



The Lexicon of Proto Oceanic

The culture and environment of
ancestral Oceanic society

5 People: body and mind



Edited by
Malcolm Ross, Andrew Pawley
and Meredith Osmond

The lexicon of Proto Oceanic. The culture and environment of ancestral Oceanic society.
Volume 5 – People: body and mind

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People: Body and Mind is the fifth in a series of seven volumes on the lexicon of Proto Oceanic, the ancestor of the Oceanic branch of the Austronesian language family. Earlier volumes are: vol.1 Material Culture, vol. 2 The physical environment, vol. 3 Plants, and Vol. 4 Animals. Vol. 6 will be entitled *People: Society*, while vol. 7 as presently envisaged, will include a sketch grammar and a complete index of reconstructions.

Volume 5 contains first a general introduction to the series in Chapter 1, Chapter 2 deals with terms for people, by gender, age and marital status. Chapters 3 and 4 deal with body parts and with bodily functions and states respectively. Chapter 5 presents terms for health and disease. Chapters 6, 7 and 8 contain a detailed examination of verbs: those describing posture and movement, other physical acts not included elsewhere, and verbs of perception. Chapter 9 examines how body-part metaphors are used in expressions of emotion and cognition. Chapter 10 deals with cognition verbs. Chapter 11 explores ways of describing people – by stature, temperament, emotion and evaluation. As in the other volumes, appendices include an index of reconstructions, a full listing of languages by subgroups, and a series of maps locating languages.



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Volume 5 – People: body and mind

Malcolm Ross, Andrew Pawley
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Abbreviations

Abbreviations are listed below, other than glosses of pronominals. Bound pronominals are glossed in accordance with the schema $x:nY$, where x is one of o (object), p (possessor) or s (subject); n is 1, 2 or 3, indicating person, and Y is one of SG (singular) or PL (plural).

ACD	Blust & Trussel (ongoing)	PMic	Proto Micronesian
ADJ	adjective	PMM	Proto Meso-Melanesian
Adm	Admiralties	PMP	Proto Malayo-Polynesian
ART	article	Pn	Polynesian
BPM	body part metaphor	PNCV	Proto North/Central Vanuatu
CAUS	causative	PNGOc	Proto New Guinea Oceanic
CEMP	Central/Eastern Malayo-Polynesian	PNNG	Proto North New Guinea
CMP	Central Malayo-Polynesian	PNPn	Proto Nuclear Polynesian
CSTR	construct marker	POc	Proto Oceanic
DIR	directional (vol.2:267–282)	POLLEX	Clark & Biggs (2006)
esp.	especially	PPn	Proto Polynesian
Fij	Fijian	PREP	preposition
k.o.	kind of	PROc	Proto Remote Oceanic
Mic	Nuclear Micronesian	PSOc	Proto Southern Oceanic
MM	Meso-Melanesian	PSV	Proto South Vanuatu
N	noun	PT	Papuan Tip
NCal	New Caledonia	PWMP	Proto Western Malayo-Polynesian
NCV	North/Central Vanuatu	PWOc	Proto Western Oceanic
N LOC	relational local noun (§3.1.2)	RECIP	reciprocal
NNG	North New Guinea	s	singular
NOM	nominaliser	s.o.	someone
PAdm	Proto Admiralty	s.t.	something
PAn	Proto Austronesian	SES	Southeast Solomonic
PCEMP	Proto Central/Eastern Malayo- Polynesian	SJ	Sarmi/Jayapura
PCP	Proto Central Pacific	SV	South Vanuatu
PEMP	Proto Eastern Malayo-Polynesian	TM	Temotu
PEOc	Proto Eastern Oceanic	v	verb
PEPn	Proto Eastern Polynesian	vi	intransitive verb
PERF	perfect	vSt	stative verb
		VT	transitive verb
		wMP	western Malayo-Polynesian

Acknowledgments

Special thanks go to our co-editor, Andrew Pawley. His ostensible contributions to the volume are to chapters 1 and 8, but he has also spent many an hour reading version after version of our chapter drafts, giving insightful comments that have aided their improvement, adding data we had missed, and correcting error.

John Lynch also read the entire manuscript and made numerous comments and suggestions that have contributed substantially to improving our work. We are very grateful for this.

We also thank Alexandre François and John Lynch, who have generously contributed data and local reconstructions, improving the coverage of many cognate sets. Other scholars have made various contributions to individual chapters, and are acknowledged in the first footnote of the chapter.

Meredith Osmond and Malcolm Ross

Canberra, January 2016

1 *Introduction*

MALCOLM ROSS, ANDREW PAWLEY AND MEREDITH OSMOND

1.1 Aims

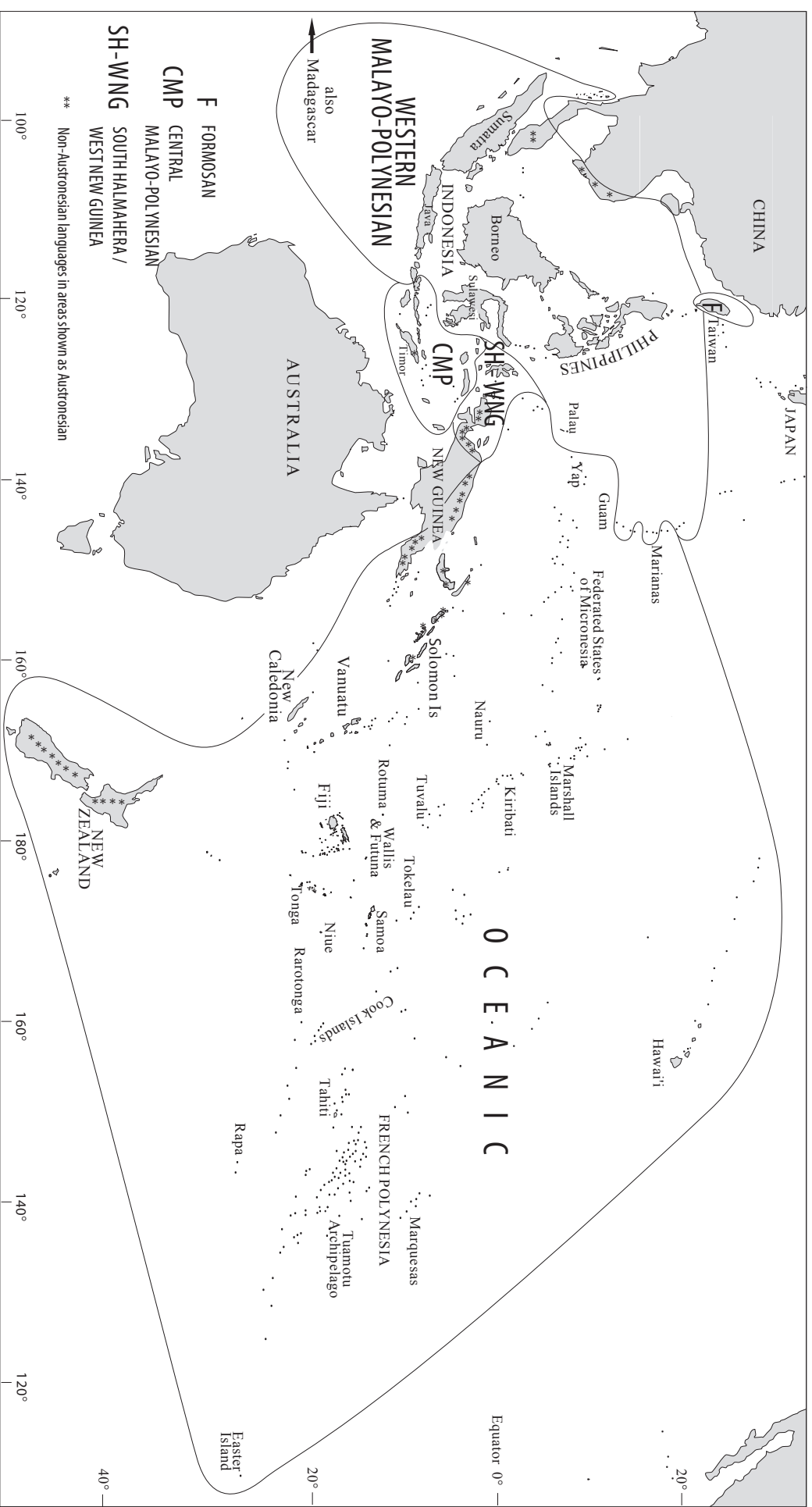
This is the fifth in a series of volumes on the lexicon of the Proto Oceanic (POc) language.¹ POc was the immediate ancestor of the Oceanic subgroup of the Austronesian language family. This subgroup consists of all the Austronesian languages of Melanesia east of 136° E, together with those of Polynesia and (with two exceptions) those of Micronesia—more than 450 languages in all (see Map 1).² Extensive arguments for the existence of Oceanic as a clearly demarcated branch of Austronesian were first put forward by Otto Dempwolff in the 1920s, and the validity of the subgroup is now recognised by virtually all scholars working in Austronesian historical linguistics.

The development and break-up of the POc language and speech community were stages in a truly remarkable chapter in human prehistory—the colonisation by Austronesian speakers of the Indo-Pacific region in the period after about 2000 BC. The outcome was the largest of the world's well-established language families and (until the expansion of Indo-European after Columbus) the most widespread. The Austronesian family comprises more than 1,000 distinct languages. Its eastern and western outliers, Madagascar and Easter Island, are two-thirds of a world apart, and its northernmost extensions, Hawai'i and Taiwan, are separated by 70 degrees of latitude from its southernmost outpost, Stewart Island in New Zealand.

It is likely that the divergence of Oceanic from its nearest relatives, which are the Austronesian languages spoken around Cenderawasih Bay and in South Halmahera (Blust 1978a), began when Austronesian speakers from the Cenderawasih Bay area moved eastwards along the north coast of New Guinea and into the Bismarck Archipelago. There is a strong school of opinion that associates the subsequent break-up of POc with the rapid colonisation of Island Melanesia and the central Pacific by bearers of the Lapita culture between about 1200 and 900 BC (see Map 2 and volume 2, chapter 2).

¹ The project has been jointly directed by Andrew Pawley and Malcolm Ross, with research assistance from Meredith Osmond, in the Department of Linguistics, formerly of the Research School of Pacific and Asian Studies, now of the College of Asia and the Pacific, at the Australian National University. Originally, five volumes were planned, but the large amount of material has required this to be increased to seven (see p3).

² The listing in Lewis, Simons & Fennig (2015) contains 513 Oceanic languages.



Map 1 The Austronesian language family and major subgroups

The present project aims to bring together a large corpus of lexical reconstructions for POc, with supporting cognate sets, organised according to semantic fields and using a standard orthography for POc. We hope that it will be a useful resource for culture historians, archaeologists and others interested in the prehistory of the Pacific region. The comparative lexical material should also be a rich source of data for various kinds of purely linguistic research, e.g. on semantic change and subgrouping in the more than 450 daughter languages.

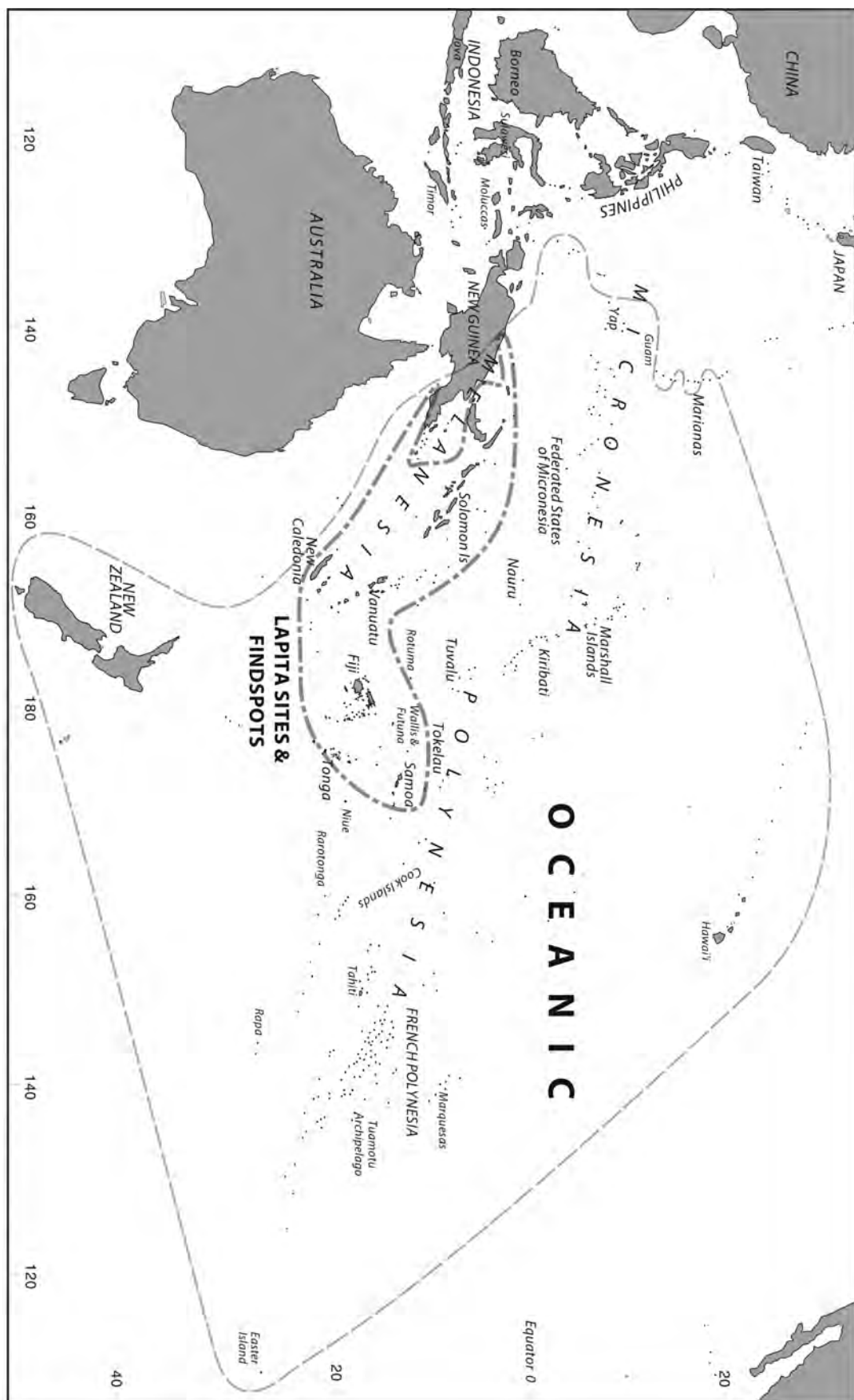
Volume 1 of *The lexicon of Proto Oceanic* deals with material culture. Volumes 2, 3 and 4 examine relevant sets of cognate terms in order to gain insights into how POc speakers viewed their environment. Volume 2 deals with the geophysical or inanimate environment, volumes 3 and 4 treat plants and animals respectively. The present volume and volume 6 return to terminologies centring on people. This volume is concerned with gender and age, the body, and human conditions and physical and cognitive activities that arise from nature rather than nurture. Volume 6 will concern culturally learned activities, social organisation, belief systems, rituals, recreation and other elements of non-material culture. The seventh and final volume will perform a number of functions. It will treat certain lexical categories, e.g. closed classes of lexical roots, not dealt with in earlier volumes. It will review the main findings of the project concerning the culture and environment of Proto Oceanic speakers and will compare these findings with what archaeology tells us about the way of life and environment of the bearers of the Lapita culture. Volume 7 will also provide an index to the POc and other reconstructions presented in the whole work, as well as an English-to-POc finderlist and a list of all languages cited, together with their subgroups.³

Chapter 2 of the present volume presents reconstructions and supporting cognate sets for terms for people: ‘person’, ‘woman’, ‘man’, age cohort terms from early childhood to old age, terms for people by absence or deprivation of relationship (‘orphan’, ‘unmarried adult’, ‘widow(er)’) and for twins. Kin relationship terms are handled in volume 6 rather than here, as they are a dimension of social organisation.

Chapters 3 to 7 concern terms that have to do with the human body. Chapter 3 presents terms for the parts of the body and bodily substances, both substances of which the body is made up and which it emits. Chapter 4 is dedicated to conditions and activities of the human body, ranging from processes that occur spontaneously (sweating, breathing, snoring) to deliberate activities like eating, drinking and copulating. In between these extremes are numerous events with lesser degrees of agentivity, like sleeping, belching, yawning, defecating, laughing and crying. Chapter 5 is entitled ‘Health and disease’ and gives some insight into the diseases recognised and labelled by POc speakers. Chapter 6 investigates how Oceanic languages talk about posture and movement, the latter including not only human locomotion but also how people cause other people and things to move: raising and lowering, pulling, pushing and putting, various modes of carrying, and so on. Chapter 7 gives terms for a miscellany of activities performed with the body and its parts: working, gesturing, seizing and holding, treading, bathing and washing, waiting and hiding.

Chapters 8 to 11 deal with various aspects of the human mind. Chapter 8 presents terms for the five senses: seeing, hearing, smelling, tasting and perceiving by touch. Chapter 9 investigates the structure and semantics of body-part metaphors in Oceanic languages, as these

³ This Introduction incorporates much of the material in the Introductions to Volumes 1–4. We replicate this material here in order that each volume can be used independently. The introduction to volume 3, however, introduced a fresh presentation of the subgrouping of Oceanic languages, and this is retained here.



Map 2 Geographic limits of historically known Oceanic speakers and of presently documented Lapita sites
(after Kirch 1997:17, 54 and David et al. 2011)

evidently formed an integral part of the POc terminologies handled in Chapters 10 and 11. Chapter 10 examines terms for various aspects of cognition (knowing and thinking, truth, memory, deciding, agreeing, choosing and learning) and their organisation in POc. The final chapter, Chapter 11, presents terms that human beings use to describe one another with respect to their physical qualities, temperaments, emotions, desires and evaluations.

1.2 The relation of the current project to previous work

Reconstructions of POc phonology and lexicon began with Dempwolff's pioneering work in the 1920s and 1930s. Dempwolff's dictionary of reconstructions attributed to Proto Austronesian (PAN) (Dempwolff 1938)—but equivalent in modern terms to Proto Malayo-Polynesian (PMP)—contains some 600 reconstructions with reflexes in Oceanic languages.

Since the 1950s, POc and other early Oceanic interstage languages have been the subject of a considerable body of research. However, relatively few new reconstructions safely attributable to POc were added to Dempwolff's material until the 1970s. In 1969 George Grace made available as a working paper a compilation of reconstructions from various sources amounting to some 700 distinct items, attributed either to POc or to early Oceanic interstages. These materials were presented in a new orthography for POc, based largely on Biggs' (1965) orthography for an interstage he called Proto Eastern Oceanic. Updated compilations of Oceanic cognate sets were produced at the University of Hawai'i in the period 1977–1983 as part of a project directed by Grace and Pawley. These compilations and the supporting data are problematic in various respects and we have made only limited use of them.

Comparative lexical studies have been carried out for several lower-order subgroups of Oceanic: for Proto Polynesian by Biggs (resulting in Walsh & Biggs 1966, Biggs, Walsh & Waqa 1970 and subsequent versions of the POLLEX file, including Biggs & Clark 1993, Clark & Biggs 2006 and Greenhill & Clark 2011); for Proto Micronesian by scholars associated with the University of Hawai'i (Bender et al. 1983, 2003); for the ancestor of the Banks and Torres languages by Alexandre François (several unpublished manuscripts); for Proto North and Central Vanuatu by Clark (Clark 1996, 2009); for Proto Southern Vanuatu by Lynch (1978b, 1996, 2001c); for New Caledonia by Ozanne-Rivierre (1992), Haudricourt & Ozanne-Rivierre (1982) and Geraghty (1989); for Proto SE Solomonic by Levy (1980) and Lichtenberk (1988); for Proto Central Pacific by Hockett (1976), Geraghty (1983, 1986, 1996, together with a number of unpublished papers); for Proto Eastern Oceanic by Biggs (1965), Cashmore (1969), Levy (1970), and Geraghty (1990); and for Proto Central Papuan by Pawley (1975), Lynch (1978a, 1980), and Ross (1994).

Robert Blust of the University of Hawai'i has, in a series of papers (1970, 1980a, 1983–84a, 1986, 1989) published extensive, alphabetically ordered, lexical reconstructions (with supporting cognate sets) for interstages earlier than POc, especially for Proto Austronesian, Proto Malayo-Polynesian and Proto Eastern Malayo-Polynesian. He has also written several papers investigating specific semantic fields (Blust 1980b, 1982b, 1987, 1994). Blust & Trussel have a major work in progress, the Austronesian Comparative Dictionary (ACD), which will bring together all Blust's reconstructions for Proto Austronesian and lower-order stages.

This is stored in electronic form at the University of Hawai'i.⁴ The version to which we refer dates from 2012.

Several papers predating our project systematically investigated particular semantic domains in the lexicon of POc, e.g. Milke (1958), French-Wright (1983), Pawley (1982, 1985), Pawley & Green (1984), Lichtenberk (1986), Walter (1989), and the various papers in Pawley & Ross (1994). Ross (1988) contains a substantial number of new POc lexical reconstructions, as well as proposed modifications to the reconstructed POc sound system and the orthography. However, previous Oceanic lexical studies were limited both by large gaps in the data, with a distinct bias in favour of 'Eastern Oceanic' languages, and by the technical problems of collating large quantities of data. Although most languages in Melanesia remain poorly described, there are now many more dictionaries and extended word lists, particularly for Papua New Guinea, than there were in the 1980s. And developments in computing hardware and software now permit much faster and more precise handling of data than was possible then. A list of sources and a summary of the Project's collation procedures is found in Appendix 1.

Several compilations of reconstructions have provided valuable points of reference, both inside and outside the Oceanic group. We are indebted particularly to Bender et al. (2003), two editions of POLLEX (Biggs & Clark 1993 and Clark & Biggs 2006), Blust & Trussel (ACD), Clark (2009) and Lynch (2001c).

In the course of planning the several volumes of the present project, we came to realise that the form in which preliminary publications were presented—namely as essays, each discussing cognate sets for a particular semantic field at some length—would also be the best form for the presentation of this set of volumes. A discursive treatment of individual terminologies, as opposed, say, to a dictionary-type listing of reconstructions with supporting cognate sets, makes it easier to relate the linguistic comparisons to relevant issues of culture history, language change, and methodology. Hence each of the present volumes has as its core a collection of analytic essays. Some of these have been published or presented elsewhere, but are included here in revised form. In some cases we have updated the earlier versions in the light of subsequent research, and, where appropriate, have inserted cross-references between contributions. Authorship is in some cases something of a problem, as a number of people have had a hand in collating the data, doing the reconstructions, and (re)writing for publication here. In most chapters, however, one person did the research which determined the structure of the terminology, and that person appears as the first or only author, and where another or others had a substantial part in putting together the chapter they appear as the second and further authors.

1.3 Reconstructing the lexicon

The lexical reconstructions presented in these volumes are arrived at using the standard methods of comparative linguistics, which require as preliminaries a subgrouping or internal classification of the languages in question (§1.3.2) and the working out of systematic sound correspondences among cognate vocabulary in contemporary languages (§1.3.3). As well as cognate sets clearly attributable to POc, we have included some cognate sets which at this stage are attributable to various interstage languages, particularly Proto Western and Proto Eastern

⁴ <http://www.trussel2.com/ACD/>.

Oceanic (but see §1.3.2.4 for definitions). We have set out to pay more careful attention to reconstructing the semantics of POc forms than has generally been done in earlier work, treating words not as isolates but as parts of terminologies.

1.3.1 Terminological reconstruction

Our method of doing ‘terminological reconstruction’ is as follows. First, the terminologies of present-day speakers of Oceanic languages are used as the basis for constructing a hypothesis about the semantic structure of a corresponding POc terminology, taking account of (i) ethnographic evidence, i.e. descriptions of the lifestyles of Oceanic communities and (ii) the geographical and physical resources of particular regions of Oceania. For example, by comparing terms in several languages for parts of an outrigger canoe, or for growth stages of a coconut, one can see which concepts recur and so are likely to have been present in POc. Secondly, a search is made for cognate sets from which forms can be reconstructed to match each meaning in this hypothesised terminology. The search is not restricted to members of the Oceanic subgroup; if a term found in an Oceanic language proves to have external (non-Oceanic) cognates, the POc antiquity of that term will be confirmed and additional evidence concerning its meaning will be provided. Thirdly, the hypothesised terminology is re-examined to see if it needs modification in the light of the reconstructions. There are cases, highlighted in the various contributions to these volumes, where we were able to reconstruct a term where we did not expect to do so and conversely, often more significantly, where we were unable to reconstruct a term where we had believed we should be able to. In each case, we have discussed the reasons why our expectations were not met and what this may mean for Oceanic culture history.

Blust (1987:81) distinguishes between conventional ‘semantic reconstruction’, which asks, “What was the probable meaning of protomorpheme X?”, and Dyen and Aberle’s (1974) ‘lexical reconstruction’, where one asks, “What was the protomorpheme which probably meant ‘X’?” At first sight, it might appear that terminological reconstruction is a version of lexical reconstruction. However, there are sharp differences. Lexical reconstruction applies a formal procedure: likely protomeanings are selected from among the glosses of words in available cognate sets, then an algorithm is applied to determine which meaning should be attributed to each set. This procedure may have unsatisfactory results, as Blust points out. Reconstructions may end up with crude and overly simple glosses; or no meaning may be reconstructed for a form because none of the glosses of its reflexes is its protomeaning.

Terminological reconstruction is instead similar to the semantic reconstruction approach. In terminological reconstruction the meanings of protomorphemes are not determined in advance. Instead, cognate sets are collected and their meanings are compared with regard to:

- their specific denotations, where these are known;
- the geographic and genetic distribution of these denotations (i.e. are the glosses from which the protogloss is reconstructed well distributed?);
- any derivational relationships to other reconstructions;
- their place within a working hypothesis of the relevant POc terminology (e.g., are terms complementary —‘bow’ implies ‘arrow’; ‘seine net’ implies ‘floats’ and ‘weights’? Are there different levels of classification—generic, specific, and so on?).

For example, it proved possible to reconstruct the following POc terms for tying with cords (vol.1:290–293):

POc **buku* ‘tie (a knot); fasten’

POc **p^wita* ‘tie by encircling’

POc **paqu(s)*, **paqus-i-* ‘bind, lash; construct (canoe +) by lashing together’

POc **pisi* ‘bind up, tie up, wind round, wrap’

POc **kiti* ‘tie, bind’

In each of the supporting cognate sets from contemporary languages there are a number of items whose glosses in the dictionaries or word lists are too vague to tell the analyst anything about the specific denotation of the item, and in the case of **kiti* this prevents the assignment of a more specific meaning. The verb **buku* can be identified as the generic term for tying a knot because of its derivational relationship (by zero derivation) with a noun whose denotation is clearly generic, **buku* ‘node (as in bamboo or sugarcane); joint; knuckle; knot in wood, string or rope’ (vol.1:85–86; this volume, §3.6.8.1.2). Reconstruction of the meaning of **p^wita* as ‘tie by encircling’ is supported by the meanings of the Lukep, Takia and Longgu reflexes, respectively ‘tie by encircling’, ‘tie on (as grass-skirt)’, and ‘trap an animal’s leg; tie s.t. around ankle or wrist’: Lukep and Takia are North New Guinea languages, whilst Longgu is SE Solomonic. Reconstruction of the meaning of **paqu(s)*, **paqus-i-* as ‘bind, lash; construct (canoe +) by tying together’ is supported by the meanings of the Takia, Kiribati and Samoan reflexes, respectively ‘tie, bind; construct (a canoe)’, ‘construct (canoe, house)’, and ‘make, construct (wooden objects, canoes +)’: Takia is a North New Guinea language, Kiribati is Micronesian, and Samoan is Polynesian. The meaning of **pisi* is similarly reconstructed by reference to the meanings of its Mono-Alu, Mota, Port Sandwich, Nguna and Fijian reflexes.

Often, however, the authors have been less fortunate in the information available to them. For example, Osmond (vol.1:222–225) reconstructs six POc terms broadly glossed as ‘spear’. Multiple terms for implements within one language imply that these items were used extensively and possibly in specialised ways. Can we throw light on these specialised ways? Unfortunately, some of the word lists and dictionaries available give minimal glosses, e.g. ‘spear’, for reflexes of the six reconstructions. What we need to know for each reflex is: what is the level of reference? Is it a term for all spears, or perhaps all pointed projectiles including arrows and darts? Or does it refer to a particular kind of spear? Is it noun or verb or both? If a noun, does it refer to both the instrument and the activity? Most word lists are frustratingly short on detail. For this kind of detail, ethnographies have proved a more fruitful source of information than many word lists.

Another problem is inherent in the dangers of sampling from over 450 languages. The greater the number of languages, the greater are the possible variations in meaning of any given term, and the greater the chances of two languages making the same semantic leaps quite independently. Does our (sometimes quite limited) cognate set provide us with a clear unambiguous gloss, or have we picked up an accidental bias, a secondary or distantly related meaning? Did etymon *x* refer to fishhook or the material from which the fishhook was made? Did etymon *y* refer to the slingshot or to the action of turning round and round?

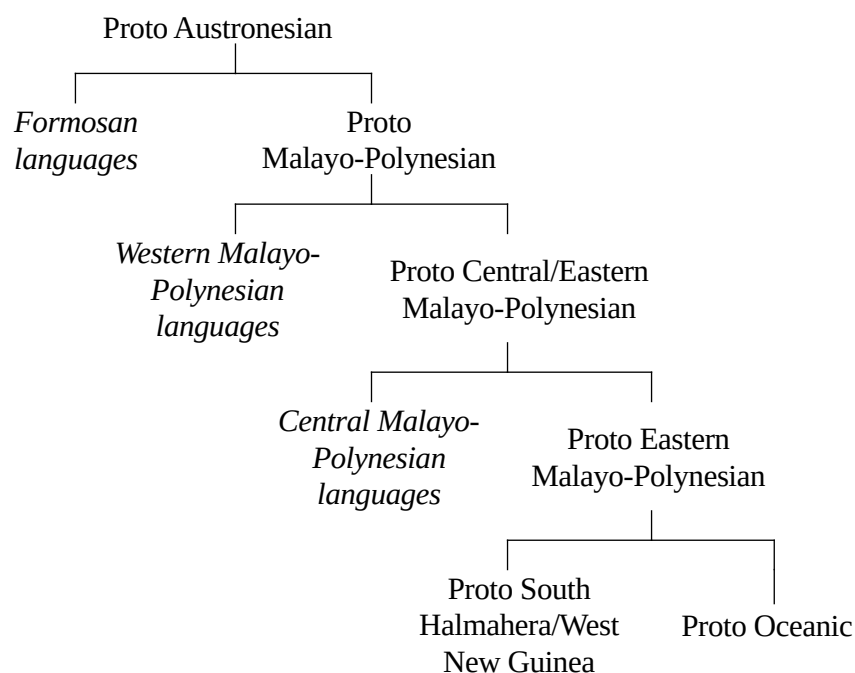


Figure 1 Schematic diagram showing higher-order subgroups of Austronesian languages

1.3.2 Subgrouping and reconstruction

1.3.2.1 Subgrouping

Although the subgrouping of Austronesian languages, and hypotheses about which protolanguage was spoken where, remain in certain cases somewhat controversial, it is impossible to proceed without making some assumptions about these matters. Figures 1 and 2 are approximate renderings of our subgrouping assumptions. The upper part of the tree, shown in Figure 1, is due to Blust, originally presented in Blust (1977) and repeated with additional supporting evidence in subsequent publications (Blust 1978a, 1982, 1983-84b, 1993a, 2009a).⁵ The diagram of the lower (Oceanic) part of the tree in Figure 2 shows nine primary subgroups of Oceanic. Its rake-like structure indicates that no convincing body of shared innovations has been found to allow any of the nine subgroups to be combined into higher-order groupings. Sections 1.3.2.2, 1.3.2.3 and 1.3.2.4 offer some commentary on our subgrouping, and in §1.3.2.4 we explain how we handle the rake-like structure in making reconstructions.

⁵ For critical overviews of the literature on Austronesian subgrouping, see Ross (1995), Pawley (1999), Adelaar (2005) and Blust (2009a). The CEMP and Central Malayo-Polynesian linkages, and also PEMP, have been called into question, but these issues lie beyond our present scope (Donohue & Grimes 2008, Blust 2009b).

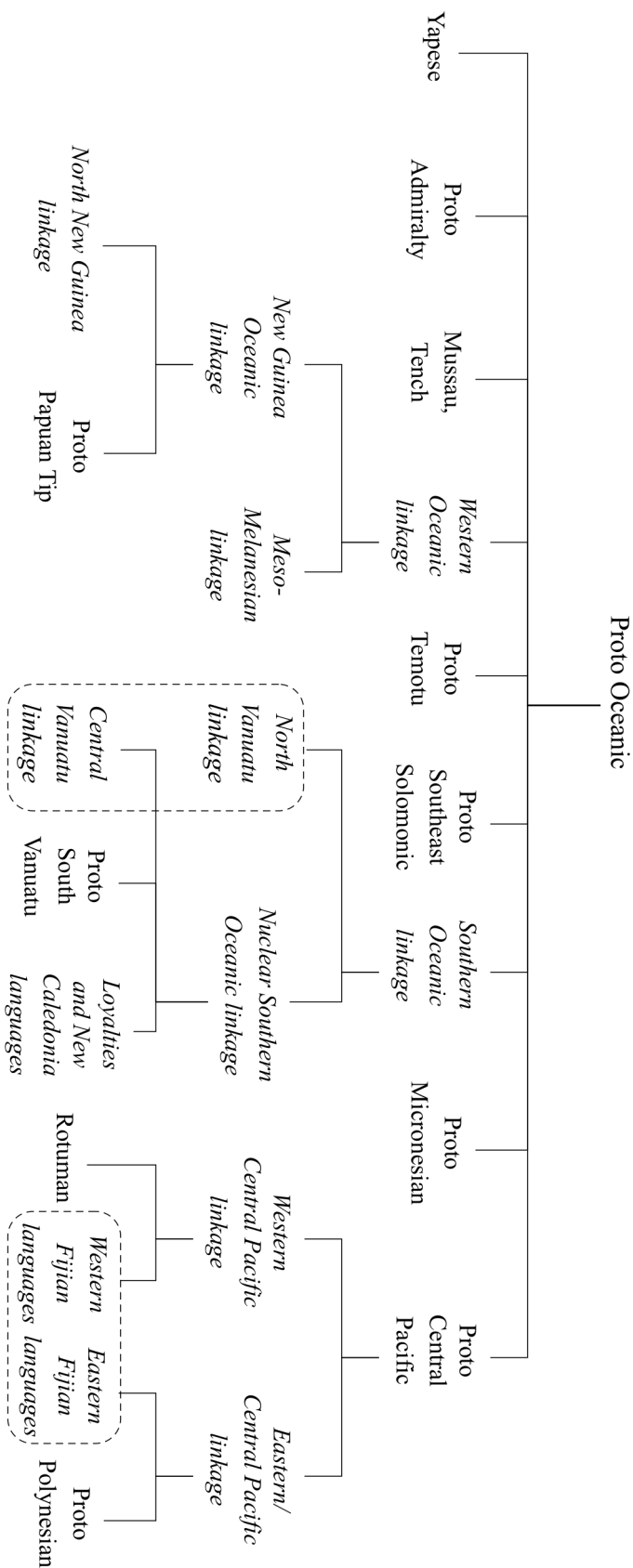


Figure 2 Schematic diagram showing the subgrouping of Oceanic Austronesian languages.

1.3.2.2 Kinds of subgroup

In Figures 1 and 2 each node is either a single language,⁶ usually a reconstructed protolanguage, or, in italics, a group of languages.

Where a node is a protolanguage, its descendants form a proper subgroup (in the technical sense in which historical linguists use the term ‘subgroup’). A proper subgroup is identified by innovations shared by its member languages, i.e. it is ‘innovation-defined’ in the terminology of Pawley & Ross (1995). These innovations are assumed to have occurred just once in the subgroup’s protolanguage, i.e. the exclusively shared ancestor of its members. Thus languages of the large Oceanic subgroup of Austronesian share a set of innovations relative to the earlier Austronesian stages shown in Figure 1 (Dempwolff 1934).⁷ By inference these innovations occurred in their common ancestor, POc, and the claim that they are innovations is based on a comparison of reconstructed POc with reconstructed PMP. The innovations may be phonological (e.g. PMP *e, pronounced [ə], and PMP *aw both became POc *o), morphological (e.g. POc acquired a morphological distinction between three kinds of possessive relationship: food, drink and default), or lexical (e.g. PMP *limaw ‘citrus fruit’ was replaced by POc *molis).

Italics are used in Figures 1 and 2 to indicate a group of languages which is not a proper subgroup, i.e. has no identifiable *exclusively* shared parent. Thus *Formosan languages* in Figure 1 indicates a collection of languages descended (along with PMP) from PAn. They are spoken in Taiwan, but do not form a subgroup. There was no ‘Proto Formosan’, as Formosan languages and language groups are all descended directly from PAn.

Some of the italicised labels in Figures 1 and 2 include the term *linkage*. A linkage (an ‘innovation-linked group’ in the terminology of Pawley & Ross 1995) is a collection of usually quite closely related languages or dialects,⁸ speakers of which were in sufficient contact at one time or another during their history for innovations to pass from one language to the next, often resulting in a pattern such that the domains of various innovations overlap but are not coterminous.⁹ A number of Oceanic linkages have been recognised by scholars researching the history of the languages of Fiji (Geraghty 1983), of the Caroline Islands (Jackson 1983), of NW Melanesia (Ross 1988), of the SE Solomons (Lichtenberk 1988, 1994a; Pawley 2011) and of Vanuatu (Tryon 1976, Clark 1985, Lynch 2000a, 2004c, François 2011a, 2014).¹⁰ A linkage may arise in at least three ways, but distinguishing between them is often impossible.

⁶ The two very closely related languages Mussau and Teneh form a minor exception.

⁷ Chapter 4 of Lynch (2002) gives a recent account of these innovations.

⁸ In what follows, ‘language’ is used to mean ‘language or dialect’.

⁹ One or more innovations may spread right across the languages of the linkage. In this case it becomes virtually impossible to distinguish it from a proper subgroup.

¹⁰ Recent work in Indo-European appeals to the concept of linkage: Garrett (2006) suggests that the dialects ancestral to Greek were not dialects of ‘Proto Greek’ but a collection of Nuclear Indo-European dialects drawn together by relations between the communities ancestral to the Greek city states, across which spread the innovations which characterise Ancient Greek.

First, what would otherwise be a proper subgroup may happen to lack exclusively shared innovations, perhaps because the parent did not exist as a unit for long enough to undergo any innovations of its own.¹¹

Second, a linkage may consist of some but not all of the languages descended from a single parent. The Western Oceanic linkage reflects the innovations of POc, but no innovation is common to the whole of Western Oceanic (although the merger of POc **r* and **R* comes close). However, the languages of its three component linkages—North New Guinea, Papuan Tip and Meso-Melanesian—display complex patterns of overlapping innovations. The Western Oceanic linkage appears to be descended from the dialects of POc that were left behind in the Bismarck Archipelago after speakers of the languages ancestral to the other eight primary subgroups in Figure 2 had moved away to the north or east (Ross 2014, *In press*). After these departures various innovations occurred. Each arose somewhere in the Western Oceanic dialect network and spread to neighbouring dialects without reaching every dialect in the network.

The third type of linkage is the result of contact among languages descended from more than one immediate parent, indicated in Figure 2 by a dashed line around the relevant groups of languages. An example is the Fijian linkage, which represents the partial resynthesis of the Fiji-based descendants of earlier Western Central Pacific and Eastern Central Pacific linkages after Rotuman and Polynesian had split off from them (Geraghty & Pawley 1981, Geraghty 1983, Pawley 1996b).¹² Geraghty reconstructed the history of the Fijian linkage by painstaking analysis of innovations from at least two stages in its history. From the earlier period Western Fijian languages share innovations with Rotuman and Eastern Fijian with Polynesian. From a more recent period Western Fijian and Eastern Fijian languages share innovations with each other, reflecting their reintegration into a single linkage, within which the present Western/Eastern boundary has shifted relative to the (fuzzy) boundary of the earlier period.

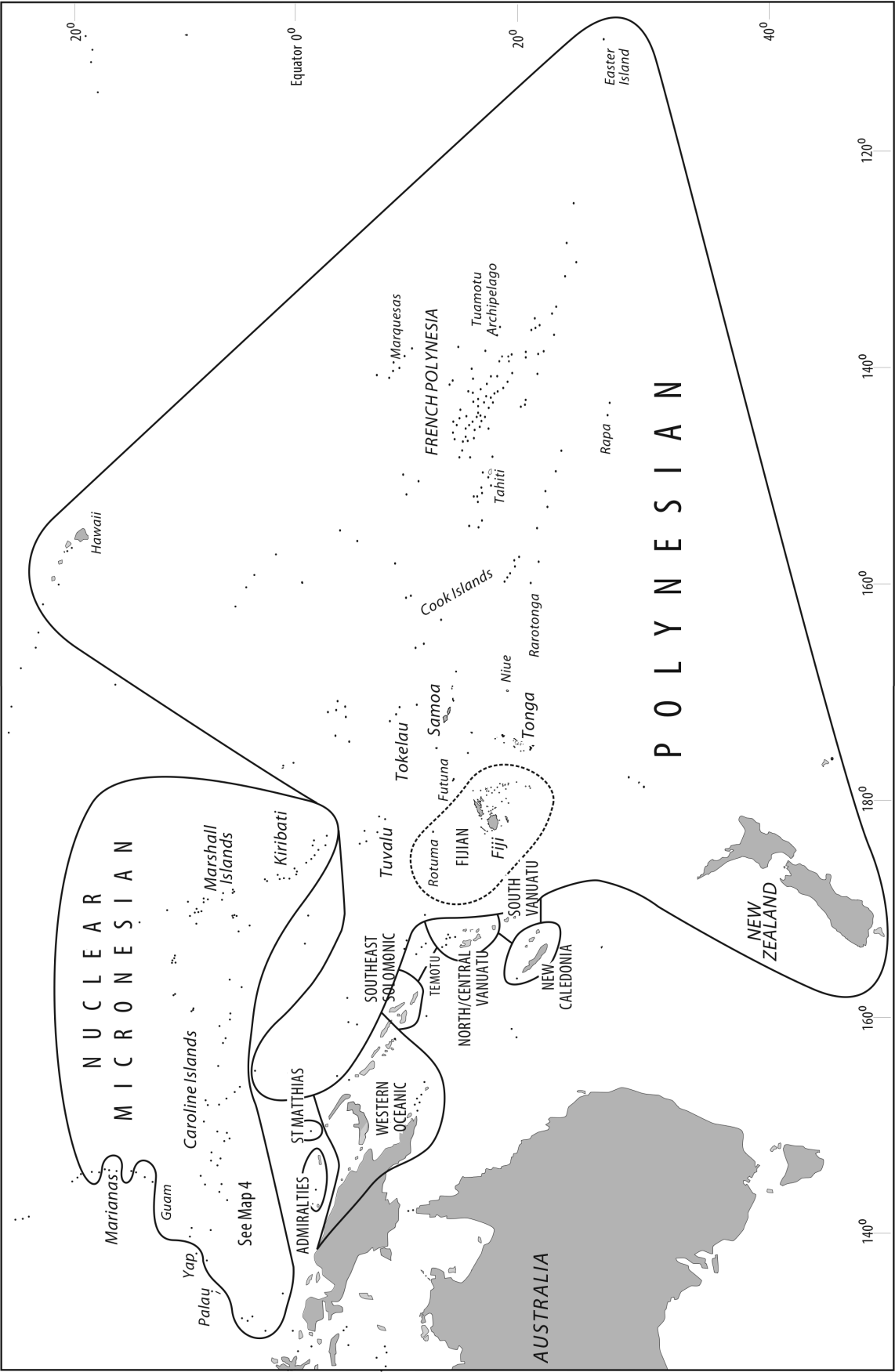
For most of the linkages noted in Figures 1 and 2 this kind of analysis is not available. For example, Blust (1993a) argues that CEMP was a linkage. But its history is far from clear. Does CEMP perhaps include some languages that share history with languages to their west and others that share history with those to their north? The North/Central Vanuatu linkage, long assumed to be some sort of genealogical unit, appears to reflect the partial reintegration of at least two dialect networks, North Vanuatu and Central Vanuatu, that probably had not diverged greatly from each other, but the details of this history are difficult to elucidate (Lynch 2000a).¹³

The languages of a linkage have no identifiable exclusively shared parent. Yet we have found many instances in which a cognate set is limited to one of the linkages in Figures 1 and 2: CEMP, Western Oceanic, New Guinea Oceanic, Southern Oceanic or the reintegrated North and Central Vanuatu linkage. As with PEOc and PROc (§1.3.2.4), we think it is preferable to attribute these reconstructions to a hypothetical protolanguage rather than to a higher node in the tree. Hence there are reconstructions labelled PCEMP, PWOC and so on.

¹¹ A situation in which a subgroup is both proper (i.e. defined by exclusive innovations) and a linkage (displaying overlapping patterns of innovations) is of course possible, the exclusively shared innovations having occurred in the parent, the others after the break-up of the parent. It so happens that we have no need of this construct here.

¹² ‘Eastern Fijian languages’ in Figure 2 is our label for Geraghty’s (1983) ‘Tokalau Fijian’.

¹³ For a history of scholarly views of the subgrouping of North and Central Vanuatu languages see Clark 2009:§1.3). For arguments supporting a NCV grouping, see Clark (2009: ch.4).



Map 3 Groups of Oceanic languages used in cognate sets

Again these apparent lexical innovations offer only the weakest evidence for the protolanguage to which they are attributed. In addition to the explanations of the kinds offered for PEOc and PROc etyma in §1.3.2.4 it is possible, for example, that an innovatory ‘PWOC’ etymon arose when the Western Oceanic dialect network was still close-knit, and spread from dialect to dialect before the network broke into the two networks ancestral to its present-day first-order subgroups.

1.3.2.3 Further notes on subgroups

This section brings together brief notes on the subgroups in Figure 2 beyond those mentioned in the discussion in §1.3.2.2.

Admiralty is a proper subgroup Ross (1988: ch.9).

Western Oceanic consists of the North New Guinea linkage (NNG), Papuan Tip family (PT), Meso-Melanesian linkage (MM) and the Sarmi/Jayapura (SJ) group (see Map 4). The last-named may belong to the NNG linkage, but this is uncertain Ross (1996b). It is not shown in Figure 2 and its languages do not play a crucial role in reconstruction. It is possible that the NNG and PT groups form a super-group, the New Guinea Oceanic linkage, and so etyma reflected only in NNG and PT languages are attributed to a putative Proto New Guinea Oceanic (Milke 1958, Pawley 1978), and etyma reflected in either NNG or PT (or both) and in MM are labelled PWOC.

SE Solomonic was established as a proper subgroup by Pawley (1972:98–110). Further support was provided by Levy (1979, 1980, n.d.), Tryon & Hackman (1983) and Lichtenberk (1988). Lichtenberk (1994) and Pawley (2011) look at the internal structure of SE Solomonic.

Temotu comprises the languages of the Reef Islands, Santa Cruz, Utupua and Vanikoro, located 400 km east of the main Solomons archipelago and to the north of Vanuatu (Map 3). Its identity as a proper subgroup of Oceanic was established by Ross & Næss (2007) and further supported by Næss & Boerger (2008).

The *Southern Oceanic* linkage as proposed by Lynch (1999, 2000a, 2001b, 2004c) is characterised by complex overlapping innovations, but by none that are reflected in all its member languages and would qualify it as a proper subgroup (see discussion in Lynch, Ross & Crowley 2002:112–114).¹⁴

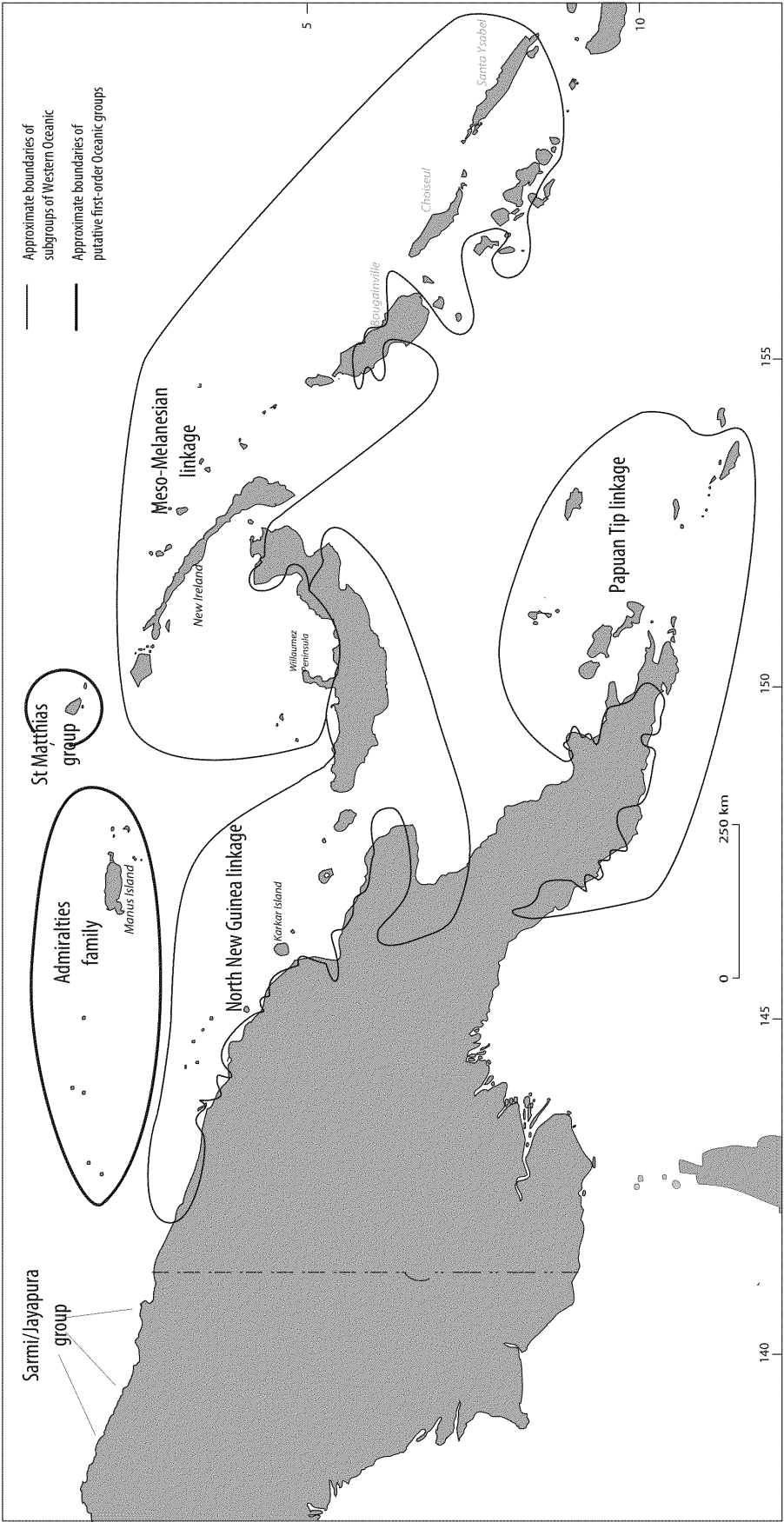
Micronesian is a proper subgroup (Jackson 1983, 1986, Bender et al. 2003).

Central Pacific is a proper subgroup, but one defined by only a handful of shared innovations, indicating that the period of unity was short (Geraghty 1996). The high-order subgrouping of Central Pacific is due to Geraghty (1983), except for the position of Rotuman, due to Pawley (1996b). Within Central Pacific is another long recognised proper subgroup, *Polynesian*, for which Pawley (1996a) lists diagnostic innovations.

1.3.2.4 Criteria for reconstruction

The strength of a lexical reconstruction rests crucially on the distribution of the supporting cognate set across subgroups. The *distribution* of cognate forms and agreements in their meanings is much more important than the *number* of cognates. It is enough to make a secure

¹⁴ Because they have only been recently proposed, Temotu and Southern Oceanic do not appear in Figure 1 of volumes 1 and 2.



Map 4 Oceanic language groups in northwest Melanesia: the Admiralties and St Matthias groups and the subgroups of Western Oceanic

reconstruction if a cognate set occurs in just two languages in a family, with agreement in meaning, provided that the two languages belong to different primary subgroups and provided that there is no reason to suspect that the resemblances are due to borrowing or chance. The PMP term **apij* ‘twins’ is reflected in several western Malayo-Polynesian languages (e.g. Batak *apid* ‘twins, double (fused) banana’) but only a single Oceanic reflex is known, namely Roviana *avisi* ‘twins of the same sex’. Because Roviana belongs to a different first-order branch of Malayo-Polynesian from the western Malayo-Polynesian witnesses and because there is virtually no chance that the agreement is due to borrowing or chance similarity, this distribution is enough to justify the reconstruction of PMP **apij*, POc **apic* ‘twins’.

The rake-like form of Figure 2 almost certainly reflects the very rapid settlement of Oceania out of the Bismarcks,¹⁵ but it confronts us with a methodological question. If we follow the rubric that we make a reconstruction if a cognate set occurs in languages of just two primary subgroups, then reflexes of an etymon in, say, a SE Solomonic language and a Micronesian language would be sufficient evidence for a POc reconstruction and the absence of reflexes in Admiralty and Western Oceanic would be irrelevant. Given what we know about the location of the POc homeland (in the Bismarcks; vol.2, ch.2) and the early eastward spread of Oceanic speakers, this is too loose a criterion. Instead, we assume two hypothetical nodes not shown in the tree in Figure 2.¹⁶ These are

- Remote Oceanic, comprising Southern Oceanic, Micronesian and Central Pacific;
- Eastern Oceanic, comprising SE Solomonic and Remote Oceanic.¹⁷

If a cognate set occurs in two or all three of the groups in Remote Oceanic, the reconstruction is attributed to Proto Remote Oceanic (PROc). If a cognate set occurs in one or more of the groups in Remote Oceanic and in SE Solomonic, it is attributed to Proto Eastern Oceanic (PEOc). In this way we acknowledge that such reconstructions may represent an innovation that postdates the spread of the early Oceanic speech community. There are enough PROc and PEOc reconstructions to suggest that such lexical innovations indeed occurred. This in turn provides evidence for Remote Oceanic and Eastern Oceanic subgroups, but evidence that is too weak to be relied on, for at least two reasons. First, it is quite possible that some of our PROc and PEOc reconstructions will be promoted to POc as more Admiralty and Western Oceanic data become available. Second, it is reasonable to assume that some of our PROc and PEOc etyma are of POc antiquity but happen to have been lost in Proto Admiralty and Proto Western Oceanic. Without supporting phonological or morphological evidence we are

¹⁵ Bearers of the Lapita culture had settled various parts of the Bismarck Archipelago by around 1400 BC (Specht 2007) and colonised the Reefs and Santa Cruz Is. in the Temotu Archipelago, Vanuatu and New Caledonia by about 1000 BC (Green 2003, Green, Jones & Sheppard 2008, Sand 2001). Maybe a century later they settled in Fiji (Nunn et al. 2004, Clark & Anderson 2009). They reached Tonga by 850 BC (Burley & Connaughton 2007), Samoa by 750 BC (Clark and Anderson 2009).

¹⁶ We included these nodes in the corresponding tree in Figure 1 of volumes 1 and 2, but this was too easily interpreted as a statement of our views on subgrouping, so we abandon it here and in Appendix 2.

¹⁷ The term ‘Eastern Oceanic’ and the search for evidence of an Eastern Oceanic subgroup has a relatively long pedigree in Oceanic linguistics (Biggs 1965, Pawley 1972, 1977, Lynch & Tryon 1985, Geraghty 1990). However, by the time volume 1 of the present work was published in 1998 it was evident that no convincing evidence supported an Eastern Oceanic subgroup. Our use of the term here is more inclusive than most, resembling the ‘Central/Eastern Oceanic’ of Lynch & Tryon (1983) (the 1985 published version is less inclusive) and of Lynch, Ross & Crowley (2002:94–96), who express reservations about its status.

unwilling to treat PROc or PEOc as anything other than convenient hypothetical groups which allow us to retain conservative criteria for a POc reconstruction.

A reconstruction here labelled ‘PROc’ was in volume 1 or 2 labelled ‘PEOc’, but if its supporting data include no SE Solomonic reflexes, it has the same status as a PROc reconstruction in volumes 3 and 4 and the present volume. Two factors have led to the distinction between PEOc and PROc in more recent volumes. One is that the historical separateness of SE Solomonic from both Western Oceanic and the groups treated as Remote Oceanic has become increasingly clear through recent research (Pawley 2009). The other, especially relevant to volume 3, is that the primary biogeographic divide in Oceania is between Near and Remote Oceania (see vol. 2, Map 5), i.e. between the main Solomons archipelago and the Temotu islands. Whether or not a plant name has a SE Solomonic reflex is thus significant. Many plant names do not, and are thus attributed in volume 3 to PROc.

Our criterion for attributing a reconstruction to POc is that the cognate set must occur in at least two out of four criterial groupings: Admiralties (or Yapese or Mussau), Western Oceanic, Temotu and our hypothetical Eastern Oceanic. Both here and at the hypothetical interstages defined above, no reconstruction is made if there are grounds to infer borrowing from one of these groupings to another.¹⁸ We also reconstruct an etymon to POc if it is reflected in just one of the four criterial groupings and in a non-Oceanic Austronesian language (a member of one of the subgroups on the left branches in Figure 1), as illustrated above by the reconstruction of POc **apic* ‘twins’.

These criteria are identical to those applied in volumes 1 and 2 except for the addition of Temotu (which figures in few cognate sets). The establishment of Temotu as a primary subgroup (Ross & Næss 2007) postdates the publication of volumes 1 and 2.

There are indications that Yapese (a single-language subgroup) and Mussau and Tench (a subgroup with two closely related languages) may be more closely related to Admiralty than to any other Oceanic subgroup,¹⁹ and for this reason they are tentatively treated as Admiralty languages for the purposes of reconstruction. That is, the presence of a reflex in one or more of these languages and in Admiralty does not support a POc reconstruction, but the presence of a reflex in one or more of these languages and one of Western Oceanic, Temotu and Eastern Oceanic does support one.

In chapter 2 (§4) of volume 2 Pawley discusses Blust’s (1998b) proposal that the primary split in Oceanic divides Admiralty from a subgroup embracing all other Oceanic languages. Pawley dubs the latter ‘Nuclear Oceanic’. If Blust’s subgrouping were accepted, then an etymon which lacked cognates outside Oceanic would need to be reflected both in an Admiralties language and in a non-Admiralties language for a POc reconstruction to be made. Etyma with reflexes in both Western and Eastern Oceanic, but not in the Admiralties, would be reconstructed as Proto Nuclear Oceanic. Under the criteria outlined above, however, we attribute these reconstructions to POc. These criteria were used in volumes 1 and 2, and we have thought it wise to maintain them throughout the volumes of this work. The reader who wishes to single out reconstructions attributable to a putative Proto Nuclear Oceanic (rather

¹⁸ Cases where such an inference can be made occur mostly at the boundary (in the Solomon Islands) between Western and Eastern Oceanic. Borrowing is likely (and is often reflected in unexpected sound correspondences) where an etymon occurs (i) in Western Oceanic and only in SE Solomonic languages or (ii) in SE Solomonic languages and only in the NW Solomonic languages (a subgroup within the Meso-Melanesian linkage of Western Oceanic).

¹⁹ On the positions of Yapese and Mussau, see respectively Ross (1996a) and Ross (1988:315–316, 331).

than to POc) can easily recognise them, however. They are those POc reconstructions for which (i) there are no Admiralties reflexes, and (ii) there is no higher-order reconstruction (i.e. PEMP, PCEMP, PMP or PAn), since the latter would be based on cognates outside Oceanic.

1.3.3 Sound correspondences

As we noted above, reconstruction depends on working out the systematic sound correspondences among cognate vocabulary in contemporary languages and on having a working hypothesis about how the sounds of POc have changed and are reflected in modern Oceanic languages. Working out sound correspondences even for twenty languages is a large task, and so we have relied heavily on our own previous work and the work of others. The sound correspondences we have used are those given by Ross (1988) for Western Oceanic and Admiralties; by Levy (1979, 1980) and Lichtenberk (1988) for Cristobal-Malaitan, by Pawley (1972) and Tryon & Hackman (1983) for SE Solomonic; by Ross & Næss (2007) for Temotu; by Tryon (1976) and Clark (2009) for North and Central Vanuatu; by Lynch (1978b, 2001c) for Southern Vanuatu; by Geraghty (1989), Haudricourt & Ozanne-Rivierre (1982), Ozanne-Rivierre (1992, 1995) and Lynch (2015) for New Caledonia; by Jackson (1986) and Bender et al. (2003) for Nuclear Micronesian; by Geraghty (1986) for Central Pacific; by Biggs (1978) for Polynesian; by Ross (1996a) for Yapese; and by Ross (1996b) for Oceanic languages of Irian Jaya.

For non-Oceanic languages we have referred to sound correspondences given by Tsuchida (1976) for Formosan languages; by Zorc (1977, 1986) and Reid (1982) for the Philippines; by Adelaar (1992) and Nothofer (1975) for Malay and Javanese; by Sneddon (1984) for Sulawesi; by Collins (1983) for Central Maluku; and by Blust (1978a) for South Halmahera and Irian Jaya.

We are aware that regular sound correspondences can be interfered with in various ways: by phonetic conditioning that the analyst has not identified (see, e.g., Blust (1996)), by borrowing (for an extreme Oceanic case, see Grace 1996), or, as recent research suggests, by the frequency of an item's use (Bybee 1994). We have tried at least to note, and sometimes to account for, irregularities in cognate sets.

1.3.4 Proto Oceanic phonology and orthography

1.3.4.1 Reconstructed Proto Oceanic phonology

Work based on the sound correspondences of both Oceanic and non-Oceanic languages has resulted in the reconstructed paradigm of POc phonemes shown in Table 1. The orthography used here and in the POc reconstructions in this work is from Ross (1988), with the addition of **p^w* and **k^w*. The terms 'oral grade' and 'nasal grade' and the relationship of POc phonology to PMP are discussed in §1.3.4.2.

Table 2 shows two POc orthographies. The first was established by Biggs (1965), for PEOc, and Grace (1969), who applied it to POc. It has been used with a number of variants, separated by a slash in Table 2. The second, introduced by Ross (1988), is the one generally used in this work. One matter not discussed here is POc stress, for which see Lynch (2000b).

Table 1 Reconstructed paradigm of POc phonemes

<i>*p^w</i>	<i>*p</i>	<i>*t</i>	<i>*c</i>	<i>*k</i>	<i>*k^w</i>	<i>*q</i>
<i>*b^w</i>	<i>*b</i>	<i>*d</i>	<i>*j</i>	<i>*g</i>		
		<i>*s</i>				
<i>*m^w</i>	<i>*m</i>	<i>*n</i>	<i>*ñ</i>	<i>*ŋ</i>		
		<i>*r</i>				<i>*R</i>
		<i>*dr</i>				
		<i>*l</i>				
<i>*w</i>			<i>*y</i>			
	<i>*i</i>		<i>*u</i>			
	<i>*e</i>		<i>*o</i>			
		<i>*a</i>				

Table 2 POc orthographies after Grace (1969) and Ross (1988)

Grace	oral grade	<i>*p</i>	—	<i>*t</i>	<i>*d/*r</i>	<i>*s</i>	<i>*j</i>	<i>*k</i>	—
Ross		<i>*p</i>	<i>*p^w</i>	<i>*t</i>	<i>*r</i>	<i>*s</i>	<i>*c</i>	<i>*k</i>	<i>*k^w</i>
Grace	nasal grade	<i>*mp</i>	<i>*ŋp/*mpw</i>	<i>*nt</i>	<i>*nd/*nr</i>		<i>*nj</i>	<i>*ŋk</i>	
Ross		<i>*b</i>	<i>*b^w</i>	<i>*d</i>	<i>*dr</i>		<i>*j</i>	<i>*g</i>	
Grace		<i>*m</i>	<i>*ŋm/*mw</i>	<i>*n</i>	<i>*ñ</i>	<i>*ŋ</i>	<i>*w</i>	<i>*y</i>	<i>*l</i> <i>*q</i> <i>*R</i>
Ross		<i>*m</i>	<i>*m^w</i>	<i>*n</i>	<i>*ñ</i>	<i>*ŋ</i>	<i>*w</i>	<i>*y</i>	<i>*l</i> <i>*q</i> <i>*R</i>
Grace		<i>*i</i>	<i>*o</i>	<i>*e</i>	<i>*a</i>	<i>*u</i>			
Ross		<i>*i</i>	<i>*o</i>	<i>*e</i>	<i>*a</i>	<i>*u</i>			

1.3.4.2 The Proto Austronesian and Proto Malayo-Polynesian antecedents of Proto Oceanic phonology

Oceanic languages reflect a set of shared innovations relative to PMP (see Table 3) and it was on the basis of some of these that Dempwolff (1937) first recognised Oceanic as a major Austronesian subgroup. The innovations which occurred over the pre-POc period were mergers and splits, the introduction of new phonemes, and one deletion, as follows:

- The PMP voiced/voiceless pairs **p*, **b* and **k*, **g* merged respectively as early pre-POc **p* and **k*. Ozanne-Rivierre (1992) suggests that the corresponding **t*, **d* merger was hindered by their mismatch in point of articulation (dental vs alveolar).
- The PMP pairs **s*, **z* and **d*, **r* merged respectively as pre-POc **s* and **d* (phonetically probably [r], since Eastern Malayo-Polynesian cognates are liquids).
- PMP and a number of its descendants had word-medial homorganic nasal + obstruent sequences (not shown in the table). Some instances of the pre-POc word-initial obstruents **p*, **t*, **k*, **d/r*, **s* and **j* also acquired a preceding homorganic nasal (the occurrence of this process is unpredictable and its causes largely unknown). These sequences became the unitary POc prenasalised voiced obstruents.

Table 3 Correspondences between PMP and POc protophonemes²⁰

PAn	*p, *b	—	*t, *C	*d, *r	*s, *z	*j	*k, *g	—
PMP	*p, *b	—	*t	*d, *r	*s, *z	*j	*k, *g	—
POc oral grade	*p	*p ^w	*t	*r	*s	*c	*k	*k ^w
POc nasal grade	*b	*b ^w	*d	*dr	*j		*g	—

PAn	*m	—	*n, *-L[-]	*ñ	*ŋ	*w	*y	*l, *L-	*q	*R	*S
PMP	*m	—	*n	*ñ	*ŋ	*w	*y	*l	*q	*R	*h
POc	*m	*m ^w	*n	*ñ	*ŋ	*w	*y	*l	*q	*R	*∅

PAn, PMP	*i, *-uy(-)	*e, *-aw	*-ay	*a	*u
POc	*i	*o	*e	*a	*u

- d) The labiovelars **p^w*, **b^w* **m^w* and **k^w* entered the language (Blust 1981, Lynch 2002, Ross 2011). Most of the items containing a labiovelar lack non-Oceanic cognates, and some, at least, must have been borrowed into POc from neighbouring Papuan languages. For example, it can be argued that **m^wapo(q)* ‘taro’ was borrowed by POc speakers as they acquired more sophisticated taro-growing techniques from Papuan speakers (vol.3:267). A few of these items were inherited into POc, and the labiovelar was the reflex of a labial occurring next to a round vowel. However, it is not clear in these items that the labiovelar actually occurred in POc. Thus a number of Oceanic languages reflect **tam^wata* ‘man, husband’, derived from **tau* ‘body, person’ + **mataq* ‘unripe, immature, young’, but we cannot be sure whether this or **taumata(q)* was the POc form (§2.2.2.1)
- e) PMP **h* was lost in POc.
- f) PMP **e*, phonetically [ə], became POc **o*, and the PMP word-final diphthongs **-uy(-)*,²¹ **-aw* and **-ay* were simplified to POc **-i*, **-o* and **-e* respectively, the first two thereby merging with plain vowels.

The combined effect of (a) and (c) is that each of the PMP pairs **p*, **b* and **k*, **g* first merged and then split. As a result, for example, PMP **p* became either POc **p* or POc **b*, and the same was true of PMP **b*, giving the kind of crossover seen in the initial consonants of these examples:

PMP <i>*panas</i>	‘hot, warm’	POc <i>*panas</i>
PMP <i>*punay</i>	‘wild pigeon’	POc <i>*bune</i>
PMP <i>*baqeRuh</i>	‘new’	POc <i>*paqoRu</i>
PMP <i>*beRek</i>	‘pig’	POc <i>*boRok</i> ‘domestic pig’.

Similarly, either PMP **k* or PMP **g* could become either POc **k* or POc **g*. For example,

²⁰ The PAn phoneme represented here as **L* is often written **N* by Austronesianists, but **N* is reserved here for the morphological feature described in §1.3.5.6.

²¹ The notation **-uy(-)* reflects the fact that there is one known case where the change to **i* occurred word-medially: PMP **kamuihu* (independent 2PL pronoun) > **kamuyu* > POc **kamiu*.

PMP <i>*kuden</i> ‘cooking pot’	POc <i>*kuron</i>
PMP <i>*kabut</i> ‘mist’	POc <i>*gabu</i>
PMP <i>*gapgap</i> ‘stammer’	POc <i>*kaka(p)</i>
PMP <i>*gemgem</i> ‘make a fist’	POc <i>*gogo(m)</i> , <i>*gom-i</i> ‘hold in the fist’

An innovation that has come to light during work on these volumes concerns certain PMP trisyllabic roots with **-e-* (**[ə]*) as the nucleus of their second syllable. These trisyllables lost **-e-* in POc, along with the second consonant of the resulting consonant cluster. Thus PMP **buteliR* ‘wart’ became POc **putiR* (§5.3.2.5). Other etyma where this happened are PMP **buqeni*, POc **puni* ‘ringworm, *Tinea imbricata*’ (§5.3.3.2), PMP **tuqelan*, POc **tuqan* ‘bone’ (§3.3.4), PMP **baReqaŋ*, POc **paRa(ŋ)* ‘molar tooth’ (§3.4.12.5), PMP **biseqak* ‘split’, POc **pisa(k)~*pisak-i-* (vol.1:261), and PMP **ma-udehi*, POc **muri* ‘be behind’ (vol.2:251 and §6.5.3), PMP **ma-heyaaq* ‘shy, embarrassed; ashamed’, POc **maya(q)* (§11.4.2). The conditioning of this change remains unclear, as it did not affect PMP **maquesak*, POc **maosak* ‘ripe, cooked’ (vol.1:157), PMP **baqeRu*, POc **paqoRu* ‘new’ (vol.2:203), PMP **qateluR*, POc **qatoluR* ‘egg’ (vol.4:278) or PMP **qulej-an*, **quloc-a(n)* ‘maggoty’ (vol.4:415).²²

1.3.5 Proto Oceanic bound verbal morphology²³

Because reconstructions in the present volume more often entail POc bound morphemes than those in previous volumes, this section briefly revisits aspects of POc morphology described in chapter 2 (§3) of volume 1. This is a consequence of the present volume’s subject matter. Many of the reconstructions in chapter 3 are of nouns denoting inalienably possessed body-parts that entail the direct possession construction, which is described in §3.1.1.

Chapters 4 and 6–11 are overwhelmingly concerned with the reconstruction of verbs denoting events and states.²⁴ POc had only a rather small class of adjectives (properly, adjectival nouns; Ross 1998), and many states were encoded as verbs. The following subsections deal briefly with the morphology of POc verb stems. The POc verb complex is reconstructed by Pawley (2003). Verbs evidently took a proclitic indexing their subject and, if transitive, an enclitic indexing their object, e.g. POc **i=kiniti=au* ‘he pinched me’ (cf. Manam *i-ʔint-a*).²⁵ In many daughter languages these are a prefix and a suffix, and their obligatory presence is often indicated in cognate-set data by a preceding and following hyphen.

²² POc **qaco* ‘daylight, sun’ (vol.2:153–155) at first sight appears exceptionally to have lost the first consonant of the cluster in PMP **qalejaw*, but there is evidence that it in fact reflected a PAn variant **qajaw*.

²³ Much of the material in this section is a reduced version of parts of Ross (2004a), to which the reader is referred for more detail. Ross (2004a) in turn relies heavily on Evans (2003), a book-length detailed treatment of POc bound verbal morphology.

²⁴ The one earlier chapter in which verbs predominate is chapter 9 of volume 1, which concerns verbs of impact, force and change of state.

²⁵ It is not clear how complete the POc clitic sets were. Evidence is strong that an object enclitic occurred only if the object was singular or third person non-singular. If it was first or second person non-singular, the object was probably an independent pronoun (Evans 1995). Something similar may have been true of subject proclitics.

1.3.5.1 A-verbs, U-verbs and statives

In English—and many other languages—intransitive verbs can be divided into those which intrinsically only have one participant, like ‘die’, ‘fall’, ‘walk’ and ‘swim’, and those which could have a second but unspecified participant, like ‘eat [s.t.]’, ‘kick [s.o.]’ and ‘hunt [s.t.]’. In English an intransitive verb with a second but unspecified participant usually has the actor as its single argument.²⁶ One says *John ate* or *John ate the bread*, but not **The bread ate* (meaning that someone ate it). In some Oceanic languages, however, there is a subclass of intransitive verbs which do work like *ate* in **The bread ate*. They denote a semantic relation with a potential second participant, but the subject of the verb is the undergoer, not the actor, as in this sentence:

e gagi a dovu
 s:3s crush ART sugarcane
 ‘The sugarcane is being crushed.’ (literally ‘The sugarcane crushes’) (Dixon 1988:204)

This and the following examples are from Boumaa Fijian.

The potential second participant is of course the actor, who emerges in the transitive version of the verb (which in this—but not every—case has the same form as the intransitive).

au gagi-a a dovu.
 s:1s crush-O:3s ART sugarcane
 ‘I’m crushing the sugarcane.’

Intransitive verbs of this kind are here called U-verbs (‘undergoer verbs’). Their existence in Fijian has long been recognised (Arms 1974, Biggs 1974, Foley 1976), and has also been documented for Longgu by Hill (1992) and for Hoava by Davis (2003:113). Evans (2003:26–32) suggests that U-verbs are quite common in Oceanic languages.

Some Oceanic languages, like Fijian, have two other subclasses of intransitive verb. One is the subclass of U-verbs which contains stative or ‘adjectival’ verbs, as in this example:²⁷

e loaloa a ?olii ya
 s:3s be.black ART dog this
 ‘This dog is black.’

These verbs are stative in the sense that they denote states. In actual use, statives were and are often used inchoatively, i.e. of coming to be in a state. This explains why, for example, **mate* and many of its reflexes mean both ‘be dead’ and ‘die’, as well as ‘be unconscious’ and ‘faint, become unconscious’ (§4.2.1.2). The difference between stative meaning and inchoative meaning was and is made by using a verb in differing grammatical constructions. Specifically, the stative meaning was indicated by a perfective construction, as it is in Sa’a *mae ?oto* ‘quite dead’ and Manam *-mate tina* ‘dead + intensifier’.

Contrasting with U-verbs are A-verbs (‘actor verbs’), which resemble English intransitives

²⁶ Exceptions are, e.g. *The door closed* and *The vase smashed*.

²⁷ An extensive study of Oceanic stative verbs and adjectives from both typological and diachronic perspectives has been published elsewhere (Ross 1998a, 1998c).

in that the actor is the subject both of the intransitive and of its transitive counterpart.²⁸

a.	<i>au</i> <i>rabe</i> s:1s kick 'I'm kicking.'	b.	<i>au</i> <i>rabe-t-a</i> <i>a</i> <i>polo</i> s:1s kick-TR-O:3S ART ball 'I'm kicking the ball.'

Dixon (1988:205) notes that Boumaa Fijian A-verbs are mostly verbs of motion like 'go', 'jump', 'creep', 'fly' etc, whereas U-verbs are mostly verbs of affect: 'crush', 'bend', 'fold', 'squeeze', 'tie up' etc. The same appears to be true of Longgu (Hill 1992). This is noteworthy, because it means that U-verbs denote semantic relations which one would expect to be prototypically transitive (Hopper and Thompson 1980) (and they do have transitive counterparts, as the sugarcane-crushing example illustrates).

Unfortunately, the data usually do not allow us to distinguish between U- and A-verbs in our glosses of intransitives, but there are a few exceptions, e.g. POc **kilat* (U-verb) 'be seen clearly, discerned, recognised' (§8.2). In many languages it is not clear whether there are U-verbs. Some sources (e.g. Capell's 1941 dictionary of Bauan Fijian and Fox's 1955 dictionary of Gela) often gloss U-verbs as if they were A-verbs.

Oceanic languages have an array of valency-changing morphemes, described in §§1.3.5.2–1.3.5.5, which interact with A- and U-verbs in various ways to shift semantic roles (but only rarely to add a second object). These are all lexical derivations. In other words, they are partially unpredictable, and lack the productivity of a voice system.

1.3.5.2 Transitivity morphology: **-i* and **-akin[i]*

POc had two transitivity suffixes (or perhaps enclitics), **-i* and **-akin[i]*. When **-i* was added to an A-verb, its valency was increased by the addition of an object. When it was added to a U-verb, the undergoer subject became the object and its valency was increased by the addition of an actor subject, as illustrated in the examples in §1.3.5.1.

It is somewhat inaccurate, however, to talk about "POc **-i*", as the morpheme had a zero alternant. POc verb roots were mostly disyllabic and either consonant-final or vowel-final, that is, (C)V(C)VC or (C)V(C)V. The canonic shape of the root alone determined its transitive form. The transitive of a consonant-final root was formed with **-i*, but with a vowel-final root like **wase-* 'share (s.t.) out' or **kati-* 'husk (s.t.) with teeth', no transitive suffix occurred and the object enclitic was added directly to the root (Evans 1995, 2003:96-99, 106-118). A probable exception were roots ending in **-a*, where the suffix **-i-* may have occurred between the root and the object enclitic, at least when the enclitic itself began with **a* (**=au* o:1s, **=a* o:3s). In Table 4 are some reconstructed POc A-verbs and U-verbs, both consonant-final and vowel-final, with their corresponding transitives.

POc **-akin[i]* was an applicative suffix which increased the valency of an intransitive verb by the addition of an object (or in some cases perhaps simply replaced **-i* on a transitive verb that no longer had an intransitive counterpart). Whereas the object of a verb formed with **-i* (or zero) was typically a patient or location, however, the object of a verb formed with **-akin[i]* typically had some other semantic role. With a verb of movement, for example, it was an entity that accompanied the actor, e.g. Bauan Fijian *ðiði* 'run', *ðiðiv-i* 'run to', *ðiðiv-aki*

²⁸ Classes of this kind were first reconstructed for POc by Pawley (1973:128), whose A-class and B-class statives correspond respectively to the stative and U-verb classes reconstructed here. He subdivides A-verbs into various semantic subclasses.

Table 4 Proto Oceanic transitivising *-i

	intransitive		corresponding transitive	
A-verbs	* <i>kinit</i>	‘pinch’	* <i>kinit-i-</i>	‘pinch (s.o/s.t.)’
	* <i>inum</i>	‘drink’	* <i>inum-i-</i>	‘drink (s.t.)’
	* <i>kati</i>	‘husk with teeth’	* <i>kati-</i>	‘husk (s.t.) with teeth’
	* <i>muri</i>	‘follow’	* <i>muri-</i>	‘follow (s.t./s.o.)’
U-verbs	* <i>p^wosa(k)</i>	‘be cracked open’	* <i>p^wosak-i-</i>	‘crack (s.t.) open’
	* <i>loʔoR</i>	‘be audible’	* <i>loʔoR-i-</i>	‘hear, listen to’
	* <i>soka</i>	‘be pierced, stabbed’	* <i>soka-i-</i>	‘pierce, stab (s.t./s.o.)’
	* <i>wase</i>	‘be shared out’	* <i>wase-</i>	‘share (s.t.) out’
	* <i>poli</i>	‘be bought’	* <i>poli-</i>	‘buy (s.t.)’

run off with (s.t.)’ (§6.6). With a verb of cognition or emotion it was a cause or stimulus, e.g. Bauan Fijian *leva* ‘be angry’, *levað-i* ‘be angry with (s.o.)’, *levat-aki* ‘be angry about (what s.o. has done)’. With a verb of bodily emission it was the emitted substance, e.g. Bauan Fijian *lua* ‘vomit’, *luað-a* ‘vomit on s.t.’, *luar-ak-a* ‘vomit s.t. up’ (§4.4.4).

We follow Evans (2003) in reconstructing *-*akin[i]*, indicating that the morpheme had two forms, *-*aki(n)* and *-*akini*, formally parallel to the alternation between intransitive and transitive forms with consonant-final roots in Table 4 (Clark 1973). Indeed, there is good evidence that *-*akin[i]* was once a verb. The final *-*n* of the *-*aki(n)* variant is, however, nowhere preserved. Instead, we find *-aki*, *-aʔi* and other such reflexes, reduced in some Oceanic languages (e.g. Tawala [PT]) to *-e*.

In POc, *-*i* and *-*akin[i]* were often added to an intransitive root with a final consonant, like **taʔis* ‘weep’, but in many Oceanic languages word-final consonants have been lost, with the result that when the ancient consonant is retained before a transitive affix it is interpreted as part of the suffix, as in Wayan Fijian *taʔi* ‘weep’ vs *taʔi-ði-* ‘cry for (s.o.)’ and *taʔi-ðakini-* ‘cry about (s.t.)’. This has had the consequence that, at least in SE Solomonic and Fijian languages, the inherited consonant has been replaced by another consonant, as in the verbs above derived from Bauan Fijian *leva* and *lua*.

Table 5 summarises the valency-changing devices putatively used with the three POc verb classes. This situation remains more or less unchanged in many daughter languages. Column 2 indicates a difference between U-verbs and statives: a transitive verb could be formed with *-*i* from either an A-verb or a U-verb, but a transitive could be formed from a stative only with one of the causative prefixes **pa-* and **paka-*, which are the topic of the next subsection.

Table 5 Classes of intransitive verb in Proto Oceanic

	1	2	3
	intransitive subject	forms a transitive with *-i ?	forms a causative?
A-verbs	A	yes	yes
U- verbs	U	yes	yes
Stative verbs	U	no	yes

1.3.5.3 Causativising morphology: **pa-* and **paka-*

POc causatives were formed with one of the two widely reflected prefixes **pa-* and **paka-*, usually accompanied by the transitivity marker **i-*. A given Oceanic language reflects either **pa-* or **paka-*, but not both. This is curious, as it compels us to reconstruct two POc prefixes with apparently the same function. However, the history of the two forms is well known. In PAN and PMP **pa-ka-* causativised stative or non-agentive verbs (**ka-* marked a verb stem as stative or non-agentive: see §1.3.5.4), whereas **pa-* causativised dynamic, agentive verbs (Zeitoun & Huang 2000, Ross 2015). The fact that their reflexes are in contrast in no known Oceanic language indicates that when POc broke up, the distinction between them had been lost but the two forms continued to coexist.

Table 5 shows that causatives could be formed from all three POc verb classes. Indeed, this was the only way that a transitive verb could be formed from a stative. The causative adds an actor argument, the causer, to the verb, as these Boumaa Fijian examples show. The verb *vuli* ‘learn’ in (a) is an A-verb, so its actor subject is the same as that of the transitive in (b). The causative in (c) introduces the causer argument *o Jone* ‘John’, and the actor becomes its object. The object of (b), ‘arithmetic’, is an oblique in both the intransitive of (a) and the causative of (c).

- a. *au s̄a vuli (i-na fika)*
 S:1S ASP learn PREP-ART arithmetic
 ‘I am learning (about arithmetic).’
- b. *au s̄a vuli-ŋa a fika*
 S:1S ASP learn-TR:O:3S ART arithmetic
 ‘I am learning arithmetic.’
- c. *e s̄a vaʔa-vuli-ŋi au o Jone (i-na fika)*
 S:3s ASP CAUS-learn-TR O:1S ART John PREP-ART arithmetic
 ‘John is teaching me (arithmetic).’ (Dixon 1988:50)

In (d) the verb *ʔau* ‘take, carry’ is a U-verb, so its subject ‘letter’ in (a) becomes the object of the transitive in (b) and of the causative in (c).

- d. *e ʔau yane a ivola*
 S:1s take thither ART letter
 ‘The letter is being taken/sent.’
- e. *e ʔaut-a yane a ivola a ɔ̄auravou*
 S:1s take-o:3s thither ART letter ART youth
 ‘The youth is taking the letter.’
- f. *e vaʔa-ʔau-t-a yane a ivola a marama*
 S:1s CAUS-take-O:3s thither ART letter ART woman
 ‘The woman is posting (= causing to be sent) the letter.’ (Dixon 1988:185)

Boumaa Fijian, like many other Oceanic languages, has no ditransitive verbs, so one of the three roles potentially associated with the causative must become an oblique or disappear, as happens in (c) and (f).

The situation described with regard to transitivity and causativisation in Boumaa Fijian also holds with various complications or simplifications in many other Oceanic languages and

presumably did so in POc.

1.3.5.4 Detransitivising morphology: reduplication, **ma-/ka-*, **ta-* and **paRi-*

Detransitivising morphology took four forms in POc: reduplication and the prefixes **ma-/ka-*, **ta-* and **paRi-*. Only **paRi-* remained as productive in POc as the transitive and causativising morphology described in the two preceding subsections. It formed reciprocals,²⁹ and reflexes occasionally appear in the data, and are marked ‘reciprocal’ accordingly.

The other three pieces of detransitivising morphology shared the function of reducing a verb’s valency from two to one. Reduplication turned a transitive into an A-verb (Evans 2003:81–84, 301). This was perhaps the most productive of POc’s detransitivising strategies, as Evans reports a number of languages reflecting an apparent POc **kani-kani* (vi) ‘eat’, from **kani* (vt) ‘eat’, in competition with inherited **paŋan* (vi) ‘eat’, discussed in §1.3.5.5.

On Evans’ analysis (2003:268–279, 300), POc **ma-* had several functions. One was to turn a transitive into a U-verb, e.g. POc **ma-kini(t)* ‘be stung, have a stinging pain’ (§5.3.2.3), from POc **kinit*, **kinit-i-* ‘to pinch, nip’ (vol.1:280). Another was to form a stative from a dynamic verb or perhaps a noun, e.g. POc **ma-raqu* ‘be thirsty’ (§4.3.3.2), **ma-draRa(q)* ‘be bloody, bleed’ (§4.4.1), **ma-ridriŋ* ‘be cold’ (§4.8.1), **ma-saki(t)* (v) ‘be in pain, sick’ (§5.3.1), **matakut* (vi) ‘be afraid’ (§11.4.1). In this function **ka-* alternated with **ma-* in POc, the outcome of a productive PMP alternation explained in §1.3.5.5, but it seems that neither was productive by the time POc broke up. The prefix **ma-* is also found in a small number of non-stative intransitives with an experiencer subject, and the following are reconstructed in ch.4: POc **ma-soru* ‘hiccup’ (§4.3.7.1), **ma-ñawa* ‘breathe’ (§4.5.1), **mawap* ‘yawn’ (§4.5.6), **ma-turu(R)* ‘sleep, be asleep’ (§4.6.1).

The functions of **ta-* were similar to those of **ma-*, but with three differences. First, a U-verb with **ta-* denoted an action or state that had seemingly occurred without the intervention of an agent, whereas **ma-* remained unspecified with regard to agency. Second, **ta-* appears to have been productive in POc, as it remains productive in some modern languages (Evans 2003:289–300). Reflexes of **ta-* crop up in the data, but rarely in reconstructions, e.g. POc **ta-lili* ‘be dizzy’ (§5.3.16), **ta-bulo(s)* (vi) ‘turn round, turn back’, spontaneous derivative of *bulos-i-* (vt) ‘turn round, turn back’ (§6.4.2).

1.3.5.5 Malayo-Polynesian fossils: verbal morphology

A number of Malayo-Polynesian fossils occur in the POc reconstructions in this volume. They are fossils in the sense that by the break-up of POc they were apparently fully integrated into the POc stems in which they are reflected, appear only sporadically, and had no productive function. Nonetheless, knowledge of parts of the verbal system of PMP is necessary to understanding how these forms came to be present in POc.³⁰

²⁹ The functions of **paRi-* were more complex than this: see Lichtenberk (2000).

³⁰ What we reconstruct as POc is the language at the point that it broke up, i.e. when innovations no longer spread across the whole speech community (Pawley 2008). It is possible, perhaps probable, that the PMP features described in this subsection survived productively in the Austronesian language of those who settled in the Bismarck Archipelago, but lost productivity shortly before the break-up. However, papers by van den Berg & Boerger (2011) and Næss (2015) suggest that a more PMP-like system than we reconstruct continued on beyond the break-up. This raises questions that need further research, but

Table 6 A schematic representation of the English, PMP and POc voice systems
(A = actor, U = undergoer, V = verb)

	English	PMP	POc
Transitive	active voice $A_{\text{SUBJ}} V U_{\text{OBJ}}$	undergoer voice $V A_{\text{GENITIVE}} U_{\text{SUBJ}}$	transitive $V A_{\text{SUBJ}} U_{\text{OBJ}}$
Intransitive	passive voice $U_{\text{SUBJ}} V [\text{by } A]$	actor voice $V A_{\text{SUBJ}} [U_{\text{OBLIQUE}}]$	intransitive $V A_{\text{SUBJ}} [U_{\text{OBLIQUE}}]$

The relevant feature of the PMP system is a contrast between two voices.³¹ The English voice system distinguishes between a transitive active voice (e.g. *The chicken bit a mango*) and an intransitive passive voice (*The mango was bitten [by the chicken]*). The PMP voice system was organised differently. It had a transitive undergoer voice, i.e. the undergoer was the subject and the actor was marked as genitive ('be-bitten of-the chicken the mango'). There was also an intransitive actor voice, i.e. the actor was subject and the undergoer, if any, was in an oblique case ('bit the chicken [at a mango]').³² This system is maintained in most languages of the Philippines, where specialists have labelled this kind of voice system a 'focus' system. The contrast between the English and PMP voice systems is presented in Table 6.

One would predict from this configuration that PMP actor-voice verbs gave rise to POc intransitives, while PMP undergoer-voice verbs became POc transitives, and, as Table 6 implies, this prediction is fulfilled, but with certain qualifications. Table 6 also indicates that at some point between the break-up of PMP and the emergence of POc, transitive clause structure was realigned so that the PMP (undergoer) subject became the POc object and the PMP genitive actor was reanalysed as the subject.

Table 7 shows the parts of the PMP voice paradigm that are relevant to POc. Forms in the grey cells did not survive as verbal morphemes in POc.³³ PMP had three sets of undergoer voices, marking the subject as semantic patient, location, and instrument or beneficiary respectively. PMP dependent forms occurred after an auxiliary, and it is these that have become the default POc forms.

Table 7 The PMP voice morphology (partial) ($\sqrt{\text{ }}$ = verb root)

	independent		dependent
	neutral	perfective	
Actor voice or intransitive	* $\langle um \rangle \sqrt{\text{ }}$	(* $\langle um-in \rangle \sqrt{\text{ }}$)	* $\sqrt{\text{ }}$
Undergoer voice (patient)	(* $\sqrt{\text{ }}-en$)	* $\langle in \rangle \sqrt{\text{ }}$	(* $\sqrt{\text{ }}-a$)
Undergoer voice (location)	* $\sqrt{\text{ }}-an$	(* $\langle in \rangle \sqrt{\text{ }}-an$)	* $\sqrt{\text{ }}-i$
Undergoer voice (instrument/beneficiary)	(* $i-\sqrt{\text{ }}$)	(* $i-\langle in \rangle \sqrt{\text{ }}$)	* $\sqrt{\text{ }}-\acute{a}ni$

we think it unlikely that the answers will have a radical effect on our reconstructions.

³¹ A wider-ranging account of the PMP verbal system and its development up to the break-up of POc is given in Lynch et al. (2002:57–63).

³² The pseudo-English glosses do not work well, as 'be-bitten' is English intransitive passive, whereas the PMP verb form was transitive.

³³ All PMP independent undergoer voice forms also functioned as nominalisers, and $\langle in \rangle \sqrt{\text{ }}$, $\sqrt{\text{ }}-an$, $\langle in \rangle \sqrt{\text{ }}-an$ and $i-\sqrt{\text{ }}$ retained this (apparently productive) function in POc. $\sqrt{\text{ }}-en$ is reflected only as a fossil.

The typical POC intransitive is a plain or reduplicated root reflecting the PMP actor voice dependent form. The patient and location undergoer voice forms merged at some pre-POC stage, so that the location form $\sqrt{-i}$ became the POC transitive suffix, as described in §1.3.5.2. The PMP instrument/beneficiary undergoer voice form $\sqrt{-\acute{a}ni}$ ³⁴ became a POC applicative $\sqrt{-ani}$, reflected in various Admiralties languages and Meso-Melanesian languages of New Ireland.³⁵ However, in a far larger number of Oceanic languages it has been replaced by POC $\sqrt{-akin[i]}$, the origin of which is far from obvious, despite widespread reflexes in non-Oceanic Malayo-Polynesian languages (Evans 2003:157–170, Ross 2002).

The PMP dependent forms mentioned in the previous paragraph evidently remained productive in POC. The evidence suggests that the PMP independent forms that survived into POC were restricted in function and that the undergoer voice forms $\sqrt{-an}$ and $\sqrt{*in}$ did not participate in realignment, becoming passives in scattered Oceanic languages.³⁶ Thus in clauses where these forms occurred, the PMP transitive construction V A_{GENITIVE} U_{SUBJ} noted in Table 6 became V U_{SUBJ}. Allomorphs of the PMP actor voice form $\sqrt{*um}$, meanwhile, survived as a fossil in various POC verbs, listed in Table 8. There were several such allomorphs. The infix $\sqrt{*um}$ itself does not appear in POC forms, with two possible grey-shaded WOC exceptions. Instead, the survivors are allomorphs that are more readily reanalysed as part of the root. With a vowel-initial root, infix $\sqrt{*um}$ became prefix $\sqrt{[u]m-}$, and with a labial-initial root, infix $\sqrt{*um}$ also became $\sqrt{*m-}$ but here replacing the initial labial. There is just one example of the latter, at the bottom of Table 8.³⁷

Table 8 POC forms reflecting a fossilised allomorph of the PMP actor voice infix $\sqrt{*um}$

Root forms		Forms reflecting $\sqrt{*um}$		
POc	$\sqrt{*inum-i}$ (VT) ‘drink’	POc	$\sqrt{*m^*inum}$ (VI)	$\sqrt{<um-inum}$ §4.3.2.1
PAn	$\sqrt{*utaq}$ ‘vomit’	POc	$\sqrt{*mutaq}$ (VI)	$\sqrt{<(u)m-utaq}$ §4.4.4
POc	$\sqrt{*ase}$ ‘breathe’	POc	$\sqrt{*mase}$	$\sqrt{<(u)m-ase}$ §4.5.1
POc	$\sqrt{?(k)asio}$ ‘sneeze’	PROc	$\sqrt{*m^*at(i,u)a}$	$\sqrt{<um-at(i,u)a}$ §4.5.9
PMP	$\sqrt{*qaŋa[p,b]}$ ‘gape etc’	POc	$\sqrt{*maŋa(p)}$	$\sqrt{<q\sqrt{um}aŋa(p)}$ §4.5.5
PMP	$\sqrt{*hipi}$ ‘dream’	POc	$\sqrt{*mipi}$	$\sqrt{<(u)m-ipi}$ §4.6.3
POc	$\sqrt{*turu-}$ ‘knee, joint’	PWOC	$\sqrt{*tudruŋ}$ ‘kneel’	$\sqrt{<t\sqrt{um}uruŋ}$ §6.2.4.2
POc	$\sqrt{*k[i,u]su}$ ‘spit’	PWOC	$\sqrt{*kamusu/kimusu}$	$\sqrt{<k\sqrt{um}[i,u]su}$ §4.4.3
POc	$\sqrt{*puni}$ (VI) ‘hide’	POc	$\sqrt{*muni}$	$\sqrt{<m-uni}$ §7.7.2

³⁴ Wolff (1973) and others since have reconstructed the PAn/PMP suffix as $\sqrt{-\acute{a}n}$, reflected in Puyuma and Paiwan (both Formosan) and in Philippine languages, but PMP $\sqrt{-\acute{a}n-i}$ can be reconstructed with confidence, as it is reflected in Tsou, Saaroa, Saisiyat, Atayal and Seediq (all Formosan) and in Oceanic languages. There is also paradigmatic evidence for $\sqrt{-\acute{a}n-i}$ (Ross 2009:300–301).

³⁵ Reflexes of POC $\sqrt{-ani}$ are found in the Admiralties languages Lou, Titan, Kele, Loniū and Nyindrou and in Meso-Melanesian languages of New Ireland Tigak, Kara, Tabar, Lihir, Barok, Patpatar and Tolai.

³⁶ Passives reflecting an allomorph of $\sqrt{*in}$ are found in Bola (MM), Nakanai (MM), and Natügu (TM) (van den Berg & Boerger 2011). Passives reflecting $\sqrt{-an}$ occur in Bali-Vitu (MM) (van den Berg 2007), Kara (MM) (Schlie 1984, Dryer 2013), Raga (NCV) (Walsh 1966, Crowley 2002b), Abma (NCV) (Schneider 2010:56–57, 2011).

³⁷ POC $\sqrt{*muni}$ may reflect $\sqrt{*N + puni}$ (§1.3.5.6) rather than $\sqrt{*m-uni}$.

Table 9 POc forms reflecting fossilised PMP perfective infix *⟨in⟩

Root forms			Forms reflecting *⟨in⟩		
PMP	*hipi	‘dream’	POc	*nipi	< *in-ipi §4.6.3
POc	*k[i,u]su	‘spit’	POc	*kanisu	< *k⟨in⟩[i,u]su §4.4.3

two possible grey-shaded WOc exceptions. Instead, the survivors are allomorphs that are more readily reanalysed as part of the root. With a vowel-initial root, infix *⟨um⟩ became prefix *[u]m-, and with a labial-initial root, infix *⟨um⟩ also became *m- but here replacing the initial labial. There is just one example of the latter, at the bottom of Table 8.³⁸

Not surprisingly, the perfective infix *⟨in⟩ occurs less often in lexicalised forms. The two possible cases are shown in Table 9, neither of them entirely convincing.

1.3.5.6 Malayo-Polynesian fossils: verbal derivations

PMP also had certain derivational prefixes that were attached to roots to form stems to which the voice morphology of Table 7 then applied. Two of these, *ka- and *paN-, play a significant role in POc reconstruction.

The POc detransitivising morpheme *ma-, at least in its stative function (§1.3.5.4), reflected an ancient (pre-PAn) combination of *⟨um⟩ intransitive + *ka- stative. As a result POc has occasional *ka-/*ma- alternants, e.g. POc *ka-(r,R)ajo ‘be dry, be low tide’ vs *[ma]Rajo ‘become withered’ (vol.2:220) and POc *ka-uRi- vs POc *ma-wiRi, both ‘left-hand, be on the left; left side or direction’ (§3.6.3).

Table 10 POc forms reflecting a fossilised PMP *paN-, *N- or *maN-

Root forms			Forms reflecting *paN-	
POc	*kani (vT)	‘eat’	POc	*paŋan (vI) §4.3.1.1
PMP	*qaŋa[p,b]	‘gape etc’	POc	*paŋaŋap §4.5.5
PMP	*takaw	‘steal’	POc	*panako Ross 1988:41–42
POc	*roŋoR	‘hear’	POc	*panoŋoR Geraghty 2010
PMP	*qetaq	‘eat raw’	POc	*paŋoda ‘gather shellfish’ vol.4:438; Geraghty 2010
Root forms			Forms reflecting *N-	
POc	*sop-i	‘suck’	POc	*ño-ñop §4.3.2.2
POc	*k[i,u]su	‘spit’	PWOc	*ŋ[i,u]su §4.4.3
POc	*tari	‘wait’	Motu	nari §7.7.1
Root forms			Forms reflecting *maN-	
PMP	*qinit	‘heat, warmth’	POc	*maŋini(t) ‘become warm’ §4.8.2
POc	*[ma]raqu	‘be thirsty’	POc	*madraqu §4.3.3.2
POc	*ma-ridri(ŋ)	‘(s.o.) be cold’	POc	*madridriŋ §4.8.1
PAn	*diRi	‘stand’	POc	*madriRi §6.2.2

³⁸ POc *muni may reflect *N + puni (§1.3.5.6) rather than *m-uni.

More widely reflected is the PMP verb-deriving prefix **paN-* and its allomorph **N-*. Its history and function are unclear, other than that it formed dynamic verbs. It is barely present in Formosan languages, but ubiquitous in conservative Malayo-Polynesian languages.³⁹ The **N* symbol here indicates a process that replaces a root-initial voiceless obstruent with a homorganic nasal, and places a homorganic nasal before a voiced obstruent and **-ŋ-* before a root-initial vowel (Blust 2004). Reflexes of both **paN-* and **N-* occur in POc, with no discernible conditioning or difference in function. Systemically, a PMP stem with **paN-* or **N-* occupied the dependent actor-voice slot in Table 7, i.e. the slot from which POc intransitives were derived. The corresponding PMP independent actor-voice form was **maN-*, which, like **um*, is rarely reflected in POc. Reconstructed POc verbs that include these morphemes are shown in Table 10.

1.4 Conventions common to the series

1.4.1 Presentation of reconstructions

Each of the contributions to these volumes concerns a particular POc ‘terminology’. Generally, each contribution begins with an introduction to the issues raised by the reconstruction of its particular terminology, and the bulk of each contribution consists of reconstructed etyma with supporting data and a commentary on matters of meaning and form.

The reconstruction of POc **[ma]saki(t)* (v) ‘be in pain, sick’; (N) ‘sickness’ below, adapted from Chapter 5, shows how reconstructions and supporting cognate sets are presented. Above it is a superordinate (PMP) reconstruction drawn from Blust’s Austronesian Comparative Dictionary (ACD; see §1.2). Below it are supporting reflexes. Chapters vary in the degree to which lower-order reconstructions like PSV **a-misa* below are included. Lower-order reconstructions are sometimes given to clarify the relationship of reflexes to the higher-order reconstruction: Southern Vanuatu languages, for example, have undergone so much phonological change that a Proto Southern Vanuatu reconstruction helps explicate the relationship between Southern Vanuatu reflexes and the POc reconstruction. Sometimes a lower-order reconstruction displays an extension of meaning or some other semantic change.

PMP **masakit* ‘be in pain, be sick’ (ACD)

POc **[ma]sakit* (v) ‘be in pain, sick’; (N) ‘sickness’

NNG: Gitua	<i>mazai</i>	‘sick’
NNG: Kaulong	<i>sahi</i>	‘sick, sickness’
NNG: Mapos Buang	<i>rak</i>	‘sick’
NNG: Sengseng	<i>sahi</i>	‘sick’ (<i>h</i> reflects <i>*g</i>)
MM: Vitu	<i>maḏayi</i>	‘sick’
MM: Tigak	<i>masak</i>	‘be in pain’
MM: Tolai	<i>maki</i>	(N) ‘pain, ache’, (VI) ‘to ache, be sore’
SES: Gela	<i>(va)hayi</i>	‘be in pain; be ill, have malaria’
SES: Talise	<i>masaye</i>	‘sick’

³⁹ Kaufman (2009) suggests that a trigger for its proliferation was the ambiguity of multifunctional PMP **ma-*, which occurred on both stative and dynamic verbs.

SES:	Tolo	<i>masahe</i>	‘sick, ill; illness, disease’
SES:	Kwaio	<i>mataʔi</i>	‘fever, malaria’
SES:	To’aba’ita	<i>mataʔi</i>	(vi) ‘be sick’
SES:	Arosi	<i>(mara)mataʔi</i>	‘to feel malaria coming on’
SES:	Arosi	<i>mataʔi</i>	‘to have fever, malaria, be feverish’
SES:	Sa’a	<i>mataʔi</i>	(vi) ‘malaria, to have malaria’
NCV:	Dorig	<i>msāy</i>	‘fever’
NCV:	Unua	<i>mesaxit</i>	‘sick’
PSV <i>*a-misa</i> ‘sick, be in pain’ (Lynch 2001) (vowel metathesis)			
SV:	Lenakel	<i>a-mha</i>	‘be sick, in pain’
SV:	Kwamera	<i>a-misa</i>	‘be sick, in pain’
SV:	Anejom	<i>e-mθa</i>	‘be sick, in pain’
Mic:	Ponapean	<i>metek</i>	‘be painful’
Mic:	Woleaian	<i>metax</i>	‘sick, sickness, in pain’
Pn:	Tongan	<i>mahaki</i>	‘sickness, disease, ailment’ (first element in many compounds ⁴⁰)
Pn:	Rennellese	<i>masaki</i>	‘sickness’ (first element in many compounds ⁴¹)
Pn:	Samoan	<i>maʔi</i>	‘be sick; fall ill’ (first element in many compounds)
Pn:	Tuvaluan	<i>mahaki</i>	‘illness’
Pn:	Maori	<i>mahaki</i>	‘ill; sick person; cutaneous disease’

Because our supporting data are drawn from such a wide range of languages, the convention is adopted of prefixing each language name with the abbreviation for the genealogical or geographic group to which the language belongs, so that the distribution of a cognate set is more immediately obvious. Table 11 is a key to the labels. Figure 2 shows the positions of these groups in the Oceanic tree. We have sought to be consistent in always listing these groups in the same order, but contributors vary in the ordering of languages within groups.

Lynch’s recent research on Southern Oceanic (§1.3.2.3) renders the NCV group mildly anomalous, although there is no doubt that it reflects an integrated dialect network. There are a number of etyma whose reflexes are confined to North and Central Vanuatu, and so we continue to include ‘Proto North/Central Vanuatu’ reconstructions, even though these perhaps represent a Southern Oceanic term that has been lost in southern Vanuatu and New Caledonia. Where the distribution of reflexes requires it, the chapters in this volume include reconstructions for PROc and for PSOc. Etyma with these distributions were attributed to PEOc in volumes 1 and 2, but the distributions are transparent, thanks to the presence of the group labels in cognate sets.

In the interests of space we have not given the history of the reconstructions themselves, as this would often require commentary on the modifications made by others and by us, and on why we have made them. Where a reconstruction is not new, we have tried to give its earliest source, e.g. ‘ACD’ above, but this is difficult when earlier reconstructions differ in form and meaning.

⁴⁰ e.g. *mahaki-kili* ‘skin disease’, *mahaki-mata* ‘eye disease’, *mahaki hela* ‘asthma’, *mahaki moa* ‘epilepsy, be epileptic’.

⁴¹ e.g. *masaki tinaʔe* ‘stomach ache’, *masaki tuʔa* ‘backache’, *masaki niho* ‘toothache’, *masaki yotoi* ‘epilepsy; flinching sickness’.

Table 11 Abbreviations for the genealogical or geographic groups

Yap:	Yapese (one language)
Adm:	Admiralty and Mussau/Tench
NNG:	North New Guinea
SJ:	Sarmi/Jayapura
PT:	Papuan Tip
MM:	Meso-Melanesian
SES:	Southeast Solomonian
TM:	Temotu
NCV:	North/Central Vanuatu, i.e. the reintegrated network formed by the North and Central Vanuatu linkages
SV:	Southern Vanuatu
NCal:	Loyalty and New Caledonia
Mic:	Micronesian
Fij:	Fijian, i.e. the reintegrated network formed by Western and Eastern Fijian dialects
Pn:	Polynesian

In general, the contributions to these volumes are concerned with items reconstructable in POC, PWOC, PEOC, PROc and occasionally Proto New Guinea Oceanic (PNGOc). Etyma for PWOC, PNGOc and PEOC are reconstructed because these may well also be POC etyma for which known reflexes are not well distributed (see discussion in §1.3.2.4). Reconstructions for lower-order interstages are decreasingly likely to reflect POC etyma and may be the results of cultural change as Oceanic speakers moved further out into the Pacific.

Contributors to these volumes have usually not sought to make fresh reconstructions at interstages superordinate to POC. What they have done, however, is to cite other scholars' reconstructions for higher-order interstages, as these represent a summary of the non-Oceanic evidence in support of a given POC reconstruction. These interstages are shown in Figure 1, together with their abbreviations.

Sometimes non-Oceanic evidence has been found to support a POC reconstruction where no reconstruction at a higher-level interstage has previously been made. In this case a new higher-order reconstruction is made, and the non-Oceanic evidence is given in a footnote.

Whilst we have tried to use the internal organisation of the lexicons of Oceanic languages themselves as a guide in setting the boundaries of each terminology, we have inevitably taken decisions which differ from those that others might have made. There are, obviously, overlaps and connections between various semantic domains and therefore between the contributions here. We have done our best to provide cross-references, but we have sometimes duplicated information rather than ask the reader repeatedly to look elsewhere in the book. Indexes at the end of each volume and in the final volume are intended to make it easier to use the volumes collectively as a work of reference.

1.4.2 Data

Data sources are listed in Appendix 1.

For some reconstructed etyma only a representative sample of reflexes is given. We have endeavoured to ensure, however, that in each case this sample not only is geographically and genetically representative, but also provides evidence to justify the shape of the reconstruction. Where only a few reflexes are known to us, this is usually noted.

Although there are accepted or standard orthographies for a number of the languages from which data are cited here, all data are transcribed as far as possible into a standard phonemic orthography based on that used by Ross (1988:3–4) in order to facilitate comparison.⁴² This means, for example, that the *j* of the German-based orthographies of Yabem and Gedaged becomes *y*, Yabem *c* becomes *ʔ*, Gedaged *z* becomes *ʈ* and so on; the *ng* of English-based orthographies becomes *ŋ*; and Fijian *g*, *q* and *c* become *ŋ*, *g* and *ɔ̃* respectively.

The following symbols have more or less their usual IPA values: *ɔ̃*, *ɠ*, *ɣ*, *h*, *k*, *l*, *ʌ*, *ʈ*, *ʈʂ*, *m*, *n*, *ŋ*, *ɲ*, *p*, *q*, *χ*, *ʀ*, *r*, *s*, *t*, *w*, *x*, *z*, *ʔ*, *a*, *æ*, *e*, *ɛ*, *ə*, *ɪ*, *ɨ*, *o*, *œ*, *ɔ̃*, *ʌ*, *u*, *ʉ*, *u*. As far as possible, however, our orthography is phonemic and does not show allophonic variation, so that there are instances where a symbol does not have its usual phonetic value. For example, Wayan Fijian *k* is a voiceless stop word-initially but [k] is in free or stylistic variation with [ɣ] word-medially. The voiced stops *b*, *d*, *g* and the voiced bilabial trill *ʙ* are prenasalised in some languages, but prenasalisation is not written unless it is phonemically distinctive. Where a language has just one rhotic, we usually write *r*, despite the fact that that rhotic is sometimes a flap. Other orthographic symbols (with values in IPA) are:

<i>f</i>	[ɸ, f]	voiceless bilabial or (less often) labio-dental fricative
<i>v</i>	[β, v]	voiced bilabial or (less often) labio-dental fricative
<i>c</i>	[ts], [tʃ]	voiceless alveolar or palatal affricate
<i>j</i>	[dʒ], [dʒ]	voiced alveolar or palatal affricate
<i>y</i>	[j]	palatal glide
<i>dr</i>	[ʎr]	prenasalised voiced alveolar trill (as in Fijian)
<i>ö</i>	[ø]	rounded mid front vowel
<i>ü</i>	[y]	rounded high front vowel

Other superscripts and diacritics are as follows:

- contrastive long vowels are represented by a macron, e.g. *ā*;
- contrastive vowel nasalisation is represented by a tilde, e.g. *ã*;
- labialisation is marked by a superscript w, e.g. *p^w*;
- velarisation is marked by a superscript u, e.g. *p^u*;
- contrastive aspiration is marked by a superscript h, e.g. *p^h*;
- apicolabials are represented by the corresponding apical symbol and the linguolabial diacritic (the ‘seagull’), e.g. *ɬ̥*;
- retroflexes are represented by the corresponding apical symbol with a dot beneath, e.g. *ṛ*.

⁴² The main reason for retaining Ross’ orthography was that the electronic files initially used in this project were drawn in large part from those used in the research reported in Ross (1988).

Except for inflexional morphemes, non-cognate portions of reflexes, i.e. derivational morphemes and non-cognate parts of compounds, are shown in parentheses (...). Where an inflexional morpheme is an affix or clitic and can readily be omitted, its omission is indicated by a hyphen at the beginning or end of the base. This applies particularly to possessor suffixes on directly possessed nouns (vol.1, ch.2, §3.2). Where an inflexional morpheme cannot readily be omitted, then it is separated from its base by a hyphen. This may happen because of complicated morphophonemics or because the morpheme is always present, like the adjectival *-n* in some NNG and Admiralties languages and prefixed reflexes of the POc article **na* in scattered languages. When a reflex is itself polymorphemic (i.e. the morphemes reflect morphemes present in the reconstructed etymon) or contains a reduplication, the morphemes or reduplicates are also separated by a hyphen.

Languages from which data are cited in this volume are listed in Appendix B in their subgroups (proper or otherwise), together with an index allowing the reader to find the subgroup to which a given language belongs. Appendix B also includes alternative language names. The difficulty of deciding where the borderline between dialect and language lies, combined with the fact that these volumes contain work by a number of contributors, has resulted in some inconsistency in the naming of dialects in the cognate sets. Some occur in the form ‘Lukep (Pono)’, i.e. the Pono dialect of the Lukep language, whilst others are represented simply by the dialect name, e.g. Iduna, noted in Appendix B as ‘Iduna (= dialect of Bwaidoga)’.

1.4.3 Conventions used in representing reconstructions

Reconstructions are marked with an asterisk, e.g. **manuka* ‘ulcer, sore, wound’, a standard convention in historical linguistics. POc reconstructions, and also PWOC and PNGOC reconstructions, are given in the orthography of §1.3.4. For reconstructions at higher-order interstages the orthographies are those used by Blust in his various publications and the ACD. Reconstructions at lower-order interstages are given in the standard orthography used for data (§4.2). Geraghty’s (1986) PCP orthography, for example, based on Standard Fijian spelling, is converted into our standard orthography in the same way as Fijian spelling is. In practice, this means that the orthographies for PEOc, PROc and PCP are the same as for POc, except that a distinction between **p* and **v* is recognised and **R* is generally absent from PCP.⁴³ Biggs and Clark’s PPn reconstructions are in any case written in an orthography identical to our standard. Bracketing and segmentation conventions in protoforms are shown in [Table 12](#).

Table 12 Bracketing and segmentation conventions in protoforms

(x)	it cannot be determined whether x was present
(x,y)	either x or y was present
[x]	the item is reconstructable in two forms, one with and one without x
[x,y]	the item is reconstructable in two forms, one with x and one with y
x-y	x and y are separate morphemes
x-	x takes an enclitic or a suffix
<x>	x is an infix

⁴³ Geraghty (1990:91) records a small number of cases where certain Fijian dialects retain POc **R* as *l*, indicating that it was retained sporadically in PCP. It is always lost in his ‘Tokalau Fijian’ and in Polynesian.

PMP final consonants are usually retained in POc in absolute word-final position. In many cases decisive evidence for retention or loss can be found in those Oceanic languages that usually retain final consonants. However, there are some cases where it is uncertain whether POc kept the PMP finals. This is so when a PMP etymon is not attested in an Oceanic language that consistently retains POc final consonants. An example is **-d* in PMP **palahud* ‘go down to the sea or coast’, a term reflected in Oceanic only in languages that regularly lose POc final consonants. In such cases the consonant is reconstructed in parentheses, e.g. POc **palau(r)* ‘go to sea, make a sea voyage’.

In presenting words that display anomalies of form, it is often necessary to posit an expected form. For example, the Longgu term *dau* ‘hang down; drop anchor’ is presented in support of POc **tau(r)* ‘hang, be suspended’ (§6.2.4.3). Given the reconstruction, however, we would expect the Longgu form to be *tau*. In this volume we use a less widely employed convention and mark expected forms with a dagger, e.g. ‘*d-* for †*t-*’ or ‘†*tau*’, to distinguish them both from reconstructions and real data.⁴⁴

Sometimes we need to refer to a reconstructed form that one would expect as the regular reflex of an established POc etymon, but which does not occur because an irregular sound change has occurred. In such cases the dagger and asterisk conventions are used together. For example, in §3.3.9, we reconstruct PNCV **kaRo* ‘vine, rope; vein’. It is descended, however, from POc **waRo(c)* ‘vine, creeper; string, rope; vein, tendon’, and the expected PNCV form, referred to in our discussion there, would be †**waRo*. The dagger marks it as expected but not attested to.

When historical linguists compile cognate sets they commonly retain word for word the glosses given in the sources from which the items are taken. However, again in the interests of standardisation, we have often reworded (and sometimes abbreviated) the glosses of our sources, while preserving the meaning. Where glosses were in a language other than English we have translated them. In the interests of space and legibility, and because data often have multiple sources, we have given the source of a reflex only when it is not included in the listings in Appendix A.

Sometimes we use the convention of providing no gloss beside the items in a cognate set whose gloss is identical to that of the POc (or other lower-order) reconstruction at the head of the set, i.e. the reconstruction which they reflect.

Where necessary, we use ‘(N)’ to indicate that a gloss is a noun, and ‘(V)’, ‘(VI)’, or ‘(VT)’ to indicate that it is a verb, intransitive verb or transitive verb. Because in many environments transitive verbs were regularly formed from the intransitive stem by adding the suffix **-i-* (§1.3.5.2), in many cases the intransitive and transitive verbs are simply shown in sequence, e.g. POc **qalo(p)*, **qalop-i-* ‘beckon with the palm downward, wave’. In such cases, the first verb is always intransitive, the second (in **-i-*) transitive.

Within glosses we use the conventional abbreviations ‘k.o.’ (as in ‘k.o. yam’) for ‘kind of’, ‘s.o.’ for ‘someone’ and ‘s.t.’ for ‘something’.

In putting together cognate sets we have quite often found possible cognates which do not quite ‘fit’ the set: they display unexplained phonological irregularities or their meaning is just a little too different from the rest of the set for us to assume cognacy. Rather than eliminate them we often include them below the cognate set under the rubric ‘cf. also’.

⁴⁴ Another convention sometimes used for this purpose is a double asterisk, e.g. ***tau*: we prefer the dagger on aesthetic grounds.

1.5 Indexes

This volume has three indexes. The first, as in volumes 1–4, is an index of reconstructions arranged by their protolanguages. The second, as in volumes 3 and 4, is an alphabetical list of reconstructions. The third is an index to the English glosses.

2 *People: gender, age cohorts and marital status*

MALCOLM ROSS AND MEREDITH OSMOND

2.1 Introduction

A volume entitled ‘Body and mind’ and devoted to the human person would not be complete without a chapter on words for people. This chapter, however, is restricted to terms for people classified by gender, age cohort and marital status. Terms for kinship and affinal relations and for social rank and leadership will be included in volume 6.

In §2.2 terms for ‘person’ are presented, in §2.3 and §2.4 terms for people classified respectively by gender and by age cohort, in §2.5 terms for people who lack a certain kinship relation, i.e. a woman with no children, a child with no parents, and an adult who has not married or whose spouse has died. In §2.6 terms for twins are given.

Terms for ‘person’, ‘man’, ‘woman’ and ‘child’ are readily reconstructable. It is evident that Oceanic languages had a number of other terms related to age, and status based on marriage and childbearing. In all Oceanic societies the transition, for both male and female, from childhood to adolescence or marriageable age, and then from the single to the married state, is observed both terminologically and ceremonially (Pawley 1982b:269-70).

In Manam (NNG), for example, boys are called *nat* until around 15 years of age. When their hair has been cut (second stage of initiation) they are called *amuna*. This will continue until they marry, when they become *tamoat*. In old age men are called *imanei* and finally *ikamoan* (Böhm 1983:239).

A small girl in Manam is also called *nat*. As a young marriageable woman she is *barasi*. A married woman is called *aine*. If she remains unmarried she is called *kosikosi*; if her husband dies the term for a widow is *ɲiɲar*. When she is around 50 years old she is designated *ain molmolu*. An old woman is *ain ikib* or *manei*. Manam also has terms for a woman’s status in terms of number of children: *biau* ‘woman with one child’, *pagar* ‘woman with two or more children’, *kupi* ‘childless or sterile woman’ (Böhm 1983, wordlist).

In To’aba’ita (SES), *wane* is the male gender marker and *kini* or *ai* the female. *Wela* is the name for a child regardless of sex, even if one quite big, as long as not married. A newly-married man is *wane fālu*, a newly-married woman *kini fālu*. A married person is *g^wauliʔi wane* or *g^wauliʔi ai*. The addition of *-ʔa* to these last two terms means they are ‘somewhat old’ (Lichtenberk 2008).

2.2 Person

There are five POc reconstructions whose reflexes suggest a meaning ‘person’ (Pawley 1985):

- **tau* ‘person in any form, including ghosts and supernatural person-like beings’
- **tam^wataq* ‘living person’ (contrasting with **tau-mate* ‘dead person’)
- **qata* ‘person’
- **tinoni* ‘person, people’
- **k^(w)a(i)-* ‘person’

Reflexes of these terms show differences in geographical distribution. Languages of the Southeast and Northwest Solomons reflect **tinoni* ‘person, people’ (this distribution may be due to local contact), while languages of Vanuatu and New Caledonia have reflexes of POc **qata*. POc **tau-* and **qata-* are also frequently used in compounds.

2.2.1 POc **tau*

PAn **Cau* ‘person’ is a well attested reconstruction, continued as PMP and POc **tau*. Reflexes of POc **tau* occur in three structural contexts:

- as an independent lexical item, typically meaning ‘man’ or ‘person’ (§2.2.1.1);
- as the first item of a compound (§2.2.1.2);
- as the root of a pronominal form (§2.2.1.3).

The evidence for each of these is discussed below.

2.2.1.1 Unbound reflexes of POc **tau* ‘person’

In some North New Guinea and Papuan Tip languages (and perhaps in Gela), a reflex of POc **tau* may stand alone. Elsewhere reflexes are found only in compounds or pronominals. POc **tau* occurred in a considerable number of compounds, and it was a natural process for one of these compounds to become the basic term for ‘person’, displacing **tau*, especially because ‘living person’ was always in opposition to ‘spirit, ghost’. In Mussau, for example, where *tau* occurs in compounds, the standalone form for ‘person’ is *tau-matu*, i.e. a compound has replaced *tau*.

The gloss offered below from Pawley (1985) takes account of the three types of reflex mentioned above.

PAn **Cau* ‘person’ (ACD)

POc **tau* ‘person in any form, including ghosts and supernatural person-like beings’ (Pawley 1985)

NNG:	Atui	<i>tu</i>	‘man’
NNG:	Akolet-V	<i>a-to</i>	‘man’
PT:	Molima	<i>(tomo)tau</i>	‘person; men’
		<i>(?oloto) tau</i>	‘human being’ (<i>?oloto</i> ‘man’)
PT:	Kilivila	<i>tau</i>	‘man’
PT:	Misima	<i>tau</i>	‘man; male of any age; male (of animals)’
PT:	Sudest	<i>tau</i>	‘people’ (<i>lolo</i> ‘person’)

PT:	Sinaugoro	<i>tau</i>	‘man, male in general’
PT:	Motu	<i>tau</i>	‘the body; a man’
PT:	Dawawa	<i>tau</i>	‘person’

cf. also:

SES:	Gela	<i>tau</i>	‘spouse’

Bender et al. (2003) reconstruct PMic **tau* ‘person’, but it appears that Micronesian reflexes only occur in the compounds listed here. The first element of the reflexes below is different in form from the reflexes of prefixed PMic **tawu-*, which remain productive in a number of languages, as illustrated in §2.2.1.2.

PMic **tau* ‘person’ (Bender et al. 2003), **tau-mate* ‘dead person’, **tau-tub^{wa}* ‘spirit of a deceased person’

Mic:	Marshallese	<i>ca(təb^w)</i>	‘spirit’
Mic:	Chuukese	<i>sō(tup^w)</i>	‘not visible person, departed, dead’
		<i>sō(pe)</i>	‘ghost’
		<i>sō(mæ)</i>	‘corpse’
Mic:	Puluwatese	<i>hō(tup^w)</i>	‘departed person, ghost’
		<i>hō(mæ)</i>	‘bad ghost of departed person’
Mic:	Carolinian	<i>sō(tub^w), sō(mæ)</i>	‘respectful term for one who is dead’
		<i>sō(pe)</i>	‘respectful term for ghost or spirit’
Mic:	Pulo Annian	<i>ou(tuφ^{wa})</i>	‘spirit, god’

2.2.1.2 Compounds formed with POc **tau-* ‘person who . . . , person from . . .’

Compounding with **tau-* dates back at least to PMP times, as PMP **tau-mataq* shows. Section 2.2.2 is dedicated to POc **tam^wataq* ‘living human being’, as it was probably no longer a compound but a single lexeme. Oft reflected early Oceanic compounds with **tau-* include POc **tau-mate* ‘dead person’ (§2.2.2.2), POc **tau-paqoRu* ‘young person of marriageable age’ (§2.4.3), and PEOc **tau-tasik* ‘expert fisherman or sailor’ (vol.1:207 and below). The terms for ‘man’ in Meso-Melanesian languages in the extreme north of New Ireland—Lavongai *tauan* and Tiang *tauən*—are evidently cognate with Sinaugoro *tauyani-* ‘body’ and reflect a PWOC compound **tau-(q,k)ani*.

Compounding with reflexes of POc **tau-* ‘person who . . . , person from . . .’, where the second element is typically a verb or a placename, is still somewhat productive in a number of modern languages, and we infer that it was productive in POc. Reflexes of the prefix are listed first, then sample compounds from languages where it is in more frequent use.

SE Solomonic languages do not figure among the examples below, but there is an indication that at least the ‘person from . . .’ sense was once productive in SE Solomonic, as the fossilised forms Sa’a *au-henue* ‘be resident in a place, native of a place; inhabitant of a place’ and Arosi *au-henua* ‘man of the place’ are found, both reflecting POc **tau-panua*, where **panua* meant roughly ‘inhabited place, community’ (vol.1:18, 62; vol.2:40, 295; Pawley 2005).

PAn **Cau* ‘person’ (ACD)POc **tau-* ‘person who VERBS, person from PLACENAME’

Adm:	Mussau	<i>tau</i>	‘person who ...’
PT:	Kukuya	<i>tau-</i>	‘person who ...’
PT:	Tawala	<i>tu-</i>	‘person who ...’
PT:	Dobu	<i>to-</i>	‘person who ...’
PT:	Gumawana	<i>to-</i>	‘person who ...’
PT:	Iduna	<i>to-</i>	‘person who ...’
PT:	Dawawa	<i>tau-</i>	‘person who ...’
PT:	Misima	<i>to-</i>	‘person who ...’
PT:	Motu	<i>tau</i>	‘person from ...’ (e.g. <i>tau erema</i> ‘an Erema man’)
MM:	Nakanai	<i>tau-</i>	‘man, person, used only in connection with sibling and village affiliation, and in expressions showing relations between two or more persons’ ¹
MM:	Teop	<i>to-</i>	‘person who ...’

PMic **tawu-* ‘master, expert’ (Bender et al. 2003)

Mic:	Woleaian	<i>sau-, tau-</i>	‘master, expert’
Mic:	Ponapean	<i>sow-</i>	‘expert at’
Mic:	Carolinian	<i>sou-</i>	‘expert’
Mic:	Chuukic	<i>sowu-</i>	‘master, expert’
Mic:	Puluwatese	<i>hawu-</i>	‘expert, master, lord’

PPn **tau-* ‘person who ..., person from ...’

Pn:	Samoa	<i>tau-</i>	‘person who ..., person from ...’
Pn:	Rennellese	<i>tau-</i>	‘person who ...’
Pn:	Pukapukan	<i>tau</i>	‘person from ...’

Mussau (Adm)

<i>tau ni-nama-nama</i>	[person NOM-REDUP-eat] ‘person who eats a lot’
<i>tau ni-kinari</i>	[person NOM-sing] ‘person who likes to sing’
<i>tau ŋ-ai-noŋo-noŋo anna</i>	[person CSTR-AGENT-REDUP-hear think] ‘servant’ (lit. ‘person who hears wishes’)
<i>tau ŋ-ai-nama ŋ-asi</i>	[person CSTR-AGENT-eat LIG-taro] ‘person who eats taro’
<i>tau ŋ-ai-ssa tee-ira</i>	[person CSTR-AGENT-bad with-O:3P] ‘their enemies’ (lit. ‘people who do bad with them’)
<i>tau ni-tam aikaia</i>	[person NOM-NEGATIVE.VERB believe] ‘unbeliever’

Kukuya (PT)

<i>tau vivenena</i>	‘one who teaches’,
<i>tau nonona</i>	‘one who hears, listener’,
<i>tau nuauya</i>	‘one who understands, wise man’ etc.

Tawala (PT)

<i>tu-danene</i>	‘thief’

¹ The gloss is from Chowning (2014). We have no examples.

tu-dayadayabu ‘poor people’

Gumawana (PT)

to-kani-giloilo ‘one who eats very little’ (*kani* ‘eat’, *giloilo* ‘hermit crab’)

to-piki ‘stingy person’ (*piki* ‘stingy’)

to-vatuluk^wana ‘teacher’ (*vatuluk^wana* ‘teach’)

to-yausa ‘spy’ (*yausa* (v) ‘spy’)

Iduna (PT)

to-bogau ‘sorcerer’ (*bogau* ‘sorcery’)

to-bona?abi ‘obedient person’ (*bona?abi* ‘obedience’)

to-dibumuhiga ‘hard worker’ (*dibumuhiga* ‘diligence’)

to-faha ‘gardener’ (*faha* (v) ‘plant’)

to-faisewa ‘worker’ (*faisewa* (v) ‘work’)

Dawawa (PT)

tau-noya ‘slave’ (*noya* ‘work’)

tau-paka ‘owner’ (*paka* ‘garden’)

tau-suku ‘victim as a result of payback’

tau-waisamasamani ‘accuser’ (*wai*- CAUSATIVE, *samana* (v) ‘report’)

Misima (PT)

to-gulagula ‘poor person’ (*gulagula* ‘(be) poor’)

to-honi ‘greedy person’ (*honi* ‘(be) greedy’)

to-kewakewa ‘people who come to- feast’ (who bring a pig) (*kewa* ‘carry on pole’)

to-losidai ‘drummers; (men who) beat drums’ (*sidai* ‘hand drum’)

to-pahepahenapu ‘advisor; wise man’ (*pahenapu* ‘exhort, advise’)

Teop (MM)

to kikira ‘keeper’ (*kikira* ‘take care of’)

to kiu ‘workman, servant’ (*kiu* ‘work’)

to rarare ‘judge’ (*rare* (N) ‘judge’)

to suga ‘rebel’ (*suga* ‘neglect’)

Puluwatese (Mic)

haw-eyikɔ ‘sorcerer who chants to stop rain’ (*yeyikɔ* ‘chant spell to stop rain’)

haw-fāi ‘one who treats injuries’ (*faai* ‘be bruised’, (N) ‘bruise’)

haw-hæfey ‘traditional medical practitioner’ (*hæfey* ‘traditional medicine’)

haw-kāpuŋ (N) ‘judge’ (*kāpuŋ* (v) ‘judge’)

haw-kkawiyīm^w ‘housebuilder’ (*kkawi* ‘build’; *yīm^w* ‘house’)

haw-p^we ‘diviner’ (*p^we* ‘to divine’)

Carolinian (Mic)

sɔu-xekkæy ‘person who laughs a lot’ (*ghekkáy* ‘laugh’)

sɔu-kkəl ‘singer’ (*kkəl* ‘sing’)

sɔu-sæfey ‘traditional medical practitioner’ (*sáfey* ‘traditional medicine’)

sɔu-m^wær ‘gentleman’ (*m^wær* ‘lei, flower garland’)

sɔu-ffəl ‘priest, counsellor’ (*ffəl* ‘preach, give advice’)

sɔu-f̥yɔuw ‘warrior’ (*f̥yɔuw* ‘fight’)

sou-mæ̃s ‘thief’

Woleaian (Mic)

tau-yeyāŋ ‘expert, good worker’ (*yeyāŋ* ‘work’)
tau-rix ‘good runner’ (*rix* ‘run’)
tau-yaf ‘swimmer’ (*yaf* ‘swim’)
tau-farewa ‘canoe-builder’ (*wa* ‘canoe’)
tau-fita ‘skilled fisherman’ (*fita* ‘fishing’)
tau-fitex ‘person who fights continuously’ (*fitex* ‘war’)

Bauan (Fij)

dau bati ‘specialist in tattooing’ (*bati* ‘tooth, tattooing instrument’)
dau lali ‘drummer’ (*lali* ‘hand drum’)

Samoan (Pn)

tau-fanua ‘commoner; land-owner’ (*fanua* ‘land’)
tau-tai ‘master fisherman’ (*tai* ‘sea’)
tau-uta ‘landlubber’ (*uta* ‘island’)
tau-malae ‘host, person who received (important) visitors’ (*malae* ‘village green’)

Rennellese (Pn)

tau-haŋe ‘house owner’
tau-manaha ‘chief/owner of a settlement’ (*manaha* ‘exogamous patrilineal descent group’)
tau-hinaŋaŋo ‘clever or learned (person)’ (*hinaŋaŋo* ‘thought’)
tau-kese ‘unrelated person, enemy’ (*kese* ‘strange, varied, deceitful’)

2.2.1.3 Pronominals formed with POc **tau-*

POc **tau-* occurs as the root of pronominal forms only in Western Oceanic languages. Its basic PWOC function was to form emphatic free pronouns corresponding to English pronouns formed with *-self* in sentences like *He did it himself*. It apparently did not form reflexives. However, in a few Papuan Tip languages (indicated below) emphatic forms reflecting **tau-* have lost their emphatic value and have displaced inherited free pronouns either throughout the paradigm or, in Duau, in just the third person, or, in Bunama, in the first and third persons.

PWOC **tau-* EMPHATIC PRONOUN FORMATIVE

NNG: Kove	<i>tau</i>
NNG: Lukep (Pono)	<i>tau-</i>
NNG: Tami	<i>tau</i>
NNG: Adzera	<i>ru</i>
NNG: Dangal	<i>rau</i>
NNG: Yalu	<i>(i)ro</i>
NNG: Wampar	<i>ra</i>
NNG: Bukawa	<i>dau</i>
NNG: Labu	<i>lo</i>
NNG: Mapos Buang	<i>lo</i>
PT: Iduna	<i>tau-</i>

PT:	Molima	<i>tau-</i>	
PT:	Dobu	<i>tau-</i>	
PT:	Sewa Bay	<i>tau-</i>	
PT:	Tawala	<i>tau-</i>	FREE PRONOUN FORMATIVE
PT:	Wedau	<i>tau-</i>	FREE PRONOUN FORMATIVE
PT:	Ubir	<i>tao-</i>	
PT:	Anuki	<i>ta-, tou-</i>	FREE PRONOUN FORMATIVE
PT:	Gumawana	<i>tau-</i>	
PT:	Misima	<i>to-to-</i>	
PT:	Budibud	<i>to-</i>	
PT:	Dawawa	<i>tau-</i>	FREE PRONOUN FORMATIVE
PT:	Bunama	<i>tau-</i>	FREE PRONOUN FORMATIVE
PT:	Sinaugoro	<i>tau-ye-</i>	
PT:	Kuni	<i>kau-</i>	
PT:	Roro	<i>hau-</i>	
MM:	Nehan	<i>totou-</i>	
MM:	Babatana	<i>ta-na-</i>	

Pronominals formed with POc **tau-* usually treat it as a directly possessed root (§3.1.1), as in Yabem, Bunama and Dawawa below. Just two languages appear to use indirect possession with the default alienable possession classifier, Sinaugoro *ye-* and Babatana *na-*.

The Bunama set is the ordinary free pronoun set. Note that Bunama retains inherited second-person free pronouns, but replaces first- and third-person pronouns with the emphatics.

		PWOc	Yabem (NNG)	Bunama (PT)	Dawawa (PT)	Sinaugoro (PT)	Babatana (MM)
Singular	1	<i>*tau-gu</i>	<i>tau-ʔ</i>	<i>tau-gu</i>	<i>tau-gu</i>	<i>tau-ye-gu</i>	<i>ta-na-gu</i>
	2	<i>*tau-mu</i>	<i>taɔ-m</i>	<i>oa</i>	<i>ta-m</i>	<i>tau-ye-mu</i>	<i>ta-na-mu</i>
	3	<i>*tau-ña</i>	<i>tau-Ø</i>	<i>tau-na</i>	<i>tau-n</i>	<i>tau-ye-na</i>	<i>ta-ni</i>
Plural	1EXC	<i>*tau-ma</i>	<i>tau-ŋ</i>	<i>tau-ma</i>	<i>tau-ma</i>	<i>tau-ye-ma</i>	<i>ta-na-mami</i>
	1INC	<i>*tau-da</i>	<i>tau-ŋ</i>	<i>tau-da</i>	<i>tau-da</i>	<i>tau-ye-ra</i>	<i>ta-na-dia</i>
	2	<i>*tau-mi</i>	<i>taɔ-m</i>	<i>omi</i>	<i>tau-mi</i>	<i>tau-ye-mi</i>	<i>ta-na-mina</i>
	3	<i>*tau-dri</i>	<i>tau-ŋ</i>	<i>tau-di</i>	<i>tau-di</i>	<i>tau-ye-ri</i>	<i>ta-na-dira</i>

2.2.2 POc **tam^wataq* ‘living person’ and POc **tau-mate* ‘dead person’

POc **tam^wataq* reflects PMP **tau-mataq*, literally ‘live person’, from **tau* ‘person’ (§2.2.1.1) and **mataq* ‘raw, new, green’ (vol.1:155). It was thus the antonym of POc **tau-mate* ‘dead person’ (**mate* ‘die, dead’, §4.2.1.2) and the two were among the many compounds with **tau* discussed in §2.2.1.2.

2.2.2.1 POc **tam^wataq* ‘living person’

It seems likely that POc **tam^wataq* had already become a synonym of monosyllabic **tau* (§2.2.1.1) in the sense ‘living person’. In several major subgroups – Admiralties, North New Guinea, Fijian, Polynesian – reflexes of **ta-m^wataq* are the general term for a human being.

There has been some debate about the form of this reconstruction. Almost all its reflexes point to POc **tam^wataq* (or **tamataq*, as the labial feature of **m^w* has been unstable throughout the history of Oceanic),² but scholars have pointed to Mussau *taumata* as reflecting POc **tau-mataq*, the regular reflex of PMP **tau-mataq* ‘person’. Either both forms occurred in POc dialects or, as Blust (1981:235) implies, the change from **tau-mataq* to **tam^wataq* had not occurred by the time Mussau (one of two members of a putative small first-order subgroup of Oceanic) separated from the rest of Oceanic. The discussion is in fact perhaps without foundation. The change entailed the coarticulation of the rounding gesture of **u* in **tau-mataq* with the following **m*, giving rise to **m^w*. No one suggests that the change was a regular one: it isn’t reflected in known reflexes of **tau-mate*. Rather, it was a lexically specific change in an oft used word. According to the data available to us, the Mussau term for ‘person’ is *taumatu*, not *taumata*, and *taumatu* is not a reflex of POc †**tau-mataq*, so the reconstruction of the POc form **tam^wataq* is uncontested.

PMP **tau-mataq* ‘person’ (Dempwolff, Blust 1993a)

POc **tam^wataq* ‘human being, especially in ordinary living form’ (Pawley 1985) (**mataq* ‘raw, new, green’) (vol.1:155)

Adm:	Loniū	<i>amat</i>	‘human being, person, often used to refer only to males’
Adm:	Bipi	<i>xamak</i>	‘person’
Adm:	Nyindrou	<i>dramak</i>	‘person’
NNG:	Manam	<i>tamoata</i>	‘man, mankind’
NNG:	Wogeo	<i>ramata</i>	‘person’
NNG:	Mangap-Mbula	<i>tomoto</i>	‘man’
NNG:	Sio	<i>tamōta</i>	‘person; man (generic)’
NNG:	Tuam	<i>tamot</i>	‘man’
NNG:	Gedaged	<i>tamoŋ</i>	‘man, male, human being’
NNG:	Megiar	<i>tamot</i>	‘man’
PT:	Dobu	<i>tomota</i>	‘people; human race’
PT:	Kiriwina	<i>tomota</i>	‘people; person’
MM:	Notsi	<i>tamət</i>	‘man’
MM:	Lihir	<i>tomat</i>	‘man; husband’
MM:	Sursurunga	<i>təm</i>	‘one characterised by.. /one whose job is..’
MM:	Nehan	<i>tamat</i>	‘person, man’
MM:	Haku	<i>tamata</i>	‘man; husband’
MM:	Banoni	<i>tamata</i>	‘man’
SV:	Lenakel	<i>(ie)ram-</i>	‘chief’
Fij:	Wayan	<i>tamata</i>	‘human being, person’
Fij:	Bauan	<i>tamata</i>	‘human being, people in general’

PPn **taŋata* ‘man(kind); person’ (POLLEX)

Pn:	Tongan	<i>taŋata</i>	‘person’
Pn:	Niuean	<i>taŋata</i>	‘person, human, mankind’
Pn:	Rennellese	<i>taŋata</i>	‘man, person’
Pn:	Samoa	<i>taŋata</i>	‘human of either sex’

² For discussion, see Blust (1984) and Lynch (2002).

cf. also:

Adm:	Mussau	<i>taumatu</i>	‘person, human being’

2.2.2.2 POc **tau-mate* ‘dead person’

POc **tau-mate* ‘corpse’, from *tau* ‘person’ (§2.2.1.2) and *mate* ‘die’ (§4.2.1.2) is reconstructed on the basis of WOc and Micronesian reflexes. However, given the ubiquity of compounds with **tau* (§2.2.1.2), it is possible that the term was innovated independently in each of the two areas. The NCV terms are not fully cognate, as they appear to reflect **qata* rather than **tau* as their first element (§2.2.3.2).

POc **tau-mate* ‘dead person’ (*tau* ‘person’ + *mate* ‘die, dead’)

PT:	Muyuw	<i>toumat</i>	‘dead person’
PT:	Kilivila	<i>tomata</i>	‘corpse, dead person’
PT:	Molima	<i>tomate</i>	‘dead person’
PT:	Misima	<i>tomati</i>	‘dead person; person who has just died’
MM:	Roviana	<i>tomate-</i>	‘corpse; ghost, spirit’

PMic **tau-mate* ‘dead person’

Mic:	Chuukese	<i>sōmæ</i>	‘corpse’
Mic:	Puluwatese	<i>hōmæ</i>	‘bad ghost of departed person’

cf. also

NCV:	Mota	<i>tamate</i>	‘a dead man; a ghost, a dead man in separation from his body...’
NCV:	Mwotlap	<i>tmat</i>	‘corpse’
NCV:	Nokuku	<i>temate</i>	‘spirit’
NCV:	Paamese	<i>temate</i>	‘spirit of dead’

2.2.3 POc **qata* ‘person’

There is another reconstruction, POc **qata*, whose reflexes mean ‘human being’. Like **tau* (§2.2.1) it is reflected both as an independent noun and as the first part of a number of compounds.

2.2.3.1 Unbound reflexes of POc **qata* ‘person’

In a 1972b note, repeated in the ACD, Blust reconstructs PMP **qaRta* with the meaning ‘outsiders, alien people’. He lists reflexes that include terms of self-designation from Negrito people in Northern Luzon, terms meaning ‘slave’ in a geographically restricted area from the southern Philippines to the Lesser Sundas, and a wide but discontinuous set of terms from Sumatra to Maluku that simply denote ‘man, person’. He includes no Oceanic cognates. He concludes that ‘outsiders, alien people’ is the prior PMP meaning with ‘person’ as a semantic neutralisation in scattered areas.

Putative reflexes of POc **qata* meaning ‘person’ occur in Vanuatu and New Caledonia. No Oceanic reflexes carry the Malayo-Polynesian meaning ‘outsider’ except the possible New Caledonian reflexes listed under ‘cf. also’, because they reflect **qataC* rather than **qata*. A

reasonable inference is that they reflect a compound consisting originally of **qata* and another morpheme. If so, then their meaning does not necessarily attest to the meaning of POC **qata*.

There are also apparent reflexes of POC **qata* which mean ‘soul, spirit’, but François (2013) points out that in NCV languages these reflexes are inalienably possessed and have remained separate from reflexes of **qata* ‘person’. The homophony is accidental. POC **qata* ‘person’ reflects PMP **qaRta* ‘outsiders, alien people’, and POC **qata(r)* ‘image, reflection, soul, spirit’ reflects PMP **qatad* ‘appearance, mark’ (§3.9.1).

The North New Guinea reflexes of **qata* ‘person’ below function as an emphatic (‘he did it **himself**’; cf. §2.2.1.3).

PMP **qaRta* ‘outsiders, alien people’ (Blust 1972b, ACD)

POC **qata* ‘person’ (François 2013)

NNG: Numbami	<i>ata</i>	‘self’
NNG: Kaiwa	<i>ate</i>	‘self’
NNG: Hote (Misim)	<i>da</i>	‘self’

PNCV **qata* ‘individual, person, human being’ (Clark 2009, François 2013)

NCV: Lehali	<i>n-at</i>	‘person’ (François 2013)
NCV: Löyöp	<i>n-at</i>	‘person’ (François 2013)
NCV: Volow	<i>n-at</i>	‘person’ (François 2013)
NCV: Mwotlap	<i>n-εt</i>	‘person’ (François 2013)
NCV: Raga	<i>ata(tu)</i>	‘person’
NCV: Namakir	<i>ʔat</i>	‘person’
NCV: S Efate	<i>n-at</i>	‘person; someone (indefinite but nonspecific)’
SV: Anejom	<i>n-at</i>	‘person, fellow’
NCal: Nemi	<i>kac</i>	‘man’
NCal: Jawe	<i>kac</i>	‘man’
NCal: Nêlêmwa	<i>ak</i>	‘man’
	<i>axa-t</i>	‘man, male’
NCal: Iaai	<i>at</i>	‘person’

cf. also:

NCal: Pije	<i>kaca</i>	‘stranger, foreigner’
NCal: Fwâi	<i>kaya</i>	‘stranger, foreigner’
NCal: Jawe	<i>kaya</i>	‘stranger, foreigner’
NCal: Nemi	<i>kaca</i>	‘stranger, foreigner’
NCal: Xârâcùù	<i>ka</i>	‘stranger, foreigner’ (Grace 1972).

2.2.3.2 Compounds formed with POC **qata*- ‘person’

A number of POC compounds had **qata*- ‘person’ as their first element. They differ from those that had **tau*- as their first element. Whereas **tau*- is roughly translated ‘person who ...’ (§2.2.1.2), compounds with **qata*- simply denote a person (as **tam^wataq* ‘living person’ does; §2.2.2.1) and gender- and age-based categories of human beings. In this section those compounds that denote people in general are presented. Compounds denoting gender-based categories are POC **qata-m^waqane* ‘man, male’ (§2.3.1) and POC **qata-pine* ‘woman, female’ (§2.3.2). Those denoting age-based categories—they are not widely reflected—are

Proto SE Solomonian **qata-natu* ‘child’ and Proto North–Central Vanuatu **ta-marayai* ‘old man’ (§2.4.6). The sense of POc **qata-mate* ‘malevolent spirit of a dead person’ suggests that it almost certainly reflects POc **qata(r)* ‘image, reflection, soul, spirit’, not POc **qata* ‘person’.

François (2013) points out that where a term for a category or people begins with **ta-*, this is potentially ambiguous between an origin in **qata-* and one in **tau-*. However, as just noted, there seems to be a systematic difference in meaning between **tau-* and **qata-*. There is also a phonological difference, as **tau-* is usually reflected as *tau-* or *to-*, and the diphthong **-au-* is reflected even in Micronesian languages where there has been substantial phonological change. Prefixed **qata-*, on the other hand, is reflected as *ta-* when it loses its first syllable, as it often does.

Most of the following are restricted to a local group of languages. Only PROc **[qa]ta-maquri* ‘living person’ (**maqurip* ‘be alive’; §4.2.1.1) spans a large piece of Oceania, but it has few reflexes and may reflect parallel innovations.

PROc **[qa]ta-maquri* ‘living person’

NCV: Mota	<i>tamaur</i>	‘man alive’ (cf. <i>tamate</i> ‘man dead’)
NCV: Nguna	<i>na-tam^woli</i>	‘human being’
NCV: S Efate	<i>n-atam^wol</i>	‘person’ (<i>m^wol</i> ‘be alive’)
Fij: Rotuman	<i>famori</i>	‘human being’

The second element of Proto Torres-Banks **(qa)ta-dunu* ‘individual, person’ reflects PNCV **dunu* ‘true, real’ (Clark 2009).

PNCV **(qa)ta-dunu* ‘individual, person’ (François 2013)

NCV: Vurës	<i>tøⁿdün</i>	‘person’
NCV: Mota	<i>tanun</i>	‘person’
NCV: Nume	<i>tuⁿdun</i>	‘person’
NCV: Dorig	<i>tⁿdun</i>	‘person’
NCV: S Gaua	<i>tuⁿdun</i>	‘person’
NCV: Merlav	<i>ne-teⁿdun</i>	‘person’

The identity of the second elements of the Proto South Vanuatu terms below is unknown (Lynch 2004b).

PSV **n-ata-mama(q)*, **i-ata-mama(q)* ‘person’

SV: Sye	<i>n-eteme</i>	‘person’
SV: Ura	<i>y-erema</i>	‘person’
SV: SW Tanna	<i>i-elmama</i>	‘person’
SV: Kwamera	<i>i-ermama</i>	‘person’

PSV **n-ata-mimi(q)*, **i-ata-mimi(q)* ‘person’

SV: N Tanna	<i>i-etemim</i>	‘person’
SV: Whitesands	<i>i-etamimi</i>	‘person’
SV: Lenakel	<i>i-eramím</i>	‘person’
SV: Anejom	<i>n-atimi</i>	‘person’

2.2.4 POc **tinoni* ‘person, people’

Reflexes of POc **tinoni* are limited to two subgroups. Apart from Vitu off the north coast of New Britain, all languages listed here are from the Northwest Solomons or the Southeast Solomons where the term apparently has now become the general term for a human being. Its limited range makes it difficult to establish its POc meaning.

As with English ‘man’, reflexes of both **ta-m^wataq* and **tinoni* may sometimes be used as a term for people in general and sometimes for males only.

PEMP **tinoni* ‘man, male’³

POc **tinoni* ‘person, people’

MM: Vitu	<i>tinoni</i>	‘person’
MM: Solos	<i>tinon</i>	‘man; husband’
MM: Papapana	<i>sinoni</i>	‘husband’
MM: Nduke	<i>tinoni</i>	‘person’
MM: Roviana	<i>tinoni-</i>	‘people’
SES: Bugotu	<i>tinoni</i>	‘man, mankind, person’
SES: Gela	<i>tinoni</i>	‘man, human being, person (living)’
SES: Longgu	<i>inoni</i>	‘person, man’
SES: ‘Are’are	<i>inoni</i>	‘human being; people; man’
SES: Arosi	<i>inoni</i>	‘man’
SES: Sa’a	<i>inoni</i>	‘man; human being’

2.2.5 POc **k^(w)a(i)* ‘person’

The reconstruction of POc **k^(w)a(i)* ‘person’ is somewhat speculative. This morpheme appears to have meant ‘a person belonging to a certain group’, and was followed by a modifier indicating the identity of that group. It is reflected in this function or something close to it in the Iduna, To’aba’ita, Arosi, Nguna, Bauan and Wayan Fijian terms and perhaps in the plural form PPn **ka-kai*. The reconstruction is speculative in two respects. First, in Western Oceanic languages in particular, there are numerous forms beginning with *ka-* which denote a category of person, and we have taken these to be reflexes of **ka*. Some of them may well have other origins. Where possible the modifier that follows the reflex of **ka-* is identified. Second, the form of the reconstruction is uncertain. POc **k^wa-* is reflected as far east as Bugotu (with exceptions in Medebur and Bola), switching to **k^wai-* from Malaita and Makira eastward.⁴ Reconstruction of initial **k^w-*, rather than **k-*, is also uncertain. POc **k^w* was an unstable phoneme that is reflected as *k^w* only in Papuan Tip languages and Western Fijian (Ross 2011). In these and some other languages **k^wa* sometimes becomes **ko*. Among the reflexes below, Iduna *k^wa-na* and Wayan *koi* are thus consistent with the reconstruction of POc *k^wa(i)*. Indeed, we have no other explanation for them (other than the possibility that the set below

³ PEMP **tinoni* is reconstructed on the basis of the Oceanic reflexes here and two West New Guinea reflexes, Biak *snon* ‘man’, Dusner *snon* ‘male’.

⁴ We have asked ourselves whether **k^wai-* reflects **k^wa qi*, where **qi* is the marker of nonspecific possession that follows a directly possessed noun. This would mean that **k^wa* was directly possessed, as it appears to be in Iduna. But the expected form would then be **k^waqi*, not **k^wai*.

includes some non-cognate forms). Proto Malaita-Makira, however, normally reflects POC $*k^w-$ as $*k-$, but the forms below instead reflect $*\gamma-$, casting doubt on the reconstruction of POC $*k^w-$.

POC $*k^{(w)}a(i)$ ‘person belonging to a category’ (Pawley 1985: PEOc $*kai$ ‘person’)

PWOc $*k^{(w)}a[i]$ ‘person belonging to a category’

NNG:	Bariai	<i>ka-kau-iriria</i>	‘young man’
NNG:	Medebur	<i>kai-dik-waun</i>	‘young man’ (<i>waun</i> ‘new, young’; cf. <i>wai-dik</i> ‘woman’)
		<i>kai-n</i>	‘boy’
NNG:	Manam	<i>ka-leti</i>	‘foreigner, white man’
SJ:	Tobati	<i>ha-r</i>	‘person’
SJ:	Ormu	<i>ka-ru</i>	‘person’
PT:	Iduna	<i>k^wa-na</i>	‘person of group’ (e.g. <i>k^wana-ʔoyaʔoya</i> ‘man of the mountains’, <i>k^wana-koyokoyo</i> ‘poor/bad man’)
		<i>ka-liva</i>	‘man, male, person’
MM:	Vitu	<i>kaka</i>	‘person’
MM:	Bulu	<i>kaka-tara</i>	‘person’ (<i>tara</i> ‘mature’)
MM:	Bola	<i>kakai</i>	‘boss’
MM:	Tabar	<i>ka</i>	‘man’
MM:	Madak	<i>ka-dioŋ</i>	‘stranger, foreign -person’
		<i>ka-vus</i>	‘white person’
MM:	Sursurunga	<i>ka-lik</i>	‘child’ (<i>-lik</i> endearment particle)
		<i>kə-ləmul</i>	‘person’
		<i>kə-ləu</i>	‘man, boy’
MM:	Tangga	<i>ka-ltu</i>	‘man’
MM:	Ramoaaina	<i>ka-ulung</i>	‘ignorant person; bush dweller’
		<i>kə-puana</i>	‘pitied person’
MM:	Solos	<i>ka-tun</i>	‘person’ (<i>tun</i> < Proto NW Solomonic $*tuna$ ‘correct, proper’)
MM:	Petats	<i>ka-tun</i>	‘person’ (see Solos <i>ka-tun</i>)
MM:	Halia (Haku)	<i>ka-tun</i>	‘person’ (see Solos <i>ka-tun</i>)
MM:	Mono-Alu	<i>ka-nega</i>	‘man, husband; big’

Proto Malaita-Makira $*\gamma ai$ ‘person, person belonging to ...’

SES:	To’aba’ita	<i>ʔai</i>	‘collectivity’ (e.g. <i>kai ni bulisi</i> ‘police unit’)
SES:	Kwaio	<i>ai</i>	‘person’
SES:	Lau	<i>ʔai</i>	‘person, individual, woman’
SES:	Arosi	<i>ai</i>	‘native of place’ (e.g. <i>ai [ni] Waŋo</i> ‘native of Waŋo’)

PNCV $*kai-masi$ ‘sorcerer’ (Clark 2009) ($*masi-ŋa$ ‘love magic’)

NCV:	Paamese	<i>eimasi</i>	‘evil spirit’
NCV:	Nguna	<i>na-kaimasi</i>	‘sorcerer’
		<i>na-kā</i>	‘people (of a particular chief or place)’

Proto Fijian **k^(w)ai* ‘person of a place or category specified by the modifier’

Fij:	Bauan	<i>kai</i>	‘person of group’ (e.g. <i>kai Viti</i> ‘Fijian’, <i>kai ḏolo</i> ‘person of the interior’)
Fij:	Wayan	<i>koi</i>	‘person of a place or category specified by the modifier’ (e.g. <i>koi Niusiladi</i> ‘New Zealander’, <i>koi ata</i> ‘inhabitant of the interior of Viti Levu and other large islands; inlander’)

PPn **kai* ‘person of one place or kind’ (plural: **ka-kai*) (POLLEX)

Pn:	Tongan	<i>kai-fonua</i>	‘commoner’ (<i>fonua</i> ‘land, territory, place’)
		<i>ka-kai</i>	‘people’
		<i>kai-na</i>	‘occupied by strangers’ (<i>-na</i> stative formative)
Pn:	Samoa	<i>ʔa-ʔai</i>	‘village, town’
		<i>ʔai-nā</i>	‘be inhabited’
Pn:	E Futunan	<i>ka-kai</i>	‘people, nation’
Pn:	E Uvean	<i>kai-fenua</i>	‘commoner, peasant’ (<i>fenua</i> ‘land’)
		<i>kai-amaki</i>	‘bad person who seeks to do ill to others’
Pn:	Tokelauan	<i>ka-kai</i>	‘village, city, town’
Pn:	Pukapukan	<i>ka-kai</i>	‘all the people of a place’
Pn:	Tahitian	<i>ai-ani</i>	‘a shameless beggar’ (<i>ani</i> ‘hungry’)
Pn:	Tuamotuan	<i>kai</i>	‘body, group of blood relatives’
Pn:	Māori	<i>kai-</i>	agentive nominalising prefix

2.3 People by gender

2.3.1 Man, male

Two POc terms are reconstructable reflecting PMP **ma-Ruqanay* ‘male, man’. They perhaps occurred in different POc dialects, as no language reflects both. The expected form, POc **maRuqane*, is reflected in just a few languages, in the Papuan Tip and Meso-Melanesian linkages of Western Oceanic. Much more widespread is POc **m^waqane*, a curiously truncated variant of **maRuqane*.

Blust (1982b) comments that the origin of the truncated form is problematic. Lynch (2002) suggests two possible origins. Both assume that **-R-* had been irregularly lost (it is sporadically lost in non-Oceanic languages too, perhaps because tetrasyllabic roots were dispreferred). The first hypothesis says that the **m-* of **maRuqane* became **m^w-* under the influence of **-u-*. For this to be true, **-u-* must have been adjacent to **m-*, as the two fused as **m^w-* (cf. the discussion of the history of **tam^wata* in §2.2.2.1). Lynch suggests that **maRuqane* metathesised to *†*muRaqane*. This would have been followed by loss of **-R-*, giving *†*muaqane*, leading to **m^waqane*.

Lynch also offers an alternative explanation whereby **maRuqane* formed a compound **tau-maRuqane*, giving rise to **tam^waRuqane* (cf. §2.2.2.1), which was then reanalysed, leaving *m^waRuqane* as a separate morpheme with initial **m^w-*. Of the two explanations, the first is more explanatory, as the second fails to explain loss of **-u-*. There is in any case

evidence that forms that might be taken to reflect **tau-maRuqane* actually reflect **qata-m^waqane*.

The few forms that reflect **maRuqane* all mean ‘male, man’. There is good evidence that POC **m^waqane* had two uses. As an independent noun, it meant ‘male, man’, but as a directly possessed noun (§3.1.1) it meant ‘brother of a woman’. It appears with this sense in the Admiralties and across Remote Oceanic, establishing its POC origin.

PAn **RuqaLay* ‘male, man’ (ACD)

PMP **[ma]Ruqanay* ‘male, man’ (ACD)

POc **maRuqane* ‘man, male’ (Blust 1993a)

PT:	Motu	<i>maruane</i>	(N) ‘male’
MM:	Mono-Alu	<i>manuale</i>	‘male’ (metathesis)
MM:	Lungga	<i>marane</i>	‘man’
MM:	Vangunu	<i>maroani</i>	‘man’

PAn **ma-RuqaLay* ‘male, man’ (ACD)

PMP **ma-Ruqanay* ‘male, man’

POc **m^waqane* ‘man, male; brother (of woman)’ (Milke 1958: **m^wane* ‘brother (of woman)’)

Adm:	Seimat	<i>wawan</i>	‘man as opposed to woman’
Adm:	Lou	<i>m^wane-</i>	‘brother (woman speaking)’
NNG:	Manam	<i>m^wane</i>	‘male’
NNG:	Terebu	<i>maken</i>	‘man’
PT:	Molima	<i>moane</i>	‘spouse’
MM:	Vitu	<i>mane</i>	‘young man’
MM:	Ramoaina	<i>muana</i>	‘man’
MM:	Kia	<i>mane</i>	‘man’
MM:	Kokota	<i>mane</i>	‘man’
SES:	Bugotu	<i>mane</i>	‘male, male person’
SES:	Gela	<i>mane</i>	‘male, man, person, native’ (used in compound to identify occupation or place of identity)
SES:	Longgu	<i>m^wanei</i>	‘man, male’
SES:	Lau	<i>ŋ^wane</i>	‘male’
SES:	Kwaio	<i>wane</i>	‘man, male, human being’
SES:	Sa’a	<i>m^wane</i>	‘male, man, boy’
SES:	To’aba’ita	<i>wane</i>	‘man, husband; person of unspecified sex’ ⁵
NCV:	Nokuku	<i>mane-</i>	‘brother’
NCV:	Kiai	<i>mane-</i>	‘(elder) brother (of woman)’
NCV:	Sakao	<i>mana-</i>	‘(man’s) brother’
NCV:	Big Nambas	<i>m^wana-</i>	‘brother (of woman)’
NCV:	Paamese	<i>mano-</i>	‘brother (of woman)’
NCV:	Lewo	<i>m^wene-</i>	‘brother (of woman)’
SV:	Sye	<i>mano-</i>	‘brother (of woman)’
SV:	N Tanna	<i>m^wanə-</i>	‘brother (of woman)’

⁵ ‘May occur alone or in compound as male gender marker or to further identify s.o.’

SV:	Whitesands	<i>nəm^wanə-</i>	‘brother (of woman)’
SV:	Lenakel	<i>nə-m^wanə-</i>	‘brother (of woman)’
NCal:	Nixumwak	<i>m^wala-</i>	‘brother of woman’ (Lynch 2002)
NCal:	Iaai	<i>mañi-</i>	‘opposite sex sibling’
Mic:	Kiribati	<i>te-m^wāne</i>	‘man, male’
		<i>m^wāne</i>	‘male’
		<i>m^wāne-</i>	‘his/her sibling of opposite sex’
Mic:	Marshallese	<i>m^wm^wahan</i>	‘man, male, wife’s brother’
Mic:	Mokilese	<i>m^wān</i>	‘man, male’
Mic:	Puluwatese	<i>m^wāen</i>	‘man, male’
		<i>m^wāene-</i>	‘brother of (a woman)’
Mic:	Carolinian	<i>m^wāel</i>	‘man, male’
Fij:	Bauan	<i>ɣane</i>	‘sibling of opposite sex’
Fij:	Wayan	<i>ɣ^wane</i>	‘sibling of opposite sex’
Fij:	Nadrau	<i>umane</i>	‘male’ (Lynch 2002)
Pn:	Tongan	<i>(tuo)ɣaʔane</i>	‘brother or male cousin of woman’
Pn:	Samoa	<i>(tua)ɣane</i>	‘brother of woman’

The following POc reconstruction is a compound of **qata* ‘person’ and POc **m^waqane* ‘man, male’ (cf. §2.2.3.2), based on numerous reflexes, many of which show reduction of form in various ways, commonly by deleting **qa-*. Polynesian languages have deleted **-m^wa-*. Only two widely separated reflexes, Nakanai (MM) and Anejom (SV) share the meaning ‘brother of woman’, but, given that POc **m^waqane* had this sense, it is reasonable to attribute it also to POc **qata-m^waqane*.

POc **qata-m^waqane* ‘man, male; brother (of woman)’

NNG:	Kove	<i>tamone</i>	‘man’
NNG:	Sio	<i>tamone</i>	‘man, male’
NNG:	Mangseng	<i>to-tomone</i>	‘male (human)’
NNG:	Mamusi (Kakuna)	<i>tamane</i>	‘man, person’
NNG:	Numbami	<i>tamone</i>	‘man’
MM:	Vitu	<i>tamoyane</i>	‘man’ (<i>mane</i> ‘boy of 12+’)
MM:	Bola	<i>tamuyane</i>	‘young man’
MM:	Nakanai	<i>hatamale</i>	(1) ‘man, male’, (2) ‘brother, woman speaking’
MM:	E Kara	<i>tomekan</i>	‘man’
MM:	Vaghua	<i>tamanə</i>	‘man’

PSOc **qata-m^waqane* ‘man, male’ (Lynch 2004b)

NCV:	Hiw	<i>təɣ^wen</i>	‘male, man, husband’ (François 2013)
NCV:	Lehali	<i>atɣ^wan</i>	‘male, man, husband’ (François 2013)
NCV:	Volow	<i>n-taɣm^wan</i>	‘male, man, husband’ (François 2013)
NCV:	Mwotlap	<i>na-tɣm^wan</i>	‘male, man, husband’ (François 2013)
NCV:	Vurës	<i>atɣm^wm</i>	‘male, man, husband’ (François 2013)
NCV:	Mwesen	<i>atɣm^wn.</i>	‘male, man, husband’ (François 2013)
NCV:	Raga	<i>atam^wani</i>	‘man, male’
NCV:	Paamese	<i>tomane</i>	‘male, masculine’
NCV:	Uripiv	<i>n-orman</i>	‘man, male’

NCV:	Port Sandwich	<i>roman</i>	‘cock’
NCV:	Namakir	<i>tam^waʔan</i>	‘man, male’
PSV <i>*n-atam^waqane</i> , <i>*i-atam^waqane</i> ‘man, male’			
SV:	Sye	<i>n-atman</i>	‘man, male’
SV:	Ura	<i>y-armon</i>	‘man, male’
SV:	N Tanna	<i>i-etemān</i>	‘man, male’
SV:	Lenakel	<i>i-eram^wān</i>	‘man, male’
SV:	SW Tanna	<i>i-elmān</i>	‘man, male’
SV:	Anejom	<i>n-atam^wañ</i>	‘man, woman’s brother’
Fij:	Wayan	<i>taŋ^wane</i>	‘man, male’
Fij:	Bauan	<i>taŋane</i>	‘male’
PPn <i>*taqane</i> ‘male’ (POLLEX) (with loss of <i>*-m^wa-</i>)			
Pn:	Niuean	<i>tāne</i>	‘husband, man, male’
Pn:	Tongan	<i>taʔane</i>	‘male, of animals mainly; to be married, of royalty’
Pn:	Samoan	<i>tāne</i>	‘husband; man, male’
Pn:	Tikopia	<i>tāne</i>	‘male’
Pn:	Maori	<i>tāne</i>	‘male, husband, man (not used of animals)’

There is also reasonable evidence for a shortened form of POc **qata-m^waqane* ‘man, male’ in New Guinea Oceanic, namely PNGOc **qata-m^waq(a)* ‘man, male’.

PNGOc **qata-m^waq(a)* ‘man, male’

NNG:	Tami	<i>tamu</i>	‘man’
NNG:	Mutu	<i>tamoy</i>	‘man’
NNG:	Mangap	<i>tom-tom</i>	‘person’
NNG:	Dami	<i>tamo</i>	‘married man’
NNG:	Medebur	<i>toma</i>	‘person’
NNG:	Mapos Buang	<i>alam</i>	‘people; relatives’
SJ:	Tarpia	<i>tamu</i>	‘man’

Proto Markham **yaram* ‘man’

NNG:	Mari	<i>garam</i>	‘man’
NNG:	Wampur	<i>garam</i>	‘man’
NNG:	Sirasira	<i>garəŋ(gat)</i>	‘man’
NNG:	Adzera	<i>garam</i>	‘man’
		<i>garam(gar)</i>	‘person’
NNG:	Musom	<i>arom</i>	‘man’
NNG:	Sirak	<i>arom</i>	‘man’
NNG:	Wampar	<i>gara(gab)</i>	‘person’
PT:	Gapapaiwa	<i>tomoa</i>	‘man’

2.3.2 Woman

The terms for ‘woman, female’ present one of the most challenging reconstructive tasks in Austronesian historical linguistics, with a number of terms derived from PAn **bahi* ‘woman,

female’. (Blust 1982b, ACD).⁶ Although POc reflects only two of the many variants reflected in non-Oceanic languages, namely **pine* and **papine*, it has generated variants of its own. With some exceptions, most in Vanuatu, **pine* occurs only in the compounds presented below.

In Bugotu and Gela (both SES) the regular reflex of **papine* means ‘opposite-sex sibling’, and across SE Solomonic the term for ‘woman’ reflects POc **paipine*, a variant that remains unexplained. In a number of Papuan Tip reflexes of **papine* and **paipine* initial **p-* is replaced by **w-*, again an unexplained change.

PAn **b<in>ahi* ‘woman, female’ (Blust 1982b, ACD)

PMP **b<in>ahi*, **ba-b<in>ahi* ‘woman, female’

POc **pine* ‘woman, female; sister of man’

PT:	Iduna	<i>vine-</i>	‘woman of (PLACENAME)’
		<i>vine(sik^wa)</i>	‘widow, widowed woman’
		<i>vine(ulatana)</i>	‘young unmarried girl, teenager’
MM:	Vitu	<i>vine</i>	‘young girl’ (cf. <i>tavine</i> ‘woman’)
MM:	Roviana	<i>vine(ki)</i>	‘female’
NCV:	Lo Toga	<i>(lək^wε)vinə</i>	‘woman’
NCV:	Lehali	<i>(n-lək)ven</i>	‘woman’
NCV:	Nokuku	<i>le-vina</i>	‘woman’
NCV:	Larëvat	<i>ne-vən</i>	‘woman’
NCV:	W Ambrym	<i>vēn</i>	‘woman’
NCV:	Paamese	<i>a-hine</i>	‘woman’
		<i>a-hino-</i>	‘sister of man’
NCV:	Pt Sandwich	<i>pene-</i>	‘sister of man’
NCV:	Lewo	<i>vine-</i>	‘sister of man’
SV:	Ura	<i>vi-, vinu-</i>	‘sister of man’
SV:	N Tanna	<i>vənə-</i>	‘sister of man’
SV:	Whitesands	<i>nə-vnə-</i>	‘sister of man’
SV:	Lenakel	<i>no-uin-</i>	‘sister of man’
SV:	SW Tanna	<i>na-uin-</i>	‘sister of man’
SV:	Kwamera	<i>pini-</i>	‘sister of man’

PPn **fine* ‘woman’

Pn:	Tongan	<i>fine(-motuʔa)</i>	‘elderly woman’
		<i>fine(-mui)</i>	‘young woman’
		<i>fine(-ʔeiki)</i>	‘lady’
Pn:	Tikopia	<i>fine</i>	‘term of address to wife or between sisters-in-law’
Pn:	Maori	<i>hine</i>	‘term of address to girl, young woman’

POc **papine* ‘woman, female; sister of man’ (Milke 1958)

Adm:	Kele	<i>pihin</i>	‘woman’
Adm:	Lou	<i>pein</i>	‘woman’
Adm:	Nyindrou	<i>bihin</i>	‘young single woman, virgin’

⁶ Oceanic forms are derived from PMP **b<in>ahi*, a form of the root **bahi* infixed with **<in>* PERFECTIVE.

NNG:	Roinji	<i>pain</i>	‘woman’
NNG:	Gedaged	<i>pain</i>	‘woman’
NNG:	Manam	<i>aine</i>	‘woman, female, girl’
NNG:	Wogeo	<i>vaine</i>	‘woman’
PT:	Dobu	<i>waine</i>	‘woman’ (w- for †θ-)
PT:	Gapapaiwa	<i>wavine</i>	‘woman’ (w- for †v-)
PT:	Sinaugoro	<i>vavine</i>	‘woman’
PT:	Motu	<i>hahine</i>	‘woman, female’
MM:	Lavongai	<i>aina</i>	‘woman’
MM:	Tabar	<i>vevine</i>	‘woman’
MM:	Barok	<i>une</i>	‘woman’
MM:	Patpatar	<i>hahin</i>	‘woman’
MM:	Tolai	<i>vavina</i>	‘woman’
MM:	Siar	<i>fain</i>	‘woman’
MM:	Petats	<i>hihin</i>	‘woman’
MM:	Torau	<i>baina</i>	‘woman’ (b- for †θ-)
SES:	Bugotu	<i>vavine</i>	‘opposite-sex sibling’
SES:	Gela	<i>vavine</i>	‘opposite-sex sibling’
NCV:	Mota	<i>vavine</i>	‘woman, female (used also of animals and birds)’
NCV:	Raga	<i>vavine</i>	‘woman’
NCV:	Tamambo	<i>vavine</i>	‘woman’
NCV:	Kiai	<i>vavine-</i>	‘younger sister of male’
NCV:	Tape	<i>vevn-</i>	‘sister of man’
NCV:	Namakir	<i>vavin</i>	‘woman, female’
SV:	Sye	<i>vevn-</i>	‘sister of man’
Fij:	Rotuman	<i>hani</i>	‘woman, girl, wife’
Pn:	Tongan	<i>fefine</i>	‘woman’
Pn;	Niuean	<i>fifine</i>	‘woman’
Pn:	E Futunan	<i>fafine</i>	‘woman’
Pn:	Pukapukan	<i>wawine</i>	‘woman, wife’
Pn:	Rennellese	<i>hahine</i>	‘woman’
Pn:	Samoan	<i>fafine</i>	‘woman’
Pn:	Tikopia	<i>fafine</i>	‘woman’

POc **paipine* ‘woman, female; sister (of man)’

PT:	Suau (Daui)	<i>waihin</i>	‘woman’ (w- for †h-)
PT:	Nimoa	<i>waiine</i>	‘woman’ (w- for †θ-)
SES:	Bugotu	<i>vaivine</i>	‘woman, female’
SES:	Gela	<i>vaivine</i>	‘woman’
SES:	Bauro	<i>hehene</i>	‘woman’ (assimilation of *ai > e)
SES:	Fagani	<i>hehene</i>	‘woman’
SES:	Kahua	<i>hehene</i>	‘woman’
SES:	Arosi	<i>haihine</i>	‘woman’
Mic:	Kiribati	<i>te-aiine</i>	‘woman’
Mic:	Chuukese	<i>fēfir</i>	‘woman; womanhood; female; left hand or side’

	<i>fēfira-</i>	‘sister (of man)’
Mic: Woleaian	<i>faifire</i>	‘woman, sister’

Corresponding to **qata-m^waqane* ‘man’ (§2.3.1) is POc **qata-pine*, a compound of **qata* ‘person’ and POc **pine* ‘woman, female’ (cf. §2.2.3.2). No five-syllable reflexes of POc †**qata-papine* ‘woman, female’ have been found. Like other compounds in **qata-*, the first element is often reduced to *ta-*.

POc **qata-pine* ‘woman, female’

NNG: Bariai	<i>taine</i>	‘woman’
NNG: Sio	<i>taine</i>	‘woman, sister’
NNG: Ulau-Suain	<i>tein</i>	‘woman’
MM: Vitu	<i>tavine</i>	‘woman’
MM: Bola (Harua)	<i>ɣatavine</i>	‘woman’
MM: Nakanai	<i>hataville</i>	‘woman, female’; ‘sister, man speaking’
MM: Meramera	<i>tavine</i>	‘woman’
MM: E Kara	<i>tefin</i>	‘woman’
MM: W Kara	<i>tefin</i>	‘woman’
MM: Nalik	<i>rəfin</i>	‘woman’

PSOc **qata-vine* ‘woman, female’ (Lynch 2004b)

NCV: Mota	<i>tavine</i>	‘woman, female’
NCV: Uripiv	<i>n-esevin</i>	‘woman, female’
NCV: S Efate	<i>tafin</i>	‘woman servant, slave’

PSV **n-atavine*, **i-atavine* (Lynch 2004b)

SV: Sye	<i>n-ahiven</i>	‘woman, female’
SV: Ura	<i>y-arvin</i>	‘woman, female’
SV: Anejom	<i>n-ataheñ</i>	‘girl, female; sister of male’

Proto Tanna **p-atavine*

SV: N Tanna	<i>p-etan</i>	‘woman, female’
SV: Whitesands	<i>p-ətan</i>	‘woman, female’
SV: Lenakel	<i>p-eravən</i>	‘woman, female’
SV: SW Tanna	<i>p-ilavən</i>	‘woman, female’

cf. also:

Pn: Tongan	<i>taʔa-hine</i>	‘girl, young woman’ (borrowing)
Pn: Rennellese	<i>taʔa-hine</i>	‘term of reference for a sister, daughter, niece’
Pn: Samoan	<i>te-ine</i>	‘girl’

Data from the westerly part of the north coast of New Guinea point to a variant **mapine* for **papine*:

NNG: Kaiep	<i>main</i>	‘woman’
NNG: Kairiru	<i>moin</i>	‘woman’
SJ: Tarpia	<i>mupin</i>	‘woman’
SJ: Sobei	<i>mefne</i>	‘woman’
SJ: Anus	<i>mofin</i>	‘woman’

This in turn also seems to have formed a compound **(qa)ta-mapine*:

NNG: Kove	<i>tamine</i>	‘woman’
NNG: Ali	<i>tamiñ</i>	‘woman’
NNG: Mutu	<i>tamen</i>	‘woman’
NNG: Sissano	<i>tameñ</i>	‘woman’
NNG: Sera	<i>tameiŋ</i>	‘woman’

2.4 People by age cohort

2.4.1 Oceanic age cohort terms

There is a framework of single-word terms for age cohorts that seems to have a similar structure in many Oceanic languages. The basic elements are:

1. young person, the age range of which often stretches from birth to adulthood
2. person of marriageable age, typically two terms, female and male
3. fully grown adult
4. mature middle-aged adult, typically two terms, female and male
5. very old person

It is sometimes difficult to align terms from different languages, first because in most dictionaries age cohort terms appear to be incompletely listed, and secondly because dictionaries typically give only relative ages,⁷ and definitions like ‘young girl’ are vague. However, the five basic terms in an eight-language sample are laid out in [Table 13](#).⁸

Several observations are in order. The empty cells in [Table 13](#) marked with ‘...’ might be filled if the data were more complete, but the empty cells marked with ‘—’ are probably artefacts of our representation of gender-related terms. For example, Mutu has *kōŋ* ‘mature person’, but apparently no dedicated terms for ‘mature man’ or ‘mature woman’. To’aba’ita has gender-specific terms for (marriageable) young adults, but apparently no genderless term for ‘young adult’. Numbami and Mwotlap stand out from the other languages in the table in that they have a larger number of gender-specific terms. These are shown with a slash, thus feminine/masculine. Several To’aba’ita terms are basically verbs. Thus *darā* means ‘be a marriageable young man’.

Terms for ‘young person’, labelled ‘1’ in [Table 13](#), typically embrace an age range from birth to the onset of adulthood which is divided into smaller categories by either using the ‘young person’ term with modifiers (Khehek, Numbami, Nehan and Wayan) or using further single-word terms. These are shown in [Table 14](#). The exception here is Mwotlap, where the ‘young person’ term does not include children below about six years of age and as a result fewer terms are formed with modifiers.

The basic divisions in [Table 14](#) are (1a) baby, (1b) prepubescent child and (1c) adolescent. This tabulation is not exhaustive. Wayan also has the terms *driadria tabatūtū* ‘infant learning to stand’ and *driadria kakarebareba* ‘toddler’. To’aba’ita has *wela kōkosa* or *wela ʔāʔabu* ‘newborn baby’, *wela kā* ‘baby that can crawl’ and *wela ʔāʔaru* ‘toddler’. Paamese has *titali*

⁷ Exceptions are François (2012) and Pawley & Sayaba (2003).

⁸ Thanks go to Alexandre François, who provided us with terms in Mwotlap and other Torres/Banks languages.

Table 13 Age cohort terms in eight Oceanic languages

	Adm Khehek	NNG Numbami	NNG Mutu	MM Nehan	SES To'aba'ita	NCV Mwotlap	NCV Paamese	Fij Wayan
1 young person	<i>nah</i>	<i>ekapa/kolapa</i>	<i>pain</i>	<i>keketiki</i>	<i>wela</i>	<i>na-m^walm^wal/nv-lvmɣɛp</i>	<i>ēhon</i>	<i>driadria</i>
2 young adult	—	<i>kolapa asasa</i>	<i>ŋēr pāyu</i>	<i>mamahoho-like</i>	—	—	—	—
marriageable young woman	<i>lupup pihij/pech</i>	<i>ekapa wowe</i>	<i>nabiu</i>	<i>komadia</i>	<i>θāriʔi</i>	—	<i>atouli</i>	<i>vulau</i>
marriageable young man	<i>lupup kemeŋ</i>	<i>kolapa dewala</i>	...	<i>mamanai-like</i>	<i>ʔalak^wa, darā (v)</i>	—	<i>meakoi</i>	<i>saravou</i>
3 fully grown adult	<i>kxikxiŋ</i>	<i>ewesika/tamota</i>	<i>olman</i>	<i>tamat</i>	<i>k^waiagaŋaʔi, ila ai/ila wane</i>	<i>n-ɛt liwɔ</i>	<i>ahin, atau/ame</i>	<i>tūdonu</i>
4 mature person	<i>pete luɔp</i>	...	<i>kōŋ</i>	<i>mahoho</i>	<i>araʔi</i>	—	...	<i>uabula</i>
mature woman	<i>pete pech</i>	...	—	<i>pipigogo-like</i>	<i>g^wauliʔi-ai-ʔa (v)</i>	<i>na-maytɔ</i>	...	—
mature man	<i>pete kemeŋ</i>	...	—	<i>mahohontiehe</i>	<i>g^wauliʔi-wane-ʔa (v)</i>	<i>na-tmayɣɛ</i>	<i>ulmatu</i>	—
5 very old person	...	<i>e-^mbamoto/ ko-^mbamoto</i>	<i>ku^mbut</i>	<i>mahohon siounu</i>	...	<i>na-maytɔ yəyəy/ na-tmayɣɛ yəyəy</i>	<i>avi mavul</i>	<i>tūg^wāg^wā</i>

Table 14 Age cohort terms in eight Oceanic languages from birth to the onset of adulthood

		Adm Khehek	NNG Numbami	NNG Mutu	MM Nehan	SES To'aba'ita	NCV Mwotlap	NCV Paamese	Fij Wayan
1	young person	<i>nah</i>	<i>ekapa/kolapa</i>	<i>pain</i>	<i>keketiki</i>	<i>wela</i>	<i>na-m^walm^wal/nō- lōmyēp</i>	<i>ēhon</i>	<i>driadria</i>
1a	infant, new-born	<i>n. kepeh nakxiŋ</i>	<i>k. palele</i>	<i>p. pāyu, kaduk-sa</i>	<i>guama</i>	<i>sikafi/kurafia</i>	<i>m^wey, nɪtɪtɪ</i>	<i>tīvava</i>	<i>d. dramedrame</i>
1b	small child	<i>n. kepeh</i>	<i>e. kakapi/k. kae, ko-kae</i>	<i>akeake, kukua</i>	<i>k. buloutu</i>	—	<i>nɪ-nɪtm^wəy</i>	...	<i>d. sewa</i>
	young girl	<i>n. pecih</i>	<i>e. kakapi</i>	—	<i>k. kuah</i>	<i>θāri</i>	—	...	<i>d. alewa</i>
	young boy	<i>n. kemeŋ</i>	...	—	...	<i>wēwelaniwane</i>	—	—	<i>d. taŋ^wane</i>
1c	adolescent, not yet marriageable	<i>n. lupup</i>	<i>k. dewala</i>	<i>ŋēr marani</i>	...	<i>θāri, ulufāluʔi</i>	—	<i>litetai</i>	<i>d. saravou</i>

‘infant sitting up’. Mutu apparently singles out children aged around four or five as *kukua*. Since the ‘young girl/young boy’ terms in Mwotlap designate young people from around six years of age upward, a separate term *ni-nitm^way* denotes children under six. Mwotlap also has a term *n-et su* [ART-person little] ‘children’ contrasting with *n-et liwə* [ART-person big] ‘adults’.

With one exception, there is little cognacy across the eight languages in the tables above, yet the categories appear similar, and it is a reasonable inference that POc had such categories. The exception is that ‘fully grown adult’ is often designated by the term that means ‘person’. The POc term denoting a fully grown adult was thus probably **tam^wata* ‘person’ (§2.2.2.1), reflected above in Numbami, Nehan and Wayan. We also hypothesise that where POc age cohort terms distinguished gender, they did so using **papine* ‘female’ (§2.3.2) and **m^waqane* ‘male’ (§2.3.1) as modifiers. The evidence for this is somewhat circumstantial, but see To’aba’ita *ila wane* ‘married man’, *wēwelani-wane* ‘young boy’, Paamese *ahin* ‘adult woman’, and Wayan *driadria taŋ^wane* ‘young boy’.

The lack of cognacy among age cohort terms partly reflects shifts in meaning over time. Thus Khehek (Adm) *kxikxiŋ* ‘fully grown adult’ and Wayan (Fij) *driadria* ‘young person’ appear to be cognate.

Below, reconstructions for age cohorts are discussed under the headings used in Tables 13 and 14. Reconstruction in this semantic domain is not easy, as a wealth of local terms for age cohorts are found but few terms that have survived across a number of Oceanic primary subgroups

2.4.2 Young person from birth to onset of adulthood

The English word ‘child’ has two meanings: (1) offspring and (2) young boy or girl. Thus (1) denotes a kin relationship, (2) an age group. The POc term for sense (1), ‘offspring’, is **natu-*, a kin term (see vol.6).

Oceanic languages typically have no single-word term corresponding to English ‘child’ in sense (2) but instead have a term for human beings from birth to the onset of adulthood. POc **meRa* appears to have been the term denoting this age group. A number of its reflexes are glossed simply ‘child’, but we suspect that this is a product of wordlist collecting, where the informant is simply asked for the term corresponding to English ‘child’. Evidence that POc **meRa* did mean ‘person from birth to adulthood’ is found in the To’aba’ita and ‘Are’are dictionary entries below and in the generalisation of some of its NCV reflexes to mean something like English ‘fellow, guy’, i.e. a colloquial way of referring to men in particular.

The origin of POc **meRa* was pointed out to us by Charles Grimes (pers. comm.). In a number of CMP languages the term for a newborn is ‘red child’, and in some of these the term ‘red’ reflects PMP **ma-iRaŋ* ‘red’ (ACD). In PCEMP and POc this became **meRaŋ* ‘red’ (vol.2:206; ACD). The terms below are drawn from a geographically well distributed range of CMP languages.⁹ The association between ‘red’ and ‘newborn’ seems to have been lost in early Oceanic, but POc **meRa* seems to have had the specific meaning ‘newborn’ (see Misima and Arosi glosses) and the metonymic usage ‘young person from birth to onset of adulthood’.

⁹ Our thanks to Charles Grimes for data and notes.

PCEMP **anak meRaq* ‘newborn baby’ (**anak* ‘child’, **meRaq* ‘red’)

CMP:	Hawu	<i>ana mea</i>	‘newborn, infant’
CMP:	Helong	<i>ana mea</i>	‘newborn, infant, baby (pre-toddler)’
CMP:	Tetun	<i>kau mea</i>	‘newborn, infant’ (<i>kau-k oan</i> ‘very young child’; <i>mea-k/-n</i> ‘gold, rust, reddish’)
CMP:	Buru:	<i>an-miha-n</i>	‘newborn, infant’ (regular truncation of <i>ana-t/-n</i> ‘child, offspring’, <i>miha-t/-n</i> ‘reddish-brown’)

POc **meRa* ‘newborn; young person from birth to onset of adulthood’

PT:	Misima	<i>me-melo-na</i>	‘infant; newborn’ (-o for †-a)
PT:	Motu	<i>mero</i>	‘child’ (-o for †-a)
PT:	Sinaugoro	<i>mero</i>	‘child’ (-o for †-a)

PEOc **m^weRa* ‘newborn; young person from birth to onset of adulthood’ (Cashmore 1969: **m^wela* ‘child’)

SES:	Longgu	<i>m^wela</i>	‘child, young person’
		<i>m^wela-kiki</i>	‘child’ (<i>kiki</i> ‘small’)
SES:	Arosi	<i>m^wera</i>	‘very small child’
SES:	Lau	<i>wela</i>	‘child, person’
		<i>wela ābu</i>	‘very young infant’ (<i>ābu</i> ‘taboo’)
SES:	Kwaio	<i>wela</i>	‘child’
SES:	Sa’a	<i>m^wela</i>	‘child’
SES:	To’aba’ita	<i>wela</i>	‘child of any age up to young unmarried adult’
SES:	Kwaio	<i>wela</i>	‘child’
SES:	’Are’are	<i>mera</i>	‘child of any age up to young unmarried adult’
		<i>mera masike</i>	‘child 3–8 years old’ (<i>masike</i> ‘small’)
		<i>iʔi ni mera</i>	‘child 8–12 years old’
		<i>reoreo ni mera</i>	‘child 8–15 years old’ (<i>reoreo</i> ‘wild yam’)
		<i>sisiri ni mera</i>	‘child 8–15 years old’
		<i>mera haoru</i>	‘child 12–16 years old’ (<i>haoru</i> ‘new, young’)
		<i>mera nanau</i>	‘male 16–20 years old’ (<i>nanau</i> ‘unmarried male’)
SES:	Arosi	<i>m^wera</i>	‘very small child’ ¹⁰

PNCV **m^wera*, **m^wara* ‘child’ (Clark 2009)

NCV:	Lo Toga	<i>werə</i>	‘baby’
NCV:	Lehali	<i>(sus)wæj</i>	‘child’
NCV:	Volow	<i>(n-ɛt)m^wej</i>	‘child’
NCV:	Mwotlap	<i>(n-ɪt)m^wej</i>	‘child’
NCV:	Mota	<i>m^wera</i>	‘child’
NCV:	Nokuku	<i>m^wer</i>	‘child (of)’
		<i>m^wer (kekara)</i>	‘baby’ (<i>kekara</i> ‘red’)
NCV:	Kiai	<i>mera</i>	‘man, person, human being’
NCV:	NE Ambae	<i>m^wera</i>	‘man’
NCV:	W Ambrym	<i>mere</i>	‘small, a little bit, young, thin...’,

¹⁰ Given that Fox (1978) also glosses reduplicated *m^wera m^wera* as ‘very small child’, we wonder whether his gloss of *m^wera* is erroneous.

	<i>(tesi)mre</i>	‘child, young one’
NCV: Uripiv	<i>m^weri</i>	‘man, fellow, people’
NCV: Port Sandwich	<i>m^wera(ur)</i>	‘bush man’ (<i>la-ur</i> ‘interior forest’)
NCV: Paamese	<i>a-mē</i>	‘adult married man in village; larrikin, young man who acts tough’
NCV: Lewo	<i>m^wē</i>	‘young’
NCV: S Efate	<i>na-m^wer</i>	‘people’
Pn: Emae	<i>mea</i>	‘baby’

It is possible that the apparent PNCV doublet **m^wara* above is the product of reflexes of **m^wera* that have undergone contamination by reflexes of POc **m^wala* ‘young unmarried woman’ (§2.4.3).

A few languages have distinct single-word terms for ‘boy’ and ‘girl’, but they are few and far between. POc seems simply to have used the terms for ‘male’ (§2.3.1) and ‘female’ (§2.3.2) alone or as modifiers to a ‘young person’ term, as in ‘Are’are (SES) *mera māne* ‘boy’ and *mera keni* ‘girl’.

2.4.2.1 Baby, infant, newborn

POc apparently had two terms for ‘baby’, **meRa-meRa* and **k^wawaq*. No language has been found in which they contrast. The use of reduplication in POc for a diminutive or a small version of the denotatum of the root was noted in vol.3:50–51. POc **meRa-meRa* thus meant ‘baby, very young child’, a small version of **m^weRa* ‘young person from birth to onset of adulthood’ (§2.4.2). Polynesian reflexes are often modifiers of a reflex of PPn **tama* ‘child’.¹¹

POc **meRa-meRa* ‘baby, very young child’

NNG: Maleu	<i>(la)mela-mela</i>	‘child’
PT: Gumawana	<i>me-meya</i>	‘a baby’
PT: Tawala	<i>meya-meya</i>	‘tiny baby, up to a few months old’ (for † <i>mela-mela</i>)
PT: Dobu	<i>(g^wama) meya-meya-na</i>	‘baby, suckling’ (<i>g^wama</i> ‘child’) (for † <i>mela-mela</i>)
SES: Arosi	<i>m^wera-m^wera</i>	‘very small child’
NCV: Veraa	<i>m^wer-m^werε</i>	‘child’
NCV: Vurës	<i>m^wir-m^wiar</i>	‘child’
NCV: Mwesen	<i>m^wer-m^wer</i>	‘child’
NCV: Dorig	<i>m^wer-m^wer</i>	‘child’
NCV: Nokuku	<i>m^wer-m^wera</i>	‘child; give birth’

PNPn **tama-mea-mea* ‘newborn child’

Pn: Samoan	<i>(tama)mea-mea</i>	‘newly born baby (from birth to 2 months)’
Pn: Luangiua	<i>(kama)-mea</i>	‘small’
Pn: Pileni	<i>me-mea</i>	‘child, baby’

¹¹ PPn **tama* ‘child’ is derived from POc **tama-* ‘father’, enshrining a development whereby **tama* came to denote the reciprocal relationship between father and child. Note Gela *tama* ‘prefix of reciprocal relation’, e.g. *tama-dale* ‘father and children’, *tama-kukua* ‘a man and his grandparents’, *tama-vavineni* ‘sister and brother’; Bauan *vei-tama-ni* (v) ‘be related as father and child’, (N) ‘father and child’.

Pn:	Takuu	(<i>tama</i>) <i>meamea</i>	‘baby’
Pn:	Rennellese	(<i>tama</i>) <i>mea-mea</i>	‘new born child’
Pn:	Tikopia	<i>me-mēa</i>	‘babe, infant’
Pn:	Māori	(<i>tama</i>) <i>mea-mea</i>	‘son by a slave wife’

cf. also:

PT:	Misima	<i>melu-melu</i>	‘young, infant; youngest child’
		<i>me-melóna</i>	‘infant; newborn’

POc **k^wawaq* seems also to have meant ‘baby, small child’. Initial **k^wa-* is reconstructed to account for Dawawa and Misima *wa-*. In several languages the **-a-* of the first syllable is reflected as a rounded vowel. This can be attributed either to **k^wa-* or to the **-w-* that follows it.

POc **k^wawaq* ‘baby, small child’ (Lynch 2004b: Proto Southern Melanesian **kawaq*).

PT:	Dawawa	<i>wawai</i>	‘infant’
PT:	Misima	<i>wawaya</i>	‘baby, child’
MM:	Tinputz	<i>koa?</i>	‘child (before puberty), offspring’
MM:	Teop	<i>kua</i>	‘child’

PSV **kova(q)* ‘baby, small child’ (Lynch 2004b)

SV:	Lenakel	<i>kova</i>	‘baby, small child’
SV:	Kwamera	<i>kova</i>	‘baby, small child’
NCal:	Pije	<i>hawak, hyaok</i>	‘child’
NCal:	Fwâi	<i>haok</i>	‘child’
NCal:	Nemi	<i>hyaok</i>	‘child’

Proto Central Micronesian **ka(w)o* ‘newly born, infant’ (Bender et al. 2003)

Mic:	Kiribati	<i>te-kao</i>	‘umbilical cord’.
Mic:	Marshallese	<i>kaw</i>	‘foetus, embryo, still-born baby’;
Mic:	Chuukese	<i>kō-kō</i>	‘baby (up to three months)’
		(<i>ni</i>) <i>kkō</i>	‘baby girl’
		(<i>wu</i>) <i>kkō</i>	‘baby boy’
Mic:	Puluwatese	(<i>li</i>) <i>kkō</i>	‘baby girl’
		(<i>wu</i>) <i>kkō</i>	‘baby boy’
Mic:	Carolinian	<i>xōxō</i>	‘baby, infant’
Fij:	Wayan	<i>-kawa</i>	‘that which is reproduced by a plant or animal: seed, progeny, offspring, descendants, stock’

2.4.2.2 Child

No term is reconstructable for ‘child’, i.e., a person up to the onset of puberty, although many languages have one-word terms. However, a theme that runs through certain Oceanic subgroups is that the term for ‘child’ consists of what is or once was a term for ‘person’ modified by a term for ‘little’ or it consists just of the term for ‘little’ alone. Forms for ‘little’ were reconstructed in vol.2:193–195:

- POc **liki* ‘small’, perhaps only in compounds
- POc **qitik*, **qitek* ‘small’

- POc **kiki* ‘small’
- POc **rikit*
- PWOC **siki* ‘small’

POc **liki* ‘small’ occurs perhaps only in compounds, and is present in the items listed below. The Madak, Sursurunga and Bilur forms apparently reflect PWOC **k^wa[i]* (§2.2.5) as their first element, whilst the first element in Patpatar and Proto Polynesian reflects POc **tama-* ‘father’, where the child is construed as the small member in the father–child relationship.

POc **-liki* ‘small’ (vol.2:194)

MM:	Nakanai	<i>e-gu-li-liki</i>	‘child (not offspring)’
		<i>e-gu-liki-liki</i>	‘children’
MM:	Nalik	<i>nafna-lik</i>	‘child’
MM:	Madak	<i>kā-lik</i>	‘children’
MM:	Sursurunga	<i>ka-lik</i>	‘child, baby, person (used of males of any age, but only of female children)’
		<i>ka-lilik</i>	‘children, guys (colloquial)’
MM:	Patpatar	<i>tama-lik</i>	‘baby boy (the small member of the father–child pairing)’

There is good evidence that Proto Polynesian distinguished between singular **tama-qiti* ‘child’ (< POc **qitik*) and plural **tama-riki* ‘children’ (< POc **rikit*).

POc **qitik* ‘small’ (vol.2:193–194)

PPn **tama-qiti* ‘child’ (**qiti* ‘small’) (POLLEX)

Pn:	Tongan	<i>tama-siʔi</i>	‘child’ (metathesis: PPn <i>*-qiti</i> > Pre-Tongan <i>*-ʔisi</i> > <i>-siʔi</i>)
Pn:	Samoa	<i>tama-iti</i>	‘children’
		<i>tama-iti-iti</i>	‘small child’
Pn:	Tokelauan	<i>tama-iti</i>	‘child; offspring; childhood, youth; immature, young’
Pn:	Anutan	<i>tama-ti</i>	‘child’
Pn:	Emae	<i>tama-ti-iti</i>	‘child’
Pn:	Rennellese	<i>tama-ʔitiʔiti.</i>	‘child, infant, baby’
Pn:	Tahitian	<i>tama-iti</i>	‘a son’
Pn:	Pukapukan	<i>tama-iti</i>	‘child’
Pn:	Tongarevan	<i>tama-iti</i>	‘male child, son; upper ridgepole’
Pn:	Hawaiian	<i>kama-iki</i>	‘child’
Pn:	Rarotongan	<i>tama-iti</i>	‘boy, child’
Pn:	Māori	<i>tama-iti</i>	‘child’

cf. also:

MM:	Nehan	<i>keke-tiki</i>	‘child’

The Nehan item immediately above appears to reflect **tiki*, which may in turn reflect a metathesis of **qitik*.

POc **rikit* ‘small’ (vol.2:194)

MM:	Bilur	<i>ka-lkit</i>	‘child’ (-l- for †-r-)
MM:	Tangga	<i>keka-ik</i>	‘child’

PPn **tama-riki* ‘children’ (POLLEX)

Pn:	Tongan	<i>tama-iki</i>	‘children’
Pn:	E Uvean	<i>tama-liki</i>	‘children’
Pn:	Tuvalu	<i>tama-liki</i>	‘child, children’
Pn:	Nuguria	<i>tama-liki-liki</i>	‘child’
Pn:	Luangiua	<i>kama-liʔi</i>	‘child’
Pn:	Sikaiana	<i>tama-liki-liki</i>	‘child’
Pn:	Takuu	<i>tama-riki</i>	‘pre-adolescent child’
Pn:	Tikopia	<i>tama-riki</i>	‘child, children’
Pn:	Rennellese	<i>tama-giki</i>	‘children’
Pn:	Hawaiian	<i>kama-liʔi</i>	‘children’
Pn:	Tahitian	<i>tama-riʔi</i>	‘children’
Pn:	Rarorongan	<i>tama-riki</i>	‘children’
Pn:	Maori	<i>tama-riki</i>	‘children’

Finally, the items below simply reflect one of the terms for ‘small’.

PT:	Tawala	<i>kiki-</i>	‘little, young rather than short of height’
MM:	Notsi	<i>ci</i>	‘child’ (< PWOc <i>*siki</i>)
MM:	Lihir	<i>cik</i>	‘child’ (< PWOc <i>*siki</i>)

2.4.3 Young (unmarried) person

Although Table 14 shows category (1c) ‘adolescent, not yet marriageable’, there is no evidence that POc speakers treated this as a category separate from ‘young unmarried person’. The lower bound of this category was puberty, the upper bound marriage. Note that in Wayan Fijian, for example, the term for (1c) is compound, *dridria saravou* i.e. ‘young person’ + ‘marriageable young man’, i.e. (1c) represents an overlap between ‘young person’ and ‘marriageable young man’, post-puberty but not quite old enough for marriage.

The most widely reflected expression for a young (unmarried) person consists of a word for ‘person’ (perhaps POc **tau*; §2.2.1.1), sometimes omitted, and a reflex of POc **paqoRu* ‘new, young, recent’). The ‘young, unmarried’ sense was already present in PAn **baqeRuh* (ACD).

PAn **baqeRuh* ‘new; bachelor’ (ACD)

POc **paqoRu* ‘new, young, recent’ (vol.2:203)

POc **tau paqoRu* ‘young person of marriageable age’ (Pawley 1982a:270)

PT:	Motu	<i>tau hau</i>	‘youth, young man’ (for † <i>tau haru</i>)
Pn:	Tongan	<i>tāupoʔou</i>	‘virgin, maiden, an esp. attractive young woman’
Pn:	Samoa	<i>tāu pōu</i>	‘title of village maiden’
Pn:	E Futunan	<i>taupoʔou</i>	‘virgin’
Pn:	Rennellese	<i>taupoʔou</i>	‘unmarried person’

cf. also

NNG:	Medebur	<i>kaidik-waun</i>	‘young man’ (<i>kaidik</i> ‘man’, <i>waun</i> ‘new, young’)
NNG:	Mutu	<i>ɲēr pāyu</i>	‘young adult’ (<i>ɲēr</i> ‘person’, <i>pāyu</i> ‘new’)
NNG:	Atui	<i>ul-po</i>	‘young man’ (<i>po</i> ‘new’)
PT:	Gumawana	<i>tubu-wau</i>	‘young man, normally 15–30 years of age’ (<i>tubu</i> ‘grandchild, grandparent’, <i>vau</i> ‘new’)
PT:	Misima	<i>he-val</i>	‘young man’ (<i>valu-</i> ‘new’)
PT:	Sinaugoro	<i>fou variyu</i>	‘teenage virgin’ (<i>variyu</i> ‘new’)
MM:	Torau	<i>podo-auru</i>	‘young man’ (<i>podo</i> ‘be born’, <i>auru</i> ‘new’)
MM:	Mono-Alu	<i>poro-haulu</i>	‘young man’ (<i>poro</i> ‘be born’, <i>haulu</i> ‘new’)
SES:	Bugotu	<i>(lu)vaolu</i>	‘youth’
SES:	Gela	<i>vaolu</i>	‘new; young, fresh, in one’s prime’
SES:	’Are’are	<i>(māne) haoru</i>	‘a young unmarried man; a newcomer’ (<i>māne</i> ‘male’, <i>haoru</i> ‘new’)
		<i>(keni) haoru</i>	‘a marriageable girl’ (<i>keni</i> ‘female’, <i>haoru</i> ‘new’)
SES:	Ulawa	<i>(keni) haʔolu</i>	‘maiden’ (<i>keni</i> ‘female’)
NCV:	Lewo	<i>varu viu lala</i>	‘the young guys’ (<i>varu</i> ‘people’, <i>viu</i> ‘new’, <i>lala</i> PLURAL)
Fij:	Bauan	<i>ḍaura-vou</i>	‘youth, young man of marriageable age’ (<i>vou</i> new’)
Fij:	Wayan	<i>sara-vou</i>	‘young man of marriageable age’ (<i>vou</i> new’)

A second term for an unmarried young person, apparently a young woman, is POc **m^wala*. The gloss is based on the agreement of the North New Guinea and North–Central Vanuatu glosses below. PNCV **m^wala-gelo* also has a modifier of unknown meaning as its second element, and Clark (2009) concludes that **m^wala-gelo* probably denoted a young male. The glosses of his supporting data (below) would equally well support the gloss ‘young adult’, however.

POc **m^wala* ‘unmarried young woman’

NNG:	Sio	<i>mɔla</i>	‘widow; any unmarried woman’
NNG:	Poeng	<i>mala(ui)</i>	‘young woman’

Proto Torres–Banks **m^wala-m^wala* ‘girl, young woman’

NCV:	Lo Toga	<i>ɲ^wələ-ɲ^welə</i>	‘girl, young woman’
NCV:	Lehali	<i>ɲ^wəl-ɲ^wal</i>	‘girl, young woman’
NCV:	Volow	<i>m^wal-m^wal</i>	‘girl, young woman’
NCV:	Mwotlap	<i>m^wal-m^wal</i>	‘girl, young woman’
NCV:	Vurës	<i>m^wal-m^wal</i>	‘girl, young woman’
NCV:	Mwesen	<i>m^wal-m^wal</i>	‘girl, young woman’
NCV:	Mota	<i>m^wala-ma^wla</i>	‘girl, young woman’
NCV:	Dorig	<i>m^wal-m^wal</i>	‘girl, young woman’
NCV:	Mwerlav	<i>ɲ^wal-ɲ^wal</i>	‘girl, young woman’

PNCV **m^wala-gelo* ‘young person, probably young unmarried man’ (Clark 2009)

NCV: NE Ambae	<i>m^walakelo</i>	‘young unmarried person, esp. male’
NCV: Raga	<i>m^walagelo</i>	‘young unmarried person from puberty to marriage’
NCV: Apma	<i>m^walgel</i>	‘young unmarried person from puberty to marriage’
NCV: Uripiv	<i>m^welakel</i>	‘young person’
NCV: Nese	<i>tavat malakel</i>	‘girl’ (<i>tavat</i> ‘female’)
NCV: Lonwolwol	<i>malgel</i>	‘unmarried man’
NCV: Paamese	<i>meakoi</i>	‘unmarried man’
NCV: Bieria	<i>melekelu</i>	‘unmarried man’

2.4.4 Fully grown adult

As mentioned in §2.4.1 the POc term denoting a full-grown adult was probably **tam^wata* ‘person’ (§2.2.2.1).

Wayan Fijian, at least, distinguishes life-stage terms from marriage-related terms (Andrew Pawley, pers. comm.). It is uncertain whether this is true of many Oceanic languages, but the weight of the evidence points in that direction, as languages tend not to have a lifestage (as opposed to kin) term denoting ‘married man’ or ‘married woman’. As most adult men and women in Oceanic communities are married, they are referred to by the unmarked terms for ‘man’ or ‘woman’. These are typically reflexes of **m^waqane*/**qatam^waqane* (§2.3.1) and **papine*/**qatapine* (§2.3.2).

2.4.5 Mature person

Most Oceanic languages seem to distinguish at least two stages of mature adulthood, one for people of perhaps 30–50, i.e. vigorous adults with unmarried children, and another for people older than perhaps 50 or 60 and no longer so vigorous.¹² Vigour is probably more important than age here. In Wayan Fijian a still active 60-year-old is *uabula*, i.e. ‘mature’ rather than ‘old’. A difficulty in the data is that ‘old’ tends to be used indiscriminately in definitions of both categories. Sometimes one category is labelled ‘old’, the other ‘very old’. Sometimes ‘mature’ is used, and this is taken to be an indicator of the younger category.

The most widespread cognate set for a ‘mature person’ reflects POc **matuqa* ‘mature, full-grown, ripe, old (person)’. Only reflexes that denote a person are listed here. POc **matuqa* was evidently originally a stative verb, and in some languages it occurs as modifier of (the reflex of) a term meaning ‘person’. In the Huon Gulf languages of Western Oceanic, it has become the usual term for ‘man’.

¹² Since Oceanic traditional societies did not count birthdays, these figures are of necessity very approximate. Furthermore, modern increases in life expectancy have almost certainly changed the age ranges which these terms denote.

PAn **CuqaS* ‘mature, elder’ (ACD)

PMP **ma-tuqah* ‘old (person)’

POc **matuqa* ‘mature, full-grown, ripe, old (person)’ (vol.2:204)

Proto Huon Gulf **matuy* ‘man’

NNG: Adzera	<i>marub</i>	‘man’
NNG: Sukurum	<i>marub</i>	‘man’
NNG: Middle Watut	<i>(ŋa)maro?</i>	‘man’
NNG: Unank	<i>(ŋa)maru?</i>	‘man’

Proto Hote-Buang *maluy* ‘man’

NNG: Hote (Misim)	<i>(ya)malu</i>	‘husband’
NNG: Mapos Buang	<i>maluh</i>	‘man’
NNG: Vehes	<i>mooy</i>	‘man’
NNG: Mangga Buang	<i>moow</i>	‘man’
NNG: Mumeng (Patep)	<i>vuy</i>	‘man’
NNG: Kapin	<i>muy</i>	‘man’
SES: Bauro	<i>(yai)maua</i>	‘old woman’
NCV: Hiw	<i>(ta)māso</i>	‘old person’ (<i>ta-</i> < * <i>qata</i> ‘person’, §2.2.3)
NCV: Lo Toga	<i>(te)māto</i>	‘old person’ (<i>te-</i> < * <i>qata</i> ‘person’, §2.2.3)
NCV: Mota	<i>(ta)matua</i>	‘old person’ (<i>ta-</i> < * <i>qata</i> ‘person’, §2.2.3; <i>matua</i> ‘full-grown, ripe’)
NCV: Raga	<i>(b^wat)metua</i>	‘old man’ (<i>b^watu</i> ‘head, base, beginning’, <i>metue</i> ‘mature, ready to gather, of fruits, nuts, yams, etc.)
NCV: Paamese	<i>matū</i>	‘(s. o.) old’
NCV: Lewo	<i>(yer)marua</i>	‘old person; respectful term for talking about someone’s including one’s own husband’ (<i>yaru</i> ‘man, person’, <i>marua</i> ‘old, mature’)
Fij: Rotuman	<i>mafua</i>	(ADJ, VI) ‘fullgrown, adult; old as opposed to young’
Fij: Wayan	<i>mātua</i>	‘mature, full-grown, adult, ripe’
Pn: Tongan	<i>motuʔa</i>	‘old, of people; mature, fully developed; parent’
Pn: Niuean	<i>motua</i>	(v) ‘be mature, adult’, (N) ‘old age’
Pn: Samoan	<i>matua</i>	‘be adult, grown up; be old (person); parent’
	<i>ʔolo-matua</i>	‘old woman’ (also <i>loʔo-matua</i>)
Pn: E Futunan	<i>matuʔa</i>	‘old, of people’
Pn: Tikopia	<i>(faka)mātua</i>	‘mature, grow old; old person; ancestors’

2.4.6 Old person

For ‘old person’ POc **m^warap* (v) ‘grow old’, (N) ‘old person’ and **tob^wan* ‘old person’ are tentatively reconstructed.

On evidence from Papuan Tip languages POc **m^warap* was originally a verb. It retains a verbal use in Gapapaiwa. In Muyuw, Kilivila and Budibud it is prefixed with a classifier, *ta-* / *to-* for human males (< POc **tau-* ‘person who...’, §2.2.1.2) or *na-* for human females (Lawton 1993:184–185). Prefixal classifiers are generally affixed to modifiers in noun phrases in this group of languages, indicating that the root is a verb ‘be(come) old’.

Final **-p* of **m^warap* is regularly reflected in Gapapaiwa and is perhaps also responsible for the rounding of the final vowel in SE Solomonic languages.

The NCV items are listed under ‘cf. also’ because it is uncertain whether they are cognate. François (2013) takes them to reflect **marayai* ‘to tremble’ with prefixed **ta-* (< **qata* ‘person’). If his etymology is correct, then the resemblance of the PNCV reconstruction to the POc reconstruction must be attributed to chance.

POc **m^warap* (v) ‘grow old’; (N) ‘old person’

PT:	Gapapaiwa	<i>morapa</i>	(v) ‘grow old’; (N) ‘old person’
PT:	Muyuw	<i>(ta)mwey</i>	‘old man’
		<i>(na)mwey</i>	‘old woman’
PT:	Kilivila	<i>(to)mwaya</i>	‘old man’
		<i>(nu)mwaya</i>	‘old woman’
PT:	Budibud	<i>(to)mol</i>	‘old man’
		<i>(na)mol</i>	‘old woman’
PT:	Gumawana	<i>(to)moya</i>	‘old man’ (loan from Kilivila)
		<i>(na)moya</i>	‘old woman’ (loan from Kilivila)
SES:	Longgu	<i>mwaro</i>	‘old woman’
SES:	Lau	<i>waro</i>	‘(person) old’
SES:	Baelelea	<i>ɲ^waro</i>	‘(person) old’
SES:	Kwara’ae	<i>ɲ^waor</i>	‘(person) old’
SES:	Langalanga	<i>waro</i>	‘(person) old’
SES:	Fagani	<i>m^ware(faya)</i>	‘(person) old’
SES:	Kahua	<i>mara(haya)</i>	‘old man’

cf. also:

PNCV **ta-marayai* ‘old man’ (lit. ‘quivering person’) (François 2013)

NCV:	Lehali	<i>tamajyæ</i>	‘old man’
NCV:	Mota	<i>tamarayai</i>	‘an old man who shakes’ (<i>marayai</i> ‘to tremble’)
NCV:	Mwotlap	<i>tamayɛ</i>	‘old man’
NCV:	Lakon	<i>tamāyæ</i>	‘old man’
NCV:	NE Ambae	<i>tamarayai</i>	‘old man’
Mic:	Marshallese	<i>m^wor</i>	‘old (of things)’

POc **tob^wan* ‘old woman (?), old person’ was probably a noun, and its first syllable probably reflects POc **tau-* ‘person who... (§2.2.1.2).

POc **tob^wan* ‘old woman (?), old person’

NNG:	Apalik	<i>tuwun</i>	‘old woman’
MM:	Ramoaina	<i>tabuan</i>	‘woman’
MM:	Halia	<i>tobuana</i>	‘old woman’
SES:	W Guadalcanal	<i>(tu)tuga</i>	‘(person) old’
SES:	Talise	<i>(tuga)tuga</i>	‘(person) old’
SES:	Birao	<i>(tuga)tuga</i>	‘(person) old’
SES:	Lengo	<i>(tuga)tuga</i>	‘(person) old’

Mic: Woleaian *tuxo(faiy)* ‘be old (of a person)’

2.5 People by absence of relationship

Kinship relationships will be discussed in vol.6. The terms below denote a person who lacks a particular relationship. English has such terms: ‘orphan’, ‘widow[er]’, ‘spinster’, ‘bachelor’. Oceanic languages have terms with these meanings and more. For example, in Mutu (NNG) we find *kakam* ‘woman whose child has died’, *māⁿduat* ‘man whose child has died’, *kulīj* ‘man whose sibling has died’ and *silūn* ‘woman whose sibling has died’.

2.5.1 Orphan

Despite the glosses of the data below, we take POc **mad(r)awa* to be a stative (adjectival) verb, as suggested by the prefix **ma-* (§1.3.5.4). The 3SG agreement marker of Arop-Lukep *madu(nu)* also suggests that it is an adjective rather than a noun.

POc **mad(r)awa* ‘orphaned, separate’

NNG: Dami	<i>mād</i>	‘orphan’
NNG: Arop-Lukep	<i>madu(nu)</i>	‘child with at least one parent dead’
NNG: Mangap	<i>mōⁿdo</i>	‘orphan’
	<i>mon-mōⁿdo</i>	‘orphans’
NNG: Sio	<i>muⁿdo(ro)</i>	‘orphan; illegitimate child; guardian’
NNG: Numbami	<i>maⁿdawa</i>	‘orphan’

PNCV **madua* ‘orphan; separate’ (Lynch 2004b, Clark 2009)

NCV: Mota	<i>manua</i>	‘orphan’
NCV: Mwotlap	<i>na-mⁿdō</i>	‘orphan’
NCV: Paamese	<i>(ti)marue</i>	‘orphan’
NCV: Nguna	<i>madua-ki</i>	‘apart from’

2.5.2 Unmarried person

POc **jamu* ‘person without spouse’ evidently denoted spinsters, bachelors, widows and widowers. Regular reflexes are confined to SES and one MM language. Manam *amuna* appears to be a cognate, but is missing a reflex of initial **j-*.

POc **jamu* ‘person without spouse’

MM: Nakanai	<i>samu(rā)</i>	‘an unmarried person of either sex, regardless of previous state’
SES: Gela	<i>samu</i>	‘widow or widower; unmarried girl or boy’
	<i>samu(rāu)</i>	‘elderly but unmarried’
SES: Lenggō	<i>samu</i>	‘widow’
SES: Ghari	<i>camu</i>	‘unmarried (male or female)’
SES: Tolo	<i>camu</i>	‘unmarried (male or female)’
SES: ’Are’are	<i>samu</i>	‘unmarried person’

SES: Longgu	<i>samu</i>	‘widow or widower, person whose spouse has died’
cf. also		
NNG: Manam	<i>amu(na)</i>	‘young unmarried man’

2.5.3 Widow, widower

Blust (ACD) reconstructs two distinct but similar forms for POc, labelling them both ‘widow(er)’. Either they were alternant forms of the same lexeme, or they contrasted with regard to the sex of the denotatum. The one piece of evidence that helps us out here is the contrast between Sori *ñaw* ‘widow’ and *ñah* ‘widower’. If this contrast is a retention, then we can gloss the reconstructions accordingly. However, Blust is rightly cautious, as pairs that distinguish gender by a change in the wordform are otherwise unheard of in Oceanic languages.

POc **ñao* ‘widow (?)’ (ACD)

Adm: Nyindrou	<i>ñaw</i>	‘widow, widower’
Adm: Sori	<i>ñaw</i>	‘widow’
Adm: Bipi	<i>ñaw, ña-ñaw</i>	‘widow, widower’
Adm: Khehek	<i>nap</i>	‘widow, widower’
Adm: Likum	<i>ña-ñaw</i>	‘widow, widower’
Adm: Nali	<i>nao</i>	‘widow, widower’
Adm: Pak	<i>pi-ñaw</i>	‘widow’
Adm: Loniu	<i>hi-ñaw</i>	‘widow’
Adm: Ere	<i>nao</i>	‘widow, widower’
Adm: Leipon	<i>hi-ñaw</i>	‘widow’
	<i>po-ñaw</i>	‘widower’
Adm: Titan	<i>pi-ñaw</i>	‘widow’
Adm: Penchal	<i>pai-ñaw</i>	‘widow’
	<i>po-ñaw</i>	‘widower’
Adm: Nauna	<i>ñaw</i>	‘widow, widower’
SES: Kwaio	<i>nao</i>	‘widow, widower (also unwed mother); more generally, as a category, includes divorced persons and also unmarried person who is publicly known to have had a sexual affair’
SES: Sa’a	<i>naʔo</i>	‘widow, widower’
SES: ’Are’are	<i>nao</i>	‘widower’
	<i>keni nao</i>	‘widow’
SES: Arosi	<i>nao</i>	‘widow(er) fasting after spouse’s death’
	<i>nao-na</i>	(v) ‘fast after spouse’s death’

POc **ñaro* ‘widower (?)’ (ACD: **ñaRo*)

Adm: Sori	<i>ñah</i>	‘widower’
NNG: Mbula	<i>nora</i>	‘widow’ (metathesis)
NCV: Mota	<i>naro</i>	‘widow, widower’

NCV: Mwotlap *na-nay* ‘widow, widower’

Also reconstructable is PWOC **k^wabu(r, R)* ‘widow or widower’. One wonders how it differed in meaning from the term above. Fox (1978) gives us a possible clue. After the death of one’s spouse, in Arosi one is *nao*. Only after a lengthy fast from certain foods does one become eligible for remarriage and acquire a new status, Arosi *oʔoura* (which does not reflect **k^wabu(r, R)*, however).

PWOC **k^wabu(r, R)* ‘widow or widower’

NNG:	Dami	<i>wāb</i>	‘widow’
NNG:	Takia	<i>buab</i>	‘unmarried (male or female, never married or widowed)’ (initial <i>b</i> - unexplained)
PT:	Kiriwina	<i>k^wabuya</i>	‘widow’
PT:	Gumawana	<i>kobuya</i>	‘widow; be a widow’
		<i>kobui-na</i>	‘widow of ...’
PT:	Gapapaiwa	<i>k^wapura</i>	‘widow’
PT:	Dobu	<i>k^wabura</i>	‘widow’ (- <i>r</i> - for †- <i>l</i> -)
PT:	Motu	<i>vabu</i>	‘widow or widower, esp. during time of mourning’
PT:	Sinaugoro	<i>vabu</i>	‘widow; become a widow’
MM:	Vitu	<i>yabu</i>	‘widow or widower’

2.6 Twins

Three POc terms for ‘twins’ are reconstructed. The first is POc **b^wege* or **boge*. The form is ambiguous, as it takes only a simple sound change to get from one to the other. A second term was based on the POc root **saŋa* ‘be branching or forked; branch (of tree, river, path), fork, crotch’ (vol.3:96). It occurs in two variants: (a) a reduplicated form, probably **saŋa-saŋa*, and a stative verb form derived with **ka-/*ma-* (variants of the same prefix: see §1.3.5.4). These terms can be used to identify various objects that carry the meaning ‘two parts of one whole’. Thus they may refer to a double nut or double banana as well as twins. Also reconstructed is POc **apic* ‘twins of the same sex’.

POc **b^wege* OR **boge* ‘twins’

NNG:	Lukep (Pono)	<i>boko-boko</i>	‘twin’
NNG:	Mangap	<i>bōgo</i>	‘divided, twins’
NNG:	Numbami	<i>boboka</i>	‘twins’
MM:	Bola	<i>boge</i>	‘twins’
MM:	Nakanai	<i>(vi)boge</i>	‘(a) twin’ (<i>vi</i> - RECIP)

PMic **p^wexe, p^we-p^wexe* ‘twins’ (Bender et al. 2003)

Mic:	Kiribati	<i>p^wep^wē</i>	‘twins’
Mic:	Mortlockese	<i>(li)p^wp^we</i>	‘twins’
Mic:	Carolinian	<i>(li)p^wp^wey</i>	‘twins of the same sex’
Mic:	Woleaian	<i>(ri)p^weye</i>	‘twins’

PMP *saŋa* ‘bifurcation, to branch’ (ACD)

POc **saŋa-saŋa* ‘twins’, **ka-/ma-saŋa* ‘to be branching or forked; branch (of tree, river, path), fork, crotch’ (vol.3:96)

Adm:	Seimat	<i>saŋa-saŋa</i>	‘twins’
NNG:	Sio	<i>sɔ-sɔŋa</i>	‘twin’
MM:	Madak	<i>xi-saŋ</i>	‘twins’
MM:	Patpatar	<i>ka-saŋ</i>	‘twin’
MM:	Ramoaaina	<i>ka-aŋa</i>	‘twins’

PPn **mā-saŋa* ‘set of twins’ (POLLEX)

Pn:	Tongan	<i>māhaŋa</i>	‘twins’
Pn:	Niuean	<i>mahaŋa</i>	‘twins’
Pn:	E Futunan	<i>māsaŋa</i>	‘twin boy and girl’
Pn:	Rennellese	<i>māsaŋa</i>	‘twins’
Pn:	Samoan	<i>masaŋa</i>	‘twin’
Pn:	Tikopia	<i>māsaŋa</i>	‘twin, twins’
Pn:	Maori	<i>māhaŋa</i>	‘twin’
Pn:	Hawaiian	<i>mahana</i>	‘twin’

Finally, Blust (ACD) reconstructs POc **apic* ‘twins of the same sex’. Only one Oceanic reflex is known. This is perhaps because the sense is so specialised that other cognates have not been collected.

PAn **Sabij* ‘twins of the same sex’ (ACD)

POc **apic* ‘twins of the same sex’ (ACD)

MM:	Roviana	<i>avisi</i>	‘twins of the same sex’

3 *The human body*

MEREDITH OSMOND AND MALCOLM ROSS

3.1 Introduction

Body part terms such as those for head, eye, nose, arm, leg, and breast, are among the most stable of all lexemes.¹ For this reason they are included by linguists in the ‘basic vocabulary’ used, for example, to measure relationships among languages lexicostatistically.

In Oceanic languages, as in languages worldwide, body part terms are used metaphorically, for instance in landscape features, where nose sometimes means cape, mouth means hole or entrance, and belly means central part. It is probably also universal that body part terms are used to refer to location in space, to top, middle, bottom, front, back, left and right. In Oceanic languages internal organs, particularly the liver, are used in expressions of emotion and other mental states where, for instance, ‘to be startled’ is expressed as ‘one’s liver leaps’ or similar.

Glossing reconstructions has sometimes been tricky. There are two interacting reasons for this. One is that some POc terms appear—on the basis of their reflexes—to have had a different denotation from English terms for a similar area of the body. For example, POc **qase-* evidently denoted both the lower jaw (the hinged bone and its covering of skin) and the chin (the external shape of the lowest and frontmost part of the lower jaw) (§3.4.13). Interacting with this is the fact that the English glosses of Oceanic terms are often imprecise, or give a false appearance of precision as when a reflex of **qase-* is glossed ‘chin’. This is especially true of words found in wordlists, but it is also true of several of the dictionaries used. Sometimes it is solely the English glosses that are at fault. This is the case with the four POc terms for the region of the neck, the throat and the voice, where glosses remain a little vague because of imprecision in the English glosses in the cognate sets (§3.4.14).

Contents are organised into the body (§3.2), materials that occur throughout the body (blood, flesh etc) (§3.3), then the parts of the body: the head (§3.4), the trunk (§3.5), the limbs (§3.6), the internal organs (§3.7), substances eliminated by the body (§3.8) and two incorporeal parts, shadow/reflection and name (§3.9), which are treated grammatically in many Oceanic languages as if they were body parts (they are directly possessed).

3.1.1 Direct possession

Most Oceanic languages outside Polynesia make a grammatical distinction between directly and indirectly possessed nouns, and this distinction is reconstructable for Proto Oceanic

¹ We are grateful to Paul Geraghty who has commented on an earlier version of this chapter and made a number of additions to the data.

(Lichtenberk 1985). As discussed briefly in vol.1:32, a directly possessed (= monovalent) noun takes a suffix indicating its possessor (e.g. POc **qaqe-* ‘leg’: **qaqe-gu* ‘my leg’, **qaqe-mu* ‘your (singular) leg’, **qaqe-ña* ‘his/her leg’ etc), whereas an indirectly possessed (zero-valency) noun requires no suffix. Directly possessed nouns are said to be inalienably possessed, that is, they are items that usually do not exist without a possessor. They include body parts of human beings and animals (‘hand’, ‘nose’, ‘tail’, ‘wing/fin’ etc), parts of plants (‘fruit’, ‘bark’, ‘branch’ etc), relational local nouns (§3.1.2), and kin terms (‘father’, ‘same-sex sibling’ etc).² However, the converse is not true: not all kin and body part terms are directly possessed. In many Oceanic languages, a monovalent noun **must** have a possessor suffix or, if the possessor is nonspecific, be linked in some way to that possessor. This linkage may reflect the POc linker **qi* (e.g. POc **pasu qi mata-* ‘ridge of eye’ = ‘eyebrow ridge’; §3.4.9.3), but in many languages the linker is lost and a compound occurs (e.g. Nguna *vasu-mata* ‘eyebrow’). In other languages **qi* has been replaced by a reflex of **ni*, which occurred with a zero-valency possessor noun. It is not clear whether the possessor suffix or the linker was obligatory in Proto Oceanic (Ross 1998a reconstructs the construction with **qi*).

Directly possessed nouns are here marked with a following hyphen, e.g. **qaqe-* ‘leg’, in order to indicate that a possessor suffix was/is usually present.

3.1.2 Relational local nouns

Above it was mentioned that across languages body part terms are often used to refer to spatial locations. Some body part terms have undergone varying degrees of grammaticisation in Oceanic languages, a process that had started in Proto Oceanic. Certain terms were used not only to denote a body part but also as local nouns that denoted a spatial relationship to a person or object. Local nouns were a grammatical category in Proto Oceanic (and remain so in many Oceanic languages). They were introduced by the POc preposition **i*. For example, **Rumaq* ‘house’ also functioned as a local noun, and **i Rumaq* meant ‘at home’ (on the grammar of local nouns see vol.2:224–229).

Relational local nouns were directly possessed and their possessor was the person or object in relation to which a location was being established. Thus POc **mata-* ‘eye, face’ also served as a relational local noun meaning ‘front’, so that **i mata-gu* (**-gu* ‘my’) meant ‘in front of me’ and **i mata-ña Rumaq* meant ‘in front of the house’ (**-ña* ‘his/her/its’). The grammar of relational local nouns is discussed in more detail in vol.2:235–236. Lexical items that served as relational local nouns, many but not all of which also denoted body parts, are reconstructed in vol.2:237–257.

Body part nouns which almost certainly also functioned as relational local nouns were POc **qulu-* ‘head, head hair’, (N LOC) ‘top part’ (§3.4.1), **nako-* ‘face’, (N (LOC)) ‘front’ (§3.4.7), **[p^wa]p^waRa-* ‘cheek, side of head’, (N LOC) ‘side’ (§3.4.8), **mata-* ‘eye, face’, (N LOC) ‘front’ (§3.4.9.1), **b^wal(o,a)-* ‘belly, hollow space’, (N LOC) ‘inside’ (§3.7.4).

Occasionally the reverse process seems to have taken place, so that a relational local noun has extended its meaning to denote a body part. Thus a reflex of POc **sirij* ‘side’ (vol.2:246) also denotes ‘rib cage’ in Dami (NNG) (§3.5.6). POc **qaro-* seems primarily to have been a relational local noun meaning ‘front’ (vol.2:247) but some of its reflexes now also denote the face of a person (§3.4.7). Similarly POc **muri[-]* ‘back part, rear, behind, space to the rear of,

² Terms for parts of animals are reconstructed in volume 4 (ch.2, §66; ch.5, §7; ch.6, §2); terms for parts of plants in chapter 5 of volume 3; and relational local nouns in volume 2 (ch.8, §2.3).

time after; (canoe) stern; space outside’ (vol.2:251) was clearly a relational local noun, some reflexes of which now denote a person’s back (§3.5.1). Whether **takuru-* ‘back’, (N LOC) ‘back’ (§3.5.1 and vol.2:253) was originally a local noun or denoted a body part is difficult to determine.

3.2 The body

Modern Oceanic languages typically have separate monomorphemic lexical items with the following semantic ranges:

- 1) the whole body, seen as the complete skin and its contents, and also used of the skin as a whole (§3.2.1);
- 2) the trunk or torso—the body without the head and with or without the legs; the main part of something, e.g. the hull of a canoe (§3.2.2);
- 3) a dead body, corpse (§2.2.2.2).

Meaning 1 also contrasts on a whole/part parameter with meaning 4:

- 4) the skin of a human being or animal, as well as the bark of a tree, the rind of a fruit or the peeled skin of a fruit or tuber, i.e. a surface covering that can be lifted off piecemeal (§3.3.5);

And on an exterior/interior parameter with meaning 5:

- 5) (in some languages) the interior of the body, the inner spiritual part of the person (§9.2.2).

Below are examples of terms for the five listed categories.

	(1) ‘exterior, body, skin’	(2) ‘trunk’	(3) ‘corpse’	(4) ‘skin, bark, rind’	(5) ‘interior, spiritual part’
Mutu (NNG)	<i>tini-</i>	<i>anoga-</i>	<i>pata-</i>	<i>uli-</i>	<i>lolo-</i>
Dobu (PT)	<i>oo-</i>	<i>tolob^wa-</i>	<i>kokowa-</i>	<i>b^wala-</i>	<i>nua-</i>
Nakanai (MM)	<i>vovo-</i>	<i>kabili-</i>	<i>vata-</i>	<i>kuli-kuli-</i>	<i>ilo-</i>
To’aba’ita (SES)	<i>seʔe--</i>	<i>ʔinafu-</i>	...	<i>ʔuja</i>	—
Mota (NCV)	<i>(tarapei)</i>	<i>turiai</i>	<i>tamate</i>	<i>vinitiu</i>	<i>lolo-, ape-</i>
Wayan (Fij)	<i>-taba-taba</i>	<i>-aŋo</i>	<i>aŋo ni mate</i>	<i>-taba</i>	<i>aloŋa</i>

Mota *tarapei* is parenthesised because it is not clear that its definition (‘body, shape, appearance’) is close to meaning 1. To’aba’ita has a gap under ‘corpse’, as Lichtenberk (2008) lists only terms for the corpse wrapped in a mat ready for burial. Wayan Fijian is slightly exceptional, in that it clearly retains the four semantic categories but apparently renders ‘corpse’ phrasally, and uses the same morpheme *-taba* in both ‘skin’ terms, distinguishing them by reduplication.

To’aba’ita has a gap under meaning 5, ‘interior, spiritual part’. Terms with this meaning are often reflexes of POc **lalo-* ‘inside; seat of thoughts and emotions’ or its short variant POc **lo-* ‘inside’ (vol.2:237–238, §9.2.2). To’aba’ita has a reflex of this term, namely *lalo-*, but it is limited to spatial uses. The reflex of **lalo-/lo-* with meaning 5 is used in a number of

languages in body-part expressions that label emotional and cognitive states, but in some languages it is replaced partly or entirely by other body-part terms, and this is true of To'aba'ita. Meaning 5 is further discussed in ch.9, where **lalo-* is reconstructed.

Terms for these categories presumably also occurred in POC, but POC terms for meanings 1 and 2 have proven somewhat elusive.

The story with regard to meanings 1, 2 and 5 appears to be one of reassignment of forms from one meaning to another, especially in PEOc, where (i) **popo-*, **tini-* and **pata-* no longer appeared in these meanings; (ii) **tubuq-a(ŋ)* reflexes shifted from meaning 2 to 'spirit being'; and (iii) **[q]abe-* took over meaning 2. Further discussion is provided in the relevant sections below.

3.2.1 The 'complete skin', metonymically the body

Two PWOC terms are reconstructable for meaning 1, the whole body, viewed as the complete skin, often with its contents. The glosses of their reflexes do not allow a semantic distinction between PWOC **popo-* and **tini-*. The latter is better distributed, but Eastern Oceanic cognates have been found for neither, and a POC term is not reconstructable.

Discussing what is clearly the same concept in Lelek, a dialect of Madak of New Ireland, Richard Eves (1998:26) writes,

As in some parts of Melanesia, where there is no generic term for the body as such, when the Lelek speak of the body they speak of the skin, *labantuxu*. ... This is not to say that there is no conceptualisation of the body but merely that the skin comes to stand for the body as a whole.

PWOC **popo-* 'the complete skin, often used metonymically of the whole body'

NNG:	Lukep	<i>bobo-</i>	'body'
PT:	Iduna	<i>wowo-</i>	'skin, body of person'
PT:	Molima	<i>wowo-</i>	'body'
PT:	Gumasi	<i>wowo-</i>	'a person's body'
PT:	Dobu	<i>oo-</i>	'body'
PT:	Kiriwina	<i>vovo-</i>	'body' (used as seat of physical feelings: 'body happy, tired, lazy, excited, feverish etc')
MM:	Nakanai	<i>vovo-</i>	'skin of the entire body, the body as a whole'

PWOC **tini-* 'the complete skin, often used metonymically of the whole body'

NNG:	Gedaged	<i>tini-</i>	'body, stem, trunk, torso, hull; substance, matter; that which is capable of feeling'
NNG:	Takia	<i>tini-</i>	'skin, body, outward part, surface, also indicates whole person'
NNG:	Bariai	<i>tini-</i>	'exterior, skin, body'
NNG:	Kove	<i>tini-</i>	'body'
PT:	Gapapaiwa	<i>inini-</i>	'body'
PT:	Tawala	<i>hini-</i>	'skin, body'
PT:	Kukuya	<i>inini-</i>	'skin, body'
PT:	Ubir	<i>(u)sin</i>	'body'
MM:	Teop	<i>suin-</i>	'body'

MM:	Kia	<i>tini-</i>	‘body’
MM:	Roviana	<i>tini-</i>	‘body, skin’
MM:	Babatana	<i>tinini-</i>	‘body’

The formal relationship, if any, between PWOC **tini-* above and PPn **tino* ‘body, trunk of tree, hull of canoe’ below (approximating to sense 2) is unclear, and the resemblance may be due to chance. The same is true of the relationship between PPn **tino* and POC **tinoni* ‘man, person’ (§2.2.4).

PPn **tino* ‘body, trunk of tree, hull of canoe’

Pn:	Tongan	<i>sino</i>	‘body, trunk of a tree, hull of canoe’
Pn:	Niuean	<i>tino</i>	‘body, human or animal’
Pn:	Samoan	<i>tino</i>	‘whole body’
Pn:	Tikopia	<i>tino</i>	‘body of person or animal, trunk of tree, hull of canoe’
Pn:	Rennellese	<i>tino</i>	‘body, trunk of tree, hull of canoe’
Pn:	Hawaiian	<i>kino</i>	‘body, person, individual’

cf. also:

SES:	Bugotu	<i>tono-</i>	‘body’
SES:	Gela	<i>tono-</i>	‘trunk of body; headless corpse’

3.2.2 The trunk

It is not clear *prima facie* whether terms with meaning 2, ‘trunk’, originally meant ‘the main part of something’, so that the main part of a human being was perceived to be the trunk, or whether they originally denoted the human trunk and were applied analogously to other objects like the trunk of a tree or the main part of a canoe or the tubers of a yam plant. However, the two terms reconstructed below imply the former.

POC **pata-*, **pataŋ* ‘trunk of human body; tree trunk’ is more widely reflected as ‘tree trunk’ than ‘human trunk’ (vol.3:89), implying that an extension of meaning to include the human torso may have occurred independently in the Admiralties and Micronesia.

PMP **bataŋ* ‘tree trunk, fallen tree, log; stem of a plant; body; corpse’ (Dempwolff 1938, ACD)

POC **pata-*, **pataŋ* ‘trunk of human body; corpse; tree trunk’.

Adm:	Lou	<i>pata-</i>	‘trunk, stem’
		<i>pata(lia-)</i>	‘trunk of body, middle of body’
NNG:	Mutu	<i>pata-</i>	‘corpse’
NNG:	Bariai	<i>pati-</i>	‘corpse’
MM:	Nakanai	<i>vata-</i>	‘corpse’

PMic **fata*, *fata-ŋa* ‘tree trunk’ (Bender et al. 2003)

Mic:	Chuukese	<i>(rē)fasaŋ</i>	‘torso, trunk’

POC **tubuq-a(ŋ)* reflects a nominalisation of the POC verb **tubuq* ‘grow, thrive, swell’ (vol.1:134), an origin that implies a wider original sense closer to the Iduna gloss ‘body, growth, fullness’ than simply to ‘body’. Indeed, it may be that POC **pata-*, **pataŋ* above and

POc **tubuq-a(η)* differed subtly in meaning. Getting at the meaning of **tubuq-a(η)* is difficult, partly because of inadequate glosses in sources, and partly because in PEOc the meaning had shifted to ‘spirit being’, where meaning 2 was perhaps assumed by PEOc **[q]abe-* below. This in its turn had shifted in PNCV to meaning 5, the inner spiritual part of a person.

PMP **tubuq* ‘grow, thrive, swell’

POc **tubuq-a(η)* ‘body, substance’ (-aη NOM)

Adm:	Seimat	<i>tupua-</i>	‘body’
Adm:	Loniu	(<i>peti</i>) <i>tupuwe</i>	‘body’
PT:	Iduna	<i>tupua-</i>	‘body, growth, fullness’
PT:	Wedau	<i>tupua-</i>	‘body, substance, material’
PT:	Gapapaiwa	<i>tupua-</i>	‘body’
PT:	Dawawa	<i>tubuya-</i>	‘body’

PEOc **tubuqa* ‘spirit being (possibly guardian spirit)’

SES:	To’aba’ita	<i>ōūfā</i>	‘one’s protective, guardian spirit’
NCV:	Nguna	<i>na-tupua</i>	‘spirit’
Fij:	Lau	<i>tupua</i>	‘spirit or ghost’

PPn **tupuqa* ‘supernatural being, demon’ (POLLEX)

Pn:	Tongan	<i>tupuʔa</i>	‘ancient, venerable’
Pn:	Niuean	<i>tupua</i>	‘giant, evil spirit, demon, ancient gods’
Pn:	Samoan	<i>tupua</i>	‘idol, image’
Pn:	Anutan	<i>tupua</i>	‘spirit’
Pn:	Tuvalu	<i>tupua</i>	‘god; pre-christian wooden gods’
Pn:	E Futunan	<i>tupuʔa</i>	‘stars marking months of year’
Pn:	W Futunan	<i>tupua</i>	‘image, idol, sign’
Pn:	K’marangi-	<i>dubua</i>	‘jealousy, jealous’
Pn:	Ifira-Mele	<i>tupua</i>	‘small supernatural people in the bush’
Pn:	Luangiua	<i>kipua</i>	‘devil’
Pn:	Sikaiana	<i>tupua</i>	‘devil, demon’
Pn:	Takuu	<i>tipua</i>	‘bogey-man, monster’
Pn:	Tikopia	<i>tupua</i>	‘traditional supernatural being, spirit’
Pn:	Tokelauan	<i>tupua</i>	‘idol; guardian spirit; riddle’
Pn:	Tuamotuan	<i>tupuua</i>	‘supernatural being’
Pn:	Marquesan	<i>tupua</i>	‘wizard’
Pn:	Mangarevan	<i>tupua</i>	‘demon, monster; sage, chief’
Pn:	Tahitian	<i>tupuua</i>	‘supernatural beings’
Pn:	Pukapukan	<i>tupua</i>	‘a demon, ogre; creature, monster’
Pn:	Rarotongan	<i>tupua</i>	‘goblin, monster, demon’
Pn:	Hawaiian	<i>kupua</i>	‘supernatural being, being with magic powers’
Pn:	Māori	<i>tupua</i>	‘goblin, demon, one versed in magic’

The following set is based on reflexes from two subgroups, SES terms emphasising bulk or mass of a body and NCV terms emphasising a body’s less tangible aspects.

PEOc *[q]abe- ‘body’

PSES *[q]abe ‘body, bulk’

SES: Kwaio	<i>labe</i>	‘body, bulk’
SES: Sa’a	<i>sape(-)</i>	‘body, trunk, mass’
SES: Arosi	<i>abe, sabe-</i>	‘body of a man, trunk of a tree’
SES: ’Are’are	<i>rape-</i>	‘body, bulk, shape, appearance’

PNCV *abe- ‘body incl. spiritual and other less tangible aspects’

NCV: Lakon	<i>epe-</i>	‘body and soul’
NCV: Mota	<i>ape-</i>	‘s.t. within a man which is the seat of feeling’
NCV: Kiai	<i>ape-</i>	‘spirit of person killed’
NCV: Tamambo	<i>ebe-</i>	‘body’
NCV: Araki	<i>epe-</i>	‘body, especially with relation to health’
NCV: Paamese	<i>ave-</i>	‘body’

3.3 Bodily materials

This section contains terms for the ‘materials’ or ‘substances’ which speakers perceive as making up the human body: flesh (§3.3.1), fat (§3.3.2), blood (§3.3.3), bones (§3.3.4), skin (§3.3.5), hair (§3.3.7–8) and all the cord-like bits (veins, arteries, sinews and tendons, §3.3.9) that appear when an animal is being cut up. Treated separately under §3.8 are substances emitted by the body.

3.3.1 Flesh

POc *pisiko denoted human and animal flesh and muscle, as well as cooked meat.

POc *pisiko ‘flesh, muscle, meat’

Adm: Seimat	<i>xixio</i>	‘flesh’ (fricative assimilation, for †fixio)
NNG: Labu	<i>apisi</i>	‘flesh’ (-p- for †-h-)
NNG: Numbami	<i>wiso</i>	‘flesh, meat, muscle’
PT: Dawawa	<i>visiyo</i>	‘flesh, meat’
PT: Dobu	<i>esio</i>	‘flesh, muscle’
PT: Kukuya	<i>vio</i>	‘flesh, meat, muscle’
PT: Wedau	<i>vioa</i>	‘flesh’ (for †vio)
PT: Sinaugoro	<i>virioyo</i>	‘flesh, muscle’
PT: Motu	<i>hidio</i>	‘flesh’
SES: Kwaio	<i>fasiʔo-</i>	‘flesh’
SES: Sa’a	<i>hasiʔo-</i>	‘flesh of body’
SES: Arosi	<i>hasiʔo-</i>	‘flesh, muscle; pulp of fruit’
NCV: NE Ambae	<i>vihiko</i>	‘flesh’
NCV: Tamambo	<i>visiyo</i>	‘meat, flesh’
NCV: Araki	<i>visiho</i>	‘flesh, meat’
NCV: Namakir	<i>vihik</i>	‘meat, flesh’

PSV **na-vVsayo-* ‘meat, flesh’ (Lynch 2001c)

SV:	Lenakel	<i>nu-vhakə</i>	‘meat, flesh’
SV:	Anejom	<i>no-hoθye</i>	‘meat, flesh’
NCal:	Nêlêmwa	<i>perak</i>	‘flesh, meat’
NCal:	Iaai	<i>vī-</i>	‘flesh’
Mic:	Woleaian	<i>fitixo</i>	‘flesh’
Mic:	Puluwatese	<i>fitiko</i>	‘flesh, meat, muscle’
Fij:	Bauan	<i>viðiko</i>	‘flesh, the lean of meat (as against <i>uro</i> ‘the fat’)
Fij:	Wayan	<i>viðiko</i>	‘flesh (of animals and people, not fruit), muscles’

3.3.2 Fat

POc **jiji* ‘meat, fat, grease’ is reconstructed. The frequent mentions of ‘meat’ in the data below may be read as references to the edible parts of an animal.

Another term applied to ‘fat, grease’ is POc **moñak* ‘fat, oil, cream, coconut cream; tasty’ (vol.3:372).

PAn **Sesi* ‘flesh, meat’ (ACD)

PMP **hesi* ‘flesh, meat’ (ACD)

POc **jiji* ‘meat, fat, grease’

Adm:	Seimat	<i>xixi</i>	‘flesh’ (<i>jujue</i> , <i>xuxue</i> ‘fat, grease’)
Adm:	Titan	<i>cic</i>	‘slip, slide’
NNG:	Numbami	<i>didi</i>	‘pig fat’
NNG:	Kaiwa	<i>sisi</i>	‘meat’
NNG:	Vehes	<i>jiji-</i>	‘meat’
NNG:	Mapos Buang	<i>zzi</i>	‘grease, fat’
NNG:	Wampur	<i>zi</i>	‘meat’
PT:	Kuni	<i>sisi</i>	‘meat, fish’
PT:	Mekeo	<i>titi</i>	‘meat’ (<i>t</i> for <i>†s</i>)
MM:	Konomala	<i>sis</i>	‘meat’
MM:	Label	<i>sis</i>	‘fish’
MM:	Siar	<i>sisi</i>	‘meat’
MM:	Nehan	<i>hihi(an)</i>	‘fat, grease’

3.3.3 Blood

The POc term for blood was **draRa(q)*. Reflexes are found in all major subgroups except SE Solomonian and Polynesian. In a number of languages the term for ‘red’ is based on the term for ‘blood’ (vol.2:209).

PAn **daRaq* ‘blood’ (Dyen 1953)

POc **draRa(q)* ‘blood’

Adm:	Mussau	<i>rae-</i>	‘blood’
		<i>ra(i)-ra(ia)</i>	‘red’

Adm: Tennis	<i>ra(i)</i>	‘blood’
	<i>ra-ra(ian)</i>	‘red’
Adm: Aua	<i>rara-</i>	‘blood’
Adm: Andra	<i>draye-</i>	‘blood’
Adm: Nyindrou	<i>draye-</i>	‘blood’
NNG: Malasanga	<i>rara-</i>	‘blood’ (assimilation: <i>r-</i> for † <i>d-</i>)
NNG: Singorakai	<i>lala-</i>	‘blood’ (assimilation: <i>l-</i> for † <i>r-</i>)
NNG: Lukep	<i>dara-</i>	‘blood’
NNG: Bilibil	<i>dar</i>	‘blood’
	<i>dara(n)</i>	‘red’
NNG: Gedaged	<i>dal</i>	‘blood’
NNG: Matukar	<i>dara-</i>	‘blood’
NNG: Takia	<i>dar</i>	‘blood’
	<i>dara(n)</i>	‘red’
NNG: Manam	<i>dara(ka)</i>	‘blood’
	<i>dara-dara</i>	‘red’
NNG: Bam	<i>dara(ka)</i>	‘blood’
	<i>dar-dar</i>	‘red’
NNG: Wogeo	<i>dara-</i>	‘blood’
NNG: Kis	<i>dal</i>	‘blood’
NNG: Sobei	<i>dara-</i>	‘blood’
NNG: Bukawa	<i>da?</i>	‘blood’
PT: Gapapaiwa	<i>tara-</i>	‘blood’
PT: Anuki	<i>dara-darayi</i>	‘blood’
PT: Taupota	<i>dalaha</i>	‘blood’
PT: Dobu	<i>rara-</i>	‘blood’
PT: Keapara Hula	<i>rala-</i>	‘blood’
MM: Bulu	<i>dara-</i>	‘blood’
MM: Bola	<i>dara-</i>	‘blood’
MM: Meramera	<i>dal-dala-</i>	‘blood’
MM: Notsi	<i>del</i>	‘blood’
MM: Tabar	<i>dara-</i>	‘blood’
MM: Lihir	<i>dala-</i>	‘blood’ (<i>dal</i> ‘red’)
MM: Konomala	<i>(d)dai-</i>	‘blood’
MM: Lamasong	<i>da-</i>	‘blood’
MM: Patpatar	<i>dar-darā-n</i>	‘red’
NCV: Mwotlap	<i>na-daj</i>	‘blood’
NCV: Mota	<i>nara-</i>	‘blood, bleed’
NCV: Tamambo	<i>dae-</i>	‘blood’
NCV: Lonwolwol	<i>dā-, rā-</i>	‘blood’
PSV * <i>nə-da(q,V)</i> ‘blood’ (no specific possessor), * <i>nə-da(a)</i> ‘blood’ (specific possessor) (Lynch 2001c) ³		
SV: Lenakel	<i>nə-ta</i>	‘blood’ (no specific possessor)

³ PSV had two terms for both ‘blood’ and ‘excrement’, one of which involves a specific possessor while the other refers to the substance in isolation without being linked to any possessor (Lynch 2001c:259).

		<i>nə-tā</i>	‘blood’ (specific possessor)
SV:	Kwamera	<i>ne-ta</i>	‘blood’ (no specific possessor)
		<i>nə-te</i>	‘blood’ (specific possessor)
NCal:	Nêlêmwâ	<i>dā-</i>	‘blood’
NCal:	Nyelâyü	<i>(u)rā-</i>	‘blood’
NCal:	Nengone	<i>da-</i>	‘blood’
NCal:	Iaai	<i>ḍa</i>	‘blood’
Mic:	Carolinian	<i>çā-</i>	‘blood, to bleed’
Mic:	Woleaian	<i>ççā</i>	‘blood, be red, bloody’
Mic:	Marshallese	<i>rah</i>	‘blood’
Fij:	Bauan	<i>drā-</i>	‘blood’
cf. also:			
MM:	Roviana	<i>ehara-</i>	‘blood, bleed’
SES:	Gela	<i>ḡara-</i>	‘blood’

3.3.4 Bone

Two POc forms are reconstructed for ‘bone’, **tuqan/tuqa-* and **suRi-*. The former appears to be the formally irregular continuation of PMP **tuqelan*. The expected POc form is †**tuqolan*, but we are inferring that the medial **-e-* of **tuqelan*, phonetically schwa, was first lost, and the resulting **-ql-* sequence was then simplified to **-q-*.⁴ POc **suRi-* on the other hand is evidently a POc innovation.⁵ Certain SE Solomonic and Polynesian languages reflect both, with a difference in meaning. In SE Solomonic languages apparent reflexes of **tuqa-* mean ‘leg’ (listed under ‘cf. also’) and reflexes of **suRi-* mean ‘bone’. Lau (SES) has *suli-* ‘bone’ and what looks like a reflex of **tuqa-* in *ua-sifo* ‘bone marrow’, but forms with *ua-* are not listed elsewhere in Fox (1974). PPn **tuqa* meant ‘back’, whilst POc **suRi-* is continued as ‘bone’ in Polynesian languages.

The areas in which reflexes of each term occur (in the meaning ‘bone’) are interlaced across the Pacific, as follows:

<i>*tuqa-</i>	<i>*suRi-</i>
NGOc (= NNG, PT)	Adm
Parts of MM	Parts of MM
Mic	SES, TM, SOc (= NCV, SV, NCal)
W and E Fijian	E Fijian, Pn

The interlacing is particularly intricate in Meso-Melanesian languages and in Fiji. The distribution of reflexes in Meso-Melanesian is shown below. Where individual languages are shown, these are in italics. The languages constituting the Bali-Vitu, Willaumez, Tungag/Nalik and Madak groups are listed in Appendix B. Reflexes of the two terms are split across the tiny Tabar group. They are also split across the St George linkage, but this is less surprising, as ‘St George’ is a large group, of which southern New Ireland microgroups and languages, as well

⁴ Blust (ACD) takes **tuqelan* ‘bone’ to have no Oceanic reflexes but reconstructs POc **tuqa* with the sense ‘back’. Our data do not support this as the primary gloss.

⁵ Blust (1993a, 2009) reconstructed PCOMP **zuRi* ‘bone’ as parent of POc **suRi*, but the ACD now attributes its CMP reflexes to PMP **duRi* ‘thorn, splinter, fishbone’, continued as POc **(dr)r**uRi* ‘thorn’ (vol.1:125).

as NW Solomonic, are probably first-order subgroups.⁶ Reflexes are also split within NW Solomonic, in particular cutting across the Nehan/N Bougainville (NNB) subgroup.⁷

**tuqa-*

**suRi-*

Bali-Vitu, Willaumez

Tungag/Nalik

Tabar: *Notsi, Lihir*

St George:

Sursurunga, Tangga

NW Solomonic:

NNB: *Taiof, Hahon, Tinputz*

Madak

Tabar: *Tabar*

St George:

Patpatar, Label, Kandas, *Konomala, Siar*

NW Solomonic:

NNB: *Nehan, Buka, Teop*

New Georgia

Why did POc have two different words for ‘bone’? There are two clues to a difference in meaning. The first is, as noted above, that **tuqa-* reflexes in SE Solomonic and in some E Fijian languages mean ‘leg’. The second is that in a few languages reflexes of **suRi* also denote a bone needle (vol.1:87). Do these facts perhaps mean that **suRi* referred principally to finer bones, **tuqan* to larger bones or to all bones? The evidence is hardly compelling, as reflexes of both terms are used of the spine in a few languages. An answer of a different kind is that the two terms were used in different POc dialects. This would entail the inference that the Meso-Melanesian and Fijian linkages each emerged from at least two different dialects. That genealogically separated dialects may become integrated into a new dialect chain is shown by Geraghty’s (1983) work on Fijian dialects. In the case of the Meso-Melanesian groups located on New Ireland (those other than Bali-Vitu, Willaumez and NW Solomonic) there is some independent evidence of such a history (Ross 1988:306–307).

Some Polynesian reflexes of POc **tuqan* refer rather to the rough or outer side of a body part, although some compounds refer to backbone or to other prominent bony ridges such as the shin. Lihir (MM) displays two reflexes of **tuqan*, meaning ‘bone’ and ‘back’ respectively, and the Tangga reflex has both senses. It is of interest that the unrelated Lau (SES) term *ʔogi-* also means ‘a bone, the back, the outside of a thing’.

The final **-n* of **tuqan* is reflected among the reflexes below as final *-n* or pre-final *-n-* in the PT languages Muyuw and Kilivila and the MM languages Lavongai, Tigak, Kara, Tiang, Nalik and Taiof.

PAn **CuqelaL* ‘bone’ (ACD)

PMP **tuqelan* ‘bone’ (ACD)

POc **tuqan*, **tuqa-* ‘bone’

NNG: Sio	(i)tuka-	‘bone’
NNG: Tami	tuka-tuk	‘bone’
NNG: Kove	tua-tua-	‘bone’
NNG: Tuam	tua-	‘bone’

⁶ The Patpatar microgroup includes the Patpatar, Minigir and Tolai languages, the Label microgroup Label and Bilur, the Kandas microgroup Kandas and Ramoaina, the Buka microgroup Solos, Halia and Selau.

⁷ A significant part of NW Solomonic is missing from the list because Torau, Mono-Alu, Nduke, and the Santa Isabel languages reflect **suma* ‘bone’.

NNG:	Gitua	<i>tua-</i>	‘bone’
NNG:	Lukep	<i>tuk-</i>	‘nape’
NNG:	Roinji	<i>tua-</i>	‘bone’
NNG:	Wab	<i>tua-</i>	‘bone’
NNG:	Dami	<i>tuo-</i>	‘bone’
NNG:	Bilibil	<i>tua-</i>	‘bone’
NNG:	Gedaged	<i>tiwo-</i>	‘bony skeleton’
NNG:	Ulau-Suain	<i>tua-</i>	‘bone’
NNG:	Kela	<i>(ŋa)tua-</i>	‘bone’
NNG:	Numbami	<i>tua-tua-</i>	‘bone’
NNG:	Yabem	<i>(ŋa)tek^wa-</i>	‘bone’
NNG:	Bukawa	<i>(ŋa)k^wa-</i>	‘bone’
PT:	Tubetube	<i>tua-</i>	‘bone’
PT:	Muyuw	<i>(tou)tun</i>	‘bone’
PT:	Kilivila	<i>(to)tuane</i>	‘bone’
PT:	Misima	<i>tua-tua-</i>	‘bone’
MM:	Vitu	<i>toŋa</i>	‘bone’
MM:	Bola	<i>tuya-</i>	‘bone’
MM:	Nakanai	<i>tuha-</i>	‘bone; rib’
MM:	Meramera	<i>tua-tua-</i>	‘bone’
MM:	Lavongai	<i>tuan</i>	‘bone’
MM:	Tigak	<i>tuan</i>	‘bone’
MM:	E Kara	<i>tun</i>	‘bone’
MM:	Tiang	<i>tuən</i>	‘bone’
MM:	Nalik	<i>ruən</i>	‘bone’
MM:	Lihir	<i>tio-</i>	‘bone’
		<i>tua-</i>	‘(s.o.’s) back’
MM:	Notsi	<i>tui-</i>	‘bone’
MM:	Sursurunga	<i>tuə-</i>	‘bone’
MM:	Tangga	<i>tua-</i>	‘bone; back (of a human being or any large animal)’
MM:	Taiof	<i>tuana</i>	‘bone’
MM:	Hahon	<i>coa-</i>	‘bone’
MM:	Tinputz	<i>soa-</i>	‘bone’
MM:	Uruava	<i>tua-</i>	‘bone’
SES:	Lau	<i>ua(sifo)</i>	‘bone marrow’ (<i>sifo</i> ?‘descend’)
Mic:	Woleaian	<i>sū-</i>	‘bone, body’
Fij:	Wayan	<i>-tua</i>	‘bone’
Fij:	Vanua Levu	<i>dua</i>	‘leg’
PPn * <i>tuqa</i> ‘back’ (POLLEX)			
Pn:	Tongan	<i>tuʔa</i>	‘back, space or place or time behind or beyond’
		<i>tuʔa hivi</i>	‘ridge’
Pn:	Niuean	<i>tua</i>	‘back’
Pn:	Rennellese	<i>tuʔa</i>	‘back’
Pn:	Samoa	<i>tua</i>	‘rougher, tougher side of a thing; back’
		<i>tua sivi</i>	‘ridge of backbone, chain of hills etc’

Pn:	Tahitian	<i>tua</i>	‘back’
Pn:	Tikopia	<i>tua</i>	‘back, of person or animal; outer side’
Pn:	Rarotongan	<i>tua</i>	‘back’
Pn:	Hawaiian	<i>kua</i>	‘back’
Pn:	Maori	<i>tua</i>	‘back’

cf. also:

SES:	Gela	<i>tua-</i>	‘leg’
SES:	W Guadalcanal	<i>tua-</i>	‘leg’
SES:	Talise	<i>tua-</i>	‘leg’
SES:	Birao	<i>tua-</i>	‘leg’
SES:	Lengo	<i>tua-</i>	‘leg’
SES:	Arosi	<i>uwa-</i>	‘leg’
SES:	Bauro	<i>a-uwa-</i>	‘leg’
SES:	Fagani	<i>a-uwa-</i>	‘leg’

Reflexes of PPn **tuqa* ‘back, outer side’ can be used in compounds to identify a part of the body that is seen as the outer or upper side of a limb or other body part, (cf. *alo* ‘smooth, soft side of a thing < POC **qarop*, §3.4.7). The emphasis here has almost entirely moved from bone or bony parts, apart from single examples from Samoa (shin), Tikopia (shoulder blade) and Hawaiian (shin).

Tongan	<i>tuʔa kia</i>	‘nape of neck’
	<i>tuʔa mata</i>	‘eyelid’
	<i>tuʔa nima</i>	‘back of hand’
Niuean	<i>tua ulu</i>	‘back of neck, nape’
	<i>tua mata</i>	‘eyelid’
	<i>tua lima</i>	‘back of hand’
	<i>tua hui</i>	‘instep’
	<i>tua pale</i>	‘lower abdomen, pubic area’
Samoaan	<i>tuā ua</i>	‘back of neck’
	<i>tuā ulu</i>	‘back of head’
	<i>tuā mata</i>	‘eyebrow’
	<i>tuā lima</i>	‘outer surface of upper limb from hand to shoulder’
	<i>tua sivi-vae</i>	‘shin’
Rennellese	<i>tuʔā uʔa</i>	‘nape of neck’
	<i>tuʔā mata</i>	‘eyebrow, eyelid’
	<i>tuʔā gima</i>	‘back of hand’
	<i>tuʔā baʔe</i>	‘top of foot’
	<i>tuʔā teʔa</i>	‘top of thigh’
	<i>tuʔā soni</i>	‘female pubic area’
	<i>tuʔā uge</i>	‘male pubic area’
Tikopia	<i>tua rima</i>	‘back of the hand’
	<i>tua kapakau</i>	‘shoulder blade’
	<i>tua vae</i>	‘top of foot’

Hawaiian	<i>kua-poʻi-maka</i>	‘eyelid’
	<i>kua maha</i>	‘back of the temple of the head’
	<i>kuu-ʔau-lima</i>	‘arm below the elbow’
	<i>kuu-ʔau-wā-wae</i>	‘leg, shinbone’

Three sets of seemingly irregular reflexes of POc **suRi* ‘bone’ are listed under ‘cf. also’ below. One consists of Vitiaz Strait (NNG) reflexes of Proto Korap and pre-Mangap **tura*;⁸ a second of Papuan Tip reflexes of Proto PT **turiya* ‘bone’. These may be irregular reflexes of **suRi*- reflecting replacement of the initial consonant through contamination by **tuqan*. The third set consists of the Nyindrou and Micronesian terms, which reflect POc **(dr,r)uRi* ‘thorn’ (vol.3:125). It seems that this may reflect a transfer of meaning from **suRi*- to the formally similar **(dr,r)uRi*.

POc **suRi*- ‘bone’ (Milke 1965)

Adm: Mussau	<i>riu-</i>	‘bone’
	<i>riu ŋ āsoŋo</i>	‘rib’ (<i>āsoŋo</i> ‘rafter’)
Adm: Seimat	<i>kui-</i>	‘bone’
MM: Tabar	<i>ciri-</i>	‘bone’
MM: Patpatar	<i>suru-</i>	‘bone’
MM: Minigir	<i>suru-</i>	‘bone’
MM: Tolai	<i>uru-</i>	‘bone’
MM: Label	<i>sur</i>	‘bone’
MM: Bilur	<i>uri-</i>	‘bone’
MM: Kandas	<i>sur</i>	‘bone’
	<i>suru-</i>	‘(s.o.’s) back’
MM: Ramoaaina	<i>uru-</i>	‘bone’
MM: Konomala	<i>su-</i>	‘bone’
MM: Siar	<i>suru-</i>	‘bone’
MM: Nehan	<i>hiro</i>	‘bone’
MM: Solos	<i>tinou</i>	‘bone’
MM: Petats	<i>tino</i>	‘bone’
MM: Halia (Haku)	<i>silo</i>	‘bone’
MM: Selau	<i>cinu</i>	‘bone’
MM: Teop	<i>sino</i>	‘bone’
MM: Papapana	<i>sino</i>	‘bone’
MM: Varisi	<i>uri-</i>	‘bone’
MM: Hoava	<i>su-suri-</i>	‘bone’
MM: Roviana	<i>su-suri-</i>	‘bone’
SES: Bugotu	<i>huli-</i>	‘bone’
SES: Gela	<i>huli-</i>	‘the body; a bone’
SES: Tolo	<i>suli-</i>	‘bone’
SES: Lau	<i>suli-</i>	‘a bone; the back’
SES: Kwaio	<i>suli-</i>	‘bone, backbone, skeleton’
SES: ’Are’are	<i>suri-</i>	‘bone’

⁸ Proto Korap was ancestral to Barim, Lukep and Malasanga.

TM:	Buma	<i>die-</i>	‘bone’
TM:	Tanibili	<i>dele</i>	‘bone’
NCV:	Mota	<i>suri(u)</i>	‘bone’
NCV:	Mwotlap	<i>ni-hij</i>	‘bone’
NCV:	Raga	<i>hui(na)</i>	‘bone’
NCV:	Tamambo	<i>suru-</i>	‘bone’
NCV:	Nokuku	<i>sui</i>	‘bone’
NCV:	Namakir	<i>siw</i>	‘bone’
SV:	SW Tanna	<i>nu-hu-</i>	‘leg’
SV:	Anejom	<i>ne-θuo-</i>	‘bone, foot, leg’
NCal:	Nyelâyü	<i>dū</i>	‘(s.o.’s) back; behind’
NCal:	Cêmuhi	<i>dūu-</i>	‘bone’
Fij:	Bauan	<i>sui-</i>	‘bone’
Pn:	Niuean	<i>hui</i>	‘bone; leg, foot’
Pn:	Tongan	<i>hui</i>	‘bone’
PNPn * <i>iwi</i> ‘bone’			
Pn:	Samoan	<i>ivi</i>	‘bone’
Pn:	Maori	<i>iwi</i>	‘bone’
cf. also:			
Adm:	Nyindrou	<i>druwi-</i>	‘bone’
NNG:	Barim	<i>tura-</i>	‘bone’
NNG:	Lukep	<i>tura-</i>	‘bone’
NNG:	Malasanga	<i>tura-</i>	‘bone’
NNG:	Mangap	<i>tiro-</i>	‘bone’
PT:	Dawawa	<i>turiya</i>	‘bones’
PT:	Paiwa	<i>taira</i>	‘bone’
PT:	Sinaugoro	<i>turia</i>	‘bone’
PT:	Motu	<i>turia</i>	‘bone’
PT:	Doura	<i>kuria</i>	‘bone’ (<i>k < *t</i>)
Mic:	Carolinian	<i>ṣĩ</i>	‘bone’
Mic:	Woleaian	<i>ṣh̄</i>	‘bone’

3.3.5 Skin

There is a semantic difference between PWOC **tini-* ‘body, skin’ above, which denoted the whole skin and metonymically the body, and the reconstructions in this section, which refer only to skin itself, including the skins of animals and fruit as well as tree bark (vol.3:120). A number of languages (Mota, Micronesian and Polynesian) show *-i-* for expected *-u-* in the first syllable.

PMP **kulit* ‘skin’ (Dempwolff 1938)

POC **kulit* ‘skin (of people, animals, fruit), bark (of trees)’ (vol.3:120)

Adm:	Ponam	<i>guli-</i>	‘skin’ (Smythe)
Adm:	Seimat	<i>uli-</i>	‘skin’
Adm:	Loniu	<i>kuli(hi)</i>	‘bark, skin’

Adm:	Titan	<i>kuli-</i>	‘skin’
NNG:	Tami	<i>kuli-</i>	‘skin’
NNG:	Kove	<i>kuli-kuli-</i>	‘skin, bark’
NNG:	Bariai	<i>(i)ku-kul</i>	‘bark’
NNG:	Kilenge	<i>kul-kuli(a)</i>	‘skin’
NNG:	Mangap	<i>kuli-</i>	‘body (whole), surface of body, skin’
NNG:	Lukep	<i>kuli-</i>	‘skin, bark’ (<i>kulina</i> ‘clothing’)
NNG:	Malasanga	<i>kuli-</i>	‘skin’
NNG:	Mindiri	<i>ku-kuli(n)</i>	‘bark’
NNG:	Kaiep	<i>kuli(n)</i>	‘skin’
NNG:	Kairiru	<i>quli</i>	‘skin’
PT:	Misima	<i>kunis</i>	‘(humans, animals, fish, food) skin; tree bark; fish scales; coconut husk’
MM:	Vitu	<i>ɣulit-</i>	‘skin’
MM:	Bulu	<i>kuli</i>	‘bark; skin’
MM:	Bola	<i>kuli</i>	‘bark; skin’
MM:	Nakanai	<i>kuli-kuli</i>	‘skin, a piece rather than the whole’
MM:	Lavongai	<i>kulit</i>	‘skin’
MM:	Tigak	<i>kulit</i>	‘skin’
MM:	Tabar	<i>kuri-kuri</i>	‘skin’
MM:	Lihir	<i>kuli</i>	‘skin; bark; coconut husk’
MM:	Tolai	<i>(pina)kul</i>	‘dead bark of a tree’
SES:	Bugotu	<i>gui-guli-</i>	‘skin, bark’
SES:	Gela	<i>guli-</i>	(N) ‘skin’; (VT) ‘to skin, bark, as one’s shins or a tree’
SES:	Tolo	<i>huli-</i>	‘skin of man or fruit, bark’
SES:	Arosi	<i>ɣuri-</i>	‘skin, of men, animals, roots, fruits’
NCV:	Mota	<i>wilit</i>	‘peel off’
NCV:	Tamambo	<i>ɣuri-</i>	‘skin, bark’
NCV:	Raga	<i>ɣuli-</i>	‘skin, bark’
SV:	Ura	<i>no-yoles dan</i>	‘skin’
NCal:	Nemi	<i>cī-</i>	‘skin’
NCal:	Iaai	<i>une-</i>	‘skin’
Mic:	Marshallese	<i>kil</i>	‘skin’
Mic:	Carolinian	<i>xil</i>	‘skin, bark’
Mic:	Woleaian	<i>xiri-</i>	‘skin, bark’
Fij:	Bauan	<i>kuli-</i>	‘skin, bark, peel’
Pn:	Tongan	<i>kili</i>	‘skin, peel, rind, bark’
Pn:	Tikopia	<i>kiri</i>	‘skin, bark’

The next reconstruction, POc **pinut* ‘skin, bark’ closely resembles two POc terms that have been reconstructed for ‘coconut husk’, doublets **punut* and **p^wenu(t)* (vol.3:376–377). However, most languages have separate terms for ‘skin’ and ‘coconut husk’. Only in some NCV languages and in Misima and Lihir in the set above is an inclusive term found. It seems that the resemblance of POc **pinut* ‘skin bark’ to the terms for coconut husk is fortuitous, as with the exception of the Manam term the cognate set below agrees on **-i-* as the nucleus of the first syllable, whilst almost all reflexes of **punut* and **p^wenu(t)* agree on **-u-* and **-e-*

respectively. A less likely possibility is that POc **pinut* was a doublet of **punut* and meant ‘skin, rind’.

POc **pinut* ‘skin, bark’

NNG:	Manam	<i>unu</i>	‘skin, complexion’
PT:	Muyu	<i>(kalei)vin</i>	‘skin, bark’
MM:	Ramoaina	<i>pin</i>	‘skin, of human beings only’
SES:	Sa’a	<i>hinu</i>	‘shell of shellfish; bark’

PNCV **vinuti* ‘skin, husk, rind’ (Clark 2009)

NCV:	Mota	<i>vinitiu</i>	‘skin, bark, husk, rind, shell’
NCV:	Raga	<i>vinu-</i>	‘skin, bark, husk, rind’
NCV:	NE Ambae	<i>vinu-</i>	‘skin, bark’
NCV:	Tamambo	<i>vinu</i>	‘husk, rind’

3.3.6 Scar

Reflexes of POc **kira(s)* ‘scar’, which continues PMP **kiras*, have been noted in only a handful of languages, but they are distributed across three subgroups.

PMP **kiras* ‘scar’ (ACD)

POc **kira(s)* ‘scar’

MM:	Roviana	<i>kira-</i>	‘scar’
SES:	Gela	<i>kira-</i>	‘scar’
SES:	Longgu	<i>kira-</i>	‘scar’
Pn:	Samoan	<i>(mā)ʔila</i>	‘scar’

cf. also:

SES:	Lau	<i>kida-</i>	‘scar of wound or sore’

A second term for ‘scar’, continuing PMP **bilat*, is reflected in the data only in the Papuan Tip and SE Solomonian subgroups.

PMP **bilat* ‘scar’ (ACD)

POc **pila(t)* ‘scar’

PT:	Dawawa	<i>pire</i>	‘scar’
SES:	Lau	<i>fi-fila-</i>	‘white scar’
SES:	Kwaio	<i>fila-</i>	‘scar’
SES:	’Are’are	<i>hira-hira-</i>	(N,V) ‘scar, cut’
SES:	Arosi	<i>hira-</i>	‘scar’

3.3.7 Head hair

As noted in §3.3.8 Oceanic languages typically distinguish terms for head hair and body hair. However, the two POc forms **puRu* ‘head hair’ (below) and **pulu* ‘body hair’ (§3.3.8) are similar, and some contemporary forms could reflect either. In a number of languages of

Melanesia bird feathers are denoted by a reflex of POc **puRu* or POc **ipu-* ‘head hair, feather’ (both below).

Although there are many reflexes of **puRu*, they are with one exception limited to two major subgroups, Admiralties and Meso-Melanesian. The exception is Gela (SES) *vuvulu-*. Since POc **-R-* and **-l-* have merged in Gela, this form almost certainly reflects a conflation of POc **pulu-* ‘body hair’ (§3.3.8) and POc **puRu-* ‘head hair’, an inference supported by its gloss, which includes ‘head hair’, ‘feathers’ and ‘body hair’.

POc **puRu-* ‘head hair; feather’

Adm: Mussau	<i>ū(ŋ-uru-)</i> <i>ū(gila)</i>	‘(head) hair’ (<i>ū-</i> ‘hair’, <i>-ŋ-</i> LIGATURE, <i>uru</i> ‘head’) ‘feather’
Adm: Tenis	<i>ui(gira)</i>	‘feather’
MM: Vitu	<i>puru-puru</i>	‘beard’
MM: Lavongai	<i>uŋu(i)</i>	‘(head) hair; feather’
MM: Tigak	<i>ugu(i)</i>	‘(head) hair; feather’
MM: E Kara	<i>fui-</i>	‘(head) hair’
MM: Nalik	<i>fur</i>	‘(head) hair; feather’
MM: Notsi	<i>uli-</i> <i>ul</i>	‘(head) hair’ ⁹ ‘feather’
MM: Tabar	<i>vuru-</i> <i>vuru-vuru</i>	‘(head) hair’ ⁹ ‘feather’
MM: Petats	<i>hulu-</i>	‘(head) hair’ ⁹
MM: Halia	<i>hulu-</i>	‘(head/ body) hair’
MM: Selau	<i>wuru-</i>	‘(head) hair’ ⁹
MM: Taiof	<i>fūnu-</i>	‘(head) hair; feather’ ⁹
MM: Teop	<i>vunu-</i>	‘(head/body) hair; feather’
MM: Banoni	<i>punu-</i>	‘(head/body) hair’
MM: Piva	<i>vunu-</i>	‘(head) hair’ ⁹
MM: Uruava	<i>uru-</i>	‘(head) hair’ ⁹
MM: Ririo	<i>(vu)vure-</i>	‘hair’
MM: Babatana	<i>vura-</i>	‘(head) hair’
MM: Lungga	<i>vuru(ŋu)</i>	‘feather’
MM: Nduke	<i>(vu)vuru-</i>	‘(head) hair’
MM: Simbo	<i>vuru(ŋu)</i> <i>vuru(ŋuna)</i>	‘hair’ ‘feather’
MM: Blablanga	<i>fru(ta)</i>	‘hair’
MM: Maringe	<i>na-fru(ta)</i>	‘hair’
SES: Gela	<i>vuvulu-</i>	‘hair of head; hair of body; feather’

POc **ipu-* ‘head hair, feather’ (ACD)

PT: Kukuya	<i>(mata)ivu-</i>	‘eyelash’
MM: Bulu	<i>ivu-</i>	‘(head) hair’
MM: Harua	<i>ivu-</i>	‘(head) hair; feather’

⁹ This form could also reflect POc **pulu-* ‘body hair’ (§3.3.8), but the gloss suggests that it reflects POc **puRu-*.

MM:	Nakanai	<i>ivu-</i>	‘(head) hair, plumage of a bird’
MM:	Patpatar	<i>hĩ-</i>	‘(head) hair; feather’
MM:	Tolai	<i>ivu-</i>	‘feather’
MM:	Raluaaina	<i>ivu-</i>	‘hair of the human body or of animals; fur, feathers, plumage, bristle’
MM:	Label	<i>ih</i>	‘(head) hair’ (<i>ih-a-mani</i> ‘feather of a bird’)
MM:	Bilur	<i>eu-</i>	‘head’
MM:	Kandas	<i>iũ-</i>	‘(head) hair’
MM:	Siar	<i>(i)ufu-</i>	‘(head) hair’
MM:	Tinputz	<i>uvi-</i>	‘(head/ body) hair; feather’
SES:	Lau	<i>ifu-</i>	‘hair’
		<i>ifu(la)</i>	‘hairy, covered with cast hairs’
SES:	Kwaio	<i>ifu-</i>	‘hair’
		<i>ifu-ʔai</i>	‘let hair grow long in mourning’
SES:	‘Are’are	<i>ihu-</i>	‘hair, feather’
SES:	Sa’a	<i>ihu-</i>	‘hair, feather’
		<i>ihu-i menu</i>	‘a bird’s feather’
		<i>ihu i p^weu</i>	‘a hair of the head’
SES:	Arosi	<i>(war)ihu-</i>	‘hair; feathers’

POc **raun* ‘leaf, head hair’ (vol.3:103) is used to refer also to ‘head hair’, typically in subgroups where reflexes of **puRu* are not found. This sense was evidently present in POc, as it is also reflected in non-Oceanic CEMP witnesses.

PMP **dahun* ‘leaf’ (Dempwolff 1938)

PCEMP **daun* ‘leaf, head hair’ (ACD)

POc **raun* ‘leaf, head hair’

NNG:	Kove	<i>laun(i)</i>	‘head hair’
NNG:	Bariai	<i>(i)laun</i>	‘head hair’
NNG:	Tuam	<i>rau-</i>	‘head hair’
NNG:	Malai	<i>rau-</i>	‘head hair’
NNG:	Gitua	<i>rau-</i>	‘head hair’
NNG:	Kilenge	<i>lau-lau(a)</i>	‘head hair’
NNG:	Mangap	<i>ru(nu)</i>	‘head hair’
NNG:	Lukep	<i>raun</i>	‘head hair’
NNG:	Malasanga	<i>rauna-</i>	‘head hair’
PT:	Motu	<i>rau-</i>	‘leaf’
SES:	Sa’a	<i>rau-</i>	‘leaf’
Fij:	Bauan	<i>drau-</i>	‘leaf of a tree, hair of the head’
Fij:	Wayan	<i>-rō</i>	‘leaf of a tree, hair of the head’

POc **qulu-* with primary meaning ‘head’ also includes ‘hair of the head’ as part of its extended meaning (§3.4.1).

3.3.7.1 Grey hair

A separate term, POc **qupan*, denoted grey hair. Although it is not widely reflected in the Oceanic data, it continues a PAn etymon.

PAn **qubaL* ‘grey hair’ (ACD)

PMP **quban* ‘grey hair’ (ACD)

POc **qupan* ‘grey hair’

Adm: Lou	<i>kup-kup</i>	‘white hair, as of the elderly’
Adm: Seimat	<i>kūh</i>	‘greyhaired’ (<i>k-</i> for $\dagger\emptyset$)
MM: Maringe	<i>ufa</i>	‘greying (hair), have grey hair, become grey’
SES: Gela	<i>uva-</i>	‘grey hair’

PMic **wua-* ‘grey hair’ (Bender et al., 2003)

Mic: Kiribati	<i>ia-</i>	‘grey or greying hair’
Mic: Chuukese	<i>wəu-wa-r</i>	‘grey hair, white hair’

PPn **sina*, reflecting POc **sinaR* ‘to shine’ (vol.2:299), denoted grey or white hair, and PPn **sinā* (etymologically **sina-a*) meant ‘be white- or grey-haired’, a distinction lost in languages that have neutralised short and long vowels.

PPn **sina* ‘white or grey hair’, **sinā* ‘be white- or grey-haired’

Pn: Tongan	<i>hinā</i>	‘grey or white, of hair’ (< PPn <i>sinā</i>)
Pn: Niuean	<i>hina</i>	‘grey-haired, white-haired’
Pn: Samoan	<i>sina</i>	‘white or grey hair’
	<i>sinā</i>	‘be white- or grey-haired’ (< PPn <i>sinā</i>)
Pn: Rennellese	<i>sina</i>	‘grey hair’
Pn: Tikopia	<i>sina</i>	‘grey-haired’
Pn: Maori	<i>hina</i>	‘grey-haired’
Pn: Tahitian	<i>hina-hina</i>	‘grey-haired, white-haired’
Pn: Hawaiian	<i>hina</i>	‘grey-haired, white-haired’

3.3.7.2 Bald

Of the reconstructions below only **p^walala* is certainly attributable to POc. POc **(p^wa)p^wata* is reconstructed tentatively, as explained below. The other reconstructions are apparently post-POc innovations.

POc **p^walala* ‘bald’¹⁰

Adm: Mussau	<i>vāla</i>	‘bald’
Adm: Loniū	<i>pala-</i>	‘head’
NNG: Manam	<i>palala</i>	‘bald head’
MM: Nakanai	<i>lela</i>	‘bald’
MM: Tangga	<i>palal</i>	‘bald’

¹⁰ This form may reflect PMP **palpal* ‘bald’ (Dempwolff 1938). If it does, however, it is irregular, as the expected POc form would be $\dagger$ **papal*.

SES:	Bugotu	<i>palala</i>	‘be bald; ridge, crest, top of hill’
SES:	Lau	<i>falai</i>	‘bald’ (-i unexpected)
SES:	Sa’a	<i>halai</i>	(vI) ‘be bald’, (N) ‘a bald person’ (-i unexpected)
NCV:	Nahavaq	<i>pal</i>	‘bald’ (John Lynch, pers. comm.)
NCV:	Nisvai	<i>parpal</i>	‘bald’ (John Lynch, pers. comm.)
Mic:	Puluwatese	<i>pal</i>	‘be bald’

The reconstruction of POc $*(p^w a)p^w ata$ ‘bald’ is tentative. Pije $h^w ata$ reflects a reduplicated form $*p^w a-p^w ata$. Otherwise the correspondence with Sudest $v^w ata$ is regular. The forms listed under ‘cf. also’, however, do not reflect $*-t-$ regularly.

POc $*(p^w a)p^w ata$ ‘bald’ (?)

PT:	Sudest	$v^w ata$	‘bald’
NCal:	Pije	$h^w ata$	‘bald’

cf. also:

NCV:	Mwotlap	$p^w as$	‘bald’
NCV:	Mota	$p^w asa-$	‘bald, a bald person’
SV:	Lenakel	$a-p^w a$	‘bald’
SV:	Kwamera	$a-p^w a$	‘bald’

PWOC $*b^w(a,e)ka$ ‘bald’

PT:	Muyuw	<i>bak</i>	‘bald’
PT:	Kilivila	<i>baka-</i>	‘bald’
MM:	Tabar	<i>piaka-</i>	‘bald head’ (-ia- unexpected)
MM:	Tolai	<i>peaka</i>	‘bald-headed’ (-ea- unexpected)
MM:	Nehan	<i>peke</i>	‘bald’
MM:	Teop	<i>peka</i>	‘bald’
MM:	Tinputz	<i>peka</i>	‘bald’
MM:	Roviana	<i>paka-</i>	‘crown of head’ (<i>paka batu</i> ‘bald’)

PNCV $*m^w asu$ ‘bald’ (Clark 2009)

NCV:	Raga	<i>mahu</i>	‘hairless’
NCV:	NE Ambae	$m^w aho$	‘hairless’
NCV:	Lewo	$m^w u$	‘bald’
NCV:	Namakir	$m^w eh$	‘bald’

3.3.8 Body hair

Many Oceanic languages have distinct terms for body hair and head hair, although the two reconstructions, POc $*pulu-$ ‘body hair’ (below) and POc $*puRu-$ ‘head hair’ (§3.3.7), are similar, with some cognates that could reflect either. Reflexes of $*pulu-$ also denote animal fur.

Reflexes of both **pulu-* and **puRu-* denote bird feathers.¹¹ In a number of languages of Melanesia, however, bird feathers are denoted by a reflex of POC **ipu-* ‘head hair, feather’ (§3.3.7; for feathers, see vol.4:273–274).

POC evidently also had a separate term for pubic hair (see below).

PMP **bulu-* ‘body hair; fur; feather; down; floss on plant stems; color; type, kind’ (ACD); ‘hair, plumage’ (Dahl 1981). Ross 1988 has PAn/PMP **bulu* ‘body hair’.

POC **pulu-* ‘body hair, fur, feathers’ (ACD)

NNG:	Hote	<i>vulu(k)</i>	‘hair; feathers’
NNG:	Kove	<i>ulu-</i>	‘taboo marker made of decorative fringe’ (Goulden 1982)
PT:	Sudest	<i>vuli-vuli(ye)</i>	‘body hair’
PT:	Dobu	<i>unu-unu-</i>	‘animal and body hair’
PT:	Kilivila	<i>unu-unu-</i>	‘body hair’
PT:	Roro	<i>bui-</i>	‘body hair’
PT:	Motu	<i>hui-</i>	‘hair’
MM:	Vitu	<i>vulu(k-)</i>	‘(head) hair’ ¹²
MM:	Nehan	<i>ulu-</i>	‘(head/body) hair’
MM:	Halia	<i>hulu-</i>	‘(head/body) hair’ ¹³
MM:	Teop	<i>vunu-</i>	‘(head/body) hair; feather’ ¹³
MM:	Banoni	<i>punu-</i>	‘(head/body) hair’ ¹³
MM:	Varisi	<i>pulu-</i>	‘(body) hair’
MM:	Simbo	<i>pu-pulu-</i>	‘body hair excluding pubic and underarm hair’
MM:	Babatana	<i>pulu-</i>	‘(body) hair’
MM:	Laghu	<i>pulu-</i>	‘(pubic) hair’ ¹⁴

PEOC **pulu-* ‘body hair, fur, feathers’ (Biggs 1965)

SES:	Bugotu	<i>vulu-</i>	‘feather, hair’
SES:	Gela	<i>vuvulu-</i>	‘hair of head; hair of body; feather’ ¹³
		<i>vulu(hagi)</i>	‘eyelash; antenna of crayfish; shoots of a plant’
SES:	Sa’a	<i>hulu</i>	‘be hairy’
		<i>hulu motaʔa</i>	‘hairy; rough and prickly, of the backs of certain leaves’
SES:	’Are’are	<i>huru motaʔa</i>	‘hairy’
SES:	Arosi	<i>huru-</i>	‘the hair of the body’
		<i>huru-rere</i>	‘downy hair on a child; hair on the legs and arms’

¹¹ A number of modern languages have a compound that implies the presence of the POC phrase **pulu qi manuk* ‘**pulu* of bird’, i.e. ‘feathers’ (Motu (PT) *manu hui(na)* and the Polynesian languages Nukuoro *hulu manu*, Anuta *puru o manu*, Hawaiian *hulu manu*).

¹² In Vitu *-k* has been added to certain inalienables (van den Berg & Bachet 2006), perhaps reflecting the POC free noun suffix **-ki*, added to inalienables that were not possessed (Ross 2001:273–274).

¹³ The gloss suggests that this form reflects a conflation of POC **pulu-* ‘body hair’ and POC **puRu-* ‘head hair’ (§3.3.7) resulting from a merger of the reflexes of POC **-l-* and **-R-*.

¹⁴ Laghu *pulu-* could also reflect POC **puRu* ‘head hair’, but the sense ‘pubic hair’ suggests that it reflects **pulu*.

NCV:	Mota	<i>vulu(i)</i>	‘the hair of the body’
NCV:	NE Ambae	<i>vulu-</i>	‘hair, feather’
		<i>vul-vulusi</i>	‘body hair’
NCV:	Tamambo	<i>vulu-</i>	‘hair, feathers’
NCV:	Kiai	<i>vulu-</i>	‘hair’
SV:	Sye	<i>no-vli-nompu</i>	‘head hair’
		<i>no-vli-ra</i>	‘body hair’
NCal:	Nemi	<i>pun(i)</i>	‘body hair’
Fij:	Bauan	<i>vulu(a)</i>	‘pubic hair’
Fij:	Wayan	<i>-vulu</i>	‘pubic hair’
Pn:	Tongan	<i>fulu</i>	‘hair on the privates’
Pn:	Niuean	<i>fulu</i>	‘feather, hair’
Pn:	Samoan	<i>fulu</i>	‘feather; feather lure’
Pn:	Rennellese	<i>hugu</i>	‘body hair, feathers, fur; prickly root hairs, as of some yams; spikes, as of the sea urchin, nail’
Pn:	Tikopia	<i>furu</i>	‘hair, feathers’
Pn:	K’marangi	<i>hulu</i>	‘hair’
Pn:	Hawaiian	<i>hulu</i>	‘feather, quill; fur, wool, fleece, human body hair’

The cognate set below arguably reflects two functions of POC reduplication. The first derived a noun that denotes a multiplicity of an object, in this case many hairs. The second, sometimes with the addition of **-ka* or **-a*, forms an adjectival noun that denotes a property (this process formed various colour terms: vol.2:206, 210). It is possible that some or all of these terms are not direct reflexes of POC etyma, but reflect later derivations by these processes.

PMP **bulu-bulu* ‘hairy; hair-like growths; plants with hair-like growths’ (ACD)

POC **pulu-pulu* ‘body hair’ ; **pulu-pulu[-ka]* ‘hairy’

NNG:	Manam	<i>pulu-pulu</i>	‘hairy’
PT:	Mekeo	<i>pui-pui-</i>	‘body hair’
PT:	Dobu	<i>unu-unu</i>	‘body hair, excluding head hair; animal hair’
MM:	Roviana	<i>pulu-pulu</i>	‘hairy (body)’
MM:	Hoava	<i>pulu-pulu-</i>	‘hair’
MM:	Simbo	<i>pulu-pulu-</i>	‘hair of the body’
SES:	Gela	<i>vulu-vulu</i>	‘species of water plant; a plant: <i>Amaranthus</i> ’
SES:	Arosi	<i>huru-huru-ʔa</i>	‘hairy’
Pn:	Tongan	<i>fulu-fulu</i>	‘hair (esp. on the body), fur, feathers; having hair, fur or feathers (growing on it); (of timber) rough, undressed, unplanned’
		<i>fulu-fulu-a</i>	‘hairy, furry, woolly or feathery’
Pn:	Niuean	<i>fulu-fulu</i>	‘be hairy’
Pn:	Samoan	<i>fulu-fulu</i>	‘fine short hair, down; fur’
		<i>fulu-fulu-a</i>	‘(be) hairy’
Pn:	Rennellese	<i>hugu-hugu</i>	‘hairy; to grow, as hair or feathers; be tattered, as an unfinished mat; have spines, as a balloon fish’

Pn:	Nukuria	<i>hulu-hulu</i>	‘hair on the body’
		<i>hulu-hulu-a</i>	‘hairy’
Pn:	Nanumea	<i>fulu-fulu</i>	‘hair on head; fur’
		<i>fulu-fulu-a</i>	‘hairy’
Pn:	Hawaiian	<i>hulu-hulu</i>	‘body hair, hair of eyelashes, fleece, fur; hairy; frayed, splintered, rough, not smooth, bristling; blanket; feathers; down or fuzz on plant stems; rootlet’

Many Oceanic languages have no dedicated term for pubic hair and use a reflex of POc **pulu* ‘body hair’ (§3.3.8), sometimes with a modifier. However, POc **koRo* ‘pubic hair’ is evidenced by widely distributed reflexes.

POc **koRo* ‘pubic hair’ (Geraghty 1990: PEOc)

NNG:	Lukep (Pono)	<i>koro-</i>	‘pubic hair’
PT:	Iduna	<i>(mata)ʔolo-ʔolo-</i>	‘eyelash’ (<i>mata-</i> ‘eye’)
PT:	Gapapaiwa	<i>(igi)koro-</i>	‘male pubic hair’ (<i>igi-</i> ‘male genitals’)
		<i>(kio)koro-</i>	‘female pubic hair’ (<i>kio-</i> ‘female genitals’)
		<i>(mata)koro-</i>	‘eyelash’ (<i>mata-</i> ‘eye’)
MM:	Bola	<i>koro</i>	‘pubic; pubic hair’
MM:	Nakanai	<i>koro(ma)</i>	‘pubic hair’
MM:	Roviana	<i>ʔoro-</i>	‘pubic hair’
SES:	Arosi	<i>koru</i>	‘male pubic hair; vulva’

PMic **koro* ‘pubic hair’ (Bender et al., 2003)

Mic:	Chuukese	<i>kkor, kkora-</i>	‘underarm hair’
Mic:	Puluwatese	<i>kor</i>	‘pubic or underarm hair’
Mic:	Carolinian	<i>xōr</i>	‘pubic hair’
		<i>kkor</i>	‘be especially hairy in the pubic area’;
Mic:	Woleaian	<i>xōʔo-, xōʔo-</i>	‘pubic hair’
Mic:	Pulo Annian	<i>xolo</i>	‘pubic hair’

3.3.9 Veins, arteries, sinews and tendons

The gloss of POc **uRat*, which includes blood vessels, sinews and tendons, reflects their common cord-like structure rather than their bodily function. This is even more true of the following term, POc **waRo(c)* ‘generic term for vines and creepers; vein, string, rope’, which applies to animal and human anatomy by extension.

PAn **huRaC* ‘artery, blood vessel, vein; muscle; nerve; sinew; tendon’ (ACD)

PMP **uRat* ‘artery, blood vessel, vein; muscle; nerve; sinew; tendon; fibre; vein of a leaf’ (ACD)

POc **uRat* ‘blood vessel, sinew, tendon’ (ACD)

Adm:	Mussau	<i>ueta-</i>	‘vein, vessel; tendon’
NNG:	Wogeo	<i>urat(a)</i>	‘vein’
NNG:	Kis	<i>ula-</i>	‘vein’

MM:	Bali	<i>urat(a)</i>	‘vein’
MM:	Bulu	<i>ula-</i>	‘vein’
MM:	Tigak	<i>guat</i>	‘vein’ (metathesis for † <i>ugat</i>)
MM:	Tolai	<i>urat</i>	‘coconut-fibre; gristle; ligament; sinew; tendon’
MM:	Lamasong	<i>uat</i>	‘meat’
MM:	Sursurunga	<i>(i)ruat</i>	‘vein’ (metathesis for † <i>urat</i>)
MM:	Roviana	<i>ru-ruata-</i>	‘vein or artery’ (metathesis for † <i>urata</i>)
MM:	Babatana	<i>rota-</i>	‘vein, artery, nerve’ (metathesis for † <i>urata</i>)
SES:	Bugotu	<i>ula-</i>	‘tendon; sinew; vein’
SES:	Gela	<i>ula-</i>	‘vein’
		<i>ula-kau</i>	‘tendon’
SES:	Kwaio	<i>ula-ula</i>	‘blood vessel, vein’
SES:	Sa’a	<i>ule-ule</i>	‘sinew, tendon’
PNCV <i>*uRati</i> ‘vein’ (Clark 2009)			
NCV:	Raga	<i>wesi-</i>	‘vein’
NCV:	Kiai	<i>aresi-</i>	‘blood vessel’
PSV <i>*na-ur</i> ‘vein, artery, sinew’ (Lynch 2001c)			
SV:	N Tanna	<i>noa-noul</i>	‘vein, artery, sinew’
NCal:	Nixumwak	<i>wa(t)</i>	‘sinew, vein’
PMic <i>*ua</i> ‘tendon, vein’			
Mic:	Kiribati	<i>te-ia</i>	‘vein’
Mic:	Carolinian	<i>wā, wā-</i>	‘veins, arteries’
Mic:	Chuukese	<i>wā, wuwa-</i>	‘artery, tendon, nerve, sinew, vein of’
Mic:	Puluwatese	<i>wā-</i>	‘vein or artery of’
Fij:	Rotuman	<i>ua-ua-</i>	‘sinew, tendon or large nerve; vein or artery (Polynesian loan)’
Fij:	Bauan	<i>ua-</i>	‘vein; muscle’
Pn:	Tongan	<i>uoua</i>	‘sinew, tendon, muscle, ligament’
Pn:	Samoan	<i>ua-ua</i>	‘ligament, tendon. sinew, vein, pulse’
Pn:	Rennellese	<i>ua</i>	‘artery; pulse’
Pn:	Tikopia	<i>ua</i>	‘neck, external throat’
Pn:	Maori	<i>ua</i>	‘sinew; vein, artery’
cf. also:			
Fij:	Rotuman	<i>ua-ua-</i>	‘sinew, tendon or large nerve; vein or artery (Polynesian loan)’

It appears that **uRat* was the usual POc term for cord-like parts of the internal anatomy. It can be inferred that **waRo(c)* primarily denoted vines and creepers, as this is its most widespread sense (vol.3:74), but was used colloquially of cord-like parts of anatomical items. Below are listed only reflexes of POc **waRo(c)* that are glossed with an anatomical term. Given its wide distribution, the extension from ‘vine, creeper’ to veins and tendons was evidently already present in POc. NCV reflexes (under ‘cf. also’) indicate an idiosyncratic change whereby POc **waRo(c)* became PNCV **kaRo* instead of expected †**waRo*. Micronesian languages apparently reflect contamination of POc **waRo(c)* ‘vein, string’ (vol.3:74) by POc **wakaR* ‘root’ (vol.3:99) with the result that the data point to the

reconstruction of PMic **waka* (Bender et al. 2003) rather than expected †**wa(r)o*. Outright conflation has occurred only in Pulo Annian, however, where *wāxa/waxa-* means both ‘vein, sinew, artery’ and ‘root’. Other Micronesian languages keep reflexes of PMic **waka* ‘vein, artery, sinew’ separate from those of PMic **waka/wakara* ‘root’ because **-r-* is usually reflected as *-r-* in the latter (vol.3:99).

POc **waRo(c)* ‘generic term for vines and creepers; string, rope; vein, tendon’

Adm:	Seimat	<i>wau-</i>	‘blood vessel, nerve, tendon, etc’
Adm:	Wuvulu	<i>wao-</i>	‘vein, tendon; rope’
NNG:	Tami	<i>(aka)wal</i>	‘vein’
NNG:	Kove	<i>waho-waho</i>	‘vein’ (<i>waho</i> ‘rope’)
NNG:	Bariai	<i>oaro-</i>	‘vein’
NNG:	Tuam	<i>waro-</i>	‘vein’
NNG:	Malalamai	<i>waro-</i>	‘vein’
NNG:	Sio	<i>wolo-</i>	‘vein’
NNG:	Malasanga	<i>oro-</i>	‘vein’
NNG:	Roinji	<i>walo-</i>	‘vein’
NNG:	Medebur	<i>ur</i>	‘vein’
NNG:	Manam	<i>wari(ge-rige)</i>	‘vein’
NNG:	Wogeo	<i>(bul)waro-</i>	‘throat’
SJ:	Tarpia	<i>(sini)waro-</i>	‘vein’
SJ:	Bongo	<i>(berno)waro-</i>	‘neck’
PT:	Molima	<i>walo-</i>	‘veins and tendons’
PT:	Dobu	<i>waro-</i>	‘artery’ (<i>waro-warō</i> ‘vein’) (<i>-r-</i> for † <i>-l-</i>)
PT:	Motu	<i>varo-varo-</i>	‘veins, arteries, tendons’
SV:	Anejom	<i>in-wau-</i>	‘sinew, tendon, vein’
NCal:	Nêlêmwa	<i>wara-</i>	‘vein, tendon, rope, string’
NCal:	Nemi	<i>wāk</i>	‘vein, cord’
NCal:	Xârâcùù	<i>k^{wi}</i>	‘vine, rope, vein, sinew, tendon’
NCal:	Tinrin	<i>wi</i>	‘vine, rope, vein, sinew’

PMic **waka* ‘vein, artery, sinew’ (Bender et al. 2003)

Mic:	Marshallese	<i>yākay</i>	‘vein, artery, blood vessel’
Mic:	Woleaian	<i>wāxa, waxa-</i>	‘vein, sinew, blood vessel, artery’
Mic:	Pulo Annian	<i>wāxa, waxa-</i>	‘root, vein, sinew, artery’
Fij:	Wayan	<i>wā</i>	‘creeper, vine; cord, rope string; guts, intestines’
		<i>wā-wā</i>	‘guts, intestines’

cf. also:

PNCV **kaRo* ‘vine, rope; vein’ (Clark 2009)

NCV:	Maewo	<i>yao-</i>	‘vein’
NCV:	NE Ambae	<i>karo(huwe)</i>	‘vein’ (<i>karo</i> ‘rope, vine’, <i>huwe</i> ‘?’)

3.4 The head and its parts

There is a large collection of POC terms denoting the head and its parts. Terms for parts of the head denote the forehead, brain, back of head (and nape), top of head (and fontanelle), face and side of face (or cheek), eye, eyelash/eyebrow, eyebrow ridge, eyelid, eyeball, ear, nose, nostril, mouth (outer and inner), lips, tongue, teeth (in general, molar and canine), gums, chin/jaw, beard, neck, throat and voice.

There are several terms for the head itself, their cognate sets and glosses suggesting differences in their semantic range. The fact that POC **qulu-* (§3.4.1) also had a number of metaphorical senses ('chief', 'headwaters', 'prow of a boat', 'first-born'), as well as the more specialised sense of 'hair of the head' and a use as a relational local noun meaning 'top' suggests that part of its meaning was the **position** of the head as the highest point of the body. The glosses of **b^watu(k)*, on the other hand, appear to focus on its **shape** (§3.4.2).

3.4.1 **qulu* 'head'

The most widespread term for the head is **qulu*. Blust (ACD) comments

Although only the meaning 'head' can be assigned to PAn **quluh*, PMP **quluh* clearly had a number of meanings in addition to its primary use as a body-part label. Physical extensions of this primary sense include applications to the tops of trees, mountains and the like, and to the handles of bladed implements such as knives and axes. Somewhat more striking are widespread reflexes of **quluh* in the meaning 'headwaters of a river', probably in the construction **qulu ni wahiR*. ... Reflexes of **quluh* apply not only to the upper part of objects, but also to the front part of objects ('prow of a boat') and to priority in time ('first', 'first-born').

Its meaning in POC clearly included such metaphorical extensions.

PAn **quluh* 'head' (ACD)

PMP **quluh* 'head; top part; leader, chief; headwaters; handle of a bladed implement; prow of a boat; first, first-born' (ACD)

POC **qulu-* 'head; leader; hair of the head', (N LOC) 'top part'

Adm: Tennis	<i>uru-</i>	'head'
Adm: Drehet	<i>ulu (bo)</i>	'headwaters of a river'
Adm: Nauna	<i>kulu-n (puli)</i>	'peak of a mountain'
	<i>kulu-n (key)</i>	'top of a tree'
NNG: Sio	<i>(i)kulu-</i>	'head, brain'
NNG: Adzera	<i>(guzu)uru-</i>	'skull'
NNG: Dangal	<i>uru-</i>	'head; brain'
NNG: Mapos-Buang	<i>ulu-</i>	'head'
PT: Kukuya	<i>ununu-</i>	'head'
PT: Muyuw	<i>kunu-</i>	'head'
PT: Molima	<i>ʔunu-ʔunu-</i>	'head, forehead; (river) source'
PT: Kilivila	<i>kulu-kulu-</i>	'hair'
	<i>kulu(bakana)</i>	'bald (man)'
	<i>kulu(wotagu)</i>	'top ridge of head'
PT: Wedau	<i>unu-</i>	'skull, head'

MM:	Sursurunga	(l)ulu-	‘head’
MM:	Tangga	(paka)lu-	‘head’
MM:	Patpatar	ulu-	‘head; skull’
MM:	Ramoaina	ul	‘head, hair, top, apex, crown’
MM:	Tolai	ulu-	‘head’
MM:	Nehan	lu-	‘head’
MM:	Simbo	ulu	‘above, overhead; over’
MM:	Maringe	ulu	‘at the head of, in front of, before’
		n-ulu	‘leader, leading person or thing, in the first position’
SES:	Gela	ulu-	‘head, except of a chief; eastern end, upper end’
SES:	Bugotu	ulu-	‘head, top end’
SES:	Lau	ulu(nao)	‘first-born, elder, senior’ (nao ‘first’)
SES:	‘Are’are	uru	‘cloud, heaven, sky, top’
SES:	Sa’a	ulu(one)	‘the sandy tract immediately above the beach’ (one ‘sand’)
NCV:	Mota	ulu(i)	‘hair; feathers’
NCV:	NE Ambae	ulu	‘above, top of, height (of person)’
NCV:	Raga	ilu-	‘hair’
Mic:	Kosraean	ulu-	‘top’
Mic:	Chuukese	wīr	‘extreme part, top’
		wiri-r (cūk)	‘mountain top’
Mic:	Puluwatese	wil	‘budding leaf, tree top’
		wili-	‘foliage; head, hair’
Fij:	Rotuman	ulu-ŋa	‘top, summit of s.t. high (tree, house, hill, etc)’
Fij:	Wayan	-ulu	‘head, hair of head’
Fij:	Bauan	ulu-	‘head, hair of head, top’
		ulu (matua)	‘woman’s first-born child’
		ulu (taŋa)	‘head or upper part of a river’
PPn *qulu ‘head, hair of head’			
Pn:	Tongan	ʔulu	‘head (lit. or fig.), upper end’
		ʔulu (ʔi ʔufi)	‘yam-top’
Pn:	Niuean	ulu	‘head, hair’
		ulu(aki)	‘first-born’ (aki ordinalising particle)
Pn:	Rennellese	ʔugu	‘head, hair of head; head person’
Pn:	Samoa	ulu	‘head; hair’
		ulu (matua)	‘first-born, eldest child’
Pn:	Tikopia	uru	‘head; crest; top’
Pn:	Maori	uru	‘head, in the singular; chief; top, upper end; point, of a weapon, etc; hair of the head, in the plural’

PAN *qulu qulu ‘head-end, upper part’ (ACD)

POc *qulu-qulu ‘upper part of s.t.’

PT:	Molima	ʔunu-ʔunu	‘head’
		ʔunu-ʔunu(na)	‘upper part of head; forehead; source of a river’
MM:	Roviana	ul-ulu-	‘high, lofty’

MM: Simbo	<i>ul-ulu</i>	‘high’
SES: Lau	<i>ulu-ulu-</i>	‘topmost branch of a tree’

3.4.2 **p^(w)atu(k)* ‘outer shell, skull’, **b^watu(k)* ‘head, top of’ and **p^wau-* ‘head’

The three POC terms reconstructed below, **p^(w)atu(k)* ‘outer shell, skull’, **b^watu(k)* ‘head, top of’, and **p^wau-* ‘head’, represent a solution to a reconstructive conundrum. We are confronted by two overlapping pairs of reconstructions. The first pair, **p^(w)atu(k)* and **b^watu(k)*, are very similar in form. They are also close enough in meaning that some reflexes of **p^(w)atu(k)* mean ‘head’ rather than ‘skull’. The second pair, **b^watu(k)* and **p^wau-*, both mean ‘head’, and form a puzzling parallel to POC **p^watu[ka]-* ‘elbow, knee; joint, node’ and PSOC **b^wau-* ‘knee’ (§3.6.8.1.1).

We turn first to **p^(w)atu(k)* and **b^watu(k)*.

3.4.2.1 **p^(w)atu(k)* (vs **b^watu(k)*)

Dempwolff (1938) reconstructed PMP **batuk* and glossed it as ‘skull’. Blust (ACD) retains this gloss, but with a comment that it is problematic, as the only non-Oceanic reflexes are:

wMP: Malay	<i>batok</i>	‘husk and shell of coconut’
wMP: Javanese	<i>batuk</i>	‘forehead’
CMP: Tetun	<i>ulu-n fatu(-k)</i>	‘skull, bones of the head’
CMP: Kisar	<i>ulu waku-n</i>	‘head’

The glosses above suggest the possibility that PMP **batuk* meant ‘outer shell’, whether of the skull or of, say, a nut. The CMP terms, in which *ulu-* reflects PMP **quluh* ‘head’ (§3.4.1), thus had the literal sense ‘shell of head’, i.e. ‘skull’, leading to the likelihood that the directly inherited POC reflex of PMP **batuk* was not POC **b^watu(k)* ‘head’ but POC **p^(w)atu(k)* ‘outer shell, skull’ below.¹⁵ It is also possible that this **p^(w)atu* shares history with POC **p^watu[ka]-* ‘elbow, knee; joint, node’ (§3.6.8.1.1), particularly if the latter referred specifically to the knee-cap, itself an outer shell—but we have no direct evidence of this at the moment.

It seems unlikely, however, that the formal and semantic similarity of **p^(w)atu(k)* and **b^watu(k)* is due to chance, and more probable that both ultimately reflect PMP **batuk* ‘outer shell’, with **b^watu(k)* an indirect reflex—perhaps a loan from a language that retained PMP **b-*, perhaps the outcome of a piece of word-play or of some process that the data do not reveal. Such splits in pre-Oceanic etyma did occur occasionally, as attested by the split of PMP **buaq* ‘fruit’ into POC **puaq* ‘fruit’ (vol.3:115) and POC **buaq* ‘betelnut, areca palm’ (vol.3:393; see the summary of Blust’s ACD discussion there). However, there is no non-Oceanic evidence of such a split. The cognate set supporting **p^(w)atu(k)* is given below, and that supporting **b^watu(k)* in §3.4.2.2.

In the New Ireland languages Tigak, Kara and Lihir and Bougainville languages from Taiof to Uruava below, the reflex of **p^(w)atu* means ‘head’. This may reflect contamination by **b^watu(k)* or simple semantic shift.¹⁶ Under ‘cf. also’ below are reflexes of Proto Central Micronesian **fatuku* ‘head’, where **f-* is the regular reflex of POC **p-*, not **p^w-*, but these

¹⁵ This inference seems more plausible than Blust’s (ACD) that the CMP items reflect PMP **batu* ‘stone’ rather than PMP **batuk*.

¹⁶ An alternative is that we have misread the sound correspondence, as there are very few Bougainville reflexes of terms that include **b^w*.

forms are also odd in reflecting final POc **-k* with a following echo vowel. These are thus not regular reflexes and may reflect borrowing from an unknown source that retained POc final consonants.

Also below is a cognate set reflecting POc **[p^(w)atu]p^(w)atu(k)* ‘hard, strong, firm’. We take this to be a reduplication of **p^(w)atu(k)* ‘outer shell, skull’, an inference supported by both form (POc attributes were commonly formed by reduplication; vol.2:206–220) and meaning.

In two instances below, Bariai (*eau*) *pat* ‘coconut shell container for water’ and Takia *pat-pat* ‘strong, hard’, there is homophony with the term for ‘stone’, *pat* in both cases, reflecting POc **patu* ‘stone, rock’ (vol.2:62–63). We take this to be the result of chance. In languages where **p^w-* and **p-* are differently reflected, reflexes of **p^(w)atu* and **patu* are not homophonous, as indicated in parentheses below.

PMP **batuk* ‘outer shell, skull’ (Dempwolff 1938: ‘skull’; ACD)

POc **p^(w)atu(k)* ‘outer shell, skull’

Adm: Mussau	<i>pati(nao)</i>	‘skull’ (<i>nao</i> ?< POc <i>*nako-</i> ‘face’; cf. <i>atu</i> ‘stone’)
NNG: Bariai	(<i>eau</i>) <i>pat</i>	‘coconut shell container for water’ (<i>eau</i> ‘water’; cf. <i>pat</i> ‘stone’)
NNG: Poeng	<i>pat-pato</i>	‘shell’
NNG: Gitua	<i>patu</i>	‘coconut shell, eggshell’
NNG: Bilibil	<i>patu-</i>	‘head’
NNG: Kaiwa	<i>na-vatu</i>	‘skull’ (cf. <i>vat</i> ‘stone’)
NNG: Yalu	(<i>nupiap</i>) <i>arō-ʔ</i>	‘skull’ (<i>nupiap</i> ‘head’)
MM: Tigak	<i>patu-</i>	‘head’
MM: E Kara	<i>putu-</i>	‘head’ (cf. <i>fat</i> ‘stone’)
MM: Lihir	<i>pat-pat</i>	‘brain’ (cf. <i>ot</i> ‘stone’)
MM: Lamasong	<i>pat(lak)</i>	‘skull’ (<i>lak</i> ‘brain’; cf. <i>vatu-at</i> ‘stone’)
MM: Sursurunga	<i>patu-</i>	‘skull’ (cf. <i>hat</i> ‘stone’)
	<i>pat-pat</i>	‘shell type’
MM: Siar	<i>pat-pat</i>	‘shell type’ (cf. <i>fat</i> ‘stone’)
MM: Taiof	<i>patu</i>	‘head; forehead’ (cf. <i>fat</i> ‘stone’)
MM: Hahon	<i>pac</i>	‘head’ (cf. <i>vac</i> ‘stone’)
MM: Tinputz	<i>pasu</i>	‘head’ (cf. <i>vəs</i> ‘stone’)
MM: Teop	<i>pasu</i>	‘head’ (cf. <i>vasu</i> ‘stone’)
MM: Papapana	<i>patu</i>	‘head’ (cf. <i>vatu</i> ‘stone’)
MM: Uruava	<i>patu</i>	‘head’ (cf. <i>patu</i> ‘stone’)
MM: Mono-Alu	(<i>ola</i>) <i>patu-</i>	‘skull’ (cf. <i>patu</i> ‘stone’)
NCV: Lewo	(<i>pia</i>) <i>pari-</i>	‘skull’

cf. also:

NNG: Numbami	<i>watu-</i>	‘shell, hard outer covering’ (cf. <i>wati</i> ‘stone’)
SES: Gela	<i>vatula</i>	‘skull’ (cf. <i>vatu</i> ‘stone’)

Proto Central Micronesian **fatuku* ‘head’ (Bender et al. 2003)

Mic: Kiribati	<i>te-atū</i>	‘head’
Mic: Pulo Annian	<i>θaθixi</i>	‘head’
Mic: Sonsorol	<i>fadúkú</i>	‘head’

POc *[p^(w)atu]p^(w)atu ‘hard, strong, firm’

NNG:	Takia	<i>pat-pat</i>	‘strong, hard’ (cf. <i>pat</i> ‘stone’)
PT:	Dobu	<i>patu-patu</i>	‘hard, of fat, sago’
PT:	Kukuya	<i>vatu-</i>	‘strong, hard ??’ ¹⁷
SES:	Bugotu	<i>patu</i>	‘hard, firm, taut’
SES:	Gela	<i>patu</i>	‘hard, to make firm’ (cf. <i>vatu</i> ‘stone’, <i>vatula</i> ‘skull’)
SES:	‘Are’are	<i>pau-pau</i>	‘hard’ (cf. <i>hau</i> ‘stone’, <i>pau-</i> ‘skull’)

3.4.2.2 *b^watu(k) and *p^wau-

As noted in §3.4.2, *b^watu(k) and *p^wau- both mean ‘head’, and form a puzzling parallel to POc *p^watu[ka]- ‘elbow, knee; joint, node’ and PSOc *b^wau- ‘knee’ (§3.6.8.1.1). The two pairs overlap conceptually, as reflexes of both entail the sense ‘knob, node, joint’. Formally, all four reconstructions begin with a labiovelar consonant *b^w or *p^w, and have the same vowels, but the first member of each pair has a medial *-t- where the second member doesn’t. Moreover, the members of each pair disagree in the voicing of the initial labiovelar. The first pair displays *b^w/*p^w-, the second pair the reverse.

Are any of the four reconstructions related to each other? Near-homophony between terms for head/skull and knee/elbow occurs across subgroups and echoes a polysemy between terms for ‘head’ and ‘knee’ in Tarascan (a Mexican isolate), in several Mayan languages where the term for knee, *nah ch’ehk*, is literally ‘head (*nah*) of lower leg’, and in Finnish where the term for elbow, *kynärpää*, is literally ‘head (*paa*) of cubit’ (Anderson 1978:354-355). Anderson suggests the polysemy is based on structural similarity (rounded boniness?).

A fairly exhaustive listing of known reflexes is given here and in §3.6.8.1.1 as a basis for answering the questions these forms raise. There are several possible answers, of course. The similarities between the four forms may be due to chance, or the four forms may reflect one or more etyma that have undergone a formal and semantic split, and/or the modern forms may reflect contamination of one form by another formally and semantically similar form.

The most conservative response has been chosen here: to make four separate reconstructions, as there is sufficient semantic and formal consistency within each set to justify this. There are several other reasons for this choice.

Lynch (2002) merges POc *b^watu(k) ‘head, top of’ and POc *p^watu[ka]- ‘elbow, knee; joint, node’ into a single set, but the initial labiovelar correspondences do not justify the merger. All reflexes of POc *p^watu[ka]- in §3.6.8.1.1 reflect *p^w-. All the reflexes of POc *b^watu(k) below reflect *b^w-. Lynch also merges POc *p^wau- ‘head’ and PSOc *b^wau- ‘knee’, and for this there is formal support. The non-Southern Oceanic reflexes of POc *p^wau- are regular, but the Southern Oceanic (NCV, SV and NCal) reflexes point to PSOc *b^wau- ‘head’, i.e. the same form as PSOc *b^wau- ‘knee, joint’. If these two sets reflected a single etymon, however, one would expect some of its reflexes to mean both ‘head’ and ‘joint’. In fact this happens only in Sye (SV), where *no-m^hpu* occurs in both sets. It thus seems safer to infer that in Sye the reflexes of the two etyma have merged, whilst other languages have kept them separate. It could also be inferred, however, that PSOc *b^wau- ‘head’ is a reflex of POc *p^wau- ‘head’ whose initial *b^w- reflects contamination from PSOc *b^wau- ‘knee, joint’.

¹⁷ Only found in BPMs in our data.

This leaves the question, Did POc **p^wau-* ‘head’ and PSOc **b^wau-* ‘knee’ arise respectively from POc **b^watu(k)* ‘head, top of’ and POc **p^watu[ka]-* ‘elbow, knee; joint, node’ through loss of **-t-*? Perhaps, but it seems unlikely, first because loss of **-t-* has not otherwise been observed in POc etyma, and second because the seemingly shortened forms reflect initial consonants with the opposite voicing value from the forms with **-t-*. This gives us four different etyma that display intriguing semantic and formal relationships that remain unexplained.

Further comments on this cognate set follow it below.

? PMP **batuk* ‘skull’ (Dempwolff 1938, ACD) (but see text above)

POc **b^watu(k)* ‘head; top (of s.t.)’

Adm:	Seimat	<i>patu-</i>	‘head’
Adm:	Lou	<i>potu-</i>	‘head’
Adm:	Baluan	<i>patu-</i>	‘head’
Adm:	Ponam	<i>batu-</i>	‘head’
Adm:	Nyindrou	<i>batu-</i>	‘head’
NNG:	Bing	<i>batu-</i>	‘head’
MM:	Vaghua	<i>bac</i>	‘chieftain’
MM:	Varisi	<i>batu</i>	‘chieftain’
MM:	Ririo	<i>boc</i>	‘chieftain’
MM:	Sisiqa	<i>bötu</i>	‘head’
MM:	Sengga	<i>bøtu-</i>	‘head’
MM:	Lungga	<i>batu-</i>	‘head’
MM:	Nduke	<i>batu-</i>	‘head’
MM:	Roviana	<i>batu-</i>	‘head’
		<i>(pala)batu</i>	‘married man, elder; chieftain’ (<i>pala</i> meaning unknown)
SES:	Lau	<i>g^wau-</i>	‘head, top’
		<i>g^wou</i>	‘head, top, lump’
SES:	To’aba’ita	<i>g^wau</i>	‘head, top’
		<i>gū(?i)</i>	‘head of, top of’
SES:	Kwaio	<i>gou-</i>	‘head, top, important part’
SES:	’Are’are	<i>pau-</i>	‘head’
SES:	Arosi	<i>b^wau-</i>	‘head; chief, leader; knob; headland’
SES:	Sa’a	<i>p^wau(-)</i>	‘head, top, chief’
TM:	Nembao	<i>baro</i>	‘head’
TM:	Vano	<i>basa</i>	‘head’
TM:	Tanambili	<i>(vala)base</i>	‘head’

PNCV **b^watu-* ‘head’, **b^watu* ‘club’ (Clark 2009)

NCV:	Mota	<i>p^wati-</i>	‘knob, head’
		<i>p^wat</i>	‘knob, knob-stick, thick stick’
		<i>p^wat(pane)</i>	‘shoulder’ (lit. ‘head/knob of arm’)
NCV:	Mwotlap	<i>b^wrt</i>	‘head, club’
NCV:	Nokuku	<i>potu-</i>	‘head’
NCV:	Valpei	<i>p^watu-</i>	‘head’

NCV: Tasiriki	<i>batu-</i>	‘head’
NCV: Kiai	<i>patu-</i>	‘head’
NCV: Tamambo	<i>buatu</i>	‘head’
NCV: Paamese	<i>a-vat, vati-</i>	‘head’
NCV: Lewo	<i>p^wari-</i>	‘head’
NCV: Raga	<i>b^watu</i>	‘head, base, beginning’
NCV: Avava	<i>bat</i>	‘head’
NCV: Uripiv	<i>batu-</i>	‘head’
	<i>batu(ⁿrum)</i>	‘head of yam, k.o. war club’
NCV: Port Sandwich	<i>baru-</i>	‘head’
	<i>bar(vosa-)</i>	‘shoulder’ (lit. ‘head of arm’)
	<i>na-bat</i>	‘club’
NCV: Ninde	<i>na-buto-</i>	‘head’
	<i>nə-büt(vaxa)</i>	‘shoulder’ (lit. ‘head of arm’)
NCV: Naman	<i>batə-</i>	‘head’
NCV: W Ambrym	<i>b^wer</i>	‘head’
	<i>b^wate-</i>	‘head, top of’
NCV: SE Ambrym	<i>vatu, vato-</i>	‘head’
NCV: Paamese	<i>vatu</i>	‘head’
PPn <i>*patu</i> ‘callus, lump, tumour’		
Pn: Tongan	<i>patu</i>	‘callus’
Pn: Samoan	<i>patu</i>	‘swelling, lump, tumour’
Pn: Tuvalu	<i>patu</i>	‘callus, tumour, swelling on body’
Pn: E Futunan	<i>patu(ŋa)</i>	‘knot, excrescence on tree’
Pn: Tahitian	<i>patu</i>	‘little mallet’
Pn: Maori	<i>patu</i>	‘general name for mallets and short clubs’

Reflexes of POc **b^watu(k)* ‘head’ are also used metaphorically to refer to the upper part of things, e.g. Mota *p^wat panei* ‘shoulder’ (‘head of arm’). From the SE Solomons eastward there are reflexes with extended senses such as ‘lump’ and ‘knob’, and what appears to be a further extension to denote a weapon with a large knob on the end (‘knobstick’, ‘club’). Polynesian reflexes have either the latter meaning or denote a lump on the human body or a tree.

Note that Malaita-Makira (SES) languages lose POc **-t-* regularly. Hence Lau *g^wau-* etc are taken above to reflect **b^watu-*. The items in the set below are from languages where **-t-* is retained: its absence, along with reflexes of initial **p^w-* indicates that these items reflect POc **p^wau-*, not **b^watu-*.

The items listed under ‘cf. also’ below do not reflect **p^wau-* regularly **and** have unexpected senses.

POc **p^wau-* ‘head’

Adm: Mussau	<i>pou(ŋ-alo)</i>	‘back of head’ (<i>alo</i> ‘neck’)
NNG: Bebeli	<i>pawa-</i>	‘back of head, skull’
NNG: Mangseng	<i>pou(ŋa)</i>	‘head’
NNG: Mouk	<i>a-po-</i>	‘head’
NNG: Sio	<i>pau-</i>	‘head hair’
NNG: Kairiru	<i>(i)p^wo-</i>	‘head’

MM:	Torau	<i>pau-</i>	‘head’
MM:	Kia	<i>pau-</i>	‘head’
MM:	Kokota	<i>pau-</i>	‘head’
MM:	Maringe	<i>p^haʔu-</i>	‘head’
SES:	Bugotu	<i>pau-</i>	‘head’ ¹⁸

PSOc **b^wau-* ‘head’ (Lynch 2004a)

NCV:	Nakanamanga	<i>p^wau-</i>	‘head’
NCV:	Nguna	<i>na-p^wau-</i>	‘head’
NCV:	S Efate	<i>p^wa -</i>	‘head’
SV:	Sye	<i>no-^mpu-</i>	‘head’
SV:	Ura	<i>no-^mpu-</i>	‘head’
NCal:	Caaàc	<i>b^wa-</i>	‘head’
NCal:	Nyelâyü	<i>b^wã-</i>	‘head’
NCal:	Pwapwâ	<i>g^wa-</i>	‘head’
NCal:	Ajië	<i>g^wã-</i>	‘head’
NCal:	Xârâcùù	<i>b^wa-</i>	‘head, summit’
NCal:	Iaai	<i>ba-</i>	‘head’

cf. also:

PT:	Gumawana	<i>bo-bou-</i>	‘fontanelle’
PT:	Roro	<i>pau-</i>	‘forehead’
PT:	Kuni	<i>bau-</i>	‘shoulder’

3.4.3 Forehead

Three POc terms for ‘forehead’ are reconstructed, only one of which, **raqe-*, has a PAn antecedent. POc **dram^wa-*, reflected in Adm, NNG, MM and Mic, was evidently an Oceanic innovation. POc **p(u,o)le-* has a more limited basis, with reflexes from the Admiralties and a cluster of north Bougainville languages. Its medial vowel is uncertain. To our knowledge no contemporary language has two of these terms side by side, suggesting that they reflect dialectal variation in very early Oceanic.

PAn **daqey* ‘forehead’ (Ross 1988)

POc **raqe-* ‘forehead’

MM:	Lihir	<i>lake-</i>	‘forehead’
		<i>lak</i>	‘brain’
MM:	Tinputz	<i>nai-</i>	‘forehead’
MM:	Teop	<i>nae-</i>	‘forehead’
MM:	Papapana	<i>nai-</i>	‘forehead’
MM:	Uruava	<i>rae-</i>	‘forehead’
MM:	Torau	<i>rae-</i>	‘forehead’
MM:	Mono-Alu	<i>lae-</i>	‘forehead’
MM:	Kia	<i>rae-</i>	‘forehead’
MM:	Laghu	<i>rae-</i>	‘forehead’

¹⁸ Bugotu *pau* appears to have no other SES cognates and is perhaps borrowed from Maringe.

MM:	Roviana	<i>rae-</i>	‘forehead’
SES:	Gela	<i>rae-</i>	‘forehead’
SES:	Arosi	<i>rae-</i>	(VT) ‘move head forward, look forward, peering’
		<i>rae(hau-)</i>	‘forehead’ (<i>hau</i> ‘stone’)
NCV:	Raga	<i>rae-</i>	‘forehead’
NCV:	NE Ambae	<i>rae-</i>	‘forehead’
NCV:	Tamambo	<i>rae-</i>	‘forehead’
NCV:	Nguna	<i>na-rae-</i>	‘forehead, face; in front of a person’
Fij:	Wayan	<i>-rā</i>	‘forehead’
Fij:	Bauan	<i>(ya)dre-</i>	‘forehead’ (<i>ya-</i> prefix added to some body part terms)

PPn **laqe* ‘forehead’ (POLLEX)

Pn:	Tongan	<i>laʔe</i>	‘forehead’
Pn:	E Uvean	<i>laʔe</i>	‘forehead’
Pn:	Tikopia	<i>rae</i>	‘forehead’ (also <i>muŋa-rae</i>)
Pn:	Maori	<i>rae</i>	‘forehead’
Pn:	Hawaiian	<i>lae</i>	‘forehead’

cf. also:

Adm:	Mussau	<i>(pati)laka-</i>	‘forehead’
MM:	Lamasong	<i>(pat)lak</i>	‘skull’
MM:	Madak	<i>(pat)lakuat</i>	‘skull’
SES:	Bugotu	<i>laʔe-</i>	‘forehead’

POc **dram^wa-* ‘forehead’

Adm:	Seimat	<i>kawa-</i>	‘forehead (includes all front of head)’
Adm:	Wuvulu	<i>xawa-</i>	‘forehead’
NNG:	Poeng	<i>rama-</i>	‘forehead’
NNG:	Tuam	<i>damo-</i>	‘forehead’
NNG:	Gitua	<i>damo-</i>	‘forehead’
NNG:	Sio	<i>dam^wa-</i>	‘forehead’
NNG:	Malasanga	<i>damo-</i>	‘forehead’
NNG:	Mindiri	<i>dem^wa-</i>	‘forehead’
NNG:	Ham	<i>dama-</i>	‘forehead’
NNG:	Gedaged	<i>damo-</i>	‘cape, forehead’
NNG:	Manam	<i>dam^wa-</i>	‘forehead’
NNG:	Bam	<i>damo-</i>	‘forehead’
NNG:	Wogeo	<i>dam^wa-</i>	‘mountain’
NNG:	Kaiep	<i>dam^wa-</i>	‘forehead’
NNG:	Sissano	<i>rama-</i>	‘forehead’
NNG:	Sera	<i>rama(tal)</i>	‘forehead’
PT:	Misima	<i>lam^wa-</i>	‘forehead’
MM:	Vitu	<i>dama-</i>	‘forehead’
MM:	Bali	<i>dama-</i>	‘forehead’

MM:	Bulu	<i>dama-</i>	‘forehead’
MM:	Nakanai	<i>gama-</i>	‘head’
Mic:	Woleaian	<i>sim^we</i>	‘head, forehead’
Mic:	Puluwatese	<i>rām^w</i>	‘forehead’

cf. also:

NNG:	Mapos Buang	<i>daba-</i>	‘forehead’
PT:	Kilivila	<i>daba-</i>	‘head, forehead, brain’
PT:	Gumawana	<i>daba-</i>	‘forehead’

POc **p(u,o)le-* ‘forehead’

Adm:	Lou	<i>pule-</i>	‘forehead’
Adm:	Drehet	<i>p^wili-</i>	‘forehead’
Adm:	Loniu	<i>(taha)pule-</i>	‘forehead’
MM:	Solos	<i>pone-</i>	‘forehead’
MM:	Petats	<i>pole-</i>	‘forehead’
MM:	Haku	<i>pole-</i>	‘forehead’
MM:	Halia	<i>pole-</i>	‘forehead’

3.4.4 Brain

Two distinct meanings, ‘brain’ and ‘pith’, are carried by the same term in sporadic reflexes of both POc **qutok* (vol.3:374) and POc **paraq* (vol.3:373). Non-Oceanic evidence indicates that **qutok* was the inherited term for the brain, whilst the use of **paraq* for brain represents an extension of its earlier meaning, ‘coconut embryo’. The link between brain and coconut embryo is further supported by the Mussau terms *laŋasi* ‘brain’, *laŋasi niu* ‘pith of young coconut’ and Niuean *uho-niu*, originally referring to ‘the spongy heart of sprouting coconut’, but by extension also to ‘brain’. It is also noteworthy that brain and bone marrow are referred to by one term, *hara*, in Motu, and *oso-* in ‘Are’are.

A comparison of Blust’s (ACD) non-Oceanic reflexes of PMP **hutek* with those of POc **qutok* shows that the latter certainly denoted the brain and probably also bone marrow, and (non-Oceanic) Ambonese reflexes are consistent with the hypothesis that it was also used for the pith of plants. The sporadic occurrence of reflexes of POc **paraq* that denote the brain (vol.3:373), however, may be the result of independent parallel innovation. That is, the ‘brain’ sense of **paraq* may not have been present in POc.

The forms listed under ‘cf. also’ display phonological irregularities. The SES forms have a medial consonant where none is expected, as POc **t* is lost in these languages. Tikopia has initial *k-* where no consonant is expected.

PMP **hutek* ‘brain, marrow’ (ACD)¹⁹

POc **qutok*, **quto-* ‘brain, pith, marrow’ (vol.3:374–375)

NNG:	Bariai	<i>(i)uto-uto-</i>	‘brain’
NNG:	Gitua	<i>uto</i>	‘pith, centre of tree (particularly sago)’

¹⁹ Blust (ACD) treats PMP **hutek* and POc **qutok* as ‘a remarkable chance similarity’, but the fact that final **-k* is reflected in Lenakel speaks against this interpretation and in favour of an idiosyncratic acquisition of POc initial **q*.

NNG:	Lukep	<i>kuto-</i>	‘head’
NNG:	Malasanga	<i>koto-</i>	‘head’
NNG:	Kis	<i>ut</i>	‘brain’
NNG:	Kaiep	<i>uto(ŋ)</i>	‘brain’
NNG:	Kela	<i>koto-</i>	‘brain’
NNG:	Mapos Buang	<i>yuto-</i>	‘brain’
PT:	Suau (Saliba)	<i>uto-</i>	‘brain’
PT:	Motu	<i>(au) uto-</i>	‘pith’ (<i>au</i> ‘tree’)
SES:	Sa’a	<i>uwo</i>	‘inner skin of rattan cane, pith’
SES:	Arosi	<i>uwo</i>	‘flesh, edible part of a yam’
NCV:	Mota	<i>uto-i</i>	‘pith; inner part, if hard, within bark’

PSV **nə-vutoy* ‘brain’ (Lynch 2001c)

SV:	Anejom	<i>n-hutu(ma)</i>	‘brains’
SV:	N Tanna	<i>no-uta-</i>	‘brains’
SV:	Lenakel	<i>(nen)urək</i>	‘brain’
NCal:	Iaai	<i>haec</i>	‘brain’
Fij:	Bauan	<i>uto-</i>	‘core, heart, pith of a tree’

PPn **quto* ‘brain, pith of a tree, spongy mass in sprouting coconut’ (vol.3:375)

Pn:	Tongan	<i>ʔuto</i>	‘brain; spongy heart of sprouting coconut’
Pn:	Rennellese	<i>ʔuto</i>	‘sponge, as of coconut’
		<i>ʔuto(ʔugu)</i>	‘brain’ (<i>ʔugu</i> ‘head’)
Pn:	Samoa	<i>uto</i>	‘spongy substance in old coconut’
Pn:	Rarotongan	<i>uto</i>	‘coconut that has germinated; kernel or white spongy substance found inside a spongy coconut’

cf. also:

SES:	Sa’a	<i>uto-</i>	‘pith’
SES:	’Are’are	<i>oso-</i>	‘brains, bone marrow’
SES:	Oroha	<i>oso-</i>	‘brain’
Pn:	Tikopia	<i>kuto</i>	‘brain’

PMP **para* ‘coconut embryo’ (ACD)

POc **paraq* ‘spongy mass inside sprouting coconut’; possibly also ‘brain’

Adm:	Titan	<i>pare-</i>	‘brain, sprout’
Adm:	Wuvulu	<i>faxa-</i>	‘coconut pith; brain’
NNG:	Bariai	<i>para</i>	‘sprout (v)’
		<i>para-ŋa</i>	‘brain’ (<i>-ŋa</i> NOM)
PT:	Sinaugoro	<i>vara-</i>	‘brain; inner part of coconut’

A further term is reconstructable for PWOC.

PWOC **s(i,e)ma-* ‘brain’

NNG:	Manam	<i>sema-</i>	‘brain, head’
MM:	Patpatar	<i>sima-</i>	‘brain’
MM:	Tolai	<i>ima-</i>	‘brain’

MM:	Siar	<i>suma-</i>	‘brain’
MM:	Varisi	<i>su-suma-</i>	‘brain’
MM:	Nduke	<i>hum-um-a-</i>	‘brain’

3.4.5 Back of head, nape

The change of meaning in reflexes in Santa Isabel languages below (from Kia to Maringe) may be due to similarity of shape, i.e. from ‘back of head’ to ‘headland’ to ‘island’. PNGOc **g(i,e)ju-* is evidently an irregular reflex of POc **k(i,e)ju-*.

POc **k(i,e)ju-* ‘back of head, base of skull, occiput, nape’ (Ross 1988: ‘nape’)

NNG:	Mindiri	<i>kudu-</i>	‘nape’
NNG:	Bilbil	<i>udu-</i>	‘back of head’
NNG:	Manam	<i>kuzi-</i>	‘back of head’ (metathesis)
NNG:	Wogeo	<i>kuju-</i>	‘back of head’
PT:	Molima	<i>ʔedu-ʔedu-</i>	‘back of the head’
PT:	Dobu	<i>ʔedu-ʔedu</i>	‘base of skull’
PT:	Ubir	<i>etu</i>	‘occiput’
PT:	Bwaidoga	<i>ʔedu-ʔedu-</i>	‘base of skull’
PT:	Lala	<i>etu</i>	‘back of head’
MM:	Lihir	<i>kicie-</i>	‘back of head’
MM:	Vitu	<i>kidu-</i>	‘back of head; elbow’
MM:	Bali	<i>kidu-</i>	‘back of head’
MM:	Bulu	<i>kidu-kidu-</i>	‘back of head’
MM:	Bola	<i>kidu-</i>	‘back of head’
MM:	Harua	<i>kidu-</i>	‘back of head’
MM:	Nakanai	<i>kisu-</i>	‘back of neck, nape’
MM:	Taiof	<i>a-iru-</i>	‘back of head’
MM:	Uruava	<i>idu-</i>	‘back of head’
MM:	Torau	<i>idu-</i>	‘back of head’
MM:	Varisi	<i>kuzu-</i>	‘head’
MM:	Ririo	<i>kuju-</i>	‘head’
MM:	Babatana	<i>kuju-</i>	‘skull’
MM:	Roviana	<i>kizu-</i>	‘back of head’
MM:	Nduke	<i>kizu-</i>	‘back of head’
MM:	Kia	<i>yizu</i>	‘island’
MM:	Kokota	<i>yizu</i>	‘island’
MM:	Laghu	<i>yizu</i>	‘island’
MM:	Blablanga	<i>(gi)yizu</i>	‘headland’
MM:	Maringe	<i>(giu)yiju</i>	‘headland, point of land’
Mic:	Woleaian	<i>xʰ</i>	‘back of head’

PCP **keju-* ‘back of head’ (Geraghty 1986)

Fij:	Rotuman	<i>ʔecu</i>	‘back of head’
Fij:	Bauan	<i>kesu-</i>	‘back of head’

The following forms appear to reflect a PNGOc innovation whereby **k-* was irregularly replaced by **g-*.

PNGOc **g(i,e)ju-* ‘back of head, base of skull, occiput, nape’

NNG:	Malasanga	<i>guru(kai)</i>	‘back of head’
NNG:	Nenaya	<i>gizu-</i>	‘neck’
NNG:	Gedaged	<i>gudu-</i>	‘neck’
NNG:	Gitua	<i>gizu-</i>	‘nape’
NNG:	Malalamai	<i>gizu-</i>	‘nape’
NNG:	Yabem	<i>gesu-</i>	‘neck’
PT:	Muyuw	<i>a-gadu-</i>	‘back of head’
PT:	Kilivila	<i>(kai)gadu-</i>	‘back of head’
PT:	Motu	<i>gedu-</i>	‘back of head, heel’

3.4.6 Top of head, fontanelle

In a number of languages the term for the fontanelle is a reflex of POc *[*ma*]ñawa, which was evidently a verb meaning ‘breathe, rest, be alive’, but also occurred as a noun with the senses ‘breath’, ‘life’ and ‘fontanelle’. The full cognate set for this term is presented in §4.5.1, where it is discussed in some detail. Here just those reflexes that include the sense ‘fontanelle’ are given. Note that the fontanelle provides a visible pulse in a young baby and is thus representative of life. The extension from ‘breath’ via ‘pulse’ to fontanelle is thus a natural one. The fontanelle is regarded in some parts of Oceania (e.g. Arosi) as where the soul entered and departed from the body.

PAn **LiSawa* ‘breathe, breath’ (ACD)

PMP *[*ma*]nihawa ‘breathe; breath’ (Ross 1988, ACD)

POc *[*ma*]ñawa (v) ‘breathe, rest, be alive’; (N) ‘breath, life, fontanelle’

Adm:	Lou	<i>mein</i>	‘fontanelle’
PT:	Kiriwina	<i>mola-</i>	‘fontanelle’ (-o- for †-a-)
MM:	Tolai	<i>mana-manau</i>	‘fontanelle’
SES:	Arosi	<i>manawa</i>	‘breathe, rest, pant; breath, lungs, fontanelle’

PPn **mānawa* ‘breathe; breath’ (POLLEX)

Pn:	Tongan	<i>mānava</i>	‘breath, breathe’
Pn:	Samoa	<i>mānava</i>	‘breathe, breath; palpitate, pulsate; rest from work’
Pn:	Rennellese	<i>manaba</i>	‘breathe; breath, fontanelle’
Pn:	Tuvalu	<i>mānava</i>	‘breathe’
Pn:	E Futunan	<i>mānava</i>	‘breath, breathe’
Pn:	E Uvean	<i>mānava</i>	‘breath, breathe’
Pn:	Tikopia	<i>mānava</i>	‘breath’
Pn:	Hawaiian	<i>manawa</i>	‘anterior fontanelle’
Pn:	Marquesan	<i>menava</i>	‘breath, anterior fontanelle’

cf. also:

Fij: Bauan *mana-manā* ‘fontanelle’

POc **maŋawa-* ‘fontanelle, forehead’ is apparently a doublet of POc **mañawa*, related to it by an irregular sound change **ñ > *ŋ*. Some reflexes of **maŋawa-* denote the forehead rather than the fontanelle, presumably as a result of a metonymic usage extending reference to the whole of the front part of the top of the head.

POc **maŋawa-* ‘fontanelle, forehead’

MM:	Lamasong	<i>maŋa-</i>	‘forehead’
MM:	Madak	<i>maŋ</i>	‘forehead’
SES:	Sa’a	<i>maŋo(-)</i>	‘breathe; breath, chest’
SES:	Lau	<i>maŋo(-)</i>	‘breathe; pulse; fontanelle’
SES:	To’aba’ita	<i>maŋo</i>	‘breath, breathing; soul; pulse’

PMic **maŋo-* ‘top of head, fontanelle’ (Bender et al., 2003)

Mic:	Kiribati	<i>maŋo-</i>	‘fontanelle’
Mic:	Woleaian	<i>maŋo-</i>	‘forehead’
Mic:	Carolinian	<i>mōŋ</i>	‘forehead’
Fij:	Bauan	<i>mana-manā</i>	‘fontanelle’

It is possible that **tubuŋa* ‘crown of head’ is a nominalisation (with *-ŋa*) of POc **tubuq* ‘grow, swell’ (vol.1:134; vol.3:366), where the hair on the crown is compared to the first appearance of plants above ground.

POc **tubuŋa* ‘crown of head’

PT:	Sinaugoro	<i>tubua</i>	‘highest point on the head’
PT:	Motu	<i>tubua</i>	‘crown of head, top of anything’
Fij:	Rotuman	<i>fupuŋa</i>	‘crown of head’

3.4.7 Face

Although two POc terms, **nako-* and **qarop-*, are listed here, **qarop-* was principally a spatial term (a relational local noun; §3.1.2) referring to ‘front, face, the side usually seen’ (vol.2:247) whereas **nako-* denoted the body part containing facial features and was only secondarily a spatial term. A third term POc **mata-* (§3.4.9.1 and vol.2:249) was apparently also commonly used to refer to ‘face’ as well as ‘eyes’.

POc **nako-* ‘face’, (N LOC) ‘front’ (vol.2:250)

Adm:	Pak	<i>nogo(gi)</i>	‘front, before, face’
NNG:	Gitua	<i>nago-</i>	‘face’
NNG:	Tami	<i>nao-</i>	‘front, face’
NNG:	Takia	<i>nao-</i>	‘face’
PT:	Kukuya	<i>nao</i>	‘front’
MM:	Lavongai	<i>no-</i>	‘forehead, frontside’
MM:	Tigak	<i>no-</i>	‘forehead, frontside’

MM:	W Kara	<i>no-</i>	‘forehead’
MM:	Nalik	<i>no-</i>	‘forehead’
SES:	Gela	<i>nayo</i>	‘front, before, face’
SES:	Bugotu	<i>nayo</i>	‘before, in front, first’
SES:	Lau	<i>nao-</i>	‘face, front’
SES:	Kwaio	<i>naʔo</i>	‘before, in front of’
SES:	Sa’a	<i>naʔo</i>	‘front, before, face’
NCV:	Mota	<i>nayo(i)</i>	‘face, front, cutting edge’
NCV:	NE Ambae	<i>nako-</i>	‘face, front’
NCV:	Tamambo	<i>nayo-</i>	‘face’
NCV:	Paamese	<i>nā-</i>	‘face, front’

cf. also:

MM:	Nakanai	<i>lagu-</i>	‘face; forward, in front’ (<i>g</i> for † <i>k</i>)

Reflexes of POc **qarop* consistently refer to ‘front, face, the side usually seen’ and are sometimes contrasted with reflexes of POc **muri-* ‘back’ (§3.1.2, vol.2:251). In this sense they are often used to refer to parts of the body other than the face. Evidence for final **-p* lies in phrases such as Tongan *ʔaofi-vaʔe* and Samoan *alofi-vae*, both ‘sole of foot’, where *-i* reflects the PPn linker **qi* (Hooper 1985).

PAn **qadap* ‘front, face’ (Blust 1997)

POc **qarop* ‘face’, (N LOC) ‘front, the side usually seen’ (vol.2:247)

Adm:	Mussau	<i>alo-</i>	‘(front of?) neck’
Adm:	Lou	<i>kar</i>	‘palm, sole’ (<i>kar-mena</i> ‘of hand’, <i>kar-ke</i> ‘of foot’)
NNG:	Manam	<i>aro</i>	‘space in front’
NNG:	Kairiru	<i>aro</i>	‘in front of (s.t.)’
PT:	Dawawa	<i>karo</i>	‘in front’
PT:	Kilivila	<i>kayo</i>	‘front of neck, throat’
SES:	Sa’a	<i>saro</i>	(vi) ‘to face, turn oneself, (N) ‘breast’
SES:	’Are’are	<i>ʔaro-ʔaro-</i>	‘throat’
NCal:	Pwaamei	<i>kala(n)</i>	‘front side’
Fij:	Rotuman	<i>aro</i>	‘front, side or surface usually seen; palm of hand etc’ (possible Polynesian loan)
Pn:	Tongan	<i>ʔao</i> <i>ʔaof-i</i>	‘front, esp. of a person, private parts, genitals’ ‘lining (of house, garment etc)’
Pn:	Rennellese	<i>ʔago</i> <i>ʔago baʔe</i> <i>ʔago hi gima</i>	‘front, coastline, front of human chest’ ‘back of knee or thigh’ ‘palm of hand, inner surface of arm’
Pn:	Samoan	<i>alo</i>	‘smooth soft side of a thing, the front as opposed to <i>tua</i> the back; stomach, belly’
Pn:	Tikopia	<i>aro</i>	‘inner part, lining; concave face opp. to <i>tua</i> ’ ‘back of s.t.; stomach, womb’
Pn:	Maori	<i>aro</i>	‘front of body; pubic area of females’
Pn:	Hawaiian	<i>alo</i>	‘front, face; inner surface; front of human chest’

3.4.8 Side of face, cheek, temple

Two POC etyma, *[p^wa]p^waRa- ‘cheek, side of face’ and *baba[R,l]i- ‘cheek’ appear to reflect Blust’s PCEMP *papaR ‘cheek’ (ACD). However, two comments are in order. First, PCEMP *papaR is supported by only one non-Oceanic reflex (Buru *papa-n* ‘cheek’), with the consequence that there is no independent attestation of PCEMP *-R- or of the vowel following it. Second, POC doublets are rare, and it is possible that the two etyma have different origins. Both have reflexes that simply mean ‘side’, but it is common for POC relational local nouns to be derived from human body part terms (cf. POC *b^wal(o,a)- ‘belly, inside’, vol.2:239; *qaro- ‘face, front’, vol.2:247; *mata- ‘eye, front’, vol.2:249). A stronger possibility is that POC *baba[R,l]i- is indeed a doublet, created through contamination by POC *baban ‘flat, board, plank of boat’ (vol.1:185–186) because of its reference to a bone with a flat surface. Reflexes of POC *baban are sometimes used in this sense (cf. To’aba’ita *baba-leqo*, Maori *papa-āhuahua*, both ‘shoulder blade’), and it is possible that PEPn *papa-arija ‘cheek’ reflects such a compound.²⁰

PCEMP *papaR ‘cheek’ (ACD)

POC *[p^wa]p^waRa- ‘cheek, side of face’; (N LOC) ‘side’ (vol.2:244–245)

MM:	Nalik	<i>par, pāran</i>	‘side’
MM:	Kandas	<i>papori</i>	‘side’
MM:	Minigir	<i>papara</i>	‘side’
MM:	Tolai	<i>papar, papara</i>	‘side’
MM:	Taiof	<i>pana</i>	‘side’
MM:	Mono-Alu	<i>papala</i>	‘side’
MM:	Tinputz	<i>panan</i>	‘cheek, brim’
MM:	Varisi	<i>pa-para-</i>	‘cheek’
MM:	Vaghua	<i>pa-para-</i>	‘cheek’
MM:	Nduke	<i>pa-para-</i>	‘cheek’
MM:	Roviana	<i>pa-para-</i>	‘side of face, cheek’
NCV:	S Efate	<i>m^war, p^war</i>	‘side of face’

cf also:

SJ:	Sobei	<i>popa</i>	‘cheek’

PCEMP *papaR ‘cheek’ (ACD)

POC *baba[R,l]i- ‘cheek’

NNG:	Manam	<i>baba</i>	‘flat; palm of hand, sole of foot’
NNG:	Rauto	<i>vava</i>	‘side’
NNG:	Maenge	<i>vava</i>	‘side’
NNG:	Poeng	<i>vava</i>	‘side’
SES:	Lau	<i>babali-</i>	‘cheek’
SES:	To’aba’ita	<i>babali-</i>	‘cheek’ (cf. <i>baba-leqo</i> ‘shoulder blade’)
SES:	Kwaio	<i>baba-</i>	‘side, cheek’ (for † <i>babali-</i>)
SES:	Sa’a	<i>papali-</i>	‘cheek’

²⁰ The meaning of PEPn *-arija is unknown, but note NNG: Bukawa *aliṇ ando* ‘cheek’.

SES:	'Are'are	<i>papari-</i>	'cheek'
SES:	Arosi	<i>baba-</i>	'cheek'
		<i>babari-</i>	'temples'
Fij:	Bauan	<i>baba-</i>	'side of s.t.; cheekbone; side of canoe'

cf. also:

NNG:	Manam	<i>papaki-</i>	'temple'
Proto Central/Eastern Polynesian <i>*papa-ariŋa</i> 'cheek' (POLLEX) (PPn <i>*papa</i> 'flat hard surface')			
Pn:	Maori	<i>pāpāriŋa</i>	'cheek' (cf. <i>papa-āhuahua</i> 'shoulder blade')
Pn:	Tahitian	<i>pāpāriʔa</i>	'cheek'
Pn:	Tuamotuan	<i>pāpāriŋa</i>	'cheek'
Pn:	Hawaiian	<i>papālina</i>	'cheek' (<i>lina</i> 'soft?')

The following may be from PMP **balaŋ*/POc **pʷala(ŋ)* 'side, part' (vol.2:245) + POc **qase* 'chin, jaw' (§3.4.13).

PNCV **balase* 'jawbone (of pig), chin, cheek' (**ase* 'chin, jaw')

NCV:	Mota	<i>palasa-i</i>	'cheek' (<i>palasa</i> 'jawbone of a pig')
NCV:	NE Ambae	<i>balahe-</i>	'cheek'

POc **tabal* 'side of head'

MM:	Bulu	<i>tabala-</i>	'side of head' (for † <i>taba</i> . Borrowed from Bali?)
MM:	Bola	<i>tabala-</i>	'side of head'
SES:	Arosi	<i>aba-</i>	'half, part, side'

PMic **tapa-* 'cheek' (Bender et al., 2003)

Mic:	Woleaian	<i>tap</i>	'cheek, face'
Mic:	Chuukese	<i>sap</i>	'face, present a side in a given direction (with directional suffixes)'

3.4.9 The eye and its parts

3.4.9.1 Eye

POc **mata-* 'eye, face' appears to have served both as a noun denoting the eye (as a body part) and as a relational local noun denoting the 'front' side of a person or object (vol.2:249).

PAn **maCa* 'eye; face' (Blust 1999a)

POc **mata-* 'eye, face'

Adm:	Mussau	<i>mata-</i>	'eye, face'
Adm:	Tenis	<i>mata-</i>	'eye'
Adm:	Lou	<i>mara-</i>	'eye, face, front'
NNG:	Adzera	<i>mara-</i>	'eye'
NNG:	Numbami	<i>mata-</i>	'eye'
PT:	Kilivila	<i>mata(la)</i>	'eye, face, appearance of anything'
PT:	Motu	<i>mata-</i>	'eye'
PT:	Dobu	<i>mata-</i>	'eye'

MM:	Vitu	<i>mata-</i>	‘eye’
MM:	Bulu	<i>mata-</i>	‘eye; frontside’
MM:	Nakanai	<i>mata-</i>	‘eye’
MM:	Meramera	<i>mata-</i>	‘eye’
MM:	E Kara	<i>mata-</i>	‘eye; frontside’
MM:	Notsi	<i>mata-</i>	‘eye’
MM:	Patpatar	<i>mata-</i>	‘eye, opening, entrance’
MM:	Tolai	<i>mata-</i>	‘eyes, face’
MM:	Nehan	<i>mata-</i>	‘eye’
MM:	Petats	<i>mata-</i>	‘eye; frontside’
MM:	Tinputz	<i>mata-</i>	‘eye; frontside’
MM:	Teop	<i>mata-</i>	‘eye; frontside’
MM:	Roviana	<i>mata-</i>	‘eye’
SES:	Bugotu	<i>mata-</i>	‘eye, face’
SES:	Sa’a	<i>mā-</i>	‘eye, face; opening’
SES:	Arosi	<i>mā-</i>	‘eye’
NCV:	Mota	<i>mata(i)</i>	‘eye, face’
NCV:	Raga	<i>mata-</i>	‘eye’
NCV:	Tamambo	<i>mata-</i>	‘eye’
SV:	Sye	<i>ni-mtu</i>	‘eye, face’
SV:	Lenakel	<i>nə-mrə</i>	‘eye, face’
NCal:	Nêlêmwa	<i>(idā)mā-t</i>	‘eye, face’
NCal:	Iaai	<i>(ec)mæka-</i>	‘eye’
Mic:	Kiribati	<i>mata-</i>	‘eye, face, front, appearance’
Mic:	Woleaian	<i>mat</i>	‘eye, face’
Mic:	Kosraean	<i>mata-</i>	‘eye, face’
Fij:	Bauan	<i>mata</i>	‘eye, face, source, front’
Pn:	Tongan	<i>mata</i>	‘eye, face, front; point, blade’
Pn:	Samoaan	<i>mata</i>	‘eye, face; point, blade’
Pn:	Tikopia	<i>mata</i>	‘forepart, eye, face’

3.4.9.2 Eyelash, eyebrow hair

The glosses below suggest that ‘eyelash’ and ‘eyebrow hair’ were denoted by a single POc term, **pulu qi mata-* literally ‘hair of eye’. POc **pulu-* was the term for body hair (§3.3.8) as opposed to head hair. On **qi*, see Hooper (1985), Ross (1998a) and §3.1.1.

PMP **bulu ni mata* ‘eyelash’

POc **pulu qi mata-* ‘eyelash, eyebrow hair’ (ACD: **pulu ni mata-*)

NCV:	Tamambo	<i>vulu-vulu-i mata</i>	‘eye lashes’
NCV:	NE Ambae	<i>vul-vulu-si mata-</i>	‘eyebrow, eyelash’
Fij:	Wayan	<i>vulu-vulu-ni-mata</i>	‘eyelash’
Pn:	Tongan	<i>fulu-fulu ʔi laumata</i>	‘eyelashes’ (‘hair of eyelid’)
Pn:	Niuean	<i>fulu mata</i>	‘eyelash’
Pn:	Samoaan	<i>fulu-mata</i>	‘eyelash’
		<i>fulu-fulu mata</i>	‘eyebrow’

Pn:	Nanumea	<i>fulu-fulu mata</i>	‘eyebrow’
Pn:	Tikopia	<i>firi-firi mata</i>	‘eyebrow, eyelash’

Kukuya *mata-ivu* ‘eyelash’ is a conceptually similar term, but *ivu* reflects **ipu* ‘hair’ (§3.3.7).

Numbami (NNG) has *mata-lami* ‘eyelash’ and Nyindrou (Adm) has *lami mada-* ‘eyelash, eyebrow’, each containing an apparent reflex of POc **Ramut* ‘fine, hair-like roots’ (vol.3:101).

The next set probably shows metaphoric use of a term also used to describe the fringe-like leaflets of a coconut branch (see Arosi, Sa’a, ‘Are’are *hisi*, Lau *fisi*). Note that in MM and SES languages the possessor follows the possessed whilst in PT languages the order is reversed.

POc **pisi(n)-mata* ‘eyelash’

PT:	Dobu	<i>mata usi-usi</i>	‘eyelashes’
MM:	Halia	<i>hisin-mata</i>	‘eyelash’
SES:	Kwaio	<i>fī-fisi i mā-</i>	‘eyelash’

3.4.9.3 Eyebrow ridge

Widely distributed reflexes of POc **pasu-* denote ‘eyebrow’, but scattered among them are reflexes meaning ‘forehead’ and, in Vanuatu, also ‘cheek’. Ancestral to the POc term is PMP **pasu(ŋ)*, which Blust (ACD) glosses ‘cheek bone’. However, in addition to ‘cheek’ the non-Oceanic reflexes have meanings as varied as ‘prominent cheek bones’, ‘upper jawbone’, ‘bridge of the nose’. The common denominator across both Malayo-Polynesian and Oceanic glosses seems to be ‘facial bony ridge’ and this may well have been its extended sense at both interstages. However, its narrower PMP meaning does indeed seem to have been ‘cheek bone’. This was perhaps also its narrower POc gloss, with a semantic shift to ‘eyebrow ridge’, then ‘eyebrow’, in various daughter-languages. In this light, complex expressions for ‘eyebrow’ below which include a reflex of POc **mata-* ‘eye’ (§3.4.9.1) apparently meant ‘ridge of eye’, i.e. ‘eyebrow ridge’, as opposed to other facial ridges, particularly the cheek bone.

The compound forms in Loniū, Port Sandwich, Nguna, Iaai and Rotuman all point to POc **pasu-mata-*, but Nokuku *pus-pusa-n meta-* contains a suffix *-n* which reflects either POc **-ña* ‘his, her, its’ or **ni*, a morpheme that marked the following noun phrase as the nonspecific possessor of an indirectly possessed noun, e.g. POc *?*pasu ni mata-* ‘ridge of eye’. This reconstruction is odd, however, as POc **pasu-* was directly possessed, and the nonspecific possessor of a directly possessed noun was introduced by **qi* (Ross 1998a; also §3.1.1), i.e. the expected form is POc **pasu qi mata-*. In a number of languages the reflex of **ni* has displaced **qi*, and Nokuku may be one of these.

The eyebrows perhaps had a particular cultural significance for Proto Oceanic speakers. The Sinaugoro and Nguna terms below refer to raising the eyebrows to say ‘yes’, and it seems likely that the gesture already had this meaning in Proto Oceanic times.

PMP **pasu[ŋ]* ‘cheek bone’ (ACD)

POc **pasu-* ‘facial bony ridge, especially cheek bone’; POc **pasu-mata-* or **pasu qi mata-* ‘eyebrow ridge’

Adm:	Loniū	<i>pusu-mata-</i>	‘eyebrow, eyelash’ (<i>mata-</i> ‘eye’)
PT:	Dobu	<i>asu-</i>	‘forehead’
PT:	Sinaugoro	<i>varu-raye</i>	‘lift eyebrows to say “yes”’ (<i>raye</i> ‘go up’)

PT:	E Mekeo	<i>paku-</i>	‘forehead’
MM:	Bulu	<i>varu-</i>	‘forehead’
MM:	Bileki	<i>vasu-</i>	‘forehead’
MM:	Nakanai	<i>varu-</i>	‘forehead’
SES:	Bugotu	<i>vahu-</i>	‘forehead, temple’
SES:	Gela	<i>vau-vahu-</i>	‘eyebrow’
SES:	Arosi	<i>hasu-hasu--</i>	‘eyebrow’

PSOc **vasu* ‘eyebrow’ (Lynch 2004a; Clark 2009; PNCV **vazu*)

NCV:	Nokuku	<i>pus-pusa-n meta-</i>	‘eyebrow’ (<i>meta-</i> ‘eye’)
NCV:	Tamambo	<i>vasu-</i>	‘eyebrow’
NCV:	NE Ambae	<i>vahu-</i>	‘forehead above the eye, incl. eyebrow’
NCV:	Raga	<i>vahu-</i>	‘cheek’
NCV:	Uripiv	<i>vasu-</i>	‘cheek’
NCV:	Port Sandwich	<i>vos-mara-</i>	‘eyebrow’ (<i>mara-</i> ‘eye’)
NCV:	Nguna	<i>na-vasu-mata</i>	‘eyebrow’
		<i>liji-vasu</i>	‘lift eyebrows in agreement’
NCal:	Iaai	<i>bade-meka-</i>	‘eyebrow’ (<i>meka-</i> ‘eye’)

PMic **fasu* ‘eyebrow’ (Bender et al., 2003)

Mic:	Marshallese	<i>yāt</i>	‘eyebrow’
Mic:	Woleaian	<i>fāt</i>	‘eyebrow’
Mic:	Sonsorolese	<i>fati</i>	‘eyebrow’
Mic:	Carolinian	<i>fāt</i>	‘eyebrow’
Fij:	Rotuman	<i>hæs-mafa</i>	‘eyebrow’
Fij:	Bauan	<i>vaðu-</i>	‘eyebrows’

3.4.9.4 Eyelid

Although a possible PEOc compound can be reconstructed from SES and NE Ambae terms which translate literally as ‘eye skin’, there is little consistency of form across the Oceanic region, with a range of terms being used in place of ‘skin’ including ‘cover’, ‘husk’, and ‘leaf’. PEOc **pinu-pinu* is a reduplicated reflex of POc **pinut* ‘skin, bark’ (§3.3.5).

PEOc **pinu-pinu ni mata* ‘eyelid’

SES:	Sa’a	<i>hinu-hinu i mā-</i>	‘eyelid’ (<i>hinu</i> ‘bark/skin’)
SES:	Arosi	<i>hinu-hinu-</i>	‘eyelid’
NCV:	NE Ambae	<i>vinu-i mata-</i>	‘eyelid’ (<i>vinu</i> ‘skin, bark’)

cf. also

PT:	Motu	<i>mata kopi-</i>	‘eyelid’ (<i>kopi</i> ‘skin’)
PT:	Wedau	<i>mata opi-</i>	‘eyelid’
PT:	Dobu	<i>mata ʔap^waʔap^wara</i>	‘eyelids’ (<i>ʔap^waʔap^wara</i> ‘sugarcane with dried leaves’)
MM:	Tolai	<i>pil-pil na mata-</i>	‘eyelid’ (<i>pil</i> ‘to peel, shell, remove rind’)
MM:	Roviana	<i>poko-poko-mata-</i>	‘eyelids’ (<i>poko-poko-</i> ‘husk of certain grains, ear of corn’)
SES:	Kwaio	<i>fe-felu i mā-</i>	‘eyelid’ (<i>*p^(w)ilit</i> ‘peel by hand’)

NCV:	Tamambo	<i>buroyi mata-</i>	‘eyelids’ (<i>burohi</i> ‘to cover over with s.t. hard’)
Pn:	Tongan	<i>lau-mata</i>	‘eyelid’ (<i>lau</i> ‘flat surface’)
Pn:	Niuean	<i>lau-mata</i>	‘eyelid’ (<i>lau</i> ‘flat surface’)

Separate terms for upper and lower lids are found in Bauan Fijian, Samoan and Tikopia, but they appear to be independently created descriptions.

Fij:	Bauan	<i>dakudaku ni mata</i>	‘upper eyelid’ (<i>daku</i> ‘back of a person or thing’)
Pn:	Samoan	<i>laumata aluŋa</i>	‘upper eyelid’ (<i>luŋa</i> ‘top, upper surface’)
		<i>laumata alalo</i>	‘lower eyelid’ (<i>lalo</i> ‘down, below’)
Pn:	Tikopia	<i>tua mata</i>	‘upper eyelid’ (<i>tua</i> ‘back, outer side’)
		<i>raro mata</i>	‘lower eyelid’ (<i>raro</i> ‘down, below’)

3.4.9.5 Eyeball

The eyeball is sometimes referred to by compounds which include a term meaning something like the kernel or flesh or substance of the eye. Reflexes of POc **kanonj* ‘flesh, meat, coconut flesh’ (vol.3:370) combined with reflexes of **mata* ‘eye’ are used to refer to ‘eyeball’ in a number of languages, pointing to POc **kanonj qi mata* ‘eyeball’.

POc **kanonj qi mata* ‘eyeball’

NNG:	Yabem	<i>mat-ano</i>	‘eyeball’
NNG:	Kaiwa	<i>mat-ano</i>	‘eyeball’
NNG:	Numbami	<i>mat-ano</i>	‘eyeball’
PT:	Motu	<i>mata anin-a</i>	‘eyeball’
PT:	Wedau	<i>mata- ano-na</i>	‘eyeball’
Pn:	Tongan	<i>kanoʔi-mata</i>	‘eyeball’

Other compounds, similar in meaning but varying in form, include:

Adm:	Loniū	<i>cili-mata</i>	‘eyeball’ (<i>cili</i> ‘sprout’)
NNG:	Kove	<i>mata kaliro</i>	‘eyeball’ (<i>kaliro</i> ‘breadfruit seed’)
SES:	Kwaio	<i>lodona mā-</i>	‘eyeball’ (<i>lodo</i> ‘fruit’)
NCV:	Tamambo	<i>tolui mata-</i>	‘eyeball’ (<i>tolu</i> ‘testicles, <i>toltoa</i> ‘egg’)
Fij:	Bauan	<i>yaloka ni mata</i>	‘eyeball’ (<i>yaloka</i> ‘egg’)
Pn:	Niuean	<i>tēga-mata</i>	‘eyeball’ (<i>tēga</i> ‘seed’)
Pn:	Samoan	<i>ʔiʔo-i-mata</i>	‘eyeball’ (<i>ʔiʔo</i> ‘tuber, corm’)
Pn:	Tikopia	<i>kafi mata</i>	‘eyeball’ (<i>kafi</i> ‘lump of flesh’; cf. <i>kanofi</i>)

3.4.10 Ear

POc **taliŋa-* was not only the term for ‘ear’ but also the generic term for mushrooms and fleshy fungi (vol.3:78). The association between the two was presumably based either on visual similarity or on the fact that fungi often grow on trees in the rain forest just as ears appear to grow on the side of the human head. That the association had a conceptual basis is attested by the fact that in certain Oceanic languages where the term for ‘ear’ is not a reflex of POc **taliŋa-*, the ‘ear’ term is still the generic term for fungi.

PAn **Calija* ‘ear; k.o. tree fungus’ (ACD)

PMP **taliŋa* ‘ear; k.o. tree fungus’ (ACD)

POc **taliŋa*- ‘ear’; **taliŋa* ‘generic term for mushrooms and fleshy fungi’

Adm:	Aua	<i>alia-</i>	‘ear’
Adm:	Wuvulu	<i>alia-</i>	‘ear’
Adm:	Mussau	<i>taliŋa-</i>	‘ear’
		<i>taliŋa ŋijii</i>	‘mushroom’
Adm:	Tenis	<i>tariŋa-</i>	‘ear’
Adm:	Lou	<i>teliŋa-</i>	‘ear’
NNG:	Poeng	<i>taliŋ</i>	‘mushroom’
NNG:	Kove	<i>taliŋa-</i>	‘ear’
NNG:	Gitua	<i>taliŋa-</i>	‘ear’
NNG:	Lukep	<i>taliŋa-</i>	‘ear’
NNG:	Gedaged	<i>tiliŋa-</i>	‘ear’
PT:	Kilivila	<i>taiga(la)</i>	‘ear’
PT:	Motu	<i>taia-</i>	‘ear; gill fins of fish’
PT:	E Mekeo	<i>aina-</i>	‘ear’
MM:	Vitu	<i>taliŋa-</i>	‘ear’
MM:	Bali	<i>taliŋa-</i>	‘ear’
MM:	Nakanai	<i>taliga</i>	‘small edible fungus’
MM:	Notsi	<i>taliŋa</i>	‘ear’
MM:	Patpatar	<i>taliŋa-</i>	‘ear’
MM:	Tolai	<i>taliŋa-</i>	‘ear’
MM:	Roviana	<i>taliŋa-</i>	‘ear’
SES:	Gela	<i>taliŋa</i>	‘fungus; wax in ear’
SES:	Kwaio	<i>aliŋa-</i>	‘ear; mushroom; fish fin’
SES:	’Are’are	<i>arina-</i>	‘ear’
SES:	Sa’a	<i>aliŋe-</i>	‘ear; wing of flying fish; large fungi, some edible, growing on logs’
NCV:	Port Sandwich	<i>ⁿdariŋa(n)</i>	‘ear, fin’
NCV:	Nguna	<i>na-daliga</i>	‘ear’
SV:	Sye	<i>n-teliŋo-</i>	‘ear’
SV:	Anejom	<i>n-ticŋa-</i>	‘ear; initial element in various compounds denoting mushrooms’
Mic:	Woleaian	<i>tariŋa-</i>	‘ear; mushroom’
Mic:	Carolinian	<i>sariŋ</i>	‘ear’
Fij:	Rotuman	<i>faliŋa</i>	‘ears; pectoral fins of fish; toadstool or fungus’
Fij:	Bauan	<i>daliŋa-</i>	‘ear’
		<i>daliŋa ni kalou</i>	mushroom’ (lit. ‘god’s ear’)
Fij:	Wayan	<i>taliŋa</i>	‘ear’
Pn:	Tongan	<i>teliŋa</i>	‘ear’
Pn:	Rennellese	<i>tagiŋa</i>	‘ear; side fins of fish’
Pn:	Samoa	<i>taliŋa</i>	‘ear; name given to several types of fungus’
Pn:	Tikopia	<i>tariŋa</i>	‘ear’

3.4.11 The nose and its parts

3.4.11.1 Nose

POc **icuŋ* ‘nose’ probably also had the senses ‘cape of land’ (vol.2:47) and ‘canoe prow’ (vol.1:189).

PMP **ijun* ‘nose’ (ACD)

POc **icuŋ* ‘nose’ (vol.1:189)

Adm:	Seimat	(we)ixu-	‘nose’
NNG:	Gitua	izu-	‘nose’
NNG:	Biliau	uyu-	‘nose’
NNG:	Manam	su(sukuri)	‘nose’
NNG:	Kairiru	isu-	‘nose’
PT:	Suau	isu-	‘nose’
PT:	Roro	isu-	‘nose’
PT:	Lala	idu-	‘nose’
PT:	Motu	udu-	‘nose, beak, mouth’
MM:	Vitu	(y)iðu-	‘nose’
MM:	Bulu	iru-	‘nose’
MM:	Nakanai	(ma)isu-	‘nose’
MM:	Lavongai	isu-	‘nose’
MM:	Tigak	isu-	‘nose’
MM:	Sursurunga	(ŋ)isu-	‘nose’
MM:	Teop	ihu-	‘nose’
MM:	Nduke	isu-	‘nose’
MM:	Roviana	isu-	‘face’ (for † <i>isuŋu</i>), ‘nose’
SES:	Gela	ihu-	‘nose; beak; cape of land’
SES:	Lau	isu-	‘prow and stern erections of a canoe’
SES:	Arosi	isu-isu-	‘nose ornament, made of clam shell’
SV:	Lenakel	(-n)haŋə	‘nose’ (second element in various compounds; Lynch 2001c)
SV:	Kwamera	(nəpa)-seŋi	‘nose’
Fij:	Rotuman	isu	‘nose; projection, cape of land; point, tip, head of match’
Fij:	Bauan	uðu-	‘nose’
Pn:	Tongan	ihu	‘nose, trunk (of an elephant)’
Pn:	Samoan	isu	‘nose’
		isu-isu	‘be inquisitive, put one’s nose into other people’s affairs’
Pn:	Rennellese	isu	‘nose, beak, swelling on top of beak of doves; axe handle top, beneath the butt end of the blade’
Pn:	Tikopia	isu	‘nose, beak, pointed end, tip’
Pn:	Maori	ihu	‘nose; bow of a canoe, etc’

Pn:	Hawaiian	<i>ihu</i>	‘nose, snout, beak, bill, trunk of an elephant, toe of a shoe; a kiss, prow or bow of a canoe or ship; thick end of pearl-shell shank’

There is also evidence for POC **b^wa(l,R)usu-* ‘nose’. Its SE Solomonian and Micronesian reflexes form part of the evidence on which Blust (1984, 2010) bases his Malaitan-Micronesian subgroup. In the context of the additional cognates listed here, his Proto Malaitan-Micronesian **p^waRusu-* is less convincing as a uniquely shared innovation. Blust dismisses Lou *pursu-* as a ‘chance resemblance’ on the grounds that Lou *-r-* does not reflect **-R-* (it reflects **-r-*). The *-l-* of the MM reflexes here also fails to agree with the Micronesian reflexes as the former reflect POC **-l-*, the latter POC **-R-* (the SES cognates reflect either **-l-* or **-R-*). Whatever the reason for these discrepancies, it is difficult to attribute the resemblances across the set to chance.

This set is rendered more difficult by the presence of a number of look-alikes in NCV languages (a sample is given under ‘cf. also’). Of these, the most attention grabbing is Sowa (Pentecost) *b^wa-ηsu-* (Tryon 1976), where nearby Apma has *ηsu-*, presumably reflecting POC **ηuju-* ‘external mouth, lips, snout, beak’ (§3.4.12.1) and suggesting that Sowa *b^wa-ηsu-* reflects **b^wa-* + **ηuju-*. This in turn raises the question whether the same **b^wa-* occurs in the reconstruction below, but the evidence does not allow a clear answer. Araki *ηalsu-*, Aore *kalsu-*, Lendamboi *na-gars-* and Nisvai *na-gursu-* are typical of the Santo and Malakula forms which complicate the picture yet more. None of them reflects **b^wa-*, but Araki and Aore include the sequence *lsu-*, perhaps cognate with *lisu-*, the term for ‘nose’ in Maewo languages. Is it also cognate with the MM and SES forms? One cannot be sure.

POC **b^wa(l,R)usu-* ‘nose’ (PEOC **b^waRucu-*: Geraghty 1990)

MM:	Konomala	<i>bulsu-</i>	‘nose’
MM:	Minigir	<i>bilausu-</i>	‘nose’
MM:	Tolai	<i>bilau-</i>	‘nose’
MM:	Label	<i>bulsu-</i>	‘nose’

PSSES **b^wa(l,R)usu-* ‘nose’

SES:	Longgu	<i>b^walasu-</i>	‘nose’
SES:	Lau	<i>g^walusu-</i>	‘nose’
SES:	Sa’a	<i>p^walusu-</i>	‘nose, nostril, beak of bird, snout of pig’
SES:	Arosi	<i>b^warisu-</i>	‘nose, beak of bird’
NCV:	Sakao	<i>e-ðelhö-</i>	‘nose’ (< <i>*balisu-</i> ; Clark 2009)

PMic **p^wauSu-* ‘nose’ (Bender et al., 2003)

Mic:	Kiribati	<i>p^wairi-</i>	‘nose’
Mic:	Chuukese	<i>p^wēti-</i>	‘nose’
Mic:	Carolinian	<i>b^wōti-</i>	‘nose’
Mic:	Puluwatese	<i>p^wōti-</i>	‘nose’

cf. also:

Adm:	Lou	<i>pursu-</i>	‘nose, snout, beak’ (<i>-r-</i> for expected <i>-l-</i>)
NCV:	Sowa	<i>b^wa-ηsu-</i>	‘nose’ (Tryon 1976)
NCV:	Araki	<i>ηalsu-</i>	‘nose’
NCV:	Aore	<i>kalsu-</i>	‘nose’ (Tryon 1976)

NCV: Lendamboi	<i>na-gars-</i>	‘nose’ (John Lynch, pers.comm.)
NCV: Nisvai	<i>na-gursu-</i>	‘nose’ (John Lynch, pers.comm.)

3.4.11.2 Channel above the upper lip

Although a number of reflexes of POC **ɣoro-ɣorok* are glossed ‘nose’ (and by extension ‘cape’; vol 2:48), the term apparently referred in POC times to ‘channel above upper lip’, its meaning transferred independently in daughter-languages. Given their formal and semantic similarity it is reasonable to infer that PNCV **ɣori* reflects POC **ɣoro-ɣorok*, despite the irregular final vowel. We take **ɣoro-ɣorok* to be a reduplicated form of the noun **ɣorok* ‘snot’ (§3.8.3) and/or the verb **ɣorok* ‘grunt, growl, snore’ (§4.5.3).

POC **ɣoro-ɣorok* ‘channel above upper lip’ (cf. **ɣorok* ‘snore’; vol.2:48)

Adm: Loniū	<i>ɣo-</i>	‘nose, beak’
NNG: Sio	<i>i-ɣo-ɣoro-</i>	‘nose’
NNG: Notsi	<i>ɣul-ɣul</i>	‘nose’
MM: Tangga	<i>ɣoro-ɣoro-</i>	‘nose’
MM: Patpatar	<i>ɣar-ɣaro-</i>	‘nose’
MM: Roviana	<i>ɣo-ɣoro isu</i>	‘nostril’
SES: Lau	<i>ɣo-ɣora(-)</i>	‘nose, nostrils, snout; headland’
SES: Arosi	<i>ɣora-ɣora-</i>	‘lips, snout; cape; space above lips’

PNCV **ɣori* ‘channel above upper lip’ (Clark 2009: ‘edge, upper lip’)

NCV: Mota	<i>ɣor</i>	‘mucus of nose’
	<i>ɣor-ɣor parou</i>	‘triangular space below nose on upper lip’
NCV: Araki	<i>ɣori-ɣori-</i>	‘upper lip; place between nose and upper lip’
NCV: Uripiv	<i>ɣor</i>	‘upper lip of person or animal’
NCV: Paamese	<i>ɣoli-</i>	‘edge, exposed surface’
NCV: S Efate	<i>na-ɣor</i>	‘nose’
NCV: Nguna	<i>na-ɣori-</i>	‘moustache’

3.4.11.3 Nostrils

The nostrils are typically described in Oceanic languages as ‘mouths of nose’ or ‘holes of nose’.

Adm: Nyindrou	<i>munu no-</i>	‘nostril’ (lit. ‘hole nose’)
NNG: Bariai	<i>nunu- i-baba</i>	‘nostril’ (lit. ‘nose its-mouth’)
NNG: Dami	<i>uyu- ku</i>	‘nostril’ (lit. ‘nose hole’)
NNG: Takia	<i>ɣudu- awa-n</i>	‘nostril’ (lit. ‘nose mouth-its’)
PT: Iduna	<i>kabu-ɣawa-</i>	‘nostril’ (lit. ‘nose-mouth’)
PT: Tawala	<i>niu domo-na</i>	‘nostril’ (lit. ‘nose hole-its’)
NCV: Lonwolwol	<i>bɔlɔ-n ɣɔhu-</i>	‘nostril’ (lit. ‘hole-its nose’)

PNPn used the phrase **poŋa qi isu*, literally ‘orifice of nose’:

PNPn **poŋa qi isu* ‘nostril’

Pn: Samoan	<i>poŋa-i-isu</i>	‘bridge of nose’
Pn: E Futunan	<i>poŋa ʔi isu</i>	‘nostril’

Pn:	Maori	<i>ponga-a-ihu</i>	‘nostril’
Pn:	Ifira-Mele	<i>poŋa-a-usu</i>	‘nostril’
Pn:	Pileni	<i>poŋa-iu</i>	‘nose’
Pn:	Pukapukan	<i>poŋapoŋa a iyu</i>	‘nostril’

3.4.12 The mouth and its parts

Four POc terms referring to the mouth have been reconstructed: **ŋuju-*, **[p^wa]p^wa(q)*, **qawa* and **maŋa*. POc **ŋuju-* probably referred to the external mouth and lips, its reflexes sometimes extending to bird’s beak or nose, while POc **[p^wa]p^wa(q)* referred to the inner mouth or opening and **qawa* perhaps had the broader meaning ‘opening into a passage or channel’. POc **maŋa* may have referred more broadly to an opening. Other extensions of its meaning are to a particularly shaped opening such as a slit or vagina, or opening as in a passage through a reef.

3.4.12.1 External mouth

Blust (ACD) glosses PAN **ŋusuq* ‘nasal area, snout’. We add ‘mouth’ here, as glosses referring to ‘mouth’ are found across Austronesian subgroups.

PAN **ŋusuq* ‘nasal area, snout; mouth’ (ACD)

POc **ŋuju-* ‘external mouth, lips, snout, beak’ (PWOC **ŋuju* ‘carved prow’: vol.1:189)

Adm:	Lou	<i>ŋusu-</i>	‘lip’
Adm:	Mussau	<i>ŋusu-</i>	‘nose’; (VT) ‘to smell’
Adm:	Tenis	<i>ŋuso(ŋo)</i>	‘nose’
Adm:	Loniū	<i>(pɔʔɔ)ŋusu</i>	‘lip’ (<i>pɔʔɔ</i> ‘within’)
NNG:	Gitua	<i>ŋuzu</i>	‘smell’
NNG:	Takia	<i>ŋudu(n)</i>	‘nose’
MM:	W Kara	<i>ŋusu-</i>	‘mouth’
MM:	Nalik	<i>ŋus</i>	‘mouth’
MM:	Bulu	<i>ŋutu-</i>	‘lips; beak’
MM:	Notsi	<i>ŋuce-</i>	‘mouth’
MM:	Madak	<i>ŋus</i>	‘mouth’
MM:	Tangga	<i>ŋisa-</i>	‘mouth’
MM:	Roviana	<i>ŋuzu-</i>	‘mouth’
SES:	Lau	<i>ŋidu-</i>	‘lips, snout’
SES:	Kwaio	<i>ŋidu-</i>	‘lips, bill of a bird, snout’
SES:	Sa’a	<i>ŋidu-, ŋudu-</i>	‘lip’
NCV:	Neve’ei	<i>ŋus-ŋus</i>	‘breathe’
NCV:	Uripiv	<i>o-ŋus</i>	‘sniff’
Fij:	Bauan	<i>ŋusu</i>	‘mouth’
		<i>bele ni ŋusu-</i>	‘lips’ (<i>bele</i> ‘border, edge of some soft things’)
Fij:	Wayan	<i>ŋusu</i>	‘external mouth of a person or animal’
Fij:	Rotuman	<i>nucu</i>	‘mouth’ (<i>n-</i> for † <i>ŋ-</i>)

PPn **ŋutu* ‘mouth, beak’ (POLLEX)

Pn:	Tongan	<i>ŋutu</i>	‘mouth, beak, orifice’
Pn:	Rennellese	<i>ŋutu</i>	‘mouth’

Pn:	Samoa	<i>ŋutu</i>	‘mouth, beak’
Pn:	Tikopia	<i>ŋutu</i>	‘mouth’
Pn:	Maori	<i>ŋutu</i>	‘beak, lip, mouth of harbour, rim’
Pn:	Hawaiian	<i>nuku</i>	‘beak, snout, mouth of harbour’

PPn **lau-ŋutu* ‘lips’ (*lau* ‘particle found before a number of bases, most of which refer to flat and thin objects’)

Pn:	Tongan	<i>lou-ŋutu</i>	‘lips’
Pn:	Rennellese	<i>gau-ŋutu</i>	‘lip’
Pn:	Samoa	<i>lau-ŋutu</i>	‘lips’
Pn:	Tikopia	<i>rau-ŋutu</i>	‘lip’

3.4.12.2 Lips

The data support two POc reconstructions for ‘lips’, **[pi]piRi-* and **[bi]biRi-*, both reflecting PAN **biRbiR*, PMP **bibiR*. As noted in vol.2 (p18), PMP **b* became either POc **p* or POc **b*, in initial position more commonly **p-*. In almost every instance Oceanic cognates reflect either POc **p-* or POc **b-*, but not both. In this instance, however, PMP **bibiR* has given rise to two etyma, POc **[pi]piRi-* and POc **[bi]biRi-*. We have no explanation for PWOC **b-* in this instance.

PAN **biRbiR* ‘lip’ (ACD)

PMP **bibiR* ‘lip; labia of the vulva; eyelid’ (ACD)

POc **[pi]piRi-* ‘lip’ (ACD)

NNG:	Biliau	<i>fari-</i>	‘lips’ (-a- for †-i- unexplained)
NNG:	Mindiri	<i>fari-</i>	‘lips’ (-a- for †-i- unexplained)
NNG:	Takia	<i>fari(n)</i>	‘lips’ (-a- for †-i- unexplained)
NNG:	Gedaged	<i>filɪ(ŋa)-</i>	‘lips, snout’
PT:	Mekeo	<i>fifi-</i>	‘lips’
PT:	W Mekeo	<i>pipi-</i>	‘lips’
MM:	Siar	<i>pir(lo)</i>	‘lips’
MM:	Hoava	<i>pipi-</i>	‘vulva’
SES:	Kwaio	<i>fe-felu (ŋidu-)</i>	‘lip’
		<i>fe-felu (i māna)</i>	‘eyelid’
SES:	’Are’are	<i>hihi-</i>	‘labia’
NCV:	NE Ambae	<i>viviri (siŋona)</i>	‘lips’ (<i>siŋona</i> ‘lips incl. skin above and below’)
NCV:	Araki	<i>(huri) vivi</i>	‘lips’ (<i>huri</i> ‘skin’)

POc **[bi]biRi-* ‘lips’

NNG:	Bam	<i>buri-</i>	‘lips’
NNG:	Wogeo	<i>biri-</i>	‘lips’
NNG:	Kaiep	<i>biri-</i>	‘lips’
NNG:	Kairiru	<i>bri</i>	‘lips’
NNG:	Ulau	<i>bri-</i>	‘lips’
NNG:	Ali	<i>pri(ŋ)</i>	‘lips’

PT:	Motu	<i>bibi-</i>	‘lips
PT:	Lala	<i>bibi(?)a</i>	‘lips’
PT:	Kilivila	<i>bili(-balo)</i>	‘lips’ (Senft has <i>bilu-bilo</i>)
Fij:	Bauan	<i>bebe-</i>	‘vagina’

cf. also:

NNG:	Matukar	<i>bru-</i>	‘lips’
MM:	Roviana	<i>beru-</i>	‘lips, rim of a bottle etc’ (unexpected vowels)

3.4.12.3 Inner mouth

Terms for the inner mouth denote the opening and the cavity rather than the lips, and are often used of the opening and inside of a vessel.

PMP **(bahaq)bahaq* ‘mouth, opening’ (ACD)²¹

POc **[p^wa]p^wa(q)* ‘(inner) mouth’

Adm:	Mussau	<i>pā</i>	‘mouth; hole in a pot, canoe etc’
Adm:	Loniu	<i>p^waha-</i>	‘mouth’
MM:	Vitu	<i>hava-</i>	‘mouth’
MM:	E Kara	<i>fə-</i>	‘mouth’
MM:	Patpatar	<i>ha-</i>	‘mouth’
MM:	Label	<i>paha-</i>	‘mouth’
MM:	Tolai	<i>papa</i>	‘open’
SES:	Longgu	<i>vava</i>	‘speak’
SES:	Lau	<i>fafā</i>	‘open mouth wide’

PNCV **v^wav^wa* ‘(open) mouth’ (Clark 2009)

NCV:	Nokuku	<i>wowa-</i>	‘mouth’
		<i>wawa</i>	‘opening’
NCV:	Tamambo	<i>wawa-</i>	‘inside of mouth’
NCV:	Araki	<i>vava-</i>	‘mouth, esp. inside’
NCV:	Raga	<i>(lol)v^wa</i>	‘inside of mouth’ (<i>lol</i> ‘inside’)
		<i>v^wav^wa</i>	‘open the mouth’
SV:	Lenakel	<i>noua</i>	‘inside of mouth’
NCal:	Nemi	<i>hwa</i>	‘mouth’
Pn:	Rennellese	<i>haha(ŋa)</i>	(v) ‘open, as a shell’
Pn:	Tahitian	<i>vaha</i>	‘mouth’
Pn:	Maori	<i>waha</i>	‘mouth, entrance’
Pn:	Hawaiian	<i>waha</i>	‘mouth; opening; inner surface of a bowl; open top of a canoe’

cf. also:

PT:	Molima	<i>vava</i>	‘jaw’
MM:	Nakanai	<i>(si)vava</i>	‘chin, jaw’

²¹ Blust (ACD) reconstructs **bahaq*, but his discussion implies that reduplication occurred in early Malayo-Polynesian as a result of reduction to **baq*.

POc **qawa* ‘mouth, opening’

Adm:	Seimat	<i>awa</i>	‘mouth’
Adm:	Kaniet	<i>awa</i>	‘mouth’
NNG:	Malai	<i>avo(m)</i>	‘mouth’
NNG:	Gitua	<i>awa</i>	‘mouth’
NNG:	Tuam	<i>avo</i>	‘mouth’
NNG:	Kilenge	<i>awa</i>	‘mouth’
NNG:	Sio	<i>(i)kawa</i>	‘mouth’
NNG:	Gedaged	<i>auan</i>	‘mouth; beak, snout, muzzle’
NNG:	Takia	<i>awa(n)</i>	‘mouth’
NNG:	Manam	<i>aoa</i>	‘mouth’
NNG:	Wogeo	<i>vawa</i>	‘mouth’
PT:	Maisin	<i>kava-</i>	‘mouth’
PT:	Paiwa	<i>kawa</i>	‘mouth’
PT:	Molima	<i>ʔawa</i>	‘door; mouth; eye of a needle’
PT:	Dobu	<i>ʔawa</i>	‘mouth’
PT:	Bwaidoga	<i>awa</i>	‘passage or opening, e.g. the opening of the mouth, or a passage through two reefs’
PT:	Kukuya	<i>awa</i>	‘mouth; door opening’
MM:	Vitu	<i>yava-</i>	‘mouth’
MM:	Bali	<i>yava</i>	‘mouth’
MM:	Bilur	<i>ava</i>	‘mouth’
MM:	Ramoaina	<i>ava</i>	‘mouth’
NCV:	NE Ambae	<i>kuwa</i>	‘mouth’
Mic:	Carolinian	<i>awa</i>	‘mouth’
Mic:	Woleaian	<i>yaw(a)</i>	‘mouth’
Mic:	Puluwatese	<i>yew-</i>	‘mouth, bill of a bird, largest eye of a coconut’

PPn **awa* ‘channel, passage through reef’²²

Pn:	Tongan	<i>ava</i>	‘passage, opening’ (for †ʔava)
Pn:	Tokelauan	<i>ava</i>	‘passage through reef’
Pn:	Rapanui	<i>aba</i>	‘channel, crack, crevice, ditch’

Finally, some Oceanic languages have a term for ‘mouth’ that reflects POc **maja(p)* (v) ‘to open wide, gape’, (N) ‘open mouth; gap, space’. The supporting cognate set is given in §4.5.5. POc **maja(p)* in its turn reflected PMP **q<um>aja[p,b]* ‘gape, open the mouth wide’ (where **<um>* was the PMP actor voice infix; §1.3.5.5). Blust (ACD) attributes two of these reflexes, Arosi *maja* ‘an opening, mouth’ and Bauan Fijian *maja* ‘vagina’, to PMP **majaq* ‘slit, crevice’ (ACD). However, the glosses of the set of Oceanic reflexes in §4.5.5 include a range of meanings centring on ‘opening, aperture’ (‘mouth’, ‘vagina’, ‘space between earth and sky’), pointing to a more probable origin in PMP **q<um>aja[p,b]* rather than PMP **majaq*. But, since the two PMP terms would have had near-identical POc reflexes, one could argue that the cognate set supporting POc **maja(p)* reflects a conflation of the two terms.

²² In vol.2:111 PPn **awa* was incorrectly listed as a reflex of POc **sawa(n,ŋ)* ‘channel, passage’ with unexplained loss of **s-*.

3.4.12.4 Tongue

There are two related POc reconstructions for ‘tongue’, **maya-* and a compound that includes it, **kara-maya-*. The origin of **kara-* in the latter is unknown.

Most reflexes of **maya-* entail a reduction of **-ay-* or **-ya-* to *-e-*, but the Bariai, Kilivila and Roro reflexes point to **maya-*. The compound is reconstructed as **kara-maya-* rather than **kara-mea-*, on the model of **maya-*.

PCEMP **maya* ‘tongue’ (Blust 1993a)

POc **maya-* ‘tongue’

NNG: Kove	<i>mae-</i>	‘tongue’
NNG: Bariai	<i>mae-</i>	‘tongue’
NNG: Lukep	<i>me-</i>	‘tongue’
NNG: Manam	<i>me-me-</i>	‘tongue’
NNG: Ormu	<i>(ma)me-</i>	‘tongue’
PT: Dobu	<i>meya-</i>	‘tongue’
PT: Kilivila	<i>maye-</i>	‘tongue’
PT: Kukuya	<i>mea-</i>	‘tongue’
PT: Roro	<i>maya-</i>	‘tongue’
MM: Petats	<i>mea-</i>	‘tongue’
MM: Banoni	<i>mea-</i>	‘tongue’
MM: Torau	<i>mea-</i>	‘tongue’
MM: Roviana	<i>mea-</i>	‘tongue’
SES: Lau	<i>mea-</i>	‘tongue’
SES: Kwaio	<i>mea-</i>	‘tongue’
SES: Sa’a	<i>mea-</i>	‘tongue’
NCV: NE Ambae	<i>mea-</i>	‘tongue’
NCV: Raga	<i>mea-</i>	‘tongue’
NCV: Tamambo	<i>me-me-</i>	‘tongue’
SV: Lenakel	<i>na-mə-</i>	‘tongue’
Fij: Bauan	<i>(ya)me-</i>	‘tongue’ (<i>ya-</i> prefix added to some body part terms)
Fij: Wayan	<i>-mē</i>	‘tongue’

POc **kara-maya-* ‘tongue’

Adm: Lou	<i>kar-mε-</i>	‘tongue’
Adm: Loniū	<i>(pala)keʔi-me-</i>	‘tongue’ (<i>pala</i> ‘head’)
MM: Nakanai	<i>kala-mea-</i>	‘tongue’
MM: Notsi	<i>kali-mə-</i>	‘tongue’
MM: Tabar	<i>kara-me-</i>	‘tongue’
MM: Lihir	<i>kala-me-</i>	‘tongue’
MM: Sursurunga	<i>ker-me-</i>	‘tongue’
MM: Patpatar	<i>kara-me-</i>	‘tongue’
MM: Minigir	<i>kara-mea-</i>	‘tongue’
MM: Tolai	<i>kara-mea-</i>	‘tongue’
MM: Bilur	<i>kara-mea-</i>	‘tongue’

MM:	Kandas	<i>kar-me-</i>	‘tongue’
NCV:	Mwotlap	<i>na-yay-me-</i>	‘tongue’
NCV:	Mota	<i>yara-m^weai</i>	‘tongue’

Andrew Pawley (pers. comm.) suggests that the item below is of Meso-Melanesian origin and has been borrowed into the Guadalcanal-Gelic subgroup of SE Solomonian.

PMM **lap(e,i)*- ‘tongue’

MM:	Vitu	<i>lave-</i>	‘tongue’
MM:	Kia	<i>lapi-</i>	‘tongue’
MM:	Kokota	<i>lapi-</i>	‘tongue’
MM:	Maringe	<i>glapi-</i>	‘tongue’
SES:	Gela	<i>lapi-</i>	‘tongue, flame’
SES:	Bugotu	<i>ḍapi-</i>	‘tongue’
SES:	W Guadalcanal	<i>lapi-</i>	‘tongue’
SES:	Talise	<i>lapi-</i>	‘tongue’
SES:	Birao	<i>lapi-</i>	‘tongue’

3.4.12.5 Teeth

POc **nipo-* and POc **lipo-* ‘tooth’ coexisted. Both **n-* and **l-* forms are reconstructable at least as far back as PAn, and both must be attributed to POc. The fact that the two forms have existed side by side for such a long time is intriguing, as there is no difference in meaning. Kwaio is the only language among the data sources that reflects both.

In a number of languages the term for teeth is a reflex of POc **ɲisi* or **[ɲi]ɲisa*, both glossed ‘bare one’s teeth, grin’. Since these forms were evidently verbs, they are discussed in §4.7.2.

PAn **nipen* ‘tooth’ (Blust 1999a)

POc **nipo-* ‘tooth’

NNG:	Kaiwa	<i>nivo-</i>	‘tooth’
NNG:	Numbami	<i>niwo-</i>	‘tooth’
PT:	Tawala	<i>niwo-</i>	‘tooth’
MM:	Mono-Alu	<i>niho-</i>	‘tooth’
SES:	Kwaio	<i>nifo-, lifo-</i>	‘tooth’
SES:	Sa’a	<i>niho-</i>	‘tooth, tusk’
SES:	’Are’are	<i>niho-</i>	‘tooth’
Pn:	Tongan	<i>nifo</i>	‘tooth’
Pn:	Rennellese	<i>niho</i>	‘tooth’
Pn:	Samoan	<i>nifo</i>	‘tooth’
		<i>(ʔau)nifo</i>	‘gums’ (<i>ʔau-</i> ‘classifying prefix used esp. with bases referring to long and often narrow things; also to sets or clusters of things’)
Pn:	Tikopia	<i>nifo</i>	‘tooth, of man or animal’
Pn:	Hawaiian	<i>niho</i>	‘tooth, crab claw, insect nipper’

cf. also:

PT:	Kukuya	<i>niho-</i>	‘tooth’ (<i>h</i> for $\dagger p$)

PAn **lipen* ‘tooth’ (Blust 2011)POc **lipo-* ‘tooth’

Adm:	Wuvulu	<i>lifo-</i>	‘tooth’
Adm:	Aua	<i>lifo-</i>	‘tooth’
Adm:	Seimat	<i>leho-</i>	‘tongue’ (Smythe)
Adm:	Ponam	<i>life-</i>	‘tooth’
Adm:	Baluan	<i>līp</i>	‘tooth’ (Smythe)
NNG:	Kove	<i>luo-</i>	‘tooth’
NNG:	Bariai	<i>(i)luo-</i>	‘tooth’
NNG:	Tuam	<i>livo-</i>	‘tooth’
NNG:	Malai	<i>livo-</i>	‘tooth’
NNG:	Gitua	<i>livo-</i>	‘tooth’
NNG:	Malalamai	<i>liwo(m)</i>	‘tooth’
NNG:	Bilibil	<i>liwo(n)</i>	‘tooth’
NNG:	Gedaged	<i>liwo-</i>	‘tooth’
PT:	Wedau	<i>ivo-</i>	‘tooth’
MM:	Meramera	<i>livo-</i>	‘tooth’
MM:	W Kara	<i>lifo-</i>	‘tooth’
MM:	Nakanai	<i>livo-</i>	‘tooth’
MM:	Tiang	<i>lio-</i>	‘tooth’
MM:	Petats	<i>lihu-</i>	‘teeth’
MM:	Nduke	<i>livo-</i>	‘tooth’
MM:	Roviana	<i>livo-</i>	‘tooth’
SES:	Gela	<i>livo-</i>	‘tooth’
SES:	Tolo	<i>livo-</i>	‘tooth’
SES:	Lau	<i>lifo-</i>	‘tusk, tooth, porpoise teeth used as money’
SES:	Kwaio	<i>nifo-, lifo-</i>	‘tooth’
SES:	Arosi	<i>riho-</i>	‘tooth, tusk’
NCV:	NE Ambae	<i>livo-</i>	‘tooth, tusk’
NCV:	Raga	<i>livo-</i>	‘tooth’
NCV:	Paamese	<i>loho-</i>	‘tooth’

PSV **na-livo-* ‘incisor tooth’ (Lynch 2001c)

SV:	Sye	<i>nelve-</i>	‘incisor tooth’
SV:	Lenakel	<i>nelu-</i>	‘tooth’
SV:	Anejom	<i>nicho-</i>	‘tooth’
NCal:	Iaai	<i>ñu</i>	‘tooth’

All three reconstructions for ‘molar tooth’ are based on limited cognate sets.

PMP **baReqaŋ* ‘molar tooth’ (ACD)

POc **paRa(ŋ)* ‘molar tooth’

NNG: Lukep (Pono)	<i>para-</i>	‘place of molars’ ²³
NNG: Tuam	<i>parara-</i>	‘molar tooth’
SES: Arosi	<i>hara-</i>	‘mouth; jawbone; double tooth, molar; tusk’

cf. also:

Adm: Lou	<i>areŋa-</i>	‘molar tooth’
MM: Minigir	<i>pala-</i>	‘tooth’
MM: Tolai	<i>pala(ŋie)-</i>	‘teeth’ (<i>ŋie</i> -‘mouth’)

With regard to the relationship between PMP **baReqaŋ* and POc **paRa(ŋ)* Blust (ACD) notes that

medial **-e-* in a trisyllable is retained in PAn **baqeRu* > POc **paqoRu* ‘new’. The suggested loss of PMP **e* and reduction of the resulting consonant cluster in POc **paRaŋ* ‘molar tooth’ may indicate very specific conditions for deletion of **e* between PMP and POc. Alternatively, the resemblance of Arosi *hara* to phonetically and semantically similar forms in non-Oceanic languages may be due to chance.

However, the occurrence of the Lukep and Tuam forms alongside Arosi *hara-* indicates that the resemblance is not fortuitous.

Two further vaguely similar reconstructions for ‘molar tooth’ can be reconstructed. In the set reflecting **ŋaRo-* the gloss of Misima *nalu-* ‘gums’ suggests that it reflects POc **ŋado-* ‘gums’ (§3.4.12.6), but this is probably a case of contamination of one form by the other. Note in any case that two reflexes of PWoc **m^wao-* ‘molar tooth’ below instead denote the gums, i.e. this is perhaps a fairly common extension of meaning.

POc **ŋaRo-* ‘molar tooth’

Adm: Mussau	<i>ŋalu-ŋalu-</i>	‘tooth’
	<i>ŋalu-ŋalu (katu)</i>	‘molar tooth’ (<i>katu</i> ‘seed’)
NNG: Kairiru	<i>ŋarõ-</i>	‘tooth’
NNG: Kove	<i>ŋaro-</i>	‘molars’ (<i>r</i> for <i>†h</i>)
PT: Misima	<i>nalu-</i>	‘gums’
Pn: Tongan	<i>ŋao</i>	‘molars’
Pn: Samoan	<i>ŋao</i>	‘molar tooth’

PWoc **m^wao-* ‘molar tooth’

NNG: Gedaged	<i>(ga)mau-</i>	‘molars’
NNG: Takia	<i>(ga)ma-</i>	‘molar tooth’
PT: Kukuya	<i>moa-</i>	‘gums’ (metathesis)
PT: Motu	<i>māo-</i>	‘gums’
MM: Bola-Harua	<i>mao-</i>	‘molar tooth’
MM: Nakanai	<i>(bigo)mu-</i>	‘molar teeth’

The POc term for ‘canine tooth’, **bati*, is also used for a boar’s tusks (vol.4:266).

²³ It is not clear exactly what this gloss means.

POc **bati* ‘canine tooth, tusk’

NNG: Gedaged	<i>bali</i>	‘canine tooth of dog; ornamental band for forehead made of dog’s teeth’

PSOc **bati*- ‘tusk, upper canine tooth’ (Lynch 2004a)

NCV: Mota	<i>pati(u)-</i>	‘upper tusk in a boar’
NCV: Uripiv	<i>bati-</i>	‘upper canine tooth, of pig, porpoise or person’
NCV: Araki	<i>p^wari-</i>	‘molar’
NCV: Raga	<i>basi-</i>	‘fang’
NCV: Namakir	<i>bati-</i>	‘tooth, pig’s tusk; seed’
SV: Sye	<i>ne-(m)pati-</i>	‘canine tooth, tusk. horn, crab’s pincer’
SV: Ura	<i>na-bare</i>	‘tusk’
SV: Kwamera	<i>nə-pati-</i>	‘tusk, horn’
SV: Anejom	<i>ni-pat</i>	‘tusk, horn; tusked pig’
NCal: Pije	<i>pae(hwa-)</i>	‘tooth’
NCal: Nemi	<i>paye(hwa-)</i>	‘tooth’
Fij: Bauan	<i>bati-</i>	‘tooth; any sharp edge’

cf. also:

PT: Lala	<i>asi-ʔasi</i>	‘molar’ (ʔ for †b-)

Some reflexes of PNGOc **joŋa* ‘(boar’s) tusk’ (vol.4:267) refer also to teeth.

3.4.12.6 Gums

POc **ŋado*- ‘gums’ bears an obvious resemblance to **ŋaRo*- ‘molar tooth’ above, but the difference in medial consonant and in gloss indicate that they are distinct.POc **ŋado*- ‘gums, palate’

MM: Nakanai	<i>gago-</i>	‘gums’
NCV: Mota	<i>(ma)ŋaro-</i>	‘gums, palate’
NCV: NE Ambae	<i>ŋado-</i>	‘gum’
NCV: Raga	<i>ŋado-</i>	‘gums’

PMic **ŋaco*- ‘palate, gums’ (Bender et al., 2003)

Mic: Kiribati	<i>ŋaro-</i>	‘the gum’
	<i>ŋaro-ŋaro-</i>	‘toothless’
Mic: Marshallese	<i>ŋaɾ</i>	‘gums’
Mic: Carolinian	<i>ŋōŝ</i>	‘hard palate, roof of the mouth’
Mic: Woleaian	<i>ŋāŝo-</i>	‘gum, hard palate’
Fij: Wayan	<i>ŋadro</i>	‘inner mouth, palate’
Fif: Bauan	<i>ŋadro-</i>	‘palate’

3.4.13 Chin, jaw and beard

Austronesian languages usually lack separate words for ‘chin’, i.e. the outward shape of the lowest and frontmost part of the lower jaw, and the lower ‘jaw’ itself. They are typically denoted in Oceanic languages by a reflex of POc **qase*- or by a compound that apparently

contains a reflex of POc **qase-*. PPn **kau-qahe* ‘cheek, chin, jawbone’ is evidently such a compound. PPn **kau* meant ‘edge, side’, and **kau-qahe* presumably once meant ‘edge of jaw’, i.e. ‘chin’, but with the loss of PPn **qahe* ‘jaw’, **kau-qahe* came to subsume ‘chin’ and ‘jaw’. Another possible compound, POc **(k,g)abase-* ‘chin; jawbone’, is discussed below.

The term for ‘beard’, POc **kumi-*, was clearly distinct from the term for ‘chin, jaw’, but its meaning has been extended to include the latter in a number of languages.

PMP **qazay* ‘chin, jaw’ (ACD)

POc **[qase]qase-* ‘chin, jaw’ (Ross 1988, ACD)

Adm:	Seimat	<i>axe-</i>	‘chin, jaw’
NNG:	Manam	<i>are-</i>	‘chin’
		<i>are patu</i>	‘jawbone’ (<i>patu</i> ‘stone’?)
NNG:	Kove	<i>aze-ze</i>	‘chin’
NNG:	Bukawa	<i>(ŋ)ase</i>	‘jaw, chin’
PT:	Tawala	<i>ah-ahe-</i>	‘jawbone, chin’
PT:	Dobu	<i>ʔase-ʔase-</i>	‘cheek, jaw’
PT:	Motu	<i>ade-</i>	‘chin’
PT:	Lala	<i>ade-</i>	‘chin’
PT:	E Mekeo	<i>ake-</i>	‘jaw, chin, mouth’
PT:	Bunama	<i>ase-ase-</i>	‘jaw’
MM:	Vitu	<i>yaðe-</i>	‘tooth’
MM:	Nakanai	<i>are-</i>	‘mouth’
MM:	Meramera	<i>ase-</i>	‘mouth’
MM:	Nalik	<i>ias</i>	‘jawbone’
MM:	Tabar	<i>(paru)ase-</i>	‘jawbone’
MM:	Tangga	<i>ese-</i>	‘chin’
MM:	Konomala	<i>ŋes</i>	‘chin’
MM:	Lamasong	<i>(papali)s</i>	‘chin’
		<i>(sipapal)es</i>	‘jawbone’
MM:	Madak	<i>(papal)es</i>	‘chin’
MM:	Barok	<i>(pal)es</i>	‘chin’
MM:	Patpatar	<i>iase-</i>	‘chin, jaw’
MM:	Roviana	<i>ase-</i>	‘jaw, chin’
MM:	Simbo	<i>ase-</i>	‘jaw; lip, rim, edge’
SES:	Lau	<i>sate-, sa-sate-</i>	‘chin; jaw; beard’
SES:	Kwaio	<i>late-</i>	‘jaw, chin’
		<i>lā-late-</i>	‘beard’
SES:	Sa’a	<i>sate, sa-sate-</i>	‘human jaw, chin’
SES:	’Are’are	<i>ra-rate-</i>	‘jaw, chin, beard’
NCV:	Nokuku	<i>ase-</i>	‘chin’
NCV:	Tamambo	<i>ase-</i>	‘chin, jaw’
NCV:	Larēvat	<i>na-yse-</i>	‘jaw’ (John Lynch, pers. comm.)
NCV:	Nguna	<i>na-asi-</i>	‘jaw, chin’
Mic:	Carolinian	<i>æte-</i>	‘chin’
Mic:	Puluwatese	<i>yæ̃t</i>	‘chin, especially its bottom’

Mic:	Woleaian	<i>yat(e)</i>	‘chin, jaw’
PPn <i>*kau-qahe</i> ‘cheek, chin, jawbone’ (POLLEX) (<i>*kau</i> ‘edge, side’)			
Pn:	Tongan	<i>kou-ʔahe</i>	‘cheek, side of face’
Pn:	Samoa	<i>ʔau-vae</i>	‘jaw, chin’
Pn:	Tikopia	<i>kau-ae</i>	‘jaw, chin’
Pn:	K’marangi	<i>kau-wae</i>	‘cheek’
Pn:	Maori	<i>kau-wae</i>	‘jaw, chin’

POc **(k,g)abase-* ‘chin; jawbone’ at first sight appears to have been a compound of **(k,g)abV* (meaning unknown) and **qase-* ‘chin, jaw’, but only the Lou and Baluan reflexes straightforwardly reflect the reconstructed vowels (and disagree on the initial consonant). Bipi and the Meso-Melanesian reflexes instead reflect a possible POc **(k,g)abesi-* or **(k,g)abise-*, suggesting that the POc form was a trisyllable with perhaps three different vowels (apparently **a*, **i* and **e*) which underwent various metatheses and/or assimilations.

POc **(k,g)abase- ~ *(k,g)abesi- ~ *(k,g)abise-* ‘chin, jawbone’

Adm:	Lou	<i>kapase-</i>	‘chin, jaw’
Adm:	Loni	<i>kepase-</i>	‘chin’
Adm:	Baluan	<i>gabase-</i>	‘chin’ (Smythe)
Adm:	Bipi	<i>gabise-</i>	‘chin’
PT:	Kilivila	<i>gabula-</i>	‘chin, beard’
MM:	Meramera	<i>abeso-</i>	‘chin; jawbone’
MM:	Tangga	<i>kemese-</i>	‘jawbone’
MM:	Minigir	<i>kabesa-</i>	‘chin’ (vowel metathesis)
MM:	Label	<i>kabesi-</i>	‘chin’
MM:	Siar	<i>kabes</i>	‘chin’

There is a well-attested form for ‘beard’.

PMP **kumis* ‘beard’ (Blust 2011)

POc **kumi-* ‘beard’

PT:	Molima	<i>umi-</i>	‘lower chin, lower jaw, lower part of beak’
PT:	Dobu	<i>ʔumi-</i>	‘beard, moustache, chin’
PT:	Kukuya	<i>umi-</i>	‘chin’
PT:	Kilivila	<i>kim(la)</i>	‘jaw’
MM:	Vitu	<i>yumi-</i>	‘lips’
MM:	Bola-Harua	<i>kumi-</i>	‘chin’
MM:	Roviana	<i>yumi-</i>	‘beard’
SES:	Gela	<i>yumi-</i>	‘beard’
SES:	Talise	<i>yumi-</i>	‘beard’

PNCV **kum^wi-* ‘beard’ (Clark 2009)

NCV:	Tamambo	<i>yumi-</i>	‘beard’
NCV:	Raga	<i>gum^wi-</i>	‘beard’
NCV:	NE Ambae	<i>kumi-</i>	‘beard, moustache’
NCV:	Araki	<i>humi-</i>	‘beard’

SV:	Kwamera	<i>nə-kumu-</i>	‘chin and upper throat’
Fij:	Bauan	<i>kumi-</i>	‘chin, beard’
Pn:	Niuean	<i>kumu-kumu</i>	‘chin’
Pn:	Tongan	<i>kumu-kumu</i>	‘chin’
Pn:	Maori	<i>kumi-kumi</i>	‘beard’

cf. also:

MM:	Bali	<i>umi-</i>	‘lips’
Fij:	Rotuman	<i>kum-kumu</i>	‘chin, beard’ (Pn borrowing)

3.4.14 Neck, throat, voice

Modern Oceanic languages typically have four separate monomorphemic lexical items denoting parts of the neck region: ‘neck’ (viewed from the outside), ‘voice’, ‘throat’ (inside the neck) and ‘nape’ (back of neck/base of skull’). For ‘nape’, see §3.4.5. Examples of the first three terms are given below. Some languages also have monomorphemic terms for the Adam’s apple and the gullet, but sources typically omit these meanings.

	‘neck’	‘voice’	‘throat’
Mutu (NNG)	<i>lua-</i>	<i>aliŋa-</i>	<i>ʔgarusa-</i>
Dobu (PT)	<i>ʔoto-</i>	<i>ʔena-</i>	<i>maga-</i>
Nakanai (MM)	<i>holo-</i>	<i>vigia-</i>	<i>gol-</i>
To’aba’ita (SES)	<i>lua-</i>	<i>liŋa-</i>	<i>lua-</i>
Wayan (Fij)	<i>-domo</i>	<i>-lio</i>	<i>-ŋodro-ŋodro</i>
Tongan (Pn)	<i>kia</i>	<i>leʔo</i>	<i>moŋa</i>

The most detailed source available to us is Pawley & Sayaba’s (2003) dictionary of Wayan Fijian, according to which *-domo* ‘neck’ is also used for voice, overlapping semantically with *-lio* (both terms are also used of animal vocalisations). Doubtless overlaps of the kind indicated by the definitions of the Wayan terms also occur in other Oceanic languages but are not recorded by our sources. The only language here to collapse two of these terms is To’aba’ita, where the meaning of *lua-*, originally ‘neck’ (from POc **Ruqa-*), has been extended to ‘throat’, presumably after a period of overlap.

Evidently POc also had a three-way distinction among ‘neck’, ‘voice’ and ‘throat’, but four terms are reconstructed. The assignment of the first three is straightforward, but the meaning of **kadro-* is problematic (see below).

- *Ruqa-* ‘neck’
- *[qa]liŋa-* ‘voice’
- *[qa]liqoR* ‘throat’
- *kadro-* ‘neck?’

**Ruqa-* ‘neck’ has largely retained its meaning throughout all subgroups, although isolated terms have extended or relocated reference to nearby body parts.

POc **Ruqa-* ‘neck’

Adm:	Wuvulu	<i>ua-</i>	‘neck’

Adm:	Aua	<i>ua-</i>	‘neck’
NNG:	Wab	<i>lua-</i>	‘neck’
NNG:	Biliau	<i>rua-</i>	‘neck’
NNG:	Dami	<i>(u)lua-</i>	‘neck’
NNG:	Sengseng	<i>huwa-</i>	‘shoulder’
PT:	Wedau	<i>ua-</i>	‘neck’ (for † <i>rua-</i>)
MM:	Lihir	<i>lua-</i>	‘neck’
MM:	Bilur	<i>a-rua-</i>	‘neck’
MM:	Roviana	<i>rua-</i>	‘neck’
SES:	Bugotu	<i>lua-</i>	(N) ‘neck’; (V) ‘utter, emit, of sound; vomit’
SES:	Gela	<i>lua-</i>	(N) ‘neck’; (V) ‘burst out’
SES:	Lau	<i>lua-</i>	‘neck’
SES:	Sa’a	<i>lue</i>	‘neck, throat’ (in compounds e.g. <i>lue ni ʔae</i> ‘back of knee’, <i>ukuuku</i> [channel] <i>i lue</i> ‘wind-pipe’, <i>suli tolai lue</i> ‘collarbone’)
SES:	Arosi	<i>rua-</i>	‘chin, jaw’
NCV:	NE Ambae	<i>ua-</i>	‘neck’
NCV:	Araki	<i>ua-</i>	‘neck’
PSV * <i>n(a)-ua-</i> ‘neck’ (Lynch pers. comm.)			
SV:	N Tanna	<i>n-ua-</i>	‘nape of neck’
SV:	Lenakel	<i>n-ua-</i>	‘top of shoulder near the neck’
SV:	SW Tanna	<i>n-ua-</i>	‘shoulder and part of neck’
SV:	Kwamera	<i>n-ua-</i>	‘neck’
Mic:	Carolinian	<i>iwa-</i>	‘neck; jaw and jowls’
Mic:	Woleaian	<i>#wa-</i>	‘neck’
Fij:	Yasawa	<i>ua</i>	‘neck’
Pn:	Niuean	<i>ua</i>	‘neck’
Pn:	Tongan	<i>uʔa</i>	‘neck’
Pn:	E Uvean	<i>uʔa</i>	‘neck, throat’
Pn:	Samoaan	<i>ua</i>	‘neck’
Pn:	Tikopia	<i>ua</i>	‘neck, throat (external)’
Pn:	Tahitian	<i>ua</i>	‘neck’

POc *[*qa*]*liŋa-* ‘voice’ is reflected in languages as far east as the southeast Solomons, but its reflexes are not found further east. East and south of the Solomons, the term for voice is a reflex of POc *[*qa*]*liqoR* ‘throat’.

Even closely related languages vary as to whether **qa-* is included.²⁴

POc *[*qa*]*liŋa-* ‘voice’

Adm:	Mussau	<i>liŋi(ŋ-alo)</i>	‘voice’
NNG:	Wogeo	<i>valiŋa</i>	‘voice’
NNG:	Kove	<i>liŋe-</i>	‘voice’
NNG:	Tuam	<i>aliŋa-</i>	‘voice’
NNG:	Mangap	<i>kalŋa-</i>	‘voice, speech’

²⁴ For a brief discussion of **qa-*, see §3.5.3.

NNG: Lukep	<i>kalŋa-</i>	‘voice’
NNG: Poeng	<i>kaliŋa-</i>	‘voice’
MM: Bali	<i>yaliŋa-</i>	‘voice’
MM: Bulu	<i>yaliŋa-</i>	‘voice’
MM: Lavongai	<i>kaliŋa-</i>	‘voice’
MM: Tigak	<i>liŋi-</i>	‘voice’
MM: Nalik	<i>liŋ</i>	‘voice’
MM: Patpatar	<i>iŋa-</i>	‘voice’
SES: Lau	<i>liŋe-</i>	‘sound, voice’
SES: Arosi	<i>riŋe-</i>	‘voice’

Reflexes of **[qa]liqoR* mean ‘neck’ or ‘throat’ in languages as far east as the southeast Solomons, but in languages further east refer consistently to ‘voice’. Initial **qa-* in **[qa]liqoR* is reflected only in NNG and PT (i.e. NGOc) languages. PNCV **le(q)o* ‘word, speech, voice’ and PPn **leqo* ‘voice’ are reflexes of POc **[qa]liqoR* ‘neck, throat’. PNCV **daleqo* ‘neck, throat; voice’ remains unaccounted for, other than to note its similarity to POc **[qa]liqoR* ‘neck, throat’.

PAn **liqeR* ‘neck’ (Blust 1999a)

POc **[qa]liqoR* ‘throat’

NNG: Malalamai	<i>alio(m)</i>	‘neck’
NNG: Malasanga	<i>kalio-</i>	‘throat’
PT: Motu	<i>aio-</i>	‘neck’
MM: Vitu	<i>loyor</i>	‘neck, shoulder’
MM: Bali	<i>layor(a)</i>	‘neck’
MM: Bulu	<i>loyo-</i>	‘neck; shoulder’
MM: Bola-Harua	<i>loyo-</i>	‘neck; voice’
MM: Nakanai	<i>loho-</i>	‘projecting bones of neck; Adam’s apple’
	<i>loyol(a)</i>	‘throat’ (-l- unexpected; probably borrowed)
MM: Petats	<i>lio-</i>	‘throat, neck’
MM: Roviana	<i>leo-</i>	‘throat’
SES: W G’canal	<i>lio-</i>	‘neck’
SES: Talise	<i>lio-</i>	‘neck’
SES: Malango	<i>lio-</i>	‘neck’
SES: Ghari	<i>lio-</i>	‘throat, neck’
SES: Lengo	<i>lio-</i>	‘neck’
SES: Bauro	<i>rio-</i>	‘neck’
SES: Kahua	<i>rio-</i>	‘neck’

PNCV **le(q)o* ‘word, speech, voice’ (Clark 2009) cf. **daleqo* ‘neck, throat; voice’

NCV: Mota	<i>leo</i>	‘word, report, law’
NCV: Raga	<i>leo</i>	‘rule, law’
NCV: Uripiv	<i>na-le</i>	‘word, language, statement’
NCV: NE Ambae	<i>leo</i>	‘language’
NCV: Araki	<i>leo</i>	‘voice’
NCV: Tamambo	<i>leo</i>	‘voice’

Fij:	Rotuman	<i>lio</i>	‘voice’
Fij:	Wayan	<i>lio</i>	‘voice of person or animal’
PPn * <i>leqo</i> ‘voice’			
Pn:	Niuean	<i>leo</i>	‘voice, sound’
Pn:	Tongan	<i>leʔo</i>	‘voice, sound’
Pn:	Rennellese	<i>geʔo</i>	‘voice, sound, noise’
Pn:	Samoan	<i>leo</i>	‘voice’
Pn:	Tikopia	<i>reo</i>	‘voice, esp. in speech’

The relationship, if any, between POc *[*qa*]*liqoR* ‘neck, throat’ and PNCV **daleqo-* ‘neck, throat; voice’ is not understood.

PNCV **daleqo-* ‘neck, throat; voice’ (Clark 2009)

NCV:	Löyöp	<i>n-dolo-</i>	‘neck’
NCV:	Mwotlap	<i>ne-nlo-</i>	‘neck’
NCV:	Nokuku	<i>ʔalo-</i>	‘neck’
NCV:	Ninde	<i>ne-dele-</i>	‘neck’
NCV:	Uripiv	<i>drrela-</i>	‘voice, noise’
NCV:	Paamese	<i>ree-</i>	‘voice’ (<i>hi-ree</i> ‘neck, throat’)
NCV:	Port Sandwich	<i>drö-drö-</i>	‘throat’ (<i>drae-</i> ‘voice, noise’)
NCV:	Namakir	<i>doloʔo-</i>	‘voice, language, sound’
NCV:	Nguna	<i>(na-kau)daleo</i>	‘neck’ (<i>kau</i> ‘handle’), (<i>na-daleo</i> ‘voice’)

POc **kadro-* ‘neck’ has reflexes only in Mussau and Western Oceanic, and seems to have referred to the neck region generally, to judge from the compound terms for its parts in Mussau and Motu. Thus it appears to have been a (near-)synonym of POc **Ruqa-*.

POc **kadro-* ‘neck?’

Adm:	Mussau	<i>alo-</i>	‘neck, voice’
		<i>(taue-ŋ)alo-</i>	‘throat’
NNG:	Roinji	<i>aro(tua-)</i>	‘neck’
NNG:	Bam	<i>aro(buku-)</i>	‘neck’
PT:	Motu	<i>yado-</i>	‘throat, voice, speech’
		<i>yado baubau</i>	‘windpipe’ (<i>baubau</i> ‘bamboo pipe’)
		<i>yado rourou</i>	‘Adam’s apple’ (<i>rourou</i> ‘noise’?)
PT:	Lala	<i>ato-</i>	‘neck, throat’
PT:	Roro	<i>ako-</i>	‘throat, neck’
MM:	Patpatar	<i>kado-</i>	‘neck’
MM:	Laghu	<i>yado(ai)</i>	‘neck’

PPn **koro-koro-* ‘throat’ (POLLEX)

Pn:	Niuean	<i>kō-kō-</i>	‘throat’
Pn:	Tongan	<i>kō-kō-</i>	‘windpipe of a fowl’
Pn:	Pukapukan	<i>kolo-kolo</i>	‘throat, double chin’
Pn:	Mangareva	<i>koro-koro</i>	‘pronounced external larynx, tumour on larynx’

Pn:	Tuamotu	<i>koro-koro</i>	‘gular pouch of male frigate bird’
Pn:	Maori	<i>koro-koro</i>	‘throat’
cf. also:			
Adm:	Loniu	<i>kolu</i>	‘throat’
MM:	Nakanai	<i>golu</i>	‘throat’
		<i>(bari)golu</i>	‘throat, windpipe’
MM:	E Kara	<i>kolo(ma)</i>	‘neck’
MM:	Roviana	<i>koro-koro(na)-</i>	‘lungs’

3.5 Parts of the trunk

Terms for the trunk itself are given alongside those for ‘body’ in §3.2.2. Terms for the parts of the torso or trunk are arranged such that those for the back are presented first, followed by those for parts of the trunk moving from the top (shoulder) to the bottom (buttocks and genitalia).

3.5.1 Back

POc **takuRu-* ‘back’ clearly denoted a location, i.e. the posterior surface of an object, and specifically the posterior surface of the human body. But did it also denote the spine as a body part? The answer appears to be ‘no’, in that very few glosses of its reflexes include ‘spine’ or ‘backbone’ (often encoded with a compound involving the term for ‘bone’), and Oceanic languages typically have separate terms for back and backbone.

Another reconstruction sometimes used to refer to the back as a body part is the relational local noun POc **muri[-]* ‘back part, rear, behind, space to the rear of, time after; (canoe) stern; space outside’ (§3.1.2 and vol.2:251).

POc **takuRu-* (N, N LOC) ‘back’ (vol.2:253)

Adm:	Titan	<i>lákulo-</i>	‘(s.o.’s) back’ (<i>l-</i> for expected † <i>t-</i>)
NNG:	Sio	<i>taulo-</i>	‘behind’
PT:	Gumasi	<i>tolu-</i>	‘(s.o.’s) back’
PT:	Molima	<i>tulu-</i>	‘(s.o.’s) back’
PT:	Dawawa	<i>tauri-</i>	‘back of s.t.; s.o.’s back’
MM:	Nakanai	<i>turo-</i>	‘spinal column’
MM:	Minigir	<i>tauru-</i>	‘(s.o.’s) back’
MM:	Bilur	<i>taru-</i>	‘(s.o.’s) back’
MM:	Siar	<i>taru-</i>	‘(s.o.’s) back’
MM:	Taiof	<i>touno-</i>	‘(s.o.’s) back’
MM:	Kia	<i>tayuru-</i>	‘back of s.t.; s.o.’s back’
MM:	Kokota	<i>tagru-</i>	‘back of s.t.; s.o.’s back’
NCV:	Mota	<i>tawur, tawuru-</i>	‘behind, the hinder part, back’
NCV:	Raga	<i>a-tayu-</i>	‘behind’
NCV:	Namakir	<i>tak</i>	‘back, backwards, behind’
SV:	Kwamera	<i>taku(tā)</i>	‘back, backside’
NCal:	Nemi	<i>dai</i>	(N) ‘back’
NCal:	Jawe	<i>jai</i>	‘back’

NCal:	Iaai	(ho)tō-	‘back’
Mic:	Kiribati	akū	‘back; behind’
Mic:	Puluwatese	hækir	‘(s.o.’s) back’
Mic:	Carolinian	saxir	‘back, backbone’
Fij:	Rotuman	fɔʔu	‘back (of body), space behind, time after’
Fij:	Wayan	-takū	‘back of s.t.; s.o.’s back’
Fij:	Bauan	daku-	‘back of s.t.; s.o.’s back’
cf. also:			
Adm:	Wuvulu	uku-	‘(s.o.’s) back’ (reflects <i>*takuru</i> with loss of first syllable)

3.5.2 Flat of back

No POC term is reconstructable for ‘flat of back’. PPN **papa* in **papa-a-tuqa* below reflects POC **baban* ‘flat object or surface; board, plank, canoe strake’ (vol.1:58, 185).²⁵

PPN **papa-a-tuqa* ‘small/flat of back’ (**papa* ‘flat surface’, **-a-* ‘linker’, **tuqa* ‘back’)
(POLLEX)

Pn:	Tongan	<i>papa-tuʔa</i>	‘flat of back’
Pn:	Samoa	<i>papa-a-tua</i>	‘small of back’
Pn:	Pukapukan	<i>papa-a-tua</i>	‘lower back’
Pn:	Tuamotuan	<i>papa-tua</i>	‘small of back’
Pn:	Tahitian	<i>papa-tua honu</i>	‘shell on back of turtle’

3.5.3 Shoulder

POC **[qa]paRa-* ‘shoulder’ has usually been reconstructed as a straightforward trisyllable (i.e. **qapara*), but well distributed reflexes (Gitua, Nakanai, Halia, Selau, Torau, Mono-Alu, Nduke, Lungga, Gela, Big Nambas) lack initial **qa-*. The same is true of a number of non-Oceanic reflexes listed in the ACD. POC **[qa]paRa-* is thus one of a small number of trisyllabic body part nouns which consist of a disyllabic root (the most common form of POC roots) and apparently had forms with and without POC **qa-*. Other forms of this kind are POC **[qa]liŋa-* ‘voice’, POC **[qa]liqoR* ‘neck, throat’ (both §3.4.14) and POC **[qa]nunu* ‘shadow of person, likeness, reflection’ (§3.9.1). Whilst we can describe this pattern, we do not know its function or why alternants apparently survived side by side over a long period.²⁶

As noted in §3.4.2 some Oceanic languages refer to the shoulder as the ‘head/knob of arm’, but we cannot say how old this expression is.

²⁵ The gloss ‘flat object or surface’ was omitted in volume 1.

²⁶ A few nouns which label plants or animals display the same pattern: PWOC **[qa]pwasu* ‘taro leaves’ (?) (vol.3:269), PEOC **[qa]ŋaRi* ‘canarium almond’ (vol.3:315), POC **[qa]paliR* ‘surgeonfish’ (vol.4:103), POC **[qa]nupe* ‘caterpillar or k.o. sea cucumber’ (vol.4:206), POC *[qa]yawan* ‘strangler fig’ (vol.3:303), POC **[qa]pator* ‘sago grub, edible’ (vol.4:404), POC **[qa]liliŋ* ‘tapestry turban shell’ (vol.4:182), POC **[qa]lipan* ‘centipede’ (vol.4:406). Some of these are reconstructed without the **qa-* less alternant, but reflexes reflect absence of **qa-*. The only discernible regularity regarding the presence or absence of **qa-* in reflexes is that it is apparently always absent in Gela, with a tendency towards absence in other Guadalcanal languages and in New Ireland languages—but absences also occur elsewhere.

PAn *[qa]baRa ‘shoulder’ (ACD)

POc *[qa]paRa- ‘shoulder’

Adm:	Loniu	<i>keheya-</i>	‘shoulder’
NNG:	Tuam	<i>avara-</i>	‘shoulder’
NNG:	Malai	<i>avara-</i>	‘shoulder’
NNG:	Gitua	<i>bara-</i>	‘carry on shoulder’
PT:	Ubir	<i>abara-</i>	‘shoulder’
PT:	Gapapaiwa	<i>kavara-</i>	‘shoulder’
PT:	Bwaidoga	<i>avala-</i>	‘his shoulder; carry something on the shoulder’
PT:	Molima	<i>ʔavala-</i>	‘shoulder’
		<i>avala-</i>	‘carry, esp. on the shoulder’
PT:	Bunama	<i>ahara-</i>	‘shoulder’ (-r- for †-l-)
MM:	Nakanai	<i>pala-</i>	‘shoulder’
MM:	Minigir	<i>(ul)avara-</i>	‘shoulder’ (ul ‘head’)
MM:	Kandas	<i>kabara</i>	‘shoulder’
MM:	Halia (Haku)	<i>hala-hala-</i>	‘shoulder’
MM:	Torau	<i>ara</i>	‘shoulder’
MM:	Mono-Alu	<i>fala</i>	‘shoulder’
MM:	Roviana	<i>avara-</i>	‘shoulder’
MM:	Nduke	<i>vara-</i>	‘shoulder’
MM:	Lungga	<i>vara-</i>	‘shoulder’
MM:	Laghu	<i>fara-</i>	‘shoulder’
SES:	Gela	<i>vala-</i>	‘shoulder; collarbone’
SES:	’Are’are	<i>ahara-</i>	‘shoulder’
SES:	Sa’a	<i>ahala-</i>	‘shoulder’
SES:	Arosi	<i>ʔabara</i>	‘shoulder’
NCV:	Big Nambas	<i>və-</i>	‘shoulder’ (John Lynch, pers. comm.)
NCV:	Neve’ei	<i>na-ʔavera-</i>	‘wing’ (John Lynch, pers. comm.)
NCV:	Namakir	<i>ʔovari-</i>	‘wing’ (John Lynch, pers. comm.)
Mic:	Chuukese	<i>afara-</i>	‘shoulder (of human, animal, bottle)’
Mic:	Woleaian	<i>yafaza-</i>	‘shoulder’
Mic:	Puluwatese	<i>(ya)yəfar</i>	‘shoulder, load carried on the shoulder’

cf. also:

Adm:	Mussau	<i>papapa-</i>	‘shoulder’
NNG:	Kove	<i>wala-</i>	‘shoulder’

A second term is reconstructable for PWOC. Initial *y-* or *l-* in some reflexes is epenthetic following loss of **k-*.

PWOC **kaRo* ‘shoulder’

NNG:	Gedaged	<i>yalə-</i>	‘shoulder’
NNG:	Matukar	<i>yaro-</i>	‘shoulder’
NNG:	Megiar	<i>yaro-</i>	‘shoulder’
PT:	Paiwa	<i>yaro(bebana)</i>	‘shoulder’
PT:	Kukuya	<i>yano-yano-</i>	‘shoulder’ (-n- is regular reflex of <i>*-R-</i>)
PT:	Motu	<i>laro-laro-</i>	‘shoulder blade’ (<i>*yaro</i>)

PT:	Roro	<i>aro-</i>	‘shoulder’
MM:	Tabar	<i>kara-kara-</i>	‘shoulder’
MM:	Lihir	<i>kola-</i>	‘shoulder’

3.5.4 Armpit

POc **b^wae-* ‘armpit’

NNG:	Kove	<i>voe</i>	‘armpit’
NNG:	Gitua	<i>b^wae</i>	‘armpit’
NNG:	Bariai	<i>bae</i>	‘armpit’
MM:	Vitu	<i>bai(k-)</i>	‘armpit’ ²⁷
MM:	Patpatar	<i>bawe-</i>	‘armpit’
MM:	Tolai	<i>bai-</i>	‘armpit’
SES:	Bugotu	<i>bai(balige)</i>	‘armpit’
SES:	Gela	<i>abe-abe</i>	‘armpit’ (metathesis)
SES:	Lau	<i>g^wae-g^wae-</i>	‘armpit’
SES:	‘Are’are	<i>pae-pae</i>	‘armpit’
SES:	Kwaio	<i>g^wā-g^wae-</i>	‘armpit’
SES:	Sa’a	<i>p^wae-p^wae-</i>	‘armpit’
SES:	Arosi	<i>b^wae-b^wae-</i>	‘armpit’

POc **qapi-ŋa* ‘armpit’ was a nominalisation (**-ŋa*) of POc **qapi(n)*, **qapin-i-* ‘hold or carry under the arm’ (§6.6.2.10).

PMP **qabin* ‘hold or carry under the arm’ (ACD)

POc **qapi-ŋa* ‘armpit’ (Geraghty 1983: PEOc **qaviŋa*)

MM:	Halia	<i>apia(pits)</i>	‘armpit, carry under the arm’

PSOc **qaviŋa* ‘armpit; carry under the arm’ (Lynch 2004a)

NCV:	Mota	<i>viŋa-i</i>	‘armpit’
NCV:	Raga	<i>(mal)aviŋa-</i>	‘armpit’
NCV:	Paamese	<i>hiŋo-</i>	‘armpit’
Pn:	Niuean	<i>afine</i>	‘armpit’ (<i>n</i> for <i>†ŋ</i>)
Pn:	Tongan	<i>fāʔefine</i>	‘armpit’ (initial <i>f-</i> irregular)
Pn:	Rennellese	<i>ʔahiŋa</i>	‘armpit’
Pn:	E Futunan	<i>ʔafiŋa</i>	‘armpit’
Pn:	Tikopia	<i>afiŋa</i>	‘armpit’

3.5.5 Chest

POc **[Ruma]Ruma-* ‘chest’ is perhaps derived from POc **Rumaq* ‘house’ (vol.1:48). If a Lapita house is viewed as underlyingly a rough-hewn wooden framework (see the illustration on p53 of vol.1), then the metaphorical extension of ‘house’ to the chest cavity as a whole, bounded by the rib cage and the spine, is visually quite obvious. The same metaphor led to the

²⁷ Final **-k-* probably the Vitu reflex of POc **-ki* ‘not possessed’. See footnote 12.

extension of a reflex of POc **kaso* ‘rafters’ to the upper rib cage reflected in PPn **kaso-kaso* (§3.5.6).

POc **[Ruma]Ruma-* ‘chest’

PT:	Molima	<i>luma-luma-</i>	‘chest’
PT:	Dobu	<i>luma-luma-</i>	‘chest’
MM:	Petats	<i>lu-luma-</i>	‘chest’
MM:	Halia	<i>lum-luma-</i>	‘chest’
NCV:	Araki	<i>juma-</i>	‘chest, sternum’
NCV:	Nguna	<i>na-rum^wa-</i>	‘ribs, chest’
NCV:	Atchin	<i>ruma-</i>	‘chest’
Pn:	Tongan	<i>uma</i>	‘shoulder’
Pn:	Samoan	<i>uma</i>	‘a wide chest’
Pn:	Tikopia	<i>uma</i>	‘chest, breast area in general’
Pn:	Maori	<i>uma</i>	‘breast, chest’

The term below appears to be a reduplication of the PPn **fata* ‘shelf’, but the semantic connection, if any, is not obvious.

PPn **fata-fata* ‘chest’

Pn:	Niuean	<i>fata-fata</i>	‘chest’
Pn:	Tongan	<i>fata-fata</i>	‘chest’
Pn:	Rennellese	<i>hata-hata</i>	‘chest’
Pn:	Samoan	<i>fata-fata</i>	‘chest cavity’
Pn:	Tikopia	<i>fata-fata</i>	‘chest’

3.5.6 Rib cage

Probably there was no POc word that meant ‘rib’. Instead, POc speakers, like the speakers of a good many Oceanic languages, had a term for ‘rib cage’, and used a composite term meaning ‘bone of rib cage’ or ‘bone of side’ for rib.²⁸

Adm:	Nyindrou	<i>"druwi kabede-</i>	‘rib’ [bone side]
NNG:	Takia	<i>girape- tatu</i>	‘rib’ [side- bone]
NNG:	Dami	<i>siri- tua</i>	‘rib’ [side- bone]
NNG:	Labu	<i>ape alugu</i>	‘rib’ [side bone]
MM:	Patpatar	<i>sur dade</i>	‘rib’ [bone rib.cage]
MM:	Roviana	<i>susuri ragaraga</i>	‘rib’ [bone rib.cage]
SES:	Kwaio	<i>suli kalao-</i>	‘rib’ [bone rib.cage-]
Fij:	Bauan	<i>sui ni sarisari-</i>	‘rib’ [bone of rib.cage-]
Pn:	Niuean	<i>hui kahokaho</i>	‘side rib, rib bone’ [bone rib.cage]
Pn:	Samoan	<i>ivi ʔasoʔaso</i>	‘rib’ [bone rib.cage]
Pn:	Tikopia	<i>ivi kasokaso</i>	‘short ribs under arms’ [bone rib.cage]
Pn:	Sikaiana	<i>ivi vakavaka</i>	‘rib’ [bone rib.cage]

²⁸ A term with the gloss ‘rib’ does occur in a number of sources. In some cases at least this appears to be an error for ‘ribs’ or ‘rib cage’.

As the glosses of some of the terms above imply, at least some Oceanic speakers evidently perceive the rib cage as two ‘sides’ of ribs (such that a rib is a ‘bone of side’). Thus Dami *siri*-above reflects POc **siriŋ* ‘side’ (vol.2:246). The best candidate for reconstruction with the meaning ‘side of ribs’ is POc **kabe-* ‘(lower?) rib cage, side’. Whether this also meant ‘side’ in a generalised locative sense is not clear.

POc **kabe-* ‘one side of rib cage’

Adm:	Nyindrou	<i>kabe(de-)</i>	‘side, ribs’
NNG:	Mapos Buang	<i>k^wbe-</i>	‘side, rib’
NNG:	Labu	<i>ape</i>	‘side, rib cage’
PT:	Gapapaiwa	<i>yaba-yaba-</i>	‘ribs’
MM:	Nehan	<i>kap-kapa-</i>	‘side of body, ribs’

However, POc **kabe-* is apparently not reflected in Eastern Oceanic languages. Here, certain more localised reconstructions are possible. If Bola *karo-* ‘ribs, side’ is cognate with PSES **[garo]garo-* ‘ribs, side’ below, then POc **garo-* can be reconstructed, but the available evidence is not strong. The Maringe term is probably borrowed from a SES source.

PSES **[garo]garo-* ‘one side of rib cage’

SES:	Bugotu	<i>gao-garo-</i>	‘ribs’
SES:	Ghari	<i>garo-</i>	‘ribs’
SES:	Lau	<i>ga-garo-</i>	‘ribs, side of a person’
SES:	‘Are’are	<i>karo-</i>	‘rib, flank, side, loins, of humans’
SES:	Sa’a	<i>karo-karo-</i>	‘ribs’
SES:	Arosi	<i>garo-garo-</i>	‘side, ribs, of a man’
		<i>garo-</i>	‘side of a house’

cf. also

MM:	Bola	<i>karo-</i>	‘ribs, side’
MM:	Maringe	<i>ga-garo-</i>	‘rib’

There is a small set of terms in NGOc languages that displays formal similarities to the set above, but it is unlikely that the two sets are cognate.

NNG:	Lukep (Pono)	<i>giri-gira-</i>	‘rib’
NNG:	Takia	<i>giraje-</i>	‘side (of boat, rib cage, garden, mountain)’
NNG:	Manam	<i>garaja</i>	‘rib cage’
PT:	Dawawa	<i>giri-giri</i>	‘ribs’

Some languages distinguish between the (upper, shorter) ribs of the chest (Arosi *rakerake-toʔo*, Wayan Fijian *-saro*) and the (lower, longer) ribs at the side and bottom of the rib cage (Arosi *garogaro-*, Wayan Fijian *-sakesake*), and this distinction may have been present in POc. In the Arosi term *rakerake-toʔo* ‘upper rib cage’, *toʔo* means ‘true’. That is, one side of the upper rib cage is the ‘true *rakerake*’, whilst *rakerake-* alone is the whole side of ribs. The implication here is that **[rage]rage-* denoted a side of the upper rib cage, but was also used to mean a whole side of the rib cage. However, this supposition requires confirmation with more data.

POc *[rage]rage- ‘one side of the upper rib cage’ OR ‘one side of the rib cage’ (?)

Adm:	Lou	<i>rak, rake-</i>	‘rib’
NNG:	Sio	<i>rage(ni)</i>	‘rib cage’
MM:	Ramoaina	<i>rei-</i>	‘rib’
MM:	Roviana	<i>raga-raga</i>	‘rib cage’
SES:	Arosi	<i>rake-rake-</i>	‘side’
		<i>rake-rake(toʔo)</i>	‘short ribs’ (toʔo ‘true’)
Mic:	Woleaian	<i>zaxe-zax, zaxe-zexa-</i>	‘ribs’

cf. also:

MM:	Halia	<i>liki-liki</i>	‘side of body, ribs’
MM:	Teop	<i>riki-rikii-</i>	‘rib’
MM:	Banoni	<i>ri-riki-</i>	‘ribs’

Two PPn terms are reconstructable, namely **kaso-kaso* ‘ribs, upper side’ and **kao-kao* ‘ribs, flank, side (of a canoe), upper side of person’. Despite their formal similarity, the evidence indicates two unrelated terms with very similar meanings. PPn **kaso-kaso* is almost certainly derived from POc **kaso* ‘rafter’ (vol.1:53). If Mwotlap (NCV) *na-yayah* ‘ribs’ is cognate, then the term is of PROc antiquity.

PPn **kaso-kaso* ‘ribs, upper side’

Pn:	E Futunan	<i>ivi kasokaso</i>	‘rib’ (‘bone of rib cage’)
Pn:	Niuean	<i>kahokaho</i>	‘side of a person’s body (refers to the area under the arm and above the hips)’
Pn:	Pukapuka	<i>ivi kayokayo</i>	‘rib’ (‘bone of rib cage’)
Pn:	Samoan	<i>ivi ʔasoʔaso</i>	‘rib’ (‘bone of rib cage’)
Pn:	Tikopia	<i>ivi kasokaso</i>	‘short ribs under arms’ (‘bone of rib cage’)
Pn:	Tokelau	<i>ivi kahokaho</i>	‘rib’ (‘bone of rib cage’)
Pn:	Tuvalu	<i>kahokaho</i>	‘rib bones’

cf. also:

NCV:	Mwotlap	<i>na-yayah</i>	‘ribs’
Pn:	Tongan	<i>kahoki</i>	‘rafters, ribs of umbrella, spokes of wheel’

PPn **kao-kao* ‘ribs, flank, side (of a canoe), upper side of person’ (POLLEX)

Pn:	Tongan	<i>kaokao</i>	‘side of a boat or ship, or of a cart etc’
Pn:	Samoan	<i>ʔaoʔao</i>	‘inner sides of canoe; armpit’
Pn:	Anuta	<i>kaokao</i>	‘armpit’
Pn:	E Futunan	<i>kaokao</i>	‘side of canoe’
Pn:	Ifira-Mele	<i>kaokao</i>	‘side, ribs’
Pn:	K’marangi	<i>kaokao</i>	‘side’
Pn:	Tuvalu	<i>kaokao</i>	‘side, coast ; armpit’
Pn:	Luangiua	<i>ʔaoʔao</i>	‘ribs’
Pn:	Pileni	<i>kaokao</i>	‘side’
Pn:	Rennellese	<i>kaokao</i>	‘side (human, animal)’
Pn:	Tikopia	<i>kaokao</i>	‘ribs, flank’

Pn:	Pukapuka	<i>kaokao</i>	‘side of body or object’
Pn:	Mangareva	<i>kaokao</i>	‘side, flank’
Pn:	Marquesas	<i>kaokao</i>	‘ribs, flanks’
Pn:	Rarotongan	<i>kaokao</i>	‘side (of person or thing), rib’
Pn:	Tahitian	<i>ʔaoʔao</i>	‘side (of a person, animal or object)’
Pn:	Tuamotuan	<i>kaokao</i>	‘ribs, sides’
Pn:	Hawaiian	<i>ʔaoʔao</i>	‘side, boundary’
Pn:	Rapanui	<i>kaokao</i>	‘side’

3.5.7 Breast

POc **susu-* was polysemous, its meaning commonly extending to ‘milk’. The root **susu* evidently also formed a verb ‘suck (at the breast)’ (see §4.3.2.3), but **susu-* ‘breast’ was formally distinct from it as it was a directly possessed noun, i.e. it took a possessor suffix.

PAn **susu* ‘breast’ (Blust 1999a)

POc **susu-* ‘breast, milk’; **susu* ‘suckle’

Adm:	Mussau	<i>susu-</i>	‘breast’
Adm:	Tenis	<i>susu-</i>	‘breast’
Adm:	Wuvulu	<i>tutu-</i>	‘breast’
Adm:	Lou	<i>susu-</i>	‘breast’
Adm:	Loniū	<i>susu-</i>	‘breast’
		<i>sus</i>	‘milk’
NNG:	Mindiri	<i>su-</i>	‘breast’
NNG:	Gedaged	<i>su-</i>	‘breast’
NNG:	Matukar	<i>susu-</i>	‘breast’
NNG:	Medebur	<i>yuy</i>	‘breast’
NNG:	Manam	<i>ruru-</i>	‘breast’
NNG:	Ali	<i>sus</i>	‘breast’
NNG:	Sirak	<i>sus</i>	‘breast’
NNG:	Numbami	<i>susu-</i>	‘breast’
NNG:	Buang	<i>rur</i>	‘breast’
NNG:	Mumeng (Dambi)	<i>lul</i>	‘breast’
PT:	Muyuw	<i>sus</i>	‘breast’
PT:	Iduna	<i>huhu-</i>	‘breast’
PT:	Dobu	<i>susu-</i>	‘breast’
PT:	Gapapaiwa	<i>susu-</i>	‘breast’
MM:	Nakanai	<i>susu-</i>	‘breast, milk’
		<i>susu</i>	‘suckle’
MM:	Tigak	<i>susu-</i>	‘breast’
MM:	Nalik	<i>sus</i>	‘breast; suck’
MM:	Tolai	<i>u-na-</i>	‘breast’
MM:	Roviana	<i>susu-</i>	‘breasts, milk’
SES:	Gela	<i>susu-</i>	‘breasts, milk’
SES:	Lau	<i>susu-</i>	‘breasts, milk’
SES:	Arosi	<i>susu-</i>	‘breasts’

NCV:	Raga	<i>huhu-</i>	‘breast’
NCV:	Tamambo	<i>susu-</i>	‘breast, milk’
SV:	Kwamera	<i>na-s</i>	‘breast’
SV:	Anejom	<i>ne-θeθ, na-θe-</i>	‘breast’
NCal:	Drehu	<i>θi</i>	‘breast’
Mic:	Woleaian	<i>tʰtʰ-</i>	‘breast’
Fij:	Bauan	<i>suðu-</i>	‘breast’
Fij:	Wayan	<i>-ðuðu</i>	‘breast’
Fij:	Rotuman	<i>susu</i>	‘breast’
Pn:	Tongan	<i>huhu</i>	(v) ‘suck the breast’, (N) ‘breast’
Pn:	Samoan	<i>susu</i>	(v) ‘suck the breast’, (N) ‘breast’

3.5.8 Nipple

‘Nipple’ was denoted by a phrase that combined the terms for ‘eye’ and ‘breast’ with a linking particle. Daughter languages display a variety of linkers, but in POc the linker was probably **qi*, as this was used with a directly possessed possessum (§3.1.1).

PMP **mata ni susu* ‘nipple’ (eye + breast) (ACD in a note on PWMP **qulu ni susu*)

POc **mata qi susu* ‘nipple’

Adm:	Seimat	<i>mata susu</i>	‘nipple’
PT:	Dobu	<i>susu mata(na)</i>	‘nipple’
MM:	Roviana	<i>mata susu</i>	‘nipple’
SES:	Ghari	<i>mata na tsutsu</i>	‘teat’
Mic:	Mortlockese	<i>məsa-n tīt</i>	‘nipple’
Fij:	Wayan	<i>mata ni ðuðu</i>	‘nipple’
Fij:	Bauan	<i>mata ni suðu</i>	‘nipple’
Pn:	Tongan	<i>mata ʔi huhu</i>	‘nipple’
Pn:	Samoan	<i>matā susu</i>	‘nipple’

3.5.9 Belly

PAn **tiaN*, ancestral to POc **tia-* ‘belly’, also provided the base for POc **tian-an* ‘pregnant’, discussed in §4.2.2.3. This suggests that POc **tia-* referred principally to the external shape of the belly. Terms for the corresponding internal organ, the stomach, are presented in §3.7.4.

In the comparative literature reflexes of POc **tia-* are sometimes confused with those of POc **taqe-* ‘faeces’ or POc **tinaqe-* ‘intestines’, but slight formal resemblance between **tia-* and the two latter terms is due to chance.

PAn **tiaL* ‘belly’ (Blust 1999a)

POc **tia-* ‘belly’

Adm:	Lou	<i>tia-</i>	‘abdomen’
Adm:	Seimat	<i>tīa-</i>	‘abdomen’
NNG:	Kairiru	<i>tie-</i>	‘belly’
NNG:	Poeng	<i>tia-</i>	‘belly’

PT:	Tubetube	<i>dia-</i>	‘belly’ (<i>d-</i> for $\dagger t$ -)
PT:	Molima	<i>dia-</i>	‘intestines’ (<i>d-</i> for $\dagger t$ -)
MM:	Nakanai	<i>tia-</i>	‘belly’
MM:	Meramera	<i>tia-</i>	‘belly’
MM:	Tolai	<i>tia-</i>	‘belly, skin of the stomach; part of the body from ribs to thighs’
MM:	Torau	<i>tia-</i>	‘belly’
MM:	Roviana	<i>tia-</i>	‘abdomen’
SES:	Sa’a	<i>ie-</i>	‘belly, stomach, bowels, womb’
SES:	Ulawa	<i>ia-</i>	‘belly, stomach, bowels, womb’
PNCV <i>*tia-</i> ‘belly’ (Clark 2009)			
NCV:	Nokuku	<i>tia-</i>	‘belly’
NCV:	Merei	<i>tia-</i>	‘belly’
NCV:	Ninde	<i>ni-sia-</i>	‘belly’
NCV:	Namakir	<i>tia-</i>	‘belly’
PMic <i>*tia-</i> ‘stomach, belly, abdomen’			
Mic:	Marshallese	<i>c̄ay, ciye-</i>	‘belly, stomach, innards’
Mic:	Pulo Annian	<i>θīa, θia-</i>	‘stomach’
Mic:	Ulithian	<i>sie-</i>	‘stomach’

Reflexes of POc **kap^wa* are the most widespread terms for ‘belly’ in NNG, but there is evidence from one SE Solomonian language that the term is of POc antiquity.

POc **kap^wa* ‘belly’ (ACD)

NNG	Mamusi	<i>kapa-</i>	‘belly’
NNG	Atui	<i>kopo-</i>	‘belly’
NNG:	Kove	<i>apo-</i>	‘belly’
NNG:	Bariai	<i>(i)apa-</i>	‘belly’
NNG:	Tuam	<i>apo-</i>	‘belly’
NNG:	Gitua	<i>ap^wa-</i>	‘belly; pregnant’
NNG:	Malalamai	<i>apo(m)</i>	‘belly; intestines’
NNG:	Maleu	<i>ap^wa-</i>	‘belly’
NNG:	Sio	<i>kap^wa-</i>	‘belly’
NNG:	Mangap Mb.	<i>kopo(no)</i>	‘belly’
NNG:	Barim	<i>kau(n)</i>	‘belly’
NNG:	Lukep	<i>kapo(no)</i>	‘belly’
NNG:	Malasanga	<i>kapo-</i>	‘belly’
NNG:	Hote	<i>kapo</i>	‘belly’
PT:	Dawawa	<i>kapo-</i>	‘belly’
SES:	Sa’a	<i>ap^wa-</i>	‘belly’
cf. also:			
Adm:	Lou	<i>kopu(ŋ)</i>	‘satiated’
Mic:	Ponapean	<i>kapet</i>	‘belly, guts’

3.5.10 Navel, umbilical cord

Four reconstructions for ‘navel, umbilical cord’, apparently formally related, are candidates for POC status: **puso-*, **piso-*, **b^wito-*, **buto-*. Although reasons for this proliferation of forms are far from clear, we suggest that there were two POC forms, **puso-* (from PMP **pusej*) (§3.5.10.1) and **b^wito-* (§3.5.10.2), and that forms reflecting apparent ***piso-* and ***buto-*²⁹ are descended from **puso-* and **b^wito-* respectively. They are accounted for as follows:

- A Because POC **puso-* and POC **b^wito-* were similar in form and meaning, contamination affected the vowel of the first syllable, so items reflecting apparent ***piso-* actually reflect **puso-* but with the vowel from **b^wito-*.³⁰
- B The direct evidence for **b^w-* of POC **b^wito-* is Drehet *p^witie*, Tamambo *b^wito-*. However, *b^w* was an unstable phoneme. In some languages rounding was lost and **b^wito-* became **bito-*; in others rounding spread to the following vowel, giving forms that seem to reflect ***buto-*.

To maintain clarity in the face of the complications here, each of the two reconstructions is assigned its own subsection, and have listed forms that appear to reflect ***piso-* and ***buto-* separately from **puso-* and **b^wito-*. A third subsection handles ***b^wiso-* and ***buso-*, displaying a conflation that cannot be assigned unambiguously to either of the reconstructed POC forms.

3.5.10.1 POC **puso-* ‘navel, umbilical cord’

PMP **pusej* ‘navel’ (ACD: PWMP **talih pusej* ‘umbilicus, navel cord’)

POC **puso-* ‘navel, umbilical cord’

NNG:	Kilenge	<i>puso-</i>	‘navel’
NNG:	Uvol	<i>uto-</i>	‘navel’
PT:	Gumasi	<i>puso-</i>	‘a person’s navel; twine wound round magical leaves on a net used to call fish’
PT:	Sinaugoro	<i>uro-</i>	‘cord of navel’
PT:	Kilivila	<i>puso-</i>	‘navel, umbilical cord’
PT:	Suau (Daui)	<i>huso-</i>	‘navel’
PT:	Roro	<i>poto-</i>	‘navel’ (also reflects <i>*buso-</i>)
PT:	Mekeo	<i>fuko-</i>	‘navel’
MM:	Bali	<i>puzo-</i>	‘navel’
MM:	Vitu	<i>puđo</i>	‘navel’

***piso-* ‘navel, umbilical cord’ < POC **puso-* via contamination by **b^wito-*

NNG:	Bariai	<i>piso-</i>	‘navel’
NNG:	Kove	<i>piso-</i>	‘navel, umbilical cord’

²⁹ A double asterisk (**) is used here for forms that appear to be reconstructable but which we explain here as due to post-POC changes.

³⁰ A more complicated explanation involving vowel dissimilation is also possible, but there is no other evidence for this in POC.

NNG: Malai	<i>pi-so-</i>	‘navel’
NNG: Gitua	<i>pi-so-</i>	‘navel’
NNG: Sio	<i>pi-so-</i>	‘navel’
NNG: Lukep	<i>pi-so-</i>	‘navel, umbilical cord’
NNG: Roinji	<i>pi-so(a-no)</i>	‘navel’
NNG: Wab	<i>pi-se-</i>	‘navel’
NNG: Bilibil	<i>pi-so-</i>	‘navel’
NNG: Akolet	<i>pse-</i>	‘navel’
Fij: Bauan	<i>viðo-viðo-</i>	‘navel’

The following, all from the southern Huon Gulf, reflect either **puso-* or ***pi-so-*.

NNG: Vehes	<i>vro(o)-</i>	‘navel’
NNG: Mangga	<i>varo-</i>	‘navel’
NNG: Mapos Buang	<i>vro-</i>	‘navel’
NNG: Mumeng Patep	<i>plu-</i>	‘navel’
NNG: Mumeng Zenag	<i>vlu-</i>	‘navel’
NNG: Piu	<i>pru-</i>	‘navel’

3.5.10.2 POc **b^wito-* ‘navel, umbilical cord’

Lenakel *nəprəŋə* ‘navel’, under **buto-* below, implies that POc **b^wito-* should be reconstructed with final **-ŋ*. In the absence of corroboratory evidence, we have not reconstructed the final consonant, but note the possibility of doing so.

POc **b^wito-* ‘navel, umbilical cord’ (Blust 1984: **bito*)

Adm: Mussau	<i>bito-</i>	‘navel’
Adm: Drehet	<i>p^witie</i>	‘his/her navel’
MM: Tigak	<i>vito-</i>	‘navel’
MM: Patpatar	<i>bito-</i>	‘navel’
MM: Tolai	<i>bito-</i>	‘navel’
MM: Torau	<i>bito-</i>	‘navel’
NCV: Tamambo	<i>b^wito, bito- asi i-b^wito</i>	‘navel’ ‘umbilical cord’ (<i>asi</i> ‘rope’)
NCal: Drehu	<i>pit</i>	‘navel’
Pn: Niuean	<i>pito</i>	‘navel, umbilical cord’
Pn: Tongan	<i>pito</i>	‘navel’
Pn: Rennellese	<i>pito</i>	‘navel, umbilical cord’
Pn: Pukapukan	<i>pito</i>	‘navel, umbilical cord’
Pn: Samoan	<i>pito</i>	‘end of’
Pn: Tokelauan	<i>pito</i>	‘end of’
Pn: Tikopia	<i>pito</i>	‘navel’
Pn: Tahitian	<i>pito</i>	‘navel, navel cord’
Pn: Hawaiian	<i>piko</i>	‘navel, umbilical cord’

****buto-** ‘navel, umbilical cord’ (Biggs 1965: PEOc; Milke 1968, ACD) < POc ***b^wito-** via rounding spread

Adm: Seimat	<i>puto-</i>	‘navel’
Adm: Lou	<i>puro-</i>	‘navel’
Adm: Loniū	<i>(ko)putu-</i>	‘navel’
NNG: Manam	<i>buto-</i>	‘navel’
NNG: Wogeo	<i>buto-</i>	‘navel’
MM: Tabar	<i>buto-</i>	‘navel’
MM: Sursurunga	<i>but’-</i>	‘umbilical cord’
MM: Siar	<i>buto-</i>	‘navel’
MM: Label	<i>buto-</i>	‘navel’
MM: Tinputz	<i>puto-</i>	‘navel’
MM: Teop	<i>buto-</i>	‘navel’
MM: Varisi	<i>buto-</i>	‘navel’
MM: Nduke	<i>buto-</i>	‘navel’
MM: Kia	<i>buto-</i>	‘navel, umbilical cord’
SES: Gela	<i>buto-</i>	‘umbilical cord’
SES: Lengo	<i>buto-</i>	‘navel’
SES: Longgu	<i>bō-</i>	‘navel’
SES: Kwaio	<i>bō-, bou-</i>	‘navel, umbilical cord’
SES: ’Are’are	<i>pō-</i>	‘navel’
SES: Sa’a	<i>pō-</i>	‘navel, umbilical cord’
SES: Kahua	<i>pō-</i>	‘navel’
NCV: Mota	<i>puto(i)</i>	‘navel’
NCV: NE Ambae	<i>buto-</i>	‘navel’

PSV ***na-butoŋi-** ‘navel’ (Lynch 2001c)

SV: Ura	<i>yobut</i>	‘navel’
SV: Anejom	<i>nop^wo-</i>	‘umbilical cord’
SV: Lenakel	<i>nəprəŋə</i>	‘navel’ (< *butoŋ)
SV: Kwamera	<i>nə-preŋi, nə-pureŋi-</i>	‘navel’
NCal: Iaa	<i>bi-bikV-</i>	‘navel’

PMic ***p^wuto** ‘navel’ (Bender et al., 2003)

Mic: Kiribati	<i>puto-</i>	‘navel’
Mic: Ponapean	<i>p^wūs</i>	‘navel’
Mic: Woleaian	<i>p^wūse</i>	‘navel’
Fij: Rotuman	<i>pufa</i>	‘navel, umbilical cord’
Fij: Wayan	<i>buto</i>	‘navel’ (<i>wāwā ni buto</i> ‘umbilical cord’)

cf. also:

MM: Banoni	<i>pocu-</i>	‘navel’ (reflects *potu-)

3.5.10.3 Conflated forms

Here are presented forms that appear to reflect a conflation of **puso-* and **b^wito-* and cannot be readily assigned to either. Thus ***b^wiso-* and ***buso-*, the former with WOC reflexes only, take **b^w-* from **b^wito-* and **-s-* from **puso-*.³¹

PWOC ***b^wiso-* ‘navel, umbilical cord’

NNG: Nenaya	<i>bisu-</i>	‘navel’
NNG: Biliau	<i>biso-</i>	‘navel’
NNG: Mindiri	<i>besu(o-n-foko-n)</i>	‘navel’
NNG: Gedaged	<i>biso-</i>	‘navel, umbilical cord’
NNG: Kaiwa	<i>biro-</i>	‘navel’
MM: Solos	<i>biso-</i>	‘navel’

POC ***buso-* ‘navel, umbilical cord’ (Milke 1965: PNGOc)

NNG: Malasanga	<i>boso-</i>	‘navel’
NNG: Singorakai	<i>busu-</i>	‘navel’
NNG: Biliau	<i>buso-</i>	‘navel’
NNG: Megiar	<i>boso-</i>	‘navel’
NNG: Takia	<i>buso-</i>	‘navel, umbilical cord’
NNG: Numbami	<i>busu(lu)</i>	‘navel, umbilical cord’
PT: Kukuya	<i>buo-</i>	‘navel’
PT: Gapapaiwa	<i>buo-</i>	‘navel, umbilical cord’
PT: Tawala	<i>buho(ho)-</i>	‘navel, umbilical cord’
MM: Bulu	<i>buro-</i>	‘navel’
MM: Nakanai	<i>buso-</i>	‘navel, umbilical cord’
MM: Meramera	<i>buso-</i>	‘navel’
MM: Halia-Haku	<i>buso(so)-</i>	‘navel’
MM: Selau	<i>busu-</i>	‘navel’
SES: W G’canal	<i>boso-</i>	‘navel’
SES: Lau	<i>buto-</i>	‘navel’
SES: Kwara’ae	<i>buta-</i>	‘navel’

3.5.11 Lower abdomen

There are PROc and PPn terms for the lower abdomen, below the navel, but single words for this part of the body have not been found further west.

PROc **kona-* ‘lower abdomen’

NCV: NE Ambae	<i>(taku)hona-</i>	‘gall bladder’ (<i>taku</i> ‘behind’)
Fij: Rotuman	<i>ʔona-</i>	‘lower part of abdomen’

³¹ Note that the converse conflation, taking **p-* from **puso-* and **-t-* from **b^wito-*, i.e. †***puto/pito*, is not attested.

PPn **kona* ‘lower abdomen’

Pn:	Tongan	<i>kona</i>	‘lower part of the abdomen’
Pn:	E Futunan	<i>kona</i>	‘lower abdomen’
Pn:	Samoan	<i>ʔona</i>	‘lower abdomen’
Pn:	Tikopia	<i>kona</i>	‘area of belly below navel’
Pn:	Maori	<i>kona</i>	‘lower abdomen’

PPn **paka*- ‘lower part of trunk’ (POLLEX)

Pn:	Niuean	<i>paka-pula</i>	‘loins’ (<i>pula</i> ‘hip’)
Pn:	Tikopia	<i>paka-atolo</i>	‘buttocks, lumbar region of the back’ (<i>tolo</i> ‘bottom, backside’)
Pn:	Rapanui	<i>paka-kona</i>	‘thigh’ (PPn * <i>kona</i> above)

3.5.12 Buttocks

The reconstruction of a POc term for ‘buttocks’ encounters difficulties similar to those discussed in association with the reconstruction of terms for ‘navel’ (§3.5.10). Three POc forms are supported: **b^wisi*-, **b^woto*- and **buru* ‘buttocks’. The reconstructed forms begin with a labial or labiovelar and have medial *-s-, *-t- or *-r-. Unfortunately the data are insufficient to tell a story that would unite any of the cognate sets below, but it is perhaps no coincidence that POc **b^wisi*- ‘buttocks, anus’ was identical in form to POc **b^wisi* ‘fart’ (§4.3.7.3).

POc **b^wisi*- ‘buttocks, anus’

PT:	Tawala	<i>pie</i> -	‘buttocks. base of plant’
MM:	Petats	<i>pus</i>	‘buttocks’
MM:	Teop	<i>pisi</i> -	‘buttocks’

PNCV **b^wisi*- ‘buttocks, anus’ (Clark 2009)

NCV:	Nguna	<i>na-pisi</i> -	‘buttocks, anus’
NCV:	SW Bay	<i>ni-^mbis</i>	‘buttocks’
NCV:	Nāti	<i>ne-^mpis</i>	‘anus’
NCV:	S Efate	<i>pis</i> -	‘bottom, rear end of a person’

cf. also:

MM:	Barok	<i>biti</i> -	‘buttocks’
MM:	Patpatar	<i>biti</i> -	‘buttocks’
MM:	Tolai	<i>biti</i> -	‘buttocks’

POc **b^woto*- ‘buttocks’

MM:	Lavongai	<i>voto</i> -	‘buttocks’

PSOc **b^woto*- ‘buttocks, bottom’ (Lynch 2004a)

NCV:	Mota	<i>p^wote</i> -	‘buttock’
NCV:	Raga	<i>boro</i> -	‘buttocks, bottom’
NCV:	Paamese	<i>voto</i> -	‘buttocks, bottom’
NCV:	Lewo	<i>p^were</i> -	‘buttocks’
SV:	Ura	<i>boh(ni-)</i>	‘base’

NCal:	Pije	<i>puo(ho-n)</i>	‘buttocks’
NCal:	Nemi	<i>pue(ho-n)</i>	‘buttocks’
Mic:	Kiribati	<i>poto</i>	‘tree trunk, stock, base, foundation’

cf. also:

NNG:	Mangap Mbula	<i>putu-</i>	‘buttocks’
MM:	Siar	<i>putu-tu-</i>	‘buttocks’

POc **buru* ‘buttocks’

MM:	Tolai	<i>buru-buru-</i>	‘buttocks’
SES:	Gela	<i>(ka)buru-</i>	‘buttocks, loins’
SES:	Tolo	<i>boro-</i>	‘bottom (of anything)’
NCV:	NE Ambae	<i>boro-</i>	‘buttocks, bottom’
Mic:	Woleaian	<i>buzu(a)</i>	‘buttocks, hip’

3.5.13 Genitalia

POc **k^wala-* denoted the male genitals.

POc **k^wala-* ‘male genitals’ (Ozanne-Rivierre 1995:65: PROc **kala-* ‘male genitals’, (v) ‘beget’)³²

MM:	Nehan	<i>kolo</i>	‘testicles’
MM:	Halia	<i>kol</i>	‘testicles’
Fij:	Bauan	<i>gala</i>	‘scrotum’
Fij:	Wayan	<i>g^wala</i>	‘male genitals, testicles’
Fij:	Rotuman	<i>kala</i>	‘penis’
Pn:	Tikopia	<i>kala</i>	‘male genitalia’

3.5.13.1 Penis

POc **quti-* ‘penis’ continues a PAn etymon, and is widely reflected in Oceanic. However, it is not reflected in Micronesian or Polynesian languages and has been replaced throughout Polynesia and parts of Micronesia by reflexes of PROc **ule-* ‘penis’.

PAn **qutiL* ‘penis’ (ACD)

POc **quti-* ‘penis’

Adm:	Loniū	<i>uti-</i>	‘penis’
Adm:	Seimat	<i>uti-</i>	‘penis’
NNG:	Malai	<i>uti-</i>	‘penis’
NNG:	Sio	<i>kuti-</i>	‘penis’
NNG:	Roinji	<i>yuli-</i>	‘penis’
NNG:	Wab	<i>uli-</i>	‘penis’
NNG:	Manam	<i>uti-</i>	‘penis’
NNG:	Ali	<i>uti(ŋ)</i>	‘penis’

³² We cannot locate the source of Ozanne-Rivierre’s cited reconstruction.

NNG:	Gedaged	<i>uti-</i>	‘penis; handle; point’
NNG:	Hote	<i>uli(ŋ)</i>	‘penis’
PT:	Motu	<i>usi-</i>	‘penis’
PT:	Dobu	<i>ʔusi-</i>	‘penis’
PT:	Kilivila	<i>kusi-</i>	‘penis’
PT:	Kukuya	<i>ui-</i>	‘penis’
PT:	Muyuw	<i>kus</i>	‘penis’
MM:	Nakanai	<i>huti-</i>	‘penis’
		<i>va-huti-huti</i>	‘copulate’
MM:	Tigak	<i>uti-</i>	‘penis’
MM:	Mono-Alu	<i>uti-</i>	‘penis’
SES:	W G’canal	<i>uti-</i>	‘penis’
SES:	Talise	<i>uti-</i>	‘penis’
SES:	Longgu	<i>ui-</i>	‘penis’
TM:	Buma	<i>ise-</i>	‘penis’
TM:	Asumboa	<i>kue-</i>	‘penis’
NCV:	Raga	<i>usi-</i>	‘penis’
NCV:	Nguna	<i>na-uti-</i>	‘penis, after circumcision’
SV:	N Tanna	<i>(n)usə-</i>	‘penis’
SV:	Kwamera	<i>(k^wa-n)ihi-</i>	‘penis’
NCal:	Drehu	<i>ku</i>	‘penis’
Fij:	Bauan	<i>uti-</i>	‘penis’

PROc **ule-* ‘penis’ (ACD)PMic **wule* ‘penis’

Mic:	Marshallese	<i>wəl</i>	‘penis’
Mic:	Mokilese	<i>wil</i>	‘penis’
Mic:	Chuukese	<i>wuru-</i>	‘penis’

PPn **ule* ‘penis’ (POLLEX)

Pn:	Tongan	<i>ule</i>	‘penis’
Pn:	Niuean	<i>ule</i>	‘male genitals’ (vulgar. Respectful term is euphemistic: <i>fū-uho</i>)
Pn:	Samoan	<i>ule</i>	‘penis’ (not in decent use)
Pn:	Rennellese	<i>uge</i>	‘penis’
Pn:	Anutan	<i>ure</i>	‘penis’
Pn:	Rarotongan	<i>ure</i>	‘ <i>membrum virile</i> ; used figuratively to denote a man or a male’
Pn:	Tikopia	<i>ure</i>	‘penis’
Pn:	Maori	<i>ure</i>	‘ <i>membrum virile</i> ; man, male; courage’
Pn:	Hawaiian	<i>ule</i>	‘penis; tenon for a mortise: pointed end of a post which enters the crotch of a rafter’

3.5.13.2 Scrotum and testicles

There are two reconstructions for scrotum and/or testicles. POc **lasoR* is widely reflected.

POc **lasoR* ‘scrotum and/or testicles’

Adm:	Mussau	<i>laso-</i>	‘testicles’
NNG:	Tami	<i>laso-</i>	‘scrotum’
PT:	Mekeo	<i>lako-</i>	‘penis’
PT:	Kuni	<i>ado-</i>	‘penis’
MM:	Sursurunga	<i>losa-</i>	‘scrotum’ (metathesis)
SES:	Lau	<i>lato-</i>	‘testicles’
SES:	‘Are’are	<i>rato-</i>	‘testicles’
SES:	Kwaio	<i>lato-</i>	‘testicles’
NCV:	Tamambo	<i>laso-</i>	‘testicles’
NCV:	Araki	<i>laso-</i>	‘testicles’
NCV:	Raga	<i>laho-</i>	‘testicles and/or scrotum’
Pn:	Tongan	<i>laho</i>	‘scrotum and testicles’
Pn:	Maori	<i>raho</i>	‘testicles’; ‘ <i>labia majora</i> ’

Reflexes of POc **k^wawa-* are much more restricted, but their distribution nonetheless supports the reconstruction.

POc **k^wawa-* ‘scrotum, testicles’

NNG:	Poeng	<i>kava-</i>	‘scrotum’
PT:	Molima	<i>kowa-</i>	‘scrotum’
PT:	Dobu	<i>k^wawa-</i>	‘testicles’
SES:	Gela	<i>koa-</i>	‘testicles’

3.5.13.3 Female genitalia

POc **puki-* ‘vagina’ and PPn **tole-* ‘female genitalia’ can each be derived from a PMP term, but in the case of **tole-* only if some phonological deformation is allowed in the derivation, perhaps as a result of euphemism.

PAn **puki* ‘vulva’ (ACD)POc **puki-* ‘vagina’

Adm:	Titan	<i>β^wi-</i>	‘female genitals’
NNG:	Gitua	<i>puyi-</i>	‘vulva’ (Goulden 1996)
NNG:	Kilenge	<i>pui-</i>	‘vulva’ (Goulden 1996)
NNG:	Buang	<i>v^wi-</i>	‘vagina’
NNG:	Mumeng-Patep	<i>vəwi-</i>	‘vagina’
NNG:	Mangseng	<i>pi-</i>	‘vagina’
NNG:	Poeng	<i>pi-</i>	‘vagina’
PT:	Gumawana	<i>ui-</i>	‘vagina’
PT:	Ubir	<i>vi-</i>	‘vagina’
PT:	Kilivila	<i>vi-</i>	‘vagina’
PT:	Maisin	<i>ui-</i>	‘vagina’

Such deformation seems to underlie the three PMP forms reconstructed by Blust (ACD). If PPn **tole* is indeed cognate with one of these, then it reflects yet another variant, PMP †**telay*.

PMP **teli*, **tila*, **tilay* ‘female genitalia’ (ACD)

POc (?) **tole-* ‘female genitalia’

NCal:	Nêlêmwa	<i>cāla(t)</i>	‘clitoris, vulva’
NCal:	Nemi	<i>cane-</i>	‘clitoris, vulva’
NCal:	Cèmuhî	<i>ēne-</i>	‘clitoris, vulva’

PPn **tole* ‘female genitals’ (POLLEX)

Pn:	Niuean	<i>tole</i>	‘a woman’s private parts’
Pn:	Tongan	<i>tole</i>	‘private parts of a woman’
Pn:	Pukapukan	<i>tole</i>	‘vagina’
Pn:	Samoan	<i>tole</i>	‘clitoris’
Pn:	Maori	<i>tore</i>	‘external female sex organs’

cf. also:

MM:	Nakanai	<i>tiri-</i>	‘clitoris’
Mic:	Woleaian	<i>tora-</i>	‘genitals’
Fij:	Bauan	<i>tele-</i>	‘female genitals’

POc (?) **keRe-* is not well attested, and may be due to chance resemblance.

POc (?) **keRe-* ‘female genitals’

NNG:	Kove	<i>kere-</i>	‘female genitals’
SES:	Gela	<i>kele-</i>	‘vagina’
SES:	Ghari	<i>kele-</i>	‘vagina’

In Central Pacific languages a reflex of POc **buku-* ‘mound, knob, joint’ (§3.6.8.1.2; vol.1:85, vol.2:50) is used to refer to the genital area (probably a metonym based on the mons veneris).

PCP **buku* ‘female genitals’

Fij:	Vanua Levu	<i>buku-</i>	‘female genitals’
Pn:	Tikopia	<i>puku</i>	‘male genitals’
Pn:	Mangarevan	<i>puku</i>	‘clitoris’
Pn:	Rapanui	<i>puku</i>	‘pubes’

3.6 Limbs

Terms relating to the limbs are ordered as follows. First come terms associated with the arms and hands, then terms associated with the legs and feet, and finally terms associated with both pairs of limbs (finger/toe, finger-/toenail, elbow/knee and palm/sole).

3.6.1 Hand, arm

The monomorphemic POC terms listed below evidently referred to the hand and arm as one unit, although some languages limit their reflex to the hand and lower arm (e.g. Iduna (PT) *fowa-na nima-* [scrotum-its arm-] ‘muscle of lower arm’), and POC **[l,n]ima-* may well have had the more specific POC sense ‘forearm and hand’ as well as the larger sense ‘arm and hand’. Monomorphemic terms for parts of the arm are much harder to find, but terms for ‘upper arm’ and ‘hand’ are reconstructed in §3.6.2.

Reflexes of POC **lima* and **nima* ‘hand’ are numerous throughout the Austronesian world, most referring at the same time to ‘five’.

Reflexes of the Meso-Melanesian and Eastern Oceanic subgroups largely support **l-*, while those from the Admiralties support **n-*. The NNG and PT subgroups show no clear pattern. Either **l-* was sometimes nasalised to *n-* before a nasal-initial syllable, or both forms existed as doublets in POC.

PAn **[qa]lima* ‘hand’ (Blust 1999a)

PMP **lima* ‘hand’

POC **lima-*, **nima-* ‘forearm and hand, arm and hand; five’

Adm: Mussau	<i>nima-</i>	‘hand, arm’
Adm: Tennis	<i>uma-</i>	‘hand’
Adm: Loniū	<i>nime-</i>	‘hand’
NNG: Kove	<i>lima-</i> , <i>nima-</i>	‘hand’
NNG: Malai	<i>nima-</i>	‘arm’
	<i>ima-</i>	‘hand’
NNG: Gitua	<i>nima-</i>	‘hand’
NNG: Bilbil	<i>nima-</i>	‘hand’
NNG: Gedaged	<i>nima-</i>	‘hand’
NNG: Medebur	<i>nima-</i>	‘hand’
NNG: Bam	<i>lima-</i>	‘hand’
NNG: Wogeo	<i>lima-</i>	‘hand’
SJ: Sobei	<i>ima-</i>	‘hand’
PT: Dobu	<i>nima-</i>	‘complete arm, upper arm and hand’
PT: Kukuya	<i>nima-</i>	‘arm, handle, hand’
PT: Muyuw	<i>nim</i>	‘hand, arm’
PT: Motu	<i>ima-</i>	‘arm, hand; five’
PT: Lala	<i>ima-</i>	‘lower arm’ (<i>vou</i> ‘upper arm’)
MM: Vitu	<i>lima-</i>	‘hand, arm’
MM: Bali	<i>lima-</i>	‘hand, arm’
MM: Bulu	<i>lima-</i>	‘hand, arm’
MM: Bola	<i>lima-</i>	‘hand, arm’
MM: Nakanai	<i>lima-</i>	‘hand, arm’
MM: Meramera	<i>lima-</i>	‘hand, arm’
MM: Notsi	<i>lima-</i>	‘hand’
MM: Tabar	<i>rima-</i>	‘hand’
MM: Lihir	<i>lima-</i>	‘hand’
MM: Tangga	<i>nima-</i>	‘hand’

MM:	Tolai	<i>lima-</i>	‘hand, arm’
MM:	Siar	<i>lima-</i>	‘hand’
MM:	Roviana	<i>lima-</i>	‘hand, arm’
SES:	Bugotu	<i>lima-</i>	‘hand, wing’
SES:	Gela	<i>lima-</i>	‘hand, arm’
SES:	Kwaio	<i>nima-</i>	‘hand, arm’
SES:	Sa’a	<i>nima-</i>	‘hand, arm, foreleg of animals’
SES:	Arosi	<i>rima-</i>	‘hand, arm’
NCV:	Araki	<i>lima-</i>	‘hand, arm from shoulder to fingers’
NCV:	NE Ambae	<i>lima-</i>	‘hand, arm’
NCV:	Raga	<i>lima-</i>	‘hand’
NCV:	Tamambo	<i>lima-</i>	‘hand’
NCV:	Namakir	<i>lima-</i>	‘hand’
SV:	N Tanna	<i>ne-lmā-</i>	‘hand, arm’
SV:	Lenakel	<i>ne-lmā-</i>	‘hand, arm’
SV:	Anejom	<i>ni-cma-</i>	‘hand, arm’
NCal:	Nengone	<i>nin</i>	‘hand’
Mic:	Ponapean	<i>lime-</i>	‘arm, hand’
Mic:	Woleaian	<i>rima-</i>	‘hand, instrument, weapon’
Fij:	Wayan	<i>-lima</i>	‘hand, arm’
Pn:	Tongan	<i>nima</i>	‘arm, hand’
Pn:	Rennellese	<i>gima</i>	‘hand, arm’
Pn:	Samoaan	<i>lima</i>	‘upper limb, arm (incl. hand)’
Pn:	Tikopia	<i>rima</i>	‘hand, wrist, arm’

A second form, POc **paRa* ‘hand, arm’ is reconstructable, based on non-Oceanic cognates together with cognates from Central Vanuatu. Blust (ACD) writes that it is possible that these forms should be assigned to PMP **[qa]baRa* ‘shoulder’ with parallel semantic shifts that create the illusion of an independent comparison, but he regards this hypothesis as unlikely. We agree with him, as there are a number of reflexes of POc **[qa]paRa* ‘shoulder’ which lack the first syllable, and all consistently denote ‘shoulder’. The gloss ‘arm, hand’ here suggests that PMP **baRa*/POc **paRa* was a distinct if nearly homophonous etymon.

It is possible that PMP **paRada*/POc **paRara* ‘handle of an axe or adze’ has played some role in the history of this form. Western Oceanic and SE Solomonian reflexes are trisyllabic, but Clark (2009) reconstructs PNCV **vara* ‘handle’. The disyllabic form may be the result of contamination by **vara* ‘hand, arm’, and may in turn have led to the preservation of the latter. But this is a speculation.

PMP **baRa* ‘hand, arm’ (ACD)

POc **paRa-* ‘hand, arm’ (ACD: ‘hand’)

PNCV **vara-* ‘hand, arm’ (Clark 2009)

NCV:	Lendamboi	<i>na-vara-</i>	‘hand’
NCV:	Ninde	<i>ne-vaxa-</i>	‘hand, arm’
NCV:	Uripiv	<i>ne-vre-</i>	‘hand’
NCV:	Lonwolwol	<i>vā-</i>	‘arm, hand’

NCV: Paamese	<i>hē-</i>	‘limb’
NCV: Nguna	<i>na-arū-</i>	‘hand, arm’

The use of reflexes of POc **banic* and **kaba-* for ‘arm’ in some daughter languages is an extension of their core meaning ‘wing’ (vol.4:132–133, 275). We add ‘arm, hand’ to the glosses of ‘wing’ reconstructions with a question mark, as it is possible that extensions of meaning to ‘arm’ have occurred independently in daughter languages.

PMP **pani(j)* ‘wing’ (ACD)

POc **banic* ‘wing, fin (probably pectoral); (?) arm, hand’

Adm: Wuvulu	<i>pani-</i>	‘hand’
Adm: Aua	<i>pani-</i>	‘hand, fin’
Adm: Kaniet	<i>pani-</i>	‘wing, hand, fin’ (Dempwolff)
NNG: Takia	<i>bani-</i>	‘forelegs, hand and arm’
PT: Balawaia	<i>vane-</i>	‘wing, fin’
MM: Vitu	<i>banit-</i>	‘upper arm, wing’ (van den Berg)

PNCV **bani-* ‘wing, armlet; (?) arm, hand’ (Clark 2009)

NCV: Mota	<i>pani(-u)</i>	‘hand and arm of person, wing of bird, pectoral fin of fish, shoulder of pig’
NCV: Raga	<i>bani-</i>	‘k.o. bracelet’
NCV: Namakir	<i>bani-</i>	‘armbands (worn by chief’s wife)’
NCal: Iai	<i>beñi-</i>	‘hand, arm, fin’
Mic: Ulithian	<i>pal</i>	‘ventral fin, hand’

PMP **kapak* ‘wings; flutter’ (Dempwolff 1938)

POc **kaba-* ‘wing; (?) arm, hand’

NNG: Bukawa	<i>aba-</i>	‘hand’
PT: Iduna	<i>aba-</i>	‘do by hand’ (PREFIX)
PT: Gumawana	<i>aba-</i>	‘forearm’
MM: Uruava	<i>kabe-</i>	‘hand’
SES: Lau	<i>ʔaba-</i>	‘arm, foreleg, wing, frond’
SES: Kwaio	<i>ʔaba-</i>	‘arm, leaf’

3.6.2 Parts of the arm

Terms for the elbow, the fingers and fingernails and the palm of the hand are discussed in §3.6.8 together with the corresponding parts of the leg.

Oceanic languages typically distinguish terminologically between the upper arm (from shoulder to elbow), the forearm (from elbow to wrist), the wrist, and the hand, but the terms referring to them are often compounds or phrases. There is some evidence, however, that POc **nima/lima* denoted in its more specific sense the forearm and hand, whilst early Oceanic speakers also had single-word terms for the upper arm and for the hand.

PWOc **towas* ‘upper arm’ (?)

NNG: Takia	<i>tuo-</i>	‘arm (whole limb from shoulder to hand)’

NNG: Kairiru	<i>tawo-</i>	‘arm’
PT: Misima	<i>(níma)tovaha</i>	‘top part of the arm’
MM: Torau	<i>tua-</i>	‘hand’

PAn **kamay* ‘hand’ (ACD)

POc **kame-* ‘hand’

NNG: Mamusi	<i>kama-</i>	‘hand’
NNG: Poeng	<i>kama-</i>	‘hand’
NNG: Hote	<i>-kam</i>	‘shake hands’
MM: Kia	<i>kame-</i>	‘hand’
MM: Kokota	<i>kame-</i>	‘hand’
MM: Maringe	<i>k^hame-</i>	‘hand’

POc **minV-* ‘hand’

Adm: Nyindrou	<i>mine-</i>	‘hand’
Adm: Lou	<i>mina-</i>	‘hand’
NNG: Mangseng	<i>meni-</i>	‘hand, arm’
NNG: Bebeli	<i>mini-</i>	‘hand’
NNG: Atui	<i>mini-</i>	‘hand’

3.6.3 Left hand and right hand

The three POc terms for ‘left-hand’, **kauRi*, **mawiRi* and **mauRi*, reflect a single PAn/PMP root **wiRi* ‘left’. POc **kauRi* reflects PMP **ka-wiRi*, where **ka-* formed a stative verb (‘be on the left’). PMP **ma-wiRi* was the actor voice form of this verb, and is reflected in POc **mawiRi* and its variant **mauRi*. The POc forms **mawiRi* and **mauRi* are reconstructed separately below, but it is quite likely that at least some of the forms listed under **mauRi* are descended from **mawiRi*, the sound change **-wi-* to **-u-* having occurred independently in various languages.

The pairs **kawanan/*mawanan* ‘right’ and **kataqu/*mataqu*, also ‘right’, below, have similar origins, but here the unaffixed roots **wanan* and **taqu* evidently also survived into POc (Evans 2001:343).

It is probable that at least the terms in **ma-* were also used as verbs in POc. Grammatical information about their reflexes is hard to find, but Lichtenberk (2008) glosses To’aba’ita (SES) *mauli* as an intransitive verb ‘be on the left’, which is also used attributively (e.g. *maa mauli nau* [eye be.on.left I] ‘my left eye’). The attributive use of stative verbs is normal in Oceanic languages (Ross 1998a). However, there is evidence that these terms also functioned as nouns in phrasal constructions, as in Kwaio (SES) *gula i mooli* [side LINKER left] ‘lefthand side’ and Wayan Fijian *lima i matau* [hand LINKER right] ‘right hand’. Both phrasal expressions reflect the POc nonspecific possessor construction where the item after **qi* was a noun (§3.1.1). For example, the Wayan example reflects POc **lima qi mataqu*, lit. ‘hand on/of/at right’.

Note that in the glosses below, hyphenated ‘left-hand’ and ‘right-hand’ indicate that the term appears to be an adjective or a stative verb.

PAn **ka-wiRi* ‘be on the left’ (ACD)

PMP **ka-wiRi* ‘be on the left’

POc **kauRi-* ‘left-hand, be on the left’

PT:	Motu	<i>kauri</i>	‘left-handed’
PT:	Lala	<i>(e)ʔali</i>	‘left side’
PT:	Molima	<i>keli</i>	‘left hand, left-handed’
PT:	Gumasi	<i>ke-keli</i>	‘left-hand’
MM:	Notsi	<i>kayal</i>	‘left-hand’
MM:	Tabar	<i>keari</i>	‘left-hand’
Pn:	Rarotongan	<i>kauī</i>	‘left, on the left side’
Pn:	Tahitian	<i>ʔauī</i>	‘left-handed’

PMP **ma-wiRi-* ‘be on the left’

POc **mawiri* ‘left-hand, be on the left; left side or direction’

Adm:	Wuvulu	<i>mawi-</i>	‘left (side)’
Adm:	Seimat	<i>(kala)maw</i>	‘left side, left-handed’
Adm:	Leipon	<i>(ka)maw</i>	‘left (side)’
SJ:	Sobei	<i>mawar</i>	‘left hand’
MM:	Tolai	<i>maira</i>	‘left, as opposed to right; left hand’
MM:	Kia	<i>mairi</i>	‘left’
MM:	Maringe	<i>mairi</i>	‘left side or direction’
SES:	Talise	<i>maili</i>	‘left side’
SES:	Tolo	<i>maili</i>	‘left (direction)’

PNCV **mawiri* ‘left hand, left side’ (Clark 2009)

NCV:	Raga	<i>m^wairi</i>	‘left hand, left side’
NCV:	N Efate	<i>mawiri</i>	‘left side’
NCV:	NE Ambae	<i>mawiri</i>	‘left’
SV:	Anejom	<i>m^wau</i>	‘left-handed’
SV:	N Tanna	<i>maul</i>	‘left hand’
NCal:	Nêlêmwa	<i>m^ha</i>	‘left hand’
Fij:	Bauan	<i>mawī</i>	‘be left-handed’
		<i>i-mawī</i>	‘left-hand side; left’
Fij:	Wayan	<i>mawī</i>	(V) ‘be left-handed’, (ADJ) ‘left’, (N) ‘left side’
		<i>i-mawī</i>	(ADV) ‘on the left’
Pn:	Rarotongan	<i>mauī</i>	‘left, on the left side or hand’
Pn:	Maori	<i>mauī</i>	‘left, on the left hand; left hand’

POc **mauRi-* ‘left hand; left side or direction’

PT:	Bwaidoga	<i>(ai)mauli</i>	‘left (side)’
PT:	Dobu	<i>ma-maula</i>	‘left hand, left handed’
MM:	Vitu	<i>mauri</i>	‘left (side)’
SES:	Ghari	<i>mauli</i>	‘left’
SES:	Gela	<i>mauli</i>	‘left hand’
SES:	To’aba’ita	<i>mauli</i>	‘be on the left, left-hand’

SES:	Lau	<i>mauli, mouli</i>	‘left hand; left handed’
		<i>(i)mouli</i>	‘on the left’
SES:	Kwaio	<i>(gula i) mooli-</i>	‘left side’ [side of left.hand]
TM:	Buma	<i>mouro</i>	‘left hand’
NCV:	N Efate	<i>mauri</i>	‘left hand’
NCV:	Uripiv	<i>mair</i>	‘left hand, left side’
Mic:	Nauruan	<i>(eda)mauw</i>	‘left side’
Mic:	Kiribati	<i>mai(ŋ)</i>	‘left hand’
Mic:	Ponapean	<i>mey(ŋ)</i>	‘left hand’
Pn:	Rennellese	<i>maui</i>	‘right, right hand’

cf. also:

MM:	Nakanai	<i>meru-</i>	‘on the left, left-handed’ (<i>r</i> for <i>†l</i>)
SV:	Lenakel	<i>mu</i>	‘left-handed’

PAn **wanaN* ‘right (side, hand, direction)’ likewise is reflected in three POc forms **wanan*, **kawanan* and **mawanan*, all ‘right side’.

PAn **wanaL* ‘right (side, hand, direction)’ (Blust 1999a, ACD)

POc **wanan* ‘right side, right-hand’

NNG:	Gedaged	<i>way</i>	‘right hand, right side, dextral’
NNG:	Biliau	<i>wan</i>	‘right-hand’
NNG:	Malalamai	<i>wana</i>	‘right-hand’
NNG:	Lukep	<i>wana</i>	‘right-hand’
NNG:	Megiar	<i>wan</i>	‘right-hand’
NNG:	Manam	<i>wana</i>	‘right (side), right hand’
NNG:	Wogeo	<i>wana</i>	‘right (side)’
NNG:	Medebur	<i>wa</i>	‘right-hand’
NNG:	Bam	<i>wan</i>	‘right-hand’

PAn **ka-wanaL* ‘be to the right’ (ACD)

POc **kawanan* ‘right side’ (Evans 2001)

NNG:	Bebeli	<i>kiana</i>	‘right hand’
PT:	Misima	<i>awon</i>	‘right side’
MM:	Tami	<i>kanon</i>	‘right hand’ (metathesised < <i>*kanawan</i>)

PAn **ma-wanaL* ‘be to the right’

POc **mawanan* ‘right side’ (Evans 2001)

Adm:	Seimat	<i>manau</i>	‘right side’ (metathesised < <i>*manawan</i>)
Adm:	Mussau	<i>muena</i>	‘right side’
NNG:	Ali	<i>maway</i>	‘right side’
NNG:	Kairiru	<i>mouwon</i>	‘right side’
MM:	Tigak	<i>muan</i>	‘right side’
MM:	Kara	<i>ma-muwən</i>	‘right side’
MM:	Notsi	<i>mua</i>	‘right side’

Mic:	Kiribati	<i>mea(ŋ)</i>	‘right side; north’ (Grimble 1972:43)
Mic:	Puluwatese	<i>(yii)mwān (eey)</i>	‘right side’ (<i>eey</i> ‘demonstrative’)

Evolved in the same threefold way are POc **taqu*, POc **ka-taqu* and POc **ma-taqu*, all ‘right hand’, with the added twist that **ma-taqu* metathesised to PSOc **ma-tuqa*.

PAn **taqu* ‘right side’ (ACD)

POc **taqu* ‘right hand’

NNG:	Kove	<i>tau-</i>	‘right hand’
MM:	Tangga	<i>to-</i>	‘right hand’
MM:	Tolai	<i>(lima) tu-</i>	‘right hand’

POc **kataqu* ‘be on the right; right hand’

PT:	Kukuya	<i>atei</i>	‘right, on the right hand’
PT:	Molima	<i>atai</i>	‘right hand, be right-handed’
PT:	Kilivila	<i>ka-kata</i>	‘right side’
PT:	Dobu	<i>ʔatai</i>	‘right hand’
Pn:	Hawaiian	<i>ʔākau</i>	‘right’

PMP **ma-taqu* ‘right side’ (Blust 1993a, ACD)

POc **mataqu* ‘right-hand’

Adm:	Wuvulu	<i>maʔau</i>	‘right’
Adm:	Aua	<i>maʔau</i>	‘right’
MM:	Petats	<i>matou</i>	‘right’
MM:	Teop	<i>matau-</i>	‘right (hand)’
MM:	Mono	<i>matau</i>	‘right’
MM:	Kia	<i>mautu</i>	‘right’
MM:	Roviana	<i>matao-</i>	‘right’
Fij:	Bauan	<i>matau</i>	‘be right-handed’
		<i>i-matau</i>	‘right-hand side; right’
Fij:	Wayan	<i>matau</i>	(ADJ) ‘right’, (N) ‘right side’
		<i>i-matau</i>	(ADV) ‘on the right’
		<i>(lima i) matau</i>	‘right hand’ [hand of right.side]
Pn:	Tongan	<i>mataʔu-</i>	‘be right-handed, right side’
Pn:	Niuean	<i>matau</i>	‘right’
Pn:	Samoaan	<i>matau</i>	‘right’
Pn:	Maori	<i>matau</i>	‘right’

PSOc **matuqa* ‘right hand, right side’ (vowel metathesis, for †**mataqu*; Clark 2009: PNCV)³³

NCV:	Mota	<i>matua-</i>	‘right hand, belonging to the right hand’
NCV:	Araki	<i>marua-</i>	‘right hand’
NCV:	NE Ambae	<i>matue</i>	‘right’
SV:	Lenakel	<i>m^watu-</i>	‘be right-handed’

³³ We owe to John Lynch the insight that this was a PSOc innovation.

SV:	Kwamera	<i>m^watuk</i>	‘be right-handed’
NCal:	Nêlêmwa	<i>m^wāguk</i>	‘right’
NCal:	Iaai	<i>metɔ</i>	‘right’

3.6.4 Leg, foot

Proto Oceanic speakers evidently used a single term for the leg and foot.

Blust (ACD) reconstructs both PAn **qaqay* and PAn **waqay*, and the two forms are both continued in Oceanic. POc **waqe-* is reflected in Fijian and Polynesian and **qaqe-* in Admiralties, Western Oceanic and SE Solomonian languages. There are no reflexes in Micronesia or Vanuatu. No language has reflexes of both forms.

PAn **qaqay* ‘foot, leg’ (ACD)

POc **qaqe-* ‘leg, foot’

Adm:	Mussau	<i>keke-</i>	‘leg’
Adm:	Seimat	<i>ae-</i>	‘leg, foot’ (toes excluded)
Adm:	Kaniet	<i>ae-</i>	‘foot, leg’
Adm:	Loniū	<i>kaka-</i>	‘foot, leg’
NNG:	Bam	<i>ve-</i> ³⁴	‘leg’
NNG:	Wogeo	<i>vai-</i>	‘leg’
NNG:	Maleu	<i>ae(a)-</i>	‘leg’
NNG:	Kove	<i>ahe-</i>	‘leg, foot’
NNG:	Tuam	<i>age-</i>	‘leg’
NNG:	Gitua	<i>age-</i>	‘leg’
NNG:	Malasanga	<i>kae-</i>	‘leg’
NNG:	Numbami	<i>ae-</i>	‘leg, foot’
PT:	Dobu	<i>ʔae-</i>	‘leg, foot and thigh as complete portion of the body’
PT:	Molima	<i>ae-</i>	‘leg, foot’
PT:	Motu	<i>ae-</i>	‘leg incl. foot’
PT:	Roro	<i>ae-</i>	‘lower leg, foot’
MM:	Ramoaina	<i>kaki-</i>	‘leg’
MM:	Siar	<i>keke-</i>	‘leg’
SES:	Lau	<i>ʔae-</i>	‘leg’
SES:	Kwaio	<i>(ʔ)ā-ʔae-</i>	‘leg’
SES:	‘Are’are	<i>ʔaʔe-</i>	‘leg’
SES:	Sa’a	<i>aʔe-</i>	‘leg’

PAn **waqay* ‘foot, leg’ (ACD)

POc **waqe-* ‘leg, foot’

Fij:	Bauan	<i>we-</i>	‘footprint; trace or scar of s.t.’
		<i>(ma)wē</i>	‘footprint’
Fij:	Wayan	<i>-wē</i>	‘footprint’

³⁴ Bam *ve-* and Wogeo *vai-* are regular reflexes of POc **qaqe-*. Cf. Wogeo *wawa-* ‘mouth’ < POc **qawa-*, *valiŋa-* ‘voice’ < POc **qaliŋa-*, *vato* ‘thatch’ < POc **qatop*.

		-(ma)wē	‘footprint’
PPn *waqe ‘leg, foot’ (POLLEX)			
Pn:	Niuean	vē	‘leg, foot’
Pn:	Tongan	vaʔe	‘foot, leg, wheel of car etc’
Pn:	Rennellese	baʔe	‘leg, foot’
Pn:	Samoa	vae	‘lower limb, incl. foot’
Pn:	Tikopia	vae	‘leg, foot’
Pn:	Hawaiian	wae	‘leg’

3.6.5 Parts of the leg and foot

Terms for the toes and toenails and the sole and top of the foot are discussed in §3.6.8 together with the corresponding parts of the arm. A set of terms denoting the knee is discussed in §3.6.5.2, whilst terms denoting both elbow and knee are presented in §3.6.8.1.

3.6.5.1 Thigh

The Proto Oceanic term for thigh was POc *paqa(l).

POc *paqa(l) ‘thigh’ (Ross 1988)

NNG:	Wampur	haga-	‘leg’
NNG:	Adzera	faga-	‘leg’
NNG:	Dangal	faga-	‘foot’
		fa-	‘thigh’
NNG:	Kaiwa	va-	‘leg’
NNG:	Vehes	vaya-	‘leg’
NNG:	Buang	vaha-	‘leg’
NNG:	Mumeng K	vaya-	‘leg’
NNG:	Kapin	vaya-	‘leg’
PT:	Paiwa	vaya-	‘thigh’
MM:	Bola	vaya-	‘leg’
MM:	Nakanai	vaha-	‘leg’
MM:	Lavongai	vakal	‘thigh’
MM:	Konomala	fa-	‘leg’
MM:	Label	ha-	‘leg’
MM:	Sursurunga	pəuə-	‘thigh’
MM:	Patpatar	paua-	‘thigh’
SES:	Lau	sa-safa-	‘thigh’ (metathesis)
SES:	Kwaio	la-lafa-	‘thigh’ (metathesis)
SES:	Sa’a	sa-saha-	‘thigh, lap’ (metathesis)
NCV:	Namagir	va-a-	‘thigh’
NCV:	NE Ambae	bala-	‘thigh’
SV:	Sye	n-va-	‘thigh’
SV:	Kwamera	nu-va-	‘thigh’
NCal:	Nemi	pā-	‘thigh’
NCal:	Kumak	pā-	‘thigh’

NCal:	Iaai	(je)vā-	‘thigh’
Fij:	Bauan	yava	‘foot, leg’ (ya- prefix added to some body part terms)

cf. also:

SES:	Arosi	p ^w ā	(v) ‘slap the thigh’

3.6.5.2 Knee

Terms meaning both ‘knee’ and ‘elbow’ are presented in §3.6.8.1. Other terms, presented here, appear originally to have meant ‘knee’, but are in some languages also applied to ‘elbow’.

More than one POc term beginning with **tu-* is reconstructable with the meaning ‘knee’. Blust (ACD) reconstructs POc **tur*. POc **turu-* is also attested. PWOC **tuku-* is reasonably well attested. A number of NW Solomonian languages reflect **tuŋu-* (Banoni, Piva *cuŋu-* ‘knee’, Lungga, Nduke *tu-tuŋu* ‘knee, elbow’, Vangunu, Roviana *tuŋu-tuŋu* ‘knee, elbow’).

The relationships among these forms are only partially understood. The histories of PWOC **tuku-* and NW Solomonian **tuŋu-* are not known, but we can show how POc **tur* and **turu-* are related.

The PAn form for ‘knee’ was **tuduS* (ACD). PAn **S* became PMP **h*, and a regular metathesis whereby PAn **-CVS* became PMP **-hVC* gave rise to PMP **tuhud* ‘knee’. By regular sound change this became POc **tur* (ACD), reflexes of which are shown below. Some of these reflexes are reduplicated as a means of creating the preferred canonic form, a disyllable, from monosyllabic **tur*. The preferred strategy for creating a (suffixed) directly possessed noun (§3.1.1) from a root with a final consonant was to replace the final consonant with the suffix, as many reconstructions in this chapter illustrate, but in the case of monosyllabic **tur*, a supporting vowel was added instead, giving disyllabic **turu-*, a change which seems to have occurred at an earlier interstage than POc as Blust (ACD) reconstructs **turu-* to PCEMP.³⁵

PAn **tuduS* ‘knee’ (ACD)

PMP **tuhud* ‘knee’ (ACD)

POc **tur* ‘knee’

NNG:	Yalu	(a)du(t)	‘elbow’ ³⁶
NNG:	Bukawa	du-	‘elbow’
NNG:	Kela	du-	‘elbow’
PT:	Wedau	ae-tutu-	‘knee’ [leg-joint-]
		nima-tutu-	‘elbow’ [arm-joint-]
PT:	Dobu	nima-tutu-	‘elbow’ [arm-joint-]
PT:	Molima	ae-tutu-	‘knee’ [leg-joint-]

³⁵ There were very few monosyllabic POc nouns, so we do not know whether this was a general POc strategy for creating disyllabic directly possessed nouns from monosyllabic roots. Blust (ACD) rejects (rightly, in our view) an alternative analysis whereby POc **turu-* continues PAn **tuduS* via PMP *†*tuhuh*. His grounds are (i) that *-CVS* metathesis was regular and (ii) that PMP *†*tuhuh* is not reflected in western MP languages.

³⁶ Final *-t* reflects Proto Huon Gulf **-c*, a formative added to directly possessed nouns lacking a possessor (Ross 1988:144) which was apparently an irregular reflex of POc **-ki* (Ross 2001).

		<i>nima-tutu-</i>	‘elbow’ [arm-joint-]
PT:	Kukuya	<i>ae-tutu-</i>	‘knee’ [leg-joint-]
MM:	Mono-Alu	<i>tū-</i>	‘knee’
MM:	Simbo	<i>tu-tu</i>	‘knee’
Fij:	Rotuman	<i>fū</i>	‘knee’

PAn **tuduS* ‘knee’ (ACD)

PMP **tuhud* ‘knee’ (ACD)

PCEMP **turu* ‘knee’ (ACD)

POc **turu-* ‘knee, joint’

NNG:	Takia	<i>turu-</i>	‘knee’
NNG:	Lukep	<i>turu-</i>	‘knee’
NNG:	Malasanga	<i>turu-</i>	‘knee’
NNG:	Bing	<i>turu-</i>	‘knee’
PT:	Saliba	<i>turi-</i>	‘knee’ (Capell 1943)
MM:	Vitu	<i>tu-tur</i>	‘knee’
MM:	Bali	<i>turu-</i>	‘knee’
MM:	Bulu	<i>tu-tulu-</i>	‘knee’
MM:	Bola	<i>turu-</i>	‘knee’
MM:	Nakanai	<i>tulu-</i>	‘knee’
MM:	Meramera	<i>(pa)tulu-</i>	‘knee’
SES:	Bugotu	<i>tu-turu-</i>	‘knee, joint’
SES:	Lau	<i>uru-uru-</i>	‘knee’
SES:	Sa’a	<i>uru-uru-</i>	‘knee’ (<i>uru</i> ‘to bend the knee’)
NCV:	Pt. Sandwich	<i>(ciki)ⁿdür</i>	‘kneel down’
Mic:	Woleaian	<i>sužu-</i>	‘kneel, knee’
Fij:	Bauan	<i>duru</i>	‘knee’
		<i>duru-duru ni lija</i>	‘elbow’ [joint of arm]
Pn:	Tongan	<i>tui</i>	‘knee’
Pn:	Tikopia	<i>turi</i>	‘knee’
Pn:	Samoan	<i>tuli</i>	‘joint’
		<i>tuli-lima</i>	‘elbow’ [joint-arm]
		<i>tuli-vae</i>	‘knee’ [joint-leg]
		<i>tuli-ulu</i>	‘back of neck’ [joint-head]

PWOc **tuku-* ‘knee, elbow’

NNG:	Sio	<i>tuku-</i>	‘knee’
NNG:	Nenaya	<i>tugu-</i>	‘knee’ (<i>g</i> for † <i>k</i>)
NNG:	Medebur	<i>tuku-</i>	‘knee’
NNG:	Manam	<i>tuku-</i>	‘knee’ (<i>k</i> for † <i>ʔ</i>)
MM:	Petats	<i>tuk-tuk(rako)</i>	‘knee’
MM:	Halia	<i>tuku(nu)</i>	‘elbow’
		<i>tuku(numu)</i>	‘knee’

3.6.5.3 Calf and shin

The calf is referred to by a compound meaning ‘liver of leg’ in widespread languages.

POc **qate qi [q,w]aqay* ‘calf’

Adm:	Mussau	<i>atea keke-</i>	‘calf’ [liver leg-]
NNG:	Bukawa	<i>gahi- ate</i>	‘calf’ [leg- liver]
NNG:	Numbami	<i>ae- ate</i>	‘calf’ [leg- liver]
NNG:	Sio	<i>kate-</i>	‘calf; liver’

PPn **qate qi waqe* ‘calf muscles of lower leg’

Pn:	Tongan	<i>ʔate ʔi vaʔe</i>	‘calf’ [liver of leg]
Pn:	Samoan	<i>ate vae</i>	‘calf’ [liver leg]
Pn:	Rennellese	<i>ʔate baʔe</i>	‘calf, esp. back side of the calf’ [liver leg]
Pn:	Maori	<i>ate-ate</i>	‘calf’

Western Oceanic languages have a set of semantically related compounds for the calf. In some languages the calf is ‘scrotum of leg’ or ‘testicle of leg’. In others ‘nut of leg’ is found, noting that ‘nut’, ‘seed’ and ‘testicle’ are often glosses of the same term in Oceanic languages. In a number of Papuan Tip languages it is ‘roe of leg’, where the term for ‘roe’ reflects POc **biRa-* (vol.4:129).

NNG:	Takia	<i>ʔie- laben</i>	‘calf’ [leg- scrotum]
NNG:	Dami	<i>y-e fāt</i>	‘calf’ [leg- testicle]
PT:	Iduna	<i>fowa- age</i>	‘calf’ [scrotum- leg]
MM:	Ramoaaina	<i>talia na kaki-</i>	‘calf’ [nut of leg] ³⁷
PT:	Gapapaiwa	<i>kae-bire-</i>	‘calf’ [leg-ro-]
PT:	Tawala	<i>ae-bile-</i>	‘calf’ [leg-ro-]
PT:	Ubir	<i>a- firi-n</i>	‘calf’ [leg- roe-its]
PT:	Misima	<i>ae-bilabila</i>	‘calf’ [leg-ro-]

Languages from Papuan Tip and Polynesia use the metaphor of a ridge to refer to the shin bone, albeit in non-cognate terms.

PT:	Dobu	<i>ʔae-b^wate-b^watete</i>	‘shin and shinbone’ [leg-ridge]
Pn:	Tongan	<i>hivi ʔi vaʔe</i>	‘shin’ [ridge of leg]
Pn:	Samoan	<i>tua-sivi-vae</i>	‘shin’ [ridge-bone-leg]

3.6.5.4 Heel

Blust reconstructs PMP **tiked* ‘heel’ (ACD), but no Oceanic reflexes have been found. Instead there are compounds. In NW Melanesia, the usual expression appears to be ‘occiput of foot’, using a reflex of POc **k(i,e)ju-/PNGOc *g(i,e)ju-* ‘back of head, occiput’ (§3.4.5). Of the reflexes below, only Nakanai *kisu* and Ubir *etu-* are independently attested in the data with the back of the head as denotatum, but there is little doubt that all the items listed are reflexes thereof. In Tawala the reduplicated form, encoding ‘little occiput’, lacks a reflex of **g(i,e)ju-*, probably once present as it is in closely related Gumawana.

³⁷ Ramoaaina *talia* ‘nut of *Terminalia catappa*’, reflecting POc **talise* (vol.3:324).

POc **k(i,e)ju (qi) qaqe* ‘heel’ (lit. ‘occiput/nape of foot’)

Adm:	Nyindrou	<i>kusu- kati</i>	‘heel’ [occiput-X foot] ³⁸
PT:	Gumawana	<i>ae-gedu-gedu-</i>	‘heel’ [foot-REDUP-occiput-X]
PT:	Tawala	<i>kedu-kedu-</i>	‘heel’ [REDUP-occiput-X]
PT:	Ubir	<i>a- etu-</i>	‘heel’ [foot-occiput-X]
MM:	Nakanai	<i>vaha-kisu-</i>	‘heel’ [foot-occiput-X]

Takia speakers use the semantically corresponding expression *ɲie- buro-n* [leg-X occiput-its].

In at least some Oceanic languages the corresponding expression is ‘back of foot’, using the relational local noun POc **muri[-]* ‘back part, rear, behind, space to the rear of, time after; (canoe) stern; space outside’ (vol.2:251) or its variant **buri-* (vol.2:253).

POc **[m,b]uri (qi) (w,q)aqe* ‘heel’ (ACD) (lit. ‘back of foot’)

MM:	Bukawa	<i>gahi bu</i>	‘heel’ [foot back]
SES:	Lau	<i>buri ʔae</i>	‘heel’ [back foot]
Pn:	Rennellese	<i>mugi wae</i>	‘heel’ [back foot]
Pn:	K’marangi	<i>muli wae</i>	‘heel’ [back foot]

3.6.6 Footprint

The addition of **-kV* to the Nyindrou, Manam and Mota reflexes of POc **m^wale-* ‘footprint’ is unexplained, but the addition of *-ɲ(V)* in the Neve’ei and Tape reflexes implies that **m^wale-* was at some point a verb, to which nominalising **-ɲa* was then added.

POc **m^wale-* ‘footprint’

Adm:	Nyindrou	<i>m^wele(ke)</i>	‘trace, impression’
		<i>m^wele(ke kati-)</i>	‘footprint’ (<i>kati-</i> ‘foot, leg’)
NNG:	Manam	<i>male(ka)-</i>	‘track; footprint’

PNCV **m^wale-* ‘sole, footprint’ (Clark 2009: **male*)

NCV:	Mota	<i>male(ka)-i</i>	‘sole of foot, foot, footprint, track’
NCV:	Kiai	<i>malele-</i>	‘mark (trace left by)’
NCV:	Raga	<i>malele-</i>	‘footprint’
NCV:	Apma	<i>male-</i>	‘mark (of burn, cut)’
NCV:	Port Sandwich	<i>mele-</i>	‘footprint’
NCV:	Neve’ei	<i>ne-m^wela(ɲ)</i>	‘footprint’
NCV:	Tape	<i>məl(ɲe tili-)</i>	‘footprint’ (<i>tili-</i> = ‘leg’)
NCV:	Namagir	<i>m^wale-(lao-)</i>	‘heel’ (<i>lao-</i> ‘foot’)
NCV:	Nguna	<i>na-m^wele-</i>	‘foot’
		<i>na-m^wele-(aru)</i>	‘palm, hand’ (<i>aru</i> ‘hand, arm’)
NCV:	S Efate	<i>na-m^wle-(natu-)</i>	‘footprint’ (<i>natu-</i> ‘foot’)

PSV **na-m^w(i,la)-* ‘track (of s.t.), footprint’ SV:

Lenakel	<i>na-mwi-</i>	‘footprint’

In a number of WOC languages the term for footprint is ‘back of leg’, or more logically

³⁸ X represents the human possessor of the heel.

‘after foot’, with a reflex of **muri-* or **buri-* ‘back, be after’ (vol.2:311-312). Note that this compound means ‘heel’ in some Oceanic languages (§3.6.5).

NNG:	Mutu	<i>axe muri</i>	‘footprint’ (<i>axe</i> ‘leg’)
NNG:	Kove	<i>muli-muli</i>	‘footprint, track’
NNG:	Lukep	<i>ke- muri-m</i>	‘footprint’
NNG:	Bariai	<i>ai- i mul</i>	‘footprint’
PT:	Misima	<i>muli-n</i>	‘footprint’
MM:	Vitu	<i>mudi(-ni-kabe)</i>	‘footprint’
MM:	Nakanai	<i>puli</i>	‘footprint, sole of foot’
MM:	Meramera	<i>puli</i>	‘sole of foot, footprint’

Some Polynesian languages use a term meaning ‘standing-place of foot’ to refer to ‘footprint’.

Pn:	Samoan	<i>tulaŋa-a-vae</i>	‘footprint’ [standing-place of foot]
Pn:	Maori	<i>tūraŋa-wae-wae</i>	‘footprint’ [standing-place-foot]

3.6.7 Groin, crotch

The POc term for the crotch was **saŋa-*, which was also used for a forked stick or branch.

PMP **saŋa* ‘bifurcation, to branch’ (ACD) (vol.3:96)

POc **saŋa-* ‘crotch; fork (in tree), forked stick or branch’

Adm:	Titan	<i>cáŋa</i>	‘crotch; fork in tree, straddle’
Adm:	Lou	<i>saŋ</i>	‘crotch’
NNG:	Gedaged	<i>saŋa-</i>	‘crotch, groin, bifurcation, fork’
NNG:	Numbami	<i>saŋa-</i>	‘crotch’
NNG:	Gitua	<i>saŋa-</i>	‘crotch’
PT:	Iduna	<i>haya-haya-</i>	‘spread legs; groin; fork (in branch)’
MM:	Nakanai	<i>sala-</i>	‘thigh, groin’
MM:	Tabar	<i>saŋa-</i>	‘groin’
SES:	Kwaio	<i>taŋa-</i>	‘groin’
SES:	Arosi	<i>taŋa-</i>	‘a crotch; fork of the legs’
NCV:	Mota	<i>saŋa-</i>	‘a fork, crotch, forked stick’
Fij:	Bauan	<i>saŋa-</i>	(N) ‘a crotch’; (ADJ) ‘crotched’
Pn:	Tongan	<i>(ma)haŋa</i>	‘branch, fork, crotch’

3.6.8 Parts common to arm/hand and leg/foot

Note that ‘armpit’ is treated as part of the trunk (§3.5.4).

3.6.8.1 Elbow and knee

This section has two parts to facilitate crossreferencing, particularly between the formally similar pairs of terms in §3.4.2 and §3.6.8.1.1.

POc also had terms that specifically denoted the knee. For these, see §3.6.5.2.

3.6.8.1.1 POc *p^watu[ka]- ‘elbow, knee; joint, node’ and PSOc *b^wau- ‘knee, joint’

The formal aspects of the two terms reconstructed here are discussed at length in §3.4.2.

POc *p^watu[ka]- was evidently the general term for a knee or elbow joint, but not hip or shoulder. The seemingly optional *-ka- that is reflected in some members of the cognate set remains unexplained,³⁹ unless, as mentioned in §3.4.2, *p^watu[ka]- originally meant ‘kneecap’ and is identical with putative *p^w(u)atu(k) ‘outer shell, skull’.

POc *p^watu[ka]- ‘elbow, knee; joint, node’

Adm: Mussau	patu-	‘joint (of elbow, knee); node (of sugarcane, etc)’
	patu (keke)	‘knee’ (keke ‘leg’)
	patu (nima)	‘elbow’ (nima ‘arm, hand’)
Adm: Tennis	patu-	‘elbow’
	pato(keke)	‘knee’ (keke ‘leg’)
	patu-ka-	‘shoulder’
NNG: Gitua	patu-	‘elbow, knee’
MM: Bulu	potu-ka-	‘elbow’
MM: E Kara	putu-	‘knee, head’
MM: Notsi	put-put	‘knee’
MM: Taiof	patu-k	‘elbow; knee’
MM: Teop	pasu-ka-	‘elbow; knee’
SES: Gela	patu	‘joint in bamboo, knot’
SES: Arosi	p ^w a(ruru-)	‘elbow, knee’ (ruru- ‘elbow, knee’) ⁴⁰

Whether and how PSOc *b^wau- ‘knee, joint’ is related to POc *p^watu[ka]- ‘elbow, knee; joint, node’ is not known. See the discussion in §3.4.2.

PSOc *b^wau- ‘knee, joint’ (Lynch 2004a)

NCV: Mota	p ^w au-i	‘knee’
NCV: Mwotlap	nu-b ^w u-k, n̄-b ^w u-n	‘my knee’, ‘his knee’
NCV: Nokuku	pou	‘knee’
NCV: Tamambo	bau-	‘knee’
NCV: Kiai	pau-	‘knee’
NCV: Araki	pau-	‘knee’
NCV: Raga	b ^w au-	‘knee’
NCV: Avava	bau-	‘elbow, knee’
NCV: Uripiv	bau-	‘knee’
NCV: Lonwolwol	bu-	‘knot, lump, joint’
	bu(la-)	‘knee’ (lit. ‘joint of leg’; lā ‘leg’)
NCV: Nakanamanga	p ^w a(tua)	‘elbow’
NCV: Namakir	bu(tua)	‘knee’ (tua ‘leg’)
NCV: Nguna	na-p ^w a(tua)	‘knee’ (tua ‘leg’)
NCV: S Efate	p ^w u(t)	‘knee’

³⁹ Fijian examples include *levu-ka-* ‘middle’, *tolo-ka-* ‘trunk’, *vatu-ka-* ‘shape’ (P. Geraghty, pers. comm.)

⁴⁰ Glosses in Fox (1978) show no semantic difference between *p^wa-ruru-* ‘elbow, knee’ and *ruru-* ‘elbow, knee’.

SV:	Sye	<i>no-^mpu(noru)</i>	‘shoulder’ (lit. ‘head of arm’)
NCal:	Nyelâyü	<i>bu-</i>	‘joint’
NCal:	Xârâcùù	<i>b^wā(xê)</i>	‘knee’ (<i>xê</i> ‘hand, foot’)
NCal:	Iaai	<i>bo(xulu)</i>	‘joint’

3.6.8.1.2 Other terms for joint, elbow and knee

Reflexes of POc **buku* ‘mound, knob, joint’ are also used in a number of Oceanic languages to refer to the elbow and/or knee. However, it is clear that **buku* focussed on the shape of the referent,⁴¹ whereas the central meaning of the terms reconstructed in §3.6.8.1.1 was the knee or elbow joint itself.

As elbows are more corner-like than knees, POc **s[i,u]ku*, reflecting a PMP term that also meant ‘corner’, may have referred specifically to ‘elbow’.

PMP **buku* ‘node, knot, joint’ (ACD)

POc **buku* ‘mound, knob, joint; (?) elbow, knee’

NNG:	Manam	<i>buku</i>	‘mountain, knuckle’
NNG:	Wogeo	<i>buku-</i>	‘knee’
MM:	Nakanai	<i>buku(a)</i>	‘swollen, protruding’
MM:	Nalik	<i>buk-buk</i>	‘knee’
MM:	Patpatar	<i>buku-</i>	‘joint, elbow, knee’
MM:	Minigir	<i>buku-buku-</i>	‘elbow, knee’
MM:	Tolai	<i>buk na kau-</i> <i>buk na lima-</i>	‘heel; knee’ (lit. ‘knob of foot/leg’) ‘elbow’
MM:	Siar	<i>buk</i>	‘elbow’
MM:	Babatana	<i>pu-puku-</i>	‘elbow, knee’
MM:	Blablanga	<i>pu-puku-</i>	‘knee’
NCV:	Mota	<i>puyiu-</i>	‘hip joints’
Mic:	Chuukese	<i>p^wiki-</i>	‘node, joint, knot, knee’
Mic:	Puluwatese	<i>p^wikiw</i>	‘knee’
Mic:	Kosraean	<i>fuku-</i>	‘joint’
Fij:	Bauan	<i>buku</i>	‘anything knotted or humped’
Fij:	Wayan	<i>buku</i>	‘knot; node; hinge’

PMP **siku* ‘elbow, corner’ (Dempwolff)

POc **s[i,u]ku* ‘elbow, knee, angle’

NNG:	Buang	<i>ruku-</i>	‘knee’
NNG:	Mindiri	<i>saku-</i>	‘elbow’
NNG:	Bilbil	<i>suk-suk</i>	‘elbow’
NNG:	Gedaged	<i>suku-suk</i>	‘elbow; sharp turn in a road’
NNG:	Kilenge	<i>suke-</i>	‘knee’
PT:	E Mekeo	<i>kiu(a)</i>	‘elbow’

⁴¹ Thus POc **buku* is glossed ‘node (as in bamboo or sugarcane); joint; knuckle; knot in wood, string or rope’ in vol.1:85; ‘mound, knob, joint’, possibly also ‘hill’ in vol.2:51; and its PCP reflex denotes ‘female genitals’ in §3.5.13.3.

		<i>kiu(ga)</i>	‘knee’
PT:	Lala	<i>diʔu-</i>	‘elbow’
PT:	Kuni	<i>diu-</i>	‘elbow’
MM:	Tiang	<i>suku(ru)</i>	‘knee’
MM:	Varisi	<i>zi-ziku</i>	‘elbow’
SES:	‘Are’are	<i>suʔu-</i>	‘elbow, angle, corner’
SES:	Sa’a	<i>suʔu-suʔu-</i>	‘elbow, corner, angle’
NCV:	Raga	<i>sigu(i)</i>	‘corner, angle’
NCV:	Tamambo	<i>suyu-</i>	‘elbow’
NCV:	Araki	<i>suhu-</i>	‘elbow’
NCV:	NE Ambae	<i>huku(ne)</i>	‘elbow’
Fij:	Nadrau	<i>suku-</i>	‘hand, arm’
PPn * <i>siku</i> ‘extremity, end; tail (esp. of fish)’ (POLLEX)			
Pn:	Tongan	<i>hiku</i>	‘tail; end’
Pn:	E Futunan	<i>siku</i>	‘tail; end’

3.6.8.2 Fingers and toes, finger- and toenails

Where data are from dictionaries rather than from wordlists, it is clear that the same term is typically used in Oceanic languages for ‘fingernail’, ‘toenail’ and ‘claw (of quadruped or bird)’, and this was presumably the case in POc too. However, wordlist sources tend to show a term only for ‘fingernail’.

POc **kuku-* apparently also denoted ‘finger’. Both non-Oceanic (ACD) and Oceanic reflexes attest to this.

PMP **kuSkuS* ‘claw, talon, fingernail’ (ACD)

POc **kuku-* ‘finger, fingernail, toenail, claw (of quadruped or bird)’

Adm:	Lou	<i>kuε-</i>	‘nail, claw’
NNG:	Mangap-Mbula	<i>kuku(nu)</i>	‘fingernail’
NNG:	Lukep (Pono)	<i>kuku-</i>	‘finger, claw’
NNG:	Malasanga	<i>kuku-</i>	‘finger, claw’
NNG:	Wab	<i>koko-</i>	‘fingernail, claw’
NNG:	Bilbil	<i>kuku-</i>	‘finger’
NNG:	Matukar	<i>kuku-</i>	‘finger’
NNG:	Kaiwa	<i>kuku-</i>	‘finger’
NNG:	Medebur	<i>kuku-</i>	‘fingernail’
NNG:	Wogeo	<i>kuku-</i>	‘finger’
NNG:	Numbami	<i>kuku-</i>	‘finger’
MM:	Vitu	<i>kuku-</i>	‘finger’
		<i>kuku(buli)</i>	‘thumb’
MM:	Bali	<i>kuku-</i>	‘finger’
MM:	Bola	<i>kuku-</i>	‘finger’
		<i>ku(lima)</i>	‘fingernail’
MM:	Nakanai	<i>kuku-</i>	‘finger, toe, nail, claw’
MM:	Meramera	<i>ʔuʔu-</i>	‘finger’

MM:	Lihir	<i>ku(acil)</i>	‘fingernail’
MM:	Konomala	<i>ku-</i>	‘hand’
MM:	Lavongai	<i>ku(ŋa)</i>	‘hand’
MM:	Label	<i>ku-</i>	‘hand’
		<i>(li)ku-</i>	‘finger’
MM:	Bilur	<i>ku-</i>	‘hand’
		<i>(lele)ku-</i>	‘finger’
		<i>(kaba)ku-</i>	‘shoulder’
SES:	Bugotu	<i>yuyu-</i>	‘hoof, claw’
SES:	Gela	<i>yuyu-</i>	‘finger or toenail, hoof’
SES:	Longgu	<i>ʔuʔu-</i>	‘nail, claw’
SES:	Lau	<i>kuku-</i>	‘finger, toe’
SES:	‘Are’are	<i>ʔuʔu-</i>	‘finger, toe, claw, paw’
SES:	Kwaio	<i>ʔuʔu-</i>	‘toe, finger’
NCV:	S Efate	<i>na-ki-</i>	‘finger, toe’
NCal:	Pije	<i>hi-n</i>	‘hand’
Mic:	Carolinian	<i>kkä-</i>	‘fingernails of humans, claws of birds and animals’
Mic:	Woleaian	<i>kku-</i>	‘claw, nail, toe’
Fij:	Bauan	<i>kuku-</i>	‘nail of finger or toe’
Fij:	Wayan	<i>-kuku</i>	‘nail, claw of quadruped, hoof’
Pn:	Tongan	<i>kuku</i>	‘grasp, grip, clutch, hold on to’
Pn:	Samoaan	<i>(mai)ʔuʔu</i>	‘fingernail’
Pn:	Tikopia	<i>kuku</i>	‘clench hand’

PWOC **ka(p,pʷ)a-* ‘fingernail, toenail, claw (of quadruped or bird)’

NNG:	Tami	<i>ka-kap</i>	‘fingernail’
NNG:	Sio	<i>kaba(tete)</i>	‘fingernail’
NNG:	Gedaged	<i>kafa-</i>	‘fingernail’
NNG:	Dami	<i>kapa-</i>	‘fingernail’
NNG:	Adzera	<i>af-afa-</i>	‘fingernail’
NNG:	Numbami	<i>yawa-</i>	‘fingernail’
NNG:	Mapos Buang	<i>qapeq̃</i>	‘fingernail, toenail, claw’
NNG:	Manam	<i>kabo</i>	‘finger, toe’
NNG:	Mamusi	<i>wa-</i>	‘fingernail’
NNG:	Hote	<i>va-</i>	‘fingernail, toenail’
PT:	Motu	<i>kahau-</i>	‘claw, nail (finger or toe)’
MM:	Vitu	<i>kapa(nikuku)</i>	‘fingernail’
MM:	Bola Harua	<i>kapa-</i>	‘fingernail’
MM:	Meramera	<i>kapa-</i>	‘fingernail’
MM:	Piva	<i>kapa(i)</i>	‘fingernail’

cf. also:

SES:	Lau	<i>kakau-</i>	‘finger, toe’
SES:	Arosi	<i>kakau-</i>	‘finger or toe’
SES:	‘Are’are	<i>(karu)kapi</i>	‘little finger’

The index finger (forefinger) in many Oceanic languages is denoted by a form that is identical with or includes the verb ‘point’. Indeed, **tusu-* ‘forefinger’ is derived from a PMP term meaning ‘point’. In the Papuan Tip area forefinger terms sometimes allude to the fact that one dips the forefinger into food in order to taste it: Dawawa *buta-remo* (*buta* ‘salt’, *remo* ‘taste’), Tawala *habaya-lemu* (*habaya* ‘cooking pot’, *lemu* ‘taste’). Terms for the other digits are not reconstructable, but the thumb is ‘big digit’ in a number of languages: Misima *gig-bʷaya* (*gigi* ‘finger, toe’, *bʷaya* ‘big’), PNCV **bisu-laba* (**bisu* ‘finger’, **laba* ‘big’; Clark 2009), Wayan *kuku-levu* (*levu* ‘big’).

PMP **tuzuq* ‘point at, point out, give directions’ (ACD)

POc **tusu-* (N) ‘forefinger’; **tusuq-i-* (VT) ‘point at’

PT:	Motu	<i>du-dui-</i>	(VT) ‘point’
MM:	Nakanai	<i>tur-i</i>	‘point to, point out’
MM:	Tolai	<i>tu</i>	(VT) ‘show, point at’
MM:	Kia	<i>tuhu</i>	‘point with finger’
		<i>tuhu(tae)</i>	‘forefinger’
SES:	Gela	<i>tuhu, tuhi</i>	‘to point’
		<i>tuhu (komu)</i>	‘first finger’
SES:	Longgu	<i>usu</i>	‘point’
		<i>usu (hanua)</i>	‘index finger’
SES:	Sa’a	<i>usu, usu-i-</i>	(VI) ‘point, accuse; tattoo; (VT) ‘write’
NCV:	Tamambo	<i>ti-tisu-</i>	‘pointer finger’
Mic:	Woleaian	<i>(xa)ttu-</i>	‘finger’
Fij:	Wayan	<i>duđi</i>	‘point’
		<i>-duđi-duđi</i>	‘index finger’
Pn:	Tongan	<i>tuhu-</i>	‘finger, esp. forefinger’
		<i>tuhu?-i</i>	(VT) ‘point’
Pn:	Samoan	<i>tusi</i>	‘point with finger’
Pn:	Tikopia	<i>tusi</i>	‘point, trace with finger; write’

PPn **mata a lima* ‘finger’ (*mata* ‘point, tip’, *lima* ‘hand’)

Pn:	Niuean	<i>matalima</i>	‘finger’
Pn:	Takuu	<i>matārima</i>	‘finger’
Pn:	Pileni	<i>mata lima</i>	‘finger’
Pn:	K’marangi	<i>madālima</i>	‘finger’

3.6.8.3 Palm of hand and sole of foot

PMP **palaj* ‘palm of hand, sole of foot’ is widely reflected in western Malayo-Polynesian languages, but only a single Oceanic reflex occurs in the data. Most Oceanic languages support POc **lapʷar*.

PMP **palaj* ‘palm of hand, sole of foot’ (ACD)

POc **pala(j)* ‘palm of hand, sole of foot’ (ACD)

PT:	Motu	<i>(ima) pala-pala-</i>	‘palm’ (<i>ima</i> ‘hand’)

(ae) *pala-pala-* ‘sole’ (ae ‘leg’)

POc **lap^war* ‘palm of hand, sole of foot’ appears superficially to reflect PAn **da(m)paN* ‘palm of hand, sole of foot’,⁴² but the latter would give rise to POc *†*ra(p,b)an*, so this is probably a chance resemblance.

POc **lap^war* ‘palm of hand, sole of foot’

Adm:	Mussau	<i>lapa-lapa</i>	‘(hand) palm; (foot) sole’ (<i>lapalapa nima</i> ‘palm’, <i>lapalapa keke</i> ‘sole’)
PT:	Molima	(ae) <i>yapa-yapa(na)</i>	‘sole of foot’ (y- for †l-)
PT:	Kukuya	(nima) <i>yapa-yapa</i>	‘palm of hand’ (y- for †l-)
		(ae) <i>yapa-yapa</i>	‘sole of foot’
PT:	Wedau	(ae) <i>lapa-lapa(na)</i>	‘sole of foot’
MM:	Tolai	<i>lapara</i>	‘main part of hand, incl. back and palm but not fingers; instep’
MM:	Patpatar	<i>lapar</i>	‘sole of foot, palm of hand’
MM:	Sursurunga	<i>lāprə-</i>	‘sole of foot, palm of hand’

Neither of these reconstructions has reflexes in Eastern Oceanic. The most common term in Eastern Oceanic, found also in the Admiralties, is a compound meaning ‘face of hand/foot’, containing a reflex of POc **qarop* ‘front, face’ (vol.2:247) plus the term for hand or foot, contrasting with ‘back of hand/foot’ for the back of the hand and top of the foot (§3.6.8.4).

POc **qarop qi [n,l]ima* ‘palm of hand’

Adm:	Lou	<i>kar mena</i>	‘palm of hand’
NCV:	NE Ambae	<i>qaqai lima(na)</i>	‘palm of hand’
Pn:	Tongan	<i>ʔaof-i-nima</i>	‘palm of hand’
Pn:	Rennellese	<i>ʔagoh-i-gima</i>	‘palm of hand, inner surface of arm’
Pn:	Samoan	<i>alof-i-lima</i>	‘palm of hand’
Pn:	Tikopia	<i>arof-i-rima</i>	‘palm of hand’

POc **qarop qi qaqe* ‘sole of foot’ (lit. ‘front of foot’) (*qi* LINKER)

Adm:	Lou	<i>kar-ke-</i>	‘sole’

PPn **qarof-i-waqe* ‘sole of foot’ (POLLEX)

Pn:	Tongan	<i>ʔaof-i-vaʔe</i>	‘sole of foot’ (lit. ‘front/face of foot’)
Pn:	E Futunan	<i>ʔalof-i-vaʔe</i>	‘sole of foot’
Pn:	Samoan	<i>alof-i vae</i>	‘sole of foot’
Pn:	Tikopia	<i>arof-i vae</i>	‘sole of foot’

3.6.8.4 Back of hand and top of foot

The top of the foot was apparently the ‘back of foot’ in POc, as it is in geographically distant modern languages. This seems odd in European thinking, until it is recognised that Oceanic

⁴² PAn **dapaN* is reconstructed on the basis of (Formosan) Tsou *caphə* ‘foot’, Saaroa *sapale* ‘foot’, Thao *sapað* ‘sole, footprint’, Pazih *sa-sapal* ‘sole’ and (Philippine) Ilokano, Bikol, Pangasinan *dapan* ‘sole’ (among other reflexes).

speakers view feet and hands analogously: the palm of the hand and sole of the foot are perceived as ‘face, front’ (§3.6.8.3), the back of the hand and top of the foot as ‘back’.

NNG:	Hote	<i>dum saje-</i>	‘top of foot’ [back foot-]
NNG:	Takia	<i>ɲie- patu-n</i>	‘top of foot’ [foot- back-its]
PT:	Gumawana	<i>ae-tolu-</i>	‘top of foot’ [foot-back-]
PT:	Kukuya	<i>ae upu-</i>	‘top of foot’ [foot-back-]
MM:	Siar	<i>tar-un keke-</i>	‘top of foot’ [back foot-]

PPn **tuqa a waqe* ‘top of foot’ [back-foot]

Pn:	Tongan	<i>tuʔa vaʔe</i>	‘top of the foot’
Pn:	Rennellese	<i>tuʔā baʔe</i>	‘top of foot’
Pn:	Tikopia	<i>tua vae</i>	‘top of foot’

Note that this term was distinct from POc **[m,b]uri (w,q)aqe* ‘heel’ (§3.6.5.2) (lit. ‘back of foot’). POc **[m,b]uri* was a relational local noun denoting the back of something (§3.1.2), but the terms for ‘back’ in ‘top of foot’ phrases denote a person’s back.

3.7 Internal organs

3.7.1 Internal organs in general

The internal organs are listed here roughly in order from the top of the trunk to the bottom. There is a certain amount of evidence that POc **qate-* ‘liver’, regarded as the seat of the emotions and the centre of one’s being (§3.7.6), also served as a collective term for the internal organs. This is clear in terms from Nakanai (MM), where the liver itself is specified by adding a modifier (*kuru*) to the more general term *hate-*, reflecting POc **qate-*.

<i>hate-</i>	‘liver or solar plexus (seat of emotion); internal organs in general; sometimes spleen’
<i>la hate kuru</i>	‘liver’ (<i>kuru</i> ‘dark-coloured’)

The terms below reveal a similar pattern: the reflex of **qate-* denotes the internal organs, and various modifiers indicate the specific organ (see also the terms for ‘lungs’ in §3.7.3).

Kwaio	<i>lae-, lae-fou</i>	‘liver’
	<i>lae-fula, lae-fulo</i>	‘lungs and heart (conceived of as a single unit)’
Sa’a	<i>sae-</i>	‘heart, mind, liver, lungs, chest’
	<i>sae huto-huto</i>	‘lungs’ (= ‘frothy liver’)
‘Are’are	<i>rae-</i>	‘stomach, heart, liver, lungs, womb, mind, seat of affections, intention, will’
	<i>rae nisu-na</i>	‘lung’ (<i>nisu-</i> ‘opening, outlet’)
	<i>rae ʔohoʔohu-na</i>	‘lung’ (<i>ʔohoʔoho-</i> ‘chest’ ??)
Bauan	<i>yate-</i>	‘the liver, considered as the seat of cowardice and courage’
	<i>yate balavu</i>	‘spleen’ (<i>balavu</i> ‘long’)
	<i>yate vuso</i>	‘lungs’ (<i>vuso</i> ‘to froth’)
Niuean	<i>ate</i>	‘liver’

<i>ate-fua</i>	‘liver’ (<i>fua</i> ‘fruit’)
<i>ate-loa</i>	‘spleen’ (<i>loa</i> ‘long’)
<i>ate-pili</i>	‘spleen’ (<i>pili</i> ‘sticky’)
<i>ate-pala</i>	‘lungs’ (<i>pala</i> ‘wet’)
<i>ate-vili</i>	‘heart’ (<i>vili</i> ‘spin’)

3.7.2 Heart

Blust (ACD) reconstructs POc **buaq* ‘areca nut and palm; heart’. The only reflex listed in the ACD with the meaning ‘heart’ is Tolai *bua-*, which is in fact a reflex of PWOC **busa(q)* ‘heart’, as *-s-* is lost in Tolai. However, Vitu, Bola and Nakanai have *bua-* ‘heart’, and these are regular reflexes of POc **buaq*, not of **busa(q)*.

PMP **buaq* ‘fruit; areca nut and palm; heart’ (ACD)⁴³

POc **buaq* ‘areca nut and palm; heart’ (ACD)

MM: Vitu	<i>bua-</i>	‘heart’
MM: Bola	<i>bua-</i>	‘heart’
MM: Nakanai	<i>bua-</i>	‘heart’

The two reconstructions below, POc **pu(s,c)o* ‘heart’ and PWOC **busa(q)* ‘heart’ are similar in form (and **busa(q)* is similar to **buaq* above), and there is no semantic difference between them. The reflexes of both mean ‘heart’ with an occasional instance of ‘liver’. This is presumably an outcome of the fact that both the heart and the liver are regarded as seats of the emotions by speakers of various Oceanic languages. Where similar forms occur with similar meanings, there may be contamination of one by the other, and Wogeo *buso-* and Malai *pus-pusa-* both seem to illustrate this.

No convincing explanation can be offered for the fact that there are two terms, but note (i) that POc **puso-* is also one of the forms reconstructed for ‘navel’ (§3.5.10) and (ii) that POc **puco(q)*⁴⁴ and POc **busa* are both terms for ‘foam’ (vol.2:96–97) and that each has a PMP antecedent. Whilst it is easier to explain (i) as a semantic shift, it is more difficult to explain away (ii), the fact that the same two forms occur for both ‘foam’ and ‘heart’. One of the reconstructed terms for ‘lungs’ (§3.7.3) includes a word meaning ‘foam’ and, as the heart and lungs are in close relationship anatomically, it may be that an early meaning shift has occurred here.

POc **pu(s,c)o-* ‘heart’

MM: Patpatar	<i>puso-puso</i>	‘heart’
NCV: Nokuku	<i>wiso-</i>	‘heart, liver’
NCV: Araki	<i>(ma)vusa-</i>	‘heart; innards, guts’
NCV: Paamese	<i>(hei)huse-</i>	‘heart’
NCV: Namakir	<i>wus</i>	‘heart’

⁴³ The full gloss in the ACD is ‘fruit; areca palm and nut; grain; berry; seed; nut; endosperm of a sprouting coconut; kidney; heart; finger; calf of the leg; testicle; various insects; scar tissue; roe; bud; flower; blossom; bear fruit; words, speech, or songs; meaning, contents of discussion; numeral classifier for roundish objects; buttock; Adam’s apple; nipple of the breast; button; marble; tattooing’

⁴⁴ The reconstruction in vol.2 (p97) is **puso*. but the external evidence suggests **puco(q)*.

PWOC **busa(q)* ‘heart’

NNG:	Manam	(a)buro-	‘heart’
NNG:	Wogeo	buso-	‘liver’
NNG:	Malai	pus-pusa-	‘heart’
NNG:	Adzera	(nugu)buzu(n)	‘liver’
NNG:	Mumeng (Patep)	b ^w ola-	‘heart’
MM:	Bulu	(yate)bura-bur(a)	‘liver’
MM:	Tigak	vusa-	‘heart’
MM:	E Kara	vusa-	‘heart’
MM:	W Kara	busai-	‘heart’
MM:	Notsi	buca-	‘heart’
MM:	Lihir	buos	‘heart’
MM:	Tangga	bus-busa-	‘heart’
MM:	Tolai	buai-	‘heart’
MM:	Bilur	buai-	‘heart’

cf. also:

MM:	Kia	busaka	‘blood, bleed’

3.7.3 Lungs

Three reconstructions for ‘lungs’ are offered below. The first of these is technically unusual in that two possible pre-Oceanic source etyma can be posited, PAN **baRa*q ‘lung’ and PMP **para* ‘coconut embryo’, and therefore two alternative POC forms, **paRa(q)* ‘lung’ and **para*q ‘spongy mass...’. At first sight it seems obvious to propose that PAN **baRa*q ‘lung’ is ancestral to this cognate set below. However, the Micronesian reflexes listed below are interpreted by Bender et al. (2003) as containing a reflex PMic **fara* ‘core (of breadfruit, coconut, pandanus)’, which reflects POC **para*q ‘spongy mass inside sprouting coconut; brain’ (vol.3:373). The Micronesian reflexes other than Marshallese have an additional element, and it is reasonable to infer that this reflects POC **uRa*t/PMic **ua* ‘veins, arteries, tendons’, reflecting a possible (but not firmly reconstructable) POC **para*q *qi uRa*t, meaning approximately ‘spongy mass of innards’, i.e. ‘lungs’. This does not mean that PAN **baRa*q ‘lung’ has played no role in the derivation of Oceanic forms, but that at least in a number of early Oceanic languages POC **paRa(q)* and **para*q were conflated.⁴⁵

PAN **baRa*q ‘lung’ (ACD) or PMP **para* ‘coconut embryo’ (ACD)POC **paRa(q)* ‘lung’ or POC **para*q ‘spongy mass inside sprouting coconut; brain’PEOC **vaRa*- ‘lungs’ (Geraghty 1990)

NCV:	Mota	vara-i	‘liver, breast’
NCV:	Port Sandwich	na-var	‘liver’
SV:	Sye	ne-vre-	‘lungs’

PMic **far[a,e]*- ‘lungs’ (Bender et al. 2003)

Mic:	Marshallese	yar	‘lungs’

⁴⁵ There is no non-Oceanic evidence for the final **-q* of POC **para*q ‘spongy mass...’, and its apparent presence may be the result of conflations with **paRa(q)* ‘lung’.

Mic:	Chuukese	<i>fara(wa)</i>	‘lungs’
Mic:	Puluwatese	<i>færa(wa)</i>	‘lungs’
Mic:	Carolinian	<i>fære(wa), fære(wæ-)</i>	‘lungs’
Mic:	Woleaian	<i>faze(wā)</i>	‘native sponge’

cf. also:

NNG:	Bariai	<i>boroio</i>	‘lungs’

Reflexes of PAn **baRaqa/PMP *para* are found only in languages of Vanuatu and Micronesia. Its place has often been taken elsewhere in Oceanic by compound expressions. Two of these can be reconstructed to POc, both compounds including reflexes of **qate*-‘liver’ (§3.7.6), which was apparently also used collectively to denote the major organs. The literal meaning of the first compound was ‘frothy liver’. Its second element was a reduplicated version of **busaq* or **puco(q)* ‘froth, foam’ (cf §3.7.2, and see footnote 44, p181). The reduplication formed an adjective (vol.2:206) ‘frothy’, referring to the appearance of the lungs when an animal is butchered. In several of the languages in the next set, the second element on its own has come to refer to ‘lungs’.

POc **qate busa-busaq* and **qate puco(q)-puco(q)* ‘lungs’ (lit. ‘frothy liver’)

PT:	Iduna	<i>ase-buwa-buwa-na</i>	‘lungs’ (<i>ase</i> - ‘liver’, <i>buwa-buwa</i> - ‘?’)
MM:	E Kara	<i>vusə-</i>	‘lungs’ (Schlie & Schlie 1993)
MM:	Teop	<i>vu-vuha</i>	‘lungs’ (<i>vuha</i> ‘breath’)
MM:	Maringe	<i>p^hoco</i>	‘lungs; sponge’
SES:	Sa’a	<i>sae huto-huto</i>	‘lungs’ (<i>sae</i> ‘liver’, <i>huto-huto</i> ‘frothy’)
NCV:	Tamambo	<i>vuso-</i>	‘lungs’
Fij:	Bauan	<i>yate-vuso</i>	‘lungs’ (<i>yate</i> ‘liver’, <i>vuso</i> ‘froth’)
Fij:	Wayan	<i>ate-vuso</i>	‘lungs’ (<i>ate</i> ‘liver’, <i>vuso</i> ‘froth, foam’)

The following items are variations on the same semantic theme:

NNG:	Bukawa	<i>(ŋ)ate gasop</i>	‘lungs’ (<i>ŋate</i> ‘liver’, <i>gasop</i> ‘spittle’)
PT:	Dobu	<i>nua buso-buso</i>	‘lungs’ (<i>nua</i> ‘mind, thought, will, wish’, <i>buso-buso</i> ‘froth, foam’)
Fij:	Bauan	<i>yate-mawa</i>	‘lungs’ (<i>yate</i> - ‘liver’, <i>mawa</i> ‘steam’)

The second element of the second compound reflects **maRaqa(n)* ‘light of weight’, referring to the apparent lightness of the sponge-like material which makes up the lungs.

POc **[qate] maRaqa(n)* ‘lungs’ (**qate* ‘liver’; **maRaqa(n)* ‘light in weight’) (vol.2:214)

PT:	Sudest	<i>ya-maiya-</i>	‘lungs’ (<i>maiya</i> ‘lightweight’)
MM:	Patpatar	<i>kāt ma-maka-n</i>	‘lungs’ (<i>ma-maka</i> - ‘lightweight’)
SES:	Gela	<i>mala-mala-</i>	‘lungs’
NCV:	NE Ambae	<i>ate ma-marae-</i>	‘lung’
Pn:	Tongan	<i>maʔa-maʔa</i>	‘lungs; light (in weight)’
Pn:	Niuean	<i>mā-mā</i>	‘lungs; light in weight’
Pn:	Pukapukan	<i>mā-mā</i>	‘lungs; light in weight’
Pn:	Samoan	<i>mā-mā</i>	‘lungs; light in weight’
Pn:	Mangaia	<i>ate mā-mā</i>	‘lungs’

Pn:	Hawaiian	<i>ake-mā-mā</i>	‘lung’
cf. also:			
Fij:	Rotuman	<i>maʔ-maʔa</i>	‘lungs’ (Polynesian loan)
Pn:	Hawaiian	<i>ake-makani</i>	‘lung’ (lit. ‘wind liver’)

Araki (NCV) uses a similar, albeit non-cognate, metaphor, *mavusa salesale*, literally ‘innards/heart light in weight’ to refer to lungs.

3.7.4 Stomach

POc speakers probably made a terminological distinction between the stomach, i.e. the internal organ that they found when they butchered a pig, and the belly, i.e. a part of the body as viewed from outside. Terms for stomach are presented here, and terms for belly in §3.5.9.

POc **tob^wa* has reflexes meaning ‘stomach’ across all major subgroups other than NNG, MM and Pn. In some languages it also refers to a bag or basket, and this appears to have been its primary meaning,⁴⁶ allowing derivation of the senses ‘bay’ and ‘area of sea enclosed by barrier reef’ (landscape features that depend on some other feature of the ‘bag’ metaphor; vol.2:46) and ‘stomach’, which appears bag-like when an animal is butchered. Reflexes with all these meanings are listed below. The Malakula reflexes under ‘cf. also’ point to a form **tob^wa(k,q)a-*, but we do not yet understand whether such reflexes are conservative or innovatory.

PCP **kete* ‘abdomen’ evidently reflects the same metaphor applied to a different form, as it reflects PROc **kete* ‘basket’ (vol.1:78).

POc **tob^wa-* ‘stomach (internal organ)’ (cf **tob^wa* ‘bag; bay, harbour’)

Adm:	Tenis	<i>tova-</i>	‘belly’
Adm:	Loniu	<i>top</i>	‘basket, string bag’
PT:	Molima	<i>tob^wa</i>	‘cloth bag’
PT:	Muyuw	<i>toub</i>	‘stomach’ (<i>tob^w</i>)
SES:	Gela	<i>toba-</i>	‘belly, stomach’ (within)
SES:	Tolo	<i>toba-</i>	‘abdomen, belly’
SES:	Longgu	<i>ob^wa-</i>	‘stomach, belly’
SES:	Lau	<i>oga-</i>	‘small intestines’
SES:	Kwaio	<i>oga-</i>	‘belly; pith; mind’
SES:	‘Are’are	<i>opa-</i>	‘stomach, belly’
SES:	Sa’a	<i>op^wa-</i>	‘belly, bowels, stomach’
SES:	Kahua	<i>ob^wa-</i>	‘belly’
TM:	Tanibili	<i>tobe-</i>	‘belly’

PNCV **tob^wa* ‘stomach, belly’ (Clark 2009: *tab^wa*)

NCV:	Mota	<i>tob^wa-</i>	‘belly, seat of the affections; condition of pregnancy; basket, pottle’
NCV:	Raga	<i>tob^wai-</i>	‘stomach’
NCV:	NE Ambae	<i>tab^wa(ɲine)</i>	‘belly, stomach’

PSV **na-təpu-* ‘stomach, belly’

SV:	Sye	<i>ne-tpo(lu)</i>	‘stomach, gizzard’

⁴⁶ POc **tob^wa* ‘bag’ should have been included in vol.1, ch. 4, §2.3, but it was omitted there.

SV:	SW Tanna	<i>təpu-</i>	‘stomach, belly’
SV:	Kwamera	<i>təpu-</i>	‘stomach, belly’
Fij:	Bauan	<i>toba</i>	‘bay or gulf’

cf also:

NCV:	Neve’ei	<i>ne-tabəʔa-</i>	‘stomach’
NCV:	Naman	<i>daba(x)a-</i>	‘stomach’
NCV:	Larëvat	<i>tabxa-</i>	‘stomach’
NCV:	Tirax	<i>təbax</i>	‘stomach’

PCP **kete* ‘abdomen; basket’ (from PROc **kete* ‘basket’)

Fij:	Rotuman	<i>ʔefe</i>	‘abdomen, belly; womb’
Fij:	Bauan	<i>kete</i>	‘belly, stomach’
Pn:	Tongan	<i>kete</i>	‘stomach, abdomen’
Pn:	E Futunan	<i>kete</i>	‘basket, stomach’
Pn:	Maori	<i>kete</i>	‘basket’

POc **b^wal(o,a)-* is the most widely reflected term for ‘belly’ in MM and NCV, but in many languages its reflex is used as a relational local noun, ‘inside’ (§3.1.2 and vol.2:239), implying that its main referent was the internal organ. This interpretation is supported by the fact that it sometimes appeared as the first element in compounds referring to ‘intestines’. In South New Ireland languages it is also used in what was perhaps originally a colloquial term ‘carry stomach’ for ‘be pregnant, carry a child’.

POc **b^wal(o,a)-* ‘stomach; hollow space’; (N LOC) ‘inside’

NNG:	Lamogai	<i>bele-</i>	‘belly’
MM:	Notsi	<i>bale-</i>	‘belly’
MM:	Sursurunga	<i>bələ-</i>	‘belly’
		<i>bəl-bələ-</i>	‘intestines’
MM:	Tangga	<i>bala-</i>	‘belly; navel; inside’
MM:	Konomala	<i>bal</i>	‘belly; intestines’
MM:	Lamasong	<i>baia-</i>	‘belly’
		<i>ban(tine)</i>	‘intestines’
MM:	Madak	<i>bele-</i>	‘belly’
		<i>ban(tain)</i>	‘intestines’
MM:	Barok	<i>bala-</i>	‘belly’
MM:	Patpatar	<i>bala-bala-</i>	‘belly; intense feelings of many kinds’
MM:	Minigir	<i>bala</i>	‘belly’
MM:	Tolai	<i>bala-</i>	‘stomach, belly, abdomen, entrails; the intelligent and thinking part of man, the heart, mind’
		<i>bala-ŋāla</i>	‘large intestine’
		<i>bala-iokilik</i>	‘small intestine’
MM:	Label	<i>bala</i>	‘belly’
MM:	Kandas	<i>bala</i>	‘belly’
MM:	Ramoaaina	<i>bala</i>	‘belly’
MM:	Siar	<i>bala</i>	‘belly’

MM:	Nehan	<i>bala</i>	‘belly, intestines’
NCV:	Namakir	<i>b^wele(n)</i>	‘belly’
NCV:	Nguna	<i>na-p^wele</i>	‘stomach, belly, abdomen, waist, genital region’

The principal PPn term for the stomach was **manawa* ‘belly, stomach’, reflecting POc **[ma]ñawa* (v) ‘breathe, rest, be alive’; (N) ‘breath, life, fontanelle’. The history of terms descended from POc **[ma]ñawa* is complex and is discussed with a fuller set of reflexes in §4.5.1. We speculate that the semantic shift that gave rise to the meaning ‘belly, stomach’ may have first followed a path suggested by Blust (ACD): ‘...from the notion “breath; to breathe” there is a link to the “breath soul”, and from this to “soul; inner self, mind, feelings”...’. As the stomach is regarded as the seat of the emotions in some Oceanic cultures, it is only a short step from here to ‘stomach’. Nonetheless, the evidence amassed in ch.9 indicates that **[ma]ñawa* did not occur in POc body-part metaphors denoting emotions, and that the changes that led to the meaning ‘belly, stomach’ occurred long after the break-up of POc. Three non-Polynesian reflexes with a meaning relating to the stomach are listed under ‘cf. also’. We take the Kiribati term to reflect Polynesian influence and the Papuan Tip terms to reflect a localised innovation that happens to be similar to Polynesian.

PAn **LiSawa* ‘breathe, breath’ (ACD)

PMP **[ma]nihawa* ‘breathe; breath’ (Ross 1988, ACD)

POc **[ma]ñawa* (v) ‘breathe, rest, be alive’; (N) ‘breath, life, fontanelle’

PPn **manawa* ‘belly, stomach’ (POLLEX)⁴⁷

Pn:	Tongan	<i>manava</i>	‘belly, stomach; womb; heart, bowels as seat of affections’
Pn:	Niuafu’ou	<i>manava</i>	‘womb’
Pn:	Niuean	<i>manava</i>	‘belly’
Pn:	Samoa	<i>manava</i>	‘belly, abdomen’
Pn:	Anutan	<i>ma(a)nava</i>	‘belly, stomach’
Pn:	E Uvean	<i>manava</i>	‘belly, stomach’
Pn:	Tuvalu	<i>manava</i>	‘belly, seat of the emotions, entrails’
Pn:	E Futunan	<i>manava</i>	‘belly’
Pn:	W Futunan	<i>manava</i>	‘belly’
Pn:	Rennellese	<i>manaba</i>	‘abdomen, navel, navel-cord; centre of emotions’
Pn:	Pileni	<i>manava</i>	‘stomach’
Pn:	Luangiua	<i>manava</i>	‘belly, seat of the emotions, entrails’
Pn:	Pukapukan	<i>manava</i>	‘abdomen, belly, stomach; heart, seat of emotions’
Pn:	Sikaiana	<i>manava</i>	‘belly’
Pn:	Tikopia	<i>manava</i>	‘belly, stomach; bowels; general location of womb; seat of thought and emotion’
Pn:	Tokelauan	<i>manava</i>	‘belly, abdomen’
Pn:	Takuu	<i>manava</i>	‘belly, seat of the emotions, entrails’
Pn:	Tahitian	<i>manava</i>	‘belly’

⁴⁷ Cf. PPn **mānawa* ‘breathe; breath’ (§3.4.6, §4.5.1).

Pn:	Mangarevan	<i>manava</i>	‘innards’
Pn:	Tuamotuan	<i>manava</i>	‘stomach’
Pn:	Māori	<i>manawa</i>	‘belly, bowels, heart; anterior fontanel; mind, spirit; affections, feelings, disposition’
		<i>manawa-nui</i>	‘stout-hearted’
		<i>manawa-kino</i>	‘apprehensive’
Pn:	Rapanui	<i>manaba</i>	‘abdomen, belly, stomach’
cf. also:			
PT:	Wedau	<i>manawa-</i>	‘belly, abdomen’
PT:	Gapapaiwa	<i>manawa-</i>	‘stomach’
Mic:	Kiribati	<i>te-manawa-</i>	‘pit of the stomach’

A similar semantic shift apparently derived PPn **qalo* ‘belly’ from PCP **qalo* ‘soul’. Note that this etymon is distinct from POc **qarop* ‘face, front’ (§3.4.7).

PCP **qalo* ‘spirit, soul, insides’

Fij:	Bauan	<i>yalo</i>	‘spirit, soul’
Fij:	Wayan	<i>alo</i>	‘insides, inner part of body; heart, soul’

PPn **qalo* ‘belly, bowels; front, soft side of a thing’ (cf. *tuqa* ‘back, outer side’)

Pn:	Niuean	<i>alo-alo</i>	‘belly, bowels’
Pn:	Tongan	<i>ʔalo</i>	‘belly (of fish)’
Pn:	E Uvean	<i>ʔalo</i>	‘stomach (of chief)’
Pn:	Rennellese	<i>ʔago</i>	‘front; front of the human chest; interior’
Pn:	Samoaan	<i>alo</i>	‘belly (of fish or chief)’
Pn:	Tikopia	<i>aro, aro-aro</i>	‘belly, stomach, womb; interior’
Pn:	Maori	<i>aro</i>	‘bowels’
Pn:	Anutan	<i>aro-aro</i>	‘belly, bowels’

3.7.5 Intestines

A number of reflexes of the terms reconstructed for belly or stomach in §3.7.4 are glossed ‘intestines’ or ‘guts’. In some instances it is obvious that the term so glossed is a compound that includes a word for belly or stomach, but others may be the result of inadequate data collection. The same is true of terms in this section. It is not easy to identify the internal organs unless one has a butchered animal to refer to.

The most widely reflected POc etymon for intestines is **tinaqe*, derived from a PAn nominalisation formed by infixing **<in>* into PAn **Caqi* ‘faeces’.⁴⁸ Its reflexes have become relational local nouns in a few languages (§3.1.2 and vol.2:239).

PAn **Cinaqi* ‘guts’ (Blust 1999a)

POc **tinaqe* ‘intestines’ (vol.2:239)

Adm:	Mussau	<i>tine-</i>	‘intestines’
Adm:	Drehet	<i>kxine-</i>	‘inner part, inside’

⁴⁸ If **<in>* was a nominaliser, then **Caqi* would also be expected to have served as a verb (‘defecate’), but there is no evidence of this.

Adm:	Nyindou	<i>drine-</i>	‘intestine, stomach, guts, belly’
NNG:	Takia	<i>tijae-</i>	‘intestines’
NNG:	Manam	<i>tinae</i>	‘intestines’
NNG:	Bam	<i>tinai(u)</i>	‘intestines’
NNG:	Kairiru	<i>tinake(-)</i>	‘intestines’
NNG:	Avau	<i>tanah</i>	‘intestines’
PT:	Dawawa	<i>tinaye-</i>	‘intestines’
PT:	Kilivila	<i>sine(u)</i>	‘intestine, bowels’
PT:	Sinaugoro	<i>sinaye-</i>	‘stomach, intestines’
PT:	Mekeo	<i>ine-</i>	‘bowels’
PT:	Saliba	<i>sinae-</i>	‘bowels’
MM:	Lavongai	<i>nai-</i>	‘intestines’
MM:	Notsi	<i>tini-</i>	‘intestines’
MM:	Tabar	<i>tinai-</i>	‘intestines’
MM:	Lihir	<i>tine-</i>	‘intestines; belly’
MM:	Lamasong	<i>(ban)tine-</i>	‘intestines’
MM:	Madak	<i>(ban)tina-</i>	‘intestines’
SES:	W G’canal	<i>tinae-</i>	‘guts’
SES:	Talise	<i>tinae-</i>	‘guts’
SES:	Ghari	<i>tinae-</i>	‘bowels’
NCV:	Namakir	<i>tina?</i>	‘intestines’
NCV:	Mota	<i>tina(i)-</i>	‘entrails, bowels; middle’
NCV:	Tamambo	<i>tine-</i>	‘intestines, bowels’
SV:	Lenakel	<i>nə-sjā-</i>	‘intestines’
SV:	Kwamera	<i>(nan)inha-</i>	‘intestines’

Blust (ACD) reconstructs PWMP **isaw* and suggests that it may have referred exclusively to animal intestines. The Oceanic evidence suggests a more general gloss ‘innards, guts’ for POC **iso-*. Some of its Polynesian reflexes include the senses ‘umbilical cord’ and ‘pith’, suggesting semantic contamination by the formally somewhat similar **puso-* ‘navel, umbilical cord’ (§3.5.10.1) and/or POC **quto-* ‘brain, pith, marrow’ (vol.3:374–375).

PMP **isaw* ‘intestines’ (ACD: PWMP)

POC **iso-* ‘innards, guts’

Adm:	Drehet	<i>isi-</i>	‘insides, guts, faeces’ (<i>o > i</i> assimilation)
NNG:	Sio	<i>isi-</i>	‘gall bladder’ (<i>o > i</i> assimilation)
Fij:	Wayan	<i>iso</i>	‘innards, esp. gonads of gastropods’

PPn **[i,u]so* ‘pith, core; umbilical cord’ (POLLEX)

Pn:	Niuean	<i>uho</i>	‘core, centre’
Pn:	Tongan	<i>uho</i>	‘pith, navel cord’
Pn:	Rennellese	<i>uso</i>	‘heart, seat of affections, centre’
Pn:	Samoa	<i>uso</i>	‘pith, umbilical cord’
Pn:	Tikopia	<i>iso</i>	‘spongy interior of sprouting coconut; umbilical cord’
Pn:	Rarotongan	<i>i?o</i>	‘core, marrow; umbilical cord’

Pn:	Tahitian	<i>iho</i>	‘essence; umbilical cord’ (obsolete).
Pn:	Maori	<i>iho</i>	‘pith; umbilical cord’
Pn:	Tuamotuan	<i>iho</i>	‘kernel, pith, core, heart, inside; umbilical cord’
Pn:	Hawaiian	<i>iho</i>	‘core, pith’
Pn:	Tuamotuan	<i>iho</i>	‘kernel, pith, core, heart, inside, umbilical cord’

3.7.6 Liver

The liver was evidently regarded by Proto Oceanic speakers as the centre of one’s being, the place in which feelings, emotions, desires, understanding, and knowledge were located (see the discussion in §9.2.1 of terms for emotions that refer to the liver). In terms of physical body parts, although POc **qate* evidently refers primarily to ‘liver’, its meaning is frequently broadened in daughter languages to include other internal organs: ‘heart’, ‘chest’ and, less commonly, ‘lungs’ and ‘spleen’ (§3.7.1).

PAn **qaCay* ‘liver’ (ACD)

PMP **qatay* ‘liver; seat of the emotions, inner self: core, mind, will, desire, feeling, intelligence, understanding; to want or wish; hollow of the palm of the hand or sole of the foot’

POc **qate* ‘liver; seat of the emotions’ (ACD)

Adm:	Mussau	<i>ate(a)-</i>	‘liver’
Adm:	Aua	<i>aʔe-</i>	‘heart, liver’
Adm:	Seimat	<i>ate-</i>	‘liver’
Adm:	Penchal	<i>kare-</i>	‘heart’
Adm:	Lou	<i>karɛ</i>	‘liver’
Adm:	Likum	<i>ate-</i>	‘heart’
Adm:	Bipi	<i>ate-</i>	‘heart’
Adm:	Loniū	<i>ete-</i>	‘liver’
NNG:	Kove	<i>ate-ate-</i>	‘liver’
NNG:	Gitua	<i>ate-</i>	‘liver; chest’
NNG:	Mangap	<i>kete-</i>	‘liver; chest; place of feelings, conscience’
NNG:	Gedaged	<i>ate-</i>	‘heart (as will), the centre of one’s being; loyalty; surface, plane, area, breast, compound, floor’
		<i>nie-n ate-n</i>	‘the sole of his foot’
		<i>nima-n ate-n</i>	‘the palm of his hand’
NNG:	Numbami	<i>ate-</i>	‘liver’
NNG:	Kairiru	<i>ate-</i>	‘heart’
NNG:	Tami	<i>kat</i>	‘liver’
		<i>aka-kat</i>	‘heart’
NNG:	Kaiwa	<i>ate-</i>	‘heart’
NNG:	Mapos-Buang	<i>ate-</i>	‘liver’
PT:	Dobu	<i>ʔate-</i>	‘liver’
PT:	Gapapaiwa	<i>kate-kate-</i>	‘liver’
PT:	Misima	<i>ate-</i>	‘liver’
PT:	Kilivila	<i>kate-</i>	‘lung’

PT:	Mekeo	<i>aʔe-</i>	‘liver’
PT:	Motu	<i>ase-</i>	‘liver’
MM:	Vitu	<i>yate-</i>	‘frontside’
MM:	Bali	<i>yate-</i>	‘liver’
MM:	Bola	<i>yate-</i>	‘liver’
MM:	Meramera	<i>wate-</i>	‘liver’
MM:	Nakanai	<i>hate-</i>	‘liver or solar plexus (seat of emotion); internal organs in general; sometimes spleen’
MM:	Patpatar	<i>kāti-</i>	‘liver, centre of being’
MM:	Tigak	<i>iat</i>	‘liver’
MM:	W Kara	<i>ɲati-</i>	‘liver’
MM:	Nalik	<i>iat</i>	‘liver’
MM:	Notsi	<i>iet</i>	‘liver’
MM:	Lihir	<i>iet</i>	‘liver’ (<i>yate</i> ‘chest’)
MM:	Tangga	<i>ete-</i>	‘liver or solar plexus, the seat of the emotions’
MM:	Mono Alu	<i>ate-</i>	‘chest, breast; liver’
SES:	Bugotu	<i>ate-</i>	‘liver’
SES:	Gela	<i>ate-</i>	‘liver’
SES:	Lau	<i>sae-</i>	‘the core of a thing; carcass skinned, feathers removed; meat of an egg; peeled yam or orange; kernel of nut; think, suppose’
		<i>sae(fou)</i>	‘liver’ (<i>fou</i> ‘stone’)
SES:	Kwaio	<i>lae-, lae(fou)</i>	‘liver’
SES:	Sa’a	<i>sae-</i>	‘heart, mind, liver, lungs, chest’
SES:	’Are’are	<i>rae-</i>	‘stomach, heart, liver, lungs, womb, mind, seat of affections, intention, will’
NCV:	Raga	<i>ate-</i>	‘liver’
NCV:	NE Ambae	<i>ate-</i>	‘liver’
NCal:	Iaai	<i>ak, aki-</i>	‘liver’
NCal:	Nengone	<i>(gu)at</i>	‘liver’
Mic:	Marshallese	<i>ac</i>	‘liver; spleen; seat of bravery’
Mic:	Carolinian	<i>æse-</i>	‘liver’
Mic:	Woleaian	<i>yase-</i>	‘liver’
Fij:	Rotuman	<i>āfe</i>	‘liver’
Fij:	Bauan	<i>yate-</i>	‘the liver, considered as the seat of cowardice and courage, hence <i>yate levu</i> ‘coward’ (‘big liver’), <i>yate dei</i> , <i>yate lialia</i> ‘courageous’ (‘firm, unwavering/mad liver, foolish liver’)
Pn:	Tongan	<i>ʔate</i>	‘liver’
Pn:	Niuean	<i>ate, ate-fua</i>	‘liver’ (<i>fua</i> ‘fruit’)
Pn:	Samoa	<i>ate</i>	‘liver’
Pn:	Rennellese	<i>ʔate</i>	‘liver’
Pn:	Rarotongan	<i>ate</i>	‘liver of man or animals or birds’
Pn:	Tikopia	<i>ate</i>	‘liver, in man a seat of emotions in traditional belief’

Pn:	Maori	<i>ate</i>	‘liver; the seat of the affections; heart; emotion; spirit, high feeling’
		<i>ate-ate</i>	‘bosom’
Pn:	Hawaiian	<i>ake</i>	‘liver; to desire, yearn (the emotions and intelligence were thought to be centered within the body)’

3.7.7 Gall bladder

Blust (ACD) reconstructs POc **qasu* ‘gall bladder’, but notes that it almost certainly does not reflect PAn **qapeju* ‘gall, gall bladder’.⁴⁹ Its reconstruction here as **qasun* with final **-n* (reflected in Lukep and Nehan) confirms that he is correct.

POc **qasun* ‘gall, gall bladder, octopus sepia’ (ACD)

Adm:	Mussau	<i>kasu-</i>	‘gall, gall bladder’
Adm:	Wuvulu	<i>aku-</i>	‘gall, gall bladder’
Adm:	Aua	<i>aru-</i>	‘gall, gall bladder’
Adm:	Seimat	<i>axu-</i>	‘gall, gall bladder’
Adm:	Penchal	<i>kasu</i>	‘gall, gall bladder’
Adm:	Bipi	<i>asu-</i>	‘gall, gall bladder’
NNG:	Kove	<i>asu-</i>	‘gall bladder’
NNG:	Bariai	<i>asu-</i>	‘gall, gall bladder’
NNG:	Lukep	<i>kasunu-</i>	‘gall bladder’
NNG:	Mangap	<i>kusu-</i>	‘gall bladder’
PT:	Motu	<i>audu-</i>	‘gall’
MM:	E Kara	<i>yəs</i>	‘gall bladder’
MM:	Nehan	<i>kasunu-</i>	‘gall bladder’
SES:	Gela	<i>ahu-</i>	‘gall’
SES:	Ghari	<i>asu-</i>	‘bile’
SES:	Longgu	<i>zasua-</i>	‘gall bladder’
SES:	Lau	<i>sasu-</i>	‘gall bladder; ink of cuttlefish’
Mic:	Kiribati	<i>ari-</i>	‘gall, gall bladder; bitter; bitterness’
Mic:	Marshallese	<i>at</i>	‘gall bladder; seat of brave emotions; seat of ambition; bile’
Mic:	Puluwatese	<i>yæ̃t</i>	‘spleen, gall bladder; formerly the human spleen was cooked and used to poison a foe’
Fij:	Rotuman	<i>hasu</i>	‘gall bladder’ (for † <i>asu-</i>)
Pn:	Tongan	<i>ʔahu</i>	‘gall, gall bladder’
Pn:	Niuean	<i>ahu</i>	‘spleen’
Pn:	Samoan	<i>au</i>	‘liver, (esp. of pig)’
		<i>au(-ʔona)</i>	‘gall-bladder; bile’ (ʔona ‘poisonous, bitter’)

⁴⁹He writes, ‘Since PMP **qalejaw* ‘day’ apparently has become POc **qajo* ..., it is conceivable that a parallel change in PAn **qapeju* ‘gall, gall bladder’ could have given rise to the forms cited here. ... [T]his hypothesis fails to explain why languages such as Bipi, Lindrou, Likum, Papitalai, Pak, Penchal, and Nauna, which distinguish PAn/POc **s* from **j*, point to POc **s* as the medial consonant in this form. PAn **qapeju* and POc **qasu* thus appear to have no historical connection.’

Pn:	Rennellese	<i>ʔau</i>	‘bile, gall bladder; bitter meat, as of an <i>ʔagigi</i> turban shell
Pn:	Rarotongan	<i>au</i>	‘the gall of animals’
Pn:	Tikopia	<i>āu</i>	‘gall bladder, of man, animals and fish’
Pn:	Maori	<i>au</i>	‘gall’
Pn:	Hawaiian	<i>au</i>	‘gall, bile; gall bladder’

3.7.8 Spleen

The spleen is a significant organ in many Oceanic communities because malaria may lead to its enlargement, leading on occasion to its fatal rupture. Some languages have a word with a meaning relating to an enlarged spleen, e.g. Titan (Adm) *map* ‘condition of having an enlarged spleen’ (N), Iduna (PT) *kʷada* ‘enlarged spleen’, Gela (SES) *bila* ‘enlarged spleen’.

Although not widely attested in the data, there is sufficient representation across subgroups to attribute **bila-* ‘spleen’ to POC.

POC **bila-* ‘spleen’

NNG:	Lukep	<i>wila-</i>	‘spleen’
MM:	Teop	<i>bina-</i>	‘spleen’
SES:	Gela	<i>bila-</i>	‘big belly, enlarged spleen’

Two metaphoric expressions for ‘spleen’ have been reconstructed for PPn: **qate-loa* (‘long liver’) and **qate-pili* (‘sticky liver’). Bauan Fijian *yate balavu* echoes the former, with a non-cognate term for ‘long’.

PPn **qate-loa* ‘spleen (PPn **qate* ‘liver’, **loa* ‘long’) (POLLEX)

Pn:	Niuean	<i>ate-loa</i>	‘spleen’
Pn;	Tahitian	<i>ate-roa</i>	‘milt or spleen’
Pn:	Hawaiian	<i>ake-loa</i>	‘spleen’

PPn **qate-pili* ‘spleen’ (PPn **qate* ‘liver’, **pili* ‘sticky, adhere to’) (POLLEX)

Pn:	Tongan	<i>ʔate-pili</i>	‘spleen’
Pn:	Niuean	<i>ate-pili</i>	‘spleen’
Pn:	E Uvean	<i>ate-pili</i>	‘kidney’
Pn:	Samoaan	<i>ate-pili</i>	‘spleen’
Pn:	Tokelauan	<i>ate-pili</i>	‘spleen’

3.7.9 Kidney

A term for ‘kidney’ cannot be reconstructed with any certainty. In many Oceanic languages the term for kidney is a metaphor that makes reference to an object that is perceived as kidney-shaped, typically a fruit or nut, or is preceded by a classifier for such objects. For instance, reflexes of POC **puaq* ‘fruit’ occur in Adm, SES, NCV and Pn terms.

The most frequent metaphor equates a kidney with a Tahitian chestnut (*Inocarpus fagifer*), and this points to a possible reconstruction. One POC term for the Tahitian chestnut was **ipi* (vol.3:318) and a very few languages reflect this or a reduplicated form **ip(i)-ipi* in the sense of kidney.

POc **ip(i)-ipi* ‘kidney’ (?)

NNG:	Lukep (Pono)	<i>ipip</i>	‘Tahitian chestnut; kidney’
NNG:	Mangap	<i>ipip</i>	‘Tahitian chestnut; kidney’
Fij:	Rotuman	<i>ififi</i>	‘kidneys; testicles; small bunch or cluster, as of fruit’
Fij:	Bauan	<i>ivi</i>	‘kidney; Tahitian chestnut, <i>Inocarpus</i> ’
Pn:	Niuean	<i>fua-ifi</i>	‘kidney’ (lit. ‘fruit of Tahitian chestnut’)
Pn:	E Futunan	<i>ifi-ifi</i>	‘kidney’

There are also several other terms arising from the same metaphor, reflecting POc **mab^we* ‘Tahitian chestnut’ (vol.3:319).⁵⁰

SES:	Arosi	<i>kora i mab^we</i>	‘kidneys’ (‘fruit of Tahitian chestnut’)
NCV:	Mota	<i>wo m^wake-m^wake</i>	‘kidney (woai ‘globular object, fruit, nut’, <i>m^wake</i> ‘Tahitian chestnut’)
NCV:	Raga	<i>m^wab^we</i>	‘kidney’
Pn:	Rapanui	<i>mapē</i>	‘kidney’
Pn:	Tahitian	<i>māpē</i>	‘Tahitian chestnut; kidney’

A Tolai (MM) term is *ela* ‘chestnut tree; the kidneys’. In this instance it is not clear which was the original meaning.

Reflexes of POc **giri-giri* ‘coral, coral rubble’ (vol.2:64) have in places varied their meaning to ‘pebble’ and thence to pebble-shaped objects like kidneys (Paul Geraghty, pers. comm.). Thus we find:

SES:	Lau	<i>ligi-ligi</i>	‘kidneys’ (metathesis)
Fij:	Wayan	<i>(mō)gili-gili</i>	‘kidney’
Fij:	Nadrogā	<i>gili-gili</i>	‘kidney’

Examples embodying other metaphors for the kidneys based on shape are listed below. Where known the reconstructed POc antecedent of each element is given.

Adm:	Seimat	<i>hua-i nonu</i>	‘kidney’ (* <i>puaq</i> ‘fruit’, * <i>ñoñu</i> ‘Indian mulberry’, vol.3:408)
PT:	Motu	<i>nadi-nadi</i>	‘kidneys; small stone, seed’ (<i>nadi</i> ‘stone’)
MM:	Tolai	<i>likā-</i>	‘kidneys; slingstone’
MM:	Teop	<i>pauna</i>	‘kidney; banana’ (* <i>baqun</i> ‘banana cultivar’, vol. 3:279)
MM:	Kia	<i>subuna</i>	‘kidney’ (also ‘seed, tablet’)
SES:	Gela	<i>vua ni kola</i>	‘kidneys’ (* <i>puaq</i> ‘fruit’, * <i>koRa</i> ‘wild mango’, vol.3:341)
SES:	Tolo	<i>piu(na)</i>	‘kidney; seed’
SES:	Arosi	<i>hua i ʔai</i>	‘kidneys’ (* <i>puaq</i> ‘fruit’, * <i>kayu</i> ‘tree’, vol.3:71)
SES:	Sa’a	<i>hoi daʔo</i>	‘kidney’ (* <i>puaq</i> ‘fruit’, <i>daʔo</i> ‘tree, wood’)
Pn:	Samoan	<i>fatu-maʔa</i>	‘kidney’ (* <i>patu</i> ‘stone’, vol.2:62, <i>maʔa</i> ‘stone’)
		<i>fatu gaʔo</i>	‘kidney’ (<i>gaʔo</i> ‘fat, lard’)

⁵⁰ In many languages of Vanuatu, evident reflexes of **mab^we* mean ‘liver’, resulting in the reconstruction of PNCV **m^wab^we* ‘liver’ (Clark 2009) and PSV **mab^wV-* ‘liver’ (Lynch 2001).

3.7.10 Bladder

There is ample evidence for a POC compound meaning ‘bladder’ consisting of a first element that meant something like ‘bag’, ‘basket’ (in several languages a reflex of **taŋa* ‘small bag’, vol.1:79) or similar round container and a second element *mimi*[*q,s*] ‘urine’ (§4.4.7), sometimes joined by a linker POC **qi* or **ni*.

Adm:	Titan	<i>ñam^wanu-mim</i>	‘bladder’ (<i>ñam^wanun</i> ‘container’)
MM:	Roviana	<i>koro-mimi-</i>	‘bladder’ (<i>koro-koro</i> ‘lungs’)
SES:	Gela	<i>kei ni mimi-</i>	‘bladder’ (<i>kei</i> ‘round basket for food’)
SES:	Sa’a	<i>hau mimi-</i>	‘bladder’ (<i>hau</i> ‘classifier for compact round objects like stones??’)
NCV:	NE Ambae	<i>taŋa mere-</i>	‘bladder’ (<i>mere-</i> ‘urine’)
Fij:	Wayan	<i>kato-ni-mī</i>	‘bladder’ (<i>kato</i> ‘carrying container’)
Pn:	Tongan	<i>taŋa-mimi</i>	‘bladder’
Pn:	Samoa	<i>taŋa-a-mimi</i>	‘bladder’
Pn:	Hawaiian	<i>ʔōpū-mimi</i>	‘bladder’ (<i>ʔōpū</i> ‘belly’)

POC **p(i,u)pu-* is reflected in Meso-Melanesian and Southern Oceanic.

POC **p(i,u)pu-* ‘bladder’

MM:	Nakanai	<i>pupu-</i>	‘bladder’
MM:	Halia	<i>pipuhu-</i>	‘bladder’
MM:	Teop	<i>vivi-</i>	‘bladder’
MM:	Tinuput	<i>vi-</i>	‘bladder’
NCV:	Neve’ei	<i>nu-vuvu-</i>	‘bladder’
NCV:	Paamese	<i>(hei)hūhu-</i>	‘bladder’
NCal:	Pije	<i>p^hūp</i>	‘bladder’
NCal:	Jawe	<i>p^hūp</i>	‘bladder’

Reflexes of PWOC **p^w(a,o)ti-* ‘bladder’ are well distributed across Western Oceanic languages.

PWOC **p^w(a,o)ti-* ‘bladder’

NNG:	Mangap	<i>pot</i>	‘bladder’
NNG:	Lukep	<i>pot</i>	‘bladder’
PT:	Are	<i>poti-</i>	‘bladder’
PT:	Tawala	<i>posi-</i>	‘bladder’ (-s- for †-h-)
PT:	Motu	<i>posi-</i>	‘bladder’
PT:	Wedau	<i>poti-</i>	‘bladder’ (for †poi)
MM:	Vitu	<i>pati-</i>	‘bladder’
MM:	Tabar	<i>puti-</i>	‘bladder’
MM:	Tolai	<i>puta(vāna)</i>	‘bladder’

3.7.11 Uterus, placenta and amniotic fluid

No POc term is reconstructable for the uterus, but it is noteworthy that in scattered languages the term for ‘stomach’ is used, sometimes with a qualifier, e.g. ‘stomach of child’.

There is, however, a term for the placenta, POc **tapuni-*. The loss of *-n-* or *-ni-* in a majority of reflexes may reflect reanalysis of *-ni* as a verbal transitive suffix. Robert Blust (pers. comm.) suggests that the practice of burying the placenta described in the Kwaio gloss prepares the way for the extension of meaning to the transitive verb ‘bury, conceal’ reflected in Arosi, leading to the resultant deletion of transitivising *-ni* from the noun form.

PMP **tambuni* ‘afterbirth, placenta’ (ACD)

POc **tapuni-* ‘placenta’

SES:	Gela	<i>tavu-</i>	‘placenta’
SES:	Longgu	<i>tavu-</i>	‘placenta’
SES:	Kwaio	<i>afuni-</i>	‘placenta; in pagan childbirth must be buried under mother’s bed in childbirth hut to avoid supernatural danger to her’
SES:	Arosi	<i>ʔahui</i> <i>ahuni-</i>	‘placenta’ ⁵¹ (v) ‘bury, cover, conceal, hide’
SES:	Sa’a	<i>ahui-</i>	‘placenta’
NCV:	Tamambo	<i>tavu-</i>	‘placenta’
NCal:	Nêlêmwa	<i>jap</i>	‘placenta’
NCal:	Iaai	<i>koü</i>	‘placenta’
Mic:	Woleaian	<i>sōt-</i>	‘placenta’
Mic:	Mokilese	<i>cou-</i>	‘placenta’

PPn **fanua*, reflecting PMP **banua* and POc **panua* ‘inhabited area or territory’ (vol.1:62), referred also to the placenta.

PPn **fanua* ‘placenta’

Pn:	Tongan	<i>fonua</i>	‘placenta’
Pn:	Samoan	<i>fanua</i>	‘afterbirth’
Pn:	Pukapukan	<i>wenua</i>	‘placenta’
Pn:	Rennellese	<i>henua</i>	‘afterbirth’
Pn:	Marquesan	<i>henua</i>	‘afterbirth’
Pn:	K’marangi	<i>henua</i>	‘afterbirth’
Pn:	Maori	<i>whenua</i>	‘afterbirth’
Pn:	Rapanui	<i>henua</i>	‘womb’

Terms for amniotic fluid are few and far between in the data sources, but those that occur have to do with ‘water’. Gela *mbeimbeti* ‘amniotic fluid’ is a reduplicated form of *mbeti* ‘fresh water’. The only reconstruction for ‘amniotic fluid’ is PPn **lanu*, which is a reflex of POc **[dr,r]anum* ‘fresh water’ and also meant ‘bathe or wash in fresh water’ (POLLEX).

⁵¹ The unetymological ʔ- here perhaps results from a transcription error.

PAn **daLum* ‘water, potable, drinking, fresh’ (Blust 1999a)

POc **[dr,r]anum* ‘fresh water’ (vol.2:58)

PPn **lanu* (1) ‘bathe or wash in fresh water’; (2) ‘amniotic fluid’

Pn:	Niuean	<i>lanu</i>	‘clear liquid’
		(<i>inu</i>) <i>lanu</i>	‘suffocate through drinking amniotic fluid’ (<i>inu</i> ‘drink’)
Pn:	E Uvean	<i>lanu</i>	‘amniotic fluid’
Pn:	Pukapukan	<i>lanu</i>	‘amniotic fluid’
Pn:	Samoaan	<i>lanu</i>	‘amniotic fluid’
Pn:	Tuvalu	<i>lanu</i>	‘amniotic fluid’
Pn:	Takuu	<i>nalu</i>	‘amniotic fluid’ (metathesis)

3.8 Bodily emissions

This topic of this section is substances that are emitted by the body (as opposed to those of which the body is composed; §3.3). They are listed in the same order as the body parts in §§3.4–3.5 with which their emission is associated, that is, roughly in order from the top of the trunk to the bottom. Verbs associated with bodily emissions are presented in §4.4.

The POc term for pus is presented in §5.3.2.2 in association with terms that have to do with health and sickness. A multiplicity of terms for the action of spitting and for spittle are included in §4.4.3. They are there rather than here because the terms for saliva/spittle appear to be derived from verbs of spitting. However, a possible compound for ‘saliva’ is mentioned in §3.8.4. Similarly the POc term for ‘sweat’ (both verb and noun) was originally a verb (**maqono*) and is also to be found in §4.4.6. Terms for ‘urine’ and ‘urinate’ also employ the same roots and are located in §4.4.7.

3.8.1 Tears

Terms for ‘tears’ are typically compounds, as in PEOc **suRu qi mata* ‘tears’, literally ‘fluid of eye’ or PROc **wai(R) ni mata*, literally ‘water of eye’, in which the first item denotes a fluid⁵² and the second reflects POc **mata* ‘eye’ (§3.4.9.1). Because the ‘fluid’ item has been replaced at various times, some members of the cognate sets below may be outcomes of independent replacement. Thus PPn **lo-qi-mata* ‘tears’ is well attested, suggesting that Hawaiian *wai maka* and Marquesan *vai-mata* may reflect local innovations independent of PROc **wai(R) ni mata*. (On **qi*, see §3.1.1, Hooper 1985, Ross 1998a.)

PEOc **suRu qi mata* ‘tears’ (POc **suruq* ‘juice, fluid’)

SES: Lau *sulu i mā* ‘tears’ (*sulu* ‘liquid, oil, juice, sap’)

PNCV **suRu(i) mata* ‘tears’ (Clark 2009)

NCV:	Nume	<i>sur-mata</i>	‘tears’
NCV:	Mota	<i>sur-mata</i>	‘tears’
NCV:	Uripiv	<i>sue-n-mete-k</i>	‘tears’

⁵² POc **suRuq* ‘sap, soup, drinkable liquid derived from plants, fruits or trees’ (vol.3:369). POc **waiR* ‘water’ (vol.2:57).

NCV: Paamese *sii-meto* ‘tears’

PROc **wai(R) ni mata* ‘tears’ (POc **waiR* ‘water’)

NCV:	NE Ambae	<i>wai ni mata</i>	‘tears’
Fij:	Wayan	<i>wai ni mata</i>	‘tears’
Fij:	Bauan	<i>wai ni mata</i>	‘tears’
Pn:	Hawaiian	<i>wai maka</i>	‘tears’
Pn:	Marquesan	<i>vai-mata</i>	‘tears’

PPn **lo-qi-mata* ‘tears’ (POLLEX) (*lo-* perhaps from PPn **lolo* ‘coconut oil’ or from **lolo* (v) ‘flood, submerge’)

Pn:	Tongan	<i>lo-ʔ-i--mata</i>	‘tear(s)’
Pn:	Samoaan	<i>lo-i-mata</i>	‘a tear’
Pn:	E Futunan	<i>lo-ʔ-i--mata</i>	‘tears’
Pn:	E Uvean	<i>lo-i-mata</i>	‘a tear’
Pn:	K’marangi	<i>ro-i-mata</i>	‘a tear’
Pn:	Tikopia	<i>ro-i-mata</i>	‘tear(s)’
Pn:	Pukapukan	<i>lo-i-mata</i>	‘a tear’
Pn:	Rennellese	<i>go-ʔi--mata</i>	‘a tear’
Pn:	Sikaiana	<i>lo-i-mata</i>	‘a tear’
Pn:	Tahitian	<i>ro-i-mata</i>	‘a tear’
Pn:	Tuamotuan	<i>ro-i-mata</i>	‘tear(s)’
Pn:	Māori	<i>ro-i-mata</i>	‘tear(s)’

The Roviana and Bugotu phrases below reflect a semantically similar compound.

MM:	Roviana	<i>kolo mata</i>	‘tears’ (<i>kolo</i> ‘water, liquid’)
SES:	Bugotu	<i>kođo i mata</i>	‘tears’ (<i>kođo</i> ‘oil, liquid’)

The terms below represent somewhat different phrasal strategies for expressing ‘tears’. Bileki *ma-sali* apparently reflects a stative form of POc **saliR* ‘to flow’ (vol.2:94), where *ma-* is the stative prefix (*ma-* does not reflect **mata-* ‘eye’).

PT:	Motu	<i>iruru-mata</i>	‘tears’ (<i>iruru</i> ‘track left by movement of s.t.’)
MM:	Bileki	<i>ma-sali</i>	‘tear drops’
MM:	Babatana	<i>sosopoe-mate</i>	‘tears’ (<i>sosopoe</i> ‘to drip, a drop’)

3.8.2 Earwax and deafness

The association between earwax and deafness in the glosses of POc **tul(i,e)* below is an obvious one, but the cognate set raises the question, What did POc **tul(i,e)* mean? ‘Earwax’ or ‘deaf’ or both?⁵³ A key to the answer lies in the fact that ‘he is deaf’ is usually expressed in the Oceanic languages of New Guinea and the Bismarcks as ‘his ears are deaf/blocked/closed’, i.e. by an expression in which ‘ears’ is the subject. In Dobu and Muyuw, at least, reflexes of

⁵³ Blust (ACD) asks the same question with regard to PMP **tuli*. Because there are other terms for ‘deaf’ but not for ‘earwax’, he concludes that it meant the latter, and that an extension to ‘deaf’ has happened more than once at various times and places.

**tul(i,e)* are also the predicate of such a construction, i.e. ‘his ears are earwaxed’. Thus if **tul(i,e)* was used as a noun, it meant ‘earwax’ (and perhaps ‘deafness’); if it was used as a verb with ‘ears’ as subject, then it meant ‘be deaf’. In PPn the sense ‘deaf’ was retained and ‘earwax’ became **taqe-tuli* ‘excrement of deafness’. Samoan has a compound verb *faʔa-taliʔa-tuli* ‘turn a deaf ear’ [lit. ‘cause ear deaf’].

Another term for ‘deaf’ was POc **pʷapo* (§5.3.14), but this appears to have meant ‘deaf and dumb’.

PMP **tuli*, **tilu* ‘earwax’ (ACD)

POc **tul(i,e)* ‘earwax; be deaf’ (ACD: **tule* ‘earwax’, **tuli* ‘deaf’)⁵⁴

NNG:	Mangap	<i>tīli</i>	‘earwax’
PT:	Dobu	(<i>tena</i>) <i>tui</i>	‘deafness’ [ear be.deaf]
PT:	Kilivila	<i>tuli</i>	‘deaf, crazy’
PT:	Muyuw	<i>tuy</i>	‘deaf (of ears)’
PT:	Misima	<i>tui</i>	‘deaf’
MM:	Nakanai	<i>tule</i>	‘earwax’
NCV:	Mota	<i>tul</i>	‘earwax’
NCV:	NE Ambae	<i>dule</i>	‘earwax’
NCV:	Paamese	<i>a-ruli</i>	‘earwax’
NCV:	Nakanamanga	<i>tūle</i>	‘earwax’
Fij:	Bauan	<i>dule</i>	‘earwax’
Fij:	Wayan	<i>tule</i>	‘earwax’
Fij:	Rotuman	<i>fuli</i>	‘be deaf’

PPn **tuli* ‘deaf’, **taqe-tuli* ‘earwax’ (POLLEX) (**taqe-* ‘excrement’; §3.8.6)

Pn:	Tongan	<i>tuli</i>	‘deaf’
		<i>teʔe-tuli</i>	‘wax in the ear’
Pn:	Samoan	<i>tuli</i>	‘deaf’
		<i>tae-tuli</i>	‘earwax’
Pn:	Tikopia	<i>tuli</i>	‘deaf’
		<i>tae-tuli</i>	‘earwax’
Pn:	Rennellese	<i>tugi</i>	‘deaf, hard of hearing’
		<i>taʔe-tugi</i>	‘earwax’
Pn:	Anutan	<i>tu-turi</i>	‘deaf’
		<i>tae-turi</i>	‘earwax’
Pn:	Hawaiian	<i>kuli</i>	‘deaf’
		<i>kō-kuli</i>	‘earwax’
Pn:	Māori	<i>turi</i>	‘deaf’
		<i>tae-turi</i>	‘earwax’

3.8.3 Snot, nasal mucus

Three POc terms for ‘snot’ are reconstructed. It seems probable that POc **ʔorok* ‘snot’ is historically the same root as **ʔorok* ‘grunt, growl, snore’ (§4.5.3) and the root of POc **ʔoro-*

⁵⁴ Although Blust (ACD) glosses these POc reconstructions as shown here, he labels them as doublets, implying that they are alternant forms with the same meaning, i.e. both ‘earwax’ and ‘deaf’.

ɲorok ‘channel above upper lip’ (§3.4.11), the more so as the visible manifestation of snot is above the upper lip of small children. Wayan Fijian distinguishes three kinds of mucus: *drove* ‘phlegm, thick mucus in the throat or lungs’, a reflex of POc **(dr;d)ap(e,i)* below; *dak^wa* ‘snot’; and *drak^wa* ‘white mucus secreted by the eye’, but it is impossible to provide more specific glosses for the POc reconstructions below.

POc **ɲorok* ‘snot; grunt, growl, snore’

NNG:	Amara	(o)ɲur	‘nasal mucus’
NNG:	Arawe	(la)ɲur-ɲur	‘nasal mucus’
NNG:	Malalamai	ɲor-ɲoro	‘nasal mucus’
NNG:	Sio	ɲo-ɲolo	‘nasal mucus’
NNG:	Mandak	ɲo-ɲo	‘nasal mucus’
MM:	Tangga	ɲor(lo)	‘nasal mucus’
MM:	Babatana	ɲuru	‘mucus, nasal discharge’
MM:	Roviana	ɲuru	‘discharge of mucus from nose’
NCV:	Mota	ɲor	‘mucus of nose’

cf. also:

NNG:	Biliau	ɲur-ɲur	‘cold, sick’
PT:	Molima	nelu	‘nasal mucus’
PT:	Dobu	nelu	‘nasal mucus’
PT:	Wedau	neru(bai)	‘nasal mucus’
PT:	Kukuya	nenu	‘snot’
PT:	Motu	kuru	‘nasal mucus’

POc **b^waŋoR* ‘snot’

Adm:	Lou	puŋop	‘nasal mucus’
Adm:	Titan	βuŋa(tut)	‘mucus, snot’
NNG:	Ali	pañur	‘nasal mucus’
NNG:	Tumleo	paŋur	‘nasal mucus’
NNG:	Sissano	pakur	‘nasal mucus’
PT:	Iduna	b ^w ana	‘phlegm’
MM:	Vitu	baraŋoŋo	‘snot’ (metathesis)
MM:	Sursurunga	biŋ	‘nasal mucus’ (?vowel)
SES:	Longgu	b ^w añō(i)	‘snot’
SES:	Lau	g ^w aŋo	‘mucus in nose’
SES:	Sa’a	p ^w aŋo-	‘mucus in the nose’
SES:	To’aba’ita	g ^w aŋo-	‘nasal mucus’
SES:	Arosi	b ^w aŋo	‘nasal mucus’
SES:	’Are’are	pano	‘nasal mucus’
NCV:	Duidui	g ^w aŋo	‘nose’
NCV:	Baetora	b ^w aŋo	‘nose’

POc **(dr;d)ap(e,i)* ‘snot, nasal mucus’

MM:	Tabar	dave	‘snot’

MM:	Barok	<i>depe</i>	‘snot’
NCV:	Mota	<i>nav</i>	‘snot, nasal mucus’
NCV:	Tamambo	<i>divi</i>	‘snot, nasal mucus’
NCV:	Raga	<i>davi</i>	‘mucus’
NCV:	Namakir	<i>dav</i>	‘snot, nasal mucus’
NCal:	Nêlêmwa	<i>dewã(-t)</i>	‘snot, slimy thing’
Fij:	Wayan	<i>drove</i>	‘phlegm, thick mucus in the throat or lungs’ (-o- for †-a-)

Other NCV languages refer to ‘nasal mucus’ with reflexes of POc **suRuq* ‘juice, fluid’ (Lolovoli *suru*, NE Ambae *suru*).

PPn **isu-peqe* ‘nasal mucus’ (POLLEX) (lit. ‘overripe nose?’)

Pn:	Tongan	<i>ihu-peʔe</i>	‘nasal mucus’ (<i>peʔe</i> ‘overripe, of breadfruit’)
Pn:	E Futunan	<i>isu peʔe</i>	‘dirty nose, snot’
Pn:	Pukapukan	<i>yū-pē</i>	‘nasal mucus’
Pn:	Rennellese	<i>isu-peʔe</i>	‘nasal mucus’
Pn:	Samoa	<i>isu-pē</i>	‘nasal mucus’
Pn:	Tikopia	<i>su-pē</i>	‘mucus from the nose’
Pn:	Tokelauan	<i>isu-pē</i>	‘snot’

No form is reconstructed to account for the following terms but it seems likely that they are somehow related to PAn **Siŋus*/PMP **hiŋus* ‘sniff, snuffle (as with a runny nose)’ (ACD).

Adm:	Mussau	<i>maŋusa</i>	‘snot’ (<i>ŋusu</i> ‘nose, to smell’)
Adm:	Lou	<i>roŋus</i>	‘snot’ (<i>aŋus</i> ‘blow the nose’)
NNG:	Buang	<i>aŋ^wis</i>	‘mucus, nasal secretion; slimy sap’
NNG:	Mangseng	<i>ŋus</i>	‘snot’
NNG:	Atui	<i>e-ŋus</i>	‘snot’
NNG:	Bebeli	<i>musu</i>	‘snot’
MM:	Meramera	<i>ŋoso</i>	‘snot’
MM:	Solos	<i>niŋus</i>	‘snot’
MM:	Petats	<i>liŋus</i>	‘snot’

3.8.4 Saliva

Most terms for ‘saliva’ appear specifically to denote spittle, and are found in §4.4.3, as they are identical with or derived from a verb meaning ‘spit’. However, it is possible that POc speakers labelled saliva ‘water of mouth’, as this expression is found at widespread locations. It is, however, such an obvious compound that it may have arisen independently at different times and places.

Adm:	Drehet	<i>weyi p^wehea</i>	‘saliva’ [water mouth]
NNG:	Poeng	<i>kao- mena</i>	‘saliva’ [mouth- water]
NCal:	Nemi	<i>we-hwa-</i>	‘saliva’ [water-mouth-]

3.8.5 Semen, smegma

Blust (ACD) reconstructs PMP **biRas* or **biRaq* ‘semen, smegma’, both resulting in POc **biRa*, but each rests on a single non-Oceanic reflex⁵⁵ plus the Oceanic reflexes below whose meanings most consistently denote stale or unwanted material such as sediment left after processing. No Oceanic reflex denotes ‘semen’, but Polynesian reflexes include reference to smegma (penile mucus) and vaginal mucus, suggesting that these were among its POc denotations.

PMP **biRas*, **biRaq* ‘semen, smegma’ (ACD)

POc **biRa* (1) ‘roe, fish eggs’; (2) ‘sediment, dregs’; (3) ‘smegma’ (?)

PT:	Molima	<i>bila</i>	(N) ‘fat’
MM:	Tolai	<i>bira</i>	‘fat, grease, lard’
SES:	Lau	<i>bila</i>	(1) ‘stale, musty’; (2) ‘body smell’; (3) ‘sediment in washing tapioca’
SES:	Kwaio	<i>bila</i>	‘rotten or decaying vegetable matter’
SES:	Arosi	<i>bira</i>	‘dregs, starch, sediment as in making tapioca’
NCV:	Mota	<i>pia(i)</i>	‘coagulated vegetable sap’
Fij:	Bauan	<i>bia-bia</i>	‘sediment’

PPn **[pia]pia* ‘sticky secretion’ (POLLEX)

Pn:	Niuean	<i>piapia</i>	‘be smudgy, messy, sticky’
Pn:	Pukapukan	<i>pia</i>	(1) ‘white substance found in sexual organs of both sexes’ (2) ‘starch’
Pn:	Rarotongan	<i>piapia</i>	‘gummy excretion from eye’
Pn:	Rennellese	<i>piapia</i>	‘mucus-laden, as vagina or penis’
Pn:	Samoan	<i>pia</i>	‘smegma, secretion of the sexual organs’
Pn:	Tikopia	<i>pia</i>	‘mucus secretions associated with sexual intercourse’
Pn:	Maori	<i>pia</i>	‘gum or exudation of trees’
Pn:	Hawaiian	<i>piapia</i>	‘discharge from eyes; smegma’
Pn:	Marquesan	<i>pia</i>	‘smegma’

POc **moro* ‘mucus, semen’

NNG:	Poeng	<i>molo</i>	‘pus (in eye)’
PT:	Gumawana	<i>molo-</i>	‘semen, nasal mucus’
PT:	Iduna	<i>molo</i>	‘semen’
PT:	Gapapaiwa	<i>moro-</i>	‘semen’
PT:	Tawala	<i>molo</i>	‘semen’
Fij:	E Fijian ⁵⁶	<i>moro</i>	‘white mucus under foreskin’

Euphemistic labels for semen seem to be quite common, and PCP **sī* perhaps originated in this way.

⁵⁵ PMP **biRas* rests on Sangir *bihase?* ‘semen, smegma, vaginal fluid’, **biRaq* on Maranao *biga?* ‘semen, sperm, egg’.

⁵⁶ Paul Geraghty, pers. comm., language not identified.

PCP **sī* ‘semen, that which spurts out’

Fij:	Bauan	<i>sī-</i>	‘semen’
Fij:	Wayan	<i>-sī</i>	‘semen’
Pn:	Tongan	<i>hī</i>	‘semen’
Pn:	Samoa	<i>sī</i>	‘semen, vaginal fluid, traditionally believed also to be part of what makes babies’ (Andrew Pawley, pers. comm.)
Pn:	Tuvaluan	<i>hī</i>	‘spurt’
Pn:	Tongarevan	<i>hī</i>	‘gushing flow of water, blood or other liquid’
Pn:	Tahitian	<i>hī</i>	‘flux, the bloody flux’
Pn:	Maori	<i>hī</i>	‘have diarrhoea’
Pn:	Hawaiian	<i>hī</i>	‘dysentery, diarrhoea’

NCV languages use reflexes of POc **suRuq* ‘juice, fluid’ to refer to a range of bodily fluids including variously snot, tears and semen: (Avava *a-sur* ‘semen’, Raga *hu-* ‘oil, liquid, juice, semen’). Some languages refer to semen euphemistically as ‘his water’, e.g. Nyindrou (Adm) *g^{na} ta-n* [water PREP-his], ‘Are’are (SES) *wai-na* [water-his]. Other euphemisms include Lukep (NNG) *gorenge* (from POc **g(o.u)rej* ‘coconut milk, coconut cream’; vol.3:372), Kwaio *bula-bula-* ‘saliva’ and Lonwolwol (NCV) *atu-* ‘seed’

3.8.6 Faeces, excrement

Two terms are reconstructed. POc **taqe-* ‘faeces’ was primarily a noun. POc **pekas* was a verb, ‘defecate’, but seems also to have been used as a noun meaning ‘faeces’. The cognate set reflecting **pekas* is given in §4.4.8.

PAn **Caqi* ‘faeces’ (Given in *acd* without supporting evidence.)

POc **taqe-* ‘faeces’

Adm:	Lou	<i>te</i>	‘faeces, defecate’
Adm:	Loniū	<i>te</i>	‘faeces’
Adm:	Mussau	<i>teka</i>	‘faeces, to defecate’
NNG:	Bukawa	<i>taʔ</i>	‘faeces; stomach’
NNG:	Kilenge	<i>tae</i>	‘faeces’
NNG:	Kove	<i>tahe</i>	‘faeces’
NNG:	Gedaged	<i>taen</i>	‘dung, excrement; ashes, remnant; entrails’
PT:	Lala	<i>kaʔe</i>	‘faeces’
PT:	Motu	<i>taye</i>	‘excrement’
PT:	Wedau	<i>tae</i>	‘excrement’
MM:	Vitu	<i>taye-</i>	‘excrement’
MM:	Bali	<i>taye</i>	‘excrement’
MM:	Bulu	<i>taye</i>	‘excrement’
MM:	Bola	<i>taye</i>	‘excrement’
MM:	Bola Harua	<i>taye</i>	‘excrement’
MM:	Nakanai	<i>ta-tae</i>	‘excrement’
MM:	Meramera	<i>tae</i>	‘excrement’
MM:	Lavongai	<i>tai</i>	‘excrement’

MM:	Tigak	<i>tai</i>	‘excrement’
MM:	W Kara	<i>tai(t)</i>	‘excrement’
MM:	Nalik	<i>tai</i>	‘excrement’
MM:	Roviana	<i>tae-</i>	‘excrement’
NCV:	Mota	<i>tae(na)</i>	‘excrement, dung’
NCV:	Tamambo	<i>tae</i>	‘excrement’
NCV:	Raga	<i>tae</i>	‘excrement’
NCV:	Namakir	<i>taʔe(n)</i>	‘excrement’
PSV <i>*nə-taqi</i> ‘excrement’ (Lynch)			
SV:	Lenakel	<i>nəs</i>	‘excrement’ (no specific possessor)
SV:	Kwamera	<i>nihi</i>	‘excrement’ (no specific possessor)
NCal:	Iaai	<i>tī</i>	‘excrement’
Fij:	Wayan	<i>-tā</i>	‘excrement’
Fij:	Bauan	<i>dā-, dē-</i>	‘excrement’
Pn:	Tongan	<i>taʔe</i>	‘excrement’
Pn:	Tikopia	<i>tae</i>	‘waste matter; excrement’

The following point to a PMM variant:

PMM **tak(e,i)* ‘excrement’

MM:	Tabar	<i>take</i>	‘excrement’
MM:	Lihir	<i>tek</i>	‘excrement’
MM:	Tangga	<i>tek-tek</i>	‘excrement’
		<i>teke</i>	‘buttocks’
MM:	Konomala	<i>tek</i>	‘excrement’
		<i>mantek</i>	‘buttocks’
MM:	Patpatar	<i>take</i>	‘excrement’
MM:	Minigir	<i>take</i>	‘excrement’
MM:	Tolai	<i>taki-</i>	‘faeces, excrement’
MM:	Label	<i>teke</i>	‘excrement’
MM:	Bilur	<i>tike</i>	‘excrement’
MM:	Ramoaaina	<i>taki</i>	‘excrement’
MM:	Siar	<i>(man)tek</i>	‘excrement’
MM:	Tomoip	<i>tek</i>	‘excrement’

3.9 Incorporeal parts

This section presents reconstructions for ‘incorporeal parts’, i.e. nouns denoting concepts that, despite their lack of physicality, are treated as if they were body parts, i.e. are directly possessed.

3.9.1 Shadow, reflection, image, likeness

It is clear from the glosses below that POc *[qa]nunu and POc *qata(r) meant more than ‘shadow, reflection, image’. They also denoted a person’s soul/spirit/personality.⁵⁷

PAn *qaLiŋu ‘shadow, reflection’ (ACD)

PMP *qaninu ‘shadow, reflection’ (ACD)

POc *[qa]nunu ‘shadow of person, likeness, reflection’

NNG: Mangap	kunu-	‘one’s own shadow, reflection, image, soul, personality’
NNG: Manam	anunu(ka)	‘shadow, image’
NNG: Kove	anunu-	‘shadow, reflection’
NNG: Kaulong	enu-	‘shadow, reflection, image; ghost, soul, (inner) substance’
NNG: Poeng	kannu-	‘shadow, reflection (of a person); spirit (within a person)’
NNG: Mapos Buang	qnu-	‘shadow, image; spirit which may leave the body in sleep; ancestor’
NNG: Patep	knu-	‘shadow, image; (person’s) spirit’
NNG: Yabem	kanu?	‘darkness, shadow’
NNG: Aria	ano-	‘spirit, soul; shadow; breath’
PT: Kilivila	ʔanu-ʔanunu-	‘shadow of person’ (ʔ for †k)
PT: Molima	ʔanunu-	‘shadow, reflection’
PT: Kukuya	anua-	‘shadow of a person, image, reflection; centre of feeling or emotion’
PT: Iduna	anunu-	‘shadow, reflection; soul; ancestor ten generations back’
PT: Misima	kakanun	‘shadow, image’
MM: Vitu	hanunuk	‘shadow, reflection’

Proto Willaumez *hanu- ‘soul, shadow, reflection’ (Goodenough 1997)

MM: Bola	xanu-	‘soul, shadow, reflection’
MM: Nakanai	halulu-	‘shadow, reflection, occasionally spirit of a human being’
MM: Tolai	nono	(VI, VT) ‘to shade, shadow’
MM: Nduke	nuni-	‘shadow’
MM: E Kara	ɣəlu-	‘shadow’ (-l- for †-n-)
SES: Kwaio	nunu(-)	‘shadow, image, picture’
SES: Lau	nunu(-)	‘shadow, shade; likeness, image’
SES: Sa’a	nunu-	‘shadow of persons, reflection, likeness, soul, consciousness’
SES: To’aba’ita	nū-, nunu	‘shadow, reflection, likeness’ (nū preferred with personal suffix)
SES: Arosi	nunu-	‘image, shape, reflection’

⁵⁷ This aspect of POc *[qa]nunu or *qata(r) is not investigated here, as it properly belongs in volume 6.

PSOc **nunu* ‘shadow, image, reflection, soul’ (Lynch 2004a)

NCV: Mota	<i>nunua-i</i>	‘the mental impression of sound or force, rather than actual impression, but taken to be real’
NCV: Mwotlap	<i>nini-</i>	‘shadow, reflection’
NCV: Nokuku	<i>nun, nuniu-</i>	‘shadow’
NCV: Tamambo	<i>nunu-</i>	‘reflection, picture, photo’
NCV: Raga	<i>nunu-</i>	‘shadow, picture, representation’
NCV: Paamese	<i>ninu-</i>	‘spirit, soul, shadow’
SV: Kwamera	<i>nanu(mu)</i>	‘spirit, ghost; shadow, reflection; likeness’
NCal: Iai	<i>(ha)nu-</i>	‘soul, spirit (of dead person), silhouette, appearance’
Mic: Kiribati	<i>nunu-</i>	‘to cover, to shade (incantation)’

It is not clear what the meaning difference between **[qa]nunu* and **qata(r)* may have been, but it is possible that the basic sense of the former was ‘shadow’, of the latter ‘image’ or ‘soul’.

PMP **qatad* ‘appearance, mark’ (Dempwolff 1938, Dahl 1981)

POc **qata(r)* ‘image, reflection, soul, spirit’

TM: Buma	<i>ata</i>	‘soul, spirit’
TM: Tanema	<i>ae</i>	‘soul, spirit’
NCV: Mota	<i>ata(i)</i>	‘soul’
NCV: Lehali	<i>n-eta-n</i>	‘soul (of s.o.)’ (François 2013)
NCV: Namakir	<i>ʔata-</i>	‘(person’s) spirit’
NCal: Iai	<i>hate</i>	‘mark, shadow’
Fij: Rotuman	<i>afa</i>	‘make a mark or impression’

PPn **qata* ‘spirit, soul, shadow, reflection’ (POLLEX)

Pn: Tongan	<i>ʔata</i>	‘image, shadow, reflection’
Pn: Niuean	<i>ata</i>	‘shadow, reflection’
Pn: Samoan	<i>ata</i>	‘shadow, reflection’
Pn: Rennellese	<i>ʔata</i>	‘shadow, reflection; ghost, spiritual self’
Pn: Tikopia	<i>ata</i>	‘shadow, reflection, representation of person or spirit’
Pn: W Uvean	<i>ata</i>	‘reflection, spirit (of dead), soul’
Pn: W Futunan	<i>ata</i>	‘soul, image’
Pn: Emae	<i>ata</i>	‘soul, spirit’
Pn: Hawaiian	<i>aka</i>	‘shadow, reflection, image, likeness’

3.9.2 Name

Oceanic terms for ‘name’ are also usually directly possessed. Two similar POc forms, **[q]aca(n,ŋ)/*[q]aca-* and **i(s,c)aŋ/*i(s,c)a-*, are reconstructable. To our knowledge, no language has reflexes of both, but quite commonly where one language reflects **[q]aca(n,ŋ)*, its close relative reflects **i(s,c)aŋ* (e.g. Tuam vs Malai, Suau vs Kakabai, Tigak vs Tolai, Mwotlap vs Araki). We have no explanation for this.

Reconstructing the initial consonant of POc **[q]aca[n,ŋ]* ‘name’ has proved problematic. The PMP form was evidently **[ŋ]ajan*, with the loss of initial **ŋ-* occurring prior to POc. Proto Eastern Admiralties reflexes actually reflect PEAd **nq-*, and reflexes of ‘name’ have the same initials as other **nq-* initial items. Evidence that **q-* is not an Admiralties innovation, however, lies with Apalik *kasəŋ*. John Lynch adds that evidence from Tanna languages suggests that **q* was ancestral to these forms too (pers. comm. and see also Lynch 2001c:120).

PAn **ŋajan* ‘name’ (Blust 1999a)

PMP **[ŋ]ajan* ‘name’ (ACD)

POc **[q]acaŋ*, **[q]aca-* ‘name’

Adm: Wuvulu	<i>aka-</i>	‘name’
Adm: Seimat	<i>axa-</i>	‘name’
Adm: Ere	<i>ŋira-</i>	‘name’ (<i>ŋ-</i> < <i>*n-</i> ‘ART’ + <i>*q-</i>)
Adm: Lou	<i>ŋara-</i>	‘name’ (<i>ŋ-</i> < <i>*n-</i> ‘ART’ + <i>*q-</i>)
Adm: Bipi	<i>kaxa-</i>	‘name’
Adm: Loniū	<i>ŋaʔa-, piliŋaʔa-</i>	‘name’ (<i>ŋ-</i> < <i>*n-</i> ‘ART’ + <i>*q-</i>)
NNG: Apalik	<i>kasəŋ</i>	‘name’
NNG: Kove	<i>eza-</i>	‘name’
NNG: Manam	<i>ara-</i>	‘name’
NNG: Kairiru	<i>asa-</i>	‘name’
NNG: Kaiwa	<i>are-</i>	‘name’
NNG: Numbami	<i>ase-</i>	‘name’
NNG: Hote	<i>aðeŋ</i>	‘name’
PT: Motu	<i>lada-</i>	‘name’ (<i>l-</i> is regular accretion)
PT: Mekeo	<i>aka-</i>	‘name’
PT: Kuni	<i>ada-</i>	‘name’
PT: Suau (Daui)	<i>asa-</i>	‘name’
PT: Dobu	<i>esa-</i>	‘name’
PT: Misima	<i>ala-</i>	‘name’
MM: Nehan	<i>haŋa-</i>	‘name’
MM: Tigak	<i>ŋasa-</i>	‘name’ (<i>ŋ-</i> is regular accretion)
MM: Taiof	<i>asəŋ</i>	‘name’
MM: Tabar	<i>asa-</i>	‘name’
MM: Tangga	<i>asa-</i>	‘name’
MM: Nehan	<i>haŋa-</i>	‘name’
MM: Banoni	<i>vasaŋa-</i>	‘name’ (<i>v-</i> is regular accretion)
MM: Kokota	<i>n-aŋha-</i>	‘name’
SES: Gela	<i>aha-</i>	‘name’
SES: Kwaio	<i>lata-</i>	‘name, reputation’ (<i>l-</i> is regular accretion)
SES: ’Are’are	<i>rata-</i>	‘name’ (<i>r-</i> is regular accretion)
SES: Sa’a	<i>sata-</i>	‘name’ (<i>s-</i> is regular accretion)
SES: Arosi	<i>ata-</i>	‘name’
NCV: Mwotlap	<i>na-ha-</i>	‘(his) name’
NCV: Loyop	<i>n-sa-</i>	‘(his) name’
SV: Kwamera	<i>n-ahaŋ</i>	‘name’

SV:	S W Tanna	<i>n-haŋə-</i>	‘name’
NCal:	Jawe	<i>yat</i>	‘name’
Mic:	Kiribati	<i>ara-</i>	‘name, title, noun’
Mic:	Marshallese	<i>yat</i>	‘name, reputation’
Fij:	Rotuman	<i>asa-</i>	‘name, reputation, honour’
Fij:	Bauan	<i>yaða-</i>	‘name’ (y- is regular accretion)
		<i>yaða</i>	‘namesake’ (indirectly possessed)

The Dami/Matukar/Takia form *yaŋa-* appears to reflect **i(s,c)aŋa-* rather than the expected **i(s,c)a-*, i.e. the consonant-final form with an extension to accommodate the possessor suffix.

POc **i(s,c)aŋ*, **i(s,c)a-* ‘name’

NNG:	Malai	<i>iza-</i>	‘name’
NNG:	Tami	<i>it</i>	‘name’
NNG:	Mamusi	<i>ia-</i>	‘name’
NNG:	Dami	<i>yaŋa-</i>	‘name’
NNG:	Matukar	<i>yaŋa-</i>	‘name’
NNG:	Takia	<i>yaŋa-</i>	‘name’
		<i>ya-k</i>	‘namesake’ (-k < *-ki ‘not possessed’)
PT:	Kakabai	<i>isa-</i>	‘name’
MM:	Vitu	<i>(y)iða-</i>	‘name’ (y- irregular accretion)
MM:	Bali	<i>iza-</i>	‘name’
MM:	Nakanai	<i>isa-</i>	‘name’
MM:	Tigak	<i>isa-</i>	‘name’
MM:	Minigir	<i>isa-</i>	‘name’
MM:	Tolai	<i>iaŋi-</i>	‘name’
NCV:	Araki	<i>(h)ica-</i>	‘name’
NCV:	Tamambo	<i>(y)isa-</i>	‘name’
NCV:	Raga	<i>iha-</i>	‘name’
NCV:	Lonwolwol	<i>ih</i>	‘name’
NCV:	S E Ambrym	<i>ise-</i>	‘name’
SV:	Sie	<i>(n)i-</i>	‘name’
SV:	Anejom	<i>n-iða-</i>	‘name’
Mic:	Woleaian	<i>ita-</i>	‘name’
Mic:	Puluwatese	<i>yīt</i>	‘name’

4 *Bodily conditions and activities*

MALCOLM ROSS AND MEREDITH OSMOND

4.1 Introduction

This chapter is complementary to chapter 3 on the human body. Whereas the latter is devoted to the nouns that label the parts of the body, the present chapter is dedicated to events and states that are associated with the body's natural processes. Events in this context include both processes that occur spontaneously (sweating, breathing, snoring) and deliberate activities like eating, drinking and copulating. In between these two extremes are numerous events the agentivity of which is open to question: sleeping, belching, yawning, defecating, laughing, crying and so on.

The chapter begins with events and states relating to life, death and reproduction (§2). These are followed by events and states that have to do with eating, drinking and the digestive organs (§3). Then follow events concerned with the emission or elimination of bodily substances (§4), with breathing and the respiratory organs (§5), with sleeping and waking (§6), with physical responses to emotion, pain or cold (§7), and with body temperature (§8). A separate chapter, ch.5, deals with terms relating to sickness and health. The line drawn between this chapter and ch.5 is at times somewhat arbitrary. Terms denoting itching, dizziness and pain are handled in ch.5.

One might think because the subject matter of this chapter deals with aspects of the life of all human beings, culture would impinge less here than in other areas of the lexicon. Perhaps this is true, but there are a surprising number of points in this chapter where culture, broadly conceived, is encapsulated in lexical choices. Although there was a general POC term for drinking, drinking was also subdivided into two different physical acts (§3.2.1). One was pouring liquid down the throat without the vessel touching the lips, a practice which probably has its roots in drinking coconut water from a small hole in the shell. The other was sipping and slurping liquid directly from a vessel. Similarly, chewing and sucking also each constituted more than one activity, depending on what was chewed (§3.1.2) or what was sucked on (§3.2.2–3). Certain sucking noises served as signals of refusal or attention-getting (§§3.6.1–2), whilst kissing appears to have lacked a distinct label. In Central Pacific languages what other languages commonly conceive as the states of being hungry, thirsty and sleepy are commonly conceived as desires: ‘want to eat’ (§3.3.1), ‘want to drink’ (§3.3.2) and ‘want to sleep’ (§6.2.1).

4.2 Living, dying, reproducing and growing

4.2.1 Living, dying and being healthy

The principal POc verbs for ‘be alive’ and ‘die, be dead’ have an interesting and complementary range of meanings. The verb **maqurip* is glossed ‘be alive, live, flourish; be in good health, recover health’, whilst **mate* is glossed ‘be dead, die; be unconscious, numb, paralysed, lose consciousness; die, of fire or light’. These ranges of meaning are continued in many modern Oceanic languages.

Like many verbs denoting states, both these verbs and their reflexes may also be used inchoatively, i.e. of coming to be in a state (§1.3.5.1). This explains why **maqurip* and many of its reflexes mean both ‘be in good health’ and ‘recover health’, and why **mate* and many of its reflexes mean both ‘be dead’ and ‘die’, as well as ‘be unconscious’ and ‘faint, become unconscious’.

The semantically interesting feature of these two verbs is that they were used not only to denote living and dying, but that they were also used of a person’s state of health or consciousness. Someone in good health or recovering their health was labelled **maqurip* ‘alive’ or ‘coming alive’. Someone unconscious or fainting was labelled **mate* ‘dead’ or ‘dying’.

4.2.1.1 Being alive

Two POc intransitive verbs had the meaning ‘be alive’. One, POc **mañawa* ‘breath, breathe, be alive; fontanel; rest’ evidently had the central meaning ‘breathe’ and is presented with a detailed discussion in §5.1. The other, **maqurip* had the central meaning ‘be alive’ but, as mentioned above, it inherited a wider set of meanings from PMP **qudip* which Blust (ACD) describes as ‘a dominance of vitality as manifested in growth, flourishing, and being healthy, fresh (of plants), or green (of plants, wood)’.

PAn **qudip* ‘life, alive’ (ACD)

POc **maqurip* ‘be alive, live, flourish; be in good health, recover health’

Adm:	Mussau	<i>maulue</i>	‘living’
Adm:	Nyindrou	<i>muli-n</i>	‘alive, living’
NNG:	Manam	<i>muauri-uri</i>	‘living’
NNG:	Poeng	<i>mauli</i>	‘alive, have life’
PT:	Sinaugoro	<i>mayuli</i>	‘live, be alive’
PT:	Motu	<i>mauri</i>	(N) ‘life’, (VI) ‘be alive’
MM:	Vitu	<i>mayuri</i>	‘living’
		<i>(va)mayuri</i>	‘heal’
MM:	Bulu	<i>mayuli(ka)</i>	‘living’
MM:	Nakanai	<i>mahuli</i>	‘be in good health; come to life’
		<i>mahuli-huli</i>	‘be in good health; come to life; to live, survive (of a sickly baby or the victim of an attack)’
SES:	Gela	<i>mauri</i>	‘living; green, blue; real, solid’
SES:	Longgu	<i>mauri</i>	‘live, grow, be alive’
SES:	Sa’a	<i>mauri</i>	(VI) ‘live, be alive, recover health’

SES:	Lau	<i>mouri</i>	‘be alive’
SES:	Kwaio	<i>mauli</i>	‘alive’
SES:	Arosi	<i>mauri</i>	‘be in good health, live, flourish’
NCV:	Mota	<i>maur</i>	‘live, remain alive’
NCV:	Kiai	<i>mauri</i>	‘live; life, soul’
NCV:	Raga	<i>mauri</i>	‘grow’
NCV:	Uripiv	<i>-maur</i>	‘alive, growing’
NCV:	Ninde	<i>muox</i>	‘be healthy, grow; take root, sprout’
NCV:	W Ambrym	<i>mau</i>	‘be alive, be growing (of plants), get well (after sickness)’
NCV:	Paamese	<i>maul</i>	‘well, alive; be growing (of plants), get well (after sickness); health’
NCV:	Nguna	<i>mauri</i>	‘live, alive, healthy’
SV:	Sye	<i>o-murep</i>	‘alive’
SV:	Anejom	<i>u-mu</i>	‘alive’
NCal:	Ajie	<i>mɔɾɔ</i>	‘well; health’
NCal:	Xârâcùù	<i>murū</i>	‘well; health’
NCal:	Iaai	<i>mʷəʔ</i>	‘alive’
PMic <i>*mauri</i> ‘alive’ (Bender et al. 2003)			
Mic:	Kiribati	<i>maiu</i>	‘be alive, live, be in comfortable condition of mind or body’
		<i>mauri</i>	‘well; health’ (Polynesian loan)
Mic:	Marshallese	<i>mour</i>	‘live; life; existence; alive; recover; exist; cured’
Mic:	Woleaian	<i>maur</i>	‘be fresh, green, alive (as of plants)’
Mic:	Mokilese	<i>mowr</i>	‘be alive, fresh, raw; life’
Mic:	Ponapean	<i>mowr</i>	‘alive, raw’
Mic:	Pulo Annian	<i>maɪli</i>	‘be alive (of plants), green’
Fij:	Rotuman	<i>mauri</i>	‘live, be alive; be going (of clock, engine etc.); be alight (of fire, lamp); living; life’
Pn:	Tongan	<i>moʔui</i>	‘to live, be living or alive; be in health; recover (esp. from a serious illness)’
Pn:	Samoa	<i>mauli</i>	‘seat of the emotions (localised in the solar plexus)’
Pn:		<i>maʔui</i>	‘life principle or spark; be alive, brought back to life; in good health; to grow well or thrive’
Pn:	Tikopia	<i>mauri</i>	(N) ‘spirit, life principle; vitality of man or animal; essence of material objects’
Pn:	Pukapukan	<i>mauli</i>	‘soul, spirit’
Pn:	Rarotongan	<i>mauri</i>	‘life principle, spirit; set of the emotions; spirit, ghost’
Pn:	Maori	<i>mauri</i>	(N) ‘life principle, source of emotions’

The coexistence of PPn **maquri* ‘live, alive’ continuing POc **maquirip* above and PPn **ola* ‘be alive, well, healthy; recover from illness’ poses a semantic question. Why would two PPn terms coexist for what is apparently the same concept? The answer may be found in the comparison of Wayan Fijian *ɔ̌ola* with PPn **sola* ‘flee, escape danger’. The Wayan gloss

reads (1) ‘be alive, living, live’; (2) ‘survive, escape danger’; (3) ‘recover from illness’; (4) ‘be healthy, well’; (5) ‘(of living things) grow, thrive, flourish’. Meaning 2, ‘survive, escape danger’, accords with PPn **sola* whose reflexes consistently mean ‘flee’. What Wayan includes within one term PPn evidently separated into **sola* ‘flee, escape danger’ and **ola* ‘be alive, well, healthy, recover from illness’, with almost no overlap of meaning.

Many Polynesian languages retain reflexes of both POc **maurip* and PPn **ola*. Each Polynesian language distinguishes the two terms by various subtleties of meaning. Eastern Polynesian languages tend to use reflexes of **maurip* to denote matters of the spirit and consciousness while **ola* reflexes are concerned more with physical health.

PPn **ola* ‘be alive, well, healthy; recover from illness’

Pn:	Niuean	<i>ola</i>	‘life, health’
Pn:	Tongan	<i>ola</i>	‘recover from illness, be successful’
Pn:	Rennellese	<i>oga</i>	‘restore to health’
Pn:	Pukapukan	<i>ola</i>	‘flourish, live, life’
Pn:	Samoa	<i>ola</i>	1) ‘live, be alive’; 2) ‘recover health’; 3) ‘grow, increase’; 4) ‘give birth’; 5) (N) ‘life’
Pn:	Tikopia	<i>ora</i>	1) ‘spirit; soul; life’; 2) ‘vital essence of plants’; 3) (V) ‘live, come to life, survive’
Pn:	Maori	<i>ora</i>	1) ‘alive’, 2) ‘well in health’, 3) ‘safe’
cf. also:			
SES:	Gela	<i>vola</i>	‘living, life, to live; be in good health’; (VT) ‘to make live, to save’
Fij:	Rotuman	<i>ora</i>	‘improve (of an invalid)’ (loan from Polynesian)

POc **sola* ‘escape, flee, run away’

NNG:	Takia	<i>sol</i>	‘run way, flee, escape’

PCP **sola* ‘survive, escape danger’

Fij:	Wayan	<i>ðola</i>	‘be alive, living, live; survive, escape danger; recover from illness; be healthy, well; (of living things) grow, thrive, flourish’

PPn **sola* ‘flee, escape danger’

Pn:	Tongan	<i>hola</i>	‘flee, escape, run away’
Pn:	Niuean	<i>hola</i>	‘flee, escape, run away’
Pn:	Samoa	<i>sola</i>	‘run away, escape’
Pn:	Tikopia	<i>sora</i>	‘run away, flee, escape, evade’

4.2.1.2 Dying and being dead

Reflexes of PAN **ma-aCay*, PMP **m-atay* ‘die, dead’ have from very early times carried a number of extended meanings. POc **mate* evidently included among its meanings ‘be unconscious, numb, paralysed’, as noted in §4.2.1, and if reduplicated, ‘be weak or ill’.¹ But

¹ This reduplicated usage appears to reflect lexicalisation of reduplication that in POc encoded and in many Oceanic languages encodes the imperfective aspect.

there were further extensions in meaning, some of them apparently already present in POc. The tabulation below presents an analysis of the meanings of verbal reflexes of POc **mate* in Mangap (NNG) *-mēte*, Gela (SES) *mate*, To'aba'ita (SES) *mae* and Wayan Fijian *mate* as they are given in dictionaries of these languages (Bugenhagen & Bugenhagen 2007, Fox 1955, Lichtenberk 2008, Pawley & Sayaba 2003).

	Mangap <i>-mēte</i>	Gela <i>mate</i>	To'aba'ita <i>mae</i>	Wayan Fijian <i>mate</i>
person, animal	die, be dead	dead	die, be dead	die, be dead
person	be[come] uncon- scious	be unconscious, faint- ed	—	—
	be starving	—	—	—
	desire strongly	—	—	—
animal	—	—	—	be caught, captured (alive or dead)
cricketer	—	be out	—	be out
body part	be[come] paralysed	be paralysed	be paralysed	be paralysed
	be[come] numb	be numb	—	—
plant, tree	dry up	withered, dry	—	—
storm, wind	die down	—	—	stop, die down
sea	become calm	without movement (referent unspecified)	be calm	be calm
fire	go out	extinguished, gone out	go out	—
plan, project, work	cease	—	—	fail to work properly, not function, break down, go badly
engine	—	—	—	cut out, fail, die, be dead
pudding	—	—	be thoroughly mashed	—

The extensions of meaning shown above vary somewhat across the four languages, but we suspect that the differences are not as great as they appear from the tabulation, i.e. that some senses have been omitted from the dictionary glosses. The tabulation suggests that 'be[come] paralysed (of a body-part)', 'die down, be[come] calm (of storm, wind or sea)' and 'go out (of fire)' are senses that were present in POc, and the glosses of reflexes in the cognate set below indicate that 'be[come] unconscious', and 'be[come] numb' should be added to these. As the glosses of a number of reflexes below indicate, POc **mate* apparently also participated in a metaphor parallel to English 'to die for', i.e. 'to desire strongly' (see §11.5). Note that 'be[come]' in these glosses reflects the typical situation in Oceanic languages whereby the aspect marker(s) that accompany a verb denoting a property indicate(s) whether it is to be taken statively or inchoatively.

Omitted from the table are a nominal sense of To'aba'ita *mae*, namely 'k.o. evil spirit in the bush, used by its possessor to kill people' and nominal senses of Wayan Fijian *mate*: 'death', 'paralysis', 'failure to work, malfunction' and 'sickness, disease, ailment'. The latter simply

reflect a zero nominalisation strategy. Their correspondents in Mangap and To'aba'ita are formed with nominalising suffixes.

PAn **ma-aCay* 'die, dead; eclipse of sun or moon' (ACD)

PMP **m-atay* 'die, be dead; be unconscious, numb, paralysed; go out (of fire or light)' (ACD)

POc **mate* 'die, be dead; be unconscious, numb, paralysed; die down, be calm (of storm, wind or sea); go out (of fire or light)'

Adm: Seimat	<i>mat</i>	'dead'
	<i>mate</i>	'die'
Adm: Bipi	<i>mak</i>	'die; dead'
Adm: Titan	<i>mate-y</i>	'die; dead'
Adm: Lou	<i>mat</i>	'die; dead'
Adm: Mussau	<i>mate</i>	'dead; die'
NNG: Tami	<i>mat</i>	'die'
NNG: Mangap	<i>mēte</i>	'die', etc (see table above)
NNG: Lukep	<i>-mate</i>	'die'
NNG: Bariai	<i>mate</i>	'die, faint, become unconscious, be done'
NNG: Kove	<i>-mate</i>	'die'
NNG: Gitua	<i>mate</i>	'die'
NNG: Poeng	<i>mate</i>	'die, desire, have feeling for'
NNG: Gedaged	<i>-mat</i>	'die; go out (fire), stop (motor); yearn, crave, desire, lust after'
NNG: Takia	<i>-mat</i>	'die, be dead; want, long for'
NNG: Manam	<i>-mate</i>	'die'
NNG: Numbami	<i>-mata</i>	'be sick, get sick, be incapacitated; die (of fire)'
	<i>-maⁿde</i>	'die, faint, be paralysed; long for'
PT: Dobu	<i>mate</i>	'die, faint, be comatose'
PT: Misima	<i>mati</i>	'(be) dead (especially of trees)'
PT: Sinaugoro	<i>mase</i>	'die'
	<i>mase-kava</i>	'die a natural death without cause'
PT: Motu	<i>mase</i>	'die'; (ADVERB OF INTENSITY) 'very'
MM: Vitu	<i>mate</i>	'die'
MM: Bali	<i>mate</i>	'die'
MM: Bulu	<i>mate</i>	'die'
MM: Bola	<i>mate</i>	'die'
	<i>(bi)mate</i>	'kill'
MM: Tabar	<i>mate</i>	'die'
MM: Bilur	<i>mat</i>	'die'
	<i>(a)mat</i>	'kill'
MM: Tolai	<i>mat</i>	'die, be extinguished of light or fire'
	<i>mat-mat</i>	'to faint'
MM: Ramoaaina	<i>mat</i>	'die, faint, be unconscious'
MM: Tinputz	<i>mæt</i>	(V) 'die, be ill'; (N) 'death, contagious disease'
MM: Banoni	<i>mate</i>	'die'
	<i>(va)mate(a)</i>	'kill'

MM:	Piva	<i>mate</i>	'die'
MM:	Mono Alu	<i>mate</i>	'die'
		<i>(ha)mate</i>	'kill'
MM:	Nduke	<i>mate</i>	'die'
		<i>(va)mate(a)</i>	'kill'
MM:	Roviana	<i>mate</i>	'die, dead'
		<i>(va)mate(a)</i>	'kill'
MM:	Hoava	<i>mate</i>	'die, be dead'
		<i>(va)mate</i>	'kill'
		<i>(to)mate</i>	'(dead) spirit'
SES:	Gela	<i>mate</i>	'die', etc (see table above)
SES:	W G'canal	<i>mate</i>	'die'
SES:	Longgu	<i>mae</i>	'die'
SES:	Lau	<i>mae</i>	'die, faint, be unconscious, numb, without motion'
SES:	To'aba'ita	<i>mae</i>	'die', etc (see table above)
SES:	Kwaio	<i>mae</i>	'die'
SES:	'Are'are	<i>mae</i>	'die, unconscious, faint, paralysed, numb'
SES:	Sa'a	<i>mae</i>	'die, be ill, become unconscious, be numb'
SES:	Arosi	<i>mae</i>	'die, death; be numb, unable to move, unconscious'
NCV:	Mota	<i>mate</i>	'die; be faint and appear to die'
NCV:	W Ambrym	<i>mer</i>	'die, be dead; numb, unconscious, apparently dead'
NCV:	Nguna	<i>mate</i>	'dead; unconscious; die (of light or fire)'
SV:	Sye	<i>mah</i>	'die'
SV:	Kwamera	<i>e-mha</i>	'die, be unconscious'
SV:	Anejom	<i>mas</i>	'die'
NCal:	Iaai	<i>mök</i>	'die'
PMic * <i>mate</i> 'die, lose consciousness' (Bender et al. 2003)			
Mic:	Kiribati	<i>mate</i>	'dead, paralysed, unconscious'
Mic:	Woleaian	<i>mas</i>	'be dead, die'
Mic:	Chuukese	<i>mæ</i>	'die, lose consciousness'
Mic:	Carolinian	<i>mæ</i>	'die'
Fij:	Wayan	<i>mate</i>	'die', etc (see table above)
Fij:	Bauan	<i>mate</i>	'death, disease, sickness; to die, be sick'
Pn:	Tongan	<i>mate</i>	'dead'
Pn:	Rennellese	<i>mate</i>	'be dead, dying, unconscious, faint, exhausted, paralysed'
Pn:	Samoa	<i>mate</i>	'die; dead, of water'
Pn:	Tikopia	<i>mate</i>	'die, lose consciousness'

PMP **m-atay m-atay* 'to die in throngs; be on the verge of death' (ACD)

POc **mate-mate* 'die; be weak, sickly; die or suffer in numbers'

NNG: Manam *mate mate* 'die (iterative), to suffer'

PT:	Motu	<i>mase mase</i>	‘used as an intensive with <i>hebiri</i> (‘sit or stand close together’), or <i>hesede</i> (‘crowded’, ‘jostle’ etc.)
SES:	Gela	<i>mate mate</i> <i>mae mae</i>	‘to overcome’ ‘an epidemic; yaws’
SES:	Sa’a	<i>mae-mae</i>	‘die, be ill, become unconscious, be numb’
SES:	Arosi	<i>mae-mae</i>	‘very weak, wasting; infirmity, weakness’
NCV:	Lonwolwol	<i>mer-mer</i>	‘be faint; to faint, be half-hearted’
Fij:	Wayan	<i>mate-mate</i>	‘be weak, do poorly; die in an epidemic’
Fij:	Bauan	<i>mate mate</i>	‘sickly’
Pn:	Rennellese	<i>mate mate</i>	‘weak, exhausted, as from sickness or grief; be nearly out, as a fire’
Pn:	Maori	<i>mate mate</i>	‘die or be taken or caught in numbers; sickly; shallow, failing, of streams’

4.2.2 Reproducing

4.2.2.1 Copulating

Two terms are reconstructed for sexual intercourse, POc **qait*, **qait-i-* and PEOc **pai(s)*, **pais-i-*.

The first of these appears to continue PMP **ayu[t,d]*, which Blust (ACD) reconstructs to PWMP because he lacks Oceanic reflexes. If POc **qait* does represent a continuation, albeit with irregular prepended **q-*, then **ayu[t,d]* is promoted to PMP. POLLEX attributes the Polynesian reflexes of this etymon to POc **saqit* (PPn **haqi*), but the initial sound correspondences reflect PPn **q-*, not **h-*. Kwaio *l-* and Bauan Fijian *ǝ-* ultimately reflect accretion of **[y]* before initial **a-* after loss of **q-* (Lichtenberk 1988, Geraghty 1983).

Two POc forms are reconstructable: intransitive **qait* ‘copulate’, with a non-singular subject, and transitive **qait-i-* ‘have sexual intercourse with s.o.’, with a singular subject.

PMP **ayu[t,d]* ‘copulate, have sexual intercourse’ (ACD: PWMP)

POc **qait* (VI) ‘copulate’, (N) ‘copulation, sexual intercourse’, **qait-i-* ‘have sexual intercourse with’ (ACD)

Adm:	Mussau	<i>ai-ora</i>	‘copulate’
Adm:	Lou	<i>aet</i>	‘copulate’
Adm:	Loniū	<i>it-i</i>	(VT) ‘have sexual intercourse with’
Adm:	Titan	<i>it-i</i>	‘copulate’
NNG:	Gedaged	<i>ai</i>	‘copulate’
NNG:	Nenaya	<i>yai-</i>	‘copulate’
NNG:	Gitua	<i>yat-i</i>	‘copulate’
PT:	Wedau	<i>kait-i-</i>	‘copulate’
PT:	Gumawana	<i>kaita</i>	‘copulate’
		<i>kais-i-</i>	(VT) ‘have sexual intercourse with’
PT:	Kilivila	<i>keita</i>	‘sexual intercourse, of people or animals’
PT:	Motu	<i>ya-yai-a</i>	(VT) ‘have sexual intercourse with’
MM:	Patpatar	<i>-es</i>	‘copulate’

MM:	Mono Alu	<i>ait-i</i>	‘copulate (of humans)’
MM:	Teop	<i>isi</i>	‘copulate’
SES:	Kwaio	<i>laʔi</i>	‘copulate’
		<i>laʔi-</i>	(VT) ‘have sexual intercourse with’
PSV <i>*a-ic-i</i> ‘copulate’ (Lynch 2002)			
SV:	Sye	<i>isi</i>	‘copulate’
SV:	SW Tanna	<i>eis</i>	‘copulate’
SV:	Kwamera	<i>eh-i</i>	‘copulate’
Fij:	Bauan	<i>ōai</i>	‘copulate’
		<i>ōait-a</i>	(VT) ‘have sexual intercourse with’
PPn <i>*qai</i> , <i>*qait-i</i> ‘copulate’ (POLLEX: <i>*hai</i>)			
Pn:	Rennellese	<i>ʔei</i>	‘copulate’
Pn:	Rapanui	<i>ʔai</i>	‘coition’
Pn:	Hawaiian	<i>ai</i>	‘coition; copulate’
Pn:	Maori	<i>ait-i-a</i>	(VT) ‘have sexual intercourse with’
cf. also:			
NNG:	Yabem	<i>gasiʔ</i>	‘the act of sexual intercourse’
NNG:	Kove	<i>yahe</i>	‘copulate’ (-h- < *-R-)

The reciprocal forms in the set below reflect the addition of reflexes of POc **paRi-* RECIP to **qai(t)/*qait-i-* ‘have sexual intercourse (with s.o.)’. The reflexes are few enough to suggest that these are local formations, and that the POc form is not necessarily reconstructable. Indeed, as reciprocals with **paRi-* were typically intransitive, only the Tawala form, reflecting POc intransitive **qait*, appears to be a direct descendant of the likely POc form **paRi-qait*. The Samoic–Outlier forms all reflect loss of **-a-*, i.e. **fe-qiti* for expected †**fe-qaiti*.

POc **paRi-qait* ‘copulate, have sexual intercourse with one another’

PT:	Tawala	<i>wi-eita</i>	‘copulate’
SES:	W G’canal	<i>(vai)yet-i</i>	‘copulate’
SES:	Malasanga	<i>(vai)hait-i</i>	‘copulate’
PNPn <i>*fe-qiti</i> ‘copulate’			
Pn:	Samoan	<i>feit-i</i>	‘copulate’
Pn:	E Uvean	<i>feis-i</i>	‘copulate’
Pn:	Rennellese	<i>heʔit-i-ʔaki</i>	‘copulate’
Pn:	Tuvaluan	<i>feit-i</i>	‘copulate’

Bender et al. (2003) imply that the Micronesian reflexes below may reflect an interrogative verb meaning ‘do what?’, and POLLEX reconstructs PPn **fai* ‘do, make’, homophonous with **fai* ‘copulate’ as in Tongan and Samoan.

It is not clear whether the South Vanuatu forms below are cognate or not.

PEOc **pai(s)*, **pais-i-* ‘copulate’

SES:	Talise	<i>vaiōi</i>	‘copulate’
SES:	Birau	<i>vai-vaiōi</i>	‘copulate’
SES:	Malango	<i>vaiōi</i>	‘copulate’

Mic:	Chuukese	<i>fe, fē-</i>	(VI, VT) ‘copulate, have sexual intercourse with’
Mic:	Carolinian	<i>fe, fē-</i>	(VI, VT) copulate, have sexual intercourse with’
Mic:	Woleaian	<i>fē, fē-</i>	(VI, VT) copulate, have sexual intercourse with’
PPn <i>*fai</i> ‘copulate’ (POLLEX)			
Pn:	Tongan	<i>fai</i>	(VI) (1) ‘do’; (2) ‘copulate’
Pn:	Samoa	<i>fai</i>	(1) ‘do’; (2) ‘copulate, cohabit with’
Pn:	Rennellese	<i>hai</i>	‘copulate’
Pn:	Pukapukan	<i>wai</i>	‘copulate’
Pn:	Tuvaluan	<i>fai</i>	‘copulate’
cf. also			
SV:	Sye	<i>evis</i>	‘copulate’ (Lynch 2002: PSV <i>*a-ivi(cj)</i> ‘copulate’)
SV:	Anejom	<i>ihis</i>	‘copulate’

The following PMP reconstructions by Blust (ACD) have respectively one and two known Oceanic reflexes. PMP **duluR* was perhaps already a euphemism for copulation, as Blust (ACD) records Cebuano (C Philippines) *dulug* ‘sleep with someone’. Note, however, that the initial consonants do not correspond: the expected POc root is †**ruluR* or **druluR*.

PMP **kiu[d,t,q]* ‘thrusting movement of pelvis, as in sexual intercourse; sexual intercourse’ (ACD)
 POc **kiu(C)* ‘movement in coitus’

NNG: Gedaged *kiu* ‘movement in coitus’

PMP **duluR* ‘accompany, go together with’ (ACD: PWMP)

POc **duluR-i-* ‘accompany s.o.’, **paRi-dulu(R)* ‘go/be together’

Fij:	Wayan	<i>vī-dulu</i>	‘copulate (plural subject)’
		<i>dulu-ki</i>	‘copulate with s.o.’
Fij:	Bauan	<i>vei-dulu</i>	‘copulate (plural subject)’

4.2.2.2 Sexual desire

No term can be reconstructed here, but a number of languages use their term for ‘itchy’ (§5.3.2.4), either alone or in a body-part metaphor (ch.9) to mean ‘sexually excited’.

NNG:	Gedaged	<i>magagau</i>	(VI) ‘itch, lust after’
NNG:	Buang	<i>ayo nvu nvu</i>	[insides itchy] ‘covet, desire, lustful’
NNG:	Yabem	<i>ɣalɪlɔm ɣakala?</i>	[insides itching] ‘covetous, desirous of sexual intercourse’
NNG:	Bukawa	<i>ɣalɔm ɣagala?</i>	[insides itchy] ‘lustfulness’
Pn:	Rennellese	<i>majeo</i>	‘itch, sore; be sexually titillated’
Pn:	Hawaiian	<i>maneʔo</i>	‘itch, itchy; ticklish; sexually titillated’

4.2.2.3 Being pregnant

POc **tian-an* ‘pregnant’ is derived from PAn **tiaN* ‘belly’, which also gave rise to POc **tia-* ‘belly’ (§3.5.9). It is rather easy to mistake a reflex of **tian-an* for a reflex of **tia-*. For example, Loniū *tiyan* is a reflex of POc **tian-an* ‘pregnant’, not of POc **tia-* ‘belly’, as POc final **-VC* is normally lost in Admiralties languages.

It is possible that some reflexes of POc **tian-an* have been conflated with a reflex of POc **tina-ña* ‘his/her mother; big, biggest’, discussed in vol.2:195, and as a result have lost the first **-a-*. A pregnant woman is naturally described as a woman with a large belly (e.g. Nyindrou [Adm] *drine-n i tinan* [belly-her go big] ‘her belly is getting big; she is pregnant’), and, for example, Siar *tinan* ‘pregnant’ has the form that is expected of a reflex of **tina-ña* rather than of **tian-an*.

POc **tian-an* ‘belly, (be) pregnant’

Adm:	Loniu	<i>tiyan</i>	(vi) ‘give birth’
NNG:	Manam	<i>tine-ŋaki</i>	(vt) ‘conceive a child’
		<i>tine-tine</i>	‘be pregnant’
		<i>tine</i>	‘belly, bowels; be pregnant’
NNG:	Kairiru	<i>tyen</i>	‘pregnant’ (<i>tie-</i> ‘belly’)
NNG:	Ulau-Suain	<i>tiañ</i>	‘pregnant’
NNG:	Sera	<i>tiaŋ</i>	‘pregnant’
PT:	Misima	<i>liyan</i>	‘pregnant’ (<i>l-</i> for <i>†t-</i>)
PT:	Sinaugoro	<i>diana</i>	‘pregnant’ (<i>d-</i> for <i>†t-</i>)
MM:	Lihir	<i>tian</i>	‘pregnant’
MM:	Madak	<i>tenan</i>	‘pregnant’
MM:	Patpatar	<i>tianan</i>	‘pregnant’
MM:	Siar	<i>tinan</i>	‘pregnant’
MM:	Tolai (Matupit)	<i>tianan</i>	(vi) ‘to be in an advanced state of pregnancy’ (<i>tia-</i> ‘belly’)
SES:	Lau	<i>īana</i>	‘pregnant, of a woman; enlarged stomach, of a man’
SES:	To’aba’ita	<i>iana</i>	(vi) ‘be pregnant’
NCV:	Mota	<i>tiana</i>	‘be pregnant’
SV:	Lenakel	<i>sinən</i>	‘pregnant’
Mic:	Woleaian	<i>siyar</i>	‘conceive, be pregnant’

4.2.2.4 Giving birth

Although there is clear external support for POc **pañaRu* ‘give birth’, all Oceanic subgroups apart from Polynesian have adopted other terms. PPn **fanau* evidently could be used in both an active ‘give birth’ and stative ‘be born’ sense.

PMP **pañaRu* ‘give birth’ (ACD)

POc **pañaRu* ‘give birth’ (Blust 1978b:47: POc **pañaRu(d,k)*).

PPn **fanau* ‘give birth; be born’; **fānau* (N) ‘offspring’

Pn:	Niuean	<i>fanau</i>	‘give birth, bring forth, lay (eggs)’
		<i>fānau</i>	‘children’
Pn:	Tongan	<i>fanau</i>	(vi) ‘have a child/children’
		<i>fānau</i>	‘children, offspring’
Pn:	Rennellese	<i>hānau</i>	‘children’
Pn:	Pukapukan	<i>wānau</i>	‘be born; give birth’
Pn:	Samoan	<i>fānau</i>	‘be born, give birth; offspring (collectively)’

Pn:	Tikopia	<i>fanau</i>	‘give birth; be born’
Pn:	Ellicean	<i>fānau</i>	‘set of siblings; give birth, be born’
Pn:	E Futunan	<i>fānau</i>	‘offspring; to be born’
Pn:	E Uvean	<i>fānau</i>	‘offspring’
Pn:	Hawaiian	<i>hānau</i>	‘give birth, lay (egg); born; offspring’
Pn:	Maori	<i>phānau</i>	‘extended family, born, give birth’
Pn:	Mele Fila	<i>fānau</i>	‘bear, give birth’
Pn:	Tahitian	<i>fānau</i>	‘give birth to, bear’
Pn:	Takuu	<i>fānau</i>	‘give birth; group of siblings’
Pn:	Tokelauan	<i>fānau</i>	‘give birth; offspring, children’
Pn:	Tuamotuan	<i>hānau</i>	‘born, to be, give birth to’
Pn:	W Uvean	<i>fānau</i>	‘bear children’

Nominalised forms carry a range of associated meanings:

Pn:	Samoaan	<i>fanau-ŋa</i>	‘delivery, childbirth, labour’
Pn:	Tikopia	<i>fanau-ŋa</i>	‘family; food for rite over new-born first child’
Pn:	Maori	<i>phānau- ŋa</i>	‘kinsman, relation’
Pn:	Hawaiian	<i>hanau-na</i>	‘generation, ancestry, birth; relation’

The two following reconstructions, **pasu[su]* ‘(mother) give birth’ and **pusa* ‘(baby) be born’ raise a number of questions. If metathesis was ever involved in assumed forms **pasu* and **pusa*, evidence from Gela and Bugotu shows that there is now clear separation of form and meaning.

The form of **pasu[su]* suggests that it reflects **pa-susu*, i.e. causative prefix + ‘suck’. POc **susu* meant ‘suck’² (§4.3.2.3) and **pa-susu* meant ‘suckle, feed (baby) at the breast’, i.e. ‘cause to suck’. Two questions arise:

- A. Does **pasu[su]* reflect **pa-susu*, derived from the latter by metonymy?
- B. If yes, were **pasu[su]* ‘give birth’ and **pa-susu* ‘suckle’ a single verb in POc?

There are two sets of evidence, and they are in conflict. First, reflexes of **pa-susu* ‘suckle’ in §4.3.2.3 all reflect the disyllabic root **-susu*, whereas several reflexes of **pasu[su]* ‘give birth’ do not reflect the disyllabic root and instead reflect POc **pasu*. What is more, in several languages (Hote, Tinputz, Bugotu, Gela, Tolo) the form for ‘breast’ is different enough from the portion of the verb that reflects **-su[su]* to indicate that POc **pasu[su]* ‘give birth’ was not (or was no longer) derivationally related to POc **susu-* ‘breast’. These facts suggest rather strongly that the answer to question B is ‘no’, **pasu[su]* and **pa-susu* were not a single verb in POc.

The opposing set of evidence is as follows. In Southeast Solomonian and Central Pacific the POc causative prefix **pa-* has been replaced by reflexes of **paka-*, the causative form that originally occurred with statives, and so the Arosi, Wayan and Bauan forms appear transparently to reflect **pa-susu*, pointing to an affirmative answer to question B. Further, in certain other languages (Arop-Lukep, Teop, Mota, Raga) the reflex of the **-susu* part of POc **pasusu* ‘give birth’ is identical with the reflex of POc **susu-* ‘breast’, or nearly so.

² The root **susu* also formed the directly possessed noun ‘breast, milk’ (§3.5.7).

How can this conflict be resolved? The answer is a little complicated. The evidence for POc **pasu* ‘give birth’ is well enough distributed (Hote, Bugotu, Gela, Paamese) to suggest that it was a separate verb from **pa-susu* ‘suckle’, and the first set of evidence indicates that it had no derivational relationship to **susu-* ‘breast’. To account for the second set of evidence, however, we infer that in certain languages the reflex of the **-susu* part of **pasusu* ‘give birth’ was (by chance?) similar enough to the reflex of **susu-* ‘breast’ for reanalysis by folk etymology to take place, so that the reflex of **pa-* was reanalysed as the causative prefix and the reflex of the **-susu* as ‘breast’.

Thus we answer question B above in the negative. We have no definitive evidence regarding question A.

POc **pasu[su]* ‘give birth’

NNG:	Arop-Lukep	<i>pasui</i>	‘give birth’ (<i>sui-</i> ‘breast’)
NNG:	Hote	<i>vaŋu</i>	‘bear child, give birth; bear fruit’ (<i>sum</i> ