (Nelson, 18 May 2022). This mirrors what people in Metevoe described as the 'traditional *vala*', which involves prohibiting fishing in a certain area for a few months, at most a year or two, and then fishing intensively in it with poisonous plants and other methods. This, they said, is the way that people used *vala* in the past. Matare also said that *vala* aims to do the following:

> It [a *vala*] calls all the fish, from all the many points, and they come to shore over there, at that reef. Because, as time goes by and it comes to that time, they… the fish arrive. If there is a big event, or if people make a big decision of that kind, for people, like a big feast, they open […] the place which they put a *vala* on. All the fish in it, they are there to eat for […] the feast.[T119] (Matare, 3 May 2022).

Such a conception of the prohibition as a 'larder' or a fallow in the fishing cycle, tied to an upcoming event, is a common trope of the way 'traditional' marine prohibitions function in Oceania, including in certain coastal locations of Papua New Guinea. In this literature, these 'traditional' prohibitions are often contrasted or compared with the 'conservationist' approach, which seeks to identify 'biodiversity hotspots' or 'areas of high ecological value' and attempts to protect them as integrally as possible from all human intervention. While the two approaches may resemble each other superficially, in as much as they both involve prohibition of activities, they are very distinct in motivation and in modality. This begs the question: can such a 'hybrid' provide a positive outcome for the people who are instating it, while at the same time providing an overall benefit to 'biodiversity'? This question evokes an old debate in social science and among conservationists, concerning the effectiveness of 'traditional' closures (for overall presentations of this debate see Polunin 1984; Ruddle 1988; Jacka 2010; Artaud 2014). On this matter, the current consensus is ambiguous at best.

The terms of this debate are stated very clearly in the title of an article by Nicolas Polunin: 'Do Traditional Marine "Reserves" Conserve?' (1984). On the one hand, scholars have pointed out the possible environmental benefits that social institutions taking the form of 'taboos' or prohibitions could have (Johannes 1978; Hviding and Baines 1994). On the other hand, there are numerous examples of social practices that are highly destructive of the immediate environment which societies depend on. This, along with current rapid changes in demographic, economic, and ecological conditions (particularly driven by globalisation and anthropogenic climate change), leads them to conclude that even if certain 'traditional' prohibitions may have beneficial effects, and could be used in certain circumstances in order to further conservation goals, they are far from sufficient in and of themselves, and pose their own problems (Foale and Manele 2004b; Foale 2006a; Feary *et al.* 2010; Foale *et al.* 2011).

Simon Foale is no doubt one of the scholars who has carried out the most research in this field, and he provides convincing data to argue towards the second perspective: that

with no permanent employment. The organisation, I was told, requires a minimum of a grade 10 education to qualify for this position because community facilitators must take notes and produce reports. They are also hired to a degree for their ability to translate certain parts of the organisations discourse into the local vernacular.

traditional prohibitions are not related in any way to long term 'management' of marine resources in this region. He writes that, in Western Oceania:

> People know that leaving an area un-fished for a period usually results in an increased yield for that area, which comes in handy for feasts or raising cash to pay school fees. However this is really a stockpiling technique and bears no relation to the ecological rationale that underpins the idea of using a permanent closure to hedge against recruitment failure. Alone, this practice will not prevent overfishing; once human populations and markets place enough pressure on stocks to seriously deplete adult biomass across the region, the intensity of harvesting during the open season, combined with reductions in spawner biomass on the larger scale, will slow the rate of recruitment during the closed seasons to a trickle, and essentially render them ineffective. (Foale 2006a, p 2).

Foale writes here based on his knowledge and training in two academic disciplines: marine biology and anthropology. He has carried out numerous mixed-methods investigations in particular in Papua New Guinea and the Solomon Islands (Foale and Manele 2004a,b; Foale 2006a; Foale *et al.* 2011; Macintyre and Foale 2013). He emphasises both the insufficiency of a serial prohibition and the key role of contemporary socio-economic change in this respect.

There is much more to this debate than can be expanded on here. However, one more aspect is of importance: the question of the social effect that such 'traditional' closures may have. It is indeed possible that one of the main values of such traditional prohibitions resides in the heightened awareness they produce in contexts such as coastal Papua New Guinea or Solomon Islands, namely that marine resources must be used with some care. This perspective is usually sorely lacking in the region: 'As my own research [...] and that of others [...] has shown, most rural Melanesian fishers believe that the abundance of fish is something that is ultimately beyond their control, and has no limits.' (Foale 2006a, p 2). James G Carrier states similarly that on the island of Ponam offlying Manus in Papua New Guinea, the locals:

> held that the ordering and operation of the world was dictated by God [...] In some respects, [they] saw God as an ultimate ancestor. Just as ancestors monitored and judged the behavior of their descendants and allotted reward and punishment accordingly [...], so did God for all people. (Carrier 1987, p 153).

As a consequence of this, they did not perceive any potential for action by humans that would have made a difference to the amount of living beings present in the sea: 'If sea turtles were going to die out, as the government said, it would be because God wanted them to. A halt on hunting sea turtles would not change God's mind but would be very costly to the Ponams.' (Carrier 1987, p 154). Jeff Kinch noted a similar situation in a report conducted on a conservation initiative aimed at preserving leatherback turtles in the Huon Gulf, on the Bismarck Sea shore of Papua New Guinea mainland: 'Historically, there was not a strong need to regulate resource use along the Huon coast on the basis to avoid over-exploitation, with people having little pragmatic concern for the environment.' (Kinch 2006, p 3). Such a mindset was also evidenced in Lavongai by this seemingly paradoxical fact: in the western part of the island, including the northwestern off-lying islands, fishing is abundant, and there, people are more aware of the need to preserve their marine resources than are

inhabitants of the south, where fishing is less abundant due to the differing ecosystemic conditions. This is something I observed, and which is also testified to by the following comment: 'In the west [of Lavongai], they respect the traditional prohibitions. But, in our place, here, in this area where fish don't… fish are not that plentiful here, we don't… respect the *vala*.[T120]' (Misirau, 27 July 2023).

Simon Foale does however point out that, despite this state of affairs: 'people are very pragmatic with regard to environmental knowledge, and are constantly willing to test received wisdom against their own observations, or to incorporate new information that they think is credible.' (Foale 2006a, p 3). This I also observed in Metevoe, and it is a key point in the analysis of the ongoing 'revival' of *vala*. Foale thus remarks, with a degree of hopefulness, that:

> Melanesian school children are immensely enthusiastic about their indigenous knowledge heritage, and if this approach is used for the introduction of science, they are much more likely to absorb scientific ideas, and test them against, or incorporate them with, local knowledge. (Foale 2006a, p 3).

This is certainly one level on which these types of 'revivals' of 'traditional' closure methods such as *vala* do operate: by allowing for a renewed interest in marine resources, coupled with a form of appropriation through 'tradition', which might open the path to increased awareness concerning the importance of conscientious management of these resources.

To conclude this discussion of the 'hybridisation' or adaptation of exogenous conservationist agendas into local practices, large teams of researchers working together across disciplines have emphasised how hard it is to answer questions about efficacy of local traditionally managed conservation areas:

> there is a global lack of comparative data […] [and] within the data that do exist, a wide diversity of effectiveness is measured. […] Overlapping governance structures make measuring the effectiveness of one form versus another challenging[…]. In other words […] the data are messy, hard to compare, and few.
> Despite these difficulties, the evidence suggests that community-based or comanaged governance arrangements can produce strong outcomes for people and nonhuman nature. […] But which regimes will work best in which socio-ecological circumstances is hard to determine and will be highly context specific. (Zhang *et al.* 2023, p 578).

On a slightly different level, one may nonetheless note that the activities of NGOs such as Ailan Awareness do have benefits: at the very least, they contribute to restoring the pride people take in their own culture. This is set against the backdrop of Papua New Guinea's post-colonial predicament, in which all objects of contemporary desire (portable phones, solar-powered lights, iron roofing to build 'permanent' houses, etc.) come from elsewhere, and in which missionaries, patrol officers, and now government officials and NGO workers consistently represent ancient practices as 'backward', 'stone age', 'primitive', or otherwise unnecessary, harmful or inadequate, leading locals to embrace instead globalized 'Western' ideals of development and wealth (West 2001; MacWilliam 2013; Beer and Schwoerer 2022; Roberts 2024). Which is not to say, either, that the discourse encouraging the creation of *vala* necessarily represents all practices that are 'traditional' or 'customary' as being good, but it does use this trope of 'traditional therefore valuable' to a degree and hence can

contribute to restoring pride in local forms of knowledge. Bainton and Macintyre similarly noted that on the nearby island of Lihir 'stylized dance troupes, dramatic revelations of reconstructed men's houses, and the revival of a carving tradition are the source of contemporary prestige and great cultural pride.' (2016, p 128). What was immediately obvious for anybody present during the *vala* opening ceremony in Metevoe in 2022, was that a large portion of the effort which was poured into the event was designed and executed in order to obtain maximal publicity. This involves not only actual presence and attention on the part of participants but also modern information and communication technology. There was a team of CEPA (Conservation and environment protection agency) employees who brought with them a professional photographer, and who also took pictures with their personal smartphones and tablets. John Aini and several villagers who had their own phones also took photographs and videos of the event (Figure 7.16), subsequently showed them to various others who had been absent, and shared some on social media platforms on the internet. This offered a chance to 'spread the word' of the event beyond the actual audience present on the day of the opening. It also, in a way, put more pressure on those who were present, in particular on those involved in making speeches or participating in the ceremonial proceedings, since it multiplied the forms of engagement with others that their presence and participation entailed.



Figure 7.16: Photograph taken over John Aini's shoulder as he himself photographs Lamis giving a speech on the second day of the *vala* opening ceremony. A man is also filming with a gimballed reflex digital camera. He is a professional photographer who was accompanying a group of CEPA representatives. 12 July 2022, Metevoe.

This is also reminiscent of the signboard that was erected in Metevoe (Figure 7.2) to indicate the rules of the *vala* and which was re-painted in the preparations for the opening ceremony. On this occasion, practical information about the whereabouts of the different

zones was substituted by a much more aesthetically polished and declaratory statement (Figure 7.4 on page 317). One of the characteristics of this 'hybrid' *vala* is therefore evidently that is should have large publicity, and this can be sought by any and means available, including modern ones. This also shows the existence of a desire to show any potential benefits in terms of marine management that the *vala* may have produced to the 'outside world' (in particular, here, representatives of CEPA).

Such processes can be seen to belong to what Marshall Sahlins described as the 'indigenization of modernity' (1999). According to his analysis, 'indigenous people' have largely, and for centuries throughout the colonial and post-colonial period, used resources made available to them through capitalist accumulation, not to accumulate more, but to strengthen and reinvent their own traditions, in a form of 'cultural extraversion'. Here, we have seen that the exogenous components of the conservationist discourse have been integrated into *vala* not *only* to serve conservation but also to enhance sociality, to bring people together in ways that are considered locally beneficial, and to emphasise the value of customary practices. This is analogous to what Jeff Kinch concluded in his report on leatherback turtles in the Huon Gulf:

> Resource management practices where they existed were rather directed primarily towards issues of resource distribution and social reproduction, or what could be termed 'cultural' sustainability, rather then [*sic*] towards issues of 'ecological' sustainability, as they were embedded in a larger set of customary practices, which regulates clan membership, inheritance rights, and a host of other social rights and obligations. (2006, p 3).

It is also the central thesis of Bainton and Macintyre's work on Lihir:

> Lihirian innovations ensure that mortuary rituals remain meaningful in the moment. Large-scale resource development has provided impetus for the revival of tradition [...]. Self-conscious assertions of cultural continuity represent an attempt to demonstrate a connection to an imagined ancestral past and to a Lihirian cultural identity insulated from massive social and economic upheavals. (2016, p 128).

These novel interactions between diverse knowledge backgrounds, objectives, and perspectives are therefore *productive* of new forms of knowledge, and ultimately come to engender the contemporary and ever-evolving forms of relations between humans, their ancestors, and marine animals—in other words, the topic of this study.

This is, alongside the aforementioned *polopole* fish-traps (Sub-section 5.3.5), another example of a form of 'recomposition of knowledge' which I analysed in a 2021 publication. In this, by leveraging the conceptual metaphor of 'friction', developed in an analogous context on the island of Borneo by anthropologist Anna L Tsing (2005), I argued that on Lavongai,

> such circumstances cause the people involved to reshape their knowledge. On the one hand, the inhabitants of the island alongside members of Ailan Awareness build new, recomposed institutions such as the modern versions of *vala* [...] On the other hand, the same inhabitants revalue some of their own knowledge, [...] devalue others, [...] and are prepared to integrate into their technical repertoire new possibilities from foreign sources. [...] Finally, the ecologists working for WCS question the foundations of their own way of giving value to and preserving

> living beings in contexts such as Lavongai, where land tenure, sociopolitical organisation and the preoccupations of the inhabitants appear to be out of alignment with the international NGO's discourse and actions.[T121] (Collins 2021, p 347).

This work was based on ethnographic fieldwork carried out in 2019 in Metevoe, before I had a chance to observe this 2022 *vala* opening ceremony. However, I stand by the proposal above, which was largely validated by the subsequent work, as the data presented here should demonstrate.

7.4 The role of the *anit*

To inquire about the effects of the *vala* prohibition, I asked 'what would happen if you fished in the *vala*?' during one to three hour-long recorded semi-structured interviews, to a total of 10 participants. The results are shown in Table 7.2.

Table 7.2: Answers grouped into categories to the question: 'what would happen if somebody fished in the *vala*?' This gives the number of respondents who gave an answer fitting into each category. Categories are further grouped according to the nature of the logical articulation they rely upon: legalist (L1 and L2: 'one *must* do...'), Consequential (C1 to C5: 'it *causes*...') and Essentialist (E1 to E4: 'it *is*, by essence...'). From interviews with 10 people who gave a total of 42 answers.

	Answer category	**Nbr of respondents**
L1	must give *kastom* compensation	8
L2	must pay a fine	8
C1	will cause trouble, shame, disapproval	5
C2	will receive unspecified sanctions	4
C3	will be detained	2
C4	will encounter dangerous beings	1
C5	will cause others to fish there	1
C6	will obtain lots of fish	1
E1	is against a law/rule	5
E2	is impossible	3
E3	is against *kastom*	3
E4	is a lack of respect for *anit*	1

The first category of answers that stand out because almost everybody gave one response that fits into it is L1: one would have to pay 'customary' compensation (in particular pigs, taro, and shell money). During interviews, these customary obligations are one of the elements which people used to defined the *vala*. They stated that it is a prohibition rooted in *kastom* and therefore that transgression would mean one should make a 'customary' payment. The precise responses people gave include suggestions that the guilty fisher would have to give a pig to the Marine Committee, or even one pig to each clan leader! The three answers classified as 'is against *kastom*' (by two respondents) are also relevant here.

Why do people I spoke to in Metevoe almost all consider that customary compensation or action 'must' be performed if somebody fishes in the *vala*? This is tied, in discourse, to the fact that *anit* were called upon. This, in turn, begs the question: what are the *anit* considered to be doing?

7.4.1 Respect for the *anit*

On the one hand, a form of 'respect' owed to the *anit* is very evident in the details of one of Kevin's answers to the question regarding the consequences of fishing in a *vala*:

> on the customary side, they [the Marine Committee] must be after you indeed so that you actually do that [customary] work. You must perform customary work. Yes. Because if they forget it, they will see that these *anit* here, and all these things, you disrespected them. Yes. And that is the foundation of Lavongai: you must respect the *anit* and all the things like that.[T122] (Kevin, 30 June 2022).

This is a strong statement since Kevin goes so far as to define respect for the *anit* as the 'foundation of Lavongai'. Since the *vala* is instigated in the name of these deceased forefathers, and knowing the importance that respecting them can have in the eyes of at least certain Lavongai people, it becomes clear that to break this prohibition would be a grave lack of social etiquette, a serious form of disregard for what he sees as being a fundamental tenet of Lavongai social life.

In the long address to the *anit* which Lamis made on 11 July 2022, he also spoke of the respect that people should have for the good behaviour of these forefathers: 'Our grandparents […] Thanks to the good behaviour coming from the head and the heart of the *mus*, you are people who share. We want your good behaviour to be with us at all times.[T123]'. *Mus* are a type of 'beings from a hidden place'. Lamis describes the good behaviour of the *anit* as being that of, or being inspired by, the 'heart of the *mus*'. The reason he draws this parallel is that *mus*—as explained previously in Sub-section 3.3.4—are conceived by the Lavongai people to be characterised by their propensity to share, if one is fortunate enough to meet one and to befriend it.

Certain specific *mus* have their own capabilities: some are apt fishermen, others good hunters. One specific *mus* from Metevoe is the subject of a story that many people have in living memory. He was said to have possessed a powerful spear that allowed him to catch immense quantities of fish in the river Voe. A man from Metevoe befriended him, and this *mus* would share fish with him. One day, this man took the spear from the *mus* without asking, and for a while, he too was able to catch huge quantities of fish and would share them with villagers. In time though, the *mus* realised what had happened, discretely took back the spear, and never shared any fish again with the man.

This sentence, 'Thanks to the good behaviour coming from the head and the heart of the *mus*, you are people who share', therefore implies that the propensity of the *anit* to 'share'—by providing abundant fish in the *vala* and allowing the people of Metevoe to catch them after this ceremony—emanates from some form of 'magical' beings which they interacted with in hiding. This essentially says the *anit* were exceptional people during their lifetime, people who had extraordinary gifts and good behaviour, not through chance, but because this was given to them by the *mus*, who are intrinsically so.

7.4.2 Coercive aspects of *anit*'s involvement

A coercive, threatening nature of the *anit*'s involvement in *vala* is also apparent. For instance, Daniel stated that: 'If you go fishing [in the *vala*], then the *anit* will give you trouble, they will make your canoe sink, or make it so you don't catch any fish, and around the cordylines you will see that there are fireflies flying.' (Daniel, 27 January 2022). The precise nature of these consequences was a topic which Boniface, John Aini, and a few other men also spoke about when I asked them to read and comment on an early draft of the article eventually published as Collins 2021. My understanding was that the *anit* could call on other forms of invisible beings, such as *pukpukis*, in order to cause harm to poachers in a *vala*. However, before publication, John and Boniface corrected that passage and explained that it is the *anit* themselves who would directly cause *bagarap* (trouble, harm), by making any fishing expedition in a prohibited area not only fruitless, but also harmful, for example by sinking the offender's canoe. John also insisted on the fact that, in Lavongai village, they called the names of 22 *anit* when they stood up the *vala* and that, for this reason, there would be serious *bagarap* if somebody disregarded the *vala*'s prohibitions. Boniface was even more adamant when he said, on this same occasion, that: 'You will die. Just die. Or get ill, then die. It is the *anit* who will have done that. It is the *anit* who give their power to the *vala*. The *vala* has power.' (Boniface, 9 November 2021).

I was told on several occasions that a *vala* is 'powerful', and my interlocutors insisted on the effectiveness of this customary prohibition, at times to the point of worrying about it. In particular, Gregory Ravis said that he wanted the *vala* that had been set up in Metevoe to be removed quickly and that 'these *anit* are a real problem, because they are dead men, and they won't listen to us' (Gregory Ravis, 12 December 2021). By this, he essentially meant that the *anit* are too intransigent, that it is not possible to negotiate nor 'escape the consequences' of one's wrongdoings, contrary to what might be the case with a living person.

One of the aspects of the involvement of *anit* which people described is very direct: they would make any attempt at fishing in a *vala* unsuccessful. If using poisonous plants, the poisons would be weak, and no fish would die; other methods would simply fail for no obvious reason. The fish would be present, but none would be caught. Lumaias made this very clear when he explained that: 'When people want to steal it [fish in the *vala*] and when they go out to fish with hooks, they won't catch any fish, because the *anit* don't want to give them fish. Because they [the people fishing] are stealing.[T124]' (Lumaias, 17 July 2022).

This direct intervention of the *anit* was also described as being part of *singai*, the form of 'curse' which a person can use to interfere with somebody's fishing efforts (previously discussed on page 291). In the context of a *vala*, one can ask an *anit* to go and 'get his fish' from somebody who is fishing. This person will thereafter not catch anything, since the *anit* is thought to have taken the fish he would have caught for himself. Contrary to what is the case when fish-callers mobilise their special relation with an *anit*, it is not required that this ancestor have been a 'good fisherman', nor that there was any previous exchange of knowledge between the person calling on him and the now deceased man while he was alive. *Singai* can apparently be done by anybody simply by calling on any

deceased ancestor one knows the name of, preferably an 'angry one'. This will be more or less effective depending on who calls and on the reputation which the *anit* had for being strict or having a bad temper during his lifetime. I once witnessed such a case of *singai* in the context of *vala* when a boat came very slowly into Metevoe bay from out at sea, at a speed consistent with people on board trolling for fish. Those who were on the shore immediately started shouting out that it was forbidden to fish in that area, screaming '*vala*' and '*tambu*' (Tok Pisin: forbidden). In the midst of this commotion, Aini said: 'may the evil spirits from the reef passage grab them![T125]' (Aini, 10 September 2023). Laimen later explained this sentence to me by saying that his son was *singai* but that the success of such a 'curse' depends on the 'mouth' of the person talking: some have a powerful mouth so when they profess such a *singai*, it always comes true, others do not. By this, he meant that Aini's 'mouth' may not have been quite as powerful as the (very) young man thought and that he was being somewhat over-eager.

7.4.3 *Langai*: buying off the *anit*

Another aspect of the 'effectiveness' of the *anit*'s role in *vala* comes from the need for 'customary work' that is created by calling on these spirits of deceased men. Indeed, in order to remove the *vala*, each *anit* must receive a ceremonial public gift of pig, taro, and shell money. This sort of undertaking is competitive, and this created the fear that one or several clans may not be able to 'do enough' to satisfy their *anit*. Thus, as we engaged in a recorded interview a few days after the opening ceremony for the Metevoe *vala*, thinking back to the reaction of the villagers to his participation in instigating it, Nick remarked:

> And me indeed, I said the name of my ancestor, and this caused everybody to worry a lot, because my ancestor was a man who made feasts, who looked after people. And when I said his name, many important men asked 'what's this?', at that time. They must have been saying, maybe, that this [customary] work, that we've just been to recently, that it wouldn't come out like this [that it would be poorly done].[T126] (Nick, 16 July 2022).

The task of 'removing' the *anit*'s protective hold over the *vala* is known as *langai*. The word literally means 'buy off' or 'buy back', and it is the term that would be used to refer to any kind of ceremonial payment, including one made to solve a dispute, or 'buy back' one's wrongdoing. One example given to me was that if a husband beat his wife, and she left to go back to her parents' house, then the husband would have to *langai*: cook food and make a ceremonial payment in order to assuage his spouse and her family, and ask her to return to their home. Ben Ottis also explained that, for the village leaders to be able to open a *vala*: 'they make a customary payment [*langai*] to buy off the important men, with which they performed magic by calling their names because they are spirit beings.[T127]' (Ben Ottis, 27 July 2023). *Langai* involves a form of ceremonial 'payment' which people usually qualify—even when speaking Tungag—as *kastom* (Tok Pisin: 'customary'). This includes at least some pig, some taro and usually other food, as well as shell money. Like all such 'customary work' it is regarded as important that this be presented publicly, on the occasion of a feast. Aside from the Metevoe *vala* removal ceremony of 2022 (Subsection 7.1.3), another such *langai* took place while I was in Metevoe in late 2021. This

vala—which I did not have the chance to observe—had been set up by inhabitants of Baikep before my arrival, on an area of reef bordering Metevoe. In early December 2021, a group of men from Metevoe and Neitalangus had erected several wooden platforms at regular intervals on the reef flat, the remains of which were still visible for weeks later. Several men recounted how they had placed gifts on them for the *anit*: shell money, food, and cloth, in order to ask them for permission to fish in that area. After this, they fished collectively with poisonous plants and gillnets.

Returning once again to Lamis' speech in the enclosure, recall that he drew the *anit*'s attention to the fact that:

> There is all this shell money hanging here, there is food that is laid out here, with all these decorations. We would like you to see our pain, and see that our thoughts go to you. We know that you will see our good behaviour, at all times in the future. We are making a final speech this morning.[T128] (Lamis, 17 July 2022).

Lamis makes a request for the *anit* to 'see our [the villagers'] pain', in the first person plural exclusive ('*nem*') and hence in the name of all gathered there, not including the *anit* themselves. This informs us about the rationale for this ceremony, in particular for the presentation of food and shell money that it involves. It suggests that these have a sacrificial dimension and that this showing of food and valuables is done in order to 'prove' to the *anit* that their names are not being called gratuitously. This also reflects the more general fact that magical actions, although they are underpinned by a recourse to these powerful spirits of deceased men, systematically involve some type of personal sacrifice on behalf of the practitioner: he must fast and obey other prohibitions that generally make life 'more complicated' for him.[28]

If this whole process is to be 'sacrificial' and aims to 'show the pain' that the villagers have gone through, one obvious question is: what happens to the food that is ostensibly given to the *anit*? In the case of *langai* for the opening of a *vala*, the bulk of the food that is ceremonially placed on raised beds is subsequently eaten by the attendants of the feast, along with fish caught in the *vala*. Conceptually, these gifts are represented as food 'for' the *anit*. However, the eating of this food by attendants at the feast should not be taken to mean that the gesture is any less sacrificial than if the gifts had been destroyed. For when we listen to the Lavongai people's perspective on this, we realise that any pleasure or satisfaction which may be taken in eating this food during the feast is both momentary and of little value in comparison to the fact that people are giving up this food: once people have feasted on their pig or taro, then the hard work of raising and feeding *another* pig and planting and tending *another* garden must be started all over again. Therein lies the sacrificial nature of this ceremonial gesture.

Another key to understanding how Lavongai people consider *langai* to 'work' can be found in a detail of the procedure used when handling fish on this occasion. Lumaias explained that any fish which is caught on the day of *langai*, the 'buying off' of the *anit* in the context of *vala*, *must be* roasted over an open fire, rather than boiled, or cooked in a stone oven. This, he said, is a manner of sharing the fish with the *anit*, since: 'the dead

28. This recalls the age-old adage that has survived into Western European received knowledge since ancient Greek theatre: 'nothing truly succeeds without pain' (Sophocles and Roisman 2020, p 149, line 945).

people [*anit*], they too are eating, they are running in the fire. Maybe you cannot see them, but they are eating.[T129]' (Lumaias, 20 September 2023). Here, fire is therefore revealed to be the medium which can carry something of the food's essence to the *anit*. Similar conceptions of the role of smoke and fire in mediating relations with invisible beings have been noted by ethnographers in other societies of the region. Paul Sillitoe states that 'the smell of [pigs'] singeing bristles were believed to "please" the [...] spirits' (2021, p 121) by the Wola people of Southern Highland province of Papua New Guinea; and Walter Strauss reports that the Mbowamb of the Western Highlands held that when a pig is being singed, the 'pleasant smell one notices ' is being 'eaten by the supernatural beings' (Strauss 1990, pp 40–41).

In the case of the 2020 Metevoe *vala* opening, as explained in the case study (Section 7.1), after this main feast, a distinctly and unequivocally sacrificial gesture was performed. One week after the *vala* had been opened, there was a smaller feast organised to 'burn the cordylines' (Figure 7.15). On this occasion, half a dozen fish which had been caught in the *vala* a few hours earlier were placed in a fire, and several people commented that these fish were 'for the *anit*'.

There is, therefore, always the idea that the *anit* are sharing in the food, by the intermediary of a fire. This can be because a part of it is directly burned and abandoned there for them, or because it is cooked over an open fire, allowing the *anit* to partake because they are themselves thought to be 'running' in the fire. Hence the apparent paradox is dissolved, inasmuch as the sacrifice is not self serving, it is not a gift from oneself to oneself, but rather a way—beyond appearances, beyond the 'absence' of the *anit*—of doing that which more than anything forges sociability in Lavongai: eating together.

Another central consideration in the *langai* process is to please the *anit*. The gifts of food, shell-money, but also the decorative plants which are hung up and which men wear, the body decorations are all said to be *maus* (in particular lime and colourful clay pigments placed on the temples). Although nobody made the exegesis that this was explicitly aimed at the *anit*, this appears as a plausible hypothesis, one that I will return to in detail in the final chapter of this thesis (more specifically in Section 9.3).

7.5 On the influence of culture and Christianity on social norms

The role of the *anit* is therefore key to understanding why people on Lavongai consider that it is important not to fish in the *vala*: because the *anit* must be respected (a 'positive' aspect of their influence) and because they may cause harm if they are not respected (a 'negative' aspect). These are the cultural underpinnings to people's behaviour in regard to the prohibition. But a second category of answers which a large majority of interlocutors spoke of when asked what would happen if a person fished in the *vala* (Table 7.2) lead us to analyse this prohibition under a different angle: that of social constraints on behaviour. This is visible in answers such as L2 'must pay a fine', C1 'will cause trouble, shame, disapproval' or E1 'is against a law/rule'. Here, we are led to consider the *vala* under the

perspective of 'enforcement': one group of people is attempting to impose their view ('there should be no fishing in the *vala*') on another group (those who want to fish in the *vala*).

Fines are an archetypical form of institutionalised coercion which, on Lavongai, are now well ingrained in social life, despite being—at the scale of a few generations—largely an exogenous practice. They are, and have been for many decades, a regular part of villagers' lives because they are *sometimes* handed out by the Village Courts when preventive orders are broken, or when mediation fails to reconcile arguing parties. I emphasise *sometimes*, because it is in effect very rare that a person pays anything to the Village Court, even when the lengthy process which the magistrates have to undertake is carried out all the way to the point of them handing down a fine. Thus, as Nick answered when I asked about the consequences of fishing in the *vala*, nobody had yet been made to pay the theoretically requisite fine as a consequence of them poaching in the *vala* area, despite the Marine Committee stating they suspected that some such cases existed. This statement adds to what I observed on many occasions in Metevoe: that rules and regulations, be they those of the nation state of Papua New Guinea, of the province, or locally enacted ones, are applied in a highly flexible way. With this in mind, it becomes important to analyse the enforcement of the *vala* rules by asking how the society itself regulates 'inappropriate' behaviours and encourages 'appropriate' ones. For the cultural analysis which points to respect and fear for the *anit* causing compliance with the prohibition is not sufficient in isolation, since in appearance some do disregard these considerations and fish despite the *anit*.

When people answer that a breach of the fishing prohibition would cause 'trouble, shame, disapproval' (C1 in Table 7.2), they are speaking of 'normativity', or social norms. If there is a general fear that fishing in the *vala* might cause harm or be a culturally unacceptable form of disrespect for the *anit*, then seeing one person go against this and suffer no consequence means that others might also, in turn, consider that these grounds for respecting the prohibition might not be so firm after all. There is a kind of 'feedback loop', whereby a person observing others behaving in a given way tends to also behave in this way, and others will observe them, etc. (Roughley and Bayertz 2019).

How much a person will be inclined to be the first, or among the first, to do something which is ostensibly prohibited is of course dependent on his or her individual character and his or her personality. It is also culturally determined: the degree to which a culture frames transgression as potentially grave, as trivial or even as desirable (subcultures are good examples of this in Western Europe or North America, see Haenfler 2013; Blackman 2014) will influence the degree to which each individual might consider transgressing a given prohibition. In turn, this depends on the degree to which ideas regarding the 'good' or 'bad' nature of an action are diffused within a society.

Such diffusion of ideas is brought about through discourse, and discourse concerning what should be done towards the marine environment is frequent in the context of *vala*. These are pronounced by John Aini, by the members of the Marine Committee and any number of other concerned villagers. They take on various forms and are inscribed in multiple contexts. There is discourse that informs: 'climate change is coming', 'sea level is rising', 'our population is increasing'. There is discourse that chastises: 'youngsters

nowadays never stop fishing'. Discourse that laments: 'there are less fish than there used to be', 'the big fish are all hiding now'. Discourse that demands: 'we must look after our reef'.

When such discourse attempts to persuade people to act, it rests on various rhetorical devices, one of which is theological, Christian more precisely. Such apparently self-evident facts as the 'Christian' quality of the country's inhabitants (on page 44) are powerful grounds on which to build arguments. A number of anthropologists have turned their attention to the impact of Christian ideals, practices, and values on resource conservation in Oceania (Foale 2006b; Jacka 2010; Jenkins, Tucker, and Grim 2017; Nolet 2018). Jerry Jacka, who studied this issue among people living in the shadow of a large open-pit mine, in the Highlands of Papua New Guinea, concludes—somewhat tentatively—that 'the adoption of Christianity by indigenous populations does not inherently lead to non-conservationist ideals and practices' (Jacka 2010, p 42). His position is therefore that the local adaptations of various strands of Christianity can both be used and abused for or against conservation agendas, and that there is no reliable connection between these two.[29]

If one extends the scope of this literature, on the 'conservation' side, to include also climate change, then the breadth of publications is considerable.[30] In 2020, *Anthropological Forum* published a special issue titled 'Higher Powers: Negotiating Climate Change, Religion and Future in Oceania', in which several articles attend to this topic. In the introduction, the guest editors Élodie Fache and Hannah Fair write that

> some climate-focused NGOs consciously engage with faith-based organisations to both raise awareness and encourage action among Pacific islanders[…] [and] scriptural passages and interpretations are used as both praxis and politics (Kempf 2017) in these two complementary forms of climate advocacy (Fache and Fair 2020, p 234).

Few works, however, have concentrated on the influence that Christianity and religious discourse have on the relations with marine animals in the context of conservation (see, however: Foale 2006b; Foale, Dyer, and Kinch 2016).

In Lavongai, John Aini states in practically all his public interventions that the ground, forest, sea, and rivers were created by God and that there will not be another creation to replace it if we damage this one. Moreover, he says the Bible entrusts care of this creation to human beings. For instance in this excerpt from a public speech in Lavongai village: 'We don't acknowledge the importance of our environment enough, the rivers, the forest, the sea, the ground. God gave us all this to look after.' (John Aini, 5 May 2022). He is not the only one who uses this type of language. During a meeting in Baikep, called by the Marine Committee of this village, and to which members of the Metevoe counterpart committee were convened, the program for the day which was written down on a notebook prior to our arrival, then read aloud, had the following introduction in Tungag: 'That which God gave us to look after[T130] '. This was expanded upon by Anton Ngumakik, chairman of the Baikep Marine Committee, who stated that:

29. In this, Jacka's article is representative of the current literature on the interplay of religion and environmental conservationist activities.

30. These include, among many others: Kempf 2012; Rudiak-Gould 2013, 2015; Kempf 2017; Crook and Rudiak-Gould 2018; Kempf 2020; Bertana 2021.

> The Marine Committee's 'motto' [in English] is to look after that which God has created[…]. When you damage the reef with poisonous plants, you won't get anything good out of it. The number of fish is getting smaller, when we go fishing we come back with just one or two, which is not enough for the number of children we have. So we need to look after the resources that are in the sea. The population is increasing, but if we look after that which God has given us, then we won't have any problems. (Anton Ngumakik, 14 March 2022).

The theme that we can discern here, coursing through John Aini's and other speakers' public discourse, is an injunction from God to 'look after the creation'. The power of this idea is rooted in a belief that the Bible contains God's word and is a final source of truth, a belief which appears to be almost universally held in contemporary Lavongai. However, what is far less universal, is the way in which belief in the validity of the Bible should be translated into action. This is something that varies markedly according to the denomination which a person adheres to. Recall that there are five different denominations that are represented in Metevoe village alone (see page 44). On the basis of this variation in denomination and consequently on the differing readings they encourage of the Bible, the religious arguments stating the Bible enjoins humans to 'look after creation' did not go unopposed in Metevoe. There are people who expressed their own opinion that the same texts should be interpreted as indicating that God has created the earth and furnished it with living things for us to do with as we see fit.[31] The contention between the two manners of reading the Bible on the matter of how our surroundings should either be 'looked after' or 'used as we see fit' came to a head in 2023 in Metevoe, when members of a relatively newly-established Christian movement spoke out during a regular community meeting (which I did not attend). During this meeting, some speakers had stressed once more that fishing with gillnets having a mesh size of less than 2.5 inches was prohibited and that fishing with larger meshed nets on the reef area between the Aid Post and Neikuila required a payment of K 50 to the Marine Committee. Members of this denomination stated that they had no intention of abiding by these 'rules of men' that the Marine Committee had instated, because God's rules were paramount, and because they were 'God's people', suggesting others outside were heathens or misbelievers. When villagers attempted to respond by arguing that people had to look after God's creation, they adopted a millenarian perspective, and said that this world already harboured far too much evil, and that there was no way to fix it, but rather that God would soon roll it up like a bed mat and burn it, including the heathen, and would save only 'his people' who would be taken to a new

31. The Old Testament does—somewhat infamously (Foale 2001, p 52; Artaud 2023, p 35, note 1)—contain the following verses:
'Then God said, "Let us make man in our image, after our likeness. And let them have *dominion* over the fish of the sea and over the birds of the heavens and over the livestock and over all the earth and over every creeping thing that creeps on the earth."
So God created man in his own image, in the image of God he created him; male and female he created them.
And God blessed them. And God said to them, "Be fruitful and multiply and fill the earth and *subdue* it and *have dominion over* the fish of the sea and over the birds of the heavens and over *every living thing* that moves on the earth."' (Crossway Bibles 2011, Genesis 1:26-28, emphasis added).

world.[32] It was hard to respond calmly to this, and the gathering nearly turned into a violent confrontation. But some men proposed that the villagers agree to let this small group do as they wished in order to preserve the overall tranquillity of the village, rather than clinging steadfast to the rules they nonetheless felt were in the best interest of all.

When I later recounted this incident to John Aini and asked him what he thought of the religious interpretation of this group, he responded that his understanding of the Bible is that it tasks humanity with looking after the creation—a statement which, I fear, would not have convinced the members of this specific Catholic movement in Metevoe who interpreted the text differently. I also discussed this passage of Genesis with Ambrose Royan Kolmaris, a man from Teoputuk who is active in Ailan Awareness and who went to the seminary but who did not become a priest. He said that in his reading, 'having dominion over' and 'subduing' should be understood to include a component of responsibility, and not to mean that we may do as we please with these beings.

In any case, this makes it clear that the theological argument is not a simple one to wield, and that its efficacy will likely be strongly attached to the charisma of the orator, and the trust people place in his word, rather than to the literal or figurative meaning of the Biblical text. Indeed, a relatively large number of people cannot, or hardly ever read, and even fewer have access to a Bible (be it the partial Tungag translation known as *Akus ro*, a Tok Pisin, or English version). Therefore, they rely on others as sources of authority on what the religious text tells them to do. This, combined with mild church attendance and high denominational fragmentation, means that appealing to religious arguments in order to convince people to respect prohibitions regarding *vala* is unlikely to suffice.

Lastly, and in support of this same point, based on my own interview data, nobody mentioned to me anything remotely Biblical nor theological as being one of the justifications for establishing a *vala*. This type of argument therefore seems to be reserved for the public discursive sphere, and does not appear to percolate very deep into people's own personal reflection on the topic.

Chapter conclusion: *vala*

This chapter gave a detailed ethnographic account and an analysis of the Lavongai institution of *vala* from the perspective of marine interspecies relations. As a first approach, *vala* can be defined as a 'customary' or 'traditional' fishing prohibition. It involves the public, ceremonial placement of a marker on the reef flat, in order to signal a location in which no fishing should take place. The interpretative description of a case study—that of a *vala* created by Metevoe villagers in 2020—brought out several threads of inquiry.

The first result in this regard is that the two local institutions of fish-calling (Chapter 6) and *vala* are intertwined. Both are said to constitute forms of 'caring for' or 'looking after' (*aiveven*) marine life. Both aim, in diverse ways, to influence the behaviour of fish,

32. This is the rendition that certain men, who were present at the meeting, made later on of what was said there. Although I believe it to be faithful, I do not claim to be quoting anybody directly here. Unfortunately, I did not get a chance to discuss this incident with any of the members of this particular denomination afterwards.

ultimately making *some of them* more amenable to being captured. Indeed, when a fish-caller practises his magic, he places plant material on the reef flat, under a pile of stones, and also erects a marker that is called '*vala*'. This is done to signal to other people in the village that they must not fish there and more generally that they should stay away from the area, lest their presence hinder the efficacy of the magic.

From these roots in the ancient practice of fish-calling, *vala* has undergone some clear shifts in its applications. It has, in a way, 'hybridised' to integrate considerations of 'resource management' and 'conservation', exogenous concepts which are undergoing a process of 'indigenization' (Sahlins 1999). These are underpinned by changing notions of what is 'good' or 'bad' for fish and largely call upon local ideals of 'clean' or 'pure' and 'dirty' or 'polluting' (Sub-section 3.1.5). Exogenous considerations that decry the use of derris for fishing as unselective and detrimental to fish populations in the long term are aggregated into these considerations, and in the context of a contemporary form of *vala*, these poisonous plants are treated alongside excrement and remains of food preparations as things that should be kept away from the sea in order to make it into a welcoming place for fish. This stands in stark contrast to the way it used to be considered in the past: as something that simply 'makes the fish come out into the open'. It also becomes apparent that although *vala* is nominally aimed at conserving marine resources, in effect, it is far better described as a sociocultural enabler of those things which are seen as important for the villagers. In particular, it allows the at once cardinal and complex values of 'looking after' and 'eating together' to be extolled and enacted vigorously in public (Sub-section 3.1.4). It also reinforces ties with deceased ancestors, a task that is endlessly being repeated and revisited during the long and complex funerary ceremonies which mobilise a large part of the villagers' attention, effort, and resources on a day-to-day basis (Section 4.3).

Indeed, *vala* involves interactions with the spirits of deceased men (*anit*), who are called upon to protect the area of sea where the prohibition is put in place, and then 'bought off' (a ceremonial gesture known as *langai*) before fishing is once again permitted. They are involved in preventing people from fishing in the prohibited area, an effect which is seen to be obtained in multiple ways. Analysis of responses given by interviewees to the question 'what would happen if you fished in the *vala*?' brought out several threads of information on this topic.

Firstly, it showed that 'customary work' directed towards the *anit* is key to potentiating the fishing prohibition of *vala*. Further analysis of the way in which these *anit* are mobilised and related to in this context (Section 7.4) showed that they display both a 'coercive' and a 'legitimising' role, which they take on successively or simultaneously. *Anit* are feared inasmuch as they can cause suffering. They may withhold fish from the *vala* area, make fishing methods ineffective, or cause illness and even death. They are also respected, in their own right, and people attempt to do what they expect the *anit* would want them to do. This is contiguous with general social practice which emphasises a certain deference and respect for elder people in general, especially elder men.

Secondly, it becomes apparent that *vala* relies in large part on forms of power relations between people. It is an attempt by some people to get others to behave in a way they see as appropriate. This takes place in a context where institutionalised forms of control and coercion—those that exist in powerful nation states and which nominally do *exist*

in PNG (police forces, justice systems, etc.)—are so dysfunctional or distant as to be insignificant (see Public services on page 47). With this in mind, the role of discourse and the key dynamics of 'normativity' or social norms become central. Public speeches, imprecations, calls to act in one way or another, and in some cases the shaming and chastising of 'wrongdoers' lead to the establishment of a negotiated and ever-changing standard of 'acceptable behaviour'. It is principally through these means that practices which Lavongai people follow when they are relating to marine life are brought into existence and perpetuated. Analysis of discourse in the context of *vala* demonstrated the key role of Christianity and the Biblical text in this setting. Scriptural arguments, however, were shown to be somewhat double edged; they can either justify respect for *vala*-type prohibitions or be used against them. Respect for a *vala* prohibition was shown, in effect, to rarely if ever be motivated by adherence to Biblical injunctions, but rather out of a preoccupation with the involvement of the *anit* (through respect and fear), and of social normativity.

The strongest conclusions of this chapter is that *vala* is a quintessential form of social institution which crystallises many of the modalities of marine interspecies relation of coastal Lavongai people. Born out of a concern for the efficacy of fish-calling magic, it had been repurposed and is being continuously adapted and 'hybridised' in order to answer the question of 'what behaviour should we adopt towards the sea and the living beings inside it?' It is also a form of 'total social fact' (Mauss 1954) since asking questions about how people on Lavongai interact with marine animals in the context of *vala* leads to the unearthing of aspects of their lives which pertain to magical, socio-spiritual, and religious spheres, to economic and livelihood considerations, and to the ethical, moral, and jural dimensions of their social life.

In order to move beyond this point and further advance the understanding of the interspecies relations themselves, the ethnographic data that was presented and analysed in the last chapters must now be drawn into wider theoretical frameworks.

Chapter 8

Ontological Approach to Marine Interspecies Relations

> How can we recompose nature and society, humans and nonhumans, individuals and collectives, in a new assemblage where they do not present themselves to us as distributed between substances, processes and representations, but as instituted expressions of relations between multiple entities whose ontological statuses and agencies vary depending on the positions they take up relatively to each other?[T131]
>
> Descola 2011, pp 12–13

Introduction

The ways in which members of a human society think about and interact with nonhuman beings are conditioned both by its considerations regarding such beings and by its considerations regarding how these beings differ or are similar to humans. It is a matter of how lines and connections are drawn between what humans 'are' and what nonhuman animals or other beings 'are'. In one word, it depends on their ontology.[1]

The French anthropologist Philippe Descola, in a book that has brought this term to the forefront of the anthropological literature for the last two decades, defines 'ontologies' as 'systems of the properties of existing beings' and asserts that these 'serve as a point

1. From the Greek *ὄντος* 'being' or 'that which is' and *λογία* 'logical discourse'.

of reference for contrasting forms of cosmologies, models of social links, and theories of identity and alterity' (2013, p 121). His structuralist analysis of ontologies makes two distinctions, which he takes to be universal. The first is between humans and nonhumans. The second is between the 'interiority' of beings and their 'physicality'. Interiority 'partially covers what we generally call the mind, the soul, or consciousness: intentionality, subjectivity, reflexivity, feelings, and the ability to express oneself and to dream. [...] [Interiority] consists in the universal belief that a being possesses characteristics that are internal to it or that take it as their source' where as physicality

> in contrast, concerns external form, substance, the physiological, perceptive and sensorimotor processes, even a being's constitution and way of acting in the world, insofar as these reflect the influence brought to bear on behavior patterns and a habitus by corporeal humors, diets, anatomical characteristics, and particular modes of reproduction (Descola 2013, p 116).

When considering these through the lens of 'continuity' (meaning similarity) or 'discontinuity' (meaning difference) between humans and nonhumans, one obtains a four entry table which contains four possible modes of identification of the properties of beings: these are what Descola refers to as the four 'ontologies' (Table 8.1).

Table 8.1: The four ontologies or systems of continuity (=) and discontinuity (≠) between physical and internal properties of human and nonhuman beings, according to Descola 2013.

	Human and nonhuman	
Ontology	Interiority	Physicality
Totemism	=	=
Naturalism	≠	=
Animism	=	≠
Analogism	≠	≠

This chapter explores the ontological conceptions of coastal inhabitants of Lavongai. In keeping with the ethnographic anchoring of this study, it begins by introducing data from various cultural practices and their exegesis which were produced during fieldwork: two drawings of fishing scenes and discussions concerning a number of dances. Attending in this way to the Lavongai people's discourse concerning their relation with marine animals brings to the fore one specific class of animals: birds, and leads to questions concerning clans which are named after certain birds. Second, I question my ethnography of Lavongai through Descola's ontological model and ask where Lavongai people discern continuities and discontinuities between humans and these clan-associated birds. Firstly, this will be done concerning the physical level, and secondly concerning the internal properties of people and birds. Third, I will continue by asking this question yet again regarding the various nonhumans that are not associated with any clan.

8.1 Of people, fish, and birds

8.1.1 Drawing of a man fishing

I will begin this section by presenting one of the drawings created by Michael Toreu Ottis, a 25 year old man who lives in Metevoe (Figure 8.1). As I explained in the General introduction, during my presence in Metevoe, I had given drawing equipment to various people who were known to be gifted artists, and asked them to show me and discuss any productions they wished to. Michael drew several pictures which illustrate fishing and we discussed these with his father and Melis during an interview.[2]



Figure 8.1: A man fishing with a hook and line from a canoe. Colour pencil on paper by Michael Toreu Ottis, 2022, used with his kind permission.

2. Parts of this section has been adapted from a paper presented at the Credo seminar in Marseille (Collins 2022); it has been expanded considerably however.

Michael began by saying that this represents the way men have of fishing on Lavongai. The background is recognizable as the Metevoe coastline. It shows a man sitting in a canoe, fishing with the *asisiangai* method. Ben Ottis explained this was a method that yields the largest fish and that while other methods might produce small fish, this one does not. By using this fishing technique, he continued, fish are allowed to grow, since they are not captured while they are too small. Michael explained that it is done with a long, weighted fishing line and hook, in a deep location beyond the reef edge. Melis then pointed out the basket, and Michael explained that the fisherman had brought his basket with him, in which he must have betel nut and tobacco. Fisherman do this, nowadays, he said, to ' make their body happy, in the evening, lest sleepiness arrive[T132] '. The man is currently pulling up a fish, which Melis said was a small red *kunga*, a type of grouper (fam. *Serranidae*). These are indeed often caught when fishing with hooks near the sea-floor.

When I pointed to the birds on the right side of this drawing (Figure 8.1) and asked what that was, Michael said the following:

> Michael: The… birds, indeed. This picture that I drew, it is the evening. The frigatebirds over there they are flying around. […] The frigatebirds, indeed, they are […] walking on the water. Yes, the frigatebirds they walk… they are accustomed to walking on the water, and when… they what, they take part in a feeding frenzy?
> Melis: yes.
> Michael: they are accustomed to walking on the water when they see the fish, then they fly around, people know to paddle after them, and they [people] know that they [the birds] indicate clearly that fish are indeed in this place, or that place. And then people paddle after them.[T133] (Michael and Melis, 16 July 2022).

Michael identifies the birds he drew to one side of the picture as *raula*, frigatebirds (there are two types on Lavongai, the Lesser Frigatebird, *Fregata ariel* and the Great Frigatebird *Fregata minor*[3]). He then explains that they *toko laman*, 'step on water' or 'walk on the water'. This, he supposes, hesitantly, is linked to them taking part in *aut*, feeding frenzies that involve small bait fish, larger predatory fish such as tuna, sharks, and birds flying down to get at the bait fish that are driven to the surface by the predators. With confirmation from Melis, an older man than he is, confident he is not making any sort of mistake, Michael explains that these birds are 'indicators' that can allow fishermen to know where these feeding frenzies are taking place. His statement that they 'walk on water' is a reference to the fact that frigatebirds never dive into the water to catch fish, but rather use their beak to catch them while skimming the surface, possibly giving the momentary impression that they are walking on the water. This contrasts with terns who do dive full bodied into the water in order to catch their prey before surfacing again.

3. Although it is confusing, the scientific binomial for the Great Frigatebird is indeed *Fregata minor*, which translated from latin means 'lesser frigatebird'; the Lesser Frigatebird is however a different species, *Fregata ariel*.

8.1.2 Drawing of a woman fishing

In another drawing (Figure 8.2) Michael represented a woman fishing. The discussion concerning this drawing rapidly brought out the importance of another bird which Michael represented next to the woman: a heron.

> This picture here shows the women. The women they fish with hooks on the shore. So, it is another way to fish, one the women use. […] Here, indeed, it is a fishing method that you just use on the reef flat, or in a place that is just dry. The women they stand and they throw the string. […] Ah, there is a heron here, a heron. The heron here, the heron also knows how to fish. It knows how to fish. When the tide is low, it looks around on the reef flat, and it spears fish, the heron. Well, if the tide is high, it will just fish on the shore, it will just go around on the shore, looking for little fish all over the place, squids, whatever. It shoots them, indeed it does. This picture here, it shows the way that women fish, women. The men, indeed, they fish in a canoe. Well, the women, their work indeed: they just stand on the reef and throw the string.[T134] (Michael, 16 July 2022).

Here, the description of a characteristically 'female' fishing technique is intertwined with the explanation of how herons are seen to also 'spear fish'. Asked more specifically 'and what about the heron, what can you say about the heron?'[T135] Michael's father Ben answered:

> The heron, at low tide it […] walks on the reef flat, in the seagrass. It kills small moray eels. […] Well, when it is high tide, it goes around on the shore. As the waves wash up onto the shore, and then the wave goes back down, it [the heron] looks for small fish that are running around, and it… spears them as it goes. On the shore. Squids, and other types of fish. It fishes along on the shore, all over. Well, sometimes, it goes near the large river. It fishes near the large river. It spears small fish all over the place, all sorts of things that crawl near the large river, right. It kills them over there, near the large river. It fishes, indeed, that is the heron's work.[T136] (Ben Ottis, 16 July 2022).

These two drawing create a clear pattern of associating fishing with the practices of birds. Anne Di Piazza identified a similar connection regarding fishers in Kiribati about whom she writes:

> Far from being satisfied with seeing the bird as a fisher, the insular [person from Kiribati] grants it exemplary fishing knowledge. For the inhabitants of Nikunau, only the bird 'truly knows', 'knows with no mistake', where the fish are and who they are. The bird's abilities concerning fishing are considered to be an ideal of knowledge.[T137] (Di Piazza 2005, p 58).

More still, the way they contrast these two drawings and these two birds, suggests a conceptual alignment of social divisions—in this case gender—with a specific practice ('men fish like this, women like that'), as well as with specific bird's fishing attitudes. The is done more generally, in day-to-day practice and discourse, in relation to particular fishing techniques, most of which are seen as 'belonging' to one gender rather than to the other (hook and line from a canoe for men, from the shore for women; see Chapter 5). This division is, in turn, based on a certain gendered allocation of productive tools, in practice, here, that of the canoe. The fact that canoes are 'male' tools is possibly related to



Figure 8.2: A woman fishing with a hook and line while standing on the reef flat. Colour pencil on paper by Michael Toreu Ottis, 2022, used with his kind permission.

the association of canoes with warfare, just as spears are also a 'male' tool when fishing or hunting is concerned, possibly also because of their use as weapons during armed conflict (as discussed in Section 5.2, in particular page 253). The contrast also brings out a distinction in location: there is fishing 'of the sea' and 'of the coast/river', and these two forms are further articulated with the gendered assignment of techniques and the birds' associations with each space. Therefore three concepts can be hypothesised to have a degree of interdependence for Lavongai people: social divisions, different species of nonhuman beings, and locations.

8.1.3 Dancing: becoming nonhuman

In previous pages I described the importance of dances in the Lavongai people's lives (Sub-section 4.1.2). There is much to learn by watching Lavongai people sing and dance, by participating in the preparations for these collective and significant events, and by listening to them talk about them. In particular, many dances and their associated dress have explicit and implicit references to animals' behaviours: that of fish and of birds in particular.

Of all the dances performed, those of the *Pukmaras* type are by far the ones deemed most awe-inspiring for all who have witnessed them (Sub-section 4.1.2). Even in the early 2020s, decades after the last such dance was performed, the hushed tones and emphatic expressions which people resorted to when describing them bore witness to how serious and grave these are. As a reminder: *Pukmaras* was a type of secret society which was led by 'dance leaders' known as *vaitas*. These older men used to choose younger ones, initiands called *maratiptip*, and bring them into an enclosure. Inside, the *maratiptip* learned one or several dances, such as *Laun*, *Sokomvual*, or *Susuk*, all of which are 'covered up' by the 'big name' *Pukmaras*, according to the single living *vaitas* whom I was able to talk to, Patrick Topania.

One of these dances, from a detailed reenactment and description that Topania gave of it, involves men imitating a group of fish that are eating the coral on the reef, then spreading out.[4] He explained the role of the *vaitas* in directing, with his whistle, the changes in patterns for the dance known as *Sosolaun*:

> And when they are dancing Sosolaun… the fish are biting! They listen, right! And… you, you, you, [points to imaginary dancers] all of them, the whole bunch, they dance, to finish off the dance. And the dance leader, he signals with the whistle, like this… If it is the fish biting, right, and when they have finished over there [points], the dance leader does like this: [beats rhythm with hand on bench], gets rid of it. Then, after, he continues again. They are eating again [continues to tap]. Each time, there is a signal, from the dance leader, that's his responsibility.[T138] (Topania, 22 July 2023).

4. The fish in question, were just referred to as *iekalat*, with *kalat* meaning 'bite', and therefore can be translated simply as 'biting fish'. He did not use a more specific species name himself, but when discussing this later with other people, they cited the parrotfish, *mangava* (*Scarinae* spp.) as an example of such fish that 'eat the reef'; parrotfish do indeed feed by scraping algae off the seafloor substrate, including off coral formations.

Later, I questioned Topania further as to the exact relation between these dances and the fish. He answered that

> the dance goes according to the way the fish move about when they are eating. The school of fish, such as the parrotfish, or the sea chubs, yes, they are eating. This group of men stands up, and it goes. Well, they start biting again. They eat again. They eat until it is entirely bare this thing here. […] The beat of the slit drum, it just follows the pattern of […] the school of biting fish, they, there's none left, well, they leave. They cut it, so that they are saying that, give a sign like this, so that they leave. They bite on another area of the reef. They keep going until the slit drum lets them know with the 'signal' [English] of the dance leader, it has reached the end.[T139] (Topania, 12 August 2023).

He continued by beating the rhythm of the slit drum with the back of his fingertips on the bench we were sitting on, and explained, between each change, what part of the dance the rhythm corresponded to:

> The fish, indeed, they are on the move. Go, school of fish. Indeed, it is going the school of fish is. [Changes beat]. Well, they are eating. [Whistles, and changes beat]. They are going back, looking for another place to eat. [Beats hard] Eating. [Stops beating]. Well, they are getting ready to get the group of men, it has come to the second part of the pattern, the dance is being danced. They sit down. They sit down. Well, ah… They strike the… [Whistles]. The whistle cries out. [Beats on bench] The slit drum is beaten. It's saying: 'another pattern, it is coming up to the third pattern'. It is Sosolaun. [Beats on bench and screams in low tone] Ah the thing [whistle], it is crying like that. The thing blows. [Beats on bench and makes low shriek.] The dance has come to its end.[T140] (Topania, 12 August 2023).

Finally, as we finished this conversation, he made a point of summing up our discussion in very clear terms, explaining that:

> This dance, which is called Laun, or Pukmaras, belongs to the fish. […] This dance called Pukmaras, it is a dance which was created for the fish, after the schooling behaviour of fish: how they eat, […] how they separate, how they finish, when they have finished […] eating, right, they separate. They hide. That is, indeed, the meaning of the dance called Pukmaras.[T141] (Topania, 12 August 2023).

This dance 'belongs' to the fish, it is the dance of the fish (*kate malmalang ti ri ien*). Men who dance this dance are being fish. They are doing what fish do. It is a public enactment of the animal's behaviour in a performance shrouded in the most powerful prohibitions anybody ever describes on Lavongai. Why this came to be, or what significance it has in the context of these dances, is something which I could not uncover, given how few men now have knowledge of these practices and how secretive they are. But what is evident is that in order to produce this performance, these men must take on the role of fish, must *become* fish. This is more than imitation. The vocabulary used by the *vaitas* who spoke to me about this dance is not that men are dancing *like* fish. When describing the actions performed, he does not say 'the men do this or that like fish' but 'the fish are eating', 'the fish swim away', 'they are eating again'.

In the other type of dance that is said by Lavongai people to be very 'powerful', *Kambai*, there is also indications from existing literature that fish are sometimes imitated. Indeed, Augustine Abo, in a conference presentation, stated that:

> There are two groups in the *kambai* itself. The first line of dancers are called *gaugaus*. They dance in pairs, imitating a particular fish which always swims in schools or in pairs, and is very common near mangroves. They have their faces painted white and black. The second group imitates *valuka* [wallabies], walking in pairs. (Abo 1995, p 139).

In at least some other important dances, men imitate birds, as I described in detail in a previous chapter (Sub-section 4.1.2).

To conclude concerning these dances, I will return to the drawings described in the two previous sections. These indicated a tendency that Lavongai people have to draw links between three poles: people and their social divisions; nonhuman beings in their various local taxa and categories; and locations to which these are considered to belong. The data on dancing, although it is only preliminary and partial[5] suggests that these links may be even stronger between groups of people and certain groups of animals. This 'identification' that happens during dancing indicated that these links are deeply seated in the way Lavongai people view difference and similarity among living beings. These are manifestations of certain 'modes of identification' which Lavongai people resort to in order, in Descola's words, to: 'broadly schematize [their] experience of things, distinguishing between parcels of ontological properties distributed in accordance with the arrangements of existing beings.' (2013, p 309). In other words, they provide important indications concerning the Lavongai people's ontology.

8.2 Clanspeople and their 'totem' birds

The exploration of marine interspecies relations has shown the importance both of birds and of fish (see Appendices B and C). Recall that birds are the 'totem' animals of the Lavongai clans. The cases presented above of drawings depicting fishers and of the 'imitation' of birds and fish in dances, indicate a tendency that Lavongai people have to draw parallels between manners of organising society along gender- and descent-based lines, and species of animals. This evokes the classical definition of 'totemism', a word which 'anthropologists have been accustomed to using [...] every time that a group of social units—moieties, clans, matrimonial sections, or religious groups—are associated with a series of natural objects.' (Descola 2013, p 122).

8.2.1 Back to the clans: is Lavongai social organisation 'totemic'?

As described previously (Section 2.1), Lavongai people nowadays distinguish 11 matrilineal clans in their midst, which are named after 11 birds. This leads to a renewal of the question that Radcliffe-Brown formulated, over 70 years ago, when he asked: '"Why all these birds?" [...] How can we understand the customs by which social groups and divisions are distinguished by associating a particular group or division with a particular natural species?

5. Indeed, many other dances could not be observed, and a full analysis of those presented here is partly beyond my own abilities since I lack training both in musicology and choreography. Hence the discussion here is based not so much on what I could objectify by observing these dances, but rather on what Lavongai people told me about them.

This is the general problem of totemism.' (1951, p 17). By returning to this question, the aim is not to revisit the century-long anthropological debate about totemism, something which would be far outside the scope of the present thesis. However, a cursory presentation of this history is in order here. Indeed, under the label 'totemism', anthropologists have, for over a century and a half now, subsumed an ensemble of social phenomena of considerable heterogeneity.[6]

The history of the concept of totemism in anthropology follows closely that of the discipline's theoretical trends: from evolutionism, to diffusionism, through functionalism and early structuro-functionalism, to the stucturalists of the second half of the 20th century.

The term 'totem' is now a part of the anthropological meta-language, but it originally derives from a specific North American language, that of the Ojibwe, a Woodland and Subarctic people from an area which is in present-day Canada and the United States of America. In the Algonquin family of languages, to which Ojibwe belongs, the word *ododeman* designates both a patrilinear clan and its eponymous animal (Fogelson and Brightman 2002, p 307).

A large share of the anthropological work concerning totemism however came from ethnographic descriptions of Australian societies. With pioneering work by Spencer and Gillien (1899), and the 'armchair' analysis of Durkheim (1912) and Frazer (1910) at the turn of the 20th century, previous evolutionist theories that equated totemism with a form of 'primordial' religion had to be discarded. Australian ethnographies showed immense variation between the numerous Australian Aboriginal societies and in the way these involved groups of people, individuals, animals, plants, or other 'natural elements'. For example, Spenser and Gillen write that:

> In many Australian tribes it seems to be a general custom that a man must not eat or injure his totem, whereas amongst the Arunta there are special occasions on which the totem is eaten, and there is no rule absolutely forbidding the eating of the totem at other times, though it is clearly understood that it must only be partaken of very sparingly. (Spencer and Gillien 1899, p 73).

The conclusion appeared inevitable: it is practically impossible to generalise about 'Australian totemism', let alone totemism as a whole. Similarly astute ethnographic observations by such renowned fieldworkers as Franz Boas in the Northwest American continent also led to this conclusion. In an article specifically denying any globalising conclusions could be drawn from his work, Boas writes that 'it is entirely opposed to the methodological principles to which I hold to generalize from the phenomenon found among the Kwakiutl and to interpret by its means all totemic phenomena.' (1916, p 320). His interpretation is that the 'homology of distinguishing marks of social divisions of a tribe is a proof that they are due to a classificatory tendency.' (1916, p 326).

From an early stage in the ethnographic and theoretical elaboration of 'totemism', ethnographies conducted in Western Oceania fuelled this debate. The works of William HR Rivers in the New Hebrides (modern day Vanuatu) and the Solomon Islands in particular (1909), emphasised the commonalities and differences between various forms of

6. I base this introduction largely on the work of Frederico Rosa (2003), who gives a historical overview of the trends in the anthropological analysis of totemism, from the late 19th century to the late 20th century.

totemism. He developed a diffusionist theory, likening the moiety systems and the totemic systems found throughout Oceania to two distinct waves of migrants. Although his historical reconstructions and the theoretical premises of diffusionism are hard to defend (all the more so in light of recent genetic, linguistic, and archaeological evidence on the peopling of Oceania, see for example: Skoglund *et al.* 2016; Spriggs and Reich 2019), he did insist on the importance of marriage rules and prohibitions for the understanding of totemism (Rivers 1914). The work of Charles G Seligman in southern New Guinea (1909) also caused renewed discussion on the subject, notably through his presentation of the concept of 'linked totems', an expression he used to refer to the secondary species that are in certain societies also attached with a social grouping as well as a 'primary' totem. During fieldwork in the Trobriand Islands, Bronislaw Malinowski also noted associations between exogamous matriclans and living beings and wrote on the subject of totemism in several of his works (1922, pp 70–72, 1948, pp 25–29). He concluded that associations between groups of people and animals were merely religious considerations moulded by subsistence preoccupations (1948, pp 26–27). Reo Fortune (1932), working on the island of Dobu in Milne Bay noted the existence of a totemic social organisation, with clans associated principally with birds, and produced a social analysis of the phenomenon, somewhat akin to that of Rivers, insisting on the importance of the rule of exogamy and attributing to totemism the role of a social regulator (1932, pp 32–36).

All of these works fed into what is often seen as one of the most decisive publications on totemism, that of Lévi-Strauss (1963b). In this, summarising and dealing with previous attempts at theorising totemism, he reformulates the 'totemic question' as being: 'the problem of the logical power of systems of denotation that are borrowed from the realm of nature.' (Lévi-Strauss 1963b, p 14). He begins by clearing up the confusion as to the social facts in question by making distinctions between four types of totemism, based on what combinations of individual or collective humans and nonhumans they associate (Table 8.2). Part of his concern was with explaining why totemism had been largely abandoned as a theoretical preoccupation for the two decades or so before. His own conclusion is that the theorists had fallen pray to the 'totemic illusion' by seeking an overarching explanation and function to totemic social facts. His analysis is that the many institutions which associate human social groups and natural categories are born out of the universal tendency of human beings to seek out homologies between series and to classify. He concludes with his famous formula:

> The animals in totemism cease to be solely or principally creatures which are feared, admired, or envied: their perceptible reality permits the embodiment of ideas and relations conceived by speculative thought on the basis of empirical observations. We can understand, too, that natural species are chosen not because they are 'good to eat' but because they are 'good to think.' (Lévi-Strauss 1963b, p 89).

Although Lévi-Strauss thus seemed to have put the last nail in the coffin of the 'totemic problem', and the scope of theoretical writing which places itself under this rubric has

Table 8.2: Typology of the forms of totemism depending on what they associate: individuals or category of humans ('cultural'); individual or species of 'natural' beings. Adapted from (Lévi-Strauss 1963b, p 17).

	1	2	3	4
Natural Cultural	Category Group	Category Person	Individual Person	Individual Group

certainly shrunken considerably since the last century, the term has endured into contemporary ethnographic descriptions, in particular in Western Oceania.[7]

This brings us back to the way Descola uses the anthropological term 'totemism' to designate one of his four ontologies (2013). This is defined as being one in which people consider that there are particular configurations of properties inside and outside of a collective which he refers to as the 'totemic group'. This collective may be composed of a clan, moiety, or another organised ensemble of humans and of their nonhuman totem or totems. Descola's totemic ontology implies that people consider two things: 1) that there is 'continuity'—meaning similarity—between the interiorities and physicalities of human and nonhuman beings (the 'totem' or 'totems'); 2) that humans and nonhumans from each totemic group have 'discontinuous'—meaning dissimilar—interiorities and physicalities to those of all other groups (Descola 2013, pp 144–171). For example, if a hypothetical society were to be organised in five groups, all called by the names of trees, then in Descola's terms, they would adhere to a totemic ontology if they considered the humans in each one of these groups to have similar physical and internal properties to their respective trees and that each group of humans differed from the others in similar ways that the trees differed from each other, both in physicality and interiority. It is important to note that Descola defines totemic ontologies as being based on the 'Australian model' (2013, p 233), because, in his words, it is the continent where 'the exceptional properties that it [totemism] manifests are expressed most clearly' (2013, p 145).

In this vein, the present chapter aims to carry out an ontological investigation of the way people on Lavongai perceive commonalities or differences between their own physical and internal properties and those of other, nonhuman, beings. In this regard, the commonalities or differences which they perceive between species of birds and other animals associated with clans are of prime importance, and these will lead to questioning whether this social organisation can be likened to totemism and to the exploration of its ontological mechanics.

The fundamental facts to keep in mind concerning this aspect of Lavongai sociality are the following:

1. there exist 11 clans on the island;

7. As examples that recent anthropological works in Oceania still relies on the concept of 'totemism' in describing aspects of the region's social organisations, see the works of Edward Hviding in Marovo Lagoon (Solomon Islands 1996); and in Papua New Guinea of Aletta Biersack in Mount Kiare (Highlands 1999); John Liep on Rossel Island (Milne Bay 2009, pp 109–114); or Françoise Panoff among the Maenge (East New Britain 2018, pp 33–34), to list but a few.

2. these clans are matrilineal;
3. a person's clan is determined at birth and cannot change (not even following adoption);
4. these clans are exogamous;
5. each clan is named after a bird (its 'totem');
6. there are no prohibitions for members of a clan regarding eating their totem.

Several other aspects of this social organisation must be further specified. In the table of clans and 'totem animals' drawn up in the 1950s by patrol officer Kaad (which I introduced previously in Section 2.1), there are numerous animals for each clan that are listed as 'totems', not only the 'main' bird. With a number of inhabitants of Metevoe, we worked on identifying and correcting the orthography of this list of animals (the results of this are in Table 8.4). As can be seen in these tables, almost all the beings listed as totems in the 1950s are still known by Lavongai people today. There are 66 animals in total, of which only two remained totally unidentifiable (*siog* and *kolka*, possibly misprints or poorly transcribed names of birds). Of the 64 that were identified, only six are not birds (they are listed and identified formally in Table 8.3). Three are in the category *ien* (fish): *siavun* (swordfish), *paimani* (manta ray), and *korol* (a grouper); three others are neither *manu* (birds) nor *ien* (fish): these are *orongo* (cuscus), *ragrag* (or rather *rokrok*: frog[8]) and *valuka* (wallaby). All the other 58 are birds, three of which are, nowadays, not found on Lavongai but only on New Ireland according to my interlocutors. All of the animals discussed previously for their presence and importance in drawings and dances—*raula*, *vokol*, *kanai*, and *vengevenge*—are listed in this table.

Table 8.3: 'Totem animals' listed in Kaad 1949, pp 6–8, that are not birds (in the English sense); the full list is in Table 8.4.

Associated with clan	**Tungag name**	**English name**	**Scientific name**
Manilava	*Orogo* (rather: *Orongo*) *Paimani*	Cuscus Giant manta ray	*Phalanger* spp. *Mobula birostris*
Nguma	*Malikom*	Flying fox	fam. *Pteropodidae*
Kikiu	*Siavun* *Ragrag* (rather: *Rokrok*)	Swordfish Frog	*Xiphias gladius* order *Anura*
[None listed]	*Korol*	Grouper	*Epinephelus* spp.

8. The term *rokrok* means 'frog' in Tok Pisin, however, it is also found in a number of languages from the New Ireland region which may possibly be reflexes of a hypothetical Proto-meso-melanesian **rokrok* reconstruction. However, the fact that the cognate set this reconstruction is founded on 'is confined to Vitu, the New Ireland group, Nehan and Buka […] [and] *rokrok* is also Tok Pisin for "frog", from Tolai, makes this set problematic. However, a portion of Tok Pisin vocabulary has its origins in southern New Ireland languages.' (Osmond and Pawley 1998, p 265). So, as is often the case with such words present in Tungag and Tok Pisin, this could be a Tok Pisin loanword, or it could have been part of Tungag before the emergence of Tok Pisin, and been borrowed from Tolai which had it as a cognate.

Table 8.4: Identification of all 'totem animals' listed in Kaad (1951) for the clans of Lavongai.

Clan	Totem				Notes
	Tungag		English	Latin	
	Name	Part of category			
Manilava	*Manilava*	*manu* (bird)	White-bellied Sea-Eagle	*Haliaeetus leucogaster*	
	Manuanga	*manu* (bird)	[Not tungag]		New Ireland name for *Manilava*
	Tanglik	*manu* (bird)	Osprey	*Pandion haliaetus*	
	Mar	*manu* (bird)	Brahminy Kite	*Haliastur indus*	
	Uneslik	*manu* (bird)	Variable Goshawk	*Accipiter hiogaster*	
	Taukik	*manu* (bird)	[Unidentified bird of prey]		
	Matuk	*manu* (bird)	[Unidentified bird]		Possibly *mantuk*, which means 'play dead' and which certain birds do
	Orongo	***manmanik* (animal)**	Cuscus	*Phalanger* spp.	
	Paimani	***ien* (fish)**	Oceanic Manta Ray	*Mobula birostris*	
Kanai	*Kanai*	*manu* (bird)	Terns (multiple species)	Subfam. *Sterninae*	
	Vaingan	*manu* (bird)	Streaked Shearwater	*Calonectris leucomelas*	*Vaingan* is Matas dialect, also *vengevenge i nei laman*
	Raula	*manu* (bird)	Lesser Frigatebird Greater Frigatebird	*Fregata ariel* *Fregata minor*	
	Toktokik	*manu* (bird)	Moustached Treeswift	Hemiprocne mystacea	
	Vungi	*manu* (bird)	Little Grebe	Tachybaptus ruficollis	
	Magmagkuwik	*manu* (bird)	Unidentified swift		
Ianga	*Ianga*	*manu* (bird)	Eclectus Parrot	*Eclectus roratus*	
	Suluk	*manu* (bird)	Eclectus Parrot (red, female)	*Eclectus roratus*	
	Manga	*manu* (bird)	Cardinal Lory Purple-bellied Lory	*Pseudeos cardinalis* *Lorius hypoinochrous*	
	Kik	*manu* (bird)	Red-chinned Lorikeet Red-flanked Lorikeet Coconut Lorikeet	*Vini rubrigularis* *Hypocharmosyna placentis* *Trichoglossus haematodus*	
	Mankuliton	*manu* (bird)	Green-fronted Hanging-Parrot Buff-faced Pygmy-Parrot Finsch's Pygmy-Parrot Meek's Pygmy-Parrot Red-breasted Pygmy-Parrot	*Loriculus tener* *Micropsitta pusio* *Micropsitta finschii* *Micropsitta meeki* *Micropsitta bruijnii*	
Valus	*Valus*	*manu* (bird)	Red-knobbed Imperial-Pigeon	*Ducula rubricera*	
	Lungma	*manu* (bird)	Island Imperial-Pigeon Pacific Imperial-Pigeon	*Ducula pistrinaria* *Ducula pacifica*	
	Valku	*manu* (bird)	Amboyna Cuckoo-Dove	*Macropygia amboinensis*	
	Valik	*manu* (bird)			Possibly something of *valus* type, as in *valus-lik*.
	Tutumbo	*manu* (bird)			New Ireland bird, not found on Lavongai
	Kukua	*manu* (bird)	Mackinlay's Cuckoo-Dove	*Macropygia mackinlayi*	
	Muka	*manu* (bird)	Pacific Emerald Dove	*Chalcophaps longirostris*	
	Tonkulibebe	*manu* (bird)	[Unidentified bird]		Maybe similar to *mankuliton*?
Nguma	*Nguma/Kol*	*manu* (bird)	Bismarck Crow	*Corvus insularis*	
	Iok	*manu* (bird)	Long-tailed Myna	*Mino kreffti*	
	Manikeng	*manu* (bird)	Metallic Starling Singing Starling	*Aplonis metallica* *Aplonis cantoroides*	
	Minluai	*manu* (bird)	New Ireland Friarbird	*Philemon eichhorni*	
	Malikom	*manu* (bird)	Flying fox	*Pteropus* spp.	Biologically a mamal, but part of *manu* in Tungag
	Kinpula	*manu* (bird)	[Unidentified bird]		Lives in tall grass

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Clan	Totem				Notes
	Tungag		English	Latin	
	Name	Part of category			
Kiukiu					
	Kiukiu	*manu* (bird)	Collared Kingfisher	*Todiramphus chloris*	
			Forest Kingfisher	*Todiramphus macleayii*	
			Sacred Kingfisher	*Todiramphus sanctus*	
	Siavun	***ien* (fish)**	Swordfish	*Xiphias gladius*	
	Kiakia	*manu* (bird)	Beach Kingfisher	*Todiramphus saurophagus*	
			Melanesian Kingfisher	*Todiramphus tristrami*	
	Silia	*manu* (bird)	Common Greenshank	*Tringa nebularia*	
			Common Sandpiper	*Actitis hypoleucos*	
			Red-necked Stint	*Calidris ruficollis*	
	Turik	*manu* (bird)	Sharp-tailed Sandpiper	*Calidris acuminata*	
	Ragrag	***manmanik* (animal)**	Frog	Order *Anura*	
Vegevenge	*Vengevenge*	*manu* (bird)	Blyth's Hornbill	*Rhyticeros plicatus*	
	Sip	*manu* (bird)	Bismarck Black Myzomela	*Myzomela pammelaena*	
			Black-bellied Myzomela	*Myzomela erythromelas*	
	Mansu	*manu* (bird)	Brown Noddy	*Anous stolidus*	
Sui	*Sui*	*manu* (bird)	New Ireland Dwarf-Kingfisher	*Ceyx mulcatus*	
	Suikunganung	*manu* (bird)	Bismarck Kingfisher	*Ceyx websteri*	
	Vokol	*manu* (bird)	Black Bittern	*Ixobrychus flavicollis*	
			Pacific Reef-Heron	*Egretta sacra*	
			Nankeen Night-Heron	*Nycticorax caledonicus*	
			Great Egret	*Ardea alba*	
			Intermediate Egret	*Ardea intermedia*	
	Suitogo	*manu* (bird)	[Unidentified kingfisher]		A type of kingfisher that can hover in place waiting to dive and catch a fish.
Silau	*Silau*	*manu* (bird)	New Hanover Munia	*Lonchura forbesi*	
	Pura	[Unclear]	Domestic chicken	*Gallus gallus*	Village animal, unclear if part of *manu*
	Vurik	*manu* (bird)	[Unidentified bird]		Similar to *silia*
	Kiau	*manu* (bird)	Melanesian Scrubfowl	*Megapodius eremita*	Flightless bird
	Ngaut	*manu* (bird)	New Ireland Pitta	*Erythropitta novaehibernicae*	
	Siog				
	Kolka				
	Manpukatuk	*manu* (bird)	[Unidentified bird]		Similar to *silau*
	Mankuning	*manu* (bird)	[Synonym of *silau*]		
	Kekei	*manu* (bird)			Similar to *silau*, flies around in groups in the evening
	Valuka	***manmanik* (animal)**	Brown's pademelon	*Thylogale browni*	
Tien	*Tien*	*manu* (bird)	Golden Monarch	*Carterornis chrysomela*	
	Rungrung	*manu* (bird)	Bismarck Boobook	*Ninox variegata*	
	Urmoso (=*mosmosour*)	*manu* (bird)	Bismarck Whistler	*Pachycephala citreogaster*	
			Black-tailed Whistler	*Pachycephala melanura*	
	Gaus	*manu* (bird)	[Unidentified bird]		Black medium sized bird, makes a sound like a whistle
	Tutut	*manu* (bird)			Found in New Ireland, name from there, white chest, black body, big wings
	Soek	*manu* (bird)	Dull Flycatcher	*Myiagra hebetior*	
			Shining Flycatcher	*Myiagra alecto*	
Gila	*Gila*	*manu* (bird)	Singing Parrot	*Geoffroyus heteroclitus*	
	Uk	*manu* (bird)	Claret-breasted Fruit-Dove	*Ptilinopus viridis*	
			Knob-billed Fruit-Dove	*Ptilinopus insolitus*	
			Superb Fruit-Dove	*Ptilinopus superbus*	
			Yellow-bibbed Fruit-Dove	*Ptilinopus solomonensis*	
	Korol	***ien* (fish)**	Grouper	Fam. *Serranidae*	

How does the ethnographic data concerning Lavongai and their 'bird associated clans' appear through the lens of the ontological framework developed by Philippe Descola for the 'Australian model' of totemism?

8.2.2 Physical properties of beings within the clan system

There is compelling evidence that the Lavongai assign specific physical attributes to people based on which clan they belong to and that they perceive these attributes to be continuous within each clan (similar for all clan members) and discontinuous between clans (not the same between any two clans).

Dermatoglyphs

One such pattern of continuity and discontinuity is visible in the local discourse concerning palmprints. A group of Metevoe youths once spontaneously started discussing with me the creases on their hands. Comparing their palms, they pointed out how the creases were 'the same' and stated that this was because they were of the same clan: Silau. When pushed to specify what made these lines similar in their view, they counted them, and pointed out two 'major' lines, then specified that other clanspeople have a different number of such lines. Staring at my hand, they exclaimed that I had many lines and expressed the view that this was because I was from a 'very different clan' (Daniel, 3 April 2022).

Distinctive patterns on the skin are known as 'dermatoglyphs' in the scientific literature. These include the well known finger prints, but also palmprints. The question of whether palmprints are similar in measurable ways between related individuals has been studied by a number of physiologists and geneticists in the past (Glanville 1965). The topic was of interest in forensic anthropology until the 1970s, because palmprints were believed to hold promise in identifying filiation. It was hoped that results of these studies could be used to disprove, for example, that one person was a parent of another, if their dermatoglyphs were shown to be very different. In the criminal context, it was thought that if a palm imprint was found at a crime scene and was similar to that of a suspect, then this would suggest that a sibling or parent had left the imprint. All research into these topics seems to have ended with the advent of DNA profiling in the late 1980s, although some research into palmprints as biometric identifiers for individuals continues (Han *et al.* 2003). Interestingly, this research had nevertheless provided conclusive evidence that certain elementary characteristics of palmprints are indeed hereditary and possess recessive and dominant variants (Loesch 1971; Vrydagh-Laoureux 1971). Thus, the Lavongai conception that palmprints may be similar within a group of people who are linked by close genetic ties, such as members of a clan, coincides with the conclusions of some Western scientific research.

Interestingly, although I was locally associated with the Nguma clan because I had been adopted by my host Laimen and his brothers as one of their own, nobody suggested that my hands should have reflected that association. It could be that I was considered to be part of Nguma clan, but since I was not born a Nguma, my hands had no reason to reflect

that fact. It was my quasi-adoption into a specific family as a 'brother' that led to my assimilation into the Nguma clan, rather than some reading of my palmprint.

I was not the only foreigner in Lavongai who noted this local conception that palmprints are linked to clan membership. Over a century ago, the naturalist Herbert Cayley-Webster wrote the following:

> One morning, whilst passing through the village, I caught sight of a native apparently very much interested in the palm of the hand of another, and on interrogating him I learned that they have a belief that every man, woman, and child belongs to one or another species of birds, according to the lines of their hands. Those possessing sharp lines belong to the hawks, those with soft one to pigeons, and so on. [...] I asked him to what family of bird I belonged, and he at once told me. Some days afterwards I asked another man who belonged to another village, and he told me the same bird. (Cayley-Webster 1898, pp 290–293).

This lends credence to the statement that, where physical continuity and discontinuity between human beings are concerned, Lavongai people conform to a totemic ontological scheme, *sensu* Descola. Clearly, since birds have no lines in their hands to compare with each other, this cannot be expected to mean that they should have 'similar' palms to those of the human members of the clan. Rather, we must consider, along with Descola and Lévi-Strauss, that the totemic logic is here that of

> a homology between two series of relations, the one differentiating a collection of species, the other differentiating a collection of social units, with the former presenting an immediately available model for organizing the latter. Nature thus provides a guide and a framework—what Lévi-Strauss calls 'a method for thinking'—that helps the members of certain cultures to conceptualize their social structure and to offer a simple iconic representation of it, one similar to that used by European heraldry. (Descola 2013, p 122).

By looking towards Lavongai's neighbours, further evidence of this logic becomes available. Ethnographies of New Ireland societies contain a number of remarks about the matrilineal social organisation and its relation to birds (as described previously in Sub-section 2.1.2). Recall that in the southern half of New Ireland a moiety system is superimposed over the matrilineal clan structure, whereas these moieties are absent in Tungag-, Tigak-, Kara-, and Nalik-speaking communities of the northern half of the island. Where they exist, moieties are the largest units of exogamy—a property which clans have where moieties are absent.

Writing of the Mandak-speaking communities of the southern part of New Ireland, Brigitte Derlon notes that similar patterns in palmprints are associated with moiety membership:

> Each individual is said to be born with the distinctive physical characteristics of the members of his dual unit. [...] This belief makes the members of each moiety *beings of the same type*, similarly to the birds *Pandion leucocephalus* or *Haliaëtus leucogaster* and divides humanity into two halves, or two orders, that are as close and yet different as are the two species of birds of prey that they use as emblems.[T142] (1997, p 26, emphasis added).

The passage emphasised above shows how the local conception of moiety membership is considered to divide people into two similar 'types', in other words: into one group of people who share a similar physicality, contrasting with those of another group who have a divergent physicality.

According to Brenda Clay's ethnography among speakers of the Lavatbura-Lamasong language in the New Ireland village of Pinikindu,[9] physical properties of an individual are indeed strongly tied to moiety membership. She also mentions lines of the hand and adds one's leading step (left or right) and gait:

> [Being a member of a moiety] shows in certain physical traits. For example, those who are Emalam [of the White-bellied Sea-eagle moiety] have four lines on the palms of their hands, those who are Erangam of the Osprey moiety have only three. Emalam people walk leading with their left foot, Erangam with the right. One Pinikindu man said that [...] he could tell whether a European was Emalam or Erangam by watching the way he walked down the street. (1977, p 36).

Roy Wagner writes of the Usen Barok people of Bakan village that they have:

> a system of exogamous moieties, as well as the specific 'totemic' designators of those moieties [...] Malaba (*bik pisin*, 'the big bird' in Tokpisin) and Tago (*smol pisin*, 'the smaller bird'); Malaba is the white-bellied sea eagle [...] Tago [...] a white-headed sea hawk [...]. In addition to these birds of prey, the moieties are sometimes identified with distinctive traits (Malaba people have three creases on the palm of the hand, Tago people four). (1986, p 50).

Owen Jessep reports, similarly but with reservations, that for the Barok-speaking people of Lokon village: 'It is sometimes said that moiety members have a shared physical characteristic, namely the number of lines on one's palm, but this was not considered very seriously by Lokon informants, who admitted to having heard the story but disagreed about the number of palm lines supposedly appropriate for each moiety.' (1977, p 50, note 1). The fact that opinions diverge among Jessep's interlocutors as to exactly which patterns of lines is supposed to be 'appropriate' for each moiety does not contradict the proposal that members of one moiety are said to share physical traits which differ from those of members of the opposite moiety. It is not a matter of everybody agreeing on *how* these differ, rather the fact that there are conceptions linking palmprints to moiety.

These ethnographers of New Ireland societies all concur that in the areas were moieties exist, membership in one or another is inherent at birth and is matrilineal. Clay, for instance, writes about the moieties among the people of Pinikindu that 'each person is born a member of one of these two divisions' (1977, p 36) and Jessep (1977, p 50) concurs. The latter fact might lead one to suppose that the moieties are a form of descent group. However, how exactly the two concepts of moiety-membership and descent interrelate is not straightforward. Powdermaker writes about the Notsi-speaking people of Lesu that 'the members of each moiety regard themselves as related to each other in a classificatory

9. Although Clay refers to the people she worked with as 'Mandak' or 'Mandak-speakers', comparative linguist Malcolm Ross places the village of Pinikindu in the Lavatbura-Lamasong linguistic area. This language is part of what Ross refers to as the 'Mandak chain' of languages along with Barok and Mandak. In his opinion, it is however a distinct language from Mandak, which is spoken further to the south of the island. See also the online Glottolog language database (Hammarström *et al.* 2023).

manner' (1933, p 33), and Jessep that among the people of Lokon 'kinship terms are used to refer to all persons of the moiety with whom one comes into regular contact' (1977, p 50). The two remarks tend to support the idea that if physical properties are shared by members of a moiety, then it is because of their genealogical connectedness; much like children are often said to resemble their parents or brothers are perceived to look alike.

However, I do not believe this is the case. Indeed, Clay describes moiety membership among the people of Pinikindu as being rooted in something which she considers more fundamental than a consanguineous relationship. This seemingly paradoxical claim requires some explanation: how can a social organisation in which each person fits into the category of his or her mother be simultaneously unrelated to descent? This is the prickly issue of the distinction between local theories of procreation, consanguinity, and inheritance; the distinction is between filiation and descent (DM Schneider 1967). Clay writes that moiety membership is 'established before birth by unknown forces, just as people do not know how the sex of the fetus is determined', adding that:

> although people [...] stated that a person receives his moiety name from his mother, no one would suggest or support the idea that a person derives from her the physical traits of moiety membership. Although the Mandak recognize the link between mother-child and moiety membership, they conceptualize their dual division as an innate feature of human beings. (Clay 1977, p 36).

She also notes that the moiety is not seen as a form of apical kinship unit, since 'no genealogical connections are suggested between *ebibinets* (clans) of the same moiety.' (Clay 1977, p 36). Similarly, Jessep writes, concerning the Barok, that 'each clan's claim to moiety membership is made without reference to any other clan' and 'a common ancestry for the clans of a moiety is not claimed. Thus while the Barok moiety is a category, it is not a "descent" category in the usual sense; the clan's membership in a category is given, and it is not known [by] what principle membership [of a clan in a moiety] was determined.' (Jessep 1977, pp 50–51).

To summarise: Central and Southern New Irelanders belong to a clan, which is the clan their mother belonged to. This is a descent group, and all clan members see themselves as consanguinous. They also belong to one of two moieties, which is determined by the fact that each clan is part of just one of the two moieties. These moieties do not behave as descent groups, and membership in one or the other is seen as an 'innate' property that is 'akin to gender', by which I gather that Clay means it is determined at birth but not by any particular fact. The paradox is that this membership in a moiety is a property which—according to Clay—is non-genealogical yet determined by matrilineal membership for the people of Pinikindu. The moiety is hence given a kind of supra-kinship status. Moreover, specific physical properties (palmprints, gait, first foot put forth when walking) are considered to be attached *to the moiety* and not to the clan.

On Lavongai, as in the northern half of New Ireland (among the Tigak-, Kara- and Nalik-speaking population) there are no moieties, and the largest exogamous unit is the clan. This simplifies the situation, since it means that there is no ambiguity regarding correlation between matrilineal clan membership, genealogical relatedness, and the uniformity—

within this genealogical and social unit—of people's physical properties (exemplified by palmprints).

In other words, on the scale of New Ireland, where they exist, moieties constitute the group of people across which there is discontinuity, and inside of which there is continuity in physical properties; where they do not exist, it is the clans that have this role. However, one point requires further explanation. Since clans do also exist in all areas where moieties are present, how might we explain that patterns of physical continuity and discontinuity attach to the moiety level and not to the clan level, and what can we learn from this apparent incongruity?

In many aspects, the clan-based organisation of southern New Ireland, where moieties prevail, is similar to that of the Lavongai or of northern New Ireland. In both cases clans are matrilineal and exogamous; the only change is in the largest unit of exogamy (moieties where they exist, clans where they do not). In both cases clan membership is a key factor during gift exchange and feasting practices in numerous occasions of social life, notably in the course of funerary rituals (Derlon 1997, pp 26–27; Bolyanatz 2000). These two forms of organisation therefore appear very similar. Peter Lomas who carried out fieldwork around Kavieng in the northern area of New Ireland (where there are no moieties) in the 1970s wrote that:

> Beyond Fatmilak [in southern New Ireland] the multiple clans are succeeded by a moiety system described in Powdermaker's work on New Ireland (1933:33-39). Even there, however, there is continuity as the names of two of the multiple clans of the more northerly part of the island become the names of the two moieties in the area south of Fatmilak. Some of the myths recorded by Powdermaker at Lossu (Lesu) are current in the Kavieng area, a fact which further indicates cultural continuity throughout the whole of the northern part of the island. (Lomas 1973, p 53).

The link between the members of these social groupings and birds appears as the key factor. Whether in the presence or absence of moieties, the link between patterns in physical properties of people is always on the same level as that which is associated with birds. There is a clear organisational continuity between the two areas of New Ireland that respectively have and do not have moieties as far as associations with birds is concerned. What diverges between the two forms of social organisation is that where moieties exist, clans are not associated with birds (Derlon 1997, p 27). Rather, in that case, it is the moieties themselves which are associated respectively with the White-bellied Sea-eagle and the Osprey. The conclusion therefore is that there is a correspondence between—one the one hand—the 'totemic' relation between a social unit and birds and—on the other hand—considerations concerning divergent physical traits between members of the social units. Where there are no moieties, clans are associated with birds, and members of the clan are said to have similar physical properties to each other. Where moieties exist, the moieties are associated with birds, and members of a moiety are said to have similar physical properties to each other. This homology constitutes strong evidence for the existence of a totemic ontological structure in the area. What a person *is*, physically, in the context of the clan or moiety system is ultimately dependent on which bird he or she is associated with.

One final remark on this topic: there is possibly a link between the importance of the palmprints in relation to moiety- or clan-membership, and this seemingly nonchalant

remark in one of the earliest written records concerning the region. Writing about the ever-feared anthropophagi of the locals in the mid-19th century, the British navy captain, Henry Keppel recounts that 'one man, who spoke a little English, denied to me that they ever ate men: he however, admitted that, when they killed an enemy, they occasionally eat the palm of his hand, or some such dainty bit.' (Keppel 1853, pp 509–510). The European observer took this statement by his New Ireland interlocutor as a way to minimise the significance of their cannibal practices. But this could very easily stem from difficulties in communication.[10] However, in light of information presented here on the relation between social groups and palmprints, it is hard not to see a link between this sentence in Keppel's writings and the particular significance which the palm takes on in relation to clan and moiety membership.

In a series of case studies of early sources on anthropophagi by Christian Siefkes (2022), the Bismarck Archipelago is mentioned on several occasions. One of the conclusions of this study is that cannibalism in the region was either: 'war cannibalism' (2022, pp 42–50), meaning consumption of 'enemies killed or captured during acts of war' (2022, p 15), or, specifically in the Gazelle Peninsula 'slave eating' (2022, pp 187–188), meaning eating of 'slaves purchased for consumption or already owned by a person who decides to kill them for food' (2022, p 15). These two forms of cannibalism are related insomuch as they are both 'exocannibalism': the consumption of an 'other' of some kind. Although historical sources are limited in scope for this time period (Section 1.2), anthropologists do consider these practices to have been of high symbolic value where they existed (see for instance in Highland Papua New Guinea: Godelier 1986; Lemonnier 2006), and it is therefore unlikely that the specific consumption of the palm of the hand mentioned in this historical text is coincidental or meaningless. Richard Parkinson provides another key piece of information on this matter when he writes about war cannibalism in the region that it obeys precise rules, namely:

> Certain members of a tribe as well as the corpses of those who have the same totem sign, are not eaten. How one determines this in the latter case, has still not been made clear to me, because membership of a totem is not made recognisable by outward features; yet it is an indisputable fact that these corpses are not eaten. (Parkinson 1990, p 204).

Parkinson obviously did not know that the palm of the hand was that 'outward feature' that makes a person's clan visible in the New Ireland region. But considering this, and with his remark in mind, it would seem that it was indeed the case that the flesh of a person of the same clan was avoided when anthropophagi occurred.

War cannibalism is considered to be aimed at incorporating the strength of the enemy: 'by partaking they believe that they will gain greater bravery or strength or cunning' (Parkinson 1990, p 204, see also Lindenbaum 2021). The avoidance of the flesh of the members of one's own clan would therefore seem to align with a 'substance'-based conception of clan membership, and this may point, yet again, towards a continuity of substance (or, said otherwise: of physicality) within the clan and discontinuity between clans.

10. Although by the mid 19th century Tok Pisin or similar creoles from Western Oceania were already well established (Keesing 1988, 1991), it is unlikely that the navy captain would have had any particular fluency in it; he would have understood only what he could directly relate to English.

Behaviour

There is another aspect of physicality that the Lavongai people consider to be continuous within the clan, and discontinuous between clans: behaviour. Indeed, Descola reminds us that 'continuity of physicalities' in the totemic ontology becomes apparent:

> when humans and nonhumans of various kinds are said to all share collections of properties both material and *behavioral* and to be moved to act as they do by identical humors. For [...] it is correct to say that temperament and character stem from physicality, as I have defined it, if they are considered to testify to an influence exerted upon behavior patterns by particular corporeal substances and anatomical dispositions. (2013, p 160, emphasis added).

The people of Lavongai attribute 'typical' behaviours to members of each clan. They also describe different birds species and families as exhibiting 'typical' behaviour of their own.

Ngurkambai, when I asked her what relation exists between a person of a given clan and the bird representing that clan's 'totem', answered first with considerations about the behaviours of birds:

> And kingfisher, there are kingfishers, the bird, it is a man who fishes, the kingfisher. Well, there are people who are kingfishers, yes, they exist. And the kingfisher [the bird] is a person who fishes. Well, there you go, they all have their own 'work' [in Tok Pisin] too, the birds. Like the crow, it also has its own work. The hornbill also has its own work. Also the parrots have their own work.[T143] (Ngurkambai, 9 June 2022).

The ambiguity of the fact that specific clanspeople and birds are referred to by the same names, and that a clan is called 'a bird' makes this sort of statement hard to unravel. Blurring the lines even more is the fact that Ngurkambai uses the term *igenen*, which literally means 'unspecified man', in constructions such as this one:

(8.1) (a) [being] *ka-te* *igenen* [quality]
[being] 3SG-CONT man [quality]
'[being] is a [quality] man '

(b) [being] *ki-te* *vap* [quality]
[being] 3PL-CONT people [quality]
'[beings] are [quality] people'

The [being] here can be a human, a nonhuman, or a 'hidden' one (Sub-section 3.3.4), and [quality] can either be a qualifier, such as an adjective, or a behavioural trait, a habit, something these beings are considered to do all the time, or to be able to do well. In practice, these expressions are used quite often to describe the behaviour of nonhumans, in what may be a simple language game, or a stretch of the linguistic usage beyond the literal meaning of the words *igenen* (man) and *vap* (people). Alternately, this usage might mean that it is necessary to reexamine the actual meaning of the concept of 'person' in the Lavongai context and to sound its boundaries when looking beyond the human.

Returning to the relation between humans of a given clan and their respective totem birds, Ngurkambai seems to put an end to any consideration of shared behavioural traits when she sententiously proclaims: 'they all have their own "work" [in Tok Pisin] too, the

birds. […] But that's not the case for people. People just live like this, that's all. But they just have the names of these birds. But they don't do the things that the birds which are animals do.[T144]' (Ngurkambai, 9 June 2022). Here Ngurkambai helpfully specifies when she is talking about the bird, by saying *keve manu manmanik ang*, 'the birds which are animals'. This allows us to understand specifically what she is saying: that people do not behave like the bird associated with their clan are considered to behave. This appears to settle the matter. However, she then continues with a subtle counterexample:

> Like, the crow, it is a person who eats rotten things that are lying around, things, rotten sago, stumps that are laying around. It has gone rotten: it is food for the crows. Well, if you hear crow [people] who are arguing, or when certain other birds [clanspeople] are shouting at the crow [people] saying that: 'you are people who eat rotten food!' Because that is what they do, the crows [birds?]. They are people who smell things. Rotten snakes, whatever things are laying around and are rotten, the crows indeed, they must eat them.[T145] (Ngurkambai, 9 June 2022).

The birds, crows, eat rotten food, and when arguing, people will insult the crow clanspeople by saying 'you eat rotten food!', drawing again this parallel between the behaviour of people and birds. The question may therefore not be quite so clear cut as Ngurkambai at first seemed to state it to be.

Lavongai people do not directly extrapolate the behaviour of a person based on his or her clan from the behaviour typical of the bird associated with that clan (a Crow clansperson does not necessarily eat carrion). However, the clans and their associations with birds appear as the basic set of divisions onto which behavioural contrasts can be superimposed. Said in another way: there is an ideological partition of behavioural traits, on a conceptual level, but that does not (or only very rarely) translate into a division of tasks, labour, or social attributes.

In the following pages I will describe in detail the data on this matter. A group of villagers worked together with me on several occasions to construct a list of what behaviours each clan's members were thought to typically display. On this topic, there is also pertinent information in the table of Lavongai clans created by Lensi Angele in the early 2000s, which contains a column entitled 'role and special gift' (this was presented previously and is available in its entirety in Table 2.2). I also inquired independently as to the manner in which each type of bird was considered to behave by Lavongai people. Collated information from these three sources are shown in Tables 8.5 and 8.6.

Let us work down these two tables (which are ordered alphabetically by clan name), and attempt to analyse which clan's attributed behaviour can be related to the eponymous bird's behaviour and how so. This will be done not so much by attending to the way ornithology and ethology describe this behaviour (though this information will be important at times), but through reference to local knowledge and discourse concerning these birds'.

Behaviour of Gila and Ianga First, in the case of Gila, people in Metevoe attributed to its clanspeople an identical 'role' to that which they associated with members of clan Ianga, specifically that they are 'good at woodwork, ornamental sculptures'. If we assume that each clan should have a distinct attribution, then the conclusion would seem to be

Table 8.5: The 'attribution, roles, or special gifts' of members of the Lavongai clans, according to information from own ethnography in Metevoe (including population data), and excerpts from Lensi Angele's table (full transcription available in Table 2.2).

Clan	Metevoe ethnography		Lensi Angele's table	
	Pop.	'People from clan X are…'	'Role and special gift'	Translations and comments
Gila	0	Good at woodwork, ornamental sculptures	*Tatagam maramark*. Maintaining good deeds	Probably *tatangam*: songs, to sing; *maramarak*: joy, happy
Ianga	9	Good at woodwork, ornamental sculptures	*Tangatangai*. Arts, Craft & Culture	*Tangatangai*: carving, woodwork
Kanai	17	Warn when fish are there	*Sog*, fisherman. Good seamanship on fishing adventures	*Sog*: to fish with a net
Kikiu	51	Look after food (production)	*Malangas*. Guiding of the light through the sun	*Malangas*: light, daylight, brightness
Manilava	40	Leaders	Chief clan, *pasingan*. Authority over other clans	*Pasingan*: charismatic orator
Nguma	206	Guardians of peace, of *maras*	*Apolok vap*. Regenerating good leaders	*Apolok*: cause to grow, bring up; *vap*: people
Silau	101	Guardians of light, of fire	*Malira si luk aina*. Love magic	*Malira si luk aina*: love magic
Sui	43	Cook food	*Masung*. Decision making & conduct	*Masung*: satiety, magical practices for satiety. Appears unrelated to 'decision making' and 'conduct'
Tien	15	[No answers]	*Tutuman*. Word of Truth – practice of the true way of life	*Tutuman*: true, truth
Uk	0	[No answers]	*Luai atuman*. Living in peace and harmony	*Luai*: peace; *atuman*: true
Valus	195	Messengers	*Maras*. Sorcery for good or evil	*Maras*: poison, sorcery, witchcraft, magic
Vengevenge	16	Compose songs and dances for ancestors.	*Malmalang*. Faith in action & observing assigned task	*Malmalang*: song and dance, sing and dance. Appears unrelated to 'Faith in action' and 'assigned tasks'

Table 8.6: Local perceptions of birds associated with Lavongai clans, as gathered during the ethnography from discussions and interviews with several participants.

Tungag name	English name	Latin name	Local comments on…	
			Aspect	Behaviour
gila	Song Parrot	*Geoffroyus heteroclitus*	Similar to *ianga* but smaller	[None]
ianga	Papuan Eclectus	*Eclectus polychloros*	Has green male named *sinpitak* and red female, *suluk*	Legend tells of it carving an aeroplane at Busulvaia
kanai	Terns (multiple)	Subfam. *Sterninae*	[None]	Sea bird, participates in *aut*
kikiu	Kingfishers (multiple)	spp.	[None]	Doesn't eat fish, but rather shells and other river animals, contrary to *sui* near rivers
manilava	White-bellied Sea-Eagle	*Icthyophaga leucogaster*	Largest bird	The 'boss' of all birds, angry, very strong; carries stones into trees to make nest; catches fish, snakes, flying foxes, wallabies
nguma	Bismarck Crow	*Corvus insularis*	Entirely black with 'blue eyes'	[None]
silau	New Hanover Munia	*Lonchura nigerrima*	All black with red dot on tail	Legend tells of it bringing fire to Lavongai
sui	New Ireland Dwarf-Kingfisher	*Ceyx mulcatus*	Very small, related to *kikiu*	Can eat fish almost its size
tien	Golden Monarch	*Carterornis chrysomela*	Small black and white bird	[None]
uk	Superb Fruit-Dove	*Ptilinopus superbus*	[None]	Hard to see, hides
valus	Red-knobbed Imperial-Pigeon	*Ducula rubricera*	[None]	[None]
vengevenge	Blyth's Hornbill	*Rhyticeros plicatus*	Beautiful, stunning; perceived 'male' is brighter (biological female)	[None]

that they were unaware of one of the two clans' specific attribution and conflated them. Since there are no representatives of clan Gila in Metevoe, it stands to reason that the village's inhabitants may have had no knowledge of which attributes the clanspeople have. Moreover, these two birds—*gila* (the Song Parrot, *Geoffroyus heteroclitus*) and *ianga* (the Papuan Eclectus, *Eclectus polychloros*)—are closely related in Lavongai ethnotaxonomy (and, incidentally, from a biological perspective also, since they are both 'Old World Parrots', fam. *Psittaculidae*). Hence, it is not surprising that the members of the unrepresented Gila clan were given attributions in line with those of a closely related clan: Ianga.

For Ianga itself, the comments of my interlocutors align well with the contents of Lensi Angele's table, since he uses the word *tangatangai* which means 'to cut up, to carve wood', and indicates that Ianga clanspeople are 'Custodian of observing the practice of Arts, Craft & Culture in the society'. There is a myth which gives the bird, *ianga*, particular knowledge in carving or crafting objects. This is the story of Busulvaia:

> Long before white people created the first aeroplane, such a machine was already created by birds on Lavongai. Some larger birds were making fun of *ianga* because it is a small tree-bird that cannot fly very far, unlike the frigatebird, or the eagle. To get back at them, he decided to design a machine: the aeroplane. He called the other bird that knows how to carve and dig into wood, *gila*, a similar one to himself. Together, they fasted: they abstained from drinking for several days, and thanks to this, they were able to use magic to move large tree-trunks, out of which they carved an entire aeroplane. Eventually they created a fully functional aeroplane that could take them far and wide in the sky. This machine is still present on the island, turned to stone, in a place called Busulvaia. Also, *ianga* has two types of calls: one is the ordinary long call it makes quite often; the other is shorter, and 'dry', this is the one he makes when fasting in order to obtain power to perform the magic used to make extraordinary carvings.

This myth attributes extraordinary abilities in carving to the bird, *ianga*, through the power of magical action; since this version is obviously posterior to the arrival of aeroplanes, it may be a contemporary invention, or the adaptation of a story that pre-dates the arrival of industrially constructed aeroplanes to integrate such a foreign concept into the local cosmology and regain agency in the face of colonisation.[11] Concerning the bird, the association with it being a 'carver' could come from the animal's nesting behaviour inside tree holes, although it is not, contrary to a woodpecker for example, a tree digger *per se* (Collar, Kirwan, and Boesman 2023).

Behaviour of Kanai Kanai is the clan where a correspondence of behaviour between clanspeople and bird is the most salient. My interlocutors stated that *kanai* 'Warn when fish are there'. This statement, interestingly, could apply both to a tern, or to a person whose 'role and special gift', as Lensi Angele puts it, is '*Sog* [fish with a net], fisherman. Custodian of observing the practice of good seamanship on fishing adventures'.

There are a number of tern species present on Lavongai (Gray-backed Tern, *Onychoprion lunatus*; White Tern, *Gygis alba*; Black-naped Tern, *Sterna sumatrana*; Crested Tern,

11. In and of itself this myth is a source of fascinating insight into the Lavongai people's way of situating themselves in the wider globalised world which they have had thrust onto them since a little over a century and a half now. That a foreign piece of technology could be presented as having been created on their homeland requires much more analysis, but this would be out of place here.

Thalasseus bergii; Common Tern, *Sterna hirundo*; etc.), which are all called by the same vernacular name. These are true seabirds, in the sense that sthey are never found on land but dwell exclusively in marine and coastal ecosystems. One of their most salient behaviours is that they often take part in what is known locally as an *aut* (described above in Sub-section 5.3.2), a feeding frenzy of predatory fish and birds on small bait fish. The fact that people of clan Kanai are said to be 'good fishermen' in this regard, is therefore in keeping with the attributes that are foregrounded in *kanai*.

Behaviour of Manilava In the case of Manilava, my interlocutors in Metevoe gave identical or very similar information to that which is presented in Lensi Angele's table. They stated that Manilava clanspeople are considered to be 'leaders'. One thing that could have been taken for granted but which is worth expanding upon rigorously, is the idioms which are used to refer to such 'leaders'. When discussing the prominence of people, their 'notoriety', or their important role, the vernacular terminology is quite extensive. There are a series of Tungag names that to some degree resemble 'titles'[12], that are given to important men for specific reasons, such as *Pasingan* (charismatic orator and organiser of feasts) or *Vosap* (fighting leader, as presented in Sub-section 4.3.1, on page 216). In every case, when asked to explain what men who bore these titles were defined as being, the imagery and comparisons which were made were without fail predicated on large size: Tungag speakers refer to them as *ri vap lava*:

(8.2) *ri vap lava*
PL men big
'important men.'

This clan's totem bird is *manilava*, which literally means 'big bird', and which I have identified as the White-bellied Sea-Eagle (*Icthyophaga leucogaster*). This is by quite a large margin the most imposing bird present in the region. The largest bird is therefore associated with the clan of the 'largest' people, in Lensi Angele's words: 'the *pasingan*, charismatic orators'. It is not that the eagle literally behaves like a leader among birds, just as it is not that people of a given clan have similar palm-prints to the bird a clan is named after (see page 382). Rather, what is at work here is a homological correspondence. Of all the birds, this one is the biggest, and therefore to the Lavongai people it follows (or it is indisputable) that it is the bird of the most important people's clan. However, once again, this does not align with any form of observable situation: there are charismatic 'big men' in every clan, and nobody on Lavongai would suggest that the Manilava clan should provide more such men than any other, even as they defend the fact that this clan is associated with the 'big bird' because it is the clan 'of the leaders'. The level of discourse must be understood to be one of ideal or projected order, not of prescriptive coercion of social roles.

12. It was Tukul Kaiku who referred to such terms as 'titles' during several of our discussions and also in a working paper listing them which she was kind enough to share with me. Although this is not the place for a discussion of these Tungag terms, it must be specified that they can be used despite no form of ceremony having been performed (they are 'informally acquired'), and they are not hereditary.

Behaviour of Silau The typical behaviours indicated for members of clan Silau by my interlocutors differ from Lensi Angele's table: on the one hand, they referred to Silau clanspeople as being 'Guardians of light, of fire' and on the other as having a role related to *malira si luk aina* or 'love magic' (literally: enchantments to get a woman) whereas '*Malangas*. Guiding of light through the sun' was given as the attribute of another clan: Kikiu, which my interlocutors tasked with 'Looking after food production'.

The reason for this discrepancy is unclear. However, there is a myth concerning the bird *silau*, the New Hanover Munia (*Lonchura nigerrima*), which may provide an explanation to the fact that my interlocutors associated clan Silau with fire and hence with light (since the former is used to produce light during the night in the absence of alternatives such as imported battery-powered torches). Here is a version of this myth, reconstructed from convergent narrations by several older men of Metevoe:

> Long ago, people on Lavongai did not know how to make fire, and were unaware of its existence. A *silau* bird flew far away into the mouth of a volcano [near Rabaul], and as it did, its tail caught fire. That is why it has a little red spot on its tail, where all the rest of its plumage is black.
> It flew back to Lavongai, and landed in the *ngei* grass [Tok Pisin *kunai*, *Imperata cylindrica*], near Patianging. Because there had been a period with no rain, the grass was very dry, and it instantly caught fire. That is how the Lavongai people learned about fire.
> Later on, Natmailik [a recurring character in Lavongai myths] discovered how to make fire by rubbing two pieces of wood against each other. He showed others how to do this, so they could light a fire anytime they wanted.

The small bird does indeed have a bright red tail, which contrasts sharply with the rest of its entirely black body. Therefore, the association here, somewhat like with Manilava clan and the Eagle, is one of form with behaviour, via this myth. The red tail of the munia points to the myth of how it brought fire to the island, and from there to members of this clan being 'guardians of the light'.

Behaviour of Sui My interlocutors and Lensi Angele's attributions converge to indicate that Sui clanspeople are responsible for 'cooking food' or for *masung*, a word which means 'satiety' which is used to refer to the magical practices used when preparing a feast in order to make the food abundant, so that guests feel full after eating only a little morsel (see Sub-section 4.3.3). The link with the bird might relate to an observation that a young man from Metevoe made once, when we saw such an animal near a river. He stated that these birds can be voracious, eating fish which are practically their own size.

Behaviour of Vengevenge In the case of Vengevenge, both my own interlocutors and Lensi Angele's table attribute its clanspeople with the quality of making *malmalang* (songs and dances). The bird associated with this clan is Blyth's Hornbill, a creature that, in the Lavongai people's own words, is formidable, beautiful, stunning (see Figure 8.3).

As discussed above (Sub-section 8.1.3), the *moiang* dance associates this animal and its 'beautiful' appearance with the public performance. Here the association between clan members being tasked with composing songs and dances for the ancestors, or performing



Figure 8.3: Photograph of 'a young Papuan Hornbill at Diergaarde Blijdorp', the Rotterdam Zoo, according to original caption. Lavongai people consider this to be a stunning, beautiful bird. Photo by Arjan Haverkamp, 3 May 2008, Rotterdam, Netherlands. Uploaded to Flickr under a CC-BY 2.0 licence.

malmalang (song and dance), appears to relate to the bird's perceived beauty. It is important to note, on this topic, that dancing is done in particular to show one's self and that this is tied to seduction. Young men go to great lengths to *maus*, which can be translated as 'dress', 'decorate', or 'make one's self beautiful' before dancing. There are the elements of the costume which contribute to this but also a number of more subtle steps. During the preparation and rehearsals for these singing and dancing occasions, magical activities are used to prepare the bodies of the young men who will dance. As discussed previously (on page 174), dancing in public is a step in the 'coming of age' of Lavongai men, during which much hinges on aesthetics and the appearance of the boys and men who perform . The fact that dancing is considered to be the attribute of clan Vengevenge, and that the bird is said to be beautiful seems to make perfect sense in this regard.

Behaviour: some conclusions Clear correlations emerged from the above six comparisons of Lavongai people's discourse regarding, on the one hand, clanspeople's attributes, 'callings' or special roles, and on the other hand behaviours said to be typical of the totem birds. Again, it must be emphasise that this is not correlated with actual social practice: dancers are not picked only in the clan which is associated with dancing (Vengevenge); leaders are not picked only in the 'leader' clan (Manilava). It is an idealised discourse; these are notions of how people believe that things should be.

This conception, that there are typical behaviours attached both to clanspeople and to their eponymous bird, is also apparent on a day-to-day, less ideological and more practical level. It is notable in the use of expressions of the form *ri* [clanspeople/species of bird] *kite vap* [behaviour]. Consider the following example:

(8.3) *ri* *Silau* *ki-te* *vap* *tainau*
PL Silau 3PL-CONT people steal
'the Silau are [the kind of] people who steal'

This is a reference to the fact that the *silau* bird, the New Hanover Munia (*Lonchura nigerrima*), is attracted to and feeds upon rice plantations. A flock of munia can turn a patch of mature rice into bare stalks in a few minutes, and for this reason, they are the subject of much talk and anger in the few areas where rice has been planted.

In some cases (for clans Tien and Uk) there was no attribute known by my own interlocutors, possibly because these two clans are respectively a very small minority and non-existent in Metevoe (on the absence of clan Uk, see Sub-section 2.1.1). As mentioned previously, there is the case of Gila where the attribution of Ianga was simply repeated. There is a disagreement between what people said in Metevoe and what Lensi Angele's table contains in another two further cases: 'guardians of *maras* (sorcery, magic)' was attributed to Nguma in the first case, and '*Maras*. Sorcery for good or evil' to Valus in the second; and 'guardians of light and fire' was associated with Silau in the first case and '*Malangas*. Guiding of light through the sun' to Kikiu in the other.

However, despite these omissions and confusion, it seems justified to say that there is an association between behaviours that are seen as specific to people of each given clan and behaviours that are considered to characterise the birds associated with these clans. This

(at least partial) continuity of behavioural traits is therefore coherent with what would be expected in Descola's totemic ontological model, concerning the aspects related to physicality.

Let us now turn our attention to 'interiority', or those properties that concern 'what we generally call the mind, the soul, or consciousness: intentionality, subjectivity, reflexivity, feelings, and the ability to express oneself and to dream. […] The universal belief that a being possesses characteristics that are internal to it or that take it as their source' (Descola 2013, p 116).

8.2.3 Interior properties of beings within the clan system

Although the notion of physicality attended to above is relatively straightforward in the Lavongai people's terms, interiority is a far more complex one. This is the case at least in part because of the complexity of the notion of interiority itself. Inquiring into vernacular representations of such a concept is made difficult by the fact that we are forced to attempt to understand the Lavongai conception of interiority against the backdrop of 'our' own multifaceted notions of 'spirit', 'soul', or 'inner being'. Meredith Osmond, in the recently published sixth volume of *The Lexicon of Proto-Oceanic* remarks that 'the Macquarie [English] Dictionary offers 30 separate meanings for "spirit"' which causes difficulty when relying on this term to describe vernacular concepts, since multiple terms often exist in Oceanic languages for such 'inner' aspects of a living being, and the English 'soul' is 'a word whose multiple meanings can refer to all of the concepts [found in Oceanic languages]—ancestor spirit, non-human spirit and soul both as animating spark and as the part of a person that survives after death, resulting in a degree of cross-contamination of meaning' (Osmond 2023, p 247). Another complication is diachronic: because missionary activity in Oceania has been so intense in the last centuries, it is hard to discern what the local concept of interiority would have been were it not for this Christian influence.

Nevertheless, despite the fact that 'there are various ways in which an abstract quality like "soul" can be conceptualised' (Osmond 2023, p 246), the linguist analyses a considerable span of literature to produce the following three Proto-Oceanic reconstructions for this semantic field:

> We can be confident that POc **qanitu* […] referred to 'ancestral spirit'. […] POc **maqurip* (V) 'be alive, live, flourish; be in good health'; (N) 'soul, life force' […] is readily understood as referring by extension to the animating spark in man. Although **[qa]nunu* […] and **qata* both refer inter alia to 'shadow, reflection', the former […] [could also mean] 'soul that may leave the body in dreams'. (Osmond 2023, pp 246–247)

I found terms in Tungag, presented in Table 8.7, for each of these cognate sets. However, in their Tungag meanings, only two of these: *anit* and *kankanuai*, relate to the concepts of interiority. Furthermore, as the following section will illustrate, there are other terms for these in Tungag which do not belong to any of Osmond's cognate sets.

In any case, it is apparent that using translation of any kind to inquire into these matters is a risky endeavour. For this reason, I placed great emphasis on learning the language of Lavongai and using it when investigating such topics. Once I had identified some terms

Table 8.7: Tungag words likely included in cognate sets for internal 'spirit' qualities of people, building on Osmond 2023.

Language	Term	Proposed gloss
Proto-Oceanic	**qanitu*	ancestral spirit
Tungag	*anit*	powerful spirit of deceased person
Proto-Oceanic	**maqurip*	(V) be alive, live, flourish; be in good health; (N) soul, life force
Tungag	*makarip*	sunlight, light, bright
Proto-Oceanic	**[qa]nunu*	shadow, reflection, soul that may leave the body in dreams
Tungag	*kankanuai*	shadow, imprint, part that lingers on after death in world of living

which appeared to render concept of interiority, without recourse to English nor Tok Pisin, I inquired into what people's notions of these terms were, both when applied to humans and to nonhumans. Recorded interviews regarding these concepts in the vernacular allow for a comprehensive analysis of the Lavongai people's conceptions of interiority, phrased in their own idiom.

Lavongai conceptions of human interiority

The result of this investigation is that, for Lavongai people, human beings are on the one hand made of a *pukun* body, or skin, their materiality, but on the other hand they are also made up at least two elements that appear to be distinctly non-material:

1. *malanganto* or *pato*: spirit, conscience, that which grants a person an ability to comprehend and act with purpose and which 'departs' upon death;
2. *kankanuai*: literally 'shadow', trace, ghost, a part of a person which lingers on after death in the world of the living.

Of note here is the fact that the terms *malanganto* and *pato* both appear to be partially derived from the word *to*: 'life'. Although my interlocutors did not spontaneously consider that these were indeed composed of several stems, they did not oppose the suggestion when I put it to them.

Several hypotheses concerning what the isolated element *malangan-* may refer to in Tungag can be proposed. The root is probably related to light, clarity, or brightness, since a similar term, *malangas*, means 'light', in particular 'daylight'. Both terms may derive from *malang*, which means 'hole, space, interstice'. In neighbouring mainland New Ireland a direct cognate, *malanggan* (which differs only from the Tungag term by its pronunciation: [ma-laŋ-gan], with both a /ŋ/ and a /g/), refers to the well documented

funerary complex that involves feasting, elaborate carvings, and many other sociocultural and ritual dimensions of the New Irelanders' lives (Brouwer 1980; Küchler 2002). The link between the Tungag interpretation of *malangan* as belonging to the lexical field of light and brightness and this ceremonial complex is unclear; to my knowledge, nobody has elucidated the etymology of the New Ireland term, before it came to designate this body of ritual practices. To return to *malanganto*, this might possibly be seen as having a meaning akin to 'brightness of life', if one were to speculate as to the terms etymology based on the above.

The other term, *pato*, could be a contraction of *pat*, 'head, chief, main component' and *to*, 'life', meaning something along the lines of 'main component of life', but this, again, is a speculative etymology that I am proposing, not an interpretation that Tungag speakers made of the term.

The following question was included during interviews: 'when Lavongai men and women die, where do they go?'[T146] When asked this question, all interviewees mentioned that the correct course of action when somebody died was to bury them and that their body would subsequently decompose, it would become 'ground' (*vunep*). However, many also added elements alluding to, or referring directly to, forms of non-physical aspect of a person which have various fates after death. Ngurkambai rephrased my intentionally vague question to refer specifically to the *malanganto*: 'Your *malanganto*? Right? I'll say it like that, indeed: when you die, where does your *malanganto* go to? So, this body, right, this actual body, the "body" [in English], it goes away, it becomes ground. Yes. Well, your… your *malanganto*, that's it. We don't know where it goes.[T147]' (Ngurkambai, 9 June 2022). Lumaias, likewise, when asked what the meaning of the word *to* (life) was, presented a distinction between the body and 'something', a 'shadow' which remains after death:

> I believe, this is my own belief, that a man, when he is dead, he isn't dead entirely. But he dies, his body becomes ground, but the live man himself, he still exists [or 'he is still here']. Yes. But maybe he isn't going around, because he is going around only on this earth. No, he knows his life… He knows his place, indeed, where he lives, to wait for my order. There, indeed, something just like this [points to his shadow] comes and goes around all over the place, because it is coming to cause harm. Just the *kankanuai* (shadow) there. But I myself I know that, the man himself, he isn't dead for good. But he is dead, and his body has gone into the ground [or 'has become ground'], but the live man still exists. Where then? That's the thing: you and me, we don't know because we are not dead yet [laughs].[T148] (Lumaias, 17 July 2022).

This gives us the threefold conception of human beings: we have a body, a *malanganto* or 'spirit', and a *kankanuai* or 'shadow'. What becomes of the body after death is clear, but what becomes of the shadow and the spirit is more mysterious. Ngurkambai admits that we do not know, and Lumaias' humorous comment makes clear that it is only the dead who know where these parts of their person go when they die. This conception of there being a degree of uncertainty as to the becoming of an 'immaterial' part of a human being upon death was shared by other interviewees. Pushed to speculate on what she thought was the fortune of these 'interior' parts after death, Ngurkambai carefully exposed two existing explanations as to what happens: on the one hand, she says, there are people

who believe in the version which is given by 'the Church' (in Tok Pisin or Tungag *lotu*), meaning the Christian religious dogma:

> Because if, now, right, like people who go to church, and people here, the people who read the, I'll call it like this: the *buk tambu* [Tok Pisin for Bible], or… If I also read it a lot, then I would be able to say like this that: *malanganto*, the *malanganto* in question, or your 'spirit' [English], it goes away and waits for the end of time. Yes, right? I'll say it like that.[T149] (Ngurkambai, 9 June 2022).

On the other hand, she speaks of the 'Lavongai belief', which holds that the *malanganto* of dead people do not truly leave the island. This, she says, is evidenced by the fact that magical action, particularly in the context of healing, can make them appear again, which calls into question the departure of the *malanganto*:

> But, this makes me wonder: if it is true that it goes like that, like people who read in the Bible say, or like I who have also read it, right? In the local 'belief' [in English], on Lavongai, well some people when children, or somebody becomes sick, they sing over lime [to perform healing magic] for them, and they do some other things, then they see again […] men who have died already, right. They see them again. That means, indeed, that the *malanganto* it has… where has it gone?[T150] (Ngurkambai, 9 June 2022).

Lumaias is precisely one of these men who is knowledgeable regarding the type of healing or magical action described by Ngurkambai. He added:

> but there is just the matter of the shadow, this here [points to his shadow], like this, that goes around all over the place in the village, right. Yes. Just the shadow. The man himself is entirely dead. And, the true *malanganto* goes to the one who is the master of it. The one, the one who put breath into it. It [*malanganto*] goes to the one who is its master. But just the shadow, like this, it just does its 'work' [Tok Pisin] all over the place here.[T151] (Lumaias, 17 July 2022).

When asked 'how do you recognize such a shadow?'[T152] he answered with a reference to his healing abilities:

> You recognise it properly by the fact that… Right, because me, I know how to sing over ginger, to… I sing for sick people. They come and call me to sing over ginger for the sick people. If I sing properly over the ginger, and if I call your name, Mark, you yourself, Mark, you come up to me. I can recognise that it is you. It is this kind of shadow, but a true man like yourself will truly come to me, and I will recognise that it is you. This sign has properly taken [its appearance] from you, truly.[T153] (Lumaias, 17 July 2022).

When reading his answers to these queries, one may wonder who the 'master' is that he says the *malanganto* 'goes to', the one who had 'put breath into it'. The Tungag expression used can be analysed as:

(8.4) *malanganto a korong ka-la pasal ane ti vo te taukai nia.*
malanganto OBL proper 3SG-PFV go LOC GEN the.one OBJ own 3SGPOSS
'the *malanganto* itself, it goes to the one who is its owner.'

Vo, vo kui alak ani malu
the.one the.one blow inward BEN wind/air/breath
'The one, the one who blew his breath into [him]'

One possible interpretation of this is that the 'master' (*vo to taukai nia*) of the *malanganto* is the God of the Bible, the creator that most Lavongai people know from having heard the story taken from Genesis. In the Tungag translation of this, it is indeed written that: 'And God digs up some soil from the ground and forms a man with it. Then, he blows his breath of life into the nose of that man, and he becomes a man who had life.[T154]' (Wycliffe Bible Translators 1998, Tutapongai 2:7).

However, it is also possible that this refers to the way Lavongai people consider the *malanganto* to be constituted during conception, growth, and development of a human being. The obvious and universally recognised connection (Oxley and Russell 2020) between the fact of 'being alive' and the presence of respiration means it is a reasonable assumption to make that Lavongai people may indeed associate the 'life force' of *malanganto* with the acquisition of breath by a person. However, I did not collect any particular information on the way Lavongai people conceive of breath to be originally 'brought into' a new person during the ontogenetic process. According to Pamela Stewart and Andrew Strather writing about the inhabitants of Mount Hagen in the Papua New Guinea highlands, 'breath' as a constituent of the immaterial aspect of a human being is initially a Christian form of imagery, one that has been adapted into local conceptions of ontogeny but which they doubt was present there before the missionaries' arrival (2000, p 29).

Other questions which were asked during interviews included a prompt for people to explain the terms *malanganto* and *pato*. Everybody considered the two terms to be synonyms, and several interlocutors used the English 'spirit' to attempt to explain them. Lumaias was the only one, on the other hand, to distinguish *kankanuai* from *malanganto* so clearly: the first is the thing that 'lingers on' after the *malanganto* has left, and which he can visualise with magic; the second is a causal principle of life, it allows the functioning of the body, it is the 'life spark' in a way. This is evidenced in his physiological definitions of what Lumaias considered *malanganto* and *pato* to mean: 'the air that we breath[T155]' and: 'this heart, here [points to his chest]. […] The heart, that's right, the heart.[T156]' (Lumaias, 17 July 2022). In the second quotation, he is using two synonyms that both translate as 'heart': *atdangai* (or *atrangai*), literally 'blood stone', and *lomlomon* which is semantically tied to the verb 'to think': *lomlomonai*.

No other interlocutor proposed the use of *kankanuai* to refer to this 'part' of a person which can remain and is visible to people who are versed in esoteric knowledge. All other interlocutors who spoke of this possibility (such as Ngurkambai quoted above) used the term *malanganto* to refer to the fact that it could 'remain' after death. Several people explicitly made the distinction that Ngurkambai does between the Christian dogma that states a *malanganto* leaves this earth after death and goes to be with God, and the 'Lavongai belief' that they may linger on, as made clear by the fact that magicians can see them when performing certain actions and in particular when curing people. I believe the fact that Lumaias distinguishes these two concepts more precisely than others stems from his greater knowledge in this domain. He may also be attempting a type of synthesis, one which would allow both for the Christian and the 'Lavongai' explanations to coexists: one share of the person's immaterial aspect would go and be with God, the other would 'float' in a way around the living and be visible to those with esoteric knowledge (such as healers).

This leaves the question open as to what conception of the human's interiority Lavongai people had prior to Christian influence: did they always consider it with this dual dimension? Other ethnographies conducted before or around the time of conversion in Papua New Guinea suggest that this is likely to be the case. There is a considerable body of anthropological literature that points towards a complex, multinodal conception of human interiority in the region.

Early works include those of Malinowski in Kiriwina (1916) and a comparative review by Rivers, who attempted to compile a Southeast-Asian- and Western Oceania-wide synopsis of the discourses concerning what he termed human 'soul substance' (1920). More recent data, for the Ankave (Bonnemère 1996, pp 112–115; Lemonnier 2006) in New Guinea mainland, or from the same location where Malinowski worked on Kiriwina (Mosko 2017, pp 98–132) shows that it is frequent for societies in this area to consider interior qualities of humans to present such duality (or even multiplicity). Closer to Lavongai, on the Lelet plateau in mainland New Ireland, Richard Eves also notes a multiplicity in the way the immaterial part of a person is described. He writes that:

> In life it is recognised that the corporeal life force, *loroang*, is not irrevocably joined with the body but, as is common in Melanesia, can leave the body and travel away from it for short periods of time. [In note 40, p97: In Christian discourse the *loroang* is associated with the spirit or soul of a person. A more accurate designation is life force because it has corporeal components, and this means it is difficult to categorise ontologically.] […]
> The *loroang* can also temporarily leave the body when a person faints or is startled[…].
> The final form of the corporeal life force after death depends on the type of death the person underwent […] Those who have died what is considered a 'good' death, which effectively means dying of old age, are considered to take the form of *loroang*. Those who have died a 'bad' death, usually through sorcery, take the form of the *lau*, a restless and capricious being. […]
> While the *loroang* of the dead are not generally seen as capricious, they have the ability to make children ill or to disturb their sleep. (Eves 1994, pp 86–87).

Another highly relevant case is that of the Maenge in New Britain, since geographically, this is not so distant from Lavongai, and the society in question also speaks an Oceanic language closely related to Tungag. This case is analysed in very fine linguistic and ethnographic detail by M Panoff (1968). First, physical aspects of a person are divided into two parts for the Maenge: 'the physical person consists of a container (*agau valena*) and an inner substance (*agau mirana*)' (1968, p 278). They distinguish this physical person from what Panoff chooses to translate as a 'self', for which the core concept is called by a cognate of the Lavongai *kankanuai*: *kanu*.[13] This, among other meanings, refers to the 'true substance underlying appearances'. Panoff further notes that *kanu* 'connote[s] those inner attributes which constitute the self of a given object' (1968, p 276). By 'objects' here, he explicitly is referring to people but also to animals, and even to inanimate objects. This notion of 'self' is also divided into two parts. First, there is

13. Arguably, the Maenge words *kanu* and Tungag *kankanuai* are more than cognate, they are the same stem. Indeed *kankanuai* is likely composed of the derivative suffix *-ai* and a reduplication *kan*, meaning the root is *kanu*.

> the inner self, *kanu e pe*, [which] is believed to control strength, health, and beauty. Of particular significance, as a manifestation of this control, is the part played by breath. It mainly is through the respiratory system that the inner self rules over the whole inner substance, *agau mirana*. (1968, p 279).

Second there is *kanu e soali*, which is defined as: 'the external layer of the human self' and as such

> controls the specific silhouette of each individual. At first sight, such a function might seem of little significance, but that is not so. Above all it implies a direct and concrete guidance of corpulence: that a man remains lean or grows fat depends entirely on the solicitude of his *kanu e soali*. (1968, p 279).

M Panoff concludes his article by writing that: 'the Maenge notion of human self does not imply any distinction between "matter" and "spirit", comparable to the European view of the other world and soul ' (1968, p 295). Indeed, it appears that for the Maenge, both notions of 'shadow' and 'body' are dual (respectively divided into *kanu e pe* and *kanu e soali*, and as *agau mirana* and *agau valena*). All four of these notions intertwine in a way that renders any form of 'matter–spirit' division mute. They produce the full range of human properties, behaviours, traits, and attributes—in life, sleep, and after death.

One key notion is evidently that of permanence after death of some share of a person in the world of the living: the 'shadow', *kankanuai* in Tungag, or the 'inner self', *kanu e pe* in Maenge. Lavongai people still widely consider this to be true, even though all do not use the word *kankanuai* to refer to it. This was no doubt the case even more so before Christianisation, since despite the contradictions involved between this and the Christian notions of 'soul', 'heaven', and 'hell', it is a concept that is still prevalent today.

Three people also spontaneously responded to questions about these topics with indications that *anit* were related to these concepts of *malanganto* and *kankanuai*. Misirau, when asked to define *malanganto*, explained that if a specific one was lingering in the village to the point that people became intimate with it, then it could be referred to as an *anit* a 'spirit' or 'ghost of a deceased forefather'.

> *Anit* indeed, when it comes to be called by that name, *anit*, it is for specific men whom we deal with all the time. So, him in particular, he is the source of the thing, properly. All the time. Like, the man over there [points towards *vala* monument], he stood up an *anit*, for his man which he also uses for all kinds of [magical] work, him in particular, the man or the *anit* for the magic that makes dogs into good hunters, it is the same kind of *anit*. They all use him. Many people use him. But, *malanganto*, indeed, my brother, I am answering your question like this but it relates [to *anit*]: it is a thing that you are not able to see with your eyes.[T157] (Misirau, 17 July 2023).

To summarise, one possible way to view these multiple 'immaterial' parts of the human being could be to consider that *malanganto* or *pato* both synonymously refer to the spirit in a state of awakening, during life (as the presence of *to*, 'life', in both words suggests), as opposed to the *kankanuai* or 'shadow spirit' which could be a form of spirit which remains after death. This is coherent with comparable but older ethnographic data produced before Christianisation in the region.

In any case, there is one fact which appears to stand: the Lavongai people consider that after death, certain 'traces' of a person can remain invisibly present in the village, and men who hold esoteric knowledge can practise certain magical actions that will lead them to see these otherwise invisible presences, and possibly ask them to leave if they are causing sickness or enlist their help to perform other magical action not otherwise possible. This is in line with the exegesis which Lavongai people make of magical practice: that it is impossible to carry out magic if one does not have an *anit* at one's side (as analysed in Sub-section 6.4.2).

Interiority of totem animals

Concerning the interiority of nonhumans, Descola's model of a totemic ontology requires 'continuity' within a clan, between all human and nonhuman members, and discontinuity between clans. This means that Lavongai people, in order to conform to this model, would have to consider that totem birds have an interiority and also that this interiority is similar to that of the people who are a member of the clan in question. The specific case of totemism receives specifications concerning the 'continuity of interiorities', which:

> finds expression particularly in metaphors of kinship, of particular affinity, and of shared filiation rooted in an identical origin, and it takes on a public character in the custom of subsuming all the members of a totemic group, both the humans and the nonhumans, under a generic name. The fact is that it is the class itself, with all its physical and moral attributes, that here constitutes the vector and symptom of a shared interiority. Each and every member of a totemic group, humans and nonhumans alike, possesses the same intrinsic characteristics that define the group's identity as a species. (Descola 2013, p 161).

This definition requires further exploration of two aspects of the relation between Lavongai people and birds associated with each clan:

1. subsuming human and nonhuman members of a totemic group under a generic name;
2. metaphors of kinship, particular affinity, shared filiation.

On Lavongai, the first of these is evident. People do indeed 'subsume all the members of a totemic group, both the humans and nonhumans, under a generic name' (Descola 2013, p 161): that of the main bird which is associated with the clan. It is also the case, at least in one example, that even the 'other' totems listed in Kaad's table as being those of a specific clan can be considered totems of subclans.

Recall that, in Sub-section 4.1.2, I discussed the existence of a Lavongai dance known as *Kambai* that is associated via a myth with the *valuka*, the 'wallaby people'. This dance, although it belongs to 'the wallabies' according to multiple accounts (including the proceedings of an musicology conference that took place in Port Moresby), is also associated, both in Lensi Angele's table (Table 2.2) and by my own interlocutors, with Silau clan. In an interview, I asked a group of men which song was 'owned' by which specific clan. When asked which clan 'owned' the song *Kambai*, Total first responded that it was Silau clan, and indeed, it is listed in Lensi Angele's table as the dance 'type' of Silau. As the various

people present were trying to think of who it was, specifically, in the area, who knew that song in order to refer to them as an example, the conversation went in the following way:

> Ladi: well their mark exists, they were living together over there, in Angat, those few wallabies.
> Boniface: that's what I mean.
> Total: That's it, the Silau indeed.[T158] (Ladi, Boniface, and Total, 3 May 2022).

The concept of a 'mark' (*kanang*) which Ladi uses here refers to a landmark such as an old monumental trees, or a notable landscape feature. These are often associated with stories that legitimise the ancient presence of a clan in the area where they are found. When this rapid-fire exchange occurred, although I understood the overall message that *Kambai* belonged to Silau and 'to the wallabies' of Angat, where their landmark is visible, I did not properly gather the implication: that there is such a thing, on Lavongai, as 'wallaby people' who 'own' the *Kambai* dance, and that these are 'under' Silau, as far as clan classification goes. Therefore the dance, belonging to the wallaby people, also falls under the purview of Silau. The inevitable conclusion is that there is a subclan of Silau called Valuka, associated with that animal, the wallaby. Kaad's table (Table 2.8) also lists *waluka* (likely simply a different spelling of *valuka*) as one of the 'totems' of clan Makansilau.

However, does this naming practice teach us anything about how 'continuous' Lavongai people consider the human and the totem animal's interiorities to be? Are Lavongai people making a statement concerning shared internal properties when they say 'they are crows' of both a person and a bird? Or 'they are wallabies' of both a macropod and a person?[14] In Lavongai, people will say to somebody, for example: *kute Nguma*, 'you are Crow', meaning 'you are a Crow clansperson', 'you are a member of the Crow clan'. During recorded interviews I asked people in Metevoe: 'what is the relationship between a person from a given clan and the bird of that clan?' To this, Julius replied:

> Personally, I know that crow is indeed my bird. Despite them [the birds] being their birds, still… their birds, their birds don't know that… they have the role of leaders. The birds, they 'use' [in English] them as their bird, to organise the way of living, here on the island. 'What kind of a boy is he? – He's a crow boy!'[T159] (Julius, 17 July 2022).

The last part of his response is an imaginary dialogue that he is using to illustrate how Lavongai people apply the bird names to people in the context of clan membership. It can be analysed as follows:

(8.5) *Ka-te nat ta sa nang?*
3SG-CONT boy OBJ what indeed
'What [clan] is that boy?'

14. This question evokes a similar one from an Amazonian context, which sparked a century-long debate, whose notable protagonists are Lévy-Bruhl (1910) and Lévi-Strauss (1962). In the late 19th century, Karl von den Steinen was famously told by the Bororo people of the Amazon that they 'are red macaw parrots', for which the original except is: *„Die Bororo rühmen sich selbst, dass sie rote Araras sein*" or in English: 'the Bororo pride themselves on being red macaw parrots' (Steinen 1894, p 352). It will not serve my purpose here to recapitulate this debate, but see Keck (2020), who presents it, and attempts to analyse what can still be learned from it.

Ka-te *nat* *ta* *Nguma* *nang!*
3SG-CONT boy OBJ Crow indeed
'He is a Crow boy indeed!'

There are also situations in which animals that are not the eponymous bird are associated with a clan. When this is done, it is with phrases such as *pura kate Silau*, 'the chicken is Silau', meaning 'chickens are part of the Silau clan', in what, at least from a grammatical viewpoint, is a descriptive statement concerning a property, an intrinsic quality of the being in question (extrapolating from this grammatical reality to an ontological status would, however, be far too hasty).

What is true is that nobody offered an explanation concerning this shared nomenclature that had anything to do with internal qualities. No mention of *malanganto*, *pato*, nor *kankanuai* that the clan totem might have shared with a clansperson was ever made. In fact, I never heard any discussion of the properties of each of these beings, in any way. There are not even any distinction made between different birds' interiorities that might be considered to form contrasting patterns to which human's interiorities could be compared in a homological manner.

That is not to say that the issue was irrelevant to the people I spoke to, at least, not once I had brought it up myself. This question concerning the relation of clanspeople to the bird their clan is named after apparently continued to puzzle Metevoe villagers after my departure. When I returned a year later, in July 2023, a group of young men told me that they had spent several hours discussing it among themselves, attempting to come up with the 'right answer'. They had rephrased it in the following way: 'What made birds and people stick together in the clan?'[T160] It is notable that the very formulation of this question once again places the people and the birds *together*, within the clan, complying with this property of 'subsuming' all within the totemic group. It is also notable for it being phrased in the past tense. They are, even as they ask the question, seeking some mythical or historical explanation, something that happened in the past that might explain what nowadays is undisputed: that people and birds are 'stuck to each other in the clans'. This makes perfect sense with their own perspective: that of relatively young people who have 'inherited' this system as part of their own culture.

This brings us quite logically to the second point in Descola's definition of 'continuity of interiority' in the totemic ontology: that of kinship and filiation. Some of the young men reflecting on the question of human–bird relations within a clan suggested that there must be stories in which the birds engendered children that became humans and that these birds were somehow at the origin of the clans. Others thought that was impossible. One young man, listening to this, chimed in with a very pragmatic: 'birds cannot give birth to humans'. The conclusion these young investigators eventually came to was that it was now impossible for them to answer this question adequately, but that if old people had still been alive, they would no doubt have known. They asked me if anybody had given a 'good response' to the question, then, before I could find a way to avoid having to answer that problematic query, they said that if that had been the case, that response must have been a lie, since it was now impossible to know.

In neighbouring mainland New Ireland, the topic is similarly fraught. Brigitte Derlon summarises the ethnographic literature as follows:

> Currently, New Irelanders perceive neither a genealogical link, nor any particular relationship between the members of a moiety and the bird which is its emblem, but nobody kills nor eats either bird of prey (Powdermaker 1933, p 34; Clay 1977, pp 36-37; Jessep 1977, pp 50-51). Similarly, the clans which make up each moiety do not recognise any common ancestor.[T161] (Derlon 1997, pp 25–26).

By this formulation, Brigitte Derlon is suggesting that the 'respect' shown through not eating the totem is a remnant of what might have previously been a belief in genealogical ties (note her use of 'currently'). In any case, this statement would not apply particularly well to Lavongai. First, all members of each clan *do* regard themselves as descending from a single, separate, human ancestress, even if nobody is able to name her.[15] Moreover, there are myths that link members of a clan to some of the birds that are their emblems. This is the case of the Ngono Manolos story. Here is a version of this condensed from several accounts by older men of Metevoe and Lavongai villages:

> There was once a woman who had no husband. She took two long feathers (*olos*), one from a *valus* (the Red-knobbed Imperial-Pigeon, *Ducula rubricera*) and another from a *gila* (the Song Parrot, *Geoffroyus heteroclitus*). She tied one around each of her big toes. Some time later she gave birth to twins: the Ngono Manolos. They were, respectively, from clan Valus and Gila. They had no father, but in a way, those birds had contributed towards creating them, so they belonged to the associated clans.

A number of old men who recounted this myth explicitly stated in commentary that it described the genealogical origins of these clans. The Ngono Manolos in this perspective are considered to have been engendered, to some degree, by the intervention of these birds, and this is what makes them a part of those clans. The myth—at least in its contemporary form—does not, however, tell of how the continuing generations would have related to whom (for example, the mother of the Ngono Manolos may have engendered other, female characters in this way, that would similarly have been partly engendered by birds and may have became the apical clan ancestresses?) It must be noted that this story is not entirely unambiguous, even to Lavongai people: some middle-aged men commented after the elders had recounted this myth that it did not appear plausible to them. Their view was that the Ngono Manolos must have been pure *tapait* (spontaneous creation), unrelated to any bird.

Another story, that of Netienloi, links the Tien clan to the eponymous bird, the Golden Monarch (*Carterornis chrysomela*). Netienloi was a woman who could take the appearance of a red and maroon snake. Nowadays, there is a species of snake which is found on the island and has this name. She married a man and gave birth to a human child. This is where humans of the Tien clan originated. The word Netienloi can be analysed as follows:

(8.6) *Ne-tien* *loi*
female.title-Golden.Monarch outcast/alone/wild
'Wild Golden Monarch woman'

15. This is why, in keeping with the usage in anthropology, I refer to these groupings as clans as opposed to lineages, in which all members would know their genealogical path to the common ancestor, see Section 2.1.

Another myth that is told on Lavongai is presented as drawing a form of genealogical link between people living on Tingwan island (Tungag-speaking, offlying Lavongai to the Southwest, Map 1.2) and a type of fish. This is a pattern of a person being 'swallowed by a giant fish', which is very common in mythologies from around the world and has been documented from wide-ranging locations across Oceania (see for instance, from Kanaky New Caledonia: Leblic 2002, pp 231–232). It is reported in a patrol report (Bloomfield 1960, p 18) and was recounted to me by several people. It goes along the following lines:

> A pregnant woman of the Gila clan was bathing in the sea somewhere in West Lavongai, when a huge fish, a *korol* (a grouper, possibly the giant grouper *Epinephelus lanceolatus*), swallowed her whole. The fish then swam out to sea, in the direction of Tingwan. Eventually, the woman, still alive inside it, realised that they were near land, and breaking one of her shell bracelets (*tirtirilei*), she obtained a sharp edge with which she cut her way out of the fish.[16] She then swam to shore. She gave birth to her baby there, and her descendants are the contemporary inhabitants of Tingwan..

This story can be related to the entry '*Korol*', underneath (but separate from), Gila in Kaad's list. When I discussed this list with my Lavongai interlocutors, they spontaneously recounted this myth once again, and surmised that it could be because of this myth that people of Tingwan have the *korol* fish as a 'totem'. Once again, they phrased this by stating that these were '*korol* people'.

These are but three stories which may appear to draw links between the totem animals of certain clans and a form of engenderment. Their significance should not be overstated however, since they are by no means very widespread, nor are they the subject of consensus. The bottom line of the question is perhaps—as Brigitte Derlon assumes for mainland New Ireland, and just like the Metevoe youths seemed to believe—that certain myths which may have existed and possibly linked each clan to its totem bird have been lost to the passing of time and the faltering of memory. Even as early as the 1930s, Powdermaker had found but one myth linking people and a 'totemic' animal in a genealogical way among the Notsi-speakers of Lesu in New Ireland. This told of a woman having intercourse with a bird, then engendering twins who played a key role in the founding of the clan and moiety structure (Powdermaker 1933, p 35). But to assume the existence then disappearance of similar Lavongai myths in defence of any hypothesis here would be a leap which I am not comfortable in taking.

At this point, the conclusion must stand that in describing the Lavongai ethnographic material, Descola's totemic ontological model, although it appears appropriate in regards to the physicality of beings, is only partly functional when attempting to describe interiority. From the Lavongai people's discourse, no continuity/discontinuity appears between clanspeople and birds regarding the internal properties of 'life force' (*malanganto*) or 'shadow spirit' (*kankanuai*), not between people of different clans, nor between birds associated with different clans. In any case, nonhumans have no *kankanuai*, no shadow. This characteristic 'dual' nature of human's interiority, or at least its capability to dwell in some form after death in the world of the living does not appear to ever be ascribed to any totem animals. In other words: humans are the only beings to have a *kankanuai* in

16. A variant has her simply tickling the inside of the fish's entrails until it regurgitates her onto the beach.

the sense of a 'shadow-spirit that can remain after death'. This further distinguishes the interiority of humans and of their totem birds.

To summarise, when analysed according to the definition of continuity of interiority which Descola gives specifically for totemism, the situation seems only partly to satisfy his criteria. Indeed, although the first point, 'subsuming under a generic name' of both people of a clan and the totem animal, is present, there do not seem to be any 'metaphors of kinship' nor 'shared genealogy' (2013, p 161) that would tie clanspeople to their respective totem birds. Therefore, the Descolian totemic ontology requires some further refinement to adequately account for the data which I present here from Lavongai, as well—if I read it correctly—as that concerning the Maenge (M Panoff 1968) and Kiriwina (Malinowski 1916; Mosko 2017). It must be recalled at this point that the totemic ontology in *Beyond Nature and Culture* is explicitly based on Australian ethnography, and hence it is unsurprising that confrontation to data from a different setting leads to some difficulties.

Is this Australian-inspired model of interiority applicable?

From his analysis of Australian data, Descola developed a specific definition of 'continuity of interiorities' for the case of totemism. Recall the passage quoted above about how this:

> finds expression particularly in metaphors of kinship, of particular affinity, and of shared filiation rooted in an identical origin, and it takes on a public character in the custom of subsuming all the members of a totemic group, both the humans and the nonhumans, under a generic name. The fact is that it is the class itself, with all its physical and moral attributes, that here constitutes the vector and symptom of a shared interiority. Each and every member of a totemic group, humans and nonhumans alike, possesses the same intrinsic characteristics that define the group's identity as a species. (Descola 2013, p 161).

In order to understand this specificity of totemism, we must return to the source of the model. In the Australian ethnography that informs it, what is referred to as 'Dreaming' by many ethnographers of Australian societies, sees people re-enacting in ritual the origin stories or creation myths of the 'Dreamtime', in which the prototypical beings that were to engender clans and totems are considered to have existed (Descola 2013, pp 146–148). This entails identification of certain locations as 'sources' for the beings in question, and hence as a special locus for the 'belonging' or 'origin' of the category of people associated with that being. This is what Descola is referring to when discussing continuity of interiorities in totemism: a 'shared origin' in a place, a genealogical connection that entails shared internal properties through a triple association of a 'totemic' being, a place, and people.[17]

However, the applicability of this model to the setting of Western Oceania cannot be taken for granted. Do New Ireland people—or Papua New Guinea people more generally—

17. One important distinction to make in order to interpret the Australian data correctly is that between 'group totemism' and 'individual totemism' (Dousset, Park, and Guille-Escuret 2019). Indeed, there are cases in Australia where the association between a person and an animal regarded as their 'totem' is individual, and tied to an event that the person's mother experienced during pregnancy, which is seen to materialise the involvement of the animal in question in the conception (see for example the Ngaatjatjarra *tjuma* in Dousset 2018, pp 62–65). See also the aforementioned classification of types of totemism by Lévi-Strauss, in Table 8.2.

consider that continuities and discontinuities in the internal properties of various beings is based in forms of mythical connections to ancestor beings?

In New Ireland, a number of societies have clans or lineages that are closely associated with what is know in Tok Pisin as a *masalai*. Recall from Sub-section 3.3.4 that these are a form of highly localised 'large supernatural animal', a semi-mythical, zoomorphic creature. These are *not* the eponymous birds associated with clans, but a distinct category of beings. But how do these beings fit into the triple articulation of location, social unit, and 'natural' entity? Derlon describes the situation in New Ireland mainland in the following terms:

> In the Barok[-speaking] village of Lokon, which is located outside of the *malanggan* area, the *masalai* is associated with the lineage (Jessep 1977, pp 55-56). In the Tigak[-speaking] one—which includes the town of Kavieng—the *masalai* are nowadays of little importance, and were apparently previously associated with a local descent group within a clan (Lomas 1973, p 59). Whereas in the rest of the *malanggan* area it is at the level of the clan that this association is recognised, at least in the Tabar Islands, as well as the Notsi and Mandak[-speaking] areas (Chinnery 1931, p 24; Powdermaker 1933, p 35; Groves 1936, p 234-245; Brouwer 1980, p 38).[T162] (Derlon 1997, p 27).

However, although these beings may be associates with a clan, there does not ever appear to have been any conception of a genealogical link between them and the members of the associated clan.

This is also true on Lavongai, where people readily use the Tok Pisin *masalai* as a cover-term for a number of more specific invisible entities such as *pukpukis*, *ingua*, or *kipang* (Sub-section 3.3.4). This term is almost never used to designate the creatures, but rather a location where 'strange' phenomena are known to occur or where sightings of unusually large creatures are frequent; the most often cited ones being snakes, lizards, sharks, and 'sea snakes' (possibly moray eels). These *ples masalai*, many of which are located at sea, along the shores where people travel in canoes and boats, are known simply in Tungag as *ring akuskus*: 'story places' or 'places with a story'. However, and this is key, nobody ever made any associations between these *ring akuskus* and a specific clan. Certain *pukpukis* are, on occasion, integrated into recent genealogies, and therefore do fit into the clan system, and these can be associated with *ring akuskus*.

Although certain specific named *masalai* are associated with a clan on Lavongai, this is only because they are themselves members of one. This is the case of the two *pukpukis* Tautau and Moremore, of Metevoe, for example, who are respectively of clans Valus and Nguma (see Sub-section 3.3.4). However, people who tell the stories of these beings make no suggestion of them having 'engendered' these clans in any way, which is only logical, since most of them are described as male. Much like with the associations between social units (clans or moieties) discussed previously (Sub-section 2.1.2), this genealogical 'link' is absent both in Lavongai and in New Ireland, which clearly sets this ethnographic setting apart from the Australian one.[18]

In general, in Papua New Guinea, it appears that when people describe the basis of their social organisation, it is more often by speaking of shared *substances* than shared *spirit*.

18. Apart from a few examples, most Aboriginal Australian societies have either patrilineal descent or a combination of matri- and patrilineal descent (Dousset 2011, p 74). There may therefore be a possible link between the descent reckoning of a society and their totemic inclinations.

Rituals reinforce and reproduce societies by ensuring a balanced exchange of substance for substance, in particular food such as pigs, taro, yams, or valuables of various kinds, seen to be ingrained in a perpetual motion of circulation of people during marriage (Wagner 1986, pp xvi–xvii). Likewise, 'metaphors of kinship' are not so much predicated upon common interiority but rather shared bodily components, such as blood, or semen (as discussed in Sub-section 3.1.3; see also Bonnemère 1990). In light of the difficulties encountered above when attempting to apply the totemic reasoning to the Lavongai material, it is perhaps legitimate to ask if this manner of defining 'continuity of interiority' as being based on shared naming and genealogical connectedness, is valid in this ethnographic context. In fact, even Descola's approach to this notion of interiority in Australian totemism is somewhat problematic, for after having listed these two aspects through which it can be identified (metaphors of kinship and subsuming of members under a single name), he continues:

> Each and every member of a totemic group, humans and nonhumans alike, possesses the same intrinsic characteristics that define the group's identity as a species. The essence that defines them all *stems partly from the substances that they share in common*, as the vocabulary used sometimes clearly reveals: we should remember that the term *ngarlgi*, by which the Yanyula [of Coastal Northern-Territories in Australia] designate totems, connotes not only characteristics of both a material and a moral nature but also an 'identifying essence.' (2013, p 161, emphasis added).

Hence, it appears that this totemic identification is not so clearly predicated upon a notion of shared interiority, since even when discussing this, it is to *substance* that the anthropologist is referring, which is undoubtedly an aspect of physicality.

The difficulty here may stem from the condition of 'double continuity' that Descola's model of totemism implies within each clan. Since internal and physical properties are considered to be similar for humans and nonhumans within this 'totemic group' it is hard to distinguish in discourse which of physical or internal properties are thought to be influenced by a condition such as shared genealogy, descent from a mythical ancestor, or affiliation with a location such as a *ring akuskus*. Perhaps, then, another way to consider the totemic ontology might be to view interiority and physicality as less finely determined than in other ontological perspectives? Totemism might be seen as a form of 'blurring of the interiority–physicality distinction'. This is something that other commentators of Descola's work have noted, such as Eduardo Kohn who, in the Annual Review of Anthropology article on 'Anthropology of Ontology' writes that:

> the assumption that others have similar interiorities and similar exteriorities orients what Descola calls 'totemism,' which is best exemplified by certain Australian aboriginal societies where others share both an interiority and an exteriority within specific human/nonhuman hybrid collectives. Here, *the distinctions between interiority and exteriority break down*. (Kohn 2015, p 317, emphasis added).

This is a hypothesis that will be explored in the following section, by analysing the ways in which Lavongai people conceive of internal and physical properties of beings that are not associated with any clan.

8.3 Beyond clan lines: what of nonhumans that are not totems?

As I established in the previous pages, Lavongai people conceptualise relations between themselves and their 'clan birds' as being continuous on the level of physical properties. The situation concerning interiority, however, was found to be more contrasted. Although it does lean in certain respects towards a possibly 'totemic' continuity, the question arises of whether the distinction between physical and internal properties is truly operative in this (and hence possibly in comparable) ethnographic contexts. It still remains to be seen, in order to shed more light on this, what conceptions Lavongai people have of beings that *are not* totems, nor immediately apparent members of any clan. In other words: what place do 'nontotem' beings have in the Lavongai ontology?

Indeed, there is a strong specificity to the totemic ontology relative to the other three present in Descola's model: it does not cover the whole range of beings, but only humans and those of the nonhumans which are included in one or another of the totemic groupings. This differs significantly from the other three ontologies he defines, since the naturalist, animist, and analogist ontologies are assumed to consider *all* humans and nonhumans to have combinations of either similar or dissimilar interiorities and physicalities. Descola does grant exceptions to the ontological considerations of the animist societies of the Amazon where he carried out fieldwork, writing that 'most insects and fish, grasses, mosses, and brackens, and pebbles and rivers thus remain outside the social sphere and outside the network of intersubjectivity' (2013, p 7). However, in this situation—as in naturalism and analogism—the way the model is designed is with all nonhuman beings having similar or dissimilar interiorities and physicalities, with only a few marginal exceptions (the subset of existing beings that are not frequently interacted with and that are therefore not subjected to ontological considerations). In the totemic ontology, quite the contrary, it is by definition that only the totems are considered. Hence, there is a clear discrepancy with the other three entries in the combinatorial table of ontologies (Table 8.1). In totemic ontologies, there are only a limited number of nonhuman beings that are associated with humans or groups, and these are the ones that have similar or dissimilar interiorities and physicalities from humans. The particularity of totemism is the existence of 'totem groups', whereas naturalism, animism, and analogism make no such groupings (although analogism could possibly be considered to have many groups of one single individual, which is structurally similar, but quite different in practice). Totemism is not defined as being an ontology in which people consider *all* humans and nonhumans to have similar interiorities and similar physicalities. Descola's definition of the totemist ontology does not impose any constraints on the continuous or discontinuous nature of interiorities and physicalities of human and nonhuman beings *in general*, but does so only within and between the boundaries of the totemic groupings. This leaves a large share of the beings in the environment of any people who have a totemic ontology largely unaccounted for in the theory.

One explanation for this could be that, in accord with a more general 'totemic logic', those beings which are not totems may in fact, under closer scrutiny, somehow be made part of the totemic partitions. In Lavongai, there is evidence of a tendency towards this

practice, which might be termed 'inclusion'. Beings which do not initially 'fit into' a clan are in certain cases 'integrated' into them.

First, this is the behaviour that Lavongai people exhibit regarding foreigners. Those who arrive from outside the island are included into a clan very rapidly. This is the case of those who marry from outside the island and become 'adopted' into the local social structure as *tamai* (sister's husband) and are hence associated with the other *tamai* of their spouse. It was my case, since I was considered to be a Nguma, because my host Laimen and I referred to each other as *tasig* (same-sex siblings); it was the case of Jason Roberts, first considered to be Siavun, then after moving in with a different family also Nguma (2019b, p iii); and even of the 19th century naturalist Herbert Cayley-Webster, who, however, does not mention which 'bird' he was said to belong to (1898, p 293).

Second, certain nontotem animals are considered to be 'part of' specific clans. In casual conversation, I sometimes noticed that people would name the clan of animals which were not birds, or of birds which were not one of those used as clan names. For example, Ngurkambai stated in a recorded interview that: 'the flying fox belongs in the name of the crows' (Ngurkambai, 9 June 2022).[T163] When I asked what was meant by such formulations, I was told that *all* animals were *neite* (under) a specific clan. I started naming animals: *malikom* (flying fox)? Under Nguma. *Pura* (chicken)? Under Silau. *Kauvek* (dog)? Under Nguma again. *Vongho* (pig)? Under Vengevenge. I attempted these questions on several occasions and systematically obtained consistent responses for a large number of common animals, from many people. The logic, here, appears to indeed be one of homology of properties, much as explained above for humans and birds: flying foxes are 'dark birds', night birds and so they are associated with the black crow; dogs eat carrion just as crows do; etc. Although all associations were not explained in such clear ways (and some were not explained at all) the way people presented them was that they are 'obvious' to them, as making sense in and of themselves. This was simply where those animals belonged.

Could it be then, that *all* animals which are not totems in Lavongai, and which nobody remembers as having ever been totems, belong inside one or another of the clans? Or at the very least, that this constitutes a perhaps unattainable or imperfect ideal? Is the nonhuman world, just as the human one, integrally slotted into this limited number of subdivisions? Although this would be intellectually satisfying, and might provide a convincing extension to the totemic ontological scheme, it does not appear to be the case. Indeed, a number of animals could not spontaneously be classed by people I questioned into *any* clan. This includes, notably, most sea animals: fish, octopus, invertebrates. Nobody could even suggest which clan these might belong to. Therefore, not all nonhumans are associated with a clan, and ultimately we must ask: where do nontotem nonhumans 'fit into' the ontological thought patterns of the Lavongai people? In other words: are the physicalities and interiorities of nontotem nonhumans comparable to those of humans?

8.3.1 Physicality of nonhumans that are not totems

How do Lavongai people consider the physical aspects of nonhumans that are not associated with any clan in relation to those of humans? Should this be qualified as a continuity or a discontinuity?

When I asked in interviews 'are we, men and women, different from birds, and how so?'[T164] part of Gregory Ravis' answered was the following: 'the… for the… what. What shall I call it? Ah… Right. Constitution, it is… a little different. Like you can see we came to be as we are. The bird also came to be a certain way. The dogs they also came to be, the pigs came to be. But as far as life goes, we are just one.[T165]' (Gregory Ravis, 23 June 2022). As can be seen in the transcript, he had some difficulty in qualifying exactly what it is that is different between humans and birds. He settled on the term *itoitonai*, a substantive derived from the verb *itoiton*: 'to ready, to organise, to fix, to repair', which can therefore be understood to mean 'the way that they were prepared' and possibly glossed as 'makeup', 'constitution', or 'appearance'. His response is wider than the question, since he lists beings that are not limited to birds (dogs, pigs). What he is saying, essentially, is that each species of animal has its own constitution, its own appearance. This would seem to suggest a form of total discontinuity in physical aspects of beings, such as that which characterises the animist or analogist ontologies.

However, in Descola's ontological framework, the question is not so much this one, but that of the continuity and discontinuity between physical properties of humans on the one hand, and of nonhumans on the other. On this issue, there is a certain amount of ethnographic data that point towards a level of continuity between humans and nonhumans regarding physicality.

Lavongai people name almost all animals' body parts with the same terms used for their own. Although there are specific terms to designate anatomical features of animals when these parts do not exist in humans (for instance *vikvik*: tail, or *tul*: dorsal fin of shark of dolphin), the overwhelming tendency is to reuse the same vocabulary for human and nonhuman anatomy. Even a fish's caudal fins are called *kunga*: 'hand/arm', and for the rare eels that have pectoral fins, these are referred to as *talinga*: 'ears'. When butchering pigs, people make explicit reference to their own physical attributes in explaining the various body parts that they were manipulating, using—once again—the same terms for both human and animal organs. When I asked for people to indicate how these parts were named, it was also remarkable that they would name the organ and point to the corresponding locations on their own body. 'Here are the lungs [points to own chest]', 'here is the liver [points to own upper-right abdomen]'. This can be the case even when discussing fish: Laimen once explained to me that fish which have been killed with derris root must be 'cleaned' thoroughly so as not to make whoever eats them ill, referring more specifically to their 'throat' (meaning the gills) which should be removed. As he said this, he held his hand around his own neck to show what he meant (Laimen, 11 October 2019).[19]

Nonhumans are also considered to have the same physiological needs as humans. For instance, people say that when one goes fishing but catches nothing, it is because the fish are 'in their house', which is conceived of as a hole in the reef, or an underwater cave of

19. Similar extension of vocabulary used for human body parts to designate sections of other beings, such as animals and even plants, can be found in many languages. This would seem to befit either naturalist or totemist ontologies, where continuity of physicality is present.

some form, adapted to each fish's size. This implies that they need such shelter, much as humans do. In a playful remark, Billings also noticed this conception in the late 1960s:

> Lewis and Tombat gradually came in with an empty net, muttering, 'Oh, I am cold for nothing, there are no fish!' Tombat went on: 'All the fish are not here any more. They have gone to a big meeting. They all want to make a new camp now [meaning a new village].' Fish, it seems (I thought) are just like people: they do as they please; which is as it should be, in this culture. (Billings 1981, p 803).

Likewise, people in Metevoe often remark on the fact that frigatebirds have 'their own island, where they sleep'. Almost every day, as the sun is about to go down, long unmistakable lines of frigatebirds are seen flying towards the east, past south-facing Metevoe, towards the 'home' of these birds where they will spend the night. This is what Michael represented the frigatebirds as doing on the first of two drawings that introduced this chapter. This is called, appropriately, Nusanraula (also sometimes written Nusanraul or Nusandaul): 'frigatebird island'.[20].

> Michael: In this picture that I drew it is the evening. The frigatebirds over there are flying around. The sun is going down. The clouds are red. The sun is shining on the edge. Well the… The frigatebirds, indeed, they are all flying back. They are… […] they go back to their place where they are used to […] sleeping.
> Mark Collins: Where do they sleep?
> Michael: Them too, they don't just sleep all over everywhere.
> Ben Ottis: They have to sleep over there, in Nusanraula. You go westwards, first, from town right, and you come westwards still at Patio, you keep going at Patio, and you come to go past for a certain distance, and there is a little island, the [inaudible] over there […] that is the place where they sleep. Indeed, if you catch a boat westward in the evening, you do like this [looks up]: so many frigatebirds!
> Melis: Too many frigatebirds! So many!
> Ben Ottis: For them to sleep, indeed. The place where they sleep: Nusanraula.[T166]
> (Michael, Ben Ottis, Melis, 16 July 2022.).

The implication here is that both humans and animals have a similar physiological need for an abode of some kind, for a 'home', which tends to suggest continuity in their physicality.

Observing what food is given to various animals is also a possible indicator of how their physiological needs are perceived. All animals that are fed purposefully by Lavongai people receive food that humans can also eat, be they the usual 'domestic' animals such as pigs, dogs, chickens, and cats, or more anecdotal 'pets' such as birds and flying foxes (Section 6.5). This includes coconut flesh, often grated (for cats or chickens) or cut into pieces (for pigs and dogs), but also cooked garden food (bananas, sweet potatoes, etc.) This appears to be another point of continuity in the way Lavongai people envision the

20. Ornithologists have also observed this behaviour, as Michael Tarburton in his *New Hanover Island Bird Checklist* writes that they are 'A[bundant] at Roost on Nusandaul Is[land] off S[ou]th coast' (Tarburton 2014). He is mistaken here only in the relative location of the island in regards to the mainland since it is locate to the east (Map 1.2).

physical properties of these beings: those who are made of the same stuff quite logically eat similar things.[21]

The conclusion therefore seems to stand that although each different species of nonhuman being is recognised as having a distinct appearance, on the fundamental level of their physicality they are considered to be similar to humans. There is a type of 'baseline' continuity between humans and nonhumans on the level of physicality. By this, I mean that although the associations between humans and specific types of nonhumans in the clan system creates homological patterns of continuity and discontinuity, the associations with animals outside this system is that of continuity between all beings on the level of physicality.

8.3.2 Interiority of nonhumans that are not totems

On the level of interiority now, how do Lavongai people consider the properties of nonhumans that are not totems and of humans? Are these seen as similar or dissimilar?

Recall that humans are considered to have a dual internal aspect, the *malanganto* or *pato* on the one hand, a 'life force' or 'animating spirit', and a *kankanuai*, a 'spirit shadow' that can endure in the world after death and is visible to healers, or holders of esoteric knowledge. During interviews, certain interlocutors provided information regarding their conceptions of the interiority of nonhuman beings, in particular in response to this question: 'the things that are alive but that are not men or women, like birds, or snakes, or pigs, all kinds of animals, do they have *malanganto* (life-force, spirit)?'[T167]

When I asked this to Gregory Ravis, he answered immediately that: 'All of them, in the world, they have *malanganto*. Each and every single animal, in that time when they… right, ah… blessed the world, and at the same time he blew his breath, on to the man which he had placed here, and all the things here.[T168]' (Gregory Ravis, 23 June 2022). When discussing birds, he answered without specifically referring to this category of animal, but by reiterating what he had said about all animals, with the following: 'The *malanganto*, they are just one [they are identical]. […] as far as life goes, we are just one [identical].[T169]' (Gregory Ravis, 23 June 2022).

What Gregory Ravis is saying is that, where *malanganto* is concerned, animals in general and birds in particular, are identical to humans, all are 'just one'. Ngurkambai answered the same query, 'do animals have *malanganto*?' with the following rhetorical questions, pointing out the *reason why* she knew animals do:

> Do they? Well, and, if they didn't, if they didn't have a *malanganto*, they… They also have a *malanganto*! Animals do. Indeed, right? They also have it. Well, and if they didn't what kind of a life would they have? And… ah… feelings… right? Because, animals are people who just walk about aimlessly, right? The animals that you 'tame' [in English] well on your doorstep, that you take care of, you see that you can talk to them, can't you? If they are used to listening

21. Note that I do not make any supposition regarding which way this logical link should be understood: Lavongai people could be feeding similar food to that which they themselves eat to animals *because* they consider them to have similar constitution, or conversely they may consider they have similar constitution because they observe them to eat similar food to that which humans eat. Either way, the correlation is apparent.

> to you talk, and you 'tame' [English] them well, look after them on your doorstep. Well, if animals such as dogs, or whatever, if they didn't have a *malanganto*, then how would they know that they should go and find food at a certain house, or just walk about on the beach? How would they do if they had no *malanganto*? But, they also have a *malanganto*. That's just it, it is not… Or, their *malanganto* 'controls' [English] them, or 'uses' [English] them so they can walk.[T170] (Ngurkambai, 9 June 2022).

Essentially, she was saying that it is apparent animals have a *malanganto* because they can act purposefully, they can understand us if we 'tame' them, and they know how to find food or shelter. However, Ngurkambai also qualified this statement about animals quite obviously having a *malanganto* since they are able to feel and show 'intelligence' when tamed. She said:

> But the *malanganto* of animals is not the same as that of people. Because… Ah, it is different in the following way. People, their behaviour is… right… it is, it is straight, it doesn't have any wrongdoings in it, or, it is as if animals, like chickens or dogs, and other things, when they go around, they steal, don't they, that's for dogs, they steal. Or, pigs they don't 'care' [English] about things that need to be looked after in the house.[T171] (Ngurkambai, 9 June 2022).

What she is saying is that humans and animals do all have a *malanganto*, but that these are different on a key level: that of the adequacy of behaviour which it causes. Since *malanganto* is seen as the 'moving force' the 'life force' of a being, and since humans behave 'properly' and know what is the right way to behave, whereas animals do not, then these two types of *malanganto* must be different.

Lumaias similarly considered animals to have a *malanganto* and explained that theirs differs in nature to that of humans, for comparable reasons:

> They have a *malanganto*, but their *malanganto* is not the same as the one which the two of us have. It's different. You see them they are also… The frog, its *malanganto* doesn't know what it is doing. You see them they are going around without knowing what their things to eat are. You and me, proper men, our *malanganto* is properly… it is properly good! Because, the one who put us down [our 'creator'] truly he… he actually, it is his *malanganto* that he gave to us. The… frogs, the dogs, the pigs, the wallabies, and what else, all those animals, the one who put them down [created them] just spoke, and they arrived first. Then, the two of us, he made the two of us, with his hands, and he truly blew with his breath. For this reason, the *malanganto* which you and I have, it is different from their *malanganto*.[T172] (Lumaias, 17 July 2022).

Of the ten people whom I interviewed and asked this question to, all initially answered by stating that animals had a *malanganto* or *pato*, except two. The reasoning for people's positive answer was often explicit: they stated (as above) that these animals could not live if they had no such 'spirit'. Some added that the fact animals fled before a painful stimulus, such as a hot ember, or the fact they screamed when wounded (as dogs do when struck), was evidence of them being animated by a *malanganto*. This reinforces the interpretation of *malanganto* as being akin to a 'life force', and also makes it the source of a living being's ability to adopt a survival behaviour, their 'will to live'.

However, those who answered positively also qualified their responses by specifying the distinct nature of an animal's *malanganto*, stating that it differed from that of humans in various ways, notably because of the fact that animals were seen not to eat proper food,

or to be 'undirected' in their actions, not 'knowing where they were going' for instance. Hence, if it is a life force, *malanganto* is also a form of 'good life force', it has a normative component, an aspect of 'directedness' to it. It is apparent that humans have a different *malanganto* from animals because the former's actions are 'good', they are the 'right way to act', they are appropriate.

The two people who answered that animals had no *malanganto* were Nick, a young man who is very active in the RFI Church, and one older man, Ben Ottis, involved in the Catholic Church. They justified their negative answer by saying that animals do not 'behave' properly, that they just walk about aimlessly. This explanation of why nonhumans have no *malanganto* given by these two men, and the reasons given for nonhumans' *malanganto* being different by the people who answered positively to this question are essentially the same. The key differentiation is in whether people are considering that the *malanganto* is only a 'life force' or rather whether it is also the source of 'good behaviour', something similar to a 'conscience'. The commonality is that *malanganto* is, in all cases, conceptualised as including this second sense, that of being a source of adequate behaviour, of knowledge as to what should be done in a given situation, be it human or nonhuman. The difference is that those who attributed *malanganto* to animals further consider this term to include something of a 'life force', and hence to be present in nonhumans despite them not acting 'properly'. Indeed, Lavongai people do ascribe intentionality and pointed behaviour to many animals. They clearly consider it possible for them to comprehend and act according to humans' desires and injunctions—with seemingly no restriction as to which species or specific animal this might be true of. Evidence of this comes from the practice of fish-calling which involves a 'taming' of fish (Chapter 6), and in the interactions with domesticated animals and occasional 'pets' as described previously (Section 6.5).

In conclusion, the situation for interiority appears similar to that of physicality. On a certain level, all beings are considered similar in their possession of a *malanganto*, however this *malanganto* is considered to be different from one species to another. Moreover, humans are the only beings that are endowed with a 'shadow spirit' (*kankanuai*), thus distinguishing them from nonhumans. All of this together means that, in Descola's framework, Lavongai people essentially conceive of nontotem animals to present a discontinuity of interiorities with humans.

8.3.3 On the distinction between physicality and interiority

However, the above discussion also showed on several levels that the distinction between physicality and interiority is somewhat blurred. Criticism regarding the validity of this distinction is anticipated from the onset of Descola's construction of the model of four ontologies, when he warns that this 'is not simply an ethnocentric projection of the Western opposition drawn between the mind and the body' but is rather one that 'all the civilizations about which we have learned something from ethnography and history have, in their own fashions, objectivized' (Descola 2013, p 116). He adds further on that 'it may well be surprising to find this [physicality/interiority] dualism of the person, which has become somewhat discredited these days, acquiring a universality that I earlier denied to the dualism of nature and culture' (Descola 2013, p 121).

The Lavongai ethnographic data does not infirm the universality of this distinction. There is a clear division in Lavongai people's discourse between that which constitutes the substance the 'body' or 'skin' (*pukun*), and those various aspects that are part of interiority, the 'life force', 'driving spirit' or 'conscience' (*malanganto*) and 'shadow spirit' (*kankanuai*) in the case of humans. What does appear to be true however—and which Descola perhaps did not insist sufficiently upon—is that in the totemic ontology, since both physical and internal properties are supposed to be simultaneously continuous within each totemic group, it can be difficult to discern which of the two is being discussed. In other words: since two beings from a same totemic group have similar physical and internal properties, when discussing the properties of this group, it is hard to distinguish if a property that is considered to be intrinsic to this group is so for internal or physical reasons. This appears in Descola's own discussion of how genealogical connections are said to be the manifestation of shared interiority, while also having an influence on 'substance' (Descola 2013, p 161). Perhaps this is unavoidable in a totemic ontology. Indeed, since the physical and internal properties vary together from one totemic group to another, discourse concerning each family of properties will be somewhat interchangeable and intermingled. When we attempt to ask what properties distinguish these beings (say, a person and their totem animal) from others, we are faced with responses that seemingly concern physicality and interiority. In a way, this allows us to redefine the totemic ontology as one in which the boundaries between internal and physical properties of beings are 'fuzzy', not well distinguished because everywhere contiguous where locally relevant (meaning inside a totem group). This does not, however, mean that there is no discourse concerning interiority and physicality, and that the two concepts are not distinguishable in this ethnographic context, as the existence of the concepts of *malanganto* and *kankanuai* clearly shows on Lavongai.

At this juncture, it is tempting to turn to another attempt that has been made in the region to adapt Descola's totemism to the ethnographic data produced from recent fieldwork. British anthropologist Michael Scott also applied an ontological approach when analysing his ethnographic material produced with the not-so-distant Arosi people of Makira in the Solomon Islands (Scott 2007, 2013, 2016, 2023). There, exogamous matrilineal clans are also associated with birds (Scott 2007, p 16), in what would appear to suggest a totemic ontology. Through a similar type of approach to that which Descola uses for the Australian ethnographies, Scott proposes a different model. He analyses foundation myths for several clans and the relations of each clan to a specific location. Scott thus identifies ways in which Descola's model fails to account for the Arosi data and considers that there exists a 'distinctive Arosi variant of totemism' which he calls 'poly-ontology' (Scott 2023, p 68). This, he defines to be 'a non-Cartesian pluralist essentialism in which a variety of autonomously arising, heterogeneously autochthonous Makiran entities persist as and through mutually exclusive matrilineal categories.' (Scott 2023, p 74). This somewhat opaque definition requires some explanation. By 'non-Cartesian', Scott is referring to the fact that there is no 'mind/matter' dualism in the Arosi ontology. This is in line with Descola's premiss which links such a distinction to the naturalist ontology of so called 'Western' societies. 'Pluralist' emphasises the fact that there are multiple clan groups, or totemic collectives, as does the reference to 'a variety of autonomously arising [...] Makiran entities', meaning entities that belong to the island as a whole (not just the Arosi language group). Finally, he seems to

refer to these as 'essentialisms' because they are based in cosmogonic myths which posit each clan as having a distinct origin, both in the sense that they come from a given locality and as having been produced by a specific primordial being.

I agree with a reviewer of Scott's monograph (Schram 2008) that it is difficult to understand why this situation might adequately be described as 'poly-ontology'. Indeed, while Arosi society appears to display multiplicity in its cosmology, descent reckoning, and land tenureship arrangements, there is not much indication of why this can be seen as a fragmenting of the ontological space into multiple equivalent ontologies. This is not something that other ethnographers have seen necessary to posit when describing the ontological considerations of any society in this region or elsewhere, to my knowledge. Many of the Australian societies from which the data that Descola and others rely on in their discussions of totemism have similar features to the Arosi, in particular strong associations between origin place, mythical beings, and a social division such as a clan or totemic group. This does not mean that each unit requires a distinct ontology in order to explain the way people conceive of it. If an ontology is to be defined as a society's discourse concerning the properties of beings, which reflects their perception, intellection, and conceptualisation of these properties, then ontologies must undisputedly be shared and more or less uniform within any given social unit, lest they become little more than individual opinions on these matters. The apparent paradox which Scott presents Arosi society as forming—multiple clans having arisen each through specific cosmogonical paths in specific places yet united in one 'society'—appears to be little more that another form of the 'unity in diversity' paradox that is present at many levels in all human societies. Everywhere, groups of people have had to reckon with the fact that they are like their neighbours and yet they are not them; quite often they even actively distinguish themselves from their neighbours. This is not a unique feature of any ontology, nor does it appear to require such a 'poly-ontology' to explain it, however deeply rooted in origin myths or cosmogonic considerations it might be framed as by the Arosi people.

Even Scott's data at times suggests that the Arosi society is not so 'poly-ontological' as he contends. Indeed, he also states that 'the totemic world Arosi compose displays as its primary mode of relation (*sensu* Descola) a form of exchange […] [which] leads […] to a lived Arosi situation of entanglement among matrilineal categories.' (Scott 2023, p 69). This makes these Arosi categories appear much more like exogamous totemic clans and suggests that Descola's totemic ontology may also apply to this situation, more so than the 'poly-ontology' that Scott proposes. The matter may simply be one of semantics, or of scale: a difference between these matrilineal 'entities' constituting distinct *ontological categories* rather than *ontologies per se*.

Therefore, I find the variation proposed by Scott to be of little assistance in analysing the Lavongai data. This is unfortunate, since Scott's work constitutes—to my knowledge—the sole attempt—prior to the one modestly developed in this chapter—at adapting Descola's model of totemism as an ontology by confronting it with data from the ethnographic setting of Western Oceania which had not been taken into account in this Australian-derived model.

We are left therefore with the conclusion that Lavongai discourse concerning humans' and nontotem nonhumans' draws a discontinuity in their interiorities and a continuity

in their physicalities. On the one hand, all beings are said to possess a similar 'life force' (*malanganto*), but that of humans is seen as distinct in allowing them to act 'properly' while nonhumans are left drifting with various degrees of inadequacy in their intentions. Moreover, the 'shadow spirit' (*kankanuai*) is an exclusive internal attribution of humans. On the other hand, all beings are reckoned to have essentially similar physical properties despite all having their respective specificities (needs, behaviours, etc.)

Chapter conclusion: ontological approach

The purpose of this chapter was to approach interspecies relations on the coast of Lavongai from the 'ontological' perspective, meaning through local people's perceptions of the properties of beings—human or otherwise—and the distinctiveness or commonalities they perceive in the properties of various types of beings.

This was done in the first section of this chapter through three ethnographic vignettes, which introduced the way that different taxa and categories of animals—in particular but not exclusively birds—are used by Lavongai people as models and indicators of ideals concerning human practices and social divisions. Frigatebirds, fishing birds of the high seas, were thus associated with a man fishing from a canoe. In contrast, the heron, a bird that also catches fish but from a static, standing position on river banks and reef flats, was associated with a woman fisher. Furthermore, analysing certain dance practices that take on significant importance in Lavongai social life showed a strong identification of dancers with birds or fish that are at the core of the dances.

From this, the second section of the chapter analysed the Lavongai clan-system, which also involves associations between people and birds, through an ontological lens. This led to a discussion of the notion of 'totemism', as presented in particular from Australian and North-American ethnography by Lévi-Strauss (1963b). From the comparison of Lavongai data with the various previous models of totemism, I conclude that there is indeed a form of totemic homological reasoning that is at play here.

I then proceeded to reexamine the data on this matter from the perspective of a specific model of ontology proposed by Descola (2013). It showed that the physical properties of humans are considered by Lavongai people to vary depending on which clan they belong to. This concerns in particular people's palmprints, as well as their idealised, stereotypical abilities, responsibilities, and behaviours. Each clan is associated with a bird, and there is tentative evidence that the birds in question are perceived as having contrasting physical properties in a homological way to that which exists between the physical aspects of clans-people, notably in behaviour. Comparative data from neighbouring New Ireland shows that there is a structural transformation between societies that have moieties associated with birds, and others which have clans associated with birds. This analysis brings to light a correspondence between shared physical traits (namely palmprints) and association with a bird, reinforcing the 'totemic' interpretation of this data. Lavongai people can therefore be considered to view physicality as continuous within the clan grouping (clanspeople and eponymous bird), and discontinuous between clan groupings. To a degree, it may be possible to generalise this result to New Ireland, and possibly beyond.

On the level of interiority of humans and nonhumans in the clan system, the situation does not conform to Descola's model. All humans are conceived of as having a 'part' that may be loosely considered to be their 'interiority', called *malanganto* or *pato* (life force, animating spirit). They also have another immaterial aspect known as *kankanuai* (shadow spirit), which is said to dwell on in the world of the living after death, and to be visible to certain men who hold esoteric knowledge, notably when they perform healing practices. Nonhumans are also said to have a *malanganto* that is the source of their life force, their ability to comprehend humans, or of the fact that their actions are directed, purposeful, in one word: their intentionality. However, this is of a different nature to that of humans who behave 'adequately', according to moral rules, thanks to the compass which their specific *malanganto* constitutes. Moreover, animals do not have the *kankanuai* 'shadow spirit' of humans. The question of how 'continuity of interiority' within the totemic groupings should be described therefore was approached through the two aspects listed by Descola: shared name, and metaphors of kinship or conceptions of shared genealogy. Although the first is readily apparent, the second is explicitly absent not only in the Lavongai ethnography, but also in all available ethnographies of New Ireland, including the oldest ones.[22] This shows that Descola's totemic model may be hard to apply here in this respect and calls for further exploration of the physicality–interiority dualism in the region. A hypothesis at this stage is that these may, in the context of totemism, be hard to distinguish empirically despite being explicitly stated to exist separately by local people (as in Lavongai with the *pukun* (body) versus *malanganto* ('life force') and *kankanuai* ('shadow spirit') dualism).

In the third section of this chapter, I therefore attempted to attend to this question through an extension of these ontological considerations beyond the limits of the clan groupings constituted by clanspeople and their eponymous bird. I showed how Lavongai people themselves tend to stretch the clan system in order to cover even those of the living beings that are initially external to it. This applies to foreign humans such as the ethnographer and to certain nontotem animals, either foreign ones also (such as cats that belong to clan Silau) or local ones (such as pigs that belong to clan Vengevenge). But it also becomes apparent that this is not done for all beings, and that in the Lavongai peoples' eyes, many beings are simply not included in the totemic 'pattern'. This raises the question: could it be that this is the case in all societies that have a totemic ontology? Answering this would require a comparative analysis that is well beyond the breadth of this thesis. These considerations on the Lavongai people's part do, however, leave something to be desired when one wishes to understand how they consider their differences and similarities to animals that *are not totems*. Indeed, most of the animals which I am focusing on here—fish and other aquatic beings—are not explicitly placed inside any of the totemic groups. Beyond the confines of these groups, I showed that Lavongai people reckon all beings to be essentially similar in their physical properties, while also each having their specificities (needs, behaviours, etc.) They also consider all beings to possess a similar 'life force' (*malanganto*), but only humans to have a 'shadow spirit' (*kankanuai*). Moreover humans are also seen to have qualitatively different inclinations and drives to animals and

22. By 'explicitly absent' I mean that such a link is said by interlocutors not to exist, rather than them simply not mentioning one.

as acting 'properly' while nonhumans are left drifting, with various degrees of inadequacy in their intentions.

In a way, the Lavongai ontology therefore appears more like an elemental form of naturalism (since human and nonhuman interiority are distinguished by the presence or absence of the *kankanuai*, whilst all physicalities are likened) with only some characteristic elements of totemism overlaying it, made up of the distinctive discontinuity of physicalities between the totemic groupings. This suggests that the Lavongai situation could be considered to form a 'hybrid' ontology. Indeed, ontologies are not single monolithic blocs that impose themselves to a society; they are underlying tendencies, and in this, nothing precludes their coexistence. Descola approached these forms of 'hybridisation of ontologies', in his 2017–2018 lectures at the Collège de France, writing that 'it is often the case that the way collectives appear to the observer is not clearly identifiable because they combine traits of two ontologies.[T173]' (2020, p 444). However, he chose not to discuss the combination of naturalism and other ontologies in his lectures that year[23] because he considers that combinations between naturalism and other ontologies, although frequent in contemporary societies, are the result of globalisation and the proselytising of missionaries.

Despite the ethnographic precautions taken here in investigating the ontological considerations of Lavongai people, the source of this 'component' of naturalism might indeed simply be the influence of Christianity and of the globalised capitalist world which Lavongai people have increasingly been dragged into (or at least kept tittering on the edge of) for the past 150 years. Reconstructing the historical evolution of such ontological considerations is however all but impossible, considering the absence or paucity of ancient ethnographic sources (Sub-section 1.2.3), and we must consider that which does exist. To do so, the final chapter of this thesis will thus make use of a second theoretical approach.

23. He did however invite participants in his seminar to present case studies of such combinations (Descola 2020, pp 466–467).

Chapter 9

Biosemiotics of Marine Interspecies Relations

> Semiotics is not about the 'real' world at all, but [...] about an infinite number of anthropologically conceivable possible worlds. Thus [...] what a semiotic model depicts is not 'reality' as such, but nature as unveiled by our method of questioning. [...] The distinction may be pictured by the simile of a fisherman casting his net; the size of the fish he can catch is limited by the morphology of the net, but this fact does not provide tutorage in ichthyology.
>
> Sebeok 1994, p 26

Introduction

During my first visit to Lavongai, in 2019, I was asked to introduce myself to a group of village representatives and leaders who had gathered for a meeting. Unable to speak Tungag at that time, I explained nervously in Tok Pisin who I was and why I was there: a student from France wishing to understand the local ways, and in particular how people interact with animals in the sea, fish, and other such beings. One old man whom I did not know piped up and, smiling, urged me to come and talk to him because, he said: 'I know the vernacular language of fish[T174]'.

What he meant was that he was a fish-caller and that he was able to communicate with fish in this way. By saying so, he obviously intended to point out his own abilities and maybe even to brag a little before this assembly of important people. He was also suggesting that commonality exists between people and fish, since his statement implied that fish

have their own language, just as each human society does. This sentence leads to reflection concerning that which mediates interspecies relations. Do Lavongai people interpret the behaviour of fish as showing that they can participate in communicative interactions? How would they go about signifying something to them in fishes' 'own vernacular'? These questions draw us into the field of biosemiotics: the study of signs and their circulation between all types of life forms.

The present chapter frames marine interspecies relations within a biosemiotic approach in the hope of shining new light on these relations from the perspective of an anthropology 'beyond the human'. Since biosemiotics is not a 'classical' domain of anthropology, it will require a brief but thorough introduction of its premises, foundations, methods, and works, which the following pages will begin with. I will then give some attention to the sensory abilities of fish, as this is a key aspect of the way in which interspecies semiosis between humans and these beings can be understood. A biosemiotic approach will then be applied to the Lavongai ethnographic data, over the course of three different examples. First, I will carry out a re-appraisal of the practices involved in fish-calling from a biosemiotic viewpoint. Then, I will analyse the signs circulating in the interaction between Lavongai people and a very important fish known as *riranga*, a type of goby with a specific life-cycle and behaviour. Third, I will bring a biosemiotic perspective to bear on the concept of the 'dishonest sign', meaning one that is intentionally produced to be deceptive, such as when fishers employ lures.

9.1 The field of biosemiotics

Biosemiotics, 'being a compound of "bio" and "semiotics", refers literally to the union of the studies of (biological) life and signs' (Vehkavaara 2008, p 257). It is an interdisciplinary endeavour concerned with the manipulation of signs by all living beings and with the way biological, cognitive, psychological, and cultural phenomena intertwine during semiotic processes.

Among the main scholars to have published reference works in biosemiotics are American semiotician Thomas A Sebeok (1968, 1991, 1994, 2001), British professor of language and media Paul Cobley (2010, 2016), Danish biologist Jesper Hoffmeyer (2008a,b), Estonian ethologist and biologist Kalevi Kull (2009; 2009; 2011), American neuroanthropologist[1] Terrence Deacon (1997, 2012), and Italian biologist Marcello Barbieri (2008). As can be seen from this sample, biosemioticians hail from many disciplines. Consequently, there is a great variety in the works published under the rubric of biosemiotics, and

> some biosemioticians [...] see the task of biosemiotics as widening the scope of an already broad church, semiotics, so that it does not mistakenly pursue the semiosis of human animals as divorced from that of other organisms. Yet another is to erode, or at the very least, to make more porous, the boundary between living nature and culture, the sciences and the humanities. As such, it is a challenge to the view of humans as 'exceptional' in nature. (Cobley 2016, pp xi–xii).

1. Initially trained as a biologist at Harvard, Deacon's work is at the interface of linguistic theory and cognitive neuroscience and he identifies himself as a 'neuroanthropologist'.

Here, we begin to see how this discipline can lend powerful tools to the type of anthropology which the present thesis is grounded in: an anthropology 'beyond the human'. First, in order to understand the contribution that this perspective can bring to the present study, a solid understanding of the theory of signs is required.

9.1.1 Signs, semiology, and semiotics

At least since John Locke (Cobley 2010, p 259), the 'study of signs' has been known as 'semiology'. This word referred, initially, to a field of philosophical enquiry and to a medical practice: the art of discerning an illness through its signs or symptoms (and in medicine, this is still how the term is employed). It was of little relevance to social science until the second quarter of the 20th century, when the work of the French linguist Ferdinand de Saussure was popularised, notably by the publication of his *Course in General Linguistics* (1959 for the English translation, first published in 1916 in French). Saussure's semiotics is founded on a dyadic definition of signs. In this perspective, conveying meaning involves creating a relation between two things: a 'signifier' (that which signifies, typically: a word) and a 'signified' (the meaning, or the sense of this word, that which it refers to). Another French linguist, Emile Benveniste, a student of Saussure, brought a critical reappraisal and development to his teacher's theory (1971), in particular by drawing attention to the distinction between *énoncé* (statement) and *énonciation* (action and manner of stating).

Saussure and Benveniste's semiotics is founded on the analysis of phonemes. In a spoken language, when one utters a word, this word is the 'signifier' that refers to a 'thing' (an object, a concept, an action) which is the 'signified'. Understanding the semiotic properties of a language is possible, in this framework, by isolating phonemes on the one hand (the elementary units of signifiers) and morphemes on the other (units of meaning). The structural analysis of the associations between the two allows for a language-agnostic, comparative science of spoken language.[2] The semiotic analysis of Saussure and Benveniste is based on human spoken language, and their viewpoint therefore leaves aside other linguistic forms such as sign language (Virole 2006; Toldo and Facin 2018). Moreover, it also creates a divide in the world of signs between those manipulated by humans, that they analyse though linguistic techniques, and those found in other life forms. Benveniste in particular explicitly excluded anything that might constitute nonhuman communication from the framework of his structural linguistic theory. In short, Saussurian semiotics is hard to use in any situation involving nonlinguistic semiosis.

A major question also remains when dealing with communication in the absence of human language: how are the signifier and the signified associated? In a language spoken and understood by a given community of human interlocutors, it is through a standard or convention.[3] But what of signs that have no convention linking their signifier to their

2. Claude Lévi-Strauss and other structural anthropologists famously considered this approach to be a kind of 'Copernician revolution' for the social sciences (Haudricourt and Granai 1955, p 114) and adapted it to the analysis of culture (Lévi-Strauss 1963a, pp 34–38).

3. Although the convention may well be justified by an etymology, this does not make the word–meaning association any less of a convention. Saying that 'capital' comes from the Latin *caput* for 'head (of cattle)'

meaning? How would one analyse a signifier without words, one that exists outside of conventional spoken language? And how could such signs be recognised by human beings—such as an ethnographer—when there is no convention between this non-linguistic sign and that which it refers to?

The semiotic framework of Charles S Peirce

Almost at the same time that Saussure was giving the lectures at the University of Geneva (1906-1911) which, via the notes of several students, would eventually provide the material for the *Course in General Linguistics* (1959), another theory of semiotics was being developed with a very different viewpoint on this association between signs and their meaning. Charles Sanders Peirce (1839-1914) was an American chemist, mathematician, logician, and philosopher whose writings are eclectic and abundant. What is of interest to the present chapter is his theory of semiotics, which he developed not just as a theory of signs themselves, but as part of a wider metaphysical and philosophical enquiry into logics and the foundations of meaning.[4] In his semiotic theory, Peirce gives a 'triadic' definition of a sign: 'I define a Sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter is thereby mediately determined by the former.' (Peirce 1998, p 478). These three poles are what determine semiosis: 'by "semiosis" I mean [...] an action, or influence, which is, or involves, a cooperation of *three* subjects, such as a sign, its object, and its interpretant' (Peirce 1994, v5, p484). But what, more precisely, are these three components of the semiotic relation?

Pierce refers to the triadic association that effects semiosis as 'a sign'. However, among the three components, he also refers to the first as 'sign', although it is, at times, called by other names, notably 'representamen'. This first element, the 'representamen' is that which stands for another, the 'object', in regards to somebody, the 'interpretant'. Another name for this representamen that commentators of Peirce sometimes uses is 'sign-vehicle', which is a way to distinguish it from the use of the word sign itself as referring to the triadic relation. In this chapter I will favour this formulation which Peirce himself does not use but which avoids any ambiguity. To draw a parallel with the structural linguistic theory of Saussure and Benveniste, their 'signifier' is Peirce's 'sign-vehicle'.

The second element, the 'object', is that which is denoted, the 'thing itself' which the interpretant recognises as being referred to by the sign-vehicle. In the case of a linguistic sign this corresponds to the meaning of a word, or its 'signified' in Saussure's terms.

Finally, the interpretant is the most novel and perhaps the hardest element to grasp of Peirce's triadic semiotic relation. It is the mental or processual operation through which the

doesn't remove the arbitrary nature of this association: why was the Latin word *caput* associated with the head in the first place, and not the word *rosa*? Both of these may have their own etymologies (or they may be lost), and so on, and so forth. The conventional nature of the association is in any case inescapable.

4. This presentation is based both on the works of Claudine Tiercelin, a French philosopher who specialises in Peirce's work (Tiercelin 1998, 2013), and on the entry 'Peirce's Theory of Signs' from the online *Stanford Encyclopedia of Philosophy* by Albert Atkin (2006). Note that I quote from the latter without locating the citations as the publication is unpaginated.

relation between sign-vehicle and object comes to exist. In Peirce's words, the interpretant is 'an effect upon a person' (Peirce 1998, p 478) caused by the sign. Note that Peirce coined the term 'interpretant' to avoid the confusion that 'interpretation' or 'interpreter' would have involved, since the interpretant is not the being or person performing an operation by which the sign-vehicle enters into relation with the object. Rather, the interpretant is the influence that the sign has on the interpreter. Said in another way, it is the mental process through which the interpreter comes to associate the sign-vehicle and the object. In Peirce's words:

> The Sign creates something in the Mind of the Interpreter, which something, in that it has been so created by the Sign, has been, in a mediate and *relative* way, also created by the Object of the Sign, although the Object is essentially other than the Sign. And this creature of the Sign is called the Interpretant. It is created by the Sign; but not by the Sign *qua* member of whichever of the Universes it belongs to; but it has been created by the Sign in its capacity of bearing the determination by the Object. (1998, p 493, emphasis in original).

Peirce insisted that the addition of this third component of signs is indispensable to his semiotic theory, stating that 'this tri-relative influence [is] not […] in any way resolvable into actions between pairs.' (Peirce 1994, vol. 5, p 484).

Beyond isolating and defining this triadic nature of semiosis, Peirce also proposed a typology of signs. The way he drew up this classification was to approach each of the three components of a sign and to ask how they participate in the sign relation. This, he determined, can be answered in any one of three ways, as summarised by Atkin: '[F]or Peirce, […] the nature of the object constrains the nature of the sign in terms of what successful signification requires. […] Peirce thought the nature of these constraints fell into three broad classes: qualitative, existential or physical, and conventional and law-like.' (Atkin 2006, unpaginated). This can lead to several classifications of signs, and later in the development of his semiotic theory Pierce in fact proposed a classification of signs into 15 different kinds. This is far too complex for the purpose of this chapter, and a first level of analysis will suffice in order to carry out a biosemiotic reading of the present material. This involves the most frequently cited threefold classification of signs and depends on the type of their object:

1. *indexes* are signs that rely on an existential or physical connection with their objects, for example the sugar that signifies a richer medium for a bacteria;
2. *icons* are signs that rely on a quality of their object, for example a portrait that represents a person for somebody who knows that person, since its object is considered to share qualities (a likeness) with the person represented; and
3. *symbols* are signs that require some convention, habit, or social rule or law that bears on the object, the most obvious example of which are words in natural human languages.

Some examples, given in Table 9.1 should help understand this sign theory. The first, for instance, can be read as follows: the word 'fish' (sign-vehicle) refers to the type of animal in question, an 'actual fish' (object), though the fact of knowing what this word means (interpretant), for an English speaker. The essentially triadic nature of the semiotic process

Table 9.1: Some examples of signs broken down into sign-vehicle, object, and interpretant *per* Peirce's definitions.

Example	Sign-vehicle	Object	Interpretant
'Fish' heard by an English speaker	The word 'fish'	The type of animal in question	The knowledge of what this word means.
A flower seen by a bee	The flower	The presence of nectar	The 'mental' process through which the bee knows a flower may contain nectar.
A sugar gradient perceived by a bacteria	The sugar gradient	Variable nutritious potential	The process through which the bacteria knows this gradient to indicate nutritious potential.

is apparent here: if any one of the three poles of sign-vehicle, object, or interpretant is removed, then the sign cannot signify in this way. A sign cannot be regarded as a sign if it has no interpretant, any more that it could be if it had no sign-vehicle, or no object. Similarly if any one of the three poles is modified then the sign we are considering will be a different one. The same sign-vehicle 'fish', if it is associated with an interpretant that has no competence in English will not refer to the same animal (it may refer to nothing, or happen to have a different meaning in another language which the interpreter understands). If no English speakers at all knew what the word 'fish' meant, then the sign would cease to have this meaning altogether. Indeed, this is the case for gibberish, for words that have no conventional meaning. Although these may be sounds and could be used to signify something through various non-linguistic means, they are not *the same sign* as the English word 'fish', despite sharing the same sign-vehicle. On the other hand, focusing only on sign-vehicle and object leaves a key aspect of the semiotic relation between them in the dark: the mental process which binds all three together as a triadic sign. The interpretant element of the triadic sign-relation therefore draws our attention to the intrinsically processual and mental natures of semiosis, and points to the fact that manipulating signs requires an ability to perceive information coming from the environment.

9.1.2 Senses and perception: umwelts and affordances

Since perceptive ability is one of the key dimensions of semiotic processes, biosemiotics requires that one attend carefully to the sensory abilities of the beings involved. Indeed, what a being can or cannot perceive will constrain the way in which it is able to interact on a semiotic level with its environment.

German biologist Jacob Von Uexküll (Brentari 2015) is credited with the formalisation of an important concept for the understanding of sensory processes in living beings in general: the umwelt (Uexküll 1934).[5] This is described by Von Uexküll as the 'perceptive world' of a living being. He describes umwelt with the following metaphor:

5. Although this comes from the German word *Umwelt* meaning 'environment' or 'surrounding', nowadays most English dictionaries include the term as a loanword. Hence its use here with no capital nor italics.

> Around us is a protective wall of senses that gets denser and denser. Outward from the body, the senses of touch, smell, hearing and sight enfold man like four envelopes of an increasingly sheer garment.
> This island of the senses, that wraps every man like a garment, we call his Umwelt. It separates into distinct sensory spheres, that become manifest one after the other at the approach of an object. (Uexküll 2001, p 107).

Humans are not the only beings to possess an umwelt, as Von Uexküll continues: 'No animal will ever leave its Umwelt space, the centre of which is the animal itself. Wherever it goes, it is always surrounded by its own Umwelt space, filled with its own sensory spheres, irrespective of how much the objects change.' (Uexküll 2001, p 109). Where the umwelt shows its conceptual pertinence, is in the fact that the physiological properties of each animal determine a different umwelt:

> Every object becomes something completely divergent on entering a divergent Umwelt. A flower stem that in our Umwelt is a support for the flower, becomes a pipe full of liquid for the meadow spittlebug (*Philaenus spumarius*) who sucks out the liquid to build its foamy nest. The same flower stem becomes an upward path for the ant, connecting its nest with its hunting ground in the flower. For the grazing cow the flower stem becomes part of a tasty morsel of food for her to chew in her big mouth. (Uexküll 2001, p 109).

In consequence, not all beings inhabit the same perceptual world and interspecies semiosis is only possible at the interface of the divergent umwelts of the beings involved. In order for a being to interpret a sign, it must be able to perceive its sign-vehicle. Moreover, it must relate this sign-vehicle to the 'correct' object via an interpretant. If the relation is created with another object than the one which was intended—if the bee takes a brightly coloured t-shirt for a flower for instance—then equivocation or mis-signalling is occurring (something which occurs frequently in the living world, a topic to which I will return in Section 9.5). When the situation is interspecific, meaning the sign is being produced and interpreted by different beings, the fact that they have divergent umwelts will have an important bearing upon this. In the case of intraspecific semiosis, the umwelts of different beings are *a priori* of a similar kind.[6] They have the same senses, and can assume to know how the other being belonging to the same species perceives the signs they produce. The particularity of interspecific semiosis is that it involves crossing this boundary of differing umwelts.

Another important notion in biosemiotics is that of 'affordance', coined by American psychologist James Gibson. He writes that: 'The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. [...] [Affordance] implies the complementarity of the animal and the environment.' (Gibson 1979, p 119). He goes on to give some examples of how affordance is both a property of the object in question and of the characteristics of the being that encounters it:

> If a terrestrial surface is nearly horizontal (instead of slanted), nearly flat (instead of convex or concave), and sufficiently extended (relative to the size of the animal) and if its substance

6. Except in exceptional cases: a blind person for instance has a different umwelt from one who is not blind.

> is rigid (relative to the weight of the animal), then the surface affords support. It is a surface of support, and we call it a substratum, ground, or floor. It is stand-on-able, [...]. It is not sink-into-able like a surface of water or a swamp, that is, not for heavy terrestrial animals. Support for water bugs is different. (Gibson 1979, p 119).

This notion draws our attention to the fact that sensory perception is not solely a matter of the constitution and capabilities of the perceiving being, but also somehow inherent in the environment in which the being evolves. Inanimate objects and living beings alike *afford* the perceiving being certain qualities; their physical properties inter-relate with the physiological properties of the perceiving being to place boundaries on that which can be perceived and 'done with' them.

In a way, describing an interaction that involves a living being and some element of its environment (be it living or inert) in terms of umwelt or affordance offers two complementary approaches. In one case (umwelt) the focus is on the being's senses and mind, in the other case (affordance) on the properties of the elements of the being's environment as they 'afford themselves' to that being. As they are complementary, both approaches are necessary in order to make semiotic processes understandable.

9.1.3 Communication: a special case of semiosis

Another important word must be defined precisely before this biosemiotic approach can be applied: *communication*. Indeed, communication is a special case of semiosis—the general process of production, diffusion, and interpretation of signs. There is no consensual definition of the term that all scientific domains have yet agreed upon; however, in its most basic acceptation, communication involves the transmission of information from one party to another (Martinelli 2017, p 1).

One key notion in communication—which may be used to distinguish it from non-communicational forms of semiosis—is intentionality. Indeed, many signs are produced and interpreted without any form of intentionality being involved, simply by the fact of them being interpreted by some type of 'mind' (Martinelli 2017, p 19). If we shift our perspective however, and consider not the interpreter of the sign but its producer, then the key to making communication what it is appears: in communication the emitter of a sign must be creating it with intent, whereas semiosis does not necessarily require this.

Communication and semiotic processes should thus not be conflated, despite them sharing many dimensions. Communication should rather be considered as a specific subset of all semiotic processes which take place in the living world, defined by the fact that a sign that is part of a communication effort is *intended* to convey meaning to a third party. This can be inter- or intra-species. It can be aimed at a specific individual or it can be a 'signal', a form of general sign, emitted in order that all who are able to receive it might do so. It can appeal to any one or several senses and perceptive capabilities of the recipient. It may be interpreted in various ways, and a single action can yield multiple sign-relations for various interpreting beings at various times.

9.1.4 Applying biosemiotics to anthropology

How then, can anthropology of nature put biosemiotics to good use? There are only a handful of researchers who have attempted to apply the perspective and insights of biosemiotics to their anthropological reflections. The 20th century polymath Gregory Bateson is a precursor in this matter. As several biosemioticians have pointed out in recent years (Hoffmeyer 2008a; Eriksen 2023), Bateson realised long before the formalisation of this discipline that there was much to be gained in anthropological understanding by attending to the way 'minds' function in living beings (Bateson 1979, pp 13–14).

A contemporary scholar who has adopted the biosemiotic approach to cultural phenomena is the philosopher Dominique Lestel who writes that: 'the problem is not to look at humans as though they were animals, or at animals as though they were humans, but to invent models of social behaviour which make it possible to think the two jointly' (2002, p 60). 'Thinking jointly' about sociability that includes humans and nonhumans is the principal objective of this thesis, and following Lestel, I contend that biosemiotics can aid in this endeavour. In his view, biosemiotic approaches

> present the advantage of placing the question of meaning in a broader evolutionist perspective which avoids the necessity of a miraculous break, and then the sudden appearance of meaning. On the contrary, meaning is seen as copresent with living beings from the beginning; it is the modalities of expression which change and grow in complexity. (Lestel 2002, p 60).

In other words, biosemiotics allows for unifying theories of meaning that require no human exceptionalism. Semiosis, the action of associating a sign-vehicle to its object through an interpretant is observed to occur in all living beings, albeit with considerable variation in its modalities. This is where biosemiotics provides benefit: in its ability to provide a framework that envelops this variety.

Florence Brunois, a French anthropologist who has written extensively about the relations between the Kasua people of the Southern Highlands of Papua New Guinea and plants also makes use of a biosemiotic approach in her works. She affirms that

> all non-modern etiquettes [...] like that of the Kasua people, grant plants an agency and a sensitivity and admit quite willingly that they have discussions with them in audible interspecies communication. [...] [And] naturalists who had intentionally deprived plants of interiority and intelligence are now rediscovering their interactivity, meaning their power to act and react in the world.[T175] (Brunois-Pasina 2018, pp 10–11).

Lately, research into plant communication has indeed begun to develop greatly (see: Karban, Yang, and Edwards 2014; Ninkovic, Markovic, and Rensing 2021), with several highly successful essays describing this research (Viola and Mancuso 2015; Wohlleben 2016).[7] In

7. This is still controversial however. Indeed, many biologists oppose the conception of 'plant communication', or the discipline of 'plant neurobiology' (Baluška, Mancuso, and Volkmann 2006). Researches who defend such appellations tend to support the view that plants have cognitive abilities, something for which there is no conclusive evidence (Firn 2004; Alpi *et al.* 2007). Many of the difficulties in these debates revolves around problems regarding the notion of intent, or the adaptative, 'reflex' level (rather than elective) nature of plant communication, which it is not the place to delve into here despite their importance.

an article in the journal *Multitudes*, Brunois further shows how signs are constantly circulating between the Kasua and the other beings that inhabit their forest (Brunois-Pasina 2015).

Lestel and Brunois have on occasion collaborated to write on human-animal relations, notably in an article they penned with ethologist Florence Gaunet (Lestel, Brunois, and Gaunet 2006). In this, they call for a bridging of the two disciplines of ethnology and ethology, which would allow for a better understanding of the cultural dimensions of relations both within and beyond the human. They use the notion of 'hybrid community' to describe the assemblages of humans, nonhuman animals, plants, and other living beings that have mutual interactions. They highlight the fact that these rest upon a series of reciprocal interpretative processes: humans interpret the actions of nonhumans, and vice-versa, while 'humans and animals must know not only what the other wants but also what the other *understands*' (Lestel, Brunois, and Gaunet 2006, p 167, emphasis in original), bringing the focus back onto perceptions, senses, and cognitive capabilities. Such interdisciplinarity, drawing both upon ethnography and knowledge about the behaviour and biology of the beings with which humans interact, is a key component of the biosemiotic approach.

American anthropologist Eduardo Kohn has also written several articles and one important monograph that apply the tools of biosemiotics to his ethnographic data produced in the Ecuadorian Amazon with the Runa people of the region of Ávila (Kohn 2007, 2013). In his book *How Forests Think* he makes a sustained effort to understand his Amazonian material concerning the way the Runa people involve nonhuman beings in their sociality with recourse to biosemiotics, most notably to the works of Deacon (1997, 2012). Kohn notes that manipulation of symbolic signs is primarily a human trait, but that other types of signs—icons and indexes (see Sub-section 9.1.1)—are being manipulated at all times by other living beings, and that these are no less 'significant' for the beings who interpret them than the distinctly human symbols are to us (2013, pp 31–33).

A large part of this reflection concerns the concept of 'selves', and how Runa people adopt the perspectives of other 'selves', such as their dogs, jaguars, or peccaries, in attempting to understand, and even at times communicate with them. In doing so, he draws on the notion of 'perspectivism' mainly developed by Viveiros de Castro (1998, 2014), and which refers to a sociocultural phenomenon frequently encountered in Amazonia (see also Chamois 2021). It foregrounds how a key part of any communication effort involves knowing how to address those we seek to communicate with. To do this a minimal amount of knowledge concerning their capacities to perceive our message, and an ability to imagine how they will receive it, are needed. What Kohn proposes is therefore an anthropology attuned to the way other life forms manipulate signs, and to the way the people who participate in ethnographic investigations are aware of other life forms manipulating signs.

9.2 Semiosis and senses in the marine world

One key aspect of studying semiosis between species is to understand the way that the physiology of a species influences its ability to perceive signs produced by beings from another species, as captured by Von Uexküll's notion of umwelt.

To carry out a biosemiotic analysis of relations between humans and fish (for I will remain, from now on, within this group of marine animals), we must consider at least two important questions. What does each type of being perceive of the signs produced by the other? And what do they consider the others to be able to perceive and comprehend? The latter question appears decisive in regard to the types of signs a being will choose to emit, since a successful communicative process can only take place if the being producing the sign believes the intended recipient to be able to perceive and comprehend it as intended. Hence we need to explore:

1. how Lavongai people perceive signs produced by fish;
2. how fish perceive signs produced by humans;
3. how Lavongai people consider fish to perceive signs produced by humans.[8]

9.2.1 How Lavongai people perceive signs produced by fish

All the interlocutors with whom I discussed the differences between fish and humans insisted on the somewhat self-evident fact that they live in very different environments. For example:

> Us, people, we live, we breath on… only on the ground, don't we. We stay on dry land, and we breath properly. Well, we are not able to go into the water and live under water. If we go into the water, to the place of the fish, we die. […] Fish, they stay in the water, they can breath under water, they are alive under water. […] They are not able to stay with us, on… on dry land.[T176] (Ngurkambai, 9 June 2022).

Consequently, exchanging signs between fish and humans is something that can be done only in a fleeting or indirect way. In comparison with, for example, a dog, or a pig, with which lengthy and repeated interactions are possible, aquatic animals are 'difficult' to convey meaning to. Certain fishers do however spend long time periods free diving, especially when fishing with spears (Sub-section 5.3.6), which is possible even without much specialised equipment since the surface waters are very warm in this part of the world.[9] This can allow them to observe the behaviour of the fish and gather information from it to a remarkable degree.

Several signs which Lavongai people consider to be produced by fish are nonetheless interpreted by the villagers. One of these is the very absence of fish. Indeed, not observing fish when diving or fishing is a sign that informs Lavongai people as to the state of mind and physical condition of the animals: their degree of satiety for instance ('the fish are not here, they are full up'), or their discontent caused by somebody having 'polluted' the water in some way (as described in Sub-section 3.1.5).

8. One may also consider that it is necessary to invert the last point, and to ask how fish consider that Lavongai people can perceive the signs which the fish themselves produce. However, although it would—strictly speaking—be necessary for a full understanding of this semiotic relation, obtaining any information regarding this point appears rather too ambitious, and will not be explored here.
9. The introduction of diving goggles in the last century obviously made it possible to dive for much longer periods without discomfort to the eyes.

If fish are visible but flee rapidly as a human approaches, Lavongai people consider it to be a sign that they are 'wild', that they have not been 'well cared for', that appropriate behaviours have not been adopted by all the inhabitants of the coastal area, notably that the removal of 'dangerous' or 'polluting' substances from the waters has not been correctly carried out (as discussed on page 348).

9.2.2 How fish perceive signs produced by humans

Ichthyology teaches us much about the perceptive capabilities of fish (von der Emde, Mogdans, and Kapoor 2004). Scientists studying the behaviour and physiology of fish have shown that 'the channels available [to fish] for animal interactions can be listed as photic (visual), mechanical (including tactual and acoustic), thermal, chemical (gustatory and olfactory), and electrical (limited to certain fish).' (Tavolga 1968, p 276). The thermal vector is not very useful to (mostly) cold-blooded animals such as fish. Thus, the most important channels through which fish interact with their environment, are:

- visual;
- mechanical—which includes hearing, touch, and their 'lateral line sensory organ' which detects pressure changes in the water and can allow them to perceive the presence of other animals in the water (Janssen 2004);
- olfactory; and
- (for those fish that have the capacity for it) electrical (Tavolga 1968, pp 276–278). This is particularly developed in the Elasmobranch family (sharks and rays), and includes, in some species, the ability to perceive the earth's magnetic field (Tricas and Sisneros 2004, pp 319–321).

Concerning the first, the visual senses, an important caveat is that when travelling in water, light only propagates for a limited distance, and does so differentially depending on wavelengths and therefore colour, hence: 'the photic channel is severely limited in water' (specifically, light becomes increasingly limited to the blue colour as one descends in a water column Tavolga 1968, p 276). Although this is very much the case in deep seas and somewhat in shallow temperate waters, the tropical coral reef environment that surrounds Lavongai represents one of the clearest oceanic waters in the world, which means there are more opportunities for fish to communicate via the visual channel, and also for humans to observe them (this, incidentally, is the reason why diving and snorkelling tourism is so popular near tropical reefs around the world, see Foale, Dyer, and Kinch 2016, pp 13–14).

With this knowledge about the perceptive abilities of fish in mind, we might ask more pragmatically what evidence there is that fish do react in any way to signs produced by humans? For it is one thing to be *able* to perceive a sign, another to actually do so and display a behavioural change in response.

Answers to this question can be found, in a biologically and socioculturally close context to that of Lavongai, thanks to a novel study carried out by marine biologists concerning what is called the 'flight distance' of fish (Feary *et al.* 2010). The flight distance is defined as the length at which an animal—in this case, a fish—will start to modify its behaviour to avoid an approaching threat. These researchers worked in the village of Muluk, on the

island of Karkar (Madang Province, Papua New Guinea), just across the Bismarck Sea from Lavongai. They investigated flight distance of fish when faced with an approaching diver on several occasions, both inside and outside of an area of coastal waters where a fishing prohibition had been enacted by locals, one akin to the Lavongai *vala* (Chapter 7). They concluded that:

> Consistent with local perceptions that sustained fishing can lead to fishes being 'more scared' (Cinner *et al.* 2006) we found that customary closures significantly affected targeted fishes' behavior. […] Within customary closure areas fishes were less wary and allowed observers to approach over 2.5 m closer, depending on species, than in fished areas. (Feary *et al.* 2010, p 347).

According to this study, 'traditional' closures such as *vala* can make fish less fearful of humans and allow fishing methods that require approaching them closely to succeed, where they otherwise would not. These fishing closures are thus shown to be effective empirical tools to attain their stated goal: make the fish 'less wild' (as discussed previously in Sections 6.5 and 7.3). Indeed, the statements of the Lavongai people regarding the effect which they expect from a *vala* align perfectly with this study in Karkar. The stated goal and the observed behaviour coincide: the fish are, indeed, less 'wild', less fearful of humans in an area where fishing has long been prohibited that outside of it.

Other studies, both in aquariums and in 'natural settings' have similarly shown that fish are able to adapt their behaviour to avoid dangerous habitats following encounters with predators (Kelley and Magurran 2011, pp 39–40). What is highly significant in this, for the present discussion of the capacity of fish to interpret signs produced by humans, is that this adjustment in flight distance happens over years, through what must be a form of learning process. Research into such aspects of fish cognition has been developing in earnest only recently (Salena *et al.* 2021), yet 'increasing behavioral evidence indicates that at least some fish species may solve complex problems using fast learning, precise memory, and cognitive processes that go beyond conditioning.' (Bshary, Gingins, and Vail 2014, p 465). Overall, research in the field of fish cognition has demonstrated these animals display:

> a myriad of advanced behaviours reliant upon recognition of external biotic factors including profitable prey and danger in the form of predatory threat; differentiating conspecifics to identify suitable mates […] and discrimination of kin from non-kin […]; adopting adaptive behaviours in others through social learning […]; learning to avoid aversive stimuli […]; and recall of navigation routes […]. Much of this information must be learned and remembered to make behavioural decisions that improve survivorship and ultimately fitness. Fishes are also capable of modulating their social behaviour through prior experience […] and engage in complicated interspecific and intraspecific relationships that involve cooperation and reciprocation […]. The subjects in these social relationships, in most instances, will only engage with others when it is in their own best interest as clearly illustrated by specific examples of manipulation of others. (Sneddon 2011, p 405).

In order for fish to adapt to the presence or absence of humans in the way that was observed by Feary *et al.* around Karkar in the context of presence or absence of a fishing prohibition, considerable cognitive requirements bear on these animals. First and foremost,

they must perceive and recognise a human to be a human; at the very least they must be able to differentiate them from other beings, and to recognise them from one time they witness their presence to the next. Then, when they have been accustomed for years to be tolerant of humans because humans do not disturb them in that area, they must retain this information in order to, on the next encounter, adapt their behaviour by not fleeing. This would be impossible if the fish were not perceiving, interpreting, and memorising signs emitted by humans.

Another important aspect of the cognitive process which fish are carrying out in the opposite context, when fishing is open, is to learn to remain far away from humans. In order for this process to be possible, an individual fish must be present nearby in cases where humans attack or capture *another* fish, receive signs that it is a human that was the cause of the attack (either visual or chemical) and correctly interpret them as such, then remember that information so that when it encounters a human the next time it may flee at a greater distance without having been approached to be attacked itself. Such so-called 'social learning' has indeed been shown to occur for at least some fish species, both in experimental and *in situ* observations (Kelley and Magurran 2011, p 40). The main mechanism through which this is thought to happen is by fish releasing specific chemicals when they are harmed, known as 'damage-release cues' (Brown, Ferrari, and Chivers 2011, p 60), although different vectors of social behaviour have also been evidenced in fish species such as body colour or posture (Oliveira 2013; Bshary, Gingins, and Vail 2014).

Another context in which studies about interactions between fish and humans have been carried out is that of 'fish-feeding' for tourism.[10] Fish, in particular rays and sharks but also smaller colourful reef-fish such as damselfish (fam. *Pomacentridae*), are sometimes fed by local tourist entrepreneurs who wish to ensure their reliable presence in order for visitors to be able to observe them at their convenience at a specific time and place. In such situations, the behaviour of these fish has been shown to adapt to the feeding. In one series of experiments conducted off the coast of Kenya, during which bread was fed to fish in places where tour operators regularly did so, and also in control areas where they did not, researchers noted that the fish were attracted to humans even when no bread was provided, and that they aggregated in large numbers, contrary to control sites (Hémery and McClanahan 2005, pp 128, 131).

9.2.3 How Lavongai people think about fishes' perceptive abilities

It is thus beyond doubt that fish perceive at least some of the signs produced by humans, are able to learn from the information they gather through these signs either directly or via social learning, and that they adapt their future behaviour according to this learned information. With this, we can now turn to questioning the way that Lavongai people consider fish to perceive signs produced by humans. Which of the known sensory capabilities of fish are they aware of? And what do they say about these capabilities? When I carried out interviews, one of the questions I asked was 'what can fish perceive (literally "see")?', which

10. See Hémery and McClanahan 2005; Milazzo, Anastasi, and Willis 2006; Ilarri *et al.* 2008; Milazzo 2011; Lima *et al.* 2014. For a review of this literature see Patroni, Simpson, and Newsome 2018.

was not always understood well and led me to specify with sentences such as 'and when they are swimming around in the water, what do they see, what do they feel?'[T177] People answered that fish see us, that they see other fish in the water, that those accustomed to eating little fish can see their prey, that those accustomed to eating grass or coral can see their food. Overall, they thought that fish could see in a similar way to that which humans do in the water. Some added that fish can 'talk to each other', and 'hear us coming in the water', implying they have auditory capabilities also.

However, by far the sense that was mentioned most often by Lavongai people when they were discussing fish was smell. Fish are said to smell their food from far away, they are said to smell the plants that fish-callers place in the water for them (more on this below), they are said to smell each other.

In short, all the main channels through which fish are known by ichthyologists to perceive their environment were also stated to exist by the Lavongai, with two exceptions: the more cryptic electroception or ability to detect electrical signals, and the 'lateral sensory line' which allows them to perceive subtle pressure changes in the surrounding waters. These two senses are, by the account of ichthyologists themselves, 'the two fish senses most challenging for human understanding' (Janssen 2004, p 232).

The data available indicates that fish are capable of perceiving signs that could be emitted by humans, that Lavongai people are aware of the main ways in which fish can perceive the signs they might emit, and that humans also, despite the difficulties involved, have ample opportunity to interpret fish behaviour and infer which perceptions they are able of from these observations. Hence, the conditions for interspecies communication do seem to be present. However, as I already pointed out previously, there are difficulties in this that are caused by the fact that each type of beings—humans and fish—do not readily dwell in each other's environment. Therefore, any form of communication will unavoidably be hindered by this, in comparison, say, to that which may happen with a dog.

In the following three sections of this chapter I will now attend to occurrences of human-fish interactions which were documented on Lavongai during the course of fieldwork, for which I will propose a biosemiotic analysis, with the following question in mind: to what degree do these constitute interspecies communication (or attempts at interspecies communication)? How successful are they if they are from the perspective of those carrying out these actions? What strategies are used in order to maximise their success?

9.3 Elements for a biosemiotic analysis of fish-calling

The first case I wish to delve into is the Lavongai body of practices constituted by fish-calling. I have previously (Chapter 6) described fish-calling as a form of 'magical action' that is predicated on the creation of enduring bonds both between fish-callers and the 'spirits' of deceased ancestors (*anit*), as well as between fish-callers and certain specific fish which are said to 'have a father' (to be *maltamana*), meaning they are under the care of the fish-caller.

The following biosemiotic analysis of fish-calling will be carried out by first giving consideration to the fish-caller in the role of producer of signs. This situation will further be broken down by considering who the sign's intended recipients are. Second, I will consider the fish-caller in the reciprocal position of being an interpreter of signs. And finally, I will consider the way fish-callers consider other beings—neither fish nor humans—to both produce and interpret signs in the course of fish-calling practices.

9.3.1 Signs produced by fish-callers

The practices surrounding fish-calling are explicitly aimed at causing fish to act in a specific way, and the fish-callers have to produce signs in this context in order for the fish to understand the message they wants to convey to them. Signs produced in the context of fish-calling can be classified in several ways. First, we may distinguish them by who the fish-caller intends the recipient to be. What the ethnography of fish-calling shows, is that some of these are aimed at the fish, some are aimed at the *anit*, and others are aimed at birds.

Among the signs addressed to the fish, there is the actions of fasting (*alal*), which has an effect on the fish-caller's body. If they did not fast, then the 'adequate' nature of a fasting person's body is something which fish-callers say the fish could smell when the man in question enters the water to place plants there during the magic or to fish. Fasting therefore allows the fish-caller to address a sign to the fish which is intended to mean that their body is in a 'pleasing' state.

Avoidance of women (*atailai*) is said to produce a similar type of modification of the bodily condition. Recall that female substances are tied to notions of pollution by Lavongai men (see Sub-section 3.1.5), and this means that being with a woman before practising the magic would likewise make the fisherman's body 'unfit', 'dirty', or 'soiled'. Avoidance of women is therefore a way to avoid sending an unfavourable sign to the fish, as they would have interpreted the nonavoidant man's aspect as a form of disrespect, as a 'pollution'. The fish-caller's body is not the only such vector of possible impurity, and if the magic is to succeed, in order to keep 'polluting' substances away from the water the cooperation of all the villagers is necessary. When a fish-caller is performing his magic, all those present should follow a series of rules that were summarised by one fish-caller in the following terms:

> you tell the, the women from the community, when you are doing the thing [ie performing fish-calling], that it is strictly forbidden to… defecate in the water. Also, the women who are ill, who have the illness of women [ie who are menstruating], they must not wash over there, they cannot wash over there [in the sea, where fish-calling magic is taking place], it is forbidden. Those, indeed, are some of the little prohibitions of… the place where fish are staying.[T178] (Alphonse, 17 July 2023).

This amounts to keeping undesirable or dangerous substances away, according to the conceptions which Lavongai people have of 'purity' and 'pollution' (Sub-section 3.1.5). It is also for this reason that the *vala* marker is necessary for fish-calling (Section 7.2): it indicates that an area is being 'worked in' by a fish-caller and thus that people should

'respect' the area, by following the aforementioned prohibitions. The behaviour of the whole community is therefore important, for the fish will not remain in a place where 'dirt' is found. If the fish do not appear when expected, Lavongai people will interpret this as a conscious decision on the fish's part brought about by the fact that somebody in the village disregarded the prohibition.

One of the most important steps in fish-calling is to place plants in the water. Over time, fish-callers say that these will rot (*tameng*), and that their smell will spread, therefore addressing another sign to the fish: this smell is said to be pleasant to them and to evoke food, it is thus intended to signify to the fish that the fish-caller is providing for the needs of the fish. More explicitly still, in some forms of the practice, fish-callers place plants that are directly said to be eaten by the fish (notably *vonvon*), thus conveying even more explicitly the message 'I am caring for you, feeding you, looking after you'. There are also forms of fish-calling in which sand is collected, prepared with magic, and then thrown (*sapung*) into the water. This too is explicitly said by the fish-callers to be 'food for the fish'.

Another sign which the fish-callers address to fish is inherent in the way they place these plants in the water with the leaf 'pointing' inland. This is intended to signify to the fish the direction in which the fish-caller wants the animal to travel; it is a 'sign-post', so to speak.

It might seem like an omission here that I do not list the formulae or songs that fish-callers pronounce or sing. This is because these are not in fact addressed to the fish, but to other beings, something I will demonstrate shortly.

Through these signs the fish-caller influences in turn almost all the sensory mechanisms that Lavongai people state fish to have (see above, Section 9.2), and it is clear that none of this would be possible if the fish-callers did not have precise notions of the way in which the constraints which bear upon the umwelt of the fish. Indeed, fish-calling is efficient because the Lavongai people possess a mental model of the perceptions of fish, that they have a clear conception of their species-specific umwelt. Fish-callers also take into account the affordance of each of the objects which they interact with—the plants and their propensity to rot; the sea and its ability to transport smells to the fish. They then rely upon all this information to work towards their objectives: attract the fish near by and—overall—make them feel welcome and cared for.

Another noticeable point in the list of magical actions used in the course of fish-calling is the way Lavongai fish-callers interact with fish not through some form of immaterial vector that would directly affect the animals in a forceful way. The fish are not being 'willed' into doing something they would not normally do by disincarnate force: they are being *enticed*, or 'seduced' by the signs fish-callers produce for them, thanks to a number of very material intermediaries.[11] This perspective thus allows us to 'materialise' the magical actions of fish-calling.

Yet another salient aspect of the signs addressed to fish is their redundancy. Fish-calling is an important undertaking. All fish-callers emphasise that it is not a 'little thing' to make fish arrive. Their tone of voice indicates that the arrival of the animals is a momentous event which they are proud of. But it is also never certain. Because of the aforementioned

11. In the very terms of the fish-caller Bernard quoted in the introduction: the magic is a form of *malira*, meaning 'charm', or 'love magic'.

difficulties for land-dwelling beings to communicate with water-dwelling ones and vice-versa, there are numerous stages at which the magic might fail, and the semiotic process might break down. It is therefore important to put every effort into multiplying the channels for the message to reach its intended recipient: for this reason, fish-calling associates several visual signs, several olfactive ones, and several others appealing to the sense of taste. This 'redundancy' has been noted to often be one of the hallmarks of ritual action (Wagner 1984; Lemonnier 1993b, 2013). French anthropologist Pierre Lemonnier thus writes that in ritual contexts, certain symbologies are 'redundant', such as 'using pandanus, cordylines, and red soil to make present the blood of a long-dead ancestor; offering food, displaying a fire, dancing, singing to make the demons present' (Lemonnier 2013, p 145). Similar conclusions can be drawn from the present biosemiotic analysis of fish-calling. It is by using redundant means that fish-callers strive towards their goals.

This discussion can be furthered by attempting to discern more precisely which types of signs are employed by the fish-callers, from the perspective of Pierce's theory. Table 9.2 represents these signs broken down into sign-vehicle, object, and interpretant. It shows that there are no symbols being used when fish-callers address signs to fish, only icons and a single index. This is not particularly surprising, since it is generally accepted in biosemiotics that most interspecies communication is mediated by indexes and icons, whereas symbols are used in intraspecies communication, in particular among humans (Deacon 1997; Schilhab, Stjernfelt, and Deacon 2012), but also other primates (Queiroz 2012) and possibly dolphins (Bruck, Walmsley, and Janik 2022).

Table 9.2: Breakdown by type of the signs produced by fish-callers and intended for the fish they are calling, according to Peirce's classification of index, icon, and symbol.

Sign-vehicle	Object	Interpretant	Type
body of a fasting man	beauty, aesthetic adequacy	fish's conceptions of an 'adequate' human body	icon
body of a man who avoided women	cleanliness	fish's conceptions of clean/dirty	icon
plant smells	pleasant	fish's preference for certain smells	icon
plant orientation	the direction in which to travel	fish's ability to follow directions	index
specific plants	food	certain fish's preference for this food	icon

This redundancy in the use of indexes and icons addressed to fish by the fish-callers, I propose, is rendered necessary by the divergent environments in which humans and fish respectively dwell, which means their respective umwelts only intersect in a very limited way. It is as if, seeking to catch the attention of a passing ship when stranded on a desert island, the fish-callers were all at once screaming, lighting a fire, waving their hands, and shining sunlight in the ship's direction with a mirror. They use fasting to show the 'quality'

of their body (its 'beauty'), avoidance to keep their body 'pure', the smell of plants, the orientation of the plant, and specific plants as food to produce many redundant messages working together towards the same goal. My hypothesis is that this is because it is only though such redundant and multimodal communication that *any* communication can be effected between very different umwelts.

However, it also emerges from the fish-caller's exegesis of their practices and their statements that not all the signs they produce are intended for fish. Other actions carried out in the context of fish-calling explicitly aim to convey meaning to the *anit*. In particular, as mentioned above, it is notable that songs used in fish-calling are in fact almost never addressed to the fishes themselves. Of the 18 which fish-callers discussed with me or sang for my recorder (see Table 6.1), although many mention species of fishes by name, and explicitly are designed to 'call them', only one song by Jonah asks fish to stay in the reef passage. None of the others use the second person in relation to the fish. When a second person does exist in these songs, when they are structured in a way that suggests to who they are addressed, it is either to the *anit* (in eight of them) or to birds (in two others).

This action of directly addressing the *anit* can be exemplified by the following excerpt from an interview with a fish-caller. He is explaining how he performs a form of magic in which he collects sand then 'sings over it' to make it into adequate food for *inavu* (herrings, anchovy or sardines, order *Clupeiformes*). He addresses his deceased father:

> If… your dad has died, you say: 'sorry, I want you… Father [Name]', because he is father to both of us indeed[12], 'I want the *inavu* to come towards the coast and go near the shore.' You are just talking to the sand, you are not talking to the man. […] You are just talking in thin air. […] [You say]: 'I'm calling your name specifically'.[T179] (Wilson, 29 July 2023).

What Wilson means by saying that 'you are just talking to the sand […] you are just talking in thin air' is that the *anit* to whom the words are addressed is not visible. It is clear however from the grammatical second person that is used, from the direct address term 'Father [Name]', and from the expression 'I am calling your name', that it is the *anit* who is being addressed by these words. Another such sentence was used by a different fish-caller who explained that when he says a recitation also aimed at calling *inavu*, he addresses two deceased men directly, one being his maternal uncle (*labag*) the other a more distant ancestor, and says: 'you two are *anit*' (Bernard, 16 October 2019).[T180] In this case, these words directed by fish-caller to the *anit* are symbolic signs in Peirce's classification, since their meaning is only related to them by Tungag-speakers through convention. There is minimal redundancy here, most likely because both the fish-caller and the *anit* are assumed to speak and understand the same language they are using, and these signs although potentially ambiguous (as all signs can be at times) have a high level of specificity. Thus, this form of communication is less uncertain; it is of a more 'ordinary' type, and is

12. Note that Willson regards me as one of his classificatory brothers, and therefore his father is my classificatory father; this is why he refers to him as 'father to both of us'.

not interspecies (provided the *anit* are considered human by Lavongai people, which I contend is the case), therefore requiring less redundancy.

Although the fish-callers do not state this explicitly, I believe that their fasting and avoidance practices are also intended as signs addressed to the *anit*. Indeed, on the one hand, fasting and avoidance are described by most fish-callers as a way to make their body 'acceptable' and 'clean' to the fish when entering the water to perform the other stages of the magical action, or when fishing. If they failed to do this, the fish would 'feel' it or 'smell' it and be displeased, consequently they would not come or would not remain near by.

However, fasting and avoidance are not restricted to the magical actions of fish-calling but are also a necessity in other forms of magic, such as those used in the preparation of feasts (Sub-section 4.3.3). In this case, the aim of the magic is *masung*: 'satiety', in other words to ensure that a small quantity of food will produce a feeling of repletion in many guests. However, in the magic for *masung* it is hard to identify the potential third party who may be an analogue of the fish and find the man's body 'unfit' if he has not fasted. The only third party that a magician performing feast-preparation magic ever interacts with are the *anit*. This leads me to interpret fasting and avoidance in this context as a sign addressed to the *anit* and thus to hypothesise that the fasting and avoidance also aims to address the *anit* in fish-calling. It patently does not addressed *only* the *anit*, since fish-callers state that fish would disprove of the 'unfit' or 'unclean' state of a man's body who has not fasted, or has been with a woman. In the case of fish-calling, I contend that fasting should thus be considered to address both the *anit* and the fish. The actions in question could be a way to prove one's worth to both kinds of being, to show respect to them by appearing in a 'clean', 'pure' state.

This is also corroborated by the fact that when performing the 'buying off' ceremony to lift the fishing prohibition (*langai*) in the context of *vala*, there are multiple redundant or complementary signs addressed to the *anit*. Speeches are addressed directly to them, but these do not suffice and must be followed by gifts of food and shell currency, then sacrificial gifts of food that must be burned in the fire so the *anit* can partake of them. This show of food and valuables, much like the fasting and avoidance, are all ways of pleasing the *anit* (Section 7.4).

An enlightening comparison can be made here with the situation that is described by Revolon in Aorigi (Solomon Islands), where the Owa people use objects and phenomena that display iridescence properties to address spirits of deceased men (*ataro si gapu*) since, for the Owa: 'plays of light make tangible both the presence of invisible powerful beings and their capacity to act on the world.' (Revolon 2018, p 35). For this reason, when Owa ritual practitioners wish to communicate with these 'spirits', they use such iridescent properties of certain materials, in particular by polishing and lacquering wooden elements and by creating incrustations of pieces of mother-of-pearl. Indeed, these are considered to 'please' the spirits and 'the Owa see these objects as capable of capturing the attention of invisible entities.' (Revolon 2018, p 37). Moreover, this treatment which makes the objects iridescent transforms them into active agents which can help to augment the power of the practitioner:

> the signs that make up the Owa ritual object are associates with specific representations and confer upon the object a degree of magical efficacy which allows it to transcend the role of intermediary or of a 'simple tool' to become a 'mediator', a 'social actor', an 'active agent' (Latour 1993).[T181] (Revolon 2006, p 65).

Similarly to the people of Aorigi, those of Lavongai are striving to please the *anit* through their magical and ritual practices. Although they do not specifically resort to iridescent surfaces in this endeavour, fasting, avoidance, and—in some cases such as *langai*—direct gifts of food and shell-money clearly indicate this intention to please the *anit*, as do the decorative plants which they wear around their neck in the ceremonies addressed to the 'spirits' (as discussed in Sub-section 7.4.3, see in particular Figure 7.6).

9.3.2 On semiosis in the use of plants and sand

There are aspects of fish-calling that do not constitute communication (as discussed above), but which nonetheless constitute semiotic processes: these are the ones that involve plants and artefacts such as sand. Indeed, fish-callers describe these, when used in their magic, as having meaning.[13]

For instance, the strength of a vine, *amas* (unidentified), is interpreted as a sign that this can be used to 'fix' the fish near the shore once they have been called. Several fish-callers independently stated the analogy: this is a 'strong vine' (*angus kit*)—in the sense that it is physically very resistant—so it will make the fish's presence 'strong', it can be used to 'fix' (*pakakit*) the fish near the shore, to make them stay. This quality is however not sufficient. For the magic to acquire its efficacy, the plant must be prepared attentively: collected in the evening, it must be heated over a fire, then stored in the rafters of the men's house. Later, it must be placed on the reef flat, under stones, in the early hours of the morning, before anybody else has risen. Here, the fish-caller is therefore interpreting the 'strength' of the vine as a sign that it can be used to obtain an effect on the fish in an analogous way.

Other analogies of this type are interpreted as signs by fish-callers. They concern the connexion which is perceived between the plants used to call fish and the fish themselves. Indeed, several plants are used in the baskets which are placed on the reef flat because of analogies the fish-callers explicitly point out between the appearance of the plant material and that of the specific species of fish which they aim to call (as discussed briefly in Section 6.2). As one fish-caller put it 'the plants represent fish[T182]' (Gideon, 19 July 2023). The *uai* (inflorescence, seed, or fruit[14]) of *nuk* (Java cassia, *Cassia javanica*) is an elongated hanging seed-pod typical of the legume family which it belongs to, and this pod is likened to the fish *aruma* (needlefish, *Tylosurus* sp.) because of its shape (compare Figures 9.1 and 9.2). Several fish-callers stated this perceived similarity between the fruit and the

13. Once again the reader is encouraged to refer back to Table 6.1 on page 281 which lists the documented fish-calling practices and indicates what plants or artefacts they use.

14. The Tungag word *uai* usually means 'fruit' or 'seed', but it can also refer to an inflorescence, when this is considered to be what a plant 'produces'. This is distinguished from a blossom that eventually turns into fruit, referred to as *tis*. The term also has the figurative meaning of 'consequence' or 'outcome' (cf the English expression 'the fruit of one's labour').

fish. One said that 'the fruit of *nuk* hangs and is very long, like the needlefish.[T183]' (Lapan, 15 July 2022).



Figure 9.1: Pasingan, a fish-caller, holds part of the seed-pod of a *nuk* (Java cassia, *Cassia javanica*). This is seen as analogous in shape to the fish *aruma* (needlefish, *Tylosurus* sp., Figure 9.2) and taken as a sign that this plant can be used to call them; however, it is not the seed-pod that is used, but the tree's grated bark. Metevoe, 16 September 2023.



Figure 9.2: An *aruma*, a needlefish, *Tylosurus* sp. Caught by Daniel Laimen. Metevoe, 3 August 2022.

The numerous small leaves with a white underside of the *topok* tree (unidentified) being rustled by the wind are likened to the shimmering of a school of *olo* (Dark-margined flagtail, *Kuhlia marginata*). Another example of this is a plant tentatively identified as belonging to the genus *Trevesia*, of which the Tungag name was explicitly said to be secret, and which can be used to call octopuses. This has a seven-lobed leaf, which, along with the stem, gives it eight segments, just as the octopus has eight tentacles (compare Figures 9.3 and 9.4). Yet another example of this type concerns *inavu* (herrings, *Herklotsichthys* spp.), which can be called thanks to the leave of an unidentified tree that is 'shaped like the fish, and that you put in a basket to call them' (Lapan, 21 December 2021). Yet another is that of *sal* (a specific variety of croton, *Codiaeum variegatum*), which is seen to have a leaf shaped like the breast-plate of a turtle, and is used to call this animal (compare Figures 9.5 and 9.6).

This manner of identifying the potential efficacy of a plant by its shape is not confined to fish-calling. Many such analogies exist in the Lavongai pharmacopoeia and within the scope of other magical practices. For example, the Dragon Blood tree (*Dracaena cinnabari*) is called *rangailava*, literally 'big blood', or 'large quantity of blood', because—as its English

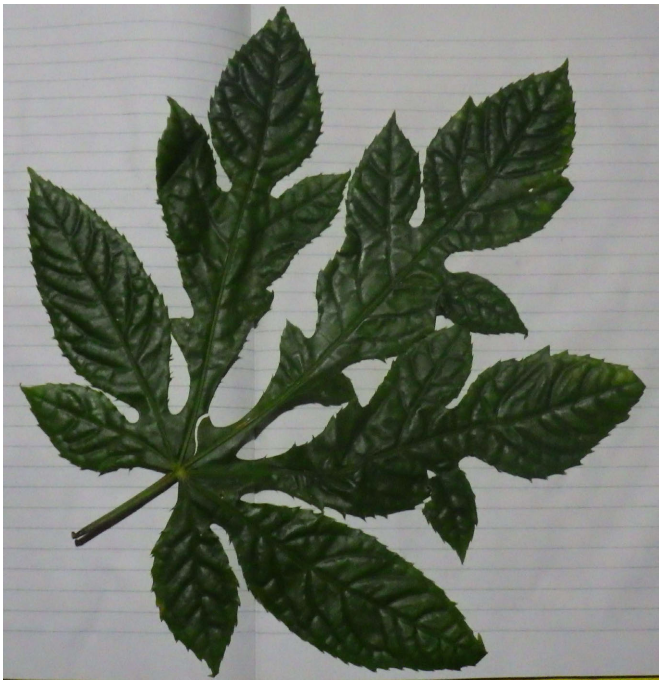


Figure 9.3: A leaf from a plant, possibly from the genus *Trevesia*, with its seven lobes and one petiole, totals eight protrusions. An analogy in shape with the eight-tentacled octopus is taken as a sign that this plant can be used to call octopus (Figure 9.4). Collected by Wilson. Metevoe, 15 July 2022.



Figure 9.4: A small octopus. Caught by Daniel Laimen. Metevoe, 23 October 2019.



Figure 9.5: A plant known as *sal* (croton, *Codiaeum variegatum*), the leaf of which is likened to the breast-plate of a turtle (Figure 9.6). This analogy is taken as a sign that the plant can be used to call turtles. Pointed out by Gideon. Metevoe, 19 July 2023.



Figure 9.6: The breast-plate of a recently butchered turtle. 24 July 2023, Metevoe

name also indicates—it has blood-red sap. This is drunk in particular by women who have given birth recently, when they are considered to be suffering from anaemia (*kovek i rangai*, 'a lack of blood', Tok Pisin: *sot blud*). Another example was presented previously (page 148), and concerns the way mudskippers are said to make dogs 'calm' if fed to them, based on the way Lavongai people perceived the aerial fish to be: laying down 'calmly'.

In fact, this is frequently observed in magical practices the world over, and is sometimes known as 'sympathetic magic'—an expression first used by Frazer (1890) then critiqued by Hubert and Mauss (1902)—or 'analogical thinking' (Tambiah 1990, see also Greenwood 2012 for a discussion of the history of these concepts in the discipline). In New Ireland mainland there is also ethnographic documentation of similar recourse to plants in magical context based on analogies in shape. This is the case in shark-calling magic, for which Brouwer writes that:

> Some men have knowledge of how to use particular kinds of bark, leaves or vines and stones to assist them in calling a shark from the sea. Before going to sea he will collect these leaves or vines. [...] Only those portions of the tree are used that resemble parts or aspects of the shark, eg its rough skin or its fin (Brouwer 1983, p 60).

This differs somewhat from the situation in Lavongai however. Indeed, Brouwer points out that it is '*only* those portions of the tree are used that resemble parts or aspects of the shark', whereas in Lavongai there are cases where fish-callers explicitly do not strictly resort to using the part that is shaped in a similar way to the fish. In the case of *nuk*, the seed-pod is seen to be similar in shape to the needlefish, but it is scraped bark and not the seed pod which is used for the fish-calling magic. This means that the reasoning applied by the fish-callers when inferring the efficacy of this plant may be based on a multimodal sign: both the visual analogy perceived in the seed-pod and potentially a chemical (olfactive or taste-based) one that the bark produces and which is considered by the fish-callers to be perceived by the fish. The seasonality of the presence of *nuk*'s seed-pod might also play a role: since they are not present all year, this may have led to the use of the bark in cases when the pod was not available.

Another similar although slightly more complex analogy is the following: when collecting sand to be prepared as a 'food' for *inavu* (as described above), fish-callers explain that they do not choose just any sand. They look for places on the beach where small crabs have burrowed down into a hole. As the invertebrates do this, they pull the sand up and out of the hole and place it nearby so they can continue digging deeper. Fish-callers say that there are two types of crab in this regard: some that 'throw the sand all over the place' (*so pulakai tatana*), others that pile it neatly in front of the hole in a little mound (*dong*). It is the latter sand which is specifically collected and fed to fish, because—they explain—this will cause the fish to 'bunch', to remain in a tight 'group' just like the sand is in a tight pile. Similarly, if a fish-caller, for some reason, wishes to 'punish' people and disperse a school of fish that has formed near the shore, he can feed the sand which is 'thrown around' by the other type of crab, and this will cause them to spread out and become impossible to catch.

9.3.3 Nonhuman interspecies semiosis as seen by fish-callers

In the discourse of fish-callers, we can discern other signs that circulate apart from the ones they themselves interpret and produce. These can be qualified as 'nonhuman interspecies signs', since they are exchanged between different animals. Nonetheless, they are also important to the fish-calling practices.

In particular, a large part of the discussion of magic for calling *inavu* (fish from the herring, sardines, and mackerel family) involves the fact that, once these small baitfish are near the shore, other predator fish will follow them there and be available if not easy for fishers to catch. Indeed, when schools of *inavu* are near the shore, individual trevally (*kulava*), scads (*malus* and *malambur*), or barracuda (*malisa*) can be seen on the surface as they pursue their pray into shallow waters. These can then be further influenced by other fish-calling magic that will 'fix' (*pakakit*) them near the shore (see Table 6.1). However, they are reacting, in the first case, to the presence of the herrings.

The interaction between birds such as terns (*kanai*) or frigatebirds (*raula*), that are also attracted to schooling baitfish, is another example of interspecies semiosis that the Lavongai people are well aware of and rely on.

There are at least two fish-calling practices that rely on an appeal to certain birds to aid in the magic. These (see the details in Table 6.1) call respectively on the heron (*vokol*) and the tern (*kanai*) in order to ask them to bring herrings near the shore. The particularity of these two songs is that they do not require the fish-caller to fast. My interlocutor insisted that, at his age, he was no longer able to fast—since fasting is physically exacting—and therefore he resorted to using these songs in order to call herrings rather than the more effective ones which he also knew, but that required fasting.[15]

Both of these birds are commonly associated by Lavongai people with fishing since they are almost exclusive fish-eaters (see the drawings of fishing scenes previously discussed Section 8.1). The Pacific Reef-Heron is often seen on the beaches or reefs of South Lavongai where it forages for small marine animals. Terns are readily observed catching fish in deeper waters, either by fishers who paddle out to sea on canoes, or by people travelling by canoe or boat. Therefore, they are undeniably known to be two 'fishing' birds, which explains why it is possible for a fish-caller to 'call upon them' for assistance in influencing fish. This being said, is a clear departure from the way fish-calling normally functions, since none of the other songs or recitations which fish-callers confided in me involve birds, and the vast majority are aimed at the *anit*. Moreover, the type of signs that are used indicate that these birds are approached in a way that evokes the *anit* more than it does other animals. In fish-calling, the signs that are addressed to fish are never symbolic (in Piercian terms, they do not associate the sign-vehicle with the object by virtue of a convention or law-like tie). Even in those songs or recitations that *mention* fish, the animals are overwhelmingly referred to in the third person, rather than addressed in the second (see Table 6.1). The *anit*, on the other hand, being human before their death, are addressed in Tungag in the second person. Since these two birds, in the songs in question, are also addressed in the second person, with symbolic signs (words in the Tungag language), it

15. It is apparent in his presentation of these songs that those which are addressed not to birds but to *anit* are considered more 'effective', but since they require fasting, they are also harder to perform.

appears that they conform more with the role of the *anit* than with that of the other marine animals that feature in fish-calling magic. In conjunction with the fact that it is birds which feature as the 'totem' animals in association with each clan, this leads me to suggest that these 'spirit beings' and birds may be considered to share certain properties. Perhaps birds are (or used to be) seen as the materialisation, or 'instanciation' of the 'spirits' of deceased ancestors?

However, in the case of these songs addressed to bird, the other unusual feature is the absence of a requirement to fast. On the one hand, this reinforces my previous conclusion that fasting aims to alter the quality of the fish-callers body in order to please both the fish and the *anit*. Indeed, since here the fish-caller's *anit* are explicitly not called upon, it is not necessary to please them in this way, and fasting is not required.

To conclude this section concerning the biosemiotic analysis of fish-calling, I shall point out that this form of magic relies by design on a multitude of channels of signification and on a wide variety of sign-processes in order to reach its goal of cross-species semiosis with fish and ultimately facilitate subsequent fishing. Although it involves mostly iconic and indexical signs, it multiplies them, in a way that evokes the 'redundancies' so prevalent in ritual action more widely (Lemonnier 2013). This takes place in a context described as being 'difficult' by the Lavongai people themselves, since they know that conveying information to fish is hindered by the fact that these animals can only interpret their messages in a limited way owing to the specific properties of their respective environments and perceptions. Finally, the humans performing fish-calling do not only rely on signs addressed to the specific fish they aim to reach. As I showed above, the *anit* are also privileged interlocutors of all fish-callers. The situation is also one of multispecies semiosis that involves various types of fish, and sometimes birds.

Fish-calling, however, is not the only context in which Lavongai people have significant sign exchanges with fish; another such situation concerns the type of goby known as *riranga*.

9.4 Interactions with *riranga* as biosemiotic processes

Early one morning, as women stoke the fires and start cooking the day's first meal, from the estuary of the Voe, comes a shout, *ien lik! ien lik!* (little fish!), and then a jubilant answer from below, *nia lik!* (that's it!) *Riranga* have arrived. The first to notice the swarms of minuscule fish are children playing near the estuary. Men abandon whatever they are doing, dive into their houses, and emerge carrying old mosquito nets, kept specially for this, then make their way briskly to the shore.

Standing on fallen trees near the beach or perched on the sides of canoes, they scan the area. Soon, somebody points out a rustling movement just under the surface: the fish are there! Two men wade into the estuary, chest-deep in the mud-coloured water, a mosquito net held taught between them. They pan out, and hold one edge of the net near the surface, then spread their arms to push the other end deep under the water where the *riranga* are grouped. A few others rush to scare the fish into the net. All converge to haul it up in

one sweeping move (Figure 9.7). The catch is bountiful, scores of writhing little fish are bundled up in the fine-meshed net (Figure 9.8). In just a few minutes, bag after bag of minuscule, entirely edible 'whitebait' are brought back to the village. The fish is passed around, ladled from one large pot for one household into another for the second, and so on, far along the coast.

These 'little fish' are called *riranga* on Lavongai. As I began to describe in Section 3.2, this is a term used to designate several life-stages of a specific fish. *Riranga* are amphidromous, which means they are fish 'that migrate back and forth between marine and freshwater biomes at various life stages' (McDowall 2007, p 2) and more specifically

> whose migration from fresh water to the sea, or vice-versa, is not for the purpose of breeding, but occurs regularly at some other definite stage of the life-cycle. […] These fishes live and spawn in swift water, but the larvae float downstream to salt water where they remain for a time before migrating back upstream as small fry. (Myers 1949, p 94).

Periodically, large groups of *riranga* swim into the estuaries of the river Voe, Saula (in Lavongai), and Tioputuk (in the village of the same name, neighbouring Metevoe to the west).[16] When they arrive in the estuaries, these fish are in an intermediate stage, which biologists refer to as 'postlarval'.[17] They come near the shores, grouped in large shoals of several thousand, perhaps at times millions, and remain there for a period of time ranging from a few hours to several days—at times even one week—before swimming up these large tidal rivers.

The people of Lavongai have a very clear and largely consensual knowledge regarding the life history of this fish.[18] They tell of how, in their adult form, *riranga*, called *lenge* (Figure 9.9), are a river-dwelling fish. These *lenge* live high up in clear waters that flow rapidly over rocky bottoms. They are said to lay bundles of eggs there under stones which mature into transparent larvae then float down the stream, as far as the sea. The minuscule larvae then remain there, and the small fish that emerge stay for some time in the salt water environment, before, periodically, swimming back near to the shore, in large shoals. Such arrivals of *riranga* are said by people of Metevoe to occur around the time of a new moon (on observed periodicity and other aspects of *riranga* life history that are known to the Lavongai people see Collins *et al.* 2025).

16. It is very likely that *riranga* arrivals occur in the estuaries of other large rivers in the area. However, apart from a story told by a Lavongai man who had travelled to East New Britain and witnessed the fish's presence there, nothing during fieldwork suggested they were common on Lavongai outside of these three rivers, nor anywhere in New Ireland.

17. The expression 'postlarval fish' or 'postlarvae' refers to a specific stage of growth in particular in such amphidromous gobies, which are characterised by both marine and riverine life-phases. The postlarvae are found in the sea as the fish start to swim back upriver. As the name implies, this phase follows the larval one, and precedes a juvenile one which itself leads to the adult form (Keith *et al.* 2008).

18. The term 'life history' is used in biology to refer to the location, manner, and temporality with which events in a species' development and reproduction typically unfold, including birth, maturation, reproduction, and death.



Figure 9.7: Melis (top) and Tomande (bottom) hold a mosquito net spread out under the surface of the water while Makuk (laughing), Amos (smiling while looking at the camera), Suitarak (behind Makuk), and Joe Pasingantapit (back to the camera) swim towards the postlarval *riranga* to scare them into the trap. 1 April 2022, Metevoe.



Figure 9.8: Tomande, Suitarak, Makuk, and Melis (from left to right) collect up the mosquito net containing *riranga* . 1 April 2022, Metevoe.



Figure 9.9: A *lenge*, the adult form of *riranga*. This individual is described as a male by the Lavongai. It was identified as *Sicyopterus cynocephalus* by Clara Lord (Collins *et al.* 2025). 2 July 2022, Metevoe (up river).

9.4.1 Signs addressed to *riranga*

When *riranga* post-larvae are present in the estuaries and along the coast, Lavongai people adapt their behaviour in order to obtain certain behaviours from the small fish, namely that they will remain as long as possible in the estuary, not disperse, and not swim upriver too fast. In short, they address signs to *riranga*, which are aimed at signifying 'remain here', or 'this location is welcoming'.

These actions are described in the Lavongai people's own words as *mamaila*, respect. People must respect the reef area, the river system, and the waters in general that feed into the sea where the small fish are present. What does such 'respect' entail? *Mamaila* is the term used to refer to the avoidance, 'respectful' or 'shameful' behaviour that is prescribed between cross-cousins, between a man and his brother's wife and between a woman and her husband's brothers (see page 101). Specifically, in the context of the presence of *riranga*, menstruating women, women who have recently given birth, and women who are pregnant with their first pregnancy (referred to as *tus mata ba*, 'breasts with sealed openings') must remain far from the water.[19] This applies also to the husbands of these women because, people explained, these men are assumed to have slept with their wives, and their bodies are therefore seen as having the dangerous feminine substances 'stuck' (*dokot*) to them. Neither of these categories of people must go into the water at all: not into the sea, nor the estuary, and preferably not even in the small rivers that are usual bathing places. They must take some water from the stream, into a bucket or bowl, and use it on firm ground to wash, without letting any 'dirty' water run back into the rivers. It is said more generally that men who go to fish for *riranga* should not have slept with their wives the previous night,

19. Powdermaker also noted similar ill-effects of the proximity of pregnant women to men in fishing, in Lesu (mainland New Ireland, Map 1.2): 'Merely accepting food from any pregnant woman is considered inimical to fishing [...] there is a spell designed to rid the man of the evil effects of having eaten with such a woman.' (Powdermaker 1933, p 63).

regardless of them menstruating, being pregnant with their first child, or having recently given birth or not. A Metevoe man once excused himself for this reason, as we walked past on our way to go and fish for *riranga*: he could not come, his wife was pregnant and he had been with her the previous night.

Two other prohibitions are described as signifying to *riranga* the respect of the villagers. These are related to excrements and waste. When living on the coast, the sea is an obvious place for people to dispose of such things, and indeed, human waste and other refuse are sometimes discarded into the ocean. Any such discarding of waste is said to make the location unsuitable for *riranga* to remain a long time. To show respect for them, Lavongai people say that all villagers must refrain from placing such substances in the water. This constitutes another sign addressed to the post-larvae that the location in question is 'good' for them to remain in.

These considerations are related to the concepts of pollution, danger, and dirt (as discussed in Sub-section 3.1.5), and echo those which I described above when fish-callers erect a *vala* in order to keep 'impurities' away from the waters where they are practising their magic. In short, what people are saying when they explain that these are the adequate behaviours to make *riranga* feel welcome is that those substances which they consider 'dangerous' or 'polluting' for themselves, should, likewise, not be brought into contact with the little fish's environment.

Finally, two other injunctions aimed at maintaining *riranga* in the estuary are as follows. First, when *riranga* appear, attending to them should be done immediately, without delay, otherwise they will 'know' if people are doing other things and will leave. Second, however much *riranga* is caught, it must be widely shared, gifted out liberally to the whole village, even to people from neighbouring villages (Figure 9.10). Not sharing *riranga* is said to be a major lack of etiquette, and will, once again, cause the shoals of *riranga* to dissipate, leaving no possibility of catching more. In particular, although there is a technique that can be used to conserve *riranga*, by bundling it in a leaf and slowly cooking it in a stone oven until dehydrated, this should not be used unless the whole village has already received a generous share.

Thus, the small fish are placed in a sort of judgemental position, one where they are seen to be making a kind of 'ethical' evaluation of the behaviour of humans, which they will sanction or disapprove of. A fortiori, it assumes the fish can perceive the humans' actions and act in consequence.

In summary, what has been described above is a series of statements and actions on the part of the Lavongai people which show that they consider their own behaviour to be perceived and interpreted by *riranga*, and that these small fish adapt their own actions to those of humans. In order to influence the fish in a favourable way, people therefore attempt to keep what are considered locally to be 'dirty' or 'polluting' substances away from the waters where the fish live, something which is described both as *mamaila*, having respect for these animals. From a biosemiotic perspective, this signals a local conception of *riranga* as being able to interpret signs that are produced by human beings, and in case these are not 'adequate' to adapt their own behaviour by leaving.



Figure 9.10: One large bag and several large saucepans full of *riranga Syciopterus* spp. whitebait. From left to right: Aini, Daniel, and Hubert are sharing out this abundant catch, before returning to the estuary for more. See also Figure 9.11. 31 March 2022, Metevoe.



Figure 9.11: A closeup view of the bag containing *riranga* from Figure 9.10. 31 March 2022, Metevoe.

9.4.2 Signs produced by *riranga*

Reciprocally, Lavongai people interpret a number of signs which they consider to be produced by *riranga*. The aggregations of post-larvae systematically form around a new moon (although not at every new moon), and certain events are interpreted as signs of their imminent arrival. People say that, as a new moon is approaching, a special type of lightning will strike out at sea, grey clouds will darken the sky but produce no rain and heavy winds will make the sea rough near the shore. The next morning the weather will be fair again, with calm waters in the bay, and no more lightning nor wind. In such a case, the word will be on everybody's lips: *kate kanang i ien lik* (it is the sign of 'the small fish'), and people will start watching for the presence of *riranga*.

Riranga are said to be producing these signs themselves. They are seen as 'powerful fish', wise fish (*ien nas*), and fish from a hidden place (*ien i nei siva mun*). The latter quality is associated with beings that dwell in 'places with stories' (*ring akuskus*) and that have extraordinary abilities (as discussed previously, Sub-section 3.3.4). Therefore, for Lavongai people, there is no doubt that these signs are being produced *by* the fish. There is no question of there being an association between the thunder and other signs that might not involve the fish's presence, intentionality, and agency.

The type of lightning that, for coastal inhabitants of South Lavongai, is a sign meaning that *riranga* are coming, differs from that which is usually observed on the island, both because it happens with no rain occurring on the coast and because it is of a specific colour (red or orange). In Peirce's semiotic framework, the object in this sign relations ('*riranga* are coming') presents an existential relation with the sign-vehicle (the 'special' lightning) and it is therefore of the indexical type.

Even when somebody notices the adequate 'warning signs' but the new moon comes and goes without any sightings of *riranga*, there is ample room for explanation. Either the fish did come but left upriver soon after and hence remained invisible, passing by unnoticed. Or they 'decided' not to come. In either case, people explain this behaviour—always framed as a choice on *riranga*'s part—by the fact that somebody must have disrespected a prohibition or failed to adopt the prescribed behaviours, as described above.

It should be noted that, where fish-calling is a case of *communication*[20] between humans and fish, the situation with *riranga* is different. Here, the signs which *riranga* are said to produce before coming to shore are not considered by Lavongai people to be produced by the fish with the aim of signifying anything to humans. The way these signs are presented is as a necessity: this is what the fish do, before they come, they produce these signs—unusually colourful lightning with no rain, changes in wind patters—and attentive humans can notice them.

The form of logical reasoning that is being employed here is known as abduction. This is one of the three types of reasoning that are commonly distinguished in logics, alongside induction and deduction. Peirce defined abduction as follows:

> Its occasion is a surprise. That is, some belief, active or passive, formulated or unformulated, has just been broken up. [...] The mind seeks to bring the facts, as modified by the new

20. As defined above in Sub-section 9.1.3.

> discovery, into order; that is, to form a general conception embracing them. In some cases, it does this by an act of generalization. In other cases, no new law is suggested, but only a peculiar state of facts that will 'explain' the surprising phenomenon; and a law already known is recognized as applicable to the suggested hypothesis, so that the phenomenon, under that assumption, would not be surprising, but quite likely, or even would be a necessary result. This synthesis suggesting a new conception or hypothesis, is the Abduction. (Peirce 1998, p 287).

A common example is that of how, when we see smoke, we think that it may 'mean' fire. We *abduce* the existence of a fire from our observation that there is smoke. In a way, this could well be erroneous; the smoke may be dust thrown up by a passing car, or steam produced by a hot cup of tea. But it is also extremely useful: since fire is dangerous and necessarily produces smoke, to assume that anything which we perceive as smoke could be caused by fire will allow us to react in a timely fashion if need be. Abduction does not prove; logically speaking it is a *non sequitur* (the conclusion, 'fire', does not follow directly from the premise 'smoke') but it is useful 'in the real world' as it allows us to propose hypotheses that can be tested to arrive at a conclusion of mounting verisimilitude.

In the case of the signs announcing the arrival of *riranga* similar reasoning is obviously at play. The Lavongai people, throughout their years and generations living in this environment, have made the following observations:

1. *riranga* always aggregate around the time of the full moon;
2. thunder is usually accompanied by rain;
3. at times, unusual thunder occurs that is not accompanied by rain;
4. if such unusual thunder occurs around a full moon, then *riranga* tend to aggregate in the estuary.

Most thunder has certain characteristics (comes with rain, has this or that colour, etc.) However, the 'surprising fact' sometimes happens that unusual thunder, with different properties, occurs. Noticing its short temporal succession with an aggregation of *riranga*, as well as the fact that this take place around the time of the full moon but not *every* full moon, then they 'abduce' the fact that *riranga* are causing this unusual thunder. Indeed, this provides an explanation for the whole set of surprising facts and removes the uncertainty from the situation. The key to turning this abduction into a plausible assertion is to consider the gobies to be active agents—which is a given for Lavongai people—and to accept their extraordinary power. Indeed, no other animal is seen by Lavongai people to possess such abilities as that of producing unusual weather phenomena. This singles out *riranga* among other fishes and adds to the importance of these animals, beyond the fact that they provide an occasional but abundant fishery, and beyond the significance suggested by the existence of particular prescriptions and prohibitions in their presence.

In his approach to art, anthropologist Alfred Gell also highlighted the role that abduction plays: 'The minimal definition of the (visual) "art" situation therefore involves the presence of some index from which abductions (belonging to many different species) may be made.' (Gell 1998, p 15). He underlines the way it is important for anthropology, in particular anthropology of art, to pay attention to instances of abduction, as these are some of the locations where non-linguistic significance is constituted:

> The usefulness of the concept of abduction is that it designates a class of semiotic inferences which are, by definition, wholly distinct from the semiotic inferences we bring to bear on the understanding of language [ie symbols], whose 'literal' understanding is a matter of observing semiotic conventions, not entertaining hypotheses derived ad hoc from the 'case' under consideration (Eco 1983, p 40). Abduction, though a semiotic concept (actually, it belongs to logic rather than semiotics) is useful in that it functions to set bounds to linguistic semiosis proper, so that we cease to be tempted to apply linguistic models where they do not apply, while remaining free to posit inferences of a non-linguistic kind. (Gell 1998, pp 14–15).

This situation poses a challenge: how can the Lavongai people's statements concerning the ability of *riranga* to cause unusual weather phenomena be understood beyond its simple invalidation as a logical fallacy? For it does not take much reasoning to demonstrate, even with only a modicum of knowledge in meteorology and ichthyology, that very small fish do not cause these phenomena. However, in the words of Simon Foale: 'there is more to understanding indigenous knowledge and its role in people-environment relations than simply judging the "veracity" of indigenous knowledge against science, but [...] science is still a useful starting point for reaching such an understanding.' (Foale 2002, p 3). This is true of most phenomena which Hubert and Mauss identified as magical action, and which they famously referred to as 'society paying itself in the counterfeit currency of its own dreams':

> Magical judgement is the object of social consent, which translates a social need, under the pressure of which a whole series of collective psychological phenomena are set off: the need felt by everybody suggests the ends to everybody; between these two terms, an infinite number of middle-grounds are possible (from which stems the extreme diversity of rites employed for the same object); between them, one choice prevails; and it comes either from tradition, or from the authority of a famous magician, or from the abrupt and unanimous pressure of the whole group. It is because the desired effect is seen by all to have occurred that the means is recognised as apt for producing the effect[...].
> In the end, it is always society that pays itself in the counterfeit currency of its own dreams. [...] Unless we conceive of magic in this way, it can only be represented as a chain of absurdities and propagated errors, the invention of which, much less the propagation, would be difficult to understand.[T184] (Hubert and Mauss 1902, pp 126–127).

This is where approaching such phenomena as instances of semiosis that rely on an abductive form of reasoning has benefit: it makes it possible to shed light on them and to move closer to an understanding of the Lavongai people's way of thinking about these gobies (in the case in point), beyond any consideration of the validity or invalidity of the logical associations they make between observed phenomena and the fish's behaviour. It also allows for fine grained comprehension of the interaction itself, beyond the human perspective on the situation, as we can attend to the perceptions of the *riranga*. This, of course, supposes some degree of comprehension of the animal's ethology and biology, as discussed above (Section 9.2).

To summarise: the interactions between Lavongai people and *riranga* are constituted by a series of productions and interpretations of signs, both by the fish and the humans. Tracing the way these are produced and interpreted allows us to outline the fundamental articulations of their relation. It shows that Lavongai people imbue these fish with unusual

abilities on several levels. Firstly, in their propensity to produce phenomena that other animals do not (special lightning that signals their arrival); secondly, in how attuned they are to the behaviours of humans, taking up a position in which they judge and evaluate this and react accordingly.

9.5 Dishonest signs: on fishing and lures

Production of deceptive signs aimed at causing equivocation is a common forms of semiosis. In the particular context of marine interspecies relations, these are involved in many predator-pray relationships in particular.

9.5.1 Bait and lures: on intentionally deceptive signs

When a fisher wishes to catch a fish on a hook, the most common methods used to entice the fish to bite involve a kind of lure, either made of bait or some non-bait device. A special issue of the *Cahiers d'anthropologie sociale* was edited in 2013 on the theme of 'Luring nature' (*Leurrer la nature*) (Artaud 2013b). In this, an article by French anthropologist Hélène Artaud, the editor, on this topic of fishing lures used by the inhabitants of the Mauritanian bay of Arguin, reminds us of the definition which André Leroi-Gourhan gave to this class of objects: 'Should be understood to constitute lures all processes, objects or parts of objects that, by creating in the desired animal the image of prey or an impression of safety, attract it towards a device designed to capture it.[T185]' (Leroi-Gourhan 1945, p 76). Note that this includes all kinds of bait, whether live or dead, as well as 'artificial' lures. Artaud draws attention to the importance of perceptions, senses, and the various interfaces between points of view of humans and animals that occur in the context of the use of lures. She concludes that the

> lure, as it is used by human societies for hunting, fishing, milking, or domestication [...] becomes the schematised form of that which is signified for the subject being lured, from the point of view of the subject luring it. Analysing it therefore requires that we place ourselves at this sensory interface [...] and that we observe the sensory wiring that structures their relation to the world, through their variety, their flexibilities and their interactions.[T186] (Artaud 2013a, pp 152–153).

This perspective is indeed keenly aligned with the focus of biosemiotics on signs, perceptions, umwelts, and affordances.

In Lavongai, the word *bien* can be glossed as 'bait'. It is used to refer to anything that a fish might wish to eat, even in a situation where there is no fisher involved. For example, Lumaias used the following formulation in an interview, regarding the small fish which larger predators eat: 'it is their bait indeed.[T187]' (Lumaias, 17 July 2022). By this, he meant 'that is what they like to eat'. In many other cases, the term was used in a verbal slot with the meaning 'to bait something', implicitly meaning 'to bait a hook' as in the following dialogue (see also the quote by Ngurkambai on the subject of trickery, below):

(9.1) – *Ku-te* *bien* *ta* *sa* *nang?*
2SG-CONT bait OBJ what INTJ
'– What are you baiting with?'

– *Ta* *volo* *nang.*
OBJ octopus INTJ
'– With octopus.'

This practice of using bait to catch fish is explicitly described by Lavongai fishers as a form of trickery. When Ngurkambai explained that certain fish, in particular sea chubs (*samung*, *Kyphosus* spp.) could be caught by using the green algal growth that is found on flotsam or on coral reefs as a bait, she said that

> it is called *maratan*. People 'trick' [in English] them, when they want to catch sea chubs with hook and line fishing. They [...] don't search all over for smelly bait. [Sea chubs] have the habit of eating in the eddies. [Fishers] bait with [...] that green thing from the reef, that is a thing that you can use to 'trick' [English] [...] the sea chubs. This *maratan*, they use it as bait, they let it go in the eddies, and it gets taken away in them. Well, the sea chubs think that [...] it is their food to eat. But they don't know that, people have 'tricked' [English] them, when they eat it, at the same time they pull them. The sea chubs, indeed, that is something they also eat. They are people who drift in the eddies.[T188] (Ngurkambai, 9 June 2022).

In this extract, Ngurkambai gives a clear description of the process that a fish getting caught on a hook goes through: at first, it thinks that it is faced with food and wishes to eat it. However, it quickly realises that there is more to what seemed to be food than initially met its senses.

Whenever fishers use a lure, they rely on the fact that the sign they produce for the fish will be 'mis-interpreted' at least partially; the fish will expect to be obtaining food, whereas in reality this food is either only a facade for a trap, or it is itself a 'fake' representation of food. In both cases, the key is in the equivocation that is generated by an intentionally dishonest sign.

Peirce uses the concepts of 'immediate' and 'dynamic' objects to refer to the fact that a sign can be seen to represent different objects at various points in time. This can happen in particular when the being interpreting the sign gains more knowledge or receives other information, complementary to that which the sign in question initially encoded. In such a context, the object of the sign (in Pierce's definition) will be modified by a change within the interpretant (the 'effect upon the mind' of the being interpreting it). In the case of a baited hook hidden inside a piece of a sardine for example, from the perspective of a predatory fish, the sign-vehicle 'sardine' refers to the immediate object 'food' for the fish (through its appearance and the chemicals it gives off in the water that can be smelled). However, as the predator fish bites down on this sardine and feels the hook pierce its mouth, then the dynamic object of this sign appears: the object of this sign-vehicle is now that of a facade that hides something that produces an unpleasant sensory stimulus.

Deacon uses an example involving camouflage, which is akin to the baited hook in the way it intentionally produces a deceptive sign:

> A moth on a tree whose wings resemble the graininess and color of the bark, though not perfectly, can still escape being eaten by a bird if the bird is inattentive and interprets the moth's wings as just more tree. [...] If the moth had been a little less matching, or had moved, or the bird had been a little more attentive, then any of the differences between the moth and the tree made evident by those additional differences would have indicated to the bird that there was something else present which wasn't just more tree. (Deacon 1997, p 75).

Although one may consider that there is a difference between this case of the moth, and that of the human luring a fish (concerning the presence of absence of 'intentionality'), the examples are analogous in the fact that, if the fish had been a little more attentive, or had positioned itself slightly differently in respect to the bait before catching it in its mouth, then maybe it would have seen the protruding thread, or caught a glimmer of light reflected off the hook. The dynamic object of the sign 'bait fish' would then have shifted to 'bait fish hiding something unusual', and it may have shied away. Deacon uses the example of the moth when discussing the interdependence of various types of signs upon each other within semiotic processes, and he notes the way that

> indexical reference depends upon iconic reference, and symbolic reference depends upon indexical reference [...] the competence to interpret something symbolically depends upon already having the competence to interpret many other subordinate relationships indexically, and so forth. (Deacon 1997, p 74).

Using a lure is indeed casting a deceptive iconic sign in the direction of the fish. It is by a quality (its smell, its taste, sometimes its movement if it is a live bait, its glimmer if it is an artificial one) that the bait evokes the object 'food' in the fish's mind, and therefore it is always an icon.

Here we may be touching upon an explanation about why signs used in fish-calling too are mostly iconic. These, we might say, are the most 'fundamental' of signs, since they are the ones that have the most immediate mode of signification, through a qualitative association between the sign-vehicle and the object. Indeed, fish-callers are well aware that fish have 'their own vernacular' (as per the introductory quote to this chapter), and it would not be fitting to speak to them in a human language. But the signs they know fish to be able to interpret are more direct than those involved in language, and via icons and indexes tailored to the sensory abilities of these animals, Lavongai people do convey meaning to them, either with an honest intention (as in fish-calling) or a dishonest one (as when using a lure).

About the example of the camouflaged moth and the bird, Deacon writes that:

> what makes the moth wings iconic is an interpretive process produced by the bird, not something about the moth's wings. Their coloration was taken to be an icon because of something that the bird didn't do. What the bird was doing was actively scanning bark, its brain seeing just more of the same (bark, bark, bark...). What it didn't do was alter this process (e.g., bark, bark, not-bark, bark...). It applied the same interpretive perceptual process to the moth as it did to the bark. It didn't distinguish between them, and so confused them with one another. (Deacon 1997, p 76).

Again, catching a fish with bait or a lure is essentially getting the animal *not* to do something, getting it not to notice the hook, or not to interpret it as that which it is. Thus, being

successful in fishing with a hook requires coming across a 'naive' fish, one that has never seen a hook nor witnessed another fish getting caught on one, or defeating the fish's ability to perceive the hook. That fish might realise a baited hook is a trap is no exaggeration of these animals' abilities: all fishers know it is possible to 'poorly' bait one's hook, resulting in no catch being made. Moreover, this phenomenon has been studied by ethologists, who have shown through controlled experiments in aquariums and in natural settings that fish learn to avoid hooks and lines once they have experienced being caught themselves or witnessed a conspecific being caught (Lovén Wallerius *et al.* 2020).

In short, luring involves a carefully calculated sign process, one that Artaud describes as requiring that the lure 'becomes the schematised form of that which is signified for the subject being lured, from the point of view of the subject luring it.[T189]' (Artaud 2013a, pp 152–153). The important aspect here is that the point of view of one being taking part in the interaction is taken up by the other being. Interspecies semiosis requires of each being involved that they attempt to adopt the viewpoint of the other, that they seek out the form of the other's umwelt and aim to enter into it. In other words, they must have a theory of mind regarding the being they are attempting to convey a sign to. Conversely, for a fish to avoid a bait because it has learned to see it as a lure, one may wonder if a theory of mind concerning humans is not necessary: for how does the fish grasp that this particular sardine with a protruding nylon line must be avoided, other than by projecting the ill intent of the human who thus baited the line in his own mind? This, of course, is a matter best left for ichthyologists to decide, but I contend that the people of Lavongai would not turn down this explanation.

9.5.2 Luring and trickery among nonhumans

Luring fish is not only a human behaviour on coastal Lavongai. People also know that birds use trickery and lure fish in order to capture and eat them. The following children's song is known by practically everybody in Metevoe from a young age:

(9.2) *Kaki-na i vokol ka so na sakuma.*
leg-3SG.POSS GEN heron 3SG spear OBL moray.eel
'The heron's leg spears the moray eel.'

Angan i-au sakuma i nei bangang (x2).
eat GEN-1SG moray.eel GEN from reef
'Eat me, the moray eel from the reef (x2).'

When questioned as to the meaning of this song, people expanded upon it to explain that the heron is known to fish 'with his foot'. This does not mean that it catches fish with it, rather that it uses it as a lure. A heron, Lavongai people explain, will defecate on its foot, and place it in the water as bait; then when a fish comes to peck at this excrement, the heron will 'spear' the fish (*so*) with its long pointed beak and eat it.[21]

21. The most fundamental meaning of the word *so* in Tungag is 'to throw'; it is also used as the transitive verb 'to spear' since the action in using a spear is essentially to throw it. Here, there was no question in the exegesis that people made of this song that the heron is seen to be 'spearing' the fish with its beak.

Part of this behaviour has been reported in scientific publications (Meyerriecks 1959, 1971; Kent 1987; Choi, Kwon, and Yoo 2008). In an article documenting several observations of what is termed 'foot stirring' in herons, an ornithologist writes that 'the feeding heron extends one leg and vibrates or quivers it, especially the foot, then stabs at any prey that darts from the disturbance.' (Meyerriecks 1959, p 153). In particular, concerning the Snowy Egret (*Egretta thula*) observed in Florida, this same author writes that: 'The bright yellow toes of [*Egretta*] *thula* are sharply set off from the black legs, and when one of these egrets stirs above the substrate, I get the impression that it is using its foot as a lure.' (Meyerriecks 1959, p 153). Lavongai people have observed herons doing the same thing on the reefs before their villages.[22]

The fact that Lavongai people are aware that birds can trick fish is particularly significant, when we recall the particular sociocultural place which birds have in this society (Sections 2.1 and 8.2). This echoes observations made in Kiribati by Di Piazza: 'Not only are man and bird excellent fishers, but they fish identically. So which is copying the other? The answer is categorical. Sea-birds—live lures by their morphology—are inherently fishers[T190]' (Di Piazza 2005, p 58). This constitutes a form of what has been described in the literature as 'biomimicry', a concept that has recently become a quasi 'buzzword' in the fields of engineering and technology, but which has recently also been applied in anthropology to describe similar imitative behaviours between humans and nonhumans.[23] As André-Georges Haudricourt already asked some decades ago—rather mischievously—in a long conversation with Pascale Dibie: 'what if it were other living beings that had educated humans, what if horses had taught them to run, frogs to swim, and plants to be patient?[T191]' (Haudricourt and Dibie 1987, p 169). In other words: the way that humans behave towards other beings and the way other beings behave towards each other present parallels which could be seen as forms of imitation or inspiration (see also Haudricourt 1962).

Chapter conclusion: biosemiotics

The analysis of three particular cases of interactions between Lavongai people and marine animals under a biosemiotic lens has brought out several important insights into the ethnographic material.

As we have seen, attending to the sensory capabilities both of humans and of fish from the point of view of the Lavongai people is a prerequisite to a biosemiotic analysis. On this topic, they readily point out how complex it is for humans and marine animals to engage with each other because of the wide differences in their respective living environments.

22. A video by the New Zealand organisation 'NZ Biodiversity Matters' shows a Pacific Reef-Heron—a species present on Lavongai also—that is fishing with what appears to be the 'foot-stirring' method, near a mangrove (NZ Biodiversity Matters 2024).

23. On this topic, a special issue of the journal *Techniques & Culture* entitled *Biomimétismes : imitation des êtres vivants et modélisation de la vie* (in English: Biomimicry. Imitation of living beings and modeling of life; Kamili, Pitrou, and Provost 2020) provides fascinating contributions. See in particular: Eczet 2020; Giraud *et al.* 2020; Pitrou, Kamili, and Provost 2020.

Despite these difficulties, Lavongai people do observe fishes and interpret signs that they produce; they also consider that fishes are aware of the presence and actions of humans (or the absence thereof) and that they adapt their own behaviour accordingly. Such abilities on both sides lay the foundations for the possibility of interspecies semiosis. The absence of fishes is interpreted by Lavongai people as a sign expressed by these animals when they become aware that humans have not adopted the 'good behaviour' they should have. The unwillingness of fish to take a hook is another sign which is interpreted by Lavongai people to mean that all the fish are already satiated. Yet another is the refusal of fish to let a fisher with a spear approach them, which is a sign that they have been rendered 'wild' by the use of inappropriate fishing techniques.

To further explore these modalities of interspecies semiosis, I analysed under the lens of biosemiotics three cases of relations between Lavongai people and fish which I had presented in preceding chapters. Concerning the first, I demonstrated that several different signs which are indexical or iconic in nature are addressed by the fish-callers to the fish with which they engage. I proposed that such a multiplication of signs is necessary because these types of interspecies communication are arduous owing to the different living environments of humans and fish. I also showed that these attempts at semiosis on the part of the fish-caller are important undertakings in which a lot is at stake, and therefore that redundancies have to be used to allow this difficult task of communicating with the fish to have a better chance of success. In fish-calling, signs are not addressed only to the fish however, but some are addressed to the *anit*. In the latter case, multiple signs and types of signs are used; some are symbolic, such as the Tungag words that are spoken to these 'spirits' directly, others are iconic. This, I propose, is a response to the high stakes that exists in this form of communication beyond the 'boundary' that separates the living from the dead: the dead cannot be spoken to in such a straightforward manner as the living, and they do not respond as readily. There are also a number of significant aspects of the elements the fish-callers manipulate that can illuminate their practice when approached from a biosemiotic perspective. Indeed, Lavongai people perceive analogies between plants and fish anatomy, which are interpreted as signs that the plants will be 'active' in the magical actions for these specific fish. Finally, some signs are also exchanged between fish-callers and other beings than fish, notably birds upon which some fish-calling magic relies for assistance.

The second relation which was attended to in this chapter is that between the Lavongai people and the small goby, *riranga*. When their post-larvae aggregate in large numbers in the estuaries of the south coast, Lavongai people interpret signs they consider the gobies to be producing, and in return address signs to them with the aim of making them 'welcome' and showing 'respect'; all of this with the intention of causing the fish to remain as long as possible in the estuary and not to swim upriver too soon. By analysing these signs, I showed that Lavongai people attribute a high degree of agency and even potency to these fish. Indeed, no other marine creature is considered to cause unusual weather phenomena nor to have the ability to perceive the 'adequate' or 'inadequate' behaviours of humans (such as their propensity to share the post-larvae) and react in sanction to them.

Finally, I analysed some situations where a trick, a lure or a form of bait is used to attract and capture fish. This constitutes a form of 'dishonest signal' that is widespread in

interspecies relations and presupposes a very high ability to adopt the point of view of the being that is being lured. Indeed, in order to make a convincing lure, one must design it not so it resembles a 'true' fish from one's own perspective, but from the perspective of the fish one wishes to capture. We saw that birds resort to such 'luring' behaviours, notably the Pacific Reef-Heron, a fact that Lavongai people are well aware of. From the way Lavongai fish-callers foreground these birds in their recitations and songs aimed at influencing fish, it is possible to infer that the heron provides some inspiration for the fishing techniques described here, in particular those using a spear as the heron is said to 'spear' the fish with its beak. This would make these truly interspecies techniques.

Conclusion

> When [...] I decide to pull fish close by, to just in front of the reef edge, well, I pick leaves from certain trees and I come and place them underwater in front of my coastal clan possession. I place them underwater and I sing this song...[T192]
>
> Martin, 10 February 2022

'Seducing the fish', *malira blong ol pis* in Tok Pisin, is a trope which was once used by a man from south Lavongai to refer to the way the magical actions he performs during 'fish-calling' influence the animals in question. In the present thesis, I asked in what way such an expression applies to these practices, as a gateway into the manner in which, more generally, people of Lavongai and marine animals interact. I approached the practice of fish-calling from several angles, inscribing it within a general ethnography of Lavongai coastal society and using it to question marine interspecies relations in this sociocultural setting.

This thesis presented novel empirical data and analysis concerning Lavongai society that was produced during one year of ethnographic fieldwork carried out in the local vernacular language in a village called Metevoe and attending as widely as possible to all aspects of the island's culture. It also described and analysed, more specifically, the relations between the coastal inhabitants of this island and marine life forms from the perspective of an anthropology 'beyond the human'. It discussed this data within two particular theoretical frameworks developed for the study of relations between humans and nonhumans: the ontological one and that of biosemiotics. These belong respectively to two broad types of theories—those that focus on categories (ontologies) and those that focus on interactions (biosemiotics)—which have been identified as being equally fruitful yet frustratingly difficult to combine (Manceron 2016). This thesis has had to contend with this hazard, and the reader may indeed feel that these two approaches have been somewhat juxtaposed here rather than brought into true dialogue. In these final pages, I therefore argue for the possibility of integrating the ontological and biosemiotic approaches to anthropology of nature, and offer some avenues for further research in this direction.

First, allow me to summarise the main conclusions that emerged from this study and their bearing on the ontology and biosemiotics of marine interspecies relations on Lavongai.

Through a village-wide survey, I showed that all households in the coastal location of Metevoe have at least one regular fisher in them and around a third have somebody who fishes either 'every day' or 'several times a day'. In this context, the paddle-powered monoxylon canoe is the main vessel employed. New fishing tools which became available in colonial times have, in some cases, displaced previous techniques—diving goggles for instance have caused spear fishing standing in a canoe (*makmakanai*) to disappear—and in other cases caused them to be adapted: fishing with a net was done similarly with plant-based tackle whereas it is nowadays with nylon nets; line fishing also existed prior to the introduction of nylon monofilament and steel hooks, but synthetic materials enable certain techniques that would have been impractical with plant-based ones (such as bottom fishing with a reel and a several hundred metre-long line). Turning to the sociology of fishing techniques, I showed that children start gathering food from the reef and fishing at a very young age. Although their catch is usually quantitatively very small, this activity is important to them both because of its formative nature and because children are generally permitted to eat anything they catch. Most fishing techniques are gendered: women fish on the reef flat and in the shallow sandy areas using small hand-held hooks and lines and they collect sedentary species by hand, while men use canoes, larger hooks on fishing lines, and nets to fish both near shore and in slightly deeper waters. The tools associated with certain fishing methods are thus perceived by Lavongai people to be gendered, since canoes, spears, and nets are seen as male tools.

All fishing techniques do not present the same moral value to Lavongai people. Fishing with poisonous plants used to be a favoured fishing technique, but it has now begun to receive criticism in light of exogenous information that indicates its nefariousness to fish populations. Other techniques such as spear fishing on the contrary are described as being able to 'look after the fish' better by allowing them to grow to a bigger size.

Fish are imbued with considerable agency by Lavongai people. This is apparent in the way they describe the animals' behaviours: when a fisher does not catch anything, it is because the fish are already satiated and 'no longer wish to eat'; when fish are not seen during diving expeditions, it is because they 'chose to be in their home'. Moreover, people interact with fish in a more personalised way, by attempting to enlist their complicity. This appears through three practices: fish-calling, the *vala* fishing prohibition, and prescriptions that aim to ensure the coastal waters are 'welcoming' for the *riranga* goby. These three examples emphasise the ability of fishes to comprehend and react to human actions. One fish-caller described the effect of this magic as 'seducing the fish'—whence the title of this thesis. These practices also coexist with non-magical techniques. Indeed, most fishers cannot practice fish-calling magic since it is known only to specialists. Reciprocally, men who do perform fish-calling are not exempt from knowing how to prepare a fishing line,

bait a hook, determine where fish might be, paddle a canoe, stabilise it, paddling with one hand and holding the line with the other.

The 'origin story' of the Lavongai people recounts that they all originated together in the centre of the island, in a village known as Rinaiatukul (foundational village). From there, they divided into clans and dispersed from this initial settlement to all corners of the island. This story gives historical depth to the existence of clans and introduces the rule of matrilineal clan exogamy, which is presented as the necessary solution to a previous situation in which marriage was unregulated. It also grants rights on coastal segments known as *tokosiangan* to specific clans, as legitimised through the fact that they first arrived there. Significantly, the clans of Lavongai are named after one main bird each, and are all associated with a number of others birds and animals. In the literature concerning the New Ireland mainland, some societies are shown to have similar clan structures but with matrimoieties subsuming them. No such moieties exist on Lavongai, but the analysis of Lavongai kinship practices shows the existence of a 'quasi-dualist' organisation, one which pivots around marriage and the concept of *palunsava* or 'paired' clans. This word refers to clans that have exchanged marriage partners repetitively over generations.

Clan membership serves to legitimise resource use on land, although this can also be arranged through marriage or via payments made to another clan. Usage of marine spaces is more flexible, but when any regulation occurs, the key factor which grants rights is proximity of residence. However, clan membership also plays a role in fishing rights. Indeed, if a coastal area is recognised to be the *tokosiangan* of a given clan, then people from this clan can claim a right to access its resources even if they reside far away. This is indispensable for inland people, who might otherwise have no access to saltwater, nor marine animals for food. All inhabitants of the island can thus access resources from each ecosystem, provided they do so in the adequate place.

Turning to the way Lavongai people consider children to be conceived and to grow *in utero* then after birth, I showed that they ascribe an unambiguous generative role to men. Fathers are said to have 'shared blood' with their children, despite people also stating that children receive blood from all their ancestors, both patri- and matrilaterally. This amounts to highlighting men's roles in a matrilineal context where one might initially have expected it to be minimised. The concept of care or 'looking after' (*aiveven*) is stated to be a man's responsibility towards children. Men must provide meat or fish to their children as well as protection, which implies keeping away 'dangerous' or 'polluting' substances. Similar considerations of 'care' are deployed during fish-calling, in *vala*, and in welcoming *riranga*. There is a clear distinction here with the representations concerning conception and growth in nonhumans however. Whereas human children are individuated at the same time as they are inscribed in their clans and villages, animals in particular are not individuated but considered at a general, species level. Each one is seen as a prototype,

an individual exemplar of the ideal or typical being. This species-level reasoning is one feature of a totemic ontology.

Relations with nonhuman beings are not confined to fishing, but are present in multiple ways at every stage of the life cycle of Lavongai people: in dances that are practised at most public events and which constitute a central step to the 'coming of age' of young men; during marriage preparations; and in the course of funerary obligations set off by each new death.

When a boy first dances in public, around puberty, a ritual known as *kavak* can be performed by his father's sisters, thus foregrounding once again the quasi-dualist organisation of social life into paired clans (*palunsava*). Some of the most common dances are made of imitations of birds. Although these birds are those after which certain clans are named, there is no direct association here since, for instance, it is not only young men of the Kanai (tern) clan who dance in imitation of terns. This indicates a complex interrelation between birds and social structure that goes deeper than the plain naming of clans.

The values of commensality and sharing are central to the ceremonial feast held when a marriage takes place, which always includes the payment of a brideprice. These two values are further expounded and acted out during the several-year-long funerary cycle which aims to renew the ties between living people that have been severed by a death. During life, Lavongai people place an emphasis on the circulation of food from fathers to children. In death, the flow of gifts takes the inverse path: those whose father was from the clan of the deceased receive gifts of food and shell-money from the people of the matriclan of the deceased. Those of the 'father's clan' are thus compensated for the nurturing acts of the deceased—his *aiveven* (care). Funerary feasting also contributes to the persistence of relations with invisible beings. Indeed, despite Christianisation, *anit*, 'spirits' of powerful deceased men, are considered to be involved in social life for years after death, and certain men are able to communicate with them and call on their support in magical endeavours. For this to be successful, the dead must be properly 'finished', meaning that the funerary cycle must be adequately completed. Provided they are, *anit* can subsequently be called upon in order to give power to the magical actions of fish-calling or to the fishing prohibitions of *vala*, thus taking on the role of mediators in interspecies relations.

The practice of 'fish-calling' can be described as a form of propitiatory magical action for fishing during the course of which experienced practitioners attain a state of being known as *vau* through fasting and avoidance of women, then collecting plants, placing them on the reef flat, calling the names of powerful ancestors (*anit*), and singing specific songs. The result is that durable attachments are created with specific fish, those that heed his call and that are said to be *maltamana*: they are fish that 'have a father', and that behave 'adequately', or 'like their father'. In other words, they are fish that have a good metaphorically paternal relationship with the fish-caller. These fish are also spoken of as becoming more 'tame', easier to approach, less 'wild' thanks to these practices. These 'tame' fish become allies of the fish-caller, his helpers: they are neither captured nor eaten, but they bring 'naive' fish closer to the shore with them so that *these* can be caught, in a form of intraspecies

'luring'. From a detailed analysis of fish-calling, it becomes apparent that fish are 'seduced' not through a form of deception—such as would have been the case if fish-callers had obtained the trust of these fish only to later betray and capture them. Fish-calling rather creates attachments between this man and the *maltamana* fish that subsequently assist in capturing other fish. Thus, the predatory nature of fishing is averted: the fish who heed the fish-callers magic are not caught and killed, they are 'cared for'; other naive ones are fished. Moreover, this operation particularises the fish in question, distinguishing them from the pool of their species.

Another Lavongai institution, one which involves the whole community, is similarly described as a way of 'looking after' the fish with the aid of *anit*. The Lavongai *vala* is a 'customary' or 'traditional' fishing prohibition which involves the ceremonial placement of a marker on the reef flat during a public ceremony, in order to signal that no more fishing should take place in this area. Fish-calling and *vala* are related practices. Indeed, fish-callers place plant material on the reef flat, under a pile of stones, then stands up a large stick that is called '*vala*', to signal that others should stay away from the area, lest their presence hinder the efficacy of the magic. From these roots in the ancient practice of fish-calling, *vala* has undergone shifts in its applications. It has now integrated exogenous considerations relating to 'resource management' and 'conservation'. These are underpinned by changing notions of what is 'good' or 'bad' for fish which depend on local ideals of 'clean' or 'pure' and 'dirty' or 'polluting'. Poisonous plants such as derris are now treated alongside excrement and remains of food preparations as things that should be kept away from the sea in order to make it into a welcoming place for fish. However, although *vala* is said to be aimed at conserving marine resources, in effect it might be viewed as a sociocultural enabler of those things which are seen as important for the villagers, allowing the cardinal values of 'looking after' and 'eating together' to be extolled and enacted vigorously in public. *Vala* also reinforces ties with deceased ancestors in similar ways to the lengthy funerary cycles because it involves interactions with the spirits of deceased men (*anit*). These are asked to protect the seaspace where the prohibition is put in place and then 'bought off' through a ceremonial gesture known as *langai* before fishing is once again permitted. These *anit* prevent people from fishing in the prohibited area, both through a 'coercive' and a 'legitimising' effect. *Anit* are feared inasmuch as they can withhold fish from the *vala* area, make fishing methods ineffective, or cause illness and even death. They are also respected, and people act in ways corresponding with the desires of the *anit*. *Vala* also reveals certain power gradients between people, since in such a context, some are trying to get others to behave in a way they see as appropriate (by not fishing). This takes place in a context where institutionalised forms of control and coercion—those that exist in powerful nation states and which nominally do *exist* in Papua New Guinea (police forces, justice systems, etc.)—are so dysfunctional or distant as to be insignificant. I demonstrated the key role played in this setting by discourse on the part of charismatic orators and more ambiguously appeals to Biblical texts. Respect for a *vala* prohibition was thus shown to occur mainly out of a preoccupation with the involvement of the *anit* (through respect and fear) and with adherence to social norms. *Vala* represents a quintessential form of contemporary Lavongai social institution which crystallises many of the modalities of marine interspecies relations found around this island. It is a form of 'total social fact' (Mauss 1954) which

pertains all at once to the magical, socio-spiritual, and religious spheres and involves economic, moral, and jural dimensions of social life.

Further understanding of these interspecies relations was then sought by placing the ethnographic data from Metevoe into two theoretical frameworks. With the first, I approached marine interspecies relations on Lavongai from the 'ontological' perspective, meaning through local people's perceptions of the properties of beings—human or otherwise—and the distinctiveness or commonalities they perceive in the properties of various types of beings. Two marine bird species were shown to be of particular importance in the context of fishing: terns (*kanai*) and frigatebirds (*raula*). Both are associated with the same clan, Kanai, and as described above, men imitate these birds in certain dances. These birds also indicate to fishers 'where they should fish' by pointing out the location of *aut* fish feeding frenzies.

Physical properties of humans—in particular their palmprints and idealised, stereotypical abilities, responsibilities, and behaviours—are considered to vary depending on which clan they belong to. I presented evidence suggesting that the behaviour of birds associated with a clan is considered to vary in a homological way to that of the humans belonging to this clan. All humans are considered to have a form of 'interiority', called *malanganto* or *pato* (life force, animating spirit). Nonhumans are also said to have a *malanganto* that is the source of their intentionality, however, theirs differs from that of humans who behave 'adequately', according to moral rules, thanks to guidance provided by their specific *malanganto*. Humans alone have another immaterial aspect known as *kankanuai* (shadow spirit), which is said to dwell on in the world of the living after death. Although human and bird members of clan groupings share a name, there are no 'metaphors of kinship' between them. This is the case not only on Lavongai, but also in New Ireland, according to all available ethnographies, including the oldest ones.

The *malanganto*—the interiority—determines each being's intentionality, and this is what leads to its behaviour which in turn is related to physicality. The boundaries between physicality and interiority therefore appear blurred and an ontological analysis of the Lavongai ethnographic material becomes delicate. Consequently, I proposed the hypothesis that in the context of totemism it may be hard to circumscribe empirically what belongs to physicality and what belongs to interiority—even when these concepts are explicitly stated to exist separately by local exegesis—since in a totemic collective, by definition, interiority and physicality are continuous.

Be that as it may, most of the animals which this thesis focuses on—fish and other aquatic beings—are in fact not explicitly placed inside any of the totemic groups. Although Lavongai people do tend to stretch the totemic organisation to cover certain non-totem beings (such as a foreign person arriving on the island, or pigs), many are simply not included, notably fish. Beyond the confines of these totemic groups, Lavongai people reckon all beings to be essentially similar in their physical properties, but to differ in their interiority since human's alone have a 'shadow spirit' (*kankanuai*) and also have a different 'life force' (*malanganto*) to nonhumans, which does not cause them to act in an 'adequate' way, following what are seen as 'proper' (human) moral values. This leads to the

ontological model outside of the clan system appearing as a form of naturalism, in what amounts to a hybrid ontology (Descola 2020).

In this situation, the ontological status of fish and other non-totem beings remains somewhat indeterminate. I am well aware that this is a rather unsatisfactory outcome, which calls for continued ethnographic work. In the mean time, this thesis made a first step towards further comprehending marine interspecies relations on Lavongai through another analytical approach.

Three cases of interactions between Lavongai people and marine animals were examined under a biosemiotic lens, meaning one that lends attention to the circulation and interpretation of signs among all forms of living beings. In these three cases, the marine animals involved are *not* part of the totemic clan groupings (although certain birds play a secondary role).

I noted that Lavongai people interpret signs that are produced by fish and that they also consider fish to interpret signs which people themselves produce. Multiple signs are addressed by the fish-callers to the fish with which they engage. In Peirce's classification of signs, these are indexical and iconic. Combining multiple signs and communicating them through different channels (redundancy) could be linked to the arduous but important character of interspecies communication. Fish-callers also address multiple signs to the *anit*—some of which are symbolic (words), others iconic (fasting and avoidance). Finally, they address signs to other beings than fish, notably birds upon which some fish-calling magic relies for assistance. Since symbolic signs are addressed only to the *anit* and to these birds, but not to the fish themselves, I proposed the hypothesis that the birds, in these practices, are called upon in a similar role as the *anit*: as 'powerful' beings that can come to the aid of the fish-caller.

A rather elusive aspect of the biosemiotic approach to fish-calling is the mode in which the *anit*—called by the magician—are seen to exert an influence on the fish. Indeed, the question remains open as to what form or manner this might take. Although fish-callers plainly address signs both to the *anit* and to the fish (and occasionally to birds), it is unclear what interaction with the fish the *anit* are considered to have. Should they be viewed as the marine equivalent of the 'tutelary game spirits', 'game masters', or 'guardians' described in ethnographic literature from Amazonian societies in particular? Should they be seen to 'control' the fish? Or rather more simply, should they be seen as 'powerful' beings that can obtain the compliance of fish through other means? Answering such questions in the Lavongai sociocultural context would certainly require more research.

A second biosemiotic case study concerned a small goby known as *riranga* which aggregates in large numbers at the post-larval stage in the estuaries of south Lavongai. The villagers consider these animals to produce a number of extraordinary signs in anticipation of their arrival and Lavongai people themselves address signs to these fish with the aim of making them 'welcome', of 'looking after them', and of showing them 'respect'. This is done with the intention of causing the fish to remain as long as possible in the estuary so they can be fished abundantly. The analysis of these signs demonstrates attribution by Lavongai people of a high degree of agency and power to *riranga*.

I then analysed situations where a trick, a lure, or a form of bait is used to attract and capture fish in what amounts to a form of 'dishonest sign'. These require a keen ability to adopt the point of view of the being that is intended to be tricked or lured. There are birds that resort to such 'luring' behaviours, notably the Pacific Reef-Heron. From the way Lavongai fish-callers foreground this bird in certain songs used in fish-calling, I inferred that the heron might provide inspiration for the fishing techniques involved here, making them a truly interspecies form of technique. Thus, birds are once again given a special status, here as sources of inspiration for the fishers.

A number of promising avenues of inquiry identified in this thesis could be further explored in the future. Although I tried where it appeared relevant to widen the scope of my analysis by drawing from other ethnographies in neighbouring societies, its main contributions come from the Metevoe fieldwork material. Thus, a fruitful avenue of research might be to attempt a regional comparison with other societies that share features with that of Lavongai, such as those of Tabar (offlying New Ireland mainland) where clans are associated with shark 'totems' (Gunn 1992), or Pororan in Bougainville Province where K Schneider (2013) has applied multispecies ethnographic methods to a form of 'saltwater sociality'. On Lavongai, a more sustained investigation of gardening and hunting methods and their associated magical actions would no doubt provide useful material for comparison with the data analysed here concerning fish-calling magic.

On the analytical level, I must admit to a certain dissatisfaction in the way this thesis tends to isolate the ontological and biosemiotic approaches. Indeed, there is a considerable challenge here, which is well identified by Manceron, who writes of 'a great difficulty that is part and parcel of a symmetrical anthropology' which the present work is framed in. The difficulty concerns the way we might bridge two broad forms of approaches that have been developed in parallel within the anthropology of nature, and 'resides in the focus which the interspecies face-to-face imposes.' On the one hand: 'if this is conceived of in communicational and interactional terms [as is the case in biosemiotics], the tendency […] is to isolate this segment of reality, as if it were difficult (or not necessary?) to also attend to social relations.' On the other hand:

> When the face-to-face is conceived of in categorial terms (of perception, representation), as is the case with the four-ontology-model of Ph. Descola (2005), the symmetry then opens up towards cosmologies that make it possible for us to establish several series of associations between the various dimensions of social life in which humans find themselves engaged. For, if symmetry leads to abandoning relational thought, then anthropology doubtless has much to lose.[T193] (Manceron 2016, p 293).

Following Manceron, I believe that anthropology can benefit greatly from abandoning neither ambition and by walking the metaphorical tightrope to bridge the interactional and the categorial; the first exemplified here by the biosemiotic approach, the second by the ontological one. This is a challenge indeed. But perhaps ontological considerations and biosemiotic ones can be seen to meet in a form of 'feedback loop'. Consider the following example of human-fish relations in Lavongai:

Local ontological considerations regarding different kinds of nonhuman beings shape the way people conceive of the properties of fishes. They might ask *are they similar to*

humans or dissimilar? Are they similar to birds or dissimilar? Do their physical and internal properties set them apart from—or on the contrary—bring them closer to other forms of life? They determine what umwelt, what constitutions and mental abilities, people lend them. On the basis of these considerations, a person who wishes to influence the behaviour of fish will chose to address *certain signs* to them, and one who is trying to interpret signs produced by fish will do so *in a certain way*; both dependent on ontological considerations. In turn, when signs are addressed to fish and these fish react to them in one way or another, an opportunity is created for a person witnessing this to challenge his or her own ontological assumptions. *Did the fish do what I expected it to do? Did it indeed interpret my own actions as I had anticipated that it would?* From these observations, inferences are made about what abilities these fish have on both the level of physicality and interiority. This, in turn, can lead to people questioning the ontological categories into which they fit these beings, possibly causing these categories to evolve, and thus closing the loop, until the next interaction sets off another cycle.

The circular nature of this feedback loop reminds us that—just as any anthropological fact—ontologies cannot be assumed to be fully 'handed down' from generation to generation in one piece. Different societies at different times vary greatly in the degree to which they will consider challenging a tradition or bowing unequivocally to it. Lavongai people, as I have come to know them, are wont to inquire into the way any new information meets their assumptions, and if they consider that a reconsideration of these assumptions is warranted, then reconsider them they will; not hastily, but not unwillingly either.

In this feedback loop, interspecies interactions bind together ontological considerations and biosemiotic processes. The question of temporality however remains key. Is this mutual influence a process that happens in the lifetime of a person? In several generations? Or over an even longer period? These queries most likely cannot receive an unequivocal answer, but neither would it seem satisfactory to have to assume that ontologies do not evolve (and Descola, for one, does not suggest this in any way). Therefore, if they must change, my proposal is that the signs which people exchange with living beings about which they have ontological representations will be important drivers of this change.

Provided it does not jettison the wider concerns with ontology, local cosmologies, and social organisation, the biosemiotic approach to interspecies relations in anthropology appears highly promising. Its potential can only properly be realised however through prolonged and sustained confrontation of the results of various studies in anthropology, ethology, and biology. Collaboration between researchers all sharing a familiarity with the speciality of the other would be of great benefit here; even more favourable would be a growth in the number of researchers trained in disciplines from both side of the 'social–natural' scientific divide, as exemplified by Simon Foale, whose work lies at the interface of anthropology and marine biology.

In the course of the present work, ethological and biological publications concerning fish senses and behaviour were consulted, and assistance was sought on these matters from ichthyologists. However this foray into the biological disciplines—the concerns of which are often far removed from those of the anthropology of nature—was only possible to a limited degree for want of training and time. What at once limits and offers the greatest

perspective to the biosemiotic approach in anthropology is its inherent requirement for interdisciplinary collaboration. This is a methodological challenge, but one which is worth the effort. Not least because Lavongai people themselves show a keen interest in understanding and learning about the interface between their cultural practices and the way marine animals behave. I hope that in the future, I will have the chance to continue working in this direction, both in partnership with the people of this island, and with willing biologists who are seeking to broaden the scope of their own research, for the benefit of all the disciplines and people involved.

End of Volume I

Note to the reader: this thesis is organised into two volumes in order for the paper version to obey printing and binding constraints. The second volume contains the list of cited references, 11 appendices, the endnotes in 'T' (originals of translated texts), a table of contents, and lists of figures, tables, and maps.

‘Seducing the Fish?’

Marine Interspecies Relations on Lavongai Island (Papua New Guinea)

A PhD thesis in anthropology by

Mark COLLINS

Defended at Aix-Marseille University
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Volume II: References and Appendices

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Appendix A

Marine Socioeconomic Survey

English	Tungag
Section: Family	*Matanvap*
You: woman/man	*Numai: aina/anitun*
INDIVIDUAL CODE:	
All your names	*Kam keve asan a sip*
Your date (year?) of birth	*Kam matas i kau*
Where you were born	*Siva i te kau ua*
How often do you go to church? (0-5)	*Kute igenen o aina lotu? (0-5)*
Which church?	*Kute lotu sa?*
What grade did you reach and finish in school?	*Kuta sikul tung ti grade poisan?*
At the moment, do you receive a salary?	*Neke, kana, kute ol ti payroll ti mang kampani e gavman?*
At the moment, are you selling anything?	*Neke, kana, kute maket a mang nem?*
Subsection: Your mother	*Rinam*
INDIVIDUAL CODE	
All her names	*Kana keve asan a sip*
Clan	*Patmani*
Subsection: Your father	*Tamam*
INDIVIDUAL CODE	
All his names	*Kana keve asan a sip*
Clan	*Patmani*
Subection: Marriage	*Osongon*
FAMILY CODE(S)	
How many children do you have?	*Kam poisan a inatus?*
With how many partners?	*Ve kari poison a tamaria/rinaria?*
Section: Home	*vainagoan*
The name of the place where you live	*Asan i kam vainagoan*
This is yours/your spouse's/somebody else's	*Ke takam/kisngam/mang anu*
How do you/they claim this place, from who?	*Kuta luk ia ti si, e kisngam, e mang anu kata luk ia ti si?*

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English	**Tungag**
Before, did you live elsewhere?	*Aino, kuta ago ta mang siva petekai?*
Where do you go to Monday community meetings?	*Kute longong Mande e voi?*
Where are you listed for the census?	*Kute kalang asan e voi, taun i census?*
Where are you listed for the elections?	*Kute torong asak e voi, ti eleksen?*
Do you have one or more gardens? No/Yes	*Kute vil matang? Kovek/Io*
Where?	*E voi?*
Who does the place where you garden belong to?	*Kam siva i te vil matang kate siva ti si?*
Do you have cash-crops? What of? Where?	*Kute torong sukal i sa, na e voi?*
Section: The sea	*laman makasim*
How often do you go fishing? (0-5)	*Kute maiak? (0-5)*
Does any body else in your household fish? (Name, and 0-5)	*Mang anu nei lu? (asan, na 0-5)*
At home, how many of these fishing tools do you have	*Nei lu, mila torong poisan a?*
fishing line	*sitiring*
hooks	*uk*
nets	*uvene*
canoes	*vul*
boats	*kati*
single-tip spears	*mansikei*
multi-tip spears	*supsup*
diving goggles	*galas*
spear gun	*maskit*
diving torch	*torch*
Where do you fish?	*Kam siva i te maiak e voi*
Do you have a *tokosiangan*? No/Yes	*Kute torong tokosiangan eke? Kovek/Io*
If you do, where is it?	*E voi?*
How come this is your *tokosiangan* (though who)?	*Ke takam ta tokosiangan using a si?*
When was the last time you ate fish?	*Angisan kuta angan ien?*
Who caught this fish?	*Si kata luk a ien ang?*
Name three fish that you have seen recently?	*Asan i potol a ien, kuta arai mol iritol?*
List each and every rule that the Metevoe Marine Committee has enacted	*Posong aliu a kari keve sausaupai ti ri Marine Komiti i Metevoe, siksikei*
Do you know there is a *vala* in Metevoe? Yes/No	*Kute nas ta, ka torong vala e Metevoe? Io/Kovek*

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English	**Tungag**
Before the *vala* was created, did you fish in that area? Yes/No	*Aino, taun katala kovek i vala, kute nas ta maiak nei siva kita vala ia? Io/Kovek*
Have you ever paid to fish with a net between Lamakisong and Neikuila? No/Yes	*Kuta samui lenginang si maiak ta uvene kuli vuk bangan mete Lamakisong tung e Neikuila? Kovek/Io*
How many times?	*Poisan a taun?*
How much money did you pay?	*Kuta asinung poisan a mani?*

Appendix B

Inventory of local ichthyological knowledge

Introduction

This inventory presents the fish and other marine beings that were named during my fieldwork by people of Lavongai, between 2019 and 2023. It was constituted by indexing an alphabetical notebook by vernacular name for any marine taxon that I hear somebody name while on Lavongai, and by consigning what information those who spoke of it could give men regarding its behaviour, the place where it is found, etc. I then took photographs of those beings which I encountered, and the photographs were identified by Philippe Béarez, Clara Lord, and Bernard Seret at the Muséum National d'Histoire Naturelle in Paris. Finally, I organised a 'workshop' during which I enlisted the help of a large group of people from Metevoe to check the data which I had gathered on these animals. Together, we reviewed the photographs and confirmed or modified the prior identifications that had been made.

Description of an entry in the inventory

Tungag name Eng: English name, TP: *Tok Pisin name*, Sc: Scientific name
Description of the being, as given by interlocutors in Lavongai.

- Part of: list of higher-order categories (generics, life form types, etc.) that it is considered to be a member of.
- Notes: extra details.
- Prohibitions: information on edibility, and other rules.
- Habitat: areas where it is most often found.
- Capture methods: techniques which are the most effective at capturing it.
- Caught with hook and line baited with: if it is caught with hook and line, list of most effective bait.

[Possible photograph if available]

Inventory

ae TP: *mata*
Type of *inavu* distinguished by the fact that it's nose is 'round' and mouth larger than the generic. Mouth and tail red.

- Part of: ien, inavu
- Notes: cannot be captured by using derris root, unless you mix the poisonous plant juice with mud.
- Habitat: in stagnant waters, in large rivers, turbid waters, in the mud
- Capture methods: spear

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akaka
Larger *tuna i nei sung*, black, stripy, long and pointy. Comes from *mingol*.

- Part of: ien, tuna, tuna i nei sung
- Habitat: in large rivers, in fresh water, under coral rubble
- Capture methods: derris, river dam (lou), hook and line

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almang
Black crab.

- Part of: ngakum
- Notes: good to eat and can be sold on market (K12/kg). Some people catch small ones, and feed them up until they can be sold. Sometimes very very abundant in Angat, where they can flood the village and shoreline.
- Habitat: mangrove

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amatun
Fish with a head shaped like a hammer; army green, very large. Large strong scales.

- Part of: ien, mangava
- Notes: strike it on the head, on it's hump, and it'll die. Can be very large. Must strike it in the head with spear, else on body the thick scales will stop spear. Eats *ngagim*.
- Habitat: near the reef dropoff, in underwater holes
- Capture methods: freediving, net

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angu
Bivalve with an shiny shell, that is round and shines.

- Part of: giem
- Notes: can contain pearls. Used to peel taro, and such taro is said to have a superior aspect to that peeled with knife because it leaves the marks on the taro. Found in large bunches, but is hard to find.

- Prohibitions: not eaten.
- Habitat: on the reef
- Capture methods: pick up

---

ao

Very large silvery-grey fish with glass 'sides' on eyes, bigger but similar to *konemrangama* and *ao*. Similar to *maramarang*.

- Part of: ien
- Notes: rare in the south, abundant in west. Very strong, because it grows up in the mud.
- Habitat: grow up in mangrove, then goes down in deep waters, in large rivers
- Capture methods: hook and line, net

---

aruma Sc: *Tylosurus sp.*

Family of elongated, pointy-mouthed fish (both points are long). The name also refers to a terminal taxon.

- Part of: ien
- Notes: angry fish.
- Habitat: on the reef dropoff, on the reef, in sandy areas
- Capture methods: net, hook and line, freediving

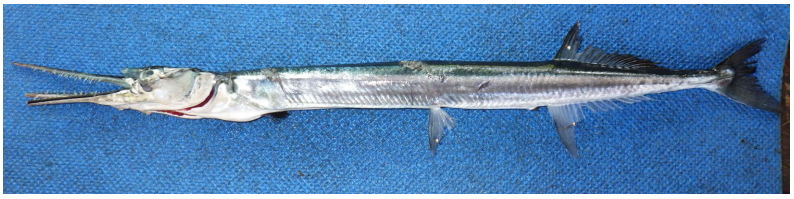


Photo of ***aruma***, *Tylosurus sp.*.

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atin Eng: tuna, TP: *tuna*, Sc: *Katsuwonus pelamis*

General name.

- Part of: ien
- Notes: forms *aut*, a feeding frenzies of tuna, baitfish, birds, sharks (and sometimes fishermen) when they jump around with birds and shark around. In *aut* they can be mixed in terms of species.
- Prohibitions: should not be given to dogs or pigs, lest they develop wounds on the tips of their ears.
- Capture methods: hook and line

- Caught with hook and line baited with: plastic scrap, straw or white plastic bag, condom



Photo of ***atin***, *Katsuwonus pelamis*.

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atin korkor
Largest *atin*

- Part of: ien, atin
- Notes: too strong to pull it up, it'll cut your string, or pull it from your hand.
- Habitat: near the reef dropoff
- Capture methods: bottom fishing

---

atin tuman Eng: tuna, TP: *tuna*, Sc: *Auxis thazard*
The 'true' *atin*

- Part of: ien, atin



Photo of ***atin tuman***, *Auxis thazard*.

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aui Sc: *Birgus latro*

Similar to *katu* but doesn't use a surrogate shell. Has one smaller and one larger hand. Bluish orange. Seen as the adult of *katu*

- Notes: such a strong pincer that it can break coconuts and eats them. Can't simply pick it up like normal crabs, you must spear it first, or it'll cut your finger off. All fat inside.
- Habitat: shallow waters, under coral rubble
- Capture methods: pick up

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avaung

Black *kunga*

- Part of: ien, kunga
- Habitat: in deep waters
- Capture methods: bottom fishing

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bokis TP: *Fo kona (4 corner)*

- Part of: ien
- Habitat: on the reef dropoff
- Capture methods: freediving, derris

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bolok Sc: *Sphyraena forsteri*

Fish that is smaller than *malisa*, and stays slim, doesn't grow fat.

- Part of: ien, malisa
- Habitat: near the shore, in deep waters, near headlands or capes
- Capture methods: hook and line, hook and line with a light source



Photo of ***bolok***, *Sphyraena forsteri*.

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dok
Small white and brown sea-snail.

- Part of: giem
- Notes: used with seeds of the tree *su* (unidentified) to make shaker instruments, also on necklaces.
- Prohibitions: not eaten.
- Habitat: in sandy areas
- Capture methods: pick up when dead washed up

---

fom
Brown *kunga*.

- Part of: ien, kunga
- Habitat: in deep waters, grows up on the reef dropoff, under a specific type of coral
- Capture methods: bottom fishing, freediving (when small)

---

fur Eng: clam, Sc: *Tridacna spp.*
Smaller clam than *giempasal*.

- Part of: giem
- Notes: can contain pearls, doesn't move around.
- Habitat: reef

---

ga TP: *garento*, Sc: *Rastrelliger sp.*
Fish that is similar to *malus* but with a longer mouth. Can school with *malus* and *inavu*.

- Part of: ien, atin
- Notes: used filleted as bait for bottom fishing, good for catching *kulava*. Can be caught by specific *polepole* according to Boniface Fode.
- Habitat: on the reef dropoff, in sandy areas, near reef passes, in large rivers
- Capture methods: hook and line, net
- Caught with hook and line baited with: plastic scrap, straw or white plastic bag, condom



Photo of ***ga***, *Rastrelliger sp.*.

---

gale
Fish that is similar to *vai vongho* but smaller, with marks but no yellow.

- Part of: ien, vai
- Habitat: near the reef dropoff
- Capture methods: trolling in the morning

---

gel Sc: *Leptoscarus vaigiensis*
Fish that is similar to *rodotaias*. Brown, green. Bones are green.

- Part of: ien
- Notes: can be caught by specific *polepole* according to John Aini.
- Habitat: in type of seagrass (aigamang)
- Capture methods: cut, derris, freediving, pick up in a type of seagrass (aigamang)



Photo of ***gel***, *Leptoscarus vaigiensis*.

---

giem Eng: shells, TP: *kina*
General name for all shell-making invertebrates.

- Part of: giem
- Habitat: reef, over sandy areas, deep waters

---

giempasal Eng: clam, Sc: *Tridacna spp.*
Type of clam, smaller than *taluaga*.

- Part of: giem
- Notes: *pasal*=walk, go about. It can actually move of its own accord.
- Habitat: reef

---

ieding
Fish that has to be 'skinned' (*ding*) before it can be eaten, because it has a very hard, scaly skin that can't be cleared of scales easily. Green.

- Part of: ien
- Notes: when diving, if you see it and make noise, it'll just float near the reef, and turn sideways to avoid spear.
- Habitat: in sea grass (kasung) when juvenile, on the reef dropoff
- Capture methods: freediving

---

ielava Eng: whale
Huge black fish with 'oily' body. Sprays large amounts of water up through pipe on back. It could sink a ship with that water. Large teeth.

- Part of: ien
- Notes: *lava*=big. One of them died on the shore at Ungat once.
- Habitat: in very deep waters, beyond the horizon

---

iematak Sc: *Caesio sp.*
Type of fish.

- Part of: ien
- Notes: *matak*=raw. When *riranga* are present it will catch a hook baited with them.
- Habitat: near headlands or capes
- Capture methods: net (in the evening), hook and line
- Caught with hook and line baited with: riranga



Photo of ***iematak***, *Caesio sp.*.

---

ien Eng: fish, TP: *pis*

All fish, but also whales, dolphins. Not 'all marine animals', since crustaceans or octopus aren't included, for example.

---

ieung

Family of marine animals which 'come from the deep to breed' (ie that are catadromous)

---

ievata Sc: *Pseudobalistes flavimarginatus*

Fish with a strong skin. Similar to *vukata* or *vukata ta vilivili*, which stay small, this can become very large.

- Part of: ien
- Habitat: on the reef dropoff, in underwater holes
- Capture methods: freediving, hook and line, net



Photo of ***ievata***, *Pseudobalistes flavimarginatus*.

---

ilung

Black snail-like shell that is fastened to stones and has a sharp but short point on it.

- Part of: giem
- Notes: very sharp, painful to step on.

- Habitat: in the current of reef passes

---

inavu rangrangis Eng: smooth sardine, Sc: *Engraulidae sp.*

Type of *inavu* distinguished by the fact that it doesn't have any scales.

- Part of: ien, inavu
- Habitat: in large rivers, in the estuary, in sandy areas
- Capture methods: derris, hook and line (jack)

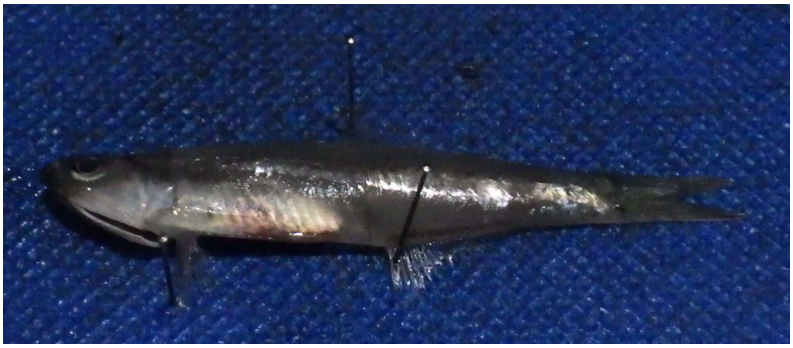


Photo of ***inavu rangrangis***, *Engraulidae sp.*.

---

inavu*, *tauvan TP: *talai*, Sc: *Herklotsichthys sp. ?*

Small, scaly, silvery bait fish, sometimes jumps into canoe, near river mouth.

- Part of: ien, ieung
- Notes: very prominent species in the local fishing talk and practices. People often speak of '*atu inavu*' (standing up sardines), meaning 'using magic to call sardines up to the shore'. There are frequent large aggregations of sardines that can be caught easily in nets, and sometimes with derris root on the reef flats, or in river estuaries. Don't sleep, run around at night. When they sleep they catch each other's tail in mouth and hang down.
- Habitat: reef, estuaries
- Capture methods: derris, net, spear, triple hook and line



Photo of ***tauvan***(or***inavu***), *Herklotsichthys sp. ?*.

---

inavunlaman
Kind of *inavu* that is said to be found in deep water, largest of all *inavu*.

- Part of: ien, inavu
- Habitat: near the reef dropoff, over shoals
- Capture methods: derris, trolling, net (1,5 inch)
- Caught with hook and line baited with: plastic

---

iongoi Eng: flying fish, Sc: *Cypselurus sp.*
Fish with very long fins that allow it to 'fly' relatively long distances over the surface.

- Part of: ien
- Notes: *ngoi*=fly (an 'old word'). The first part of the word is probably a contraction of *ien* (fish). When seen at night you can spear it, if you miss it'll fly off.
- Habitat: in deep waters
- Capture methods: freediving at night



Photo of ***iongoi***, *Cypselurus sp.*.

---

irangiton
Type of *kungung* with 'sharp ears' (ie caudal fins) and a white tail.

- Part of: ien, kungung

- Notes: hides during the day, goes around at night.
- Habitat: under a specific type of coral
- Capture methods: bottom fishing, trolling, freediving at night

---

iskurul Sc: *Naso vlamingii*

Grey, brown, black, medium sized surgeonfish with a mark on its forehead and no scales. Related to *salau*, *naknak*, *oton*, and has 'similar grease' to them. Also similar to *iskurul* but the latter has a longer face.

- Part of: ien, salau
- Notes: does not take hook.
- Habitat: on the reef dropoff, in deep waters
- Capture methods: freediving, net



Photo of ***iskurul***, *Naso vlamingii*.

---

ivo Eng: 'penis fish', Sc: *Urechis spp.*

Long, finger-like, hollow invertebrate that burrow in the sand.

- Notes: women collect them by randomly burrowing in the sand at low tide. Edible (taste like sand). When found it has sand inside, which needs cleaning out.
- Habitat: sand



Photo of ***ivo***, *Urechis spp.*.

---

kainga Sc: *fam. Labridae*

Small fish, similar to *ralip*, that has many kinds: yellow, black, green, red. Slimy.

- Part of: ien, mangava
- Habitat: in sandy areas, in pools on the reef flat, in sea grass (kasung)
- Capture methods: derris, hook and line (women)

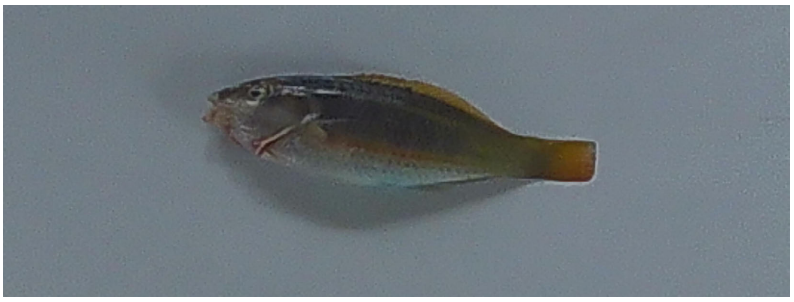


Photo of ***kainga***, *fam. Labridae*.

---

kakita

Short, round, brown sea cucumber.

- Part of: pula
- Habitat: in type of seagrass (aigamang)

---

kalang Sc: *Lutjanus semicinctus*

Fish with green and black vertical stripes, wide at dorsal, narrower on ventral. Yellow-green with wide tail.

- Part of: ien
- Notes: fishing with trolled plastic is best in morning. The name also means 'to write', and refers to a skin disease where black marks appear on the skin, and a stage of decomposition of a tree where black mould appears on it. When fishing with string, if you catch it then you won't catch any more fish. Magicians shouldn't eat any because it counters their magic. If you do catch one and want to continue fishing, you should spit in a mist (*tip*) on your hands and fishing gear with magic preparation to recover your ability to do so.
- Habitat: near the reef dropoff, on the reef
- Capture methods: hook and line (women), net, freediving at night
- Caught with hook and line baited with: katu, ivo, small fish



Photo of ***kalang***, *Lutjanus semicinctus*.

---

kalba Sc: *Chaetodon ephippium*

Short fish, several kinds: yellow, brown, white, orange.

- Part of: ien
- Notes: not particularly targeted, it's thin and small, people will only eat it if caught by chance.
- Habitat: on the reef dropoff
- Capture methods: net, freediving, derris



Photo of ***kalba***, *Chaetodon ephippium*.

---

kalele
Small fish that grown in the reef, and then grows into the '*ien suk*' (nail fish): *ukal*, *rungat*, *ungaus/varvaril*, *pos*, *sokomanilava*.

- Part of: ien
- Habitat: on the reef
- Capture methods: [not fished, wait for it to go bigger]

---

kalingis
Type of crab.

- Part of: ngakum
- Notes: aggressive.
- Habitat: reef

---

kalkal
Sea eel that protrudes half buried from the sand.

- Part of: ien, tuna
- Notes: when riranga is present many *kalkal* go after the small gobies. Dug up as bait for *kulava*, *tingang*.
- Prohibitions: not eaten; '*kate kene*' (it is a snake).

- Habitat: in sandy areas

---

kang
Bivalve, similar to *vitul* but bigger, black exterior white interior.

- Part of: giem
- Notes: found in mud, eaten, shell can be used as spoon, or coconut scraper.
- Habitat: in mangroves

---

kangkangas
Type of small *umutung*, short, white.

- Part of: ien, umutung
- Habitat: over coral rubble, in sandy areas, on the reef dropoff
- Capture methods: net, hook and line, freediving

---

kaon Sc: *Dermochelys coriacea*
Very large turtle that has 'keels' on it, one large in the centre, one on each side.

- Part of: on
- Notes: can be really huge. Has previously laid eggs in the side of Voe river. Recently some small ones got caught in nets, so they must have laid eggs here but nobody saw them. Eggs are 20 cm diam. Used to be abundant here, now no longer so. Once empty the shell can be used as a kind of vessel by young children to play in.
- Habitat: in deep waters, comes up to lay eggs
- Capture methods: specially crafted harpoon and floater, spear

---

kapi*, *tuna kolok
Small, white (*kolok*=dust, mold; hints at its white colour) *tuna I nei laman makasim*, similar to *sakuma*, but larger and found further down the reef shelf. Comes from *mingol*.

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: *kapi* is a name from west Lavongai, in the south, the common name is *tuna kolok*. An 'evil' eel, can bight.
- Habitat: coral reef, under coral rubble, on the reef dropoff
- Capture methods: hook and line, cut with knife, derris, spear

---

karaurau Sc: *Scolopsis lineata*

White and brown fish.

- Part of: ien
- Habitat: in pools on the reef flat, on the reef
- Capture methods: hook and line (women), freediving, net, cut
- Caught with hook and line baited with: katu, karule



Photo of ***karaurau***, *Scolopsis lineata*.

---

karing Eng: Portugese Man o' war, Sc: *Physalia physalis*

A jellyfish described as a sailing ship. Come in big groups.

- Part of: tuma
- Notes: big storms will bring them onto the beach, good bait for *mangava*. Dangerous, sting.
- Habitat: sea, wash up on beach

---

karkar Sc: *Cassiopea andromeda*

A jellyfish during its polyp stage, has lots of colours, looks like an octopus, with 'heads that float around', but are fixed to the floor of mangrove area. They can then separate and float around, even in the deep sea. Orange, blue, pink, red. They are not transparent, unlike *tuma*.

- Part of: tuma
- Notes: at sea they have fish floating around under them. Poisonous.
- Habitat: near mangroves

---

karule
A small white crab.

- Part of: ngakum
- Notes: bait.
- Habitat: beach

---

katu Eng: hermit crab, TP: *guma*, Sc: *fam. Paguroidea*
Type of crab that grow from *salasala ta pege*.

- Part of: ngakum
- Notes: hides in the shell of other animals, good bait for small fish. Find them by placing a half coconut on the beach at night.
- Habitat: dry place, in the sea, in the river
- Capture methods: pick up

---

kaupang
Type of bivalve with a spiky round shell.

- Part of: giem
- Notes: sometimes fastened to coral, harvesting then breaks the coral. Edible.
- Habitat: on the reef, in the fast moving waters near reef pass, under coral rubble
- Capture methods: pick up

---

kavusak
Sea snail, similar to *langa* but smaller, and has no fingers on shell.

- Part of: giem
- Notes: *katu* use their old shells.

---

kesep
River fish, seen as the juvenile of *teplaman*. Comes from *mingol*.

- Part of: ien
- Habitat: in the river
- Capture methods: freediving, hook and line, river dam (lou), derris

---

kilo Eng: surgeonfish, Sc: *Acanthurus triostegus*

Green striped fish.

- Part of: ien
- Notes: can come in very large groups.
- Habitat: under coral rubble
- Capture methods: net, freediving, diving torch at night, derris



Photo of ***kilo***, *Acanthurus triostegus*.

---

kinari

Fish with white and yellow stripes and black marks on pectoral area.

- Part of: ien
- Habitat: on the reef dropoff
- Capture methods: freediving, net

---

kingkinga Sc: *Siganus virgatus ?*

Type of yellow 'nail fish', similar to *ungaus*, *rungat*, *sokomanilava*.

- Part of: ien
- Notes: painful anal and dorsal spines, live in pairs.
- Habitat: on the reef dropoff
- Capture methods: freediving, net



Photo of ***kingkinga***, *Siganus virgatus ?*.

---

kisimerun, ***Tisimereun***
Small stage of *riranga*.

- Part of: ien, ieung, riranga
- Habitat: reef, estuary
- Capture methods: mosquito net, nimut (from coconut)

---

kiskis, ***tangavul*** Sc: *Ctenochaetus striatus*
Fish similar to *pangama* but has yellow and blue stripes, and some brown.

- Part of: ien
- Notes: *tangavul* is made up of *tang*=to cut/break; *vul*=canoe. When it is put in a canoe it thrashed and the 'axe' on its keel will break the canoe.
- Habitat: on the reef dropoff
- Capture methods: freediving, net

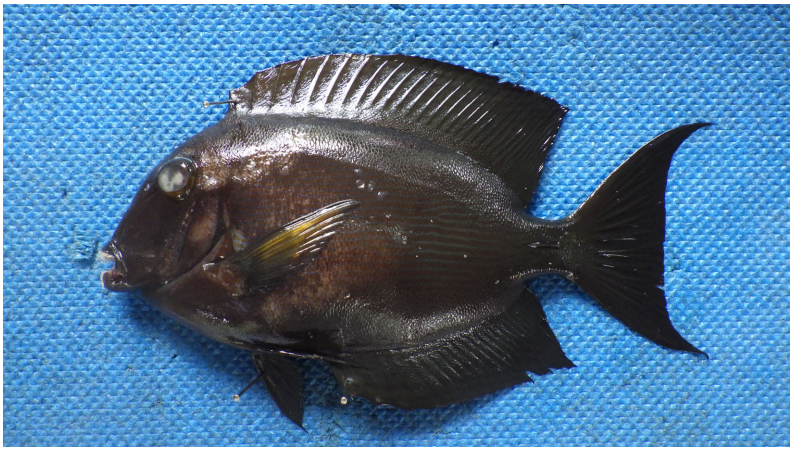


Photo of ***tangavul***(or***kiskis***), *Ctenochaetus striatus*.

---

kitkitip
Small red *kunga*.

- Part of: ien, kunga
- Habitat: in deep waters
- Capture methods: bottom fishing

---

kiva Sc: *fam. Tetraodontidae*
Smooth fish that 'gets fat' when disturbed, looks similar to *mangava*, body is *mosong* (itchy), but not 'pointy' unlike *tangut* which also inflates when disturbed.

- Part of: ien
- Notes: differs from *tangut* by its absence of pointy parts on its body. Poisonous, but can be eaten if cleaned carefully: remove the skin, guts, and ovaries (*mas*). From eating it without proper preparation, one Metevoe man died a few years ago, another went loopy and when he was taken to the aid post and asked when he became sick he answered 'tomorrow'.
- Habitat: on the reef dropoff, on the reef, in sandy areas
- Capture methods: freediving, derris, hook and line

---

kiva langlang
Type of *kiva* that is good to eat (some are poisonous, at least in part). The colour is similar to *langlang*.

- Part of: ien, kiva
- Notes: the ovaries (*mas*) must be removed to avoid poisoning when eating it.
- Habitat: on the reef dropoff, on the reef, in sandy areas
- Capture methods: freediving, derris, hook and line

---

kivok, ***Igomakarik*** Sc: *Mugilidae sp.*
Fish in the family of *rauan*, larger than *molo* but smaller than *rauan*.

- Part of: ien, rauan
- Notes: the '*igo*', gills, are '*makarik*', itchy, not to be eaten.
- Prohibitions: must not eat gills (see note).
- Habitat: in muddy areas, in sandy areas, on the reef
- Capture methods: net, derris



Photo of ***Igomakarik***(or***kivok***), *Mugilidae sp.*.

---

ko Sc: *Synanceia verrucosa*

Family of bottom fish that have poison spines on their backs and will injure foot if stepped on.

- Part of: ien
- Notes: good taste but very poisonous to touch. The poisons can kill people who are week, old or children.
- Habitat: on the reef, in pools on the reef flat
- Capture methods: spear



Photo of ***ko***, *Synanceia verrucosa.*

---

kokolaki

Green crab.

- Part of: ngakum
- Notes: *koko*=jump, embark; *laki*=lucky (from English). Used as a metaphor for a person who climbs free onto a boat: free rider, it's your lucky boat. This one swims from on pieces of floating wood to another. It tastes good.

- Habitat: driftwood, beach, in deep waters

---

komintangis
Poisonous fish, similar to *ko*, smaller, from river.

- Part of: ien, ko
- Notes: if it pricks you you urinate (*min* or *mik*) and cry (*tangis*)
- Habitat: in the river

---

konemekul TP: *tangir*, Sc: *Scomberomorus commerson*
Very large fish.

- Part of: ien
- Notes: *konem*=swallow; *e*=at; *kul*=top. The fish will jump out of water to eat, swallow in the air, then go down again into the water.
- Habitat: in deep waters, in reef passes
- Capture methods: hook and line, freediving
- Caught with hook and line baited with: inavu, malus, sira, plastic, plastic store-bought squid-lure



Photo of ***konemekul***, *Scomberomorus commerson*.

---

konemrangama Sc: *Megalops cyprinoides*
Silver scaly fish similar to *ao* and *rauan*, but very long, and flat. Very bony (like *lesei*).

- Part of: ien
- Notes: *konem*=swallow; *rangama*=men's house; will fight vary hard when caught, so you have to kill it. Magic because it somehow gets from the swamp to the sea, and when it does there is thunder. Other interpretation of the name: it can open its mouth very wide, like a *rangama*.
- Habitat: mangrove, then goes down in deep waters, in large rivers
- Capture methods: hook and line, net, derris



Photo of ***konemrangama***, *Megalops cyprinoides*.

---

konmoi Sc: *Epinephelus coeruleopunctatus*

Blue and white fish that hides in *moi* (an algae).

- Part of: ien
- Notes: *kon*=chew; *moi*=specific algae used to rub onto canoes. This fish eats the algae *moi*.
- Habitat: on the reef dropoff, over coral rubble, in underwater holes
- Capture methods: hook and line, freediving



Photo of ***konmoi***, *Epinephelus coeruleopunctatus*.

---

korenge

Small white sea-snail.

- Part of: giem
- Notes: used to make necklaces and *magung* (armlets)
- Prohibitions: not eaten
- Habitat: on the reef, near the reef dropoff

- Capture methods: pick up

---

korol
Very large *kunga*, colourful, dotted, patchy, blue or brown, some dark, some light, even black. Some have yellow dorsal and those are fatty.

- Part of: ien, kunga
- Notes: tail of one so large it wouldn't fit (or couldn't be lifted into) canoe, and people from the whole village, up to Neitalangus, ate of it. Another got caught in a net and messed it up, that was a dangerous situation, it could have injured or killed people.
- Habitat: in deep waters
- Capture methods: bottom fishing

---

korongak Sc: *fam. Oxudercinae*
Small fish with a big head and bulging eyes that jumps out of the water and skips over the surface, underside white, top brown.

- Part of: ien
- Notes: will jump and skip over the surface of the water. Can kill it, cook it then give it to dogs (or pigs) that bite people, and it will 'kill' the dog's power, he'll dip his gaze after that. It will cause them to remain closer to home, to be tame. The fish is seen to by laying down, hence this property: the dog or pig becomes like the fish and lays down. *korongak* is also the name of a tree, that has a leaf with a brown underside and a green top, but a different shape from the fish.
- Prohibitions: not eaten, only fed to dogs (see note).
- Habitat: in stagnant waters, mangroves

---

korual Sc: *Epinephelus merra*
Small *kunga*, dotted white and brown, camouflage-style.

- Part of: ien, kunga
- Habitat: over coral rubble, over shoals
- Capture methods: bottom fishing

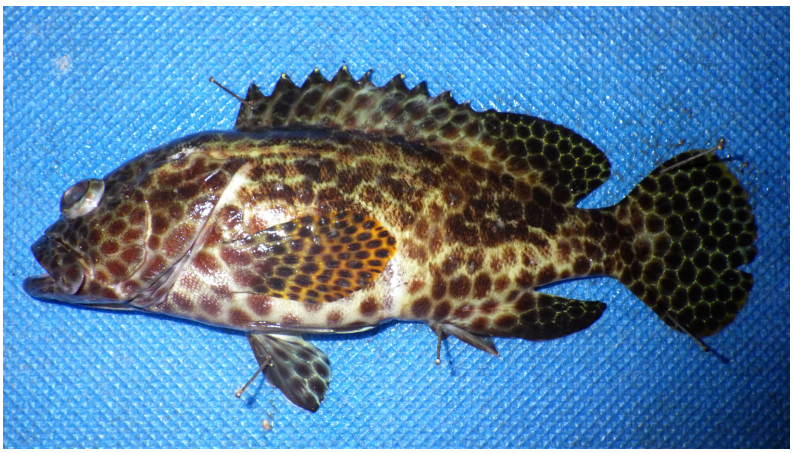


Photo of ***korual***, *Epinephelus merra*.

---

kovoi
Black river fish that grows up from *mingol*

- Part of: ien
- Habitat: in the river, in the current of reef passes
- Capture methods: freediving, derris, hook and line



Photo of ***kovoi***.

---

kovoi lapang
River fish that can get large and doesn't have an oily body (unlike *kovoi raping*), and grow up from *mingol*.

- Part of: ien, kovoi
- Habitat: in the river
- Capture methods: freediving, hook and line, river dam (lou)

---

kovoi raping
River fish, with a sticky, oily body that grows up from *mingol*

- Part of: ien, kovoi
- Habitat: in the river
- Capture methods: freediving, hook and line, river dam (lou)

---

kuitalisa TP: *silver pis*, Sc: *Etelis radiosus*
Large reddish or silvery fish, less red than *kuitalisa* but similar to it. Shorter than *linglingro*.

- Part of: ien
- Notes: *talisa* is a tree, the leaves of which go red when it is time for *kuitalisa* to aggregate near shore. The colour of the leaf will tell which colour the fish will be: yellow, red… See also *tasuan*.
- Habitat: in deep waters
- Capture methods: hook and line (bottom, reel)



Photo of ***kuitalisa***, *Etelis radiosus*.

---

kulava Eng: trevally, TP: *batbat*, Sc: *Carangichthys cf. oblongus*
General name for fish in the trevally family. Also the name of a largest species.

- Part of: ien
- Notes: very common, few bones, appreciated for its meat and size. Colour fades from them as they die.
- Capture methods: hook and line (bottom)



Photo of ***kulava***, *Carangichthys cf. oblongus*.

---

kulava maut
Type of *kulava* with a yellow tail.

- Part of: ien, kulava
- Notes: forms schools.
- Habitat: on the reef dropoff, in reef passes
- Capture methods: trolling, freediving

---

kulava olos
Type of *kulava*, which grows up from *vasa olos*.

- Part of: ien, kulava
- Habitat: in sandy areas, in estuaries
- Capture methods: hook and line, net

---

kulava pasikei
Largest of all *kulava*, solitary.

- Part of: ien, kulava
- Habitat: in deep waters, in reef passes
- Capture methods: bottom fishing, freediving

---

kulava utun Sc: *Caranx spp.*

Kulava that is short, stripy, very large, no teeth, flat, long, yellow silver.

- Part of: ien, kulava
- Habitat: near the reef dropoff, in deep waters, in large holes in the reef
- Capture methods: hook and line, freediving, net
- Caught with hook and line baited with: inavu, malus

---

kunga Eng: grouper or groper, TP: *bik maus*, Sc: *Cephalopholis aurantia*

General name for a deep sea fish family which can have lots of different colours (and specific names). The generic name also is a specific species.

- Part of: ien
- Notes: *kunga*=hand.
- Habitat: in deep waters
- Capture methods: bottom fishing



Photo of ***kunga***, *Cephalopholis aurantia*.

---

kungamelek, ***vongoloi***

Type of crab with orange hands that are wide, one of which is larger than the other.

- Part of: ngakum
- Notes: *kunga*=hand, *melek*=red. This refers to colour of hands. When you walk close by they all hide in the sand and poke one hand out to "wave". Used as medicine for *go* (seizures): boil it then drink the liquid.
- Prohibitions: not eaten.
- Habitat: in muddy places, near mangroves
- Capture methods: pick up

---

kungaring Sc: *Cephalopholis sexmaculata*

Type of *kunga*.

- Part of: ien, kunga
- Notes: sometimes confused with *tavuarangai*.
- Habitat: in deep waters
- Capture methods: bottom fishing



Photo of ***kungaring***, *Cephalopholis sexmaculata*.

---

kungaue

Very large *oto*.

- Part of: oto
- Notes: this is seen as a male.
- Habitat: in the river
- Capture methods: freediving, multi-tip spear

---

kungung Eng: soldierfish, Sc: *Myripristis cf. murdjan*

Short, red and round fish with large eyes.

- Part of: ien, kungung
- Notes: hides during the day, can be fished only at night.
- Habitat: in large holes in the reef, in underwater holes, under coral rubble, on the reef dropoff
- Capture methods: hook and line



Photo of ***kungung***, *Myripristis cf. murdjan*.

---

kunim
Large *taluaga* that is stuck to the substrate (not mobile).

- Part of: giem
- Notes: knock it with a rock or iron to get shell, or cut out flesh.
- Habitat: on the reef dropoff, in deep waters, over coral rubble
- Capture methods: pick up

---

kupe
Small black *oto*.

- Part of: oto
- Notes: found on flat stones with water running over it.
- Habitat: over kong

---

kusila
Very small river fish.

- Part of: ien
- Habitat: in stagnant waters, in the river
- Capture methods: hook and line, derris

---

kusilatavulevulei Eng: remora, Sc: *Remora spp.*

Fish that sticks to sharks and big fish, dark brown with a wide head. Said to be a small shark.

- Part of: ien
- Notes: will detach from a shark you catch just as you pull it up to the canoe. It can also be found on turtles. The 'sucker', which is 'on top' of it, is considered dangerous, sharp or prone to scratching skin. Can sometimes be caught on baited hooks. The name refers to *kusila*, a river fish, because it is shaped similarly. Sucker on the back. Body is the colour of very deep water. It is similar to a shark but not considered to be one.
- Habitat: attached to sharks, big fish, turtles ; deep
- Capture methods: hook and line (rarely), stuck on shark

---

kutkut

Large red crab with an elongated tail (more like a prawn, or a lobster) looks like 'a tractor'.

- Part of: ngakum
- Notes: not a lobster as it doesn't have *kirolos* (antennae as *kir*=back of head; *olos*=long feathers, whiskers). Its tail is full of yellow stuff, 'fat'.
- Habitat: mangroves
- Capture methods: place young shoots of ulu (a plant) in it's hole, and watch for when it moves, then pull it out; will also move around when there is heavy rain, pick it up.

---

lagan Sc: *Sargocentron praslin*

Type of *kungung*, white, red, brown, scaled.

- Part of: ien, kungung
- Habitat: on the reef, on the reef dropoff
- Capture methods: hook and line



Photo of ***lagan***, *Sargocentron praslin*.

---

laing Sc: *Plectorhinchus vittatus*

Fish that is striped length-wise with white and black, and has yellow and red mouth and pectoral fins, yellow dorsal and anal fins and tail.

- Part of: ien
- Habitat: on the reef dropoff, in large holes in the reef
- Capture methods: net, freediving, hook and line



Photo of ***laing***, *Plectorhinchus vittatus*.

---

laklakong

Larger tuna i nei sung, climbs up waterfalls, grows up from *mingol*.

- Part of: ien, tuna, tuna i nei sung
- Habitat: river
- Capture methods: freediving

---

lal Sc: *Bothus pantherinus*

Round flat fish that has both eyes on the same side. Blends in colour with sand. White underside, slippery. Likened to *pai*.

- Part of: ien, pai
- Habitat: in sandy areas
- Capture methods: hook and line, spear

---

langa TP: *faiv pinga*, Sc: *Lambis lambis*

Shell with protuberances (five, or seven, or other numbers).

- Part of: giem
- Notes: collected on reef flat by women at low tide, usually cut out of shell and shell is left on reef.
- Prohibitions: shouldn't be eaten by women, or baby will have deformed legs.
- Habitat: reef

---

langkurung

Very large *tingang*, 'breaks trees in mangrove', so has to live in deep.

- Part of: ien, tingang
- Notes: seen as large version of *tingang* which is found in mangrove and reef.
- Habitat: in large rivers, mangroves
- Capture methods: hook and line, freediving

---

langlang Sc: *Terapon jarbua*

Fish with white and black stripes.

- Part of: ien
- Habitat: near the shore, in estuaries, kuli pies
- Capture methods: hook and line
- Caught with hook and line baited with: other fish, katu



Photo of ***langlang***, *Terapon jarbua*.

---

las Sc: *Scomberoides sp.*

Fish that is similar to *konemekul*, *vaulingima*, *atin*, and *kulava*. It is flat, top is blue, bottom silver and yellow.

- Part of: ien
- Notes: if you get stung by the dorsal it'll itch. Schools, but sometimes seen alone.
- Habitat: on the reef dropoff, in reef passes, in deep waters
- Capture methods: net, hook and line, freediving

---

legem

Very large *kunga* that sits steady in the water and feeds by filtering water it sucks in, straining it.

- Part of: ien, kunga
- Notes: can 'suck' people in from a long way away (10 meters). Can be caught by using an anchored and buoyed line, like *veua* and baiting with *tuna*.
- Habitat: in deep waters
- Capture methods: bottom fishing
- Caught with hook and line baited with: tuna

---

lei Eng: trocus, TP: *lalai*, Sc: *Trochus spp.*

Cone shaped shell.

- Part of: giem
- Notes: high value (K80/kg) as food, and for the shell.
- Habitat: on the reef dropoff
- Capture methods: pick up

---

lenge Sc: *Sicyopterus sp.*

Last stage of *riranga*, has a 'sucker' on it's underside which is uses to attach to stones in fast moving river waters. This is referred to as its *vito* (navel). Very sticky and soft.

- Part of: ien, ieung, riranga
- Notes: the last stage of *riranga*, the adult form.
- Prohibitions: not eaten by women during pregnancy (but no consequence known in case eaten).
- Habitat: river
- Capture methods: freediving



Photo of ***lenge***, *Sicyopterus sp.*.

---

lenge makmakangan
Type of *lenge* that has dark spots on it, near the gills.

- Part of: ien, lenge
- Habitat: in the river
- Capture methods: river dam (lou), freediving

---

lenge susu Sc: *Sicyopterus sp.*
Type of *lenge* with no dark spots (contrary to *lenge makmakangan*). At a young stage, they have slightly red dorsal fins.

- Part of: ien, lenge
- Habitat: in the river
- Capture methods: river dam (lou), freediving



Photo of ***lenge susu***, *Sicyopterus sp.*.

---

lesei Sc: *cf. Anodontostoma sp.*

A fish, similar to *ao* and *konemrangama*, but shorter, smaller and flatter, scaly, bony.

- Part of: ien
- Notes: hides, can't find them when you dive.
- Habitat: grows in mangrove and stagnant waters, then goes down in deep waters, in large rivers, in sandy areas
- Capture methods: net, derris



Photo of ***lesei***, *cf. Anodontostoma sp.*.

---

linglingro Sc: *Lutjanus malabaricus*

Big red fish, similar to *kuitalisa* but distinguished by colour (this one red).

- Part of: ien
- Notes: related to *kuitalisa*, and confused by certain people.
- Habitat: in deep waters
- Capture methods: hook and line (bottom, reel)



Photo of ***linglingro***, *Lutjanus malabaricus*.

lokot Sc: *Pterois volitans*

A with lots of colour, and patterns. Very beautiful. Many spines, that are closed near body when not threatened, if you disturb it then it stands its spines up. Two types: a red one, and a black one.

- Part of: ien
- Notes: meaty and fatty. Hides during the day, comes out at night. It is the fish on a 2 toea coin. A guy got a spine in his biceps after having speared one, and hooking it on a line that he was dragging and that curled back and stung him. Pain. No sleep for 24 hours. Doesn't rush away, easy to spear. Used to be abundant, now only a few small ones.
- Habitat: on the reef dropoff, in sandy areas
- Capture methods: spear

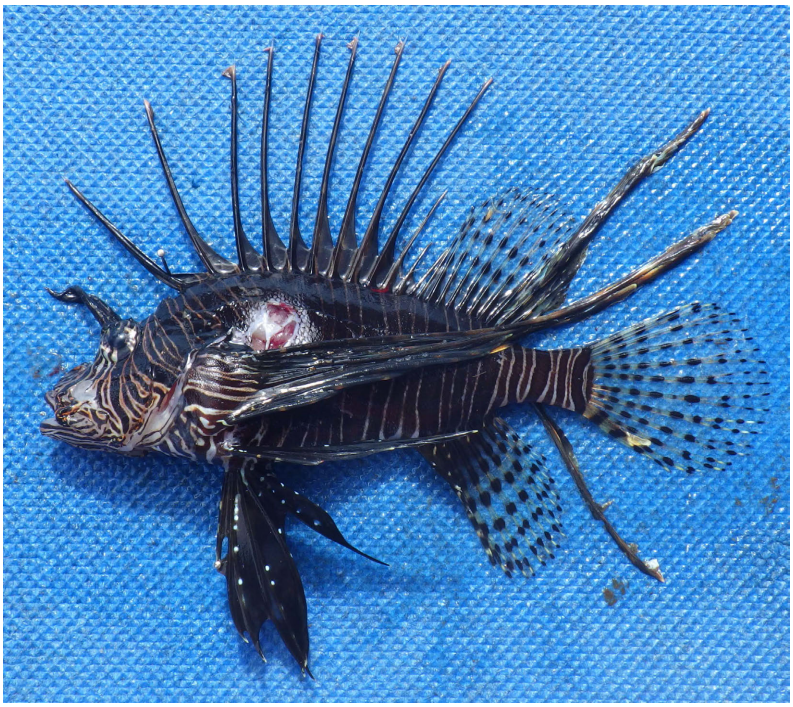


Photo of ***lokot***, *Pterois volitans*.

lumlum

Very large *aruma*, blue body. Short mouth. Bony flesh.

- Part of: ien, aruma
- Habitat: on the reef dropoff, near headlands or capes, in deep seas
- Capture methods: spear, multi-tip spear, hook and line

lumongo
Face like *veo*, tail like *tuna*, black on top, white under, multiple long spines. Schools, like *inavu*. A poison fish, one point on the back, two on caudal fins. White underside, black top. Tail like that of an eel. They group and dig holes to hide in. Grease.

- Part of: ien
- Notes: very tasty, fatty. Even when dead, it'll hurt when pricks you. Some people die from it.
- Habitat: in a hole that it digs, over coral rubble, in sandy areas
- Capture methods: derris, net

---

maimai
A large *kiva*.

- Part of: ien, kiva
- Habitat: in deep waters, on the reef dropoff
- Capture methods: freediving

---

makan vokovokoterei
A river fish with a 'sucker', likened to *kusila ta vulevulei* by the way it swims and behaves. The sucker is different to that of *lenge*.

- Part of: ien
- Prohibitions: not eaten, too small, doesn't run away which is suspicious.
- Habitat: in large rivers, under floatsam, in stagnant waters

---

malaum
A *tuna i nei laman makasim*. Large teeth.

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: said to come out of a pula.
- Habitat: on the reef
- Capture methods: derris, hook and line, spear

---

malikom Sc: *Platax cf. batavianus*
Small, when large *ngalu*.

- Part of: ien

- Notes: *malikom*=flying fox, bat; 'it is the flying fox of the sea', the 'wings' make it look similar to the flying fox. Some say it makes a sound like that of the flying fox in water.
- Habitat: in estuary, in sandy areas, on the reef dropoff
- Capture methods: freediving



Photo of ***malikom***, *Platax cf. batavianus*.

---

malisa Eng: baracuda, Sc: *Sphyraena barracuda*

When large it is more 'chubby', and fat, with a somewhat long mouth but less so than *aruma*. Very sharp teeth.

- Part of: ien
- Notes: cuts string when you have another fish on it. Angry fish. Beware of it.
- Habitat: in the fast moving waters near reef pass, on the reef dropoff, in deep waters
- Capture methods: hook and line, freediving

- Caught with hook and line baited with: live malus

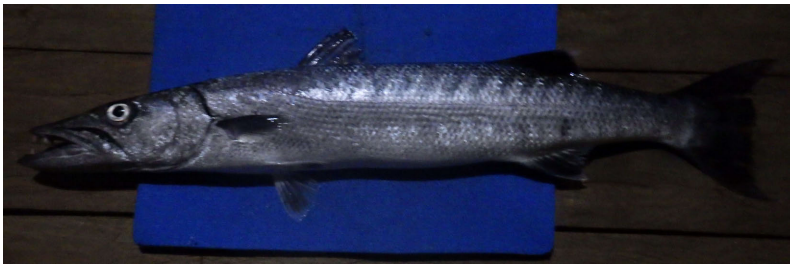


Photo of ***malisa***, *Sphyraena barracuda*.

---

malisatab Sc: *Sphyraena flavicauda*

Grows into *bolok*. Small *bolok*.

- Part of: ien, malisa
- Habitat: on the reef
- Capture methods: hook and line, net



Photo of ***malisatab***, *Sphyraena flavicauda*.

---

malus TP: *malambur*, Sc: *Selar crumenophthalmus*

Young of *maravau*, plain colour, white.

- Part of: ien, atin
- Notes: during the day, in the river mouth, at night, back out to the deep.
- Habitat: on the reef dropoff, in sandy areas, near reef pass, in large rivers
- Capture methods: hook and line, net
- Caught with hook and line baited with: plastic scrap, straw or white plastic bag, condom



Photo of ***malus***, *Selar crumenophthalmus*.

---

mamaul
A large vol with white stripes.

- Part of: ien, vol
- Habitat: in the river
- Capture methods: derris, hook and line, freediving

---

mane Sc: *Lethrinus sp. ?*
A very small fish, that has two types: one orange, another black with white marks.

- Part of: ien, osang
- Habitat: in merak

---

mangabung
A small schooling bait fish.

- Part of: ien, ieung
- Notes: can be spotted by the presence of *raula* frigate birds, form *aut* of *atin*. Come up at new moon, like other *ieung*.
- Habitat: in deep waters
- Capture methods: mosquito net, nimuk (from coconut)
- Caught with hook and line baited with: lots of fish

---

mangai
A small round fish with a black yellow blotchy skin. Similar to *kiskis*, *ngapunuk*, *mangatatang*. This one is larger.

- Part of: ien
- Notes: will not take hook.
- Habitat: over shoals, in sandy areas, near lone coral boulders
- Capture methods: freediving, net

---

mangakapung i tingang
Young, small *tingang*.

- Part of: ien, tingang
- Habitat: in large rivers
- Capture methods: hook and line, freediving

---

manganai*, *Ulai Sc: *Hipposcarus longiceps*

A white *mangava*.

- Part of: ien, mangava
- Notes: tasty, while other *mangava* aren't so tasty (they are *livus*, cold, tastless). Its other name, *ulai*, is related to its teeth: like *ula* (pigs tusks)
- Habitat: near the reef dropoff
- Capture methods: net, freediving



Photo of ***Ulai***(or***manganai***), *Hipposcarus longiceps*.

---

mangatatang

A fish similar to *ngapunuk*, white tail.

- Part of: ien
- Notes: has a poison spine near tail, dangerous, not too common here, they form large schools in the west, alongside *ngapunuk*.
- Habitat: in sandy areas
- Capture methods: freediving, net, derris

---

mangava Eng: parrotfish, Sc: *Chlorurus bleekeri*

Blue parrotfish.

- Part of: ien
- Notes: will only take hook at some times and places. Name might or might not be related to manga, the bird. Eats 'stone' (coral).
- Habitat: on the reef dropoff
- Capture methods: net, freediving



Photo of ***mangava***, *Chlorurus bleekeri*.

---

mangavusavusak Sc: *Mobula birostris*

A *pai* that has a 'double face' and no tail; possibly another name of *pai mani*.

- Part of: ien, pai
- Notes: have killed divers by blanketing them, and preventing them from coming up.
- Capture methods: spear with harpoon and floater

---

manikvalsilang

A growth stage of *riranga*. See *silang*.

- Part of: ien, ieung, riranga
- Notes: *manik*=animal, *val*=like, *silang* is a fish; said to be a stage of riranga that when 'forgotten' as they go up river, stays and becomes *silang*.
- Habitat: reef, estuary
- Capture methods: mosquito net, nimut (from coconut)

---

maout

An *atin* that is scaly, teeth visible, sharp scutes in front of tail, long tail.

- Part of: ien, atin
- Habitat: in sandy areas, in deep waters
- Capture methods: hook and line (trolling) / hook and line (bottom fishing)
- Caught with hook and line baited with: plastic scrap, straw or white plastic bag, condom, fish

---

maramarang
A large fish, similar to *rauan* and *vatangai* but bigger and has yellow fins, but not dorsal nor tail, contrary to *vatangai*.

- Part of: ien
- Notes: big floods will carry them down to the sea, and then they make their way back up.
- Habitat: grow up in mangrove or stagnant waters, or in the reef pass and in large rivers, then in deep parts of river
- Capture methods: net, freediving

---

maramatun
A small blue green version of *amatun*

- Part of: ien, mangava, amatun
- Habitat: on the reef dropoff, in deep waters
- Capture methods: freediving, net

---

maravau Sc: *Selar boops*
Large *malus* with yellow marks.

- Part of: ien, atin
- Notes: like *riranga* and *inavu*, these are said to come in great numbers at some seasons. In such cases, respecting certain prohibitions can maintain them longer: no menstruating nor pregnant women should go into the water in particular.
- Habitat: in sandy areas, on the reef dropoff (at night)
- Capture methods: hook and line (trolling), hook and line at night (when there is a moon), net
- Caught with hook and line baited with: plastic, fish



Photo of ***maravau***, *Selar boops*.

---

mataiang Sc: *Lutjanus rivulatus*

Big white, black and green fish with yellow in the eyes.

- Part of: ien
- Notes: *mataiang* is said to mean 'yellow eyes'. When cooked, soup will be yellow.
- Habitat: in deep waters, near the reef dropoff
- Capture methods: hook and line (reel), freediving



Photo of ***mataiang***, *Lutjanus rivulatus*.

---

matakut

A very large *on*, but not so large as *kaon*. Black.

- Part of: ien, on
- Habitat: in deep waters
- Capture methods: hold, special harpoon with floater

---

matalaman
Type of *osang*, with large eyes, white belly. Large.

- Part of: ien, osang
- Habitat: on the reef dropoff, near headlands or capes
- Capture methods: bottom fishing, freediving at night

---

matarangai (crab)*, *tuvanga
A crab with white hands, red shell. Red around its eyes (hence the name). A fish also has the same name.

- Part of: ngakum
- Notes: *mata*=eye; *rangai*=blood. Has red eyes. This same name also refers to a fish, *kuitalisa*. They come out in large numbers and go down to the sea to spawn (*sama*)
- Habitat: on riverbanks
- Capture methods: dig, pick up when spawning (with bamboo 'scissors')

---

matarangai (fish)
Large reddish or silvery fish, similar to, but smaller than, *kuitalisa*. A crab has the same name.

- Part of: ien
- Notes: *mata*=eye; *rangai*=blood. Has red eyes. This same name also refers to a crab.
- Habitat: in deep waters
- Capture methods: bottom fishing



Photo of ***matarangai (fish)***.

---

matavaia Eng: trevally, TP: *batbat*, Sc: *Caranx tille*

Long, with a bumpy head, slightly red.

- Part of: ien, kulava
- Habitat: in deep waters, in large rivers
- Capture methods: hook and line, freediving, net
- Caught with hook and line baited with: inavu, malus, rusa, mok, plastic store-bought squid-lure



Photo of ***matavaia***, *Caranx tille* .

---

mateselen

A red crab with white dots.

- Part of: ngakum
- Notes: *mat*=dead, *selen*=path. Plays dead in the middle of the road if happened upon. Found dead near fresh water springs, on paths. If it tries to cross a path, it'll die.
- Prohibitions: not eaten.
- Habitat: on driftwood

---

maut Sc: *Megalaspis cordyla*

Similar to *atin* but not included in that family.

- Part of: ien, kulava
- Notes: can form *aut* on its own.
- Habitat: in estuaries
- Capture methods: trolling, kove, freediving

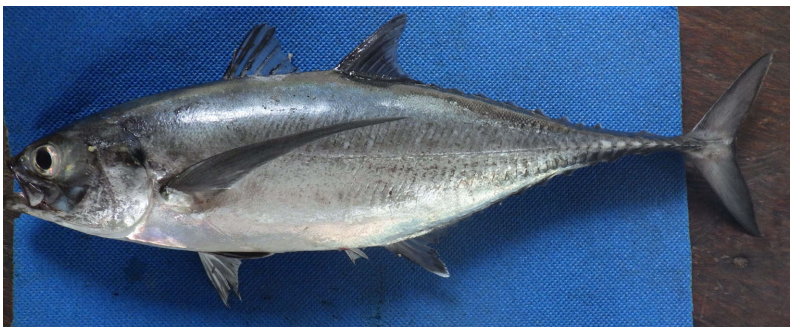


Photo of ***maut***, *Megalaspis cordyla.*

---

merak
A soft, floaty brown long stationary thing that mane lives in.

- Notes: edible: rub it on a stone, then boil it.
- Habitat: on the reef, near the reef dropoff and out to sea
- Capture methods: cut out

---

milaun
A very large *ukal*

- Part of: ien, ukal
- Habitat: on the reef dropoff
- Capture methods: freediving, net

---

mingol TP: *liklik blong maleu*, Sc: *fam. Anguilliformes*
A *ieung*, even smaller than *riranga.* It is considered to be the juvenile stage of all *tuna i nei sung* and of certain *tuna i nei laman makasim*, and also of some river fish such as *ovoi*, *kesep*, *vol.*

- Part of: ien, ieung, tuna
- Notes: seen as the young of all river eels, but not sea ones. It is found in large numbers in estuary, then swims up river, quickly (it doesn't spend any time near the beach). Is is unclear what the cycle is: do they lay eggs at the water head which get carried down by floods (like *riranga*) or not ? or do the adults travel down river and lay eggs in the sea? the time for them to come, like *riranga*, is new moon, and there are signs too: lightning, thunder (but those differ from the one's bringing rain). *riranga*-like prohibitions do not apply.
- Habitat: sea
- Capture methods: mosquito net

---

misil
An *oto* with eggs in it.

- Part of: oto
- Notes: seen as a female because of the eggs.
- Habitat: in the river
- Capture methods: dig out of the riverbank

---

mok Eng: squid, TP: *tauka*
Larger relative of *rusa*, distinguished from *rusa* by the fast that it can grow to be very large, whereas *rusa* does not. Distinguished (along with *rusa*) from *volo* by the fact that *rusa* and *mok* live in the water column and swim, whereas *volo* stays on the sea floor. They also have what people call a 'floater' (actually the bone), which is called this way because when removed from the animal and put in the water it floats, and therefore is considered to be used for this function. This 'floater' is soft, white and opaque in *mok*.

- Part of: mok
- Notes: swims, contrary to *volo*. When the moon or sun is shining, if you place a stick on the reef it comes for the shade and you cut it.
- Habitat: drifting, under coral rubble
- Capture methods: spear, freediving, special hook and line, cut

---

molo
The smallest member of *rauan* generic.

- Part of: ien, rauan
- Notes: used only as bait, too small. Comes in large groups up to the shore.
- Habitat: near the shore, in stagnant waters
- Capture methods: derris, hook and line (women)

---

momin Sc: *Cheilinus chlorourus ?*
Similar to *rodotaias*, but larger: patchy, yellowish and brown, sometimes large fish.

- Part of: ien
- Notes: stays stationary in the deep. Expensive, people want it, but it's rare. Before it used to be visible, tail in the air, on the reef.
- Habitat: in underwater holes (at night), in deep waters

- Capture methods: hook and line (anchor), freediving



Photo of ***momin***, *Cheilinus chlorourus ?*.

---

mosopal
A fish, similar to *rodotaias*, with red marks on a black body.

- Part of: ien
- Habitat: on the reef dropoff
- Capture methods: hook and line, freediving

---

mulmul
Small *samung*.

- Part of: ien

---

musiai Sc: *fam. Rhinobatidae*
Like a cross between a *pai* and *veua*.

- Part of: ien, veua
- Notes: meat also tastes between *veua* and *pai*.
- Habitat: in deep waters
- Capture methods: net, hook and line

---

muti
A black *mangava* that lives in large groups, big fish.

- Part of: ien, mangava

- Habitat: on the reef dropoff
- Capture methods: net, freediving

---

naknak
Fish related to *iskurul*, *oton*, and *salau*. Larger than *salau*, but smaller than *oton* and *iskurul*. Has a '*ngamu*' (axe) on the tail (ie it is a surgeonfish).

- Part of: ien, salau
- Habitat: on the reef dropoff, in deep waters
- Capture methods: freediving, net

---

nang
A river fish, that the 'fish pond' species talapia is compared with.

- Part of: ien
- Habitat: river

---

neng
Similar to *merak*, a soft thing, similar to *ral*, it is *radaling* (slimy, slippery).

- Notes: if you step on it then go to the garden, it'll kill all the plants there, especially taro.
- Prohibitions: not eaten.
- Habitat: on the reef

---

ngagim Eng: crown of thorns
Red, pointy starfish, similar to *kalto* and *sala*.

- Notes: poisonous. If stood on will injure foot. Some people die. Can counter poison by turning over the animal, and putting your foot back on it. It'll wriggle, and as it does suck the poisons thorns back out. Told with the assurance it works but the warning that some don't believe it. If cut into several pieces, they will reform into a live one, also eaten by *taungu*.
- Habitat: in sea grass (kasung), on the reef dropoff

---

ngakum Eng: crabs
The family of crabs.

- Part of: ngakum

---

ngalu
A flat fish, grey, white.

- Part of: ien
- Habitat: in the river, on the reef dropoff
- Capture methods: freediving, net

---

ngapunuk Sc: *Acanthurus nigricauda*
A black fish with a poison 'axe' on its tail (surgeonfish), with some yellow on tail.

- Part of: ien
- Notes: *ngamu*=axe, and *punuk*=dead. Very dangerous.
- Habitat: on the reef dropoff
- Capture methods: freediving, net



Photo of ***ngapunuk***, *Acanthurus nigricauda*.

---

ngiun, ***vongho i nei laman*** Eng: dugong, Sc: *Dugong dugon*
The dugong, similar tail to dolphin, but colourful. It '*suang*' (rummages) like a pig in sand, if dry reef arrives while it's on reef, it'll stay there until tide comes up again.

- Part of: ien
- Notes: *vongho*=pig. Pig from the sea. Looks like a pig, and has fat, also tastes like pig. More abundant in the north of the islands, where there is sand and deep water. Divers see them. Their face looks like a pig's. They can get in nets and break them. Don't have any teeth. Not targeted specifically.
- Habitat: in deep waters, on the reef

---

ngo

Very very small prawns that arrive in large numbers from sea then go up small rivers.

- Part of: ieung
- Notes: seen as the juvenile of *oto*, *salai*, *kunkungangus*, *takul*, *kupe*, prawns from the sea and rivers. Crowds in the sea, near the river, then goes up it. Wait for them to climb up something like a log or a stone in river, then place a bole under and tip (blow-spit) on them and they fall down. They can come in huge numbers, comparable to *riranga*. Used to do so at the same time but now this is said to have changed. In 2022 observed simultaneous arrival of *riranga* and *ngo*.
- Habitat: estuary, sand, river
- Capture methods: spray mist of water by spitting (tip) to knock into in bowl

---

ngovo Sc: *Leiognathus sp.*

A fish that has no scales, is 'oily' (*rapingan*), and has a strange, extendable mouth.

- Part of: ien
- Notes: follows the fresh water, can come out onto reef when there is heavy rain.
- Habitat: in large rivers, in sandy areas
- Capture methods: net, freediving, hook and line



Photo of ***ngovo***, *Leiognathus sp.*.

---

ngovo ien Sc: *Leiognathus sp.*

Similar to *ngovo*, has oily body, shorter, round.

- Part of: ien
- Habitat: in large rivers, in sandy areas
- Capture methods: net, freediving, hook and line

---

ngunguannau
A *pai* with two points on side of face, and mouth under it, and no *otoiang* tail spike.

- Part of: ien, pai
- Habitat: drifting, unlike other pai that are on the sea floor
- Capture methods: multi-tip spear, hook and line

---

ngurkais
A mixed black and white *tuna nei laman makasim*, similar to *tuna kolok*.

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: *ngur*=mouth; *kais*=left/pincers. Some find it shouldn't be edible, but it is eaten.
- Habitat: on the reef dropoff (in underwater holes)
- Capture methods: hook and line, derris, spear, cut with knife

---

nimuk Sc: *fam. Gobiidae*
Similar to *lenge*, but has no *vito* (navel), and longer, slimy.

- Part of: ien
- Notes: children catch it. Perpendicular ventral fin.
- Habitat: near mangroves, over coral rubble, in sandy areas
- Capture methods: freediving, hook and line (young girls)



Photo of ***nimuk***, *fam. Gobiidae*.

---

olo Sc: *Kuhlia marginata*
Small, relates to *taval* which is larger.

- Part of: ien
- Notes: swims in schools against the current and looks stationary, in clear water.
- Habitat: in large rivers
- Capture methods: freediving, hook and line
- Caught with hook and line baited with: sikau, kapatin, uling



Photo of ***olo***, *Kuhlia marginata*.

---

on Eng: turtle

General name for turtles.

- Part of: ien
- Notes: come up to shore to lay eggs. As long as you don't take too many eggs it's ok. You can take a few, then they'll come and leave some more the next day. Then the little ones grow up and come back to lay again in the same place. All except *kaon* eggs are 10 cm diameter.
- Capture methods: specially crafted harpoon and floater, spear

---

onpen Sc: *Eretmochelys imbricata*

Small turtle, skinny, not fat, not much meat on it. Has a beak like *ianga*.

- Part of: on
- Habitat: on the reef dropoff
- Capture methods: specially crafted harpoon and floater, spear

---

onrangai Sc: *Natator depressus*

A slightly red (rather brown) turtle.

- Part of: on
- Notes: not specifically targeted, but can be speared when diving.
- Habitat: in deep waters, on the reef dropoff man bus lava
- Capture methods: specially crafted harpoon and floater, spear

---

onvingving Sc: *Lepidochelys olivacea*

Similar to *on rangai* and *pindes*, larger than *on pen*. Green. Also has *maratan* (sea growth) on its shell. Hides, not many people are capturing it.

- Part of: on
- Capture methods: specially crafted harpoon and floater, spear

---

osang Sc: *Lethrinus sp.*

A medium fish with pinkish yellow fins, tail, dorsal and overall grey body.

- Part of: ien
- Habitat: in sea grass (kasung), on the reef
- Capture methods: net, freediving, hook and line (women)



Photo of ***osang***, *Lethrinus sp.*.

---

oto Eng: prawns, Sc: *Macrobrachium sp.*

General name for all river crustaceans. Generic is a white river prawn.

- Part of: oto
- Notes: has *kirolos* (antennae). Good bait.
- Habitat: river

- Capture methods: by hand



Photo of ***oto***, *Macrobrachium sp.*.

---

oton
A medium grey/black fish of the *salau* type, with a long mouth and long erect dorsal, has a sharp spine on side of tail. Similar to *iskurul* but has no spine on its head.

- Part of: ien, salau
- Notes: remove skin to eat (it is *mosong*, rough, itchy)
- Habitat: on the reef dropoff, in deep waters
- Capture methods: freediving, net

---

pai Eng: rays
General name for all rays.

- Part of: ien
- Notes: the spike on their tail (*otoiang*) can injure, and some are poisonous. They also bite.
- Prohibitions: not eaten by pregnant nor breast-feeding women lest the baby has skin problems.
- Capture methods: spear with harpoon and floater

---

pai kokong
A *pai* with no spike on tail.

- Part of: ien, pai
- Habitat: drifting

- Capture methods: spear with harpoon and floater

---

pai mani
A *pai* which looks like an eagle since it has 'large wings'. Doesn't go into the sand like other *pai* do.

- Part of: ien, pai
- Habitat: drifting
- Capture methods: spear with harpoon and floater

---

pai mata
A *pai* with an orange body.

- Part of: ien, pai
- Notes: *mata*=hole (eye, entrance, front…)
- Habitat: in underwater holes, in sandy areas
- Capture methods: spear with harpoon and floater

---

pai vikangus
A *pai* with a long tail.

- Part of: ien, pai
- Notes: *vik*=tail; *angus*=wide, long.
- Habitat: in sandy areas
- Capture methods: spear with harpoon and floater

---

pai viklutuk
A *pai* that has a tail like *lutuk*, an epiphyte plants that grows on coconut tree trunks.

- Part of: ien, pai
- Notes: *vik*=tail; *lutuk*=an epiphyte plant that grows on coconut tree trunks.
- Habitat: in sandy areas, in large rivers
- Capture methods: spear with harpoon and floater

---

pakalmat Sc: *Scatophagus argus*
A river fish with a pointy spine on dorsal, black with spots. Thin, similar to pos.

- Part of: ien
- Notes: *mat*=death/die; name is said to mark its danger. Similar to *vaugol*. Very painful sting, can kill a weak person.
- Habitat: grows in stagnant waters, near mangroves, sandy areas, over coral rubble, under floatsam
- Capture methods: freediving, derris



Photo of ***pakalmat***, *Scatophagus argus*.

---

pakitongong
Type of *umutung*.

- Part of: ien, umutung
- Notes: not found here any more, people aren't sure what it looks like.

---

palasa
Small fish related to *ungaus*.

- Part of: ien
- Habitat: near mangroves
- Capture methods: net, freediving

---

palpal
A coral with a small base and a large flat top, yellow, blue or brown.

- Part of: ral
- Habitat: on the reef

---

pan pai
A *pai* that is brown, and looks like the leaf of a tree known as *mangas* in Tok Pisin.

- Part of: ien, pai
- Habitat: in sandy areas
- Capture methods: spear with harpoon and floater

---

pangama Sc: *Ctenochaetus striatus*
Small black reef fish with a sharp keel, compared to a knife or an axe. Comes in schools at night and eats on the reef edge 'in space', ie: swimming near the surface.

- Part of: ien
- Habitat: on the reef dropoff
- Capture methods: net, spear, derris

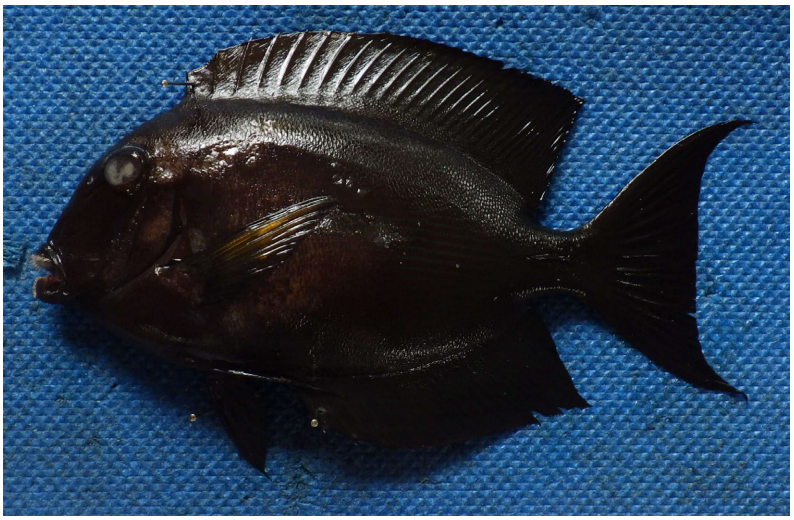


Photo of ***pangama***, *Ctenochaetus striatus*.

---

pankoloko
A white river eel with large eyes similar to *talingegol*, grows up from *mingol*.

- Part of: ien, tuna i nei sung
- Habitat: in the river

- Capture methods: freediving, hook and line, derris

---

pantavuang Sc: *Trichiuridae sp.*

Long fish, no scales, long teeth, tail is like an eels. Similar to *panto*.

- Part of: ien
- Notes: *pan*=leaf; *tavuang*=a specific tree.
- Habitat: in large rivers
- Capture methods: net, hook and line, derris



Photo of ***pantavuang***, *Trichiuridae sp.*.

---

panto Sc: *Trichiuridae sp. ?*

Similar to *pantavuang*, but different in that it has scales, and a long, pointy tail like that of an eel (which it is not), different from an 'ordinary' fish tail. Lots of bones.

- Part of: ien
- Notes: *pan*=leaf, *to*=sugar cane. Looks like the leaf of a sugar cane. If it takes string it'll be very angry.
- Habitat: in large rivers
- Capture methods: hook and line, net

---

paua Sc: *Parribacus sp.*

A very strange looking *urnamung* that has no pincers and a very flat body. Looks like a fossil.

- Part of: oto
- Notes: edible. Makes noise as it runs away (exoskeleton clanking).
- Habitat: in the sea, on the reef dropoff
- Capture methods: pick up



Photo of ***paua***, *Parribacus sp.*.

---

pavaul Sc: *Lethrinus erythracanthus*

An fish with an orange mouth, greenish black head, yellow/orange pectoral fins, silver body, orange dorsal, anal fins and tail. Has marks on its body like those of *vai kari*.

- Part of: ien, osang
- Habitat: in deep waters, in sandy areas
- Capture methods: hook and line, freediving
- Caught with hook and line baited with: katu, volo, mok, small fish



Photo of ***pavaul***, *Lethrinus erythracanthus*.

---

pavong Sc: *Parupeneus bifasciatus*

Type of *von*.

- Part of: ien, von

- Notes: the name suggests that it 'goes around at night', and it is indeed often captured by fishing with a lamp at night.
- Habitat: on the reef dropoff, in areas of coral rubble
- Capture methods: freediving, net



Photo of ***pavong***, *Parupeneus bifasciatus*.

---

pindes Sc: *Chelonia mydas*

Relatively small turtle, similar size to *on rangai*, but the shell is green from '*maratan*' sea growth on it. Abundant.

- Part of: on
- Habitat: in deep waters, comes up to lay eggs
- Capture methods: specially crafted harpoon and floater, spear

---

pirak si Eng: rainbow runner, Sc: *Elagatis bipinnulata*

Related to las and uruk or urup. This one is smaller. Disambiguated by John Aini and Laimen.

- Part of: ien
- Notes: sometimes forms *aut*. Not found near the shore. It doesn't usually form *aut* on its own, but can be present with *atin*.
- Habitat: in deep waters, in aggregations of floatsam
- Capture methods: bottom fishing



Photo of ***pirak si***, *Elagatis bipinnulata*.

---

pitik, ***fitik***
Yellow stripes along body, big thorn on back; similar to *langlang*.

- Part of: ien
- Notes: likened to the sea fish *langlang*.
- Habitat: in large rivers
- Capture methods: net, freediving

---

pore
Similar to *vurut*.

- Part of: ien
- Habitat: in large rivers
- Capture methods: children hook and line it with riranga, very small net

---

pos Sc: *Siganus punctatus*
A river fish with a poison dorsal, similar to *ungaus* but all black. Grows from *kalele*.

- Part of: ien
- Habitat: near mangroves, on the reef, near the shore
- Capture methods: hook and line (women standing)
- Caught with hook and line baited with: ripe banana, katu, au, cooked sweet potato



Photo of ***pos***, *Siganus punctatus*.

---

pui
A *veua* with a short mouth.

- Part of: ien, veua
- Notes: doesn't swim around but lives in holes.
- Habitat: near the reef dropoff, in underwater holes
- Capture methods: spear, hook and line

---

pula Eng: sea cucumber, TP: *pislama*, Sc: *fam. Holothuroidea*
General name for sea cucumbers.

- Part of: pula
- Notes: some can be used as poison for fish. Rub them on sand, this goes red, then use as poison. Some are edible (but Chinese people are said to eat them all). Swamp taro (*cyrtosperma merkusii*) is also called *pula*, and it is a kind of disaster food used in case of drought. Wild seems to mean it doesn't need work, no weeding as opposed to garden taro. But ancestors planted them. They grow in big groves in very wet places, so even when drought is severe the ground they are in remains humid. Very large plants. Possible link in the fact that sea cucumbers and this taro could be 'safety food', or in the look (which could be similar).

---

pula niu, ***pula ta niu***
A brown sea cucumber.

- Part of: pula

- Habitat: in type of seagrass (aigamang)

---

pula sok Eng: sandfish

A white sea cucumber, *pukun kaup*.

- Part of: pula
- Notes: highest price for market. The 'dust' (*kaup*) needs to be cleaned off by rubbing (*sok*), hence the name.
- Habitat: in sea grass (kasung), in sandy areas

---

pula ta ingua

An abundant black sea cucumber, soft body, long.

- Part of: pula
- Prohibitions: not eaten.
- Habitat: in sea grass (kasung), under coral rubble

---

pula vongho

A very large, black sea cucumber.

- Part of: pula
- Habitat: in deep waters

---

pulau

A medium crab with orange legs, black body.

- Part of: ngakum
- Notes: digs into the sand. Women dig to collect them at night when there is a moon, they go around on the sand.
- Habitat: beach

---

puluka

Small black crab.

- Part of: ngakum

- Notes: hard to find most of the time, you need to be quiet or they hide. When it rains a lot or there are waves they climb up trees and then are easier to catch.
- Prohibitions: not eaten by young boys, especially if they are going to fight as it dulls their strength.
- Habitat: mangrove

---

purpur Sc: *Lutjanus mizenkoi*

A medium silver, yellow fish.

- Part of: ien
- Habitat: in deep waters, over sandy areas
- Capture methods: bottom fishing
- Caught with hook and line baited with: katu, rusa, ien lik



Photo of ***purpur***, *Lutjanus mizenkoi*.

---

ra

Larger stage of *riranga*

- Part of: ien, ieung, riranga
- Notes: the stage of *riranga* when up river, defined by having a *vito* ('navel') that allows it to stick on stones.
- Habitat: river
- Capture methods: mosquito net, nimut (from coconut)

---

ral

Large white or brown coral, with 'fingers'.

- Part of: ral
- Notes: used to be used to make lime for chewing with betel nut but now known to be bad for mouth, shells are used now for betel but this is still used for customary purposes or for magic.
- Habitat: on the reef

---

ralip Sc: *Thalassoma hardwicke ?*

A green black flat (but not 'flattened') fish, with a dorsal fin (contrary to *lal* which is a truly flat fish, with both eyes on the same side of its body). *Radaling* (slimy, slippery), but with scales.

- Part of: ien
- Notes: hides in the sand. Somebody in Lavongai wanted to bight one to kill it and it slipped into his mouth and he swallowed it.
- Habitat: in sandy areas
- Capture methods: hook and line, derris, cut

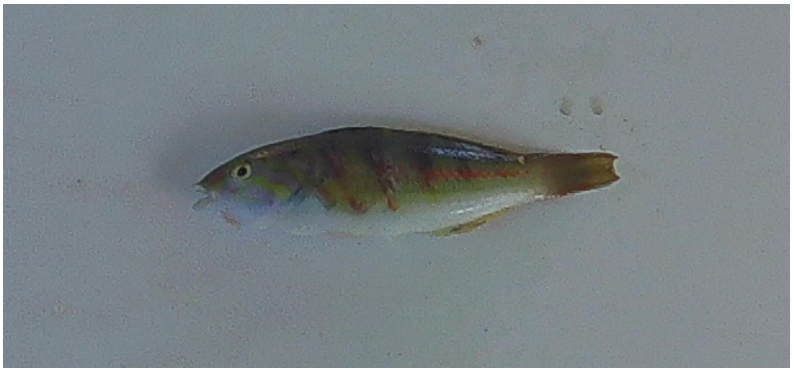


Photo of ***ralip***, *Thalassoma hardwicke ?*.

---

ralkaring

A yellow coral, painful to the touch.

- Part of: ral
- Habitat: on the reef

---

rangan Sc: *Gerres sp.*

A silver fish, that grows into *kaingato*.

- Part of: ien

- Habitat: in the river, in sandy areas, near the shore
- Capture methods: net, masket

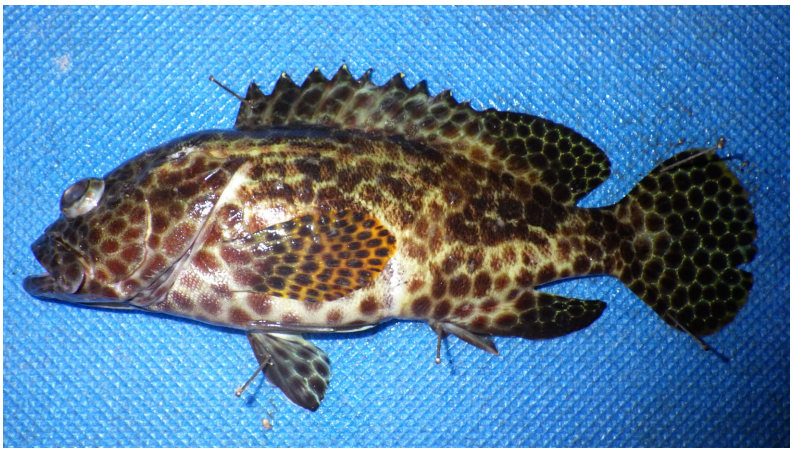


Photo of ***rangan***, *Gerres sp.*.

---

rauan TP: *karua*, Sc: *Mugilidae sp.*

Generic name for a type of fish, also the largest in the group.

- Part of: ien
- Notes: sometimes school in abundance on the reef, just under the surface. When they form such aggregations they also have *mas* (spawn) on their body which is edible. This is said to make them 'heavy' and therefore slow and easy to catch.
- Prohibitions: should not be given to pigs, lest they 'bump their noses on the ground'.
- Habitat: on the reef dropoff, in large rivers
- Capture methods: net, freediving, derris



Photo of ***rauan***, *Mugilidae sp.*.

---

ringvongho

A fish that makes a noise as it moves away. White, blue, can be quite large. Poisonous spines on side of face.

- Part of: ien
- Habitat: in large holes in the reef, under the reef overhang
- Capture methods: freediving

---

ripus Sc: *Scaridae sp.*

A brown *mangava*.

- Part of: ien, mangava
- Habitat: near the reef dropoff
- Capture methods: net, freediving



Photo of ***ripus***, *Scaridae sp.*.

---

riranga TP: *ainanga*

Amphidromous whitebait that aggregates in estuaries.

- Part of: ien, ieung
- Notes: juvenile fish that aggregate in bays near estuaries, during new moon in certain conditions. They signal their arrival with lightning and thunder out at sea. Are said to be very strong. Magical. Rules must be followed when they arrive: - no pregnant women nor their husbands in sea. - no women during period. - sharing: when the first catches come all must eat fresh *riranga* (boiled or with coconut milk) before putting it in stone oven, wrapped in leaf which will preserve it, dried, for a long time and allow marketing. failure to obey the rules cause it to go up the river in a hurry, not aggregate well, stay spread out. they lay eggs upriver, these fix to a stone, then with flood they are carried down to sea, where they become *riranga*. Later, they work their way back up the river, become *ra*, then *lenge*. when they are *ra* people build dams and use pepper leaves to blind or dizzy them, and they float into the trap where mosquito nets are used to catch them. They 'want to wash their eyes, look for clear water'. when they aggregate they are used as bait and tends to yield lots

of approx. 15cm fish from reef. Said to attract lots of such fish. the *riranga* stage (before *ra*) is further broken down into, smallest to largest: - *vunep*: too small to really cook in the stone oven, will dry too much, is 'just water'; - *kisimereun*; - *manikvalsilang* (see *silang*)

- Habitat: reef, estuary
- Capture methods: mosquito net, nimut (from coconut)

---

rodotaias, ***rodot ta ias*** Sc: *Cheilinus trilobatus*

Similar to *momin*, but smaller. Green, white.

- Part of: ien
- Notes: name means 'sleeps during the day', only round at night.
- Habitat: on the reef dropoff
- Capture methods: net, freediving, bottom fishing, hook and line (women)



Photo of ***rodot ta ias***(or***rodotaias***), *Cheilinus trilobatus*.

---

rungal Sc: *Anatifes sp.*

Small butterfly-like white shells that crowds on floating debris such as logs.

- Part of: giem
- Notes: used to be eaten.
- Habitat: floating debris



Photo of ***rungal***, *Anatifes sp.*.

---

rungat Sc: *Siganus spinus*

A small black fish, with a spiny back; related to *varvaril* and *ungaus*.

- Part of: ien
- Notes: painful spine on back. If it stings (all spines have poison) it hurts and you can cure it by 'reversing it': holding the fish's tail close to your moth and blowing over it onto the wound. Can also rub it's excrement on the wound. It stays on the reef when it is dry so easy to cut/spear.
- Prohibitions: should not be given to pigs, lest they 'bump their noses on the ground'.
- Habitat: on the reef, on the reef dropoff
- Capture methods: cut, freediving



Photo of ***rungat***, *Siganus spinus*.

---

rusa Eng: squid, TP: *tauka*

Small relative of *mok*. This is distinguished from *mok* by the fast that it doesn't grow to be very large, whereas *mok* does. Distinguished (along with *mok*) from *volo* by the fact that *rusa* and *mok* live in the water column and swim, whereas *volo* stays on the sea floor. They also have what people call a 'floater' (actually the bone), which is called this way because when removed from the animal and put in the water it floats, and therefore is considered to be used for this function. This 'floater' is hard and semi-transparent in *rusa*.

- Part of: mok
- Notes: very nice soup. Places eggs in specific seagrass (*aigamang*), or near pieces of wood in river. Dry reef at full moon: place a leafy branch on the reef, standing up, and it comes to the shade where you can spear it.
- Habitat: on the reef dropoff, in sandy areas, drifting
- Capture methods: freediving, special hook sold in store

---

sakuma Sc: *Muraenidae sp.*

A small *tuna*, that doesn't get big, it just gets fat.

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: when it takes a hook, it wraps around and you have to go back up to the shore to unravel it.
- Prohibitions: some people refuse to eat it.
- Habitat: coral reef, large rivers, large
- Capture methods: derris, cut with knife, hook and line
- Caught with hook and line baited with: katu, small fish



Photo of ***sakuma***, *Muraenidae sp.*.

---

sala Eng: sea urchin

A sea urchin, long spines. Seen as related to *ngagim*.

- Part of: sala
- Prohibitions: not eaten.

---

sala rangai Eng: sea urchin

A red sea urchin, long spines.

- Part of: sala
- Prohibitions: not eaten.

---

salai

Very small *oto* with long hands.

- Part of: oto
- Habitat: in large rivers
- Capture methods: by trapping it in pieces of plants from the side of the river

---

salai kungkungangus

Small *oto*.

- Part of: oto
- Notes: *angus*=long, wide; *kunga*=hand.
- Habitat: in clear fresh water, over rocky bottoms, upstream

---

salasala ta pengeg

Very small crabs, said to be juveniles of all larger river crabs, or also ocean ones.

- Part of: ieung, ngakum
- Notes: juvenile form of river crabs that can arrive in large aggregations, much like *riranga* and *ngo*. Note *riranga*-like prohibitions don't apply. If they come they prevent *riranga* from arriving: they *lakbat a riranga* (climb and block the passage of *riranga*). 'empty', not meaty, people sometimes eat in nonetheless, in soup.
- Habitat: comes from the sea up to shore

---

salau Sc: *Naso lituratus*

Short fish with *ngamu* (axe, ie a surgeonfish), with a yellow tail, and a black mark near tail. There are two kinds: one with long fins, one with short fins, both called *salau*.

- Part of: ien, salau
- Notes: were no longer present since the 90s, but since *vala* has been in place, now returning.
- Habitat: on the reef dropoff, in deep waters
- Capture methods: freediving, net



Photo of ***salau***, *Naso lituratus*.

---

salsal

A small bivalve that has 'stuff' (other invertebrates) stuck to its shell, a small kind of *taluaga*.

- Part of: giem
- Notes: fastened to the reef, static.
- Habitat: on the reef, on the reef dropoff
- Capture methods: pick up

---

samung TP: *makau*, Sc: *Kyphosus sp.*

Similar to *olo*, but it is larger. When very small it is *mulmul*.

- Part of: ien
- Notes: *mung*=rubbish. Follows the floatsam that comes down from rivers. They used to come in groups, and you could see their tails standing on the reef.
- Habitat: near the reef dropoff
- Capture methods: net, freediving



Photo of ***samung***, *Kyphosus sp.*.

---

samung salik
Large *samung* that schools. When very small it is *mulmul*.

- Part of: ien
- Notes: another name for a large *samung*.
- Habitat: near the reef dropoff
- Capture methods: net, freediving

---

sankarangkarang
A flat crab, similar to *kokolaki*.

- Part of: ngakum
- Notes: edible.
- Habitat: on pieces of wood, near the shore
- Capture methods: pick up

---

sapilambong Eng: white teet fish, TP: *pineap*, Sc: *Thelenota ananas*
A sea cucumber, with a pointy body.

- Part of: pula
- Habitat: in deep waters

---

sarak
A brown sea cucumber with white filaments.

- Part of: pula

---

sauvil Sc: *Istiophorus platypterus*
A large fish with the top of its mouth longer than bottom, like *aruma*. Has an 'umbrella', a 'sail' to 'fly along' (it is a sailfish). Gets very large.

- Part of: ien
- Notes: mostly deep sea, but can be found close to shore. Must use wire on fishing line. Seen a large one of more than 2m length at Bangatan, 6/01/2022.
- Habitat: in deep waters

- Capture methods: hook and line
- Caught with hook and line baited with: plastic store-bought squid- or fish-lure, whole fish

---

savai Eng: sea urchin

A specific sea urchin, white, small spines.

- Part of: sala
- Notes: aggregates pieces of algae etc. On its spines, name refers to this.

---

siaul Sc: *Mulloidichthys sp.*

A *von*. Yellow lines along body, length ways.

- Part of: ien, von
- Habitat: on the reef dropoff, in coral rubble
- Capture methods: net, spear gun



Photo of ***siaul***, *Mulloidichthys sp.*.

---

siavun Eng: swordfish (Fast, 2015)

According to K Fast 2015, this is the name of the swordfish, however now a days, it is used to refer to a clan, also named Kikiu.

- Part of: ien
- Notes: Robert once caught such a '*sauvil* with no sail', that he was afraid to eat and released.

---

silang

A small black fish with marks, related to *nimuk* but smaller.

- Part of: ien

- Notes: solitary, but size of bait fish. Said to be *riranga* that got lost in the sea, and didn't go up river. There is a stage of *riranga* that is named after them (*manikvalsilang*). There are also people who think it unrelated to *riranga*.
- Habitat: near the shore, in sandy areas
- Capture methods: children, with long thin spear

---

sinsinalai*, *kunga sinsinalai
Red crab with large, black pincers that look like *sinsinalai*, the tool used to make nets.

- Part of: ngakum
- Notes: used to be abundant, but now not often found and younger people don't know it.
- Habitat: on the reef dropoff, on the reef

---

sira*, *manal Sc: *Hemiramphus far*
An elongated fish with a protruding mouth, with longer spike on lower part of mouth than top part.

- Part of: ien, aruma
- Notes: name *manal* is from dialect of north, and tigak language. South uses *sira*.
- Habitat: on the reef, in reef passes, in estuaries, on the reef dropoff
- Capture methods: hook and line, net, multi-tip spear



Photo of ***manal***(or***sira***), *Hemiramphus far*.

---

sisikomo*, *Tumasi
A bivalve with a flat, plate-like aspect and a long protuberance on one end, that stands up with its pointy end in the sand.

- Part of: giem
- Notes: the shell stays stuck to the reef, you have to cut out the flesh on the spot.
- Habitat: in coral rubble
- Capture methods: hook and line

---

sokomanilava Sc: *Siganus doliatus*

A fish with a black and white mouth, similar to *kingkinga* with brighter colours and different mouth.

- Part of: ien
- Notes: related to *ungaus*, *ukal*, *pos.* Has a pointy dorsal. The name refers to the fact that if you hear an eagle of osprey shouting, this fish's dorsal has pricked it.
- Habitat: on the reef dropoff
- Capture methods: net, speargun, derris



Photo of ***sokomanilava***, *Siganus doliatus*.

---

sontuntun

A crab with '*ituitumai*' a red and white patterned shell, that is very hard.

- Part of: ngakum
- Notes: shell is used as decoration for houses. Before cooking, spit on it and it'll stay calm as you carry it about or put it in the pan.
- Habitat: under coral, on the reef, on the reef dropoff
- Capture methods: diving torch at night at night, pick up

---

soso

A crab in which the male is very colourful bluish white and black, dotted; female is brown.

- Part of: ngakum
- Habitat: large rivers, in the estuary, in sea grass (kasung)
- Capture methods: net, on hook and line (by claw), pick up at night



Photo of ***soso***.

---

sui
A fish with an orange head and silver body, with a mouth shaped like that of a *sui* (kingfisher). Similar to *osang*, but bigger, with a longer mouth.

- Part of: ien, osang
- Notes: named after the shape of its mouth, similar to that of the bird *sui* (*Alcedo* spp. Kingfisher).
- Habitat: near the reef dropoff and out to sea
- Capture methods: net, freediving, hook and line

---

sukai
A fish that is larger than *osang*, black marks around moth, and on fins, orange white body.

- Part of: ien, osang
- Habitat: in deep waters
- Capture methods: bottom fishing

---

sunga
A bivalve with an orange inner shell and brown outer, similar to *tuas* but much larger.

- Part of: giem
- Notes: not abundant in Metevoe, more in places with large mangroves.
- Habitat: in pools on the reef flat, in very large rivers
- Capture methods: pick up, fumble for it with foot

---

sungpeikut Eng: hammerhead shark, Sc: *Sphyrna lewini*

Hammerhead sharks.

- Part of: ien, veua
- Notes: *sung*=carry; *pei*=weave, lash; *kut*=firewood. It is carrying a bundle of fireweed on its head. Tends to snatch hook as it's going down or up for bottom fishing. Meat is good, said to be less strong than actual *veua*. Easy to bring in by simply holding side of head.
- Habitat: in reef passes
- Capture methods: hook and line
- Caught with hook and line baited with: vai

---

sungui Sc: *Lethrinus erythracanthus*

Similar to *mane* but larger, orange fish.



Photo of ***sungui***, *Lethrinus erythracanthus*.

---

susul Sc: *Lutjanus mizenkoi*

Similar to *purpur*. Not as long nor large though.

- Part of: ien
- Habitat: over shoals
- Capture methods: bottom fishing
- Caught with hook and line baited with: katu, ien



Photo of ***susul***, *Lutjanus mizenkoi*.

---

tagal Sc: *Myrichthys colubrinus*

A black and white ringed snake-eel.

- Part of: ien
- Notes: said to be blind but to have a poison spine, but is not very dangerous.
- Habitat: river mouth, sand



Photo of ***tagal***, *Myrichthys colubrinus*.

---

takita, ***loli***

A black or brown sea cucumber.

- Part of: pula

- Habitat: on the reef dropoff, in sea grass (kasung)

---

takul
A black *oto* with a curved back.

- Part of: oto
- Habitat: river

---

talakmelek Sc: *Anguilla sp.*
Larger *tuna i nei sung* that has 'ears' (caudal fins), colour reddish, tail isn't flat but pointy (*vikvik papangai*). Comes from *mingol.*

- Part of: ien, tuna, tuna i nei sung
- Notes: also found in ditches with brackish water in them.
- Habitat: in stagnant waters, in sago swamps, in the mud
- Capture methods: derris, hook and line



Photo of ***talakmelek***, *Anguilla sp.*.

---

talingaral
A large *tasuan*.

- Part of: ien, tasuan
- Habitat: in reef passes, far from shore, in deep waters
- Capture methods: bottom fishing

---

talingegol
A *tuna i nei sung* with long ears, large eyes, from *mingol*.

- Part of: ien, tuna i nei sung
- Habitat: in the river
- Capture methods: freediving, hook and line, derris

---

taluaga Eng: giant clam, Sc: *Tridacna gigas*
A kind of shell.

- Part of: giem
- Notes: found and collected when diving. Eaten. If you can't pick it up, you can drop a stone in it, on a rope, and it'll close then you can hoist it up. Or tie a rope around it. Big shells are used to feed pigs. Does not move around.
- Habitat: reef

---

talvung TP: *talivung*, Sc: *Turbo marmoratus*
A snail like invertebrate similar to *vutvut* but much larger, can get very big.

- Part of: giem
- Notes: edible, meat comes out without boiling. Can be bought.
- Habitat: in deep waters

---

tangan
A *kungung*, very red, fat, can get very very large.

- Part of: ien, kungung
- Habitat: in deep waters
- Capture methods: hook and line

---

tangina
Largest *tuna i nei laman makasim*, similar to *sakuma*, but larger. Black brown. Has sharp teeth. Comes from *mingol*. Can grow very large.

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: hides in reef cracks, can lash out at face of diver, then retreat back into hole. *masalai*. Can bight somebody trying to get a hook unstuck from stone.
- Habitat: in underwater holes, on the reef dropoff
- Capture methods: spear, derris

---

tangut
A fish that is covered in spines and bubbles up.

- Part of: ien
- Notes: when you shoot them 'water goes inside' and it bubbles up. Some are not edible. If it's in a hole and you disturb it, it'll blow up and you won't be able to get it out, if it traps your hand you're in trouble.
- Habitat: in underwater holes
- Capture methods: spear, derris

---

taragan
A shell with a very sharp exterior, that grows as if budding in clumps.

- Part of: giem
- Notes: edible. Very sharp: Beling (Laimen, Melis, Boss and Elbi's father) had a scar on his forehead from surfacing into a log with *tarangan* on it in the river, while diving.
- Habitat: driftwood, mangrove, rivers

---

taravaia

- Part of: ien, kungung
- Habitat: in very deep waters, near lone coral boulders
- Capture methods: bottom fishing

---

tartarim
A *kunga*, seen as the young of *korol*.

- Part of: ien, kunga

- Habitat: in deep waters
- Capture methods: bottom fishing

---

tasuan Sc: *Lutjanus malabaricus*

A fish with orange head and pectoral fins, yellowish orange silver body, black tail. In the literature we find this:

> Spawning aggregations of *Lutjanus gibbus* are said to form over large reef areas in the Tsoi region when the leaves on the coastal *talise* tree turn red (site 25), while spawning aggregations of *Lutjanus boutton* are said to form over the same reef areas (site 25) when the leaves of the coastal inou tree turn yellow [...]. For centuries, pacific islanders have pinpointed predicable aggregating behavior in reef fish to the flowering or reddening of the leaves of certain coastal trees [...]. Perceivably, the same environmental cues that cause certain trees to flower or lose their leaves may also trigger spawning in certain species of fish. In Buka, the reddening of the *talise* tree is used to mark spawning seasons of several species of grouper (Hamilton 2003). In New Ireland fishers were vague on the months in which the leaves of these trees colour, stating that they followed the trees not calendar months. (Hamilton, Potuku, and Matawai 2004, p 8).

- Part of: ien
- Notes: aggregates when the *talisa* tree is changing its leaves and they are red, which is the same colour as the fish. This is a good time to fish for it.
- Habitat: under the reef overhang, on the reef dropoff
- Capture methods: bottom fishing, hook and line (women)
- Caught with hook and line baited with: katu, volo, mok, ienlik



Photo of ***tasuan***, *Lutjanus malabaricus*.

---

tasup Sc: *Sillago sp.*

Long fish, silver brown.

- Part of: ien
- Habitat: in large rivers, near the shore, in sandy areas
- Capture methods: hook and line, net
- Caught with hook and line baited with: katu, tingting, riranga



Photo of ***tasup***, *Sillago sp.*.

---

taungu Sc: *Charonia spp.*

A large shell, used as a 'trumpet'.

- Part of: giem
- Notes: shell is used to call meetings, or signal to absent people (ex: nursing mother who is away from infant in garden). The live one is collected when diving, its flesh is edible. Most families have several, of varying sizes.
- Prohibitions: not eaten; people from Buka have shown the Lavongai that it's possible to eat them, but still not eaten by most Lavongai people.
- Habitat: on the reef dropoff, over coral rubble and further out
- Capture methods: freediving

---

taval

A river fish with a short black tail, that the 'fish pond' species talapia is compared with. Large version of *olo*. Has large black mark on tail.

- Part of: ien
- Notes: cryptic.
- Habitat: in the fast moving waters near reef pass, on the reef dropoff, in deep waters
- Capture methods: hook and line, freediving

---

tavuarangai Sc: *Variola albimarginata*

A *kunga* with blotches of blue near back on otherwise fully orange body.

- Part of: ien, kunga
- Notes: confused with *kungaring*.
- Habitat: in deep waters
- Capture methods: bottom fishing



Photo of ***tavuarangai***, *Variola albimarginata*.

---

teplaman

A river fish, seen as an older form of *kesep*.

- Part of: ien
- Habitat: in the river
- Capture methods: hook and line, freediving

---

tingang Eng: mangrove jack, Sc: *Lutjanus argentimaculatus*

A red fish with big teeth. There is one type with black stripes, one without.

- Part of: ien
- Habitat: in large rivers, mangroves
- Capture methods: hook and line



Photo of ***tingang***, *Lutjanus argentimaculatus*.

---

tingang (other) Sc: *Lutjanus argentimaculatus*

A smaller *langkurung*. Has fat on it.

- Part of: ien
- Notes: appreciated for its taste.
- Habitat: in fresh water, on the reef dropoff, in large rivers
- Capture methods: bottom fishing, freediving, hook and line (women), net



Photo of ***tingang (other)***, *Lutjanus argentimaculatus*.

---

tinging

A type of *von*.

- Part of: ien, von
- Habitat: in sandy areas, in estuaries
- Capture methods: net, hook and line

---

tingting Sc: *Upeneus vittatus*

A type of *von*.

- Part of: ien, von
- Habitat: in sandy areas
- Capture methods: hook and line (women), derris, net
- Caught with hook and line baited with: katu



Photo of ***tingting***, *Upeneus vittatus*.

---

tingting rangamut
A very large *tingting*.

- Part of: ien, tingting
- Habitat: in sandy areas, in estuaries, in deep waters
- Capture methods: bottom fishing

---

tirat Sc: *Pomadasys cf. argenteus*
A river fish with a yellow mouth and belly. White sides and back.

- Part of: ien
- Habitat: in large rivers, in the river
- Capture methods: hook and line, freediving, net



Photo of ***tirat***, *Pomadasys cf. argenteus*.

---

togol, ***pat kalui***
A shell, considered very beautiful, shiny, very clean. White and black.

- Part of: giem
- Notes: said to grow directly on the body of *masalai*, on large snakes. Nobody has every seen it with meat inside, nor while diving, but the empty shells wash up on the shore. Collected to decorate the point of a canoe outrigger. Also used, powdered, placed on a man's excrement, to 'curse him' with baldness (this is what gives it its other name: *pat kalui*).
- Habitat: in the deep sea, but washes up onto the shore

---

tongvangit
A black *samung* with strong scales.

- Part of: ien, samung
- Habitat: on the reef dropoff, in large holes in the reef
- Capture methods: net, freediving

---

tuanga
A family of river shells, including: *ilung*, *se*, *dek*, *kalapistavuang*, *kunvakvak*, *taila*.

- Part of: giem
- Habitat: in fresh water

---

tuas
A bivalve with white shell, similar to *sunga* but smaller.

- Part of: giem
- Notes: abundant in Metevoe, yellow meat.
- Habitat: in the mud, in sandy areas
- Capture methods: pick up, fumble for it with foot

---

tugol
A *kunga*, smaller than *kitkitip*.

- Part of: ien, kunga
- Notes: the name means 'stuck into' or 'caught up in', and refers to how hard it can be to pull up the fish when hooked, it feels like the line is stuck in the reef, even though it is not a big fish.
- Habitat: in deep waters
- Capture methods: bottom fishing

---

tuiputuk
A very large *rauan*, relates to *kivo*, *molok*, *rauan*.

- Part of: ien
- Notes: *tui*=hit, strike; *putuk*=break. Could kill you when you are trying to tighten a net if it jumps and hit you, could break the outrigger or body of a canoe.
- Habitat: in sandy areas, near the reef
- Capture methods: net, freediving, spear while standing on the reef

---

tulkol Sc: *Carcharhinus melanopterus*
Long *veua* with black tipped fins, all of the fins.

- Part of: ien, veua
- Notes: *tul*=fin, *kol*=here probably refers to the black colour (means 'crow'...) Can bite people, can get angry. Sometimes caught unintentionally on hooks.
- Habitat: in deep waters
- Capture methods: hook and line, spear, net

---

tuma Eng: jellyfish
Jellyfish, described as transparent and with tentacles. During full moon some of them 'glow'. Not safe to dive.

- Part of: tuma
- Notes: if they touch you you're in big trouble, has poison ropes (tentacles), need medicine. Different kinds are named after the effect the poison has: *tuma gese* (sweat), *tuma kui* (pain), *tuma los* (laughter), *tuma sorong* (erection), *tuma sik* (fart). Hot water helps with the pain.
- Habitat: sea, wash up on beach

---

tumasi
A long curled shell. Once empty, the shell is compared to a pipe. It is stuck to the reef.

- Part of: giem
- Notes: old ladies would knock it to eat.
- Prohibitions: not eaten, but used to be.
- Habitat: on the reef
- Capture methods: pick up

---

tumpulin
A small *tumasi*.

- Part of: giem
- Notes: if you step on it, it'll hurt a lot, and leave a piece of meat in you.
- Habitat: on the reef

---

tuna Eng: eels, TP: *maleu*, Sc: *Anguilla sp.*
General name for eels.

- Part of: ien
- Prohibitions: not eaten by women, dogs, pigs (but see specific prohibitions or absence thereof for specific sub-taxons).
- Habitat: sea, river



Photo of ***tuna***, *Anguilla sp.*.

---

tuna gila
Larger *tuna i nei sung*. Called after the bird *gila* because it is black and green. Comes from *mingol*.

- Part of: ien, tuna, tuna i nei sung
- Habitat: in fresh water, under coral rubble, in streams, in underwater holes
- Capture methods: freediving, hook and line

---

tuna i nei laman makasim Eng: Moray eels, TP: *maleu blong salwara*
Sub-category of *tuna*, from the sea.

- Part of: ien, tuna
- Habitat: sea

---

tuna i nei sung Eng: river eels, TP: *maleu blong wara*
Sub-category of *tuna*, from fresh water.

- Part of: ien, tuna
- Habitat: river

---

tuna sel
A *tuna i nei laman makasim* with dorsal fins similar to those of *sauvil*.

- Part of: ien, tuna i nei laman makasim
- Habitat: on the reef, grows in sago swamps
- Capture methods: derris

---

tuna ungis
A *tuna i nei laman makasim* with a marked brown body (similar to *tangina*, but this one's dots are smaller).

- Part of: ien, tuna, tuna i nei laman makasim
- Notes: hides during the day, only found at night.
- Habitat: over coral rubble, on the reef
- Capture methods: hook and line (women), diving torch at night at night

---

tuna vongho
A *tuna i nei sung* that hides in sand in rivers.

- Part of: ien, tuna i nei sung
- Habitat: in large rivers
- Capture methods: derris

---

tuntun
Smallest *tuna i nei sung*

- Part of: ien, tuna, tuna i nei sung
- Notes: used as bait, sometimes called *kalkal*, but there is a separate *kalkal* that lives in the sand on reef flat.
- Habitat: river
- Capture methods: hook and line

---

uae Eng: saltwater crocodile, TP: *pukpuk*, Sc: *Crocodylus porosus*
Saltwater crocodile.

- Notes: not present now in south lavongai, but used to be. Said to still be present in the north (narim river). John Aini has seen one once in his life. Laimen and Melis' father, Beling, trapped one with a wire collar. Monitor lizards are said to 'give birth' to crocodile, and vice-versa.
- Capture methods: trap (collar)

---

uang Eng: baramundi
A brown river fish, similar to *avaung*, that can get very big.

- Part of: ien
- Notes: used to be abundant in Voe, now they 'hide' because people use poisons to fish. Must be in the lake, up river, at Vainarukul. When rivers floods they all come down into estuary.
- Habitat: in large rivers, in the river
- Capture methods: freediving, hook and line, net

---

ukal Sc: *Siganus fuscescens*
A small fish, similar to *rungat*, but larger.

- Part of: ien

- Habitat: on the reef, on the reef dropoff
- Capture methods: cut, net, freediving



Photo of ***ukal***, *Siganus fuscescens*.

---

umutung Sc: *Aethaloperca rogaa*

Large, big lips, white, black on the back.

- Part of: ien
- Habitat: near mangroves, in deep waters, over coral rubble, in sandy areas, in areas of coral rubble over sand, in underwater holes, under coral rubble
- Capture methods: freediving, hook and line, net



Photo of ***umutung***, *Aethaloperca rogaa*.

---

ungaus Sc: *Siganus lineatus*

A brown/grey fish with a poison dorsal and round yellow mark on tail. Grows from *kalele*. Confused with *varvaril*, but has no yellow mark.

- Part of: ien
- Notes: eats *kasung* seaweed.
- Habitat: near mangroves, on the reef, near the shore
- Capture methods: hook and line (women standing)
- Caught with hook and line baited with: coconut, cassava, banana



Photo of ***ungaus***, *Siganus lineatus*.

---

ungio Eng: dolphin

General name for dolphins.

- Part of: ien
- Notes: sometimes come near shore, even rivers, usually stay in deep. Can even go up river when it is deep. Sometimes found in lagoon near Tioputuk. They save lives, because they carry stranded people (lost paddle, bad engine in boat) from sea back to shore. Show the direction the wind will blow from next by the way they swim: wind from where they come from.
- Habitat: in deep waters

---

uring

A light-green algae that forms edible round bobbles.

- Habitat: on the reef dropoff, in coral lagoon

---

urnamung Eng: lobster

General name for saltwater crustaceans. Generic has *kirolos* (antennae) which distinguish if from *kutkut*. Females larger than males. Can be green, black, red or blue.

- Part of: oto
- Notes: was an *oto* from the river, but it went round to the sea, and then *salai* didn't want it in the river any more, so danced in its way (*mikabat*) to it by holding a hand on each side, preventing it from going back up into the river, and it stayed in the sea.
- Habitat: on the reef dropoff, in underwater holes
- Capture methods: spear, pick up

---

ursingo
A fish that is similar to *sira*.

- Part of: ien, aruma, ieung, sira
- Notes: goes around in large schools, small and large fish, and very big fish such as *konemekul*, *malisa*, *kulava* go after it. Sometimes they come to shore in large numbers, and jump out of the water. It is very tasty bait for *konemekul*, *malisa*, and *veua*.
- Habitat: in deep waters
- Capture methods: spear, jump into canoe

---

uruk, ***urup*** Sc: *Elagatis bipinnulata*
Yellow, silver and blue stripes.

- Part of: ien
- Notes: related to *las* and *pirak si*.
- Habitat: in the current of reef passes
- Capture methods: trolling, masket
- Caught with hook and line baited with: inavu, malus, sira, plastic, rusa plastic



Photo of ***urup***(or***uruk***), *Elagatis bipinnulata*.

---

uti Sc: *Choerodon anchorago*
A fish.

- Part of: ien
- Notes: green bones. If you disturb it, it'll run away into a hole.
- Habitat: on the reef dropoff, in pools on the reef flat, near coral rubble
- Capture methods: hook and line, freediving, net



Photo of ***uti***, *Choerodon anchorago.*

---

va (river) Sc: *Rhyacichthys sp.*

A river fish with a 'sucker', similar to that of *lenge.* Comes from *mingol.*

- Part of: ien
- Habitat: in the current of fast rivers, upriver
- Capture methods: freediving ta multi-tip spear, river dam (lou), derris, hook and line



Photo of ***va (river)***, *Rhyacichthys sp..*

---

va (sea)

Long white or silver fish with small 'nails' on its head.

- Part of: ien
- Notes: just lays around, easy to spear, doesn't run away. Body changes colour to look like stone.

- Habitat: on the reef dropoff
- Capture methods: freediving, derris

---

vai Sc: *Lutjanus fulvus*

A fish.

- Part of: ien
- Habitat: on the reef dropoff, near the shore
- Capture methods: hook and line, net, freediving



Photo of ***vai***, *Lutjanus fulvus*.

---

vai arenge

A *vai* with yellow lines.

- Part of: ien, vai
- Notes: makes the soup yellow, grease.
- Habitat: on the reef, near the reef dropoff (when large)
- Capture methods: trolling with plastic, straw, very early morning

---

vai kari Sc: *fam. Lutjanidae*

A *vai* that contains yellow stuff, that is similar to curry.

- Part of: ien, vai
- Habitat: on the reef dropoff, near the shore
- Capture methods: hook and line, net, freediving



Photo of ***vai kari***, *fam. Lutjanidae.*

---

vai vongho Sc: *Lutjanus sp.*

A *vai* that has a black dot near the tail.

- Part of: ien, vai
- Habitat: grows up on the reef, then lives near the reef dropoff
- Capture methods: trolling in the morning, in the evening kuli liung
- Caught with hook and line baited with: plastic, straw, fish



Photo of ***vai vongho***, *Lutjanus sp.*.

---

vain rina Sc: *Lutjanus sp.*

A *vai* that is seen as the female.

- Part of: ien, vai
- Habitat: on the reef dropoff, near the shore
- Capture methods: hook and line, net, freediving



Photo of ***vain rina***, *Lutjanus sp.*.

---

vaivai, ***Kalto*** Eng: starfish
Blue starfish.

---

vaku
Black or brown crab with yellowish leg tips.

- Part of: ngakum
- Notes: edible, will turn the water it is boiled in yellow, eaten by people inland, not much by shore people.
- Habitat: in the river
- Capture methods: pick up, spear

---

vangau
A sea crab, comes from *salasala ta penge*.

- Part of: ngakum
- Notes: people inland eat them.
- Prohibitions: not eaten.
- Habitat: in the river, in the current of reef passes
- Capture methods: pick up

---

varvaril Sc: *Siganus lineatus*
A fish that is related to *rukal*, *rungat*, *pos*, *kingkinga*, *sokomanilava*. They are all 'ien suk': fish with sharp rays in their fins. Grow from *palasa*. Has no yellow marks, contrary to *ungaus*, although they are often confused.

- Part of: ien
- Notes: sometimes come in large numbers, and some people 'know' when this will happen, can read signs of it in advance (but these weren't specified). Can be in couples, or in schools.
- Habitat: coral reef
- Capture methods: net, freediving, hook and line
- Caught with hook and line baited with: ripe banana in mangrove or sea grass, coconut sprout on reef when very high tide



Photo of ***varvaril***, *Siganus lineatus*.

---

vasa Sc: *Carangichthys cf. oblongus*

A small *kulava*.

- Part of: ien, kulava
- Habitat: reef, deep
- Capture methods: hook and line, freediving, net
- Caught with hook and line baited with: plastic squid



Photo of ***vasa***, *Carangichthys cf. oblongus*.

---

vasa olos Sc: *Alectis indica*

Types of *kulava* with *olos*=whiskers, long feathers, barbs.

- Part of: ien, kulava, vasa
- Notes: has *olos*, long thin appendages, on its fins.
- Capture methods: hook and line, freediving, net



Photo of ***vasa olos***, *Alectis indica*.

---

vatangai Sc: *Ellochelon vaigiensis*

Similar to *rauan*, but yellow tail, ears, and fins.

- Part of: ien
- Habitat: near the shore, on the reef, in sea grass (kasung)
- Capture methods: net, freediving, spear while standing on the reef
- Caught with hook and line baited with: riranga



Photo of ***vatangai***, *Ellochelon vaigiensis*.

---

vatvat
A large curled purple and white shell.

- Part of: giem
- Notes: single slice of the small end of the shell used in centre of necklace.
- Habitat: on the reef, on the reef dropoff
- Capture methods: pick up

---

vaugol, ***Malangi*** Sc: *Monodactylus argenteus*
A small, silvery, triangular and thin fish.

- Part of: ien
- Habitat: in estuaries, in sandy areas
- Capture methods: trolling at night
- Caught with hook and line baited with: plastic



Photo of ***Malangi***(or***vaugol***), *Monodactylus argenteus.*

---

vaulingima Sc: *Coryphaena hippurus*

An colourful (yellow, greenish, blue) elongated fish with a very long sail-like dorsal fin that has bluish reflections in it.

- Part of: ien
- Notes: *vaul*=buttress root, *ingima*=specific tree. This fish is said to be shaped like the buttress roots of that tree. It eats under floating debris aggregations out at sea. Some say it's looking for shade there.
- Habitat: in deep waters, under floating debris
- Capture methods: hook and line



Photo of ***vaulingima***, *Coryphaena hippurus.*

---

vemakuk

Medium sized *veua*, small body.

- Part of: ien, veua
- Notes: *makuk*=skinny. Very supple, can turn around and bite if you catch it by the tail. 'Angry'. Aims right for you even when you've done nothing wrong.
- Habitat: in deep waters
- Capture methods: hook and line, spear, net

---

veo atin Sc: *Carcharhinus sp.*

A shark that 'looks similar' to an *atin*.

- Part of: ien, veua
- Notes: not present in Metevoe, named in Angat.
- Habitat: in deep waters
- Capture methods: hook and line

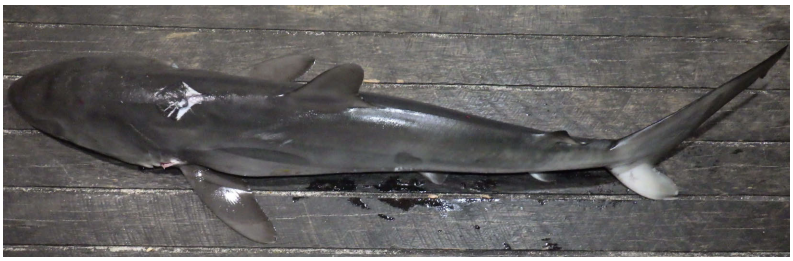


Photo of ***veo atin***, *Carcharhinus sp.*.

---

vetvet Sc: *Polydactylus sp.*

A small fish.

- Part of: ien, von
- Habitat: in the estuary, in sandy areas
- Capture methods: hook and line, net
- Caught with hook and line baited with: riranga



Photo of ***vetvet***, *Polydactylus sp.*.

---

veua*, *veo Eng: shark, TP: *sak*, Sc: *Carcharhinus sp.*

Sharks.

- Part of: ien
- Notes: the 'executioners of the sea', come up as the way you will be punished for not respecting taboos in lots of stories. They'll take the fish you hook. They can break the outrigger off a canoe. In *aut* people see them when trawling, and they get scared. When you dive they'll try and take your catch. Half lemons strung around your waist can keep them away. Meat is said to be strong but not unpleasant though. Kavieng has shark fin buyers. If you want to kill one you've hooked you should place a long stick or paddle in its mouth. Slice just in front of tail with bush knife to bleed out.
- Prohibitions: makes dogs sick if they eat even the bones; SDA affiliates can't eat shark.
- Habitat: reef, deep
- Capture methods: baited hook on a line fixed to anchor stone and buoy
- Caught with hook and line baited with: uruk (night), tuna i nei makasim (daytime)

---

viklik Sc: *Caranx melampygus*

A *kulava* with a slight blue tinge to its dorsal and anal fins, white, slightly long.

- Part of: ien, kulava
- Habitat: over sandy areas, on the reef dropoff
- Capture methods: hook and line, freediving, net



Photo of ***viklik***, *Caranx melampygus*.

---

vikolo Sc: *Dussumieria elopsoides*

A rather large *inavu* that looks like *olo*, black tail, slightly flat.

- Part of: ien, inavu
- Habitat: in large rivers, in sandy areas
- Capture methods: derris, net



Photo of ***vikolo***, *Dussumieria elopsoides*.

---

vikose
A snake-like marine animal similar to *tagal*, but with blue stripes rather than black and a tail that is flat like a paddle (as the name suggests), it is a *masalai*, hides in holes and can bight.

- Part of: ien
- Notes: evil.
- Prohibitions: not eaten.
- Habitat: in reef passes, on the reef

---

vil, ***kulava vil*** Sc: *fam. Carangidae*
A *kulava* that is large.

- Part of: ien, kulava, vasa
- Habitat: over sandy banks
- Capture methods: hook and line, freediving, net

---

vitul TP: *kina*
A type of bivalve shell.

- Part of: giem
- Habitat: beach, sand, sea grass

---

voka Sc: *Cheilio inermis*

Elongated, greenish blue fish.

- Part of: ien
- Notes: burrows in sand.
- Habitat: in sea grass (kasung), in sandy areas
- Capture methods: derris, hook and line



Photo of ***voka***, *Cheilio inermis*.

---

vokepsung, ***Vokesung***

Largest of all *tuna i nei sung*. Tail is said to be 'round' then 'pointy at the end'. It has 'soft' skin.

- Part of: ien, tuna, tuna i nei sung
- Notes: *kep*=dig, *sung*=river, it digs in the river-bank. Some people are afraid of them.
- Prohibitions: not eaten, likened to a snake.
- Habitat: river

---

vokoto

A reef fish with a characteristic behaviour: when scared, flees into a crevice in the reef and extends its fins to 'lock' itself into the rock. When danger has passed it relaxes and can be caught easily. This behaviour gives rise to the expression '*luai vokoto*', which means 'short-lived peace'. Very small mouth.

- Part of: ien
- Habitat: on the reef, on the reef dropoff
- Capture methods: hook and line, freediving, hook and line (women)

---

vokui

A yellow-, white-, and black-marked river fish with scales that blows water (*kui*) to make prey sitting near the river fall into the water. Bonny.

- Part of: ien
- Habitat: in large rivers
- Capture methods: hook and line with kuru, spear

---

vol Sc: *Gobioidei sp.*

A small brown river fish (not sticky). Comes from *mingol*.

- Part of: ien
- Habitat: fresh water
- Capture methods: hook and line, multi-tip spear, masket, derris



Photo of ***vol***, *Gobioidei sp.*.

---

volo Eng: octopus, TP: *urita*

Octopuses.

- Part of: volo
- Notes: stay near the sea floor, don't swim. They could catch and drown you. Dangerous. Could even stick to a canoe and capsize it. Has its hole in the reef to hide in. When fleeing it bunches its legs and it can move in the water, otherwise it's on the floor and 'walks'. When pricked with a cassava stick it dies.
- Habitat: on the reef dropoff, in sandy areas, in underwater holes
- Capture methods: spear, derris, casava stick

---

volo ingua*, *Volo tamus

A brown octopus.

- Part of: volo
- Notes: evil, herons eat them. They are only small.
- Prohibitions: not eaten.

---

volo ulen
A red octopus.

- Part of: volo
- Notes: eaten.
- Habitat: on the reef dropoff, in underwater holes
- Capture methods: spear, stick of casava

---

von Eng: goat fish, TP: *gotpis*, Sc: *Parupeneus indicus*
Generic for a type of fish.

- Part of: ien



Photo of ***von***, *Parupeneus indicus*.

---

vongho suang
A white fish with black marks that digs in the sand with its mouth.

- Part of: ien
- Habitat: in the river
- Capture methods: hook and line, freediving

---

vongoiso
A round, brown coral that is painful to the touch despite looking smooth.

- Part of: ral
- Habitat: on the reef

---

vopangpangun
Small fish, rather flat, that schools, flees from canoe as you paddle in early morning.

- Part of: ien
- Notes: it wakes up fish that are sleeping.
- Habitat: on the reef, on the reef

---

vorok
A fish that is similar to, but larger than *vosisiruk*.

- Part of: ien, aruma
- Habitat: in large rivers, near mangroves
- Capture methods: multi-tip spear, hook and line

---

vosisiruk Sc: *Tylosurus punctulatus ?*
A fish that is similar to *sira*, grows up in the mangrove, then stays near river mouth.

- Part of: ien, aruma
- Habitat: near mangroves, in the estuary
- Capture methods: spear, multi-tip spear



Photo of ***vosisiruk***, *Tylosurus punctulatus ?*.

---

voto
A bivalve shell that looks similar to *kivok*, the 'typical' bivalve but has relatively sharp points on it.

- Part of: giem
- Habitat: reef

---

vukata Sc: *Rhinecanthus verrucosa*

A strangely shaped and colourful fish, brown.

- Part of: ien
- Habitat: near the reef dropoff
- Capture methods: hook and line



Photo of ***vukata***, *Rhinecanthus verrucosa.*

---

vukata kut Sc: *Balistapus undulatus*

A fish shaped in the same (strange) way as *vukata* but less colourful, almost entirely black, red on fins. Small spikes on its tail.

- Part of: ien, vukata
- Habitat: on the reef dropoff, in pools on the reef flat (when small)
- Capture methods: hook and line, freediving, derris, in underwater holes at very low tide



Photo of ***vukata kut***, *Balistapus undulatus*.

---

vukata ta vilivili Sc: *Canthidermis maculatus*

Blue white. Similar to ievata.

- Part of: ien
- Habitat: on the reef dropoff
- Capture methods: hook and line, freediving
- Caught with hook and line baited with: plastic, ien, katu



Photo of ***vukata ta vilivili***, *Canthidermis maculatus*.

---

vukul TP: *brus*, Sc: *fam. Pomacentridae*

Small schooling reef fish family, of various colours: black, blue. The prototypic species is black.

- Part of: ien
- Notes: according to a story told to lesley fast, it is a *vukul* that gives its name to the village Umvukul (or Umbukul). Not actually targeted, it sometimes takes hook or dies with derris, and is then eaten.
- Habitat: under a specific type of coral, near the reef dropoff
- Capture methods: hook and line (small hook and line), derris



Photo of ***vukul***, *fam. Pomacentridae*.

---

vunep
Small stage of *riranga*, too small to cook in stone oven.

- Part of: ien, ieung, riranga
- Notes: literally 'ground'. They are too small to collect, would be too dry when cooked in oven, 'all water'.
- Habitat: reef, estuary
- Capture methods: mosquito net, nimut (from coconut)

---

vungito
A shell that is similar to *lei*, slightly blue green, smaller, and only white, has no marks.

- Part of: giem
- Notes: eaten, no market for it.
- Habitat: on the reef dropoff,
- Capture methods: pick up

---

vurut Sc: *Cheilidopterus sp.*
Very small fish, looks like *pore*.

- Part of: ien
- Habitat: near the reef dropoff
- Capture methods: hook and line



Photo of ***vurut***, *Cheilidopterus sp.*.

---

vutulpot
A fish that is black with a white underside and looks similar to *kuitalisa*.

- Part of: ien
- Habitat: in deep waters
- Capture methods: bottom fishing

---

vutvut
A shell similar to *talvung* but smaller.

- Part of: giem
- Notes: edible, the operculum is used because it looks like an eye, to make the '*moiang* face' used in dancing.
- Habitat: on the reef dropoff, on the reef
- Capture methods: freediving

Appendix C

Inventory of local ornithological knowledge

Introduction

This inventory presents the birds that were named by people of Lavongai during a directed identification exercise based upon the Birds of the World database (Billerman *et al.* 2020). It was constituted by showing photographs of the 181 birds which Birds of the World listed as being present in New Ireland province, after cross-referencing them with other checklists (Lepage 2020; Tarburton 2014) to a group of ten men in Kaselok, on 16 and 17 November 2021.[1]

On this occasion and others I also asked questions about and discussed the birds that are listed in the table of clan-associated 'totems' by Kaad (1951), in order to attempt to identify these by reference to the aforementioned work.

Description of an entry in the inventory

Tungag name
Eng: English name Sc: Scientific name
Description of the being, as given by interlocutors in Lavongai.
Part of: list of higher-order categories (generics) that it is considered to be a member of.
Clan: if it is the totem of a clan, the clan name is given here.

1. This work was done in a relatively open area, and many people took part in it whose names I was unfortunately unable to consign. More assiduous participants included Boniface Fode, Laimen Beling, Total George, Leavesley Aini, Haegar Boskuru, Lamias, Martin.

Inventory

gaus*, *ngaut
A medium sized black bird, which makes a sound like a whistle, which 'breathes' (in Tungag: *aus*). From Kaad 1951 (see Table 2.8).

---

gilagila*, *gila
Eng: Singing Parrot Sc: *Geoffroyus heteroclitus*
A medium-sized, parrot-like bird.
Part of: ianga
Clan: Gila

---

ianga
A generic name for a type of parrots. The generic species has a different name for male and female.
Clan: Ianga

---

iok
Eng: Long-tailed Myna Sc: *Mino kreffti*
A bird which makes a cry that sounds like '*iok doka*'. Its wings are also loud when in flight.

---

ir ka ing
Eng: Pacific Baza Sc: *Aviceda subcristata*
A bird with a long head-crest; said to be able to scratch its own back with the end of it (*ir* refers to the back of the head). Sometimes steals hens or chicks. Eats rats, frogs.

---

iutapit
Eng: Barred Cuckooshrike Sc: *Coracina lineata*
Eng: Island Monarch Sc: *Monarcha cinerascens*
A small bird that is found in the forest, or in old gardens.
Part of: tien

---

kanai
Eng: Gray-backed Tern Sc: *Onychoprion lunatus*
Part of: kanai
Clan: Kanai

---

kanai posok
Eng: White Tern Sc: *Gygis alba*
Part of: kanai

---

kekei
A small bird, similar to *silau*, that flies around in groups in the evening. From Kaad 1951 (see Table 2.8).

---

kiakia
Eng: Beach Kingfisher Sc: *Todiramphus saurophagus*
Eng: Melanesian Kingfisher Sc: *Todiramphus tristrami*
A bird that is related to *kiakia* despite them not being in the same family. It will 'call' *inuai* (a fruit) meaning that when this fruit is ripe, the bird cries to let you know. There is a large and a small *kiakia*, this is the larger one.

---

kiau
Eng: Melanesian Scrubfowl Sc: *Megapodius eremita*
A flightless bird. There are two kinds: one with some white on the tail (*kiau karunga*), another which is all black. Lays eggs on the ground. Is capable of flying only short distances. The eggs are somewhat more oblong than those of hens.

---

kik
Eng: Red-chinned Lorikeet Sc: *Vini rubrigularis*
Eng: Red-flanked Lorikeet Sc: *Hypocharmosyna placentis*
A small bird in the *ianga* family, a type of parrot. The one that is colourful (including red) is perceived as the female (in fact this is the biological male), the other is perceived as the male (in fact this is the biological female).
Part of: ianga

---

kik vukul
Eng: Coconut Lorikeet Sc: *Trichoglossus haematodus*
A type of *kik* that is larger than the generic, and is often found in mangroves.
Part of: ianga, kik

---

kikiu
Eng: Collared Kingfisher Sc: *Todiramphus chloris*
Eng: Forest Kingfisher Sc: *Todiramphus macleayii*
Eng: Sacred Kingfisher Sc: *Todiramphus sanctus*
A type of kingfisher that doesn't actually eat fish, but rather shells and other river animals.
Clan: Kikiu

---

kiurodol
Eng: Rainbow Bee-eater Sc: *Merops ornatus*
A green bird.

---

kol, ***nguma***
Eng: Bismarck Crow Sc: *Corvus insularis*
The crow. Said to be the 'bad boy', in reference to the bible story, in which the crow is sent out from Noah's ark to find land, and never comes back, preferring to just eat around. And then the dove (*uk*) is sent, and does his job and brings back a branch.
Clan: Nguma

---

kukua
Eng: Mackinlay's Cuckoo-Dove Sc: *Macropygia mackinlayi*
A bird which bears a name that is an onomatopoeia for the sound it makes, which is likened to the sound a person shouting from afar makes.

---

kulkuliton*, *man kulkuliton
Eng: Green-fronted Hanging-Parrot Sc: *Loriculus tener*
Eng: Buff-faced Pygmy-Parrot Sc: *Micropsitta pusio*
Eng: Finsch's Pygmy-Parrot Sc: *Micropsitta finschii*
Eng: Meek's Pygmy-Parrot Sc: *Micropsitta meeki*
Eng: Red-breasted Pygmy-Parrot Sc: *Micropsitta bruijnii*
A small parrot that is similar to *kik vukul* and eats on *ton* trees. The more colourful birds are perceived as female, less colourful ones as male.
Part of: ianga

---

lungma
Eng: Island Imperial-Pigeon Sc: *Ducula pistrinaria*
Eng: Pacific Imperial-Pigeon Sc: *Ducula pacifica*
A large *valus*.
Part of: valus

---

manga
Eng: Cardinal Lory Sc: *Pseudeos cardinalis*
Eng: Purple-bellied Lory Sc: *Lorius hypoinochrous*
A bright red parrot that cries out loudly as it flies over, and is usually found in pairs. There is a song called *ngono manga* (pair of *manga*).
Part of: ianga

---

mangmangkelei
Eng: Glossy Swiftlet Sc: *Collocalia esculenta*
Eng: Uniform Swiftlet Sc: *Aerodramus vanikorensis*
Eng: White-rumped Swiftlet Sc: *Aerodramus spodiopygius*
A bird which lives in caves in the forest (*neite bang*), where it makes nests

---

maniangui
Eng: Nicobar Pigeon Sc: *Caloenas nicobarica*
A type of *valus* that is found in abundance on Tingwan, Musau, and islands to the north of Lavongai. It is edible and there is a season during which it reproduces and the young can be collected to be eaten easily by shaking a tree that has a nest in it.
Part of: valus

---

manikeng
Eng: Metallic Starling Sc: *Aplonis metallica*
Eng: Singing Starling Sc: *Aplonis cantoroides*
A small black bird that has characteristic red eyes, and differs from *riul* because *manikeng* lays eggs in a nest which it makes, and has red eyes, neither of which are the case of *riul*. It is an 'angry bird'.

---

manilava, ***manuanga***, ***maningulai***
Eng: White-bellied Sea-Eagle Sc: *Haliaeetus leucogaster*
A large, very strong and 'angry' bird, the 'boss of all birds'. It carries stones up into trees to make its nest. Catches fish, snakes, flying foxes, wallabies.
Clan: Manilava

---

mankuning, ***silau***
Eng: New Hanover Munia Sc: *Lonchura nigerrima*
Eng: Bismarck Munia Sc: *Lonchura melaena*
Eng: Hooded Munia Sc: *Lonchura spectabilis*
Eng: Mottled Munia Sc: *Lonchura hunsteini*
Eng: New Ireland Munia Sc: *Lonchura forbesi*
A small black bird with a single red blotch on its tail, which lives in *ngei* grass (*kunai* in Tok Pisin). There is a story about how it brought fire to people, by letting its tail catch on fire and then landing in the *ngei* grass which was thus set on fire.
Part of: silau
Clan: Silau

---

manmantub
Eng: Eurasian Tree Sparrow Sc: *Passer montanus*
A bird which lands on the ground then flies strait back up into the sky. That is where the name comes from, it is said to *tub* (go strait up).
Part of: sip

---

mansu
Eng: Brown Noddy Sc: *Anous stolidus*
A bird which swims and floats in the sea.
Part of: kanai

---

manvoko
Eng: Black Noddy Sc: *Anous minutus*
A bird which lands on water and drifts on the sea, *voko* means 'drift'. Abundant around Nusa, in the Tigak islands.

---

mar
Eng: Brahminy Kite Sc: *Haliastur indus*
A bird of prey that is related to *manilava*. The name may be related to the colour, since the qualifier *marmar* refers to brown in other birds' names.

---

minluai
Eng: New Ireland Friarbird Sc: *Philemon eichhorni*
A bird with a long tail and large wings that is hard to see, but the cry of which can be heard during the day, and is named after its cry. If it sings at night, that means somebody has died. It sounds like a person.

---

mosmosour
Eng: Bismarck Whistler Sc: *Pachycephala citreogaster*
Eng: Black-tailed Whistler Sc: *Pachycephala melanura*
A small bird that has the colour of a ripe (*moso*) banana (*ur*). Another explanation for the name (or by extension from this one) is as follows: it is said that when they land on a banana bunch, then that bunch will ripen. It is the first bird to wake up in the morning, the first to make itself heard. During the day they are rarely seen.
Part of: tien

---

muka
Eng: Pacific Emerald Dove Sc: *Chalcophaps longirostris*
Eng: Stephan's Dove Sc: *Chalcophaps stephani*
A brown and green bird that is likened to *valus* but not considered to actually be in the generic category.

---

ngaut
Eng: New Ireland Pitta Sc: *Erythropitta novaehibernicae*
Eng: Tabar Pitta Sc: *Erythropitta splendida*
A bird which nests on the ground. The name is the same word for 'to cut grass'.

---

ngisngis
Eng: Blue-faced Parrotfinch Sc: *Erythrura trichroa*
Part of: kik, ianga

---

ngolai
Eng: Willie-wagtail Sc: *Rhipidura leucophrys*
A ubiquitous bird in villages and neighbouring areas that has a very characteristic call and an equally characteristic way of wagging its tail around when walking.

---

ngur lapan
Eng: Striated Heron Sc: *Butorides striata*
A heron found alongside rivers (*ngere sung*) that does not go near the beach very often. It eats prawns.
Part of: vokol

---

paiak
Eng: White-bellied Cuckooshrike Sc: *Coracina papuensis*

---

pato
This bird was said to be 'a duck' by English-speaking Lavongai people, but no checklists mention the presence of any birds from that family in the area.

---

pipiok
Eng: Common Cicadabird Sc: *Edolisoma tenuirostre*
Eng: Varied Triller Sc: *Lalage leucomela*

---

rangrang
Eng: Bar-tailed Godwit Sc: *Limosa lapponica*
Eng: Far Eastern Curlew Sc: *Numenius madagascariensis*
Eng: Whimbrel Sc: *Numenius phaeopus*
Eng: Red Knot Sc: *Calidris canutus*
A bird that is related to *turik* and lives in mangrove or on the reef, but does not come up onto sandy shores very often. It differs from *silia* because it is bigger and has a longer beak.

---

raula
Eng: Great Frigatebird Sc: *Fregata minor*
Eng: Lesser Frigatebird Sc: *Fregata ariel*
Frigatebirds. Lavongai people distinguish two types of frigatebirds: one with white on it (which is the case of the biological females of both Great and Lesser frigatebird species), one all black (the case of the biological males). The different size is not seen as being taxon specific, but as a change in maturity for one single taxon.

---

riul
Eng: Metallic Starling Sc: *Aplonis metallica*
A bird that is similar to *manikeng* but does not have red eyes and which lays eggs in holes in trees, whereas *manikeng* makes a nest.
Part of: manikeng

---

ruik
Eng: Buff-banded Rail Sc: *Gallirallus philippensis*
Lives in kunai grass, lays may eggs, doesn't fly.

---

rungrung
Eng: Bismarck Boobook Sc: *Ninox variegata*

---

silia
Eng: Common Greenshank Sc: *Tringa nebularia*
Eng: Common Sandpiper Sc: *Actitis hypoleucos*
Eng: Red-necked Stint Sc: *Calidris ruficollis*
A bird that can swim and is said to call another bird, *sui*, to find fish for it (there is a song about this). It is related to *sui*, the bird is said to be 'his *tamai*' (step-brother). *Silia* doesn't lay its eggs anywhere on Lavongai. It is abundant sometimes, then goes away. It must go and lay elsewhere, probably in stony places.

---

sinpitak
Eng: Eclectus Parrot (M) Sc: *Eclectus roratus (M)*
This is perceived as the male *ianga* and is green (which is indeed the biological male). It is the archetype ianga and the largest of the family.
Part of: ianga

---

sip
Eng: Bismarck Black Myzomela Sc: *Myzomela pammelaena*
Eng: Black-bellied Myzomela Sc: *Myzomela erythromelas*
A small bird that aggregates in large flocks and makes a loud noise around possible predators, like birds of pray, snakes, or big animals such as wallabies. The name comes from the sound they make, they '*sipsip pulakai*'.
Part of: sip

---

sip maul rangai
Eng: Black-headed White-eye Sc: *Zosterops hypoxanthus*
Eng: Red Myzomela Sc: *Myzomela cruentata*
A type of *sip* that has an epithet meaning '*sip* that swims in blood'.
Part of: sip

---

sisiro
Eng: Bismarck Fantail Sc: *Rhipidura dahli*
Eng: Northern Fantail Sc: *Rhipidura rufiventris*
A type of bird that flies around in the forest and can indicate where pigs are when you're hunting, if you follow their sound.

---

soek
Eng: Dull Flycatcher Sc: *Myiagra hebetior*
Eng: Shining Flycatcher Sc: *Myiagra alecto*

---

soek marmar
A brown type of *soek*.
Part of: soek

---

sui
Eng: New Ireland Dwarf-Kingfisher Sc: *Ceyx mulcatus*
A very small kingfisher.
Clan: Sui

---

sui kunganun
Eng: Bismarck Kingfisher Sc: *Ceyx websteri*
A type of *sui* that is relatively large.
Part of: sui

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sui tava
Eng: Common Kingfisher Sc: *Alcedo atthis*
A relatively small *sui*.
Part of: sui

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suitoko
A type of *sui* that can hover in place waiting to dive and catch a fish. From Kaad 1951 (see Table 2.8).

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suluk
Eng: Eclectus Parrot (F) Sc: *Eclectus roratus (F)*
This is perceived as the female *ianga* and is red (which is indeed the biological female). It is the archetype ianga and the largest of the family.
Part of: ianga

---

tanglik, ***ragaum***
Eng: Osprey Sc: *Pandion haliaetus*
A large bird of prey that is somewhat smaller than *manilava*, that eats only fish. It doesn't take small ones, only very big fish.

---

taukik
A bird of pray.

---

tien
Eng: Golden Monarch Sc: *Carterornis chrysomela*
A black and white bird.
Part of: tien
Clan: Tien

---

toktokig aina
Eng: Moustached Treeswift (M) Sc: *Hemiprocne mystacea (M)*
A bird that is similar to *mangmangkelei*, but bigger. Lives in groups. Flies very high up in the sky. This is perceived as being the 'female' (in fact it is the biological male), more colourful and has a striped face.

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toktokig tauan
Eng: Moustached Treeswift (F) Sc: *Hemiprocne mystacea (F)*
A bird that is similar to *mangmangkelei*, but bigger. Similar to mangmangkelei, but bigger. Lives in groups. Flies very high up in the sky. This is perceived as being the 'male' (in fact it is the biological female), less 'painted'.

---

turik
Eng: Sharp-tailed Sandpiper Sc: *Calidris acuminata*
A bird that found on the beach, near the sea, and rivers. It is only present seasonally.

---

turuvalus, ***tulu***, ***nat i nei miskin***
Eng: Pied Cuckoo-Dove Sc: *Reinwardtoena browni*
A bird from the *valus* family that is cryptic, very hard to actually see. It is said to be 'strong', a 'fighter': it will 'fast' in the forest, at places called *miskin* where there is water running over boulders, then with the power gained from fasting, it will attack other birds by flying at them and striking them with its wings.
Part of: valus

---

uk
A family of medium-sized greenish birds that flap their wings vigorously then soar but loose altitude rapidly (something that all *valus* and *uk* have in common)
Clan: Uk

---

uk aina
Eng: Superb Fruit-Dove (biological male: green) Sc: *Ptilinopus superbus (M)*
A cryptic bird that 'hides'. This is seen as being the 'female' of 'uk ta ingua' (either Superb Fruite-Dove biological male, or Yellow-bibbed fruit dove biological male).
Part of: uk

---

uk isvun
Eng: Knob-billed Fruit-Dove Sc: *Ptilinopus insolitus*
A type of *uk* that is seen as female. The name *isvun* refers to the knob on its nose.
Part of: uk

---

uk kang rangai
Eng: Claret-breasted Fruit-Dove (M) Sc: *Ptilinopus viridis (M)*
A type of *uk* that is perceived as a female (this is in fact the biological male).
Part of: uk

---

uk ta ingua aina
Eng: Yellow-bibbed Fruit-Dove (M) Sc: *Ptilinopus solomonensis (M)*
Eng: Yellow-bibbed Fruit-Dove (M) Sc: *Ptilinopus solomonensis (M)*
A type of *uk* that makes a fearful sound as it flies, marking the presence of *ingua* (malevolent spirits). This is perceived as female (but it is a biological male).
Part of: uk

---

uk ta ingua tauan
Eng: Claret-breasted Fruit-Dove (F) Sc: *Ptilinopus viridis (F)*
Eng: Superb Fruit-Dove (F) Sc: *Ptilinopus superbus (F)*
Eng: Claret-breasted Fruit-Dove (F) Sc: *Ptilinopus viridis (F)*
Eng: Superb Fruit-Dove (F) Sc: *Ptilinopus superbus (F)*
A type of *uk* that makes a fearful sound as it flies, marking the presence of *ingua* (malevolent spirits). This is perceived as male (but it is a biological female).
Part of: uk

---

uk tauan
Eng: Yellow-bibbed Fruit-Dove (F) Sc: *Ptilinopus solomonensis (F)*
This is perceived as the 'male', green, less colourful.
Part of: uk

---

unes lik*, *uneslik lik
Eng: Variable Goshawk Sc: *Accipiter hiogaster*
A bird of prey that sometimes takes hens or chickens.

---

valku
Eng: Amboyna Cuckoo-Dove Sc: *Macropygia amboinensis*
A bird that is from the *valus* family. It is similar to *kukua*, but is distinguished from the all black *kukua* by its white chest. It flies up and down while shouting.
Part of: valus

---

valus
A family of greyish birds that flap their wings vigorously then soar but loose altitude rapidly (something that all *valus* and *uk* have in common). Most can be regularly shot with slingshots and stones and are eaten.
Clan: Valus

---

valus isvun
Eng: Red-knobbed Imperial-Pigeon Sc: *Ducula rubricera*
isvun refers to the red knob. It is the female that has the largest knob, the male only has a small one.
Part of: valus

---

vengevenge i nei laman miting*, *vaingan miting
Eng: Bulwer's Petrel Sc: *Bulweria bulwerii*
A bird that lives in groups and fly very fast. They land on the water and then when they take off again, they 'run' on the surface. These birds are bigger than *kanai* and not as large as *raula*. They belong to neither family. This is the 'black' type. *Vaingan* is Puk Matas dialect.

---

vengevenge i nei laman posok*, *vaingan posok
Eng: Herald Petrel Sc: *Pterodroma heraldica*
A bird that lives in groups and fly very fast. They land on the water and then when they take off again, they 'run' on the surface. These birds are bigger than *kanai* and not as large as *raula*. They belong to neither family. This is the 'white' type. *Vaingan* is Puk Matas dialect.

---

vengevenge i nei laman*, *vaingan
Eng: Streaked Shearwater Sc: *Calonectris leucomelas*
A bird that lives in groups and fly very fast. They land on the water and then when they take off again, they 'run' on the surface. These birds are bigger than *kanai* and not as large as *raula*. They belong to neither family. *Vaingan* is Puk Matas dialect.

---

vengevenge*, *moiang
Eng: Blyth's Hornbill Sc: *Rhyticeros plicatus*
A large bird with a prominent bill. The one that has brighter colours is perceived as the female (it is the biological male), and the more dull one as the male (it is the biological female).
Clan: Vengevenge

---

vokol
A generic name for herons.

---

vokol aliu
Eng: Black Bittern Sc: *Ixobrychus flavicollis*
Eng: Pacific Reef-Heron Sc: *Egretta sacra*
An entirely black type of heron or egret that is found along rivers, on the beach sometimes. *Aliu* means 'poised' or 'on the lookout'.
Part of: vokol

---

vokol marmar
Eng: Nankeen Night-Heron Sc: *Nycticorax caledonicus*
A heron with a light brown colour (which the word *marmar* denotes).
Part of: vokol

---

vokol veua
Eng: Great Egret Sc: *Ardea alba*
Eng: Intermediate Egret Sc: *Ardea intermedia*
A heron that follows rivers inland then goes back to the coast, but is primarily marine. The word *veua* means 'shark' but the relation is uncertain.
Part of: vokol

---

vungi
Eng: Little Grebe Sc: *Tachybaptus ruficollis*
A bird that lives in the sea, rivers, lakes, ponds and lands on water.

---

vurik
A seaside wader, similar to *silia* and *rangrang*. From Kaad 1951 (see Table 2.8).

Appendix D

Bibliography of publications concerning Lavongai

This is a list of publications that concern Lavongai, sorted by date of publication. Note that this is *not* the list of cited references, which is found on page 481.

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Appendix E

Kinship data

In the following tables, regarding clan membership, the following abbreviations are used: E is 'ego's clan', F is 'ego's father's clan', ≠E is 'any clan other than ego's', ≠F is 'any clan other than ego's father's', and X is 'any clan'. For all other abbreviations see page xiv.

Table E.1: Terms of reference (first person singular possessive) used for consanguines in Tungag, showing if they are relative, absolute or indeterminate in sex and which clan these people belong to provided clan exogamy is respected. Distant relations (such as MMFZCC) are not shown.

Tungag term	Sex-type	Principal English glosses	Abbreviation	Clan
		Generation 0		
tasig or *tungag*	rel.	same-sex sibling same-sex parallel-cousin	ms: B, ws: Z ssMZC, ssFBC	E E, X (≠F)
taug	rel.	opposite-sex sibling opposite-sex parallel-cousin	ms: Z, ws: B osMZC, osFBC,	E E, X (≠F)
magaug or *onongog*	rel.	opposite-sex cross-cousin	osFZC, osMBC	F or X (≠E)
ingag	rel.	same-sex cross-cousin	ssFZC, ssMBC	F or X (≠E)
		Generation +1		
tamag or *kag peu*	abs. ♂	father father's brother father's male parallel-cousin mother's sister's husband mother's female parallel-cousin's husband	F FB FFBS, FMZS MZH MFBDH, MMZDH	F F X, F ≠E ≠E
rinag or *kag nana* *nanig* (Matas dialect)	abs. ♀	mother mother's sister mother's female parallel-cousin father's brother's wife father's male parallel-cousin's wife	M MZ MMZD, MFBD FBW FFBSW, FMZSW	E E E, X ≠F X
labag	abs. ♂	mother's brother mother's male parallel-cousin mother's male cross-cousin father's sister's husband father's female parallel-cousin's husband	MB MMZS, MFBS MFZS, MMBS FZH FFBDH, FMZDH	E E, X ≠E ≠F X, ≠F
		[Continued on next page]		

Tungag term	Sex-type	Principal English glosses	Abbreviation	Clan
		Generation ±1		
kag manai	indet.	father's sister	FZ	F
		father's female parallel-cousin	FMZD, FFBD	F, ≠E
		mother's brother's wife	MBW	≠E
		mother's parallel-cousin's wife	MFBSW, MMZSW	≠E
		mother's cross-cousin's wife	MFZSW, MMBSW	≠E
		ws: brother's child	ws: BC	≠E
		ws: child of male parallel-cousin	ws: FBSC, MZSC	≠E
		ws: child of male cross-cousin	ws: FZSC, MBSC	≠E
kag kakai	indet.	*labag*	(see above)	
		tipasig	(see below)	
		Generation -1		
kag keve inatus	indet. (plural)	children	C	ws: E, ms: ≠E
		same-sex sibling's children	ms: BC, ws: ZC	ws: E, ms: ≠E
		same-sex parallel-cousin's children	ms: FBSC, ms: MZSC	X, ws: E, ms: ≠E
			ws: FBDC, ws: MZDS	X, ws: E, ms: ≠E
		same-sex cross-cousin's children	ms: FZSC, ms: MBDC	X
			ws: FZDC, ws: MBSC	X
kag nat	abs. ♂	son	S	ws: E, ms: ≠E
		same-sex sibling's son	ms: BS, ws: ZS	ws: E, ms: ≠E
		same-sex parallel-cousin's son	ms: FBSS, ms: MZSS	X
			ws: FBDS, ws: MZDS	X
		same-sex cross-cousin's son	ms: FZDS, ms: MBDS	X
			ws: FZSS, ws: MBSS	X
kag kavulik	abs. ♀	daughter	D	ws: E, ms: ≠E
		same-sex sibling's daughter	ms: BD, ws: ZD	ws: E, ms: ≠E
		same-sex parallel-cousin's daughter	ms: FBSD, ms: MZSD	X
			ws: FBDD, ws: MZDD	X
		same-sex cross-cousin's daughter	ms: FZDD, ms: MBDD	X
			ws:FZSD, ws: MBSD	X
tipasig	indet.	(spoken by a man) sister's child	ZC	E
		(spoken by a man) child of female parallel-cousin	MZDC, FBDC	E, ≠F
		(spoken by a man) child of female cross-cousin	MBDC, FZDC	≠E, ≠F
		Generation ±2		
tivug or *kag bubu*	indet.	consanguines ≥2 generations away	PP, CC, PPP, CCC, etc.	X

Table E.2: Terms of reference (first person singular possessive) used for affines in Tungag, showing if they are relative, absolute or indeterminate in sex, their principal glosses and which clan these people belong to provided the rule of clan exogamy in unions is respected. Distant relations (such as FFBSW) are not shown here for the sake of concision.

Tungag term	**Sex-type**	**Principal English glosses**	**Abbreviation**	**Clan**
		Generation 0		
kisngag	rel.	spouse	ws: H, ms: W	≠E
angtuaig	rel.	same-sex sibling's spouse	ws: BW, ms: ZH a	≠E
		same-sex parallel-cousin's spouse	ms: FBDH, ms: MZDH	X, ≠E
			ws: FBSW, ws: MZSW	X, ≠E
		spouse's same-sex sibling	ws: HB, ms: WZ	≠E
		spouse's same-sex parallel-cousin	ms: WFBD, ms: WMZD	X, ≠E
			ws: HFBS, ws: HMZS	X, ≠E
iag	abs. ♀	ws: brother's wife	ws: BW	≠E
		ws: male parallel-cousin's wife	ws: FBSW, ws: MZSW	X, ≠E
		ws: husband's sister	ws: HZ	≠E
		ws: husband's female parallel-cousin	ws: HFBD, ws: HMZD	X, ≠E
palkag	rel.	spouse's same-sex sibling's spouse	ws: HBW, ms: WZH	X
		spouse's same-sex parallel-cousin's spouse	ms: WFBDH, ms: WMZDH	X
			ws: HFBSW, ws: HMZSW	X
tamai	abs. ♂	ms: spouse's brother	ms: WB	≠E
		ms: spouse's male parallel-cousin	ms: WFBS, WMZS	X, ≠E
		Generations ±1 and ±2		
imog	indet.	ms: wife's mother	ms: WM	≠E
		ms: wife's grandmother	ms: WMM, ms: WFM	≠E
		ws: child's spouse	ws: SW, ws: DH	≠E
		ws: husband's parent	ws: HM, ws: HF	≠E
		son's wife	SW	ws: ≠E, ms: X
		grandson's wife	CSW	X
almug	abs. ♂	ms: wife's father	ms: WF	X
		ms: wife's grandfather	ms: WFF, ms: WMF	X
		ms: daughter's husband	ms: DH	X
		ms: granddaughter's husband	ms: CDH	X

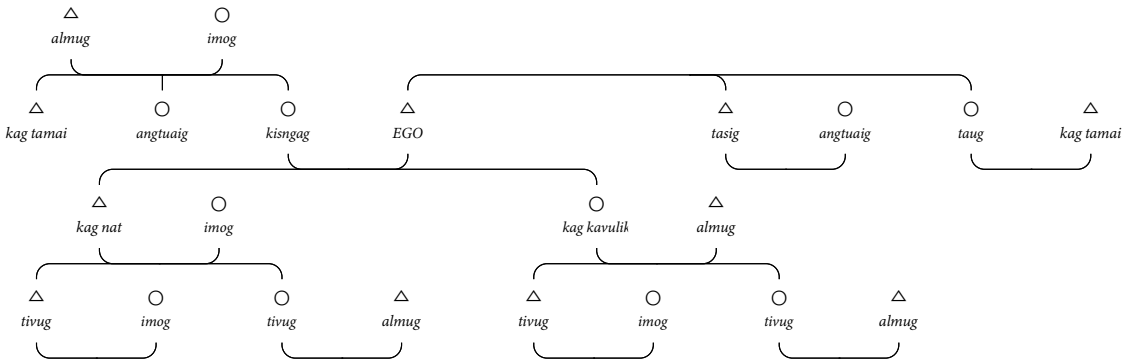


Figure E.1: Diagram of Tungag first person singular reference terms for affinal relations, as spoken by a man.

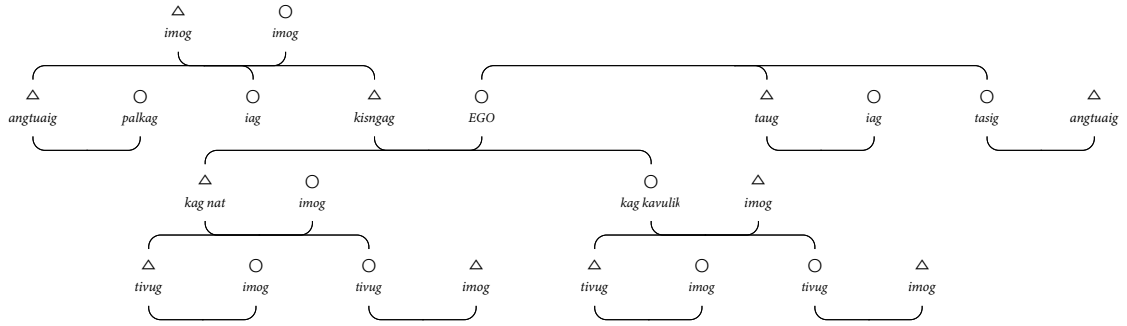


Figure E.2: Diagram of Tungag first person singular reference terms for affinal relations, as spoken by a woman.

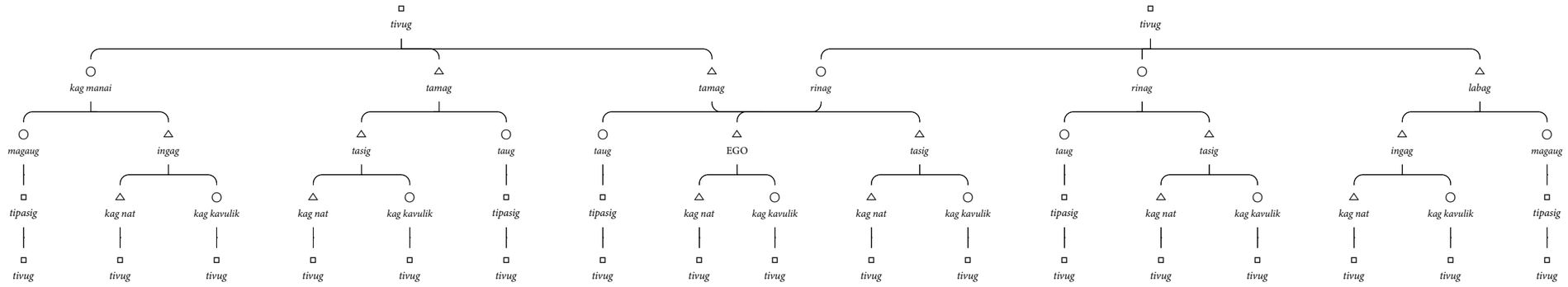


Figure E.3: Diagram of Tungag first person singular reference terms for consanguineous relations, as spoken by a man.

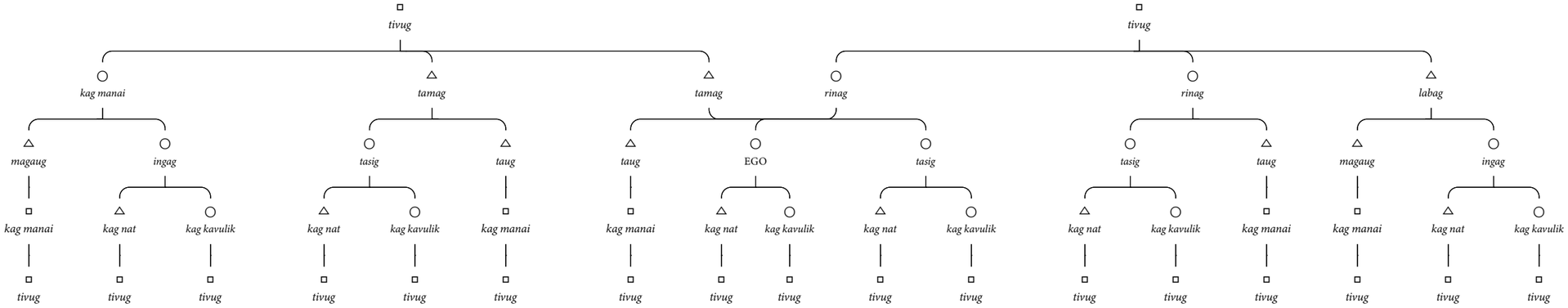


Figure E.4: Diagram of Tungag first person singular reference terms for consanguineous relations, as spoken by a woman.

Appendix F

Story of Okas and the Maliuliu Eel

As told by Makansiavun Balane and recorded at Neipuas (Lavongai Island, Papua New Guinea) on 14 February 2022. Translated by Mark Collins and Laimen Beling.[1]

English Version

Our people, our group, they went and lived at a place called Ingi. Among them, there was a grandmother and her grand-daughter, who both lived there. They went to weed one morning. On their way, the two of them went to have a wash. The two of them went to wash, and they walked away from the water, and realized they had forgotten their coconut shell that they were using as a tool to weed there.

Then, an eel took that coconut shell, and it swallowed it. But as it did, the small girl saw the eel swallow it, and she said to her grandmother: 'look at the eel over there, it swallowed the coconut shell, our coconut shell we were using to weed!' As the two of them looked, the eel dived back into the water. The two of them didn't go to weed, the two of them walked back home and immediately they told the people there at Ingi, about the big eel.

The men grabbed their tools and then went and dug after the eel, because they wanted that eel. They dug, they had brought their axes, and their tools to cut the roots, as well as their digging sticks. They kept on digging, until they found a first eel and asked the grandmother and her grand-daughter to look at it. They asked them: 'you two, see if you recognize it?' and the grandmother and grand-daughter said: 'this one, this eel, no', so they kept digging. They kept digging because that was the place where the eel had dived back into the water. They found another, and they showed them: 'no, this is a different eel', so they kept digging. They kept on digging, and they called to the two of them again, 'no, no that's still not the one'. They kept going, they just kept digging since that was the place where the eel was bound to be.

As they dug, they finally came to it. They came to it and they struck it. It wasn't a small thing! They struck it, and struck it again, they dragged it up and they cut it open because they were after the coconut shell. They cut it, got the coconut shell back. They cut it up into enough shares for everybody in Ingi. Part of it for the people of clan Siavun, part of it for the people married into the clan, they cut it up, and they gave it away. They kept on

1. Two shorter versions of this story are also given by Tamsin Donaldson (1988, pp 66–71): the first was told in Tungag by Semy Pasingandau from Noipuas in 1971 in Kavieng, recorded, transcribed, and translated. The second was written in English by Lindia Yamalana Semy from Noipuas.

gifting the eel. There was enough for absolutely everybody. But as they did, they forgot the bile-sack. They forgot the bile-sack inside the eel.

However my ancestor, she didn't take any of the eel, because she had given birth to a baby. But all our other ancestors, along with some people married into the clan, they took pieces of it.

However, they forgot the bile-sack, and the bile-sack drifted back out towards the sea, and it kept on drifting, all the way to Vakalsapal, where it started to take shape again. The eel it turned back into felt around, trying the depth of the water, it took shape again, and it went back inland, up the Maia river. It kept on going inland, back along the river, testing the depth of the water as it went.

Then, it changed shape: it became a man. This man arrived at a certain place where the water is like glass, where it is very clear, and looked at his reflection. The reflection indeed, was that of a man, he had become a man.

This man went inland. He walked, and he arrived all the way over there, back at Ingi. The men who had eaten a piece of it, of him, those who had eaten pieces of him didn't know that he had returned. If it wasn't for the bile-sack, but he returned.

As he arrived, he spoke to the big men of that place, but nobody knew his name, his name was Okas but they didn't know. He arrived with his body decorated, with decorations that he'd put a lot of preparation into. He was dressed entirely in grass clothing, even his legs. He arrived with his slit drum and his piece of wood to strike it with. He entered the village and at the same time he was carrying the slit drum on his shoulder.

He played his instrument, and all the men from that little place came. He called out to them: 'my people, some of you have eaten a certain eel, I want you all here. All of us let's come and be together here.' Well, they came. When they were all together there, he started playing, and told them to sing with him. They sang with him, and as they sang with him, he started to sweat, because he was dancing. He danced, and he sang his song, he sang: 'who is disappearing? They are skeletons, those who are disappearing.' He sang, and he played his slit drum at the same time! As he stood up, he was a really big man, a huge man.

Well, my ancestor, my great-grandmother looked at him as he was dancing. She just hid and looked because she was wondering what kind of man he was. As she did, she saw his body was very big.

Well, he kept dancing, and playing his slit drum, and his body became sweaty. And the sweat actually ran all the way to the ground and became like a river. And this kept on going, even when the sweat ran all the way down to his feet, he kept on dancing. This went on, until the sweat got all the way up to his face.

The people there, they had all forgotten that it was the eel that was dancing. He kept on sweating and carried on, then he shouted: 'kukuk', and as he shouted 'kukuk', all around that place where these people lived, the ground cracked, it broke, all around. They had no idea, they just sat down and watched. They watched him because he was decorated with a very special kind of decoration, which was on him. But when his sweat poured down all over in this way, it made them all die. Absolutely all of them, all the men watched, and the men who had eaten him, the men who wanted to argue with him, because when he had called them there, some of the men had said: 'we didn't eat any, we didn't eat a piece of

the eel which was cut up into many pieces.' He called them back and said: 'all of you who have eaten, you come and sit here.'

But my ancestor didn't go, because she hadn't eaten any of the eel, because she had just given birth. One of my male clan ancestors, looked up from his hiding place just as Okas stood up tall and struck the ground. And as he did, all of them, all the people fell into a great crack in the ground, and were washed away by the water that came from his sweat. The water wasn't deep, because this place is on top of a hill. It is still there, if one actually goes there, one can see that it wouldn't be possible to make that kind of ground collapse, yet all the way over there, there is water coming up from the ground.

He shouted: 'Kukuk! Kukuk! You were crazy to eat the Maliuliu Eel!' For they were crazy to have eaten that eel, the eel called 'Maliuliu' that has a story.

This story has truly been passed down through our grandparents, because of the ancestor who peeped at them, and because of my great-grandmother who didn't eat any of the eel. But a great number among the people of my clan went down into the crack in the ground and died, along with the people married into the clan. And just a few ended up engendering all of us. Our great-grandmother indeed, she came to engender us who are here, and that's how we came to be. That's our story, from up there, it is really ours, the story of our clan, Siavun.

Well that's it that's the end.

Original Tungag Version

Kami, kamem lain. Euh, nem. Na la kin ta lain, o sa, kamem petau kita pa ago e iang. E. Ingi. Na, ko togon ngono angtivu. Kilongtapo ago na kilong ta pasal ta puna tenei vauk. Na kilong ta puna, na… anu lik, kana kavulik lik, kana tivulik kala arai ni… hum… parik tav arai, sikei kilong la pasal ta aising. Kilong pasal ta asising, na kilong la palak puk, na kilong la lomontaun kavi i karilong po puna. Kavi i niu ko. Io, puna. Kilong la lomontaun ia, na kilong me la pa ago eke, na, nem tuna ang kala luk nia, na kavi ang. Na kala konem ia. Ko konem a korong ta, kavulik lik ang kala arai ni tuna ang si o konem. Na kala akalit a tivuna: ' arai ni tuna suke kolo… konem a kavi, karong kavi io puna'. Au, kilong la arai kala lum. Kala lum.

Kilong la kovek i puna, kilong me la pasal si me antok tapai ane ri vap. Eke, eke e. Ingi, atatai i ta…kain, vil a suka, aaa…nem ko, tuna lava ang. Kila pasal, ri vap ki la itoitonai, kila pasal tan…kep ania, kep using ani tuna ang, using kio buk a tuna ang. Kila kep. Ki pasal, ki luk a ri nganig, na ri…nem si o tangai, ko, ni mis. Ri vuk ei si kari po, nem, kel ani nei vunep. Kila kel kel kel kel, kinpo serei si ainoai, i ta sog irilong ta arai. 'Au, milong kinlei! Ni na, na tuna ke? –Parik'. Ki anguan kel an. Kel using nia na…ring ang kata palak singina. Na kin pa akalit i rilong: 'Parik, kala angua', na kipo kep. Kep kin po using kin po songo irilong: 'Parik, parik lak ta nia'.

Kin pasal pasal pasal pasal, kin lak kep a korong vanang, sikei, kana ring i pa ago. Taun kin la kep, kila serei vanang singina. Au kila serei singina na kila vis ia nang. Parik ta nem lik! Vis ia, ki vis ia kio, ki dal alak ia, ki la lamut ia vanang, si kari lamut using a kavi ang. Kila lamut ia na kavi ang, kila lomontaun a, nem ang…kas ang. Ki la lomontaun a kas, i nei ina. Ki la lamputuk ia, ki la putputuk ia, ani ri vap aongos i ring ang. Ingi. Palpalimem,

palpal i osongon, kila lamputuk ia. Kila alilis. Alilis, alilis, alilis ta tuna ang. Kala…nap aongos, a ri vap.

Vuvui, kata kovek i luk [inaudible] serei. Kila kovek i luk si tuna ang, using kata ingus a popo. Na ria aongos, mang keve tivumem, ve mang keve osongon kita lukluk. Kila luk, kila lomontaun a kas ang, kas ang ka voko a siang fok. Na voko voko voko voko, a korong ta Vakalsapal, kala start itoitonai pok le. Kala lolong vanang kala itoitonai, kan palak. Kan akik alak pok. E. Maia nang. Ka la akik alak pok, uliulitai, kana ainoai. Kolo ol ol alak pok ane nei laman ang.

Le, kan palak, kan pasal pasal pasal, kan anguan, kila lolong putuk. Si kanan serei fok, kan serei a igenen, kan pasal, ka me a sung e suke, kala…mang sikei a buk ring, kala ilaila. Kala ilailai a fuk nei ring an ko, glass. Laman ang, ko, puk val glass ko: kuo tung na ku ilaila. Ilaila a vanang, ta ko igenen, kala igenen, kala serei.

Kala palak. Kala pasal, kin la serei e suke…nem ko ka serei val igenen. Ri vap vuk i nem ang kitala angan ia lengignan, vuk ina. Ria nang, kila taua ta ang: 'nia kala serei pok'. Sikei, kas nang! Kala serei pok. Kala serei kala…antok a keve… vap lava ko, i ring ta ang nia ko serei sikei, kana asan ko kovek. Ko serei velai maus, maus, na…maus i la itoitonai a lava luai. Sukasukai, aongos, kuvul ve kakina. Ka serei ve kana rangamut, nia torong kana rangamut, kana vuk ei. Ko palak velai nia, ko asalak alak ia. Hum hum. Sikanan tiring vanang na ri vap aongos, kitapo ago si vuk ring ang, ko vuk ring lakat. Au, kala songo iria: 'Kag vap, mang mitala angan a…tuna ang, no vuk imi aongos eke. Tara me ago kuvul eke.'

Au, kila…taun ang kila ago kuvul e vuang, nia nang kala start tiring nang. Kala start tiring, na kala antok iria ta ki tangam ve nia. Ki tangam ve nia, na taun ang, kilo tangam ve nia nia nang ko lo… gese nang kolo serei singina, using nia nang ko, mika nang. Ko mika, na ko tangam kana tangam: 'Si ka tamuling? Tomor ka tamoling.' Ko tangam nang, na ko tiring nia kana rangamut, nia a korong. Na ko tung na, ko bik man luai, ko tavirimok igenen. Tung, e.

Au, kag vuvui a korong, vo kau ni kana vang [points to people present] a na kag keve kakai, a nem…kio sinung e vuang, sikei kio kun sinung e fankul. Na ko tere tatana ta [person's name?] ko mikamika ang. Na nia kolo ilongai palau. Using kalo sugul ta, ta saka igenen ang ko… ko lo asukang. No ko serei asukang, pukunina ko lava luai. Au, kolo mika nang, ko mika, ko tiring, kala gese nang, pukunina. Na gese ang, kata serei vanang, nei laman ang. Laman ang. Na kan pasal, taun nang, gese nang kolo uak e kakina, nia lak ko mika. Pasa pasa pasal, ka me gese, ka luk alak ia, tung eke [points to top of body]. Ria nang, kilo lomontaun aongos ta, tuna nang, ko mika. Gese, gese, gese, na pasal pasal pasal. Kan arere e fankul ina. Kala kukuk nang.

Au, na taun ko kukuk, aulitai aongos i… ring ang kitapo ago singina, na ri vap… kito sinung singina, kala tataulongai kala tadek ko, aulitai. Ria kila tava luai. Kitala lomontau ta ninia nang, ria nang, ki sinung si kalum. Ah! Kio kalkalum nang, tatana, using ko, maus petekai luai nang, a iuang, kata serei tatana. Au kan, taun a gese ang kan siang aongos… kan… amatan sikei asuang ke. Ria aongos, aongos a vap kalum ang, na vap angan angan ia, vap po buk gel ang nang, ninia nang, kapo sok fok ti songo fok iria. Vap po antok ang ta 'parik, kita angan ia parik kita angan a vuk i tuna i lamlamut ang'. Nia nang, ki songo fok iria: 'na nia aongos kita angan, mi me sinung eke'.

Au, ah…ah.… Na kag bubu vanang, nia ko sinung using parik kata angan, kata ingus mol. Na, kag kakai, first kakai, na ko ilongai vanang iria, sio wok ani men wok lik ang. Kata pasuk, kata ngom asukang ke. Nia aongos a vap ang.… Mat! Siang aongos i nei vunep! Siang aongos i nei laman. Na laman ang, parik kata a lung si kana me go asung eke. Na, ku o nas: ring lakat luai nang! Kana kapa ago, man tara… man ku pasal a korong ku arai, ta… ko lakat luai, parik kav angkuai si ka talom a kain… vunep asukang. Na nia e suke misking e vunep. Kala songo songo ta: 'Kukuk! Kukuk! Nio taun a kon tuna Maliuliu!' Ani, kita nio ko ta angan ani tuna ang, tuna akuskus ko. Nia ko kin ta: 'Maliuliu!' [laugh]. Au, kolo…kolo kovek.

Na akuskus ko, nemta kun luk a korong ia ti kamem bubu vanang, using nia koto ilongai niria. E, using nia kata kovek i angan! Na palpal i mem duk kitala siang ve ri osongon. Na poisan palau kimela asereai vang nimem. Kamem bubu vanang, na kame asereai nimem si me ago ke vang. Au, nem me kun ago. [inaudible] na kana kavulik [inaudible]. Hum.

Au namem vang kana, nem pa ago. Kamem vanang ta akuskus i fankul, ka kamem a korong. Klen. Siavun. E. Siavun.

Au, kala, kolo kamus e vuang.

Appendix G

Questionnaire Used for Semi-Structured Interviews

The following questionnaire was used in the semi-structured interviews which were recorded with 11 participants during fieldwork in Metevoe. It was developped with help from Laimen Belling, and administered in Tungag by the author, with respondents answering in Tungag.

English	**Tungag**
Section: Village, garden, forest	
In Lavongai, what is different between the village and the forest?	*E Lavongai, sa kate angpetpetekai nei liuan i rina, na neiuten?*
Is the place where you grow a garden part of the village or of the forest?	*Siva i te vil matang, kala ol e rina, o kala ol e neiuten? Maraisa?*
What is different between a village on the coast and an inland village on Lavongai?	*E Lavongai, sa kate angpetpetekai nei liuan i ngerelo, na e fankul?*
Subsection: Gender and procreation	
Are there differences between men and women? What are they?	*Ri vap, na ri aina, rilongte angpetpetekai? Saka keve nem ang kite petekai?*
What are the roles of men?	*Kari keve avibisan, ti ri vap, kite sa?*
What are the roles of women?	*Kari keve avibisan, ti ri aina, kite sa?*
When a man and woman have a child, what does the child get from his father?	*Man a mang aina ve mang anitun rilongla pitusai, inatus kala luk sa ti tamana?*
Do a father and his children have the same blood?	*Inatus ve kana tamana a korong, rilongte torong a sikei palau a rangai?*
When a man and women have a child, what does the child get from his mother?	*Man a mang aina ve mang anitun rilongla pitusai, inatus kala luk sa ti tamana?*
Do a mother and her children have the same blood?	*Inatus va rinana a korong, rilongte torong a sikei palau a rangai?*
When they die, where do Lavongai people go?	*Taun i mat, ri vap i Lavongai, rianla pasal ane voi?*
Subsection: Life, spirit	
What are your thoughts about the word *to* (life)?	*Nei kam lomlomonai, supsupai i vuk antok ke: 'to', kate saka bil an?*
What are your thoughts about the word *malanganto* (life force, spirit)?	*Nei kam lomlomonai, supsupai i vuk antok ke: 'malanganto', kate saka bil an?*
What are your thoughts about the word *pato* (spirit)?	*Nei kam lomlomonai, supsupai i vuk antok ke: 'pato', kate saka bil an?*
Do animals such as frogs, birds, snakes, dogs have *pato* or *malanganto*?	*Ri manmanik vak rokrok, manu, kene o kauvek, kite torong pato, o malanganto?*

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English	**Tungag**
Subsection: Human animal relations	
The clans of Lavongai each have a bird. What is the relation between people in a clan, and the bird of this clan?	*Ri patmani i Lavongai, kite torong kari keve manu siksikei. Kate toron a saka antogonan nei liuan i vap na manu ang?*
Are there differences between people and birds? What are the differences?	*Tara, ri vap na ri aina, tarate angpetpetekai ve ri manu? Saka keve nem an kite petekai?*
Between people and animals?	*Na tarate angpetpetekai ve ri manmanik? Saka keve nem an kite petekai?*
Between people and fish?	*Na tarete angpetpetekai ve ri ien? Saka keve nem an kite petekai?*
How do fish reproduce?	*Ri ien, kari selen i akau kate saka bil an?*
Where do fish live?	*Na ri ien, kite ago e voi?*
What perspective do fish have?	*Na ri ien, kite torong a saka ararai an?*
What thoughts do fish have?	*Na ri ien, kite torong a saka lomlomonai an?*
Are sharks special among fish? How so?	*Veo, kate mang sikei a ien petekai? Maraisa?*
And octopus? How so?	*Na volo? Maraisa?*
Subsection: *Vala*	
What do you think of the *vala* (traditional fishing prohibition)?	*Kam lomlomonai ani vala kate sa?*
If you were to fish in the *vala*, what would happen?	*Man a ilesvauk, kula maiak nei vala, saka bil an kala serei?*
Subsection: Supernatural beings, etc.	
What are your thoughts about the word *tapait* (spontaneous creation)?	*Nei kam lomlomonai, supsupai i vuk antok ke: 'tapait', kate saka bil an?*
And *pirpiruman* (biblical creation)?	*Na 'pirpiruman'?*
And *asisinung* (biblical creation)?	*Na 'asisinung'?*
And 'nature' (in English)?	*Na* 'nature'*?*
And *vakapa* ('magical' place)?	*Na 'vapaka'?*
Are the *ingua* (devilish supernatural beings, tricksters) part of *nature*? What is an *ingua*?	*Ri ingua, kite palpal i 'nature'? Na ingua kate saka bil an?*
What about *mus* (white skinned supernatural beings)?	*Au, na ri mus?*
What about *kipang* (old inhabitants of Lavongai, tricksters)?	*Au, na ri kipang?*
What about *pukpukis* (shape shifters)?	*Au, na ri pukpukis?*
What about *anit* (spirits of dead men)?	*Au, na ri anit?*

Appendix H

Stories of Tonvalval

As told by Sep Pasinganpong and recorded at Angat (Lavongai Island, Papua New Guinea) on 11 February 2022. Translated by Mark Collins and Melis Beling.

Tonvalval and the oven

English translation

The story of Tonvalval, he was running over there and he is spontaneous creation, he is spontaneous creation, he just arrived, he is like a *pukpukis* [shape shifting being] or something. The three of us have already gone, you have seen all the things, his possessions. And all the things, the Pacific teak tree, and the boulder. Well, and the cave. Well, and the oven where they cooked him. These are the good things, or the possessions which he had, him, indeed, Tonvalval. They are the decorations of his village. Tonvalval. As I told you, any time you arrive over there, if there is a cat, or a dog, or snake, you cannot say anything. And you cannot try anything, you cannot scare it. Because sometimes he will come to you looking like a man. Like you who are sitting here, you are a white man. Some times he will appear and make you jump. Well, these are his types of ways of appearing. Snake, right, he will appear to you as a snake. Dog, cat. Already, like… yesterday, right, as Vopasak said, he said it well. Yes. Yes. At the oven. When, hum… The first… There was a feast, preparations for a feast. And he did this deed. And his cooking oven is there. Exactly. In the house, he went, and they took him. Tonvalval. Hum. Yes. Yes. Indeed, it is quite right, that is the way it is indeed. So, when they, they cooked him in the oven, then he, he was sitting there, and they went to sit down together to wipe their sweat off, and they saw Tonvalval who was walking along the shore. But the oven was already full of pig, and all kinds of food had arrived in it. For the feast. Over there. Well that's it, from him indeed, it is like this. Well indeed, then… Then it is the story of Tonvalval it is… well he did this deed. And people saw him over there and they thought 'he is a *pukpukis*'. *Pukpukis*, right. But, the story of Tonvalval stands like that.

Original Tungag Version

Akus i Tonvalval ko, kapa asang suke na ko topait ko, ko topait ko ko serei, ko po asukang ta pukpukis pukpukis o nang val, lenginang taratol ta ta pasal kupa arai ni keve vil ang, voiang kana togtogon ko. Na keve vil ang, ta kuila, na vuk at ang. Au, na mata ang. Au na imun i taun ania. Ko keve roron ang o togtong ang, voiang kata togon ia. Nia na, Tonvalval. Kana maumausan, i kana rina ko. Ka Tonvalval. Keve taun aongos, val no mengen ta man

ku serei si pusi o serei si kauvek o kene ku ago ta toron an ta poson. Na ku ago ta atokngai na ku akeke an tatana. Using, man taun ka serei sinim ta… igenen. Val numai kana kuo sinung, kuo igenen posok. Man matan taun ka serei singim tutapong. Au, asukang so… kana ke kain seserei. Kene Ok ta seri singim ta, kene. Kauvek, pusi. Lenginang val, anongo nangko, val Vopasak ko pege ko pege aro nang. Ehhh. Ehhh. Nei imun ang. Taun Hum. Ainoai i… Ka torong a matanangan itioiton an si matanangan Au na koa uok vanang a uok ang. Ni imun i taun Kala sinung. Io. Nei lu, io pasal na lo la luk ia Hum hum. Tonvalval. Hum. E. E. Nambang a fok, kapo asukang vanang. Hum, nangko, taun ang kilo, kilo taun le nia, au, kilopo sinung, na kilo pasal ti angsinung io aip ni gese, na ki arai Tonvalval ko… paliu e ngerelo. Sikei, imun nang, lenginang, vongo, ri sa kain kain kain puk kilo serei. Ani matanangan ang. E suke. Au, nambang le singina vanang, kapo asukang. Au, nango le… Anko le, ko akus i Tonvalval ko Au na kotolo uok e uok ang. Na ri vap kilapo arai nia esukang Na kilo lomlomon to kilo pukpukis. Pukpukis ko. Sikei, kola, kola tung nia na akus i Tonvalval.

Tonvalval and Matalavui

English translation

As I say, Matalavui, he heard indeed. Matalavui did, 'This man here, is he or isn't he a*pukpukis*?'. As Matalavui was also a *pukpukis* man, well they challenged each other indeed. Matalavui headed off to challenge the power which Tonvalval had. To see who, among the two of them, Tonvalval or him, would managed to be the strongest. For the story, indeed, he, he also heard, that Tonvalval, he was also a *pukpukis* person.

So, one day, he went down. He came to challenge Tonvalval. But on that day, he came down, Tonvalval already knew that Matalavui was coming down. To come down and challenge him. And at that time… Matalavui arrived to him, Tonvalval knew. He stooped over in the cooking house. Well, at that time, he stooped over in the cooking house, he took some ashes from the fire, and covered his body in ash. He covered all his body, and he lay down in front of his fire and pretended to be shaking, right. Well, Matalavui came down, when he came down, he looked for him. He though he wasn't there yet. So he called out: 'Oi! Is anybody here?' But nobody could hear him. But Tonvalval was laying there, in the cooking house, like an old man. He [Matalavui] called out again, for the second time. Nothing. He stepped up and over him [Tonvalval]. But he arrived and… the old man was laying next to the fire. He asked: 'Well? You there, who are laying down, ah… you wouldn't happen to know the leader of this place?' He was talking about Tonvalval: 'you're laying down as if you were ill, right?' And he said 'hey, my son, I don't know him.' But when Matalavui stepped back out, he stood up over there and he lifted him up near the fire. He was laying there as if he was ill. Well he stepped out like that, and he exited the house… Matalavui stood up and… he saw that: 'Hey! Oh you are stepping over me to go out and you didn't recognise Tonvalval?' Well, Tonvalval laughed at Matalavui. Because overe there he knew the power of Tonvalval, the his power was intact. Matalavui. But Matalavui, he searched, but Tonvalval searched… Tonvalval. He asked Tonvalval again if he was laying down. Hum. Or, he rolled all over like this, and he rolled back over like this. In

broad daylight. But he beat Matalavui with that move. Well, another time, he came down again. He came to him once again. To the village of… Matalavui. That time, when he came up to Matalavui, he also knew already, that Tonvalval was coming. Or, he didn't know that Tonvalval was coming, they walked and walked, and they met Matalavui. Well Tonvalval started, and he said: 'Brother, Matalavui, you pull out those to ginger seeds, and you wear your true eyes.' But, he was startled by Tonvalval at the time. Well, Tonvalval indeed, he beet him on that point. He knew, when Matalavui wanted to lie to him, and he put two ginger plant seeds in his eyes, he recognised these were eyes of ginger seeds, and he said to him: 'you remove those two seeds from your eyes'. Well, na he said: 'you, Matalavui, I know you.' He trampled and removed his power, indeed, at that point. Matalavui, right. Well, Matalavui he… like he was made angry and he said to Tonvalval 'that's ok, let the two of us challenge each other indeed.' He piled up the food which he had brough, and he pushed Matalavui and asked him: 'put down your food' to Tonvalval. He came to put down his food, at that place where we sat down. The old man, the [Ward] Member, we sat down at this house, there is a Pacific teak tree that is standing over there, that has grown up over there. But, Matalavui put down his food, hit put food down, and put food down, and he put food down, all the way up to there. He put all that food down, and when he had finished, he pulled a string of shell-money between his hands. And he gave it to Tonvalval. Well, when Tonvalval held it, he took it from him, and he pulled it. He pulled away the string of shell money, he walked and walked. Tonvalval knew that, Matalavui was still holding tight onto the end of the string of shell-money. The shell money. He walked, he stopped, he gave a gift to Tonvalval. He said: 'right, that is all my brother, this little gift here is for you.' Well, Tonvalval also made a gift. He also made a gift, he piled up the gift, he continued, he piled it up even higher than Matalavui's gift, it went all the way up. Well, he said 'your little piece of shell-money, to put all the way up on top of this pile of food.' Well, he gave it and he also pulled on the string of shell-money like he had pulled. He pulled, pulled, pulled, pulled, he also went and sat all the way over there and he also pulled. This went on, he kept on pulling on the string of shell-money, and Matalavui's hands were getting weak from pulling and he was still having to pull. He knew, he also knew, and he said: 'oh my rother, you have beaten me, I am not enough for you.' Well, he beat him indeed, Matalavui, that time. His power was greater, this kind of power. This is the story indeed, Matalavui know that, this one here, he was a different man. The power of making feasts, indeed. And he had all his powers like, gardens (?), as the three of us saw it that is how it is, it all comes from over there. Well, his oven, the oven in which they cooked him, the Pacific teak, and the stone. That's it indeed. The stone, the three of us saw it, that is a story. He was walking along.

Original Tungag Version

nang val no posong ta Matalavui, kolo longong vanang. O Matalavui ko. 'Ta igenen ke o kovek eke?' Ko pukpukis. Val, Matalavui koto kun igenen pukpukis. Au kilo angatokngai vanang, Matalavui ko pasal si o na atokngai ni kit mat ang, voiang Tonvalval kapo atogon ia. Ta si irilong, Tonvalval, o ninia ko… Using ko kun buk lakat ko. Ane akuskus ang ko, ko kun longong, ta Tonvalval, ko kun igenen pukpukis. Asukang, man sikei a taun ko pasiang.

Kanme atokngai ni Tonvalval. Sikei a taun ang, ko pasiang, ka Tonvalval kolo nas lenginang ko, Matalavui ko pasiang. Asiang me atokngai nia. A taun ang, na… Matalavui kolo serei singina, Tonvalval kolo nas. Kala riuk lak nei haus kuk. Au, taun ang, kilo a riuk lak nei haus kuk, ka luk a vuk a i kut ang, ka maus aongos a pukunim. Maus aongos a pukunim eke, na kolo matung. Mete kuan kut. Asukang to ko tetek ko. Au, Matalvui ko pasiang, taun io ko pasiang, kolo gule. Ta ko kovek lak. Au kolo songo: 'oi! ka togon vap eke?' Sikei, ko kovek i mang sikei kuo longong ia. Sikei a Tonvalval nang, kuo matung eke. Nei haus kuk, val lapun ko. Ko anguan, vapongua i songo. ko kovek. Kala kik alak a kakina, na kala alakau ia. Sikei a serei, ai… lapun ang kolo matung mete kut. Kolo, kolo sui 'au? Numai kana puo matung, ah… parak kuo arai ni pasingan ke?' Au, nia kolo mengen ta… kolo mengen ta Tonvalval: 'ko kuo matung val kuo malepen ko?' Na kuo antok ta: 'hey papa, parik na va nas ia.' Sikei a taun ang Matavalui, kolo kusiang fok, au kan tung ane suke na… nem kala bak ia Tonvalval mete kuan kut. Io matung ang ko, val… malepen. Au kuan pasiang asukang ke, na kon lo ko saung a siang a… Matalavui kolo tung a… kala arai a kala antok: 'ai! o kupo… lakau asiang lo parik kuo nas ta Tonvalval?' Au, Tonvalval kala los a Matalavui. Using sukana vang kolo, ko nas a kat mat ang si… si Tonvalval, ko kit mat agilgil. Matalavui. Sikei a Matalavui nang ko gule, sikei a Tonvalval ko gule na… Tonvalval ko sui fok a Tonvalval sio matung. Hum. O, kata saul fokai me togon ko asukang a nia ko saul fok asukang ke. Sinang lava luai(?) Sikei, Kala, ivoang kala kala uin vanang a Matalavui si buk siva ang. Au, kolo ago mang taun vanang, kala kun palak. Kan kun serei singina. Matan rina, si… Matalavui. Ti taun ang kilongpo palak alak a Matalavui, kolo kun nas lenginang, ta Tonvalval nang, ko palak. O, parik kav a nas a Tonvalval kan serei, kilongla pasal pasal kilongla angruduai ve Matalavui. Au Tonvalval kala tapasuk, kala antok ia ta: 'Tasik, Matalavui, ku balak suai ni ngono katui i lavui ang, na ku alak a korong nai kam ngono mata.' Sikei, au kala taping ani Tonvalval si taun ang. Au, Tonvalval vanang, kala uin ia si vuk ring an. Ko nas nang, taun Matalavui ko buk kapau nia, na ka tung ngono katui i lavui ang, o kolo kinlei a korong mata i lavui, kala so ia: 'ku luk suai ni ngono… katui i matana.' Au, na kuo… posong: 'numai, a Matalavui nas ua.' Kala kos suai vanang, ani. Ni kit mat ang, suke. Matalavui, ko. Au, Matalavui kolo… asukang ta kolo vil a marala au kala antok a Tonvalval ta 'koro, tarong na angtotoknai ang.' Ka sinung ani laka kirim ang Sigil lapong Matalavui kolo sui asinim: 'asinung a kirim' ani Tonvalval ko. Au, na serei ta sinung a kirim, na vuk ang tarongta sinung singina. Lapun ang, member, nang, tarongta sinung singina, ka totorong a man kuila kuila koto tung e iang, koto polok alak e iang. Sikei, Matalavui kala sinung kana kirim, katala sinung, asinung, asinung, asinung, asinung, asinung, asinung, sisinung, kan la… kan la esuke. Kopo sinung using a, asinung, asinung, a kan la e suke kala kamus, kala del a vuk mis e kungana. Au, kolo alis a… Tonvalval. Au, taun Tonvalval kolo teng ia, kilo luk ia singina, na kolo dal ia. Kolo dal luai a mis ang, kolo pasal pasal pasal pasal, pasal, a… ko, nem, toron, Tonvalval, kolo nas ko, ta… Matalavui koton teng a kit a nem ang, mis ang ko, e kungana. Inangun ang, ko. Ko pasal, kun kamus, kolo s… alis a… Tonvalval. Kolo antok ta: 'nambang palau tasig, kam buk… sinung vanang.' Au, Tonvalval kolo kun asinung. Kolo kun asinung, kolo asinung, kolo pasal pasal pasal pasal, kala liu a… asinung si Matalavui, a kala psal e fankul. Au, kolo kana na kam vuk mislik nang, si agon lakat kuli kuli kirim ko. Au, kolo kun alis ia na kun dal val ninia kata kun dal. Kala kun tak, tak, tak tak, dal dal dal dal dal kan la kun a sinung asang suke na kala kun dal. Ka

pasal pasal pasal, kala lui nem inangun ang ko, inangun ang si… Kungana i Matalvui kala malmal, ko dal lak ia nang. Nia kolo nas kolo kun nas na kolo antok ta: 'pua tasig kula uin iau nang, nala pa angkuai nang.' Au, kala kosuai vanang, ani Matalvui si taun ang. Kana kit mat lak ko, kit mat asukang. Ko akuskus vanag ani, Matalavui kilo nas ang ta… isuke ko, igenen tepekai. Masung ko. No ka torong kana keve kit mat val na ka matang nang, taratoltala arai nia ke vil ang vanang, ko pasal aongos le iang. Au, kana imun, imun i taun ania, au kuila, au vuk at ang. Nambang, nia vanang. Vuk at ang, taratoltala arai nia kolopo akuskus, kolo pasal aliau nang.

Tonvalval and Kipangitangtangkam

English translation

Kipangitangtangkam, that is another story indeed. Yes. The story of Tonvalval indeed, you have seen his Pacific teak tree, his boulder, his oven. You stood and we showed you, all the way to the place where you can sit on the oven, or also to see how it lies, it is written(?). Right, I told you already my son, that this place, indeed, it is a place where *pukpukis* dwell, and this *pukpukis* is a Siavun clansman. […] Well, and him, Tonvalval, is a Siavun clansman. Tonvalval. Yes. […] Kipangitangtangkam knew, at that time, the thing, and he also came, he was over there, and he went and burst when they also cooked him in the oven. Because he came to see what they had done with Tonvalval. Because he also wanted to practice feast making magic, right, so there would be plenty of food. Pork, everything, all kinds of food. But, he went and they… they were clearing the stones off the oven, they walked away and they heard that he was bursting. His eyes burst, and he died, and they removed the stones. They removed the stones, right, and he was laying there. […] Well, he did the work, they also cooked him in the oven, that's it: he burst. Well, he was dead indeed. He is laying there, they pushed him down, and there you go. It's like that. Right, Kipangitangtangkam [literally: 'Kipang who tries to imitate and fails'], because he tries to imitate and fails. You see that, it is his story, one of his stories. […] Try to imitate and fail indeed.

Original Tungag Version

Kipangitangkam nang, kolo mang akus vanang. E. Akus i Tonvalval vanang, nang kutala arai tapai ni kuila au, kana buk at, au imun ang. Kunlo tung nemlo akalit ua Pasal suai asinung kuli imun, o kun kui kana matung ang, kolo kalang. Nango kuo antok ua lenginang kag nat, ta vuk ring an ang, nang ko ko ring pukpukis, na ko pukpukis an ko igenen ta ta Siavun. […] Au na nia na, Tonvalval ko, igenen ta Siavun. I i i Tonvalval. […] Ko nas a taun an ani, nem ke. E. Na katame kun ago le, na kan kun pasal vanang, si an kun pat si karin kun taun ania. Using katame arai nia ni uok ang kita kun uok ania ta Tonvalval. Using kata kun buk aserei ani masung. Nangko, tari fok ti duk. Ri vongho, na ri sa aongos, te kain kain fok. Sikei ka pasal na kan la… kilapo aling ia kita pasal asuang ia na kio longong a kala baos. Katui i matana kala put ko, Au kala mat, au na ki keul asiang ia. Keul asiang ia, nambang a kon lo matung nang, esuke. […] Au nang, kan vil ani uok, kin kun taun

ania, nambang kan put, au, kun mat vanang. Nia nang, kuo matung kita keul asing ia, na nambang. A sukang. Nangko, Kipanitangtangkam using kuo tantankam. Ku arai ta man nolo kuskus ina. Mang kuskus ina. […] Tantankam vanang.

Kipangitangtangkam and the pan flute

English translation

His *kuikui* [a musical instrument], Tonvalval's *kuikui*, he went after his *kuikui*, and he came upon Kipangitangtangkam. […] But, because, indeed, his *kuikui*. Because he got it from higher up, an he hid it in the house. But Tonvalval, right, he came along and he asked him. He stood close by and he asked: 'where are you going?' '– Nowhere, I'm looking for my *kuikui*; I am searching for it. I was sleeping, the high tide came in, and it surrounded it, and it drifted off.' Well, Kipangitangtangkam lied to hide the truth: the *kuikui* was in his house. Tonvalval asked Kipangitangtangkam and he lied. And Tonvalval said to him: 'if I call out, if I call out to my *kuikui* and it hears, it hears me calling out, then it knows that I am calling it and it will listen.' Well, he called out and the *kuikui* heard in the house. He knew. Yes. Well, he said: 'you get my *kuikui* and you give it to me.' Well, and, that was it, wasn't it, these are the little pieces of the story which I am following.

Original Tungag Version

Kana kuikui vanang, Tonvalval vanang, kuo using kana kuikui, na kan serei vanang si Kipanitantankam. […] Sikei, using nang a kana [Kipangitangkam] kuikui. Using nia katanla luk ia ne e fankep, na katala mun ia e nei lu. Sikei, Tonvalval, nang ko, kon palui na kolo sui ia. Ko tung asung ko sui a ta: 'kuo saka pasal ang?' '- Parik, no gule nang kag kuikui.' 'Noto kun gule tatana. Nolo rodot, bus ang ka palak, naka raun ia, na ka meleng.' Au, Kipantantankam kolo gelbat. Kuikui nang kui sinung nei lu. Sikei kio sui a Kipanitantankam, na kio gel. Na kala antok ia: 'man na songo, songo kag kuikui, na kala longong, longong iau, ti songo. Using kata nas ta ko songo ia na ko longong.' Au, kala songo na kala longon nei lu. Kolo nas. E. Au, kolo antok ia: 'kulo luk kag kuikui na kuo alis iau.' Au na, a nia vanang, Nangko, ko keve buk akuskus ko, nuo using palau ia.

Appendix I

Moiang song by Lamis

In 2016, a heavy flood swept suddenly down the river Voe, as a downpour of rain had occurred inland. As this flood arrived at the mouth of the river, in Metevoe an elderly couple, Nevuak and her husband, were fording it. They were carried away, and when the rushing water subsided, only her husband was found to have made his way to shore. People from the villages of Metevoe, Tioputuk, and even Tovotokalas, further inland, searched for days but never found her, and her body was never retrieved. This *Moiang* song was composed by Lamis in memory of this event.

Tungag	**English**
[Pan sang]	[Running section]
Rai, malpasuk a moiang	Storm, wind that is uprooting trees, oh hornbill
Ruk i nole	Flood disaster
Rai, malpasuk pa moiang	Storm, wind that is uprooting trees, oh hornbill
Ruk i nole	Flood disaster
Kopos kam uai i angtut	Harvest your fruit from ? [*tut*] together
Kopos kam uai i angtut	Harvest your fruit from ? [*tut*] together
Ring sep moiang	The place on the tree where hornbills gather
Ka luai i tangis	It is peaceful of cries
Kag ro masung	My good feeling of satiety
[x2]	
[Pan mikamika]	[Dancing section]
Ri ngono mani, tangule iau	The two birds, cry searching for me
Eloi a tasig.	Oh no my brother
Ri ngono mani, tangule iau	The two birds, cry searching for me
Eloi a tasig.	Oh no my brother
Me raun iau a Vainarukul.	Vainarukul is killing me
Me raun iau a Vainarukul.	Vainarukul is killing me
Eloi tasig, nala malmal, a rangaig.	Oh no my brother, I am weak, my blood
Sep i manu ring, sep i moiang.	Place where birds gather, place where hornbills gather
Sep i manu ring, sep i moiang.	Place where birds gather, place where hornbills gather
Raupa na galit.	Cries and sweat
Fok kaut a laman i akuskus	Bundled food, waters with a story
Eloi a tasig.	Oh no my brother
Sep i manu ring, sep i moiang.	Place where birds gather, place where hornbills gather
Sep i manu ring, sep i moiang.	Place where birds gather, place where hornbills gather
Raupa na galit.	Cries and sweat
Fok kaut a laman i akuskus	Bundled food, waters with a story
Eloi a tasig.	Oh no my brother

Appendix J

Data on plant use in magical action

The two-page table which is presented in this appendix lists the number of documented uses for various plants that were said to have a role in one or several forms of magical action. It aims to show where plants are used for several different purposes, and provides some tentative correspondence between Tungag, English and scientific nomenclature.

Table J.1: Number of distinct aims that a plant is said by Lavongai people to be useful for in magical activities, categorised into the seven types of activities that they distinguish in this domain. From own ethnography (E), Holdsworth, Pilokos, and Lambes 1983 (H) and Roberts 2024 (R).

Names			Types of magical action							Nbr of	Nbr of	Sources
Tungag	**English**	**Latin**	**Fish calling**	**Preparing feasts**	**Hunting dogs**	**Gardening**	**Dancing**	**Love magic**	**Healing**	**uses**	**categories**	
ai malik								1		1	1	E
ais	lemongrass	*Cymbopogon citratus*							1	1	1	R
amas			1							1	1	E
amas makuk			1							1	1	E
angtangis	coastal she-oak	*Casuarina equisetifolia*							1	1	1	H
aran	thatch screwpine	*Pandanus tectorius*							1	1	1	H
bau	cassowary plum	*Cerbera floribunda*							5	5	1	H
ei kanai			1							1	1	E
ei luai				1		1				2	2	E
erenge (vang)	cordyline	*Cordyline fruticosa*							2	2	1	E, R
gilou					1					1	1	E
grili (tata)	emperor's candlesticks	*Senna alata*							1	1	1	H, R
joinuus									1	1	1	R
kamare i tauan (kamareitauang?)									1			R
kainarum	Hauili fig tree	*Ficus septica*	1						1	2	2	E, H
kakaul					1					1	1	E
kanga	variegated fig tree	*Ficus variegata*							1	1	1	H
kapus (kavus?)		*Acalypha wilkesiana*							1	1	1	H, R
kat		*Macaranga aleuritoides*	1						1	2	2	E, H
kong		*Premna obtusifolia*							1	1	1	H, R
lavui	type of wild ginger	*Zingiber sp.*		1						1	1	E
lavui pipio	type of wild ginger	*Zingiber sp.*		1						1	1	E
malmal	Moluccan albizia	*Falcataria falcata*		1					1	2	2	E, H
malmalrangai	variety of Moluccan albizia	*Falcataria falcata*							1	1	1	E, R
maltapeu									1			R
mangau	Whitfield Ash	*Trichospermum pleiostigma*							1	1	1	H
maralakaup					1					1	1	E
mai	ginger	*Zingiber officinale*		1	1	1	1		5	9	5	E, H, R
moi tanglik	type of algae		1							1	1	E
mumus (karong?)		*Breynia racemosa*							1	1	1	H, R
ngarkui			1							1	1	E
nganga (rangailava)									1	1	1	R
ningas	beach cabbage	*Scaevola taccada*							1	1	1	H
nuk	Java cassia	*Cassia javanica*	1							1	1	E
ororoi				1	2					3	2	E
patsisik	arrowleaf sida	*Sida rhombifolia*							1	1	1	H
patmoso	Indian pennywort	*Centella asiatica*							2	2	1	R

[Continued on next page]

Names			Types of magical action							Nbr of	Nbr of	Sources
Tungag	**English**	**Latin**	**Fish calling**	**Preparing feasts**	**Hunting dogs**	**Gardening**	**Dancing**	**Love magic**	**Healing**	**uses**	**categories**	
pikal	type of fig tree	*Ficus hispida*							1	1	1	H
pira				1						1	1	E
pokotiu				1						1	1	E
pula ta vokol			1		1					2	2	E
pulpulis			1							1	1	E
pupuang									1	1	1	E
posol									1			R
ringtamani			1							1	1	E
sal	croton	*Codiaeum variegatum*	1							1	1	E
salneitapit	croton	*Codiaeum variegatum*		1		1			1	3	3	E
samasaman				1						1	1	E
sarak			1							1	1	E
sese			1							1	1	E
talisa									1	1	1	H
tientien	honeysuckle mistletoe	*Dendrophthoe falcata*							1	1	1	H
toi			1							1	1	E
ton	Pacific lychee	*Pometia pinnata*							1	1	1	H
topok			1							1	1	E
tua siapan	specific derris	*Derris elliptica*		1	1					2	2	E
tua tanglik	type of derris	*Derris sp.*	1	1	1	1				4	4	E
tuas	specific mango	*Rhus taitentis*							2	2	1	H, R
tuitui		*Lygodium microphyllum*							1	1	1	H, R
tumilong				1						1	1	E
utongo	queen sago	*Cycas rumphii*							1	1	1	H
vikikuap			1							1	1	E
vingo	breadfruit	*Artocarpus communis*							1	1	1	H
vitovitolenge	Indian pennywort	*Centella asiatica*							2	2	1	H
vokop			1		1					2	2	E
volomatainaro	type of wild ginger	*Zingiber sp.*	1							1	1	E
vua	areca	*Areca catechu*							1	1	1	R
vubua			1							1	1	E
vultuan		*Finschia chloroxantha*							1	1	1	H, R
vungkitas			1							1	1	E
vunvun			2							2	1	E
Totals per type			24	13	10	4	1	1	48	101		
										Used in multiple types		11
										Used in multiple ways in type		8
										Total number of named plants		68

Appendix K

Songs from *Vala* Opening Ceremony

As sung publicly by Lumaias Fabian and other men at Metevoe (Lavongai Island, Papua New Guinea) on 11 July 2022. Careful pronunciation and assistance with detailed transcription and translation: Melis Beling.

Rai i nano

Original tungag version

Call:[1] *O, rai i Nano,*
Ku malu iau ring ro,
Call: *O, rai i Nano,*
Ku malu iau ring ro,
Ruk i mal tasig,
Ruk i mal golo,
Ruk i mal raung.
Ruk i mal tasig,
Ruk i mal golo,
Ruk i mal raung.

[Repeat above]

Call: *I, tivu akopos iau, kuli ngakan ina kangig lik i,*
Ri ngono mus palau i.
Call: *Ring vun kopos ani luai, karang a kopos ani luai,*
Lo me vun, na matag ka ali rangai.

English translation

O,	*rai*	*i*	*Nano,*
o,	storm	GEN	Nano

'O, storm of Nano[2],'

1. This song is performed as a 'call and response': a single person sings the stanzas marked as 'Call', then the chorus of singers responds with the other stanzas.
2. 'Nano' appears to be a proper noun here, possibly the name of a place or person.

Ku malu i-au ring ro,
You wind POSS-2SG place good
'Your wind blows on me, good place,'

Ruk i mal tasi-g,
disaster GEN wind same sex sibling-1SG.POSS
'Windy disaster my brother,'

Ruk i mal golo,
disaster GEN wind shake
'Disaster of the shaking wind,'

Ruk i mal raung.
disaster GEN wind kill
'Disaster of the deadly wind.'

I, tivu a-kopos i-au, kuli ngakan i-na kangig-lik i,
INTJ grandparent CAUS-pick GEN-2SG on top of branch GEN-3SG specific tree-small INTJ
'Oh, ancestor, make me be plucked from on top of the branch of the little *kangig* tree,'

Ri ngono mus palau i.
PL pair *mus* just INTJ
'It is just the pair of *mus*.'

Ring vung kopos ani luai, karang a-kopos ani luai,
place dark pick OBJ peace boundary CAUS-pick BEN peace
'In a dark place, pluck the peace, the boundary plucks the peace.'

Lo me vung, na mata-g ka ali rangai.
INTJ MTW dark, and eye-1SG.POSS 3SG give blood
'Oh the dark is coming, and I cry tears of blood.'

Discussion

The theme of this song is that of a deadly storm: *rai.* The lyrics refer to wind: *malu* (also elided *mal*), to a disaster (*ruk*), to suffering: *matag ka ali rangai* 'I cry tears of blood' and to death: *mal raung* ('deadly wind').

Luai i Lungatan

Original Tungag Version

I luai i Lungatan,
Na ka lu na mangun.
I luai i Lungatan,

Na ka lu na mangun.
Luai i Lungatan,
Na ka lu na mangun ro.

Laivis a rul i vung,
Laivis a to i luai.
Laivis rul i vung,
Laivis rul i vung.

[Repeat above]

English Translation

I luai i Lungatan,
INTJ peace GEN Lungatan
'Oh, peace of Lungatan[3],'

Na ka lu na mangun.
and 3SG chase away OBL ?
'and it chases away the ?.'

Luai i Lungatan,
peace GEN Lungatan
'Peace of Lungatan,'

Na ka lu na mangun ro.
and 3SG chase away OBL ? good
'and it chases away the good ?.'

Laivis a rul i vung,
splash OBL sap GEN specific vine
'Splash the *vung* sap,'

Laivis a to i luai.
splash OBL life GEN peace
'Splash the peaceful life.'

Laivis rul i vung.
splash sap GEN specific vine
'Splash the *vung* sap.'

Discussion

The theme of this song is less evident. There is insistent mention of peace (*luai*). There is also mention of a specific village, Lungatan, which is located near Ranmelek on the south coast of Lavongai (see Map 1.2).

3. Lungatan is a place in Southern Lavongai, located near the village of Ranmelek.

Original texts of translations

T1 Own translation of French original: *« Le réchauffement est sans doute global à l'échelle des sciences qui l'étudient, mais il prend des formes distinctes pour les collectifs d'humains et de non-humains selon les lieux qu'ils habitent et les moyens dont ils disposent pour en défléchir certains effets. Bref, nous sommes bien tous embarqués sur le même bateau, mais ce n'est pas la même chose d'être confinés dans les soutes, les premiers à être noyés, ou sur le pont des premières classes, à proximité des canots de sauvetage. »*

T2 Own translation of French original: *« Nous sommes des chercheurs, et si nous pouvons être utiles, c'est aussi et surtout en tentant de bouleverser notre vision scientifique de la manière dont nous habitons la terre, en espérant que nos idées se diffuseront au-delà des laboratoires et des revues savantes. »*

T3 Own translation of Tok Pisin original: *'Mi save singing olsem. Mi save kisim ol basket wantaim ol lip diwai insait, na mi save rolim ol lo nambis. Behain mi save suim i go long solwara, lo rip. Ol basket bai i stap na simel blong ol lip diwai bai pullim ol pis i kam antap. Dispela em malira blong ol pis nau.'*

T4 Own translation of French original: *« les animaux ne se contentent pas d'influer sur l'histoire humaine et d'en être des acteurs à part entière, ils sont aussi et surtout les protagonistes d'une interaction […] au cours de laquelle chacun a la capacité de faire agir l'autre et de transformer ses manières de faire. »*

T5 Own translation of French original: *« traitez des relations homme, animal, milieu et […] le milieu et les animaux en question [sont] essentiellement terriens, […] vos hommes [sont] des éleveurs, […] les animaux que l'on [peut] rencontrer, suivre, domestiquer ou chasser [partagent] le même milieu de vie que nous, ce qui […][exclut] le milieu aquatique. »*

T6 Own translation of French original: *« La forêt qu'ils habitent est non seulement une forêt saturée de signes émis par la multitude de ses existants, mais elle est également une forêt où cette même multitude d'existants est à l'écoute des signes émis par les autres (humains et non humains). »*

T7 Own translation of Tungag original:
'Kalus i laman makasim,
Rai saup anig.
Solsol i to i liung,
Ka pungasai nig.
Eloi, Lovongai, karung rina.

Eloi, eloi, ri nat i Lovongai.
Kila kalip a vul i,
Ka siang maiak.
Eloi, eloi, ri nat i Lovongai.
Kila kalip a vul i,
Ka siang maiak…'

T8 Own translation of German original: *„Fast jede männliche Person trug um den Hals vorn auf der Brust eine grosse runde Muschelplatte (Exempl. in der Sammlung) wahrscheinlich aus Tridakna gigas. Diese Muschelplatte ist in der Mitte durchbohrt, eine Schnur durchgezogen und ein Knoten vorgeschlagen, die beiden Enden der Schnur werden hinten auf den Hals zusammengebunden. […] Diese hat nämlich mindestens noch einen Knopf aus ausgehöhltem Schildpatt in der Mitte, meistens aber auch noch unter diesem Knopf ein etwa 2*

– 3 Cm. im Durchmesser haltendes mit zierlichem Muster versehenes dünnes Schildpattplättchen. Bis zu einer gewissen Grösse wird dieser Schmuck, käpkäp *genannt, stets einzeln und an einer einfachen Schnur getragen.*"

T9 Own translation of German original: „*Matten von Bast*".

T10 Own translation of German original: „*Sociale und Familienverhältnisse.*"

T11 Own translation of German original: „*Kriegtikanoes – als solche sind sie wenigstens angesehen – sind, so viel beobachtet werden konnte, ähnlich, wenn auch nicht so dauerhaft, wie die gewöhnlichen Boote im Mac Cluer-Golf gebaut, d. b. sie bestehen aus einem ausgehöhlten Baumstamm mit anfgesetsten Planken. Das Holz aus welchem diese Kanoes gefertigt, schien auch härter und stärker zu sein, als das Material der gewöhnlichen Boote. Das Beiwerk auf den Ausleger-Trägern fiel weg. Emporgezogene Schnäbel hatten sie nicht, sondern geschnitzte Verzierungen, von denen sich die Eingeborenen nicht geru zu trennen schienen, und die sie auch meistens, wohl zum Schutz für die Farbe, mit Bast umwieckelt hatten. Die Planken wurden hauptsächlich durch Querbänke, welche über die Oberkante der Planken fielen, festgehalten, die Nähte zwischen den Planken waren mit Harz verschmiert. Im Bau begriffene Boote wurden nirgends gesehen.*"

T12 Own translation of Tungag original: *'kite keve God i Lavongai.'*

T13 Own translation of French original: *« De ces reliefs partiellement invisibles, les Imrâgən ont une connaissance précise, supportée par la toponymie particulièrement dense qui caractérise la zone marine du Banc d'Arguin. »*

T14 Own translation of German original: *„von Kavieng bis Tandis ausschließlich, besteht ein Zehnklassensystem, mit zehn vollkommen gleich berechtigten Totems. Untertotems gibt es dort keine. Zur Bezeichnung der Heiratsklassen sowie der entsprechenden Totems dienen in Lamekot, wie in den anderen Landschaften nur veraltete Ausdrücke, die schwer zu deuten sind. In Lamekot heißen sie* pa-moko *und* pa-bung."

T15 Own translation of Tungag original: *'E, kate kovek nang i dang lava, o kate kovek i nem lava. Sikei a po aina ke palau nang kita kaut kari keve tin kau ti me angan ve keve keve tamana iria o keve tauiria o sa an keve posposong an, nangko. A korong, val using kitala riuk neite lu suke, ti simel ani keve buk pos suke, nang palau a… Kari tin kau nang, na keve aina ke i kaut palau ti me angan ve keve tauria na keve kavuria na sa an keve posposong an, le ti kari palak, ti kari… nem, ol a lakat kuli… Ti kari luk marasin a lakat.'*

T16 Own translation of Tungag original: *'Na kata, Nguma kata… man kita, man kata… Mang tadekina. E nei… Nia palau sikei a asan "Nguma" sikei kita kun pasal ti mang pasal. Taun i tatapasuk, le fankul, na kata togon mang keve manu kita pasal va ri ta kun keve palunsava. Bil ang ke ta: mang matan Nguma kitala pasal ve ri Valus. Ria vanang kimela pasal asiang eke. Na mang matan Nguma kitala kun palunsava ti ri Silau, ria kila kun siang esuke. Na mang matan Nguma kitala kun palunsava ti ri Mani, ria kila kun siang esuke. Kate* same *ti mang keve manu ang aliu bil ang an pulakai. E tasig.'*

T17 Own translation of French original of: *« L'ile, depuis ce jour, est divisée en 115 "nations" ou groupes géo-politiques indépendants, assimilés chacun à une "pirogue" ou* niko*. Chacune de ces pirogues constituée d'un ou de plusieurs clans organise son espace social autour d'un réseau de lieux forts qui constitue un territoire d'identité. »*

T18 Own translation of French original of: *« Chaque territoire de Tanna est, dans l'idéologie traditionnelle, assimilé à une pirogue. Ces territoires sont dénommés et correspondent à un groupe traditionnel qui peut lui-même se subdiviser en sous-groupes comprenant une ou plusieurs lignées familiales. »*

T19 Own translation of Tungag original: *'Si man ka nei laman, ko kovek i pagpagal i keve klen nei laman. Kovek. Pagpagal i ri klen nei ring kolo palau, nei laman ko tavas vanang.'*

T20 Own translation of Tungag original: *'Lu i popo, nemla luk ia, nemla tapus ia. Nemla siang nei kavi, pongua na kavi ang, na kan siang nei vuta, nei lu. Ka pasal pasal, kan vok, na kanla kovek, kan la vunep.'*

T21 Own translation of Tungag original: *'Nemte misag ti so ta keve nem i ri aina nei laman, using kate siva i te maiak, ninlak ri ien kila angan, na tarala maiak, na ka ali malepen.'*

T22 Own translation of Tungag original: *'Silau! Kuta mikai nig, me aneke! Mitol ta mikai, kami rangai dual kate go singig! Inatus ta valus lik ke kate buk akikitai ni poisan lenginang a dank mita asuai, tung ve nau, tung ve inatus, tung ve* seven *clans, tung ve* eight *clans, tung ani* future *ke, kalaro luai Silau.'*

T23 Own translation of Tungag original: *'Kantanem, man kag poisan a nat na kantanem, sikei a mang nat kata kate kun nat i akalitai ti mang anu… […] Kag pini, kate nap ti kag inatus ki longong using a rangaig. Nang. Au, a rangai petekai i mang anu, a nin lak ka bot anig, na kala kovek i nap ti ka using kag pini, na kag sausaupai. Bil ang ke ta, kag pasin i aveven, ka kovek i nap ti ka ro.'*

T24 Own translation of French original: *« les conceptions indigènes concernant les humeurs forment le substrat des représentations de la production et de la constitution de la personne, et elles permettent d'aborder sous un angle complémentaire des questions telles que le mode d'affiliation des individus aux groupes de parenté, les rapports hommes-femmes, les représentations de l'individu et de l'identité sociale. »*

T25 Own translation of Tungag original: *'Anitun, ku mas aveven kam* femili *mete takaman, na kula serei anitun tuman.'*

T26 Phrased in Tungag as: *'ri ien, kari selen i akau kate sa?'*

T27 Own translation of French original: *« non seulement la classification scientifique – qui ne mérite sans doute pas ce singulier –, mais les classes qu'elle propose sont toutes provisoires et imparfaites, virtuellement caduques, et ne peuvent en aucun cas servir à évaluer une classification culturelle ou populaire. »*

T28 Own translation of French original: *« L'apport fondamental de l'anthropologie sur ce point est de témoigner des pratiques réelles et culturellement significatives des opérations de classements, de manifester la pluralité fonctionnelle et féconde des angles classificatoires […]. »*

T29 Own translation of Tungag original: *'kite uok a keve kain uok ang tara tarate kovek i nap ti tara uok ia.'*

T30 Own translation of French original: *« [le] clan […] reconnaît pour lieu d'émergence un site à la configuration particulière (récif, mangrove, source, rocs, grotte, grand arbre singulier, etc.), associé à la présence d'une entité surnaturelle de forme animale (porc, chien, serpent, ou encore requin pour les sites marins), le lieu et l'entité, qui légitimisent les possessions foncières de l'unité sociale, étant tous deux génériquement désignés par le même terme :* masalai *en néo-mélanésien. »*

T31 Own translation of Tungag original: *'Kio ali* moni *ania. Kio maramarak si arai ta, ko mika korong nang, kari ainoan i taun si arai ni nat ang ko mika. Bilangan ta: kio tavas a selen ania si sikei mika an.'*

T32 Own translation of French original: *« l'appréciation esthétique n'est pas dissociable de l'effet agissant de la performance »*

T33 Own translation of German original: „*Kambai ist ein Malagan der Bagail-Leute bei Kavieng[…]. Hauptsachlich wird das* kambai-*Fest auf den Inseln zwischen Neu mecklenburg und Neuhannover.*"

T34 Own translation of Tungag original: *'Nem, nem ta puat a vaitas. Linus kala mat, kag papa kala mat, kag kakai Maraspit kala mat. […] Nau vanang na sikei nate ol. So, nate angkuai lak ti na uok ia, sikei. Naka uok a vap ang "tarala tadut a malmalang ang". Nala saupai bilangke ta: "OK, antok a malangas a comunity ta, tara katela tak a tadut a malmalang lava".'*

T35 Own translation of Tungag original: *'lava i tak a tadut ani malmalang ang, ki mas serei ki mas vap evuang tin ti longong, i vap i longong. Ki ago ta tav longong. Na mang ki* bighet *evuang, nang, maiten ka serei singiria. Using a maras nang ka serei. So maras, a bil rikek ka serei.'*

T36 Own translation of the French original: *« tant dans le discours des informateurs que dans les mythes, le jus extrait des fruits de cet arbre est bien du sang, et c'est en vertu de cette contiguïté symbolique qu'un interdit pèse sur sa consommation en de nombreuses circonstances et qu'il intervient lors des initiations masculines. »*

T37 Own translation of Tungag original: *'a vap lava ite ainoainoai, kite posong iria ta ri vaitas. Sikei a ri maratiptip, a […] buk lamtok lik ina nang. […] A buk lamtok lik i vurume, kana asan ta maratiptip. Na vaitas, kute dang ta, nem aongos. Voiang numai kute* boss*.'*

T38 Own translation of Tungag original: *'Ngono vo ang vanang kitela posong irilong ta ngono bubu ang ri… ah… Bavongo, rilong ve… Iaman, kag papa […] kila seu iria nei ki ali bua ani antok ta, rilon katela "sokoalis", kila posong irilong ta "ngono sokoalis", ngono vo iteme akalit, i akalit ani malmalang.'*

T39 Own translation of French original: *« Les danseurs puisent et simulent les postures et les gestuelles du répertoire comportemental des différentes espèces concernées pour en valoriser les "qualités d'action" (Eczet 2020, p 101) et les proprioceptions. Leur mise en actes est exécutée du point de vue des êtres imités, eux-mêmes conçus ici comme des prototypes ».*

T40 Own translation of Tungag original: *'Using a, nala posong suai ve nia, kakai ke, parik katava using a selen. Kata tav pege tapai ve ri Lapanuok ve Ngisa na kame paliu aneke. Kate tav pege ve ngono nat ke na rinana. Taun katamela serei eke, nala sang. Nala sang tan bil a ro nia. Taun rilong ta longong a dang i taurilong ta: katamela pasim nei kag lu, nate posong ro luai ta rilong ta kovek i toron marala, rilong kovek a asuai using ani mang sikei a buk antok. Na ki… taun i rilongta longong rilongta longong velai… velai mese. Rilongta toron marala! Sikei, rilongta bot a ro lik.'*

T41 Own translation of Tungag original: *'Na kopos suai nig ni ani, longong, velai mese, ti longong ani dang i tauirilong, na mus suai vanang ia ti buk tenei ias ngelik ke, ti kag ngono kakai. Au, na rilong teng a Bosngurmal ta: io, kate, karilong tamai nang.'*

T42 Own translation of German original: *„Ferner wurden als Schmuck getragen: […] ‚Perlschnüre' (verschiedener Art), von ‚Muschelperlen' […]. Kürzere solcher Schnüre wurden um den Hals, längere sowohl um den Hals, auf die Brust herunterhängend, als auch um die Hüften, und zwar fast immer nur in einer Windung getragen. Sie fanden sich bei Män nern seltener als bei Frauen, letztere benutzten sie zugleich zur Befesti gung des Schurzes. Diese ‚Perlen' werden (ebenso wie die europäischen Glasperlen)* sāmű̈ï *genannt. "*

T43 Own translation of French original: *« certaines cultures de Nouvelle-Guinée confèrent une place capitale au porc dans les procédures de compensation et dans l'alimentation périodique de la fertilitié des êtres et des choses. »*

T44 Own translation of French original: *« la valeur de substitut de vie que l'on attribue – ou pas – à l'animal est corrélée avec la part de travail féminin impliquée dans sa croissance et dans sa reproduction. »*

T45 Own translation of Tungag original: *'kite dungai ni roran i Pelman lava, kite lomlomonai ni keve ien lava kata maiak aniria, vongho, kolos o maus ang kate ali iria.'*

T46 Own translation of Tungag original: *'kite songo na igenen mat ang'*

T47 Own translation of Tungag original: *'Ladi: na papa kata […] kata asinung a John kuli pata. Mark Collins: io, na ku akalit ta kain uok vil ang ke. Boniface: kite posong ia ta pata i merengen. Man na buk anitun ti kana palak kuli pata i merengen, au […] na nala belesai […] ina, nap ti pata ang, kate pata i merengen. Sikei, kate pata i tung (?). Ku palak kulina kulatung kulina, au, kula merengen, nango: kula alilis. Kula alilis, ku posong a…kutela posong a si, ve kana kirak, o sa kala pasal. Kala atiting aliu vanang: "a si, na si, na si", a pata ang. Ah, merengen ang vanang, kana uok: ka dang ko. Total: "merengen" kate* mean *a dang, kate anitun dang. Au, kula ol kuli pata, kula dang. Boni: kate anitun dang, na kate anitun nas a ro na* how *na saka oros ani nem ang, ani titin i nem ang. Nin lak, ti keve itoitonai, keve matmat akamusan, ka togon nang, ka ninlak ka ol kuli*

pata i merengen. Keve nem akamus, keve maiten ite vil kuli matmat, sa sa sa sa. […] Takavis [John Aini], nata apalak ia kuli pata.'

T48 Own translation of Tungag original: *'Man ki mat, kite mat nang eke, kitela […] siang nei laman. Bil ang ke… man nata kun mat eke […] nala kun pasal. […] Nemte pasal asiang eke, nemten Tingwan. Nemten siang vanang kuli step ang. Au, nemte pasal: Musau, au, buk ring ang vanang nate posong is "Mait". Aongos, a na ri vap kiten atung a pen i kak tul e vuang, na kitela siang. […] Taun a ri vap kin arai ni pen i kak ang, kitela nas ta, igenen mat nang katala pasal lenginang, katala using kana selen. Katala atung tul a pen i kak vanang ti kan kovek palau.*'

T49 Own translation of: *« dans tout leur contexte social et ethnique. Le vocabulaire afférent à ces activités sera aussi récolté. […] l'iconographie : dessins, peintures, sculptures, donne [*sic*] des représentations de gestes ou d'outils, que l'on peut dater. […] la linguistique : l'étude du vocabulaire technique, surtout des mots spéciaux, inconnus du langage courant[…]. »*

T50 Own translation of Tungag original: *'Eke ri vap i taun ke nang, neke, kite… Uok ke, tanga vul, neke kite uok lak ia, e. Kate toron ri vul nang, tarate arai niria. '*

T51 Own translation of Tungag original: *'Une sculpture bizarre orne la proue et la poupe. Ces ornements représentent, parait-il, une téte de coq. Un léger rebord en relief termine les bords supérieurs de la pirogue aux extrémités[…].'*

T52 Own translation of French original: *« relations d'interdépendance, valeur cardinale de l'éthique owa. »*

T53 Own translation of German original: *„Zur Fischerei wurden […] Netze gebraucht. Die Speere sind entweder einfach zugespitzte, ziemlich kurze Stäbe, oder längere Schäfte, an denen Holzbüschelspitzen mit Bast befestigt sind, ähnlich den in Neu-Guinea gebräuchlichen. Die Netze haben rechteckige oder quadratische Form und sind mit Schnüren versehen, oder sie sind länger, ziemlich schmal und tragen Steine und Schwimmklötze. Der Gebrauch der ersteren ist nicht beobachtet, die letzteren werden in flachem Wasser über den Grund gezogen, nachdem sie einige Zeit mit Hülfe der Klötze ausgespannt gewesen sind. Von diesen Netzarten wurden verschiedene Exemplare erworben; ebenso ein Packet neuer Netzklötze und das Material, aus dem die Netze und wahrscheinlich auch die Schnüre angefertigt werden.*"

T54 Own translation of German original: *„Zur Fischerei wurden Speere […] gebraucht. Die Speere sind entweder einfach zugespitzte, ziemlich kurze Stäbe, oder längere Schäfte, an denen Holzbüschelspitzen mit Bast befestigt sind, ähnlich den in Neu-Guinea gebräuchlichen.*"

T55 Own translation of Tungag original: *'<u>Lumaias:</u> Kipang kata asiang a Mar ta uri i maiak au, ah… Tanglik kate pasim nei lu. Rilongta apapasimai tapai. Nia katala pasim na rilongta angasiangai ta uri i maiak. Na taun a… Kipang kate asiang a Tanglik, ah, nem… Tanglik kala tapangun na kala, kala matung mosik, nei lu katala posim vuk irilong nei lu, na kate longong aongos irilong ta angakusai ta ri kate, a…*
<u>Melis:</u> pini ia.
<u>Lumaias:</u> kate pini ia ta ri… uriuri ti luk, ri makinga, au, ri… nem ti tangam lingan ti tangam ni maiak, ti songo ni ri ien, na ri ien ki palak ah… Mar ka luk iria. Rilong… angakusai sip, tenei vong, rilong ta angalisai parik ta rilong tav angakusai, sikei rilong ta angasiangai. Kipang kate alias a Mar ta… uri aongos i maiak.
<u>Melis:</u> Malangas aongos i maiak.
<u>Lumaias:</u> Ti kana nas aongos ani… keve nemlik pulakai tin luk ti… taun i pasal tan.… Tapangun vauk palau ti karilong uok ni keve uok ang, Mar kate go lak, Tanglik kala pasal. Ka luk aongos a uriuri aongos i antok ang ta Kipang. Ka uok aongos ia, kala tapasuk tan maiak. Ka maiak le, ka serei. Kipang kala… taping ta […] Tanglik katela maiak korong. Kala… asok a Mar ki pasal ta maiak, using a Mar kata longong a kana keve pinipini. Ka pasal ah… Mar, na raun raun palau, raun palau e nei makasim, na dipil nei makasim, kala palak ane nei uten. Ka palak ane nei uten, kan la tarak le na siem, […] abus i nei uten ang. Kan la luk aongos le ia, ka siang pok, kame alis a tivuna ta Kipang. Au, nang palau a buk akus palau kate kudik palau bil ang ke. Mar kala tar a siem, vo longong aongos ani pinipini ti Kipang, Tanglik, kala maiak nei makasim. O kala kamus.'

T56 Own translation of Tungag original: *'Lumaias: Kate torong a moi. Moi kate go nei makasim, i antok ani Mar ta Kipang. Tanglik kate luk korong ia. Katala moi tatana. Kate toron a tangam ina.*
Mark Collins: Ka moi a… pukun ina. Ka moi a pukunina?
Lumaias: E, e… kate moi, kata moi sula tatana. Kata moi kana sula tatana. Au kate toron ri uriuri lik pulakai nei uten, na ri ei kuvul, ite luk ti kana pasal kuvul ve nia, ve moi ang, na ka maiak korong.'

T57 Own translation of French original: *« Des actes à l'efficacité desquels tout un groupe ne croit pas, ne sont pas magiques. La forme des rites est éminemment transmissible et elle est sanctionnée par l'opinion. »*

T58 Own translation of Tok Pisin original: *'i gat skin blo diwai, na i gat mit blo diwai. Mi, mi gat olgeta mit blong dispela save.'*

T59 Own translation of Tungag original: *'Ien vanang kate torong a tamana, kate maltamana. Ri ien kite tung angvolai kite ien kei palau pulakai, kite kovek i tamaria.'*

T60 Own translation of Tungag original: *'mang anu kate aiveven iria'*.

T61 Own translation of Tungag original: *'Kite apupus iria, ti keve selen i* uok *ien, ta pies na keve nem ang.'*.

T62 Own translation of Tungag original: *'Mang ki songo palau, ien kateme asung.'*

T63 Own translation of Tungag original: *'Au, kute muip ngere nem, ri nem ang kila nas… kila nas ua ko! Using, ka… singira nang, nei kara tok peles ke, ti Tungag, tarate… tere ta "vau"'*

T64 Own translation of Tungag original: *'Kate vil ang ke: man kulo… kutela serei a vau, ku muip i nei laman, ku de… de ien kila using ua nei laman!'*

T65 Own translation of Tungag original: *'pukun i ien kata torong raping kulina.'*

T66 Own translation of Tungag original: *'dual i ei kate kit i pukun i ien, na kala pasal ngere mang keve ien, na ka tak iria'*

T67 Own translation of Tungag original: *'dual i ei kate ol lak ta pukun i ien.'*

T68 Own translation of Tungag original: *'raping i ei kuli pukun i ien, tara val iria, pukinira kala raping.'*

T69 Own translation of Tungag original: *'Sikei, kate nas ani rikek. […] Man ku muip nang, kain kain ien. Ri veua kime sang alak, using ua. Ri kene i liung, ien rikek tuman.'*

T70 Own translation of Tungag original: *'Sikei, parik kate vil ang ta, ka gule ua tumas, tan kute […] uok tumas ia, ti keve taun,* wanwan*, ti attract vanang, kain kain nem.'*

T71 Own translation of Tungag original: *'Val… Man a Melis kate igenen solo kauvek. Kate anitun solo kauvek, ka anit a korong ta… kana ngono papa. E Au, kana ngono papa rilong ali kitmat ni kauvek an, kauvek an ka kon vongo. Anit vanang kate pasal bil ang an. Au, nau nate anit ta Varas, using a Varas, kate anitun uok malepen. […] Nia kata antok iau ta uok ang ti kag uok. Na nate anit tatana a korong using ke takana ta uok. Kate igenen uok malepen. Nambang, anit vanang kate bil ang an. Kute kovek i nap ti ku anit ta anitung ang vanang kate kovek i nas ni uok ni uok ang. Ku anit a korong ta anitun ang kate nas ni uok ni uok. Au, nia ka ali kitmat ani uok ang kute uok. '*

T72 Own translation of Tungag original: *'ngisaria kite livus, na tiaria kite livus.'*

T73 Own translation of French original: *« En sollicitant les qualités intentionnelles et affectives des cochons du jardin – et en envisageant ces échanges interspécifiques sous le jour de la réciprocité –, les Mentawai aboutissent à traduire des intentions funestes (capture et mise à mort) dans les termes de la convivialité. »*

T74 Own translation of French original: *« Peu d'emprunts aux langues vernaculaires ont été aussi fructueux, aussi divers et ont engagé d'interprétations aussi contrastées, que celui portant sur le "tabou". Passé du statut de survivance archaïque (Levy-Bruhl 1931) à celui de régulateur écologique (Johannes 1981 ; Colding 2003 ; Cinner 2008), le tabou semble avoir suscité ces dernières décennies le renversement critique le plus radical qui soit. »*

T75 Own translation of Tungag original: *'*Mark Collins*: kate sa nang a vala? Kite uok sa?* Clemen*: vap, vap sinung kuvul na ki vilsaupai ta: "tara vala na buk siva bil ang ke. […] Tara vala na buk siva ke na ani ri vap ti kari longong tarala tung a anit."* Ben Ottis*: kila posong a mang sikei a* big man*…* Laimen*: … voiang katala mat. Katala mat. Katala mat le kabang. Poisan a* big man*, ki posong ia, poisan a igenen mat, na: "tarate atu bat a ring ke ti asan a keve vap bil ang ke ta, kala nap ta maiak tung ti kan serei ti saka taun an, voiang tara tung ia ti maiak, kila maiak'".*

T76 Own translation of Tungag original: *'Namem vanang ve Laimen namemtan pasal ta kari uok, ti kun nas lik, ta kari kastom uok e Lovongai. Nemta palak. Kita got vongho aongos ani keve vap ang voiang kita posong kari keve asan.'*

T77 Own translation of Tungag original: *'Kala buk pangau lik tasig, ta, ri Ailan Awareness kitame serei eke ti awareness pulakai, ti dang ta tua na keve buk ararai ke.'*

T78 Own translation of Tungag original: *'nei keve maiak a ri… e, maiak ro na ri WCS […] kite buk ia. Vil ang an ta: ago ta use an ani […] sais lik uvene. Ago ta glas vong an. Maiak palau ia nei keve selen ro i maiak. […] Nemta antok iria: "tara maiak palau ia ti keve maiak ke, na pasal nap ti tara karau a ri… WCS, kime pasal tingira ti mang keve project, o mang keve ararai nei selen i pakangai ni maiak ti ri vap i rina. Ki antok ta ki atung a FAD"'.*

T79 Own translation of Tungag original: *'Namemta serei ti lomlomonai vanang ta: namem luk aongos a* eight klen*'.*

T80 Own translation of Tungag original: *'Namem ta palak ta ka mem keve vang, na namem ta posong a kamem keve bubu. Na nau nang, na ta posong kag bubu nang'.*

T81 Own translation of Tungag original: *'Namemta arai ta, ri vap ki tav mamaila ni kamem keve vala, namemtala posong a ri anit'.*

T82 Translations into Tungag of all the questions in the survey were carried out by Laimen and myself; we phrased this question in Tungag as: *'Posong aliu a kari keve sausaupai ti ri Marine Komiti i Metevoe, siksikei.'*

T83 Own translation of Tungag original: *'sais ro ti luk suai a keve anit.'*

T84 Own translation of Tungag original: *'[…] na nate nas ta, mitala pakangai, ti aveven ani bangang ani keve tivumi, ani iles vauk i Metevoe. Na kalaro luai. Nate nas ta, iles vauk aliu, ku sivatat a sa nem ta itoiton ia si asereai o, itoitonai ani future i Metevoe. Kalaro luai. Na ninlak nala purut suai anim.'*

T85 Own translation of Tungag original: *'Bubu Poroto, tenei vauk ro luai ane tingim. Nate mang nat voiang nate polok neite kakim, nate mang nat ta Kanai, nate tung a malangas eke tenei vauk ke ti luk suai ani kag nauvaras a nim, na nate aikut ua ta ku apunuk a sa nem te vilsaupai ania, na ku* continue *ti aiveven ani kamem bangang. So, kalaro luai tivug, na nate posong suai ani vilsaupai, na nau a korong nala serei ta kag vilsaupai. Kalaro, na kalaro luai.'*

T86 Own translation of Tungag original: *'Ah… Rukun bubu, using nata tung a vang ti kami ta kungana. Mite luk makasim, na mite luk giem alak ane fankul, sikei, neke, kala serei ti taun ka, nem kala luk suai nimi. Sikei, mi atautauia kamem bangang, kamem vala, na ka sai tapai ia.'*

T87 Own translation of Tungag original: *'Bubu Kevin, posong kalaro luai ta kutala teng a kit a* pasin *i aiveven,* pasin *i uok kuvul, le ti kam asan, na nate posong kalaro ti… using kutala aiveven, natala arai ni* kamap *i kam aiveven i nei matana, so nin lak nala luk suai nim, na, kalaro.'*

T88 Own translation of Tungag original: *'Io, bubu Kiap tenei vauk ro luai ane tingim. Katala serei ti kag taun i purut suai nim. Nala posong kalaro luai ti kam mamaila, na kam* pasin *i aiveven ve namem, na ri vap aongos kite tun ta kam asan, na ninlak nala akamusai aongos ni kag posong anim eke, nala purut suai ani vang ang, ani* tanget*, na kalaro luai ti kam aiveven ve nau, na ku alomonaus a ro luai a kamem bangang lak, ani emung lak namem luk na namem kinlei a mamaila.'*

T89 Own translation of Tungag original: *'Keve bubu, kalaro luai, tenei vauk ro luai ane singimi. Kalaro luai si kami aveven ro ani bangang ke, na nem… nate tung eke mak a inatus tanginang, na nemtala angkuai si amatung ni buk tak tok ani patumi, na nin lak nganing, nem la tak purut imi. Kalaro.'*

T90 Own translation of Tungag original: *'Loi bubu, kalaro luai ti auai kuvul nei kamem sokotuk na kamem vilsaupai nei selen i mamaila. Kalaro, nin lak nala purut suai nei kam asan, na vilsaupai, na kua (?) ninlak vilsaupai na tak tak puru (?) ani kemem bangang?'*

T91 Own translation of Tungag original: *'Kanat, kakai, using kute anit manas, ani vala ke, o… Sinung ke nin lak nala agon ia e kulum, na nala purut suai ni erenge ke. Nate nas ta ku ataltal ien, nei vala, na ien nei ina, ka duk ta abus neina. E. Kalaro.'*

T92 Own translation of Tungag original: *'Kanat keve tivumem, kala tenei vauk ro, nemte tung a inatus. Nemte tav angtun ve nami, sikei nem te nas bil ang ke ta namite ago ve namem. Si a laulau ro i vangang i nei atrangai i mus mite vap sasagi an. Nem kate buk ta kami laulau ro ka ol ve namem si keve taun aongos. Inangun aongos kate takuk eke, fok kate sinung ve keve amamausan ke. Nem kate buk ta nami mila tun kamem kui, na kemem lomlomon ane singimi. Nemte nas ta nami te a laulau ro imem, si mang keve taun lak aliu. Nem te kin suai si tenei vauk ke. Keve tivumem aongos, nem kate buk ta, kami lau ro ka aveven imem si keve taun, na ka kovek i taputuk ina. Nem te alis kamem sokotuk animi nem kate buk ta keve taun ka ago val namem kate posong ia, na nem kate bukbukai nia. Mi asarak kamem, buk laman. Nem ka alias ia ta atautauia singim. Kalaro, velai kami keve lau ro aongos, nemte buk tun ania. Nemte* femili *aongos, nemte tung eke. Nemte tu sakolai imi aongos, na nem kate aikut si tenei vauk ke. Velai nia, nemte alis kamem kalaro ane singimi, na nem kate buk imi ta mite aveven imem, si keve taun aongos. Kalaro tapai.'*

T93 Own translation of Tungag original: *'Nemtolta sokotuk ani volo anit ta: "namila asalak a ion i nei laman ke, na tarala maiak."'*

T94 Own translation of Tungag original: 'Boniface: *tavatal, kila atung a… bat nia na nem ang.*
Mark Collins: *Tavatal? Kate sa?*
Boniface: *Kate mang sikei a buk ei, kate ol mete takaman ite palak ane nei bat, kate… bil ang ke.*'

T95 Own translation of German original, with assistance from Melina Danesh and Tobias Wagerman: *„Hütte und Männerhauß mit Eisensteiggabel bei Namatanai"* and *„Eisensteiggabel in Rehenedel". Eisensteiggabel* has no meaning in German and is probably a misprint. In an endnote, the similar term *Einsteiggabel* is used (Krämer-Bannow 1916, pp 265–266) which can be translated as 'entrance fork'.

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T96 Own translation of Tungag original: *'Au kanat, kalaro tenei ias-ngelik ro luai ane tingira aongos. Na tung eke, asuang val mang nat tanginang, nat ta Kanai. Nate tung eke mete vala ke lakat le kuli kag vil arikek nata bis ia. Nata posong a asan i kag bubu, kate anitun ta Kanai. Na nata arai bil ang ke ta, nate tav mamaila ania, na natala kin le kana asan. Sikei kalaro luai kapa, nate posong ro ta, bubui katala* kontribute*, na kala* kontribute *a lava luai, ti ararai i nei bangang, na katala togon sakul, nei selen i kokolongong ti ri vap. Na, nate apreciate,*

a bubu, ti sa natala uok ia. Neke, nate tung eke, kate vil ang ke, nate posong suai, na nate luk suai a korong ani vil saupai ang, voiang nata agon ia ane kuli bubu, ta, larim *ia ka pa pok ane tingig, na nau na vil saupai fok a korong. So, velainia, nate tung eke, na nate maramarak ni luk suai ani bubui neite vil saupai na nala balak a erenge ke.'*

T97 Own translation of Tungag original: *'Nau nate mang sikei a ignen vil saupai i nei komuniti… Na nate ignen tua a rikek luai, nala posong suai e matami.'*

T98 Own translation of Tungag original: *'kag suai, na kag sokotuk, ta iles vauk, tara anguan angtung kuvul an, ti vil saupai i nei bangan ke, ani natlik ke, si keve taun.'*

T99 Own translation of Tungag original: 'mak *a Peace Committee ke, […] kala teng a kit aongos ani keve patmanu ke, neite luai i kana kui na kana gese. Na Peace Committee kate bles aongos ani keve bangang aongos i keve patmanu ke ta: ka kovek ka kovek i mang sikei a nauvaras lak emung.'*

T100 Own translation of mixed Tok Pisin and Tungag: *'Na kalsa blong iumi,* karong lau i angsang, karong lau i sasagi karong lau i angsongo, *i no gat meaning tu sapos hap toktok hia i na stap insait:* mamaila*. Tete iu lukim fruit blo* mamaila*.* Mamaila *long rip blong iumi.* Mamaila *long kreasen.* Mamaila *long tok, long dispela tok i bin stap bepo, dispela tok i stap nau, na dispela tok bai i stap laip olgeta taim, na tok tasol i as blong olgeta gutpela samtin.'*

T101 Own translation of Tungag original: *'Kate kovek i ien tingira ti angan, sikei kila ol nei kut, nate buk ta ki pa aongos.'*

T102 Own translation of Tok Pisin original: *'Ol i save tambuim solwara. Wanem kain samtin ol i save tambuim lo solwara, bai ol man bai i no inap go insaid lo solwara. No kan lukim ol samtin long solwara. I tambu olgeta. Bihain i gat taim long, ol i opim. Opim gen na, ol man ol i go insait, blong kisim pis. Long taim ol i tambuim olsem, ol i no inap long go insait long solwara, em i tambu tru. Em blong ol, ol tumbuna blong iumi, i stap. Long kastom em i tambu long ol i go daun long solwara. Na mi lukim olsem, i…i bisinis i kam andanit long solwara. Na ol stori long solwara, em nambawan wok blong en.'*.

T103 Own translation of Tungag original: *'Keve tivumem […] Mi asarak kamem, buk laman. Nem ka alias ia ta atautauia singim. Kalaro, velai kami keve lau ro aongos, nemte buk tun ania. Nemte* femili *aongos, nemte tung eke. Nemte tu sakolai imi aongos, na nem kate aikut si tenei vauk ke. Velai nia, nemte alis kamem kalaro ane singimi, na nem kate buk imi ta mite aveven imem, si keve taun aongos. Kalaro tapai.'*

T104 Own translation of Tungag original: *'Uok i vala, taun a anitun bil ang ke ka tu a tauvan, o ka tu ien, kila uok nang a vala, ki vala bat ia using a nia ka tung a ien ang.'*

T105 Own translation of Tungag original: *'Namemta arai bil ang ke ta, kamem poisan a vala aino, nemte vala sikei ri vap kite tav mamaila ania'*.

T106 Own translation of Tungag original: *'Man kila dang palau "ago ta maiak an", mang matan kite kovek i nap ti ki longong atakun'*.

T107 Own translation of Tungag original: *'August le, tasig, katala vala tapai. Sikei kata vala palau, kovek i kastom. Na mang kin glas aliu nang, kite kovek i longong luai nia, glas aliu nang nei kana siva, na mang ka takun, kite sang alak taun ia ve masket i taitim. Val kite buk so nia, tasig. Kovek luai i longong.'*

T108 Own translation of Tungag original: 'Mark Collins: *Kate uok sa… saka kain uok an?*
Boniface: *Vala kate vil bat. Ingko. Anit Bat.*
Igua: *Kita anit bat nang.*
Boniface: *Vil ang ke ta basis ke, kila anit bat ia lenginang. E.*
Total: *A vala ko.*
Boniface: *Na anit ang, anit ang, si katala mat, nang palau ku…*
Igua: *Posong ia.*

Boniface: *… posong ia.*
Total: *Erenge nang kila tung ia.*
Boniface: *Po erenge. […] Kila atung a… bat nia na nem ang.*'

T109 Own translation of Tungag original: *'anit kate* mystical mystery *i kulenusa ke, Lavongai.*'

T110 Own translation of Tungag original: *'Ri Ailan Awareness, aino kita pasal palau tapai ti… pasal i uok a… ani keve MPA area ke. Nei uok i science a korong ko. Sikei, ri vap kite kovek i respek ania. Ri vap duk kite kovek i respek ani keve uok ang, keve vala ang, taun kite atung ia. Ri vap kite tua tingina, kite maiak ta uvene, kite tainau ia. Au, using a ri vap kite… kila arai ko ta, using a ri vap kite… nas ni respek ani uok kastom kila traim ti… adokok kuvul ani… science ve traditional… a… keve uok kastom ko. Au, kila antok vanang ta ki uok kastom ni keve vala ke, taun ku uok kam vala kula uok… Sang ia nei pasin kastom, nei uok kastom. […] Na neke vang, namem nang nememtala start ia eke, ria evuang e Lavongai. Na kata arai ta ri vap kitala togon rispek ani ri vala. Ni keve vala ke. Uok vala ke. '.*

T111 Own translation of Tungag original: *'Sikei, taun i tavas ania, ku ago ta tua an. Ku kus val traditional vala. Ku luk suai palau nia nei selen i kastom, sikei ku maiak ia nei keve maiak a ri… e, maiak ro na ri WCS […] kite buk ia. Vil ang an ta: ago ta use an ani […] sais lik uvene, ago ta glas vong ana, maiak palau ia nei keve selen ro i maiak.'.*

T112 Own translation of Tungag original: *'vala ke, ti itoiton fok ani ien, na kame ol, na ri vap ki maiak ia nei mang selen petekai i maiak. Parik ta kain selen tingira i vala: kan serei ti taun na tua, tua. '.*

T113 Own translation of Tungag original: *'Ke… Kin ia ta ki "tua sarak a ien". E. Ka sarak, ka me palak ane fankul. Ve… Sikei, katala… chalenge lik vanang singimem ta: ke tuman nia? Using a tua ke vil a rikek nang a… marine life. Ka vil a rikek a ri ien, ka vil a rikek a ri volo, ka vil a rikek a ral, ka vil a rikek a keve nem aongos nei laman. Kovek i vil a mat papalik ani ien. Ka vil a mat a kainkain manmanik ke ol nei laman. Kuvul ve kari ring ite polok, ite kau, kuli at na keve nem ke. Ka vil a rikek aongos nei iria. Vil ang an a namem nemte misag luai ni tua. […] Ria kita… Nem ta explain a ro palau ti mang keve vap using kitala antok ta taun kitala tua eke [*points to Baikep*] ki antok ta vap ke vanang eke, ri Marine vanang ki kun dang a ro na tara kun lukluk ien kapa eke, ti vala ke. Au, nemla explain vanang ti ri vap duk explain aro ti ri vap, ri vap kila luk aro. '.*

T114 Own translation of Tungag original: *'Na vala ke, ke vala voiang tara aveven ia na ka ol a poisan aongos a matas. Tara kovek i kamus ia, i vala ke. Kala matan sikei a stat ania, na nia kala pasal nap ti taran mat, vala nia kate go. Ti kana pakangai ni nei laman ta, ka duk fok i ien. Using kara laman kala kovek i ien. Vei kara ring kala kovek fok i ien. '.*

T115 Own translation of Tok Pisin original: *'mi no laikim pis i wail'*

T116 Own translation of Tungag original: *'kovek i vil a lomoi luai niria, using a kovek i glas ko, na uvene, na sa pulakai e vuang ti alomoi ri ien.*'

T117 Own translation of Tok Pisin original: *'stap long gutpela lukaut long ol tumbuna'*.

T118 Own translation of Tungag original: *'Ka mas togon taun si luk, na taun si aiveven.*'

T119 Own translation of Tungag original: *'Ka songo a ien aongon ta mamain ta* poin *aongos, na ka palak e vuang, nei […] buk bangang […] Using a, ka pasal pasal nap ti taun ang, ien ang kala serei, man ka toron a keve* program *lava o keve sausaupai lava bil ang ke, i ri vap ko. Bil ang ke ta, matanangan lava, kila tavas a […] siva i vala ang. A ien aongos ina, ki ol ti angan i […] matanangan.*'

T120 Own translation of Tungag original: *'*Apsait [in West Lavongai] *kite* respek *ni keve vala […] Sikei, tingimem eke, buk area ke voiang kate kovek i… ien kate kovek i nas ni… ien ko kate kovek i duk tumas luai eke, nememte kovek i nas ni… mamaila ani vala. '*

T121 Own translation of French original: *« les acteurs font évoluer leurs connaissances à l'aune de ces rencontres. D'une part, les habitants de l'île participent avec Ailan Awareness à échafauder des institutions recomposées, telles que les dispositifs contemporains appelés* vala *[…] D'autre part, ces mêmes habitants revalorisent certains de leurs savoirs, […] en dévalorisent d'autre […] et sont prêts à intégrer dans leur répertoire technique des possibilités nouvelle. […] Enfin, les écologistes de la WCS se questionnent sur les fondements de leurs manières de valoriser et de préserver le vivant dans des contextes comme celui de Lavongai, où la tenure foncière, l'organisation sociopolitique, et les préoccupations des habitants apparaissent en décalage par rapport aux discours et actions de l'ONG internationale. »*

T122 Own translation of Tungag original: *'said i kastom, ki mas tung emungim vanag a korong ta ku uok a uok ang. Ku mas uok kastom. Hum. Using mang kila larim kila arai bil ang ke ta keve anit ke, na keve nem ke, kuta kovek i mamaila ania. E. Voiang kate tukul nang i Lavongai: ku mas mamaila ani ri anit na keve nem bil ang ke.'*

T123 Own translation of Tungag original: *'Kanat keve tivumem, kala tenei vauk ro, nemte tung a inatus. Nemte tav angtun ve nami, sikei nem te nas bil ang ke ta namite ago ve namem. Si a laulau ro i vangang i nei atrangai i mus mite vap sasagi an. Nem kate buk ta kami laulau ro ka ol ve namem si keve taun aongos.'*

T124 Own translation of Tungag original: *'Taun a ri vap kitete buk tainau nia na taun kite siang tan uk, kite kovek i tak ien, using a, anit kate kovek i buk alis niria ta ien. Using kite tainau. '*

T125 Own translation of Tungag original: *'keve ingua i nei matana ka sesel iria!'*

T126 Own translation of Tungag original: *'Na nau nang, nata posong kag bubu nang, kata vil a maiten luai ni ri vap aongos, using kag bubu: igenen uok matanangan, igenen aveven. Na taun ang nata posong ia nang, ri* big men *duk luai kita* kuiri*: "au?" nang, ti taun ang. Kite mas antok nganing, ti, uok ke neke neke, tarata ol mol tingina, ka kovek i serei vil ang ke.'*

T127 Own translation of Tungag original: *'ki langai ni keve* big man *kita anit tataria.'*. Note that *anit* is used here as a verb, meaning it must be glossed as: <to perform magical action by calling on a spirit of a deceased forefather>. Such a shift in grammar type, from nominal to verbal, is common in Tungag; the linguist Karin Fast writes that: 'Word categories in Tungag are not always as clear as it might seem at first glance. Because the word order is relatively fixed in Tungag, the word class often becomes apparent from its position in the clause. […] The most common means of derivation is conversion, in which the word class changes without an affix or any change to the stem, and where the context gives the information needed to know what is meant.' (KE Fast 2015, p 18).

T128 Own translation of Tungag original: *'Inangun aongos kate takuk eke, fok kate sinung ve keve amamausan ke. Nem kate buk ta nami mila tun kamem kui, na kemem lomlomon ane singimi. Nemte nas ta nami te a laulau ro imem, si mang keve taun lak aliu. Nem te kin suai si tenei vauk ke.'*

T129 Own translation of Tungag original: *'ri vap mat, ria kuvul kite angan, kite sang nei kut. Parik kuvte de iria, sikei kite angan'*.

T130 Own translation of Tungag original: *'igenen lava sa kata alis ira tatana ti aiveven ia'*.

T131 Own translation of French original: *« Comment recomposer nature et société, humains et non-humains, individus et collectifs, dans un assemblage nouveau où ils ne se présenteraient plus à nous comme distribués entre des substances, des processus et des représentations, mais comme les expressions instituées de relations entre des entités multiples dont le statut ontologique et la capacité d'action varient selon les positions qu'elles occupent les unes par rapport aux autres ? »*

T132 Own translation of Tungag original: *'amaramarak ni pukuniria, tenei vong vei pasim ka serei'*.

T133 Own translation of Tungag original: *'Michael: ri… manu nang. Piksa i kag dro ia kate tenei ngelik nang. Ri raula ne suke kite bur pulakai. […] Ri raula nang […] kite toko laman. E, ri raula nang kite toko… kite nas ni*

toko laman le, si man ki… ki sa, ki aut e sa? Melis: e. Michael: nas ni tokolaman ti si man ki arai ni ri ien, au, kitela bubur, ri vap kite nas ni kalip using iria, na kite nas ni kite nas ni akalit amalangas ta ien nang kate ol ti saka buk siva an na saka buk siva an. Au, ri vap kitela kalip using iria.'

T134 Own translation of Tungag original: *'Piksa ke kate akalit amalangas ta ri aina. Ri aina kite nas ni uk ngerelo. So, kate mang selen i maiak nang, ti ri aina. […] Neke vanang kate selen i maiak palau nei nei bangang, o nei ring mat palau. Ri aina kite nas ni tung na kite so ta sitiring. […] Ah, vokol neke, vokol. Vokol ke, vokol nang […] kate kun nas ni maiak. Kate nas ni maiak te… Ti man bangang, nia katela nas ni arai pulakai ane nei bangan pulakai, ka so ien na vokol. Au, si man kate bus nang, nia kate nas ni maiak palau ngerelo, ka raun palau ngerelo palau arai ni ri ien lik pulakai, ri molo, ri sa. Nia nang kala so. Piksa ke kate akalit amalangas selen i uk ti ri aina. Ri aina. Ri anitun vanang ria ki maiak kuli vul. Au, ri aina, kari uok vanang, ria ki tung palau nei bangang palau so ta sitiring.'*

T135 Which I phrased in Tungag as: *<au, na vokol? Saka dang an kuli vokol?>*

T136 Own translation of Tungag original: *'Vokol, ka mang a bangang, nia nang kala […] pasal nei bangang, nei kasung. Ka raung a sakuma. Au, man a bus lava, ka raun nang ngerelo. Man a to ka pungas alak, kuvul ve kan papok a to ang, na ka arai ni ri ien lik ko kitela sang pulakai, nia vanang ka… so vanang aliu niria. Ngerelo. Ri molo, mang saka ien ang. Ka maiak ngerelo aliu pulakai. Au, mang matan taun, ka ago pulakai ngere sung. Maiak ngere sung. So pulakai ni ri ien lik, ri sa pulakai ite palpalis ko e ngere sung. Nia ka raung nang iria esuke. Ngere sung ang. Kala maiak nang, o kana uok ko na vokol.'*

T137 Own translation of French original: *« L'homme et l'oiseau non seulement excellent à la pêche, mais pêchent à l'identique. Alors qui de l'un copie l'autre ? […] Loin de se contenter d'un oiseau pêcheur, l'insulaire lui prête aussi un savoir sur la pêche exemplaire. Pour les habitants de Nikunau, seul l'oiseau "sait pour de bon", "sait sans se tromper" où sont les poissons et qui ils sont. Les compétences de l'oiseau en matière de pêche se sont constituées en idéal de savoir. »*

T138 Own translation of Tungag original: *'Na taun nang kite Sosolaun nang, kite ah… ti taun ang kite ah… nem ang nang… ah neke na ah… iekalat! Kite kolomon nang! Ah, kite kite nangko ri ria, ria a korong ke kite tang [inaudible] na numai, numai, numai, ria aongos, a iting aongos ang, kite kite malmalang, ti putukoai i malmalang ang. A vaitas, kate signal a nem ang ta bil ang ke ta, man a a iekalat, ingko? Na taun ki la kamus e vuang, nia kala [tapping beat] vil suai, au le na,* continue *fok. Ki angan fok, [tapping beat]. Volo taun ka togon a signal, si vaitas, kana ta kirim a vaitas. ·'*

T139 Own translation of Tungag original: *'Malmalang kala malmalang using a pasal i ien ti ka angan. Tautaum i ien. Bil ang ke ta manganai, o samung, e, kite angan. Kala tadut le na iting, kala pasal. Au, anguan kalat an. Ki anguan angan an. Angan ani ba ongos a usausa neke. […] Tirtiring ani rangamut ang, kate usiusing palau a* pattern *i […] tautaum […] i iekalat ang, kila, kala kovek ina, au kala pasal. […] Kila litok ia ta, kite […] antok ia ta, alis a* sign *bil ang ke ta, kala pasal. Kalat ti mang buk palpal i bangang. Pasal pasal pasal pasal nap ti rangamut kala antok amalangas nei […]* signal *ti vaitas ta, kala aulei.'*

T140 Own translation of Tungag original: *'* [Beating on bench] *Ien nang katela pasal. Pasal na tautaum i ien. Ka pasal na tautaum i ien nang.* [Changes beat on bench]. *Au kila angang. [*Whistles*]. Kala pasal fok, ka gus a mang siva ti angan.* [Beats hard] *Ka angan.* [Stops beating]. *Au, kila usausa ti luk ani iting, kala ago to apongui i palpal i* pattern*, a malmalang malmalang kala malmalang ah nem… Kila sinung. Kila sinung. Au ah… kila soko na…* [whistles]. *Vek kala tangis.* [Beats on bench] *Ka soko na rangamut. Antok ta mang* pattern*. Apotol i paten aulei. Kala sosolaun.* [Beating on bench] *[Low shreak] Ah nem ang kate tangis bil ang ke ta ta, ta… nem ang… Kui.* [Beating on bench]. [Long low shreak] *Malmalang kala aulei. '*

T141 Own translation of Tungag original: *'Malmalang ke, kana asan ta Laun o, Pukmaras, kate malmalang ti ri ien. […] A malmalang ang, kana asan ta Pukmaras, kate malmalang i pirpirak ke ani ri ien […] ani tautaum i ien, kite saka angan an, […] kite saka tagalang an, kite saka aulei an, ti taun kitela […] kila aulei […] ta angan, nang kila tagalang. Kila ah ah… ki mun. Supsupai vanang i malmalang ke neke na kana asan ta Pukmaras. '*

T142 Own translation of French original: *« Tout individu est dit venir au monde avec les caractéristiques physiques distinctives des membres de son unité duelle. […] Cette croyance fait des membres de la même moitié des êtres de la même espèce, au même titre que tous les oiseaux* Pandion leucocephalus *ou* Haliaëtus leucogaster*, et divise l'humanité en deux pans, ou deux ordres, qui sont aussi proches et néanmoins différents que le sont les deux espèces de rapaces qui leur servent d'emblèmes. »*

T143 Own translation of Tungag original: *'Ta ri kikiu kate togon a kikiu manu kate igenen maiak, a kikiu. Au, kate togon ri vap, ta kikiu e, nango, kite ol. Na kikiu kate igenen maiak. Au, nambang, kate togon kari ta kun keve uok a keve manu ang. Val kol, kate kun togon kana ta kun uok. Vengevenge kate kun togon kana ta kun uok. Au, ri ianga kite kun togon kari ta kun keve uok.'*

T144 Own translation of Tungag original: *'kate togon kari ta kun keve uok a keve manu ang. […] Sikei ti ri vap, kate kovek. Ri vap kite ol palau vil ang an. Sikei kite asan palau a keve manu ang. Sikei kite kovek i uok ani keve uok ang a keve manu manmanik ang kite uok ia.'*

T145 Own translation of Tungag original: *'Val, kol, kate igenen angan ani vok pulakai, ri nem ri vok i ri ngavia, au ri tukul nem pulakai. Katela vok: ke ri kol vanang ta fok. Au, man ku longon ri kol ki angkiki, o mang keve manu pulakai ki ki na ri kol ta: "mite vap kon vok!" Using kari uok vanang, ri kol. Kila vap sain. Ri kene vok, ri saka nem ang pulakai kite vok, ri kol nang ki mas angan niria'*.

T146 In Tungag, I phrased this as: *'Ri anitun na ri ainan Lavongai, man kitala mat, kila pasal ane voi?'*

T147 Own translation of Tungag original: *'Kam, malanganto? Nangko, nala posong ia vanang bil ang an. Na taun kute mat, kam malanganto kala pasal ane voi. So, pukun ke, nangko, pukun a korong,* body *kala pasal, kala serei vunep. E. Au, kam… kam malanganto vang… nambang. Tarala kovek i nas ta kala pasal ane voi.'*

T148 Own translation of Tungag original: *'Nate bilip, ke takag a korong ta bilip, ta, anitun, taun kate mat, kate kovek i mat luai. Sikei, ka mat, pukun ke kan ne vunep, sikei anitun to a korong kate go lak. E. Sikei parik kavte pasal using kate pasal eke kuli vunep palau. Kovek, kate nas kana ta to na… Kate nas kana ta siva vanang ti to tingina, kokuai ni sausaupai singig. Neke vang a nem palau bil ang ke kame raun palau pulakai, using kame akeke. Kankanuai palau ke. Sikei nau a korong nate nas ta, anitun a korong, kate kovek i mat na ka mat luai. Sikei kate mat na, pukun kate ane nei vunep, sikei anitun to kate go. E oi vang? Nambang, tarong vang, tarongte kovek i nas using tarongte kovek lak i mat.'*

T149 Own translation of Tungag original: *'Using a man, neke ko, val ri vap lotu, na vap te, nangko, nambang, vap te rid a lava ni… ni… na kin bil ang an ta,* buk tambu*, o… man nau nate kun* read *a lava ia, nala angkuai ti nala kin bil ang ke vang ta, nei nas ko vang, ite tikon ko nei buk ang kite posong ia ta buk tambu, ta: malanganto, malanganto ang, o kam spirit, kanla ol kokuai ni […] akamusai ko i taun. Io ko. Kin bil ang an.'*

T150 Own translation of Tungag original: *'Sikei a, katen* question *fok ta: man kate tuman ta kate pasal bil ang an, val, nangko. Vap kite tikon nei buk tambu, nau nate kun tikon korong nei* bilip *ko i eke, Lovongai, o ke. Au na, mang matan man… Man a ri popolik, o ri sa kin la malepen a, kinla tangam kap aniria, na kila uok a mang keve uok a, kila arai fok ni […] anitun vo mat ang lenginang ang, nangko, kinla arai fok ria eke. Kate* mean *vang ta malanganto ang katala… kata pasal ane voi?'*

T151 Own translation of Tungag original: *'Sikei ti kankanuai palau, neke vang, bil ang ke, nia ka pasal palau pulakai kuli… kuli rina ko. E. Kankanuai palau tin ti… Anitun a korong kala mat aongos. Na, malanganto a korong kala pasal aneti vo te taukai nia. Vo, vo kui alak ani malu. Nia ka pasal ane ti vo taukai nia. Sikei a kankanuai palau bil ang ke nia kala uok palau pulakai nia kana keve uok eke.'*

T152 I phrased this in Tungag as: <*Kute kinlei ia ta sa, a kankanuai ang?*>

T153 Own translation of Tungag original: *'Ku kinlei korong ia ta… Nangko, using nau nate nas ni tangam mai, ti… Na tangam ani ri vap malepen. Kite nas ni songo nig ti tangam mai ni ri vap malepen. Man na tangam a mai a korong, na man nate posong ua, Mark, numai a korong, Mark, ku serei tingig a korong. Nate kinlei a*

korong ua. Kankanuai ke, sikei anitun tuman val numai ka me bokol a korong tingig na nala kinlei ta: numai. Kanang ke ka kun luk a korong ni ua a korong.'

T154 Own translation of Tungag original: *'Na IAVE kala kap roe le kuli vunep na kala pitopito na igenen tatana. Le na kala kui alak kana malu i to ane si isuna i igenen ang na kala serei a igenen atogon to.'*, which is itself a translation from the English Standard Version of the Bible: 'then the LORD God formed the man of dust from the ground and breathed into his nostrils the breath of life, and the man became a living creature. (Crossway Bibles 2011, Genesis 2:7)'.

T155 Own translation of Tungag original: *'Malu ke, tarate tak ia'*.

T156 Own translation of Tungag original: *'Atdangai ke. […] Nang, lomlomon vanang, atdangai'*.

T157 Own translation of Tungag original: *'Anit vanang, taun kame serei a asan ang, anit, ti igenen ang voiang namem te deal ve nia ti keve taun aongos. So, nia a korong kate* source *a nem ang, a korong. Ti keve taun aongos. Val, igenen suke, katala tu anit, i kana igenen nan ke kun use kapa ia ti mang keve uok pulakai, a korong, a igenen ang o anit i solo kauvek kate sikei palau a kain anit. Kite use ia aongos. Ri vap duk kite nas ni use ania. Sikei, malanganto vanang tasig, nau nate polpol ua palau bil ang an, sikei kate* relate *nem ang voiang kate kovek i nap ti ku arai nia ta matam.'*

T158 Own translation of Tungag original: *'Ladi: au kanang ina nang kite angsinung e suke, Angat, fo valuka ang. Boniface: Na nia a fok. Total: Nia, ri Silau a fok.'*

T159 Own translation of Tungag original: *'Nau nate nas, kag manu nang, ta nguma. Maski kite kari manu, sikei…kari manu ang, kari manu, kite kovek i nas…kite tung ainoainoai. Ri manu kite* use *ia ta kari manu, ti itoitonai ni selen i ol, eke e kulenusa. "Kate nat ta sa nang? – Kate nat ta nguma nang!"'*

T160 Own translation of Tungag original: *'Sa kata adokot a ri manu ve ri vap nei patmanu'*.

T161 Own translation of French original: *« À l'heure actuelle, les Néo-Irlandais ne conçoivent ni lien généalogique ni relation particulière entre les membres d'une moitié et l'oiseau qui lui sert d'emblème, mais personne ne tue ni ne mange ces deux rapaces (Powdermaker 1933 : 34 ; Clay 1977 : 36-37 ; Jessep 1977 : 50-51). Dans le même sens, les clans qui composent chacune des moitiés ne reconnaissent aucun ancêtre commun. »*

T162 Own translation of French original: *« Alors que dans le village barok de Lokon, situé en dehors de l'aire malanggan, le masalai est associé au lignage (Jessep 1977, pp 55-56), et que dans l'aire tigak, à laquelle appartient la ville de Kavieng, le masalai aujourd'hui peu prégnant était apparemment associé au groupe de filiation localisé au sein du clan (Lomas 1973 : 59), c'est au niveau du clan qu'il est reconnu dans tout le reste de l'aire malanggan, du moins dans les îles Tabar ainsi que dans les aires notsi et mandak (Chinnery 1931 : 24 ; Powdermaker 1933 : 35 ; Groves 1936 : 234-245 ; Brouwer 1980 : 38). »*

T163 Own translation of Tungag original: *'Malikom kate ol ti posposong ang ti ri Nguma.'*

T164 Which I phrased in Tungag as: *<tara, ri vap na ri aina, tarate angpetpetekai ve ri manu, na saka nem an kate petekai?>*

T165 Own translation of Tungag original: *'Ri malanganto tarate sikei palau. Sikei si… si… nei. Nala posong ia ta sa? Ah… Nangko. Itoitonai, kate… angpetpetekai lik. Val kute arai ni tarame serei vilangke. Ri manu kila kun serei ti mang serei. Ri kauvek kila kun serei, ri vongho kila serei. Sikei ti to, tarate sikei palau.'*

T166 Own translation of Tungag original: *'Michael:* Piksa *i kag dro ia kate tenei ngelik nang. Ri raula ne suke kite bur pulakai. Sinang nang kala siang. Gup nang katela melek. Sinang katela sinang arere. Au, ri… Ri raula nang kitela bubur fok. Kitela… […] kite nas ni papok aneti kari ring ite […] rot. Mark Collins: Kite rot e oi? Michael: Kite kun nas ni tau ni rot angvolai. Ben Ottis: Mas pasim e suke e Nusanraula. An siang le nei, nei taun ko, na kume siang lak e Patio, sang lak e patio, na kume sang aliu a buk pangau an, na buk ailan ang ri*

[inaudible] e suke, […] kari buk ring nang ite pasim. Nang ku sang asiang tenei ngelik, ku asukang ke: raula tumas*! Melis: Raula tuk!* Tumas*! Ben Ottis: Ti kari pasim nang. Ring i pasim ang: Nusanraula. '*

T167 Phrased in Tungag as: *<keve nem kite to sikei kite kovek i anitun o aina, val ri mani, o ri kene, o ri vongho, keve manmanik pulakai, kite toron malanganto?>* This question is deliberately convoluted because it is seeking to avoid the foregrounding of the word *manmanik*, which although it can gloss as <animal> is usually understood to refer only to domesticated animals such as pigs, dogs, and cats.

T168 Own translation of Tungag original: *'Aongos, e kulivunep ke, kite togon malanganto. Ri manmanik aongos aongos aongos taun ang kita… nangko, ah… lomonaus a kulivunep, ve kala kui suai ni kana malu, aneti anitun, kata asinung iria, na keve nem ke aongos.*'

T169 Own translation of Tungag original: *'Ri malanganto tarate sikei palau. […] Sikei ti to, tarate sikei palau.*'

T170 Own translation of Tungag original: *'Ia? Au na man, man kite kovek i i malanganto, ki… Kite kun togon malanganto! Ri manmanik. Nang nangko. Kite kun togon. Au na man kite kovek ki saka to an? Na… ah… Nanasai… Nangko. Using a ri manmanik kite vap raun pulakai palau ko. Ri manmanik kute* tame *iria mete takaman, avaven iria, de kute angkuai ti ku dang niria. Nangko, man kitela katak ta longong anim ti dang, na kute* tame *aro iria, aveven aro iria mete takaman. Au, man a ri manmanik val ri kauvek, o ri si pulakai, man kite kovek i malanganto, nin lak kila saka nasan bil ang ke ta kin gule fok gule fok pulakai mete mang keve lu, o kila raun pulakai ngerelo? Ki san pasalan man kite kovek i malanganto? Sikei kite kun togon malanganto. Nang palau parik nang… O, kari malanganto kate kun* control *iria o kate use iria ta ki pasal.*'.

T171 Own translation of Tungag original: *'Sikei a, malanganto i ri manmanik kate kovek i kuvul ve malanganto i ri vap. Using a… Ah, kate petekai bil ang ke. Ri vap, kari selen i pasal kate… Nangko… kate kate korong kate kovek i togon bil a rikek nei ina o bil ang ke ta, ri manmanik, val ri pura na ri kauvek a mang keve sa pulakai, kite nas ni pasal kite tainau, nangko ti ri kauvek, ki tainau. O, ri vongho kite kovek i* care *ta nem ang, kate nem ti aveven nei lu.*'.

T172 Own translation of Tungag original: *'Kite toron malanganto sikei, kari malanganto kate kovek i kuvul ve tarong. Kate petekai. Ku de niria kate kun… Rokrok, kana malanganto kate paul palau pulakai. Ku de nia kate pasal kate kovek i nas ni kana nem ti kana angan. Tarong, a korong, anitun, karong malanganto a korong kate… kate ro a korong! Using, vo asinung nirong a korong kate… nia a korong ke takana ta malanganto i kana alis nira. Ri… rokrok, ri kauvek, ri vongho, ri valuka, mang sa, keve manmanik pulakai, vo asinung nirong kata dang palau na ria ki serei aino tapai. Au na, tarong, kata uok irong, ta kungana, na nia a korong ka kui ta kana malu. Vil ang an a takarong ta malanganto, kate petekai ve kari malanganto tingiria.*'

T173 Own translation of French original: *« il arrive aussi souvent que les formes sous lesquelles des collectifs se présentent à l'observateur soient moins clairement identifiables parce qu'elles combinent des traits de deux ontologies. »*

T174 Own translation of Tok Pisin original: *'mi save tok ples blong ol pis'*.

T175 Own translation of French original: *« tous les savoir-vivre non modernes […] tel celui des kasua, reconnaissent aux plantes une agentivité et une sensibilité et admettent volontiers s'entretenir avec elles dans une communication interspécifique et audible. […] [Et] le savoir naturaliste – qui avait privé intentionnellement les plantes d'intériorité et d'intelligence –, redécouvre l'interactivité du végétal, soit son pouvoir d'agir et de réagir au monde. »* Note that it is obviously the Kasua people who 'have discussions with' plants, despite the original citation meaning, literally, that their etiquette does.

T176 Own translation of Tungag original: *'Tara ri vap tarate to, tarate luk malu e… Nangko, e kuli, kuli vunep palau. Nangko. Tarate ol ane nei ring kolo, na tarate luk malu a ro. Au, tarate kovek i nap ti tarala siang nei laman na taran to nei laman. Man tara siang nei laman, ti kari ring ti ien, taranla mat. […] Au, ri ien, au kite kun ol nei laman, kite kun luk malu nei laman, kite kun to nei laman. […] Kite kovek i nap ti ki ol ve tara e, nangko, ti, e vunep… nei ring kolo.*'

T177 I phrased this in Tungag as: *'ri ien kite toron saka ararai an?'* then *'man kite sang pulakai nei laman, kite arai a sa, kite nasai a sa?'*

T178 Own translation of Tungag original: *'kula pege na ri, ri aina i nei* komuniti *ang, si taun kuo uok a bil ang, ko ol* tambu *vanang si…* toilet *ko nei laman. Au, ri aina kio toron malepen, malepen si ri aina ko, ki ago tan aising e iang, ago ta aising e vuang, ko* tambu*. Nia vanang buk* tambu *ko i… ring ang ien ko ol singina.'*

T179 Own translation of Tungag original: *'Man a… kam papa, katala mat, kula antok: "Loi, nate buk kala… Papa, [Name]", using kamong papa nang… "Nate buk a inavu ke ka palak na kan ngerelo". Kute dang palau nang a pies ang, kovek i dang ni anitun. […] Kute dang palau nei pangau nang. […] "nala posong a korong ua"."*

T180 Own translation of Tungag original: *'milong kate anit'*. Note that this sentence could be regarded as agrammatical, since the correct form would be *milongte anit.* Indeed, *milong* is a second person dual subject agreement marker, and *ka* is a third person subject agreement marker, which is therefore redundant and of the wrong person. However, this type of construct is quite frequent in South Lavongai, where Bernard is from. This confused Stamm who mentions he had not entirely understood these verbal particles in his grammar (1958, pp 24–25).

T181 Own translation of French original: *« »*associés à des représentations particulières, les signes qui composent l'objet rituel owa lui confèrent une certaine efficacité magique, grâce à laquelle il dépasse le seul rôle d'intermédiaire ou 'de simple outil' pour devenir 'un médiateur', un 'acteur social', 'un agent, un actif' (Latour 1993).

T182 Own translation of mixed Tungag and Tok Pisin original: *'ri ei kite* piksa *i ien'*. Note that although the Tok Pisin noun *piksa* can mean 'picture' or 'example', it is used here in the verbal slot of a transitive verbal phrase, and I therefore consider it to mean 'represent'.

T183 Own translation of Tungag original: *'Uai i nuk kala takuk vungavunga val aruma.'*

T184 Own translation of French original: *« Le jugement magique est l'objet d'un consentement social, traduction d'un besoin social, sous la pression duquel se déclenche toute une série de phénoménes de psychologie collective : le besoin ressenti par tous suggère à tous la fin ; entre ces deux termes, une infinité de moyens termes sont possibles (de là la variété extrême des rites employés pour un même objet) ; entre ceux-ci, le choix s'impose ; et il vient soit de la tradition, soit de l'autorité d'un magicien de renom, soit de la poussée unanime et brusque de tout le groupe. C'est parce que l'effet désiré par tous est constaté par tous que le moyen est reconnu apte à produire l'effet[…]. En définitive, c'est toujours la société qui se paie elle-même de la fausse monnaie de son rêve. La synthèse de la cause et de l'effet ne se produit que dans l'opinion publique. Hors de cette façon de concevoir la magie, on ne peut se la figurer que comme une chaîne d'absurdités et d'erreurs propagées, dont on comprendrait mal l'invention, et jamais la propagation. »*

T185 Own translation of French original: *« Il faut comprendre comme leurres tous les procédés, objets ou parties d'objets qui, en créant chez l'animal convoité l'image d'une proie ou l'impression de securité, l'attirent vers un dispositif de capture. »*. Hélène Artaud (2013a, p 153, endnote 11) attributes this citation to Leroi-Gourhan (1964, p 82) but it is nowhere to be found in that volume, nor in the other of the same title. This must therefore be a mistake since the phrase is indeed found in Leroi-Gourhan (1945, p 76).

T186 Own translation of French original: *« leure tel que l'utilisent des sociétés humaines pour chasser, pêcher, traire ou domestiquer […] devient la forme schématisée de ce qui est significatif pour le sujet leurré du point de vue d'un sujet leurrant. Son analyse engage donc de se placer dans cette interface sensible […] et d'observer dans leurs variétés, leurs labilités et leurs interactions les câblages sensoriels qui structurent la relation au monde. »*

T187 Own translation of Tungag original: *'kate kari bien vanang'*

T188 Own translation of Tungag original: *'kite posong ia ta maratan. Au ri vap kite nas ni* trick *niria man ki buk uk ni ri samung. Kite tau ni […] gule mang keve bien sain pulakai, sikei kite nas ni angan nei kal. Ki bien nang a nem ang… nem green ang, nang i nei bangang, kate nem vanang ite nas ni* trick *[…] ni ri samung.*

Maratan ke nang, ki bien ia ki asuai ia nei kal ang na ka pasal tatana. Au, ri samung nang kila sekpat ta […] kari fok ite angan. Sikei kite kovek i nas ta, ri vap nang kite trick *iria, taun kin angan ia ve kila tak iria. Ri samung vanang, kari ta kun nem ite nas ni angan. Kite vap ite voko nei kal.'*

T189 Own translation of French original: *« devient la forme schématisée de ce qui est significatif pour le sujet leurré du point de vue d'un sujet leurrant. »*

T190 Own translation of French original: *« L'homme et l'oiseau non seulement excellent à la pêche, mais pêchent à l'identique. Alors qui de l'un copie l'autre ? La réponse est péremptoire. Les oiseaux de mer, leurres vivants de par leur morphologie, sont par essence pêcheurs. »*

T191 Own translation of Tungag original: *'si c'était les autres êtres vivants qui avaient éduqué les hommes, si les chevaux leur avaient appris à courir, les grenouilles à nager, les plantes à patienter ?'*

T192 Own translation of Tungag original: *'Man […] nala lomlomonai ta na tak a sung a ri ien, ane mete liung, palau, au nala kit ri ei, au namela ngom ia mete sokosiangan. Nale ngom ia, au nala tangam a tangam ke…'*

T193 Own translation of French original: *« grande difficulté contenue dans le principe de symétrie tient pour l'anthropologie à la focale qu'impose le vis-à-vis interspécifique. Si ce vis-à-vis est conçu en termes communicationnels et interactionnels, la tendance […] est à isoler ce segment du réel, comme s'il était difficile (voire inutile ?) de traiter également la question des rapports sociaux […]. Quand le vis-à-vis est conçu en termes catégoriels (perception, représentation), comme c'est le cas avec le modèle des quatre ontologies de Ph. Descola (2005), la symétrie ouvre alors vers des cosmologies qui permettent d'établir des jeux de correspondances entre différentes dimensions de la vie sociale dans laquelle les hommes se trouvent engagés. Car, si la symétrie revient à renoncer à la pensée relationnelle, alors l'anthropologie a sans doute beaucoup à perdre. »*

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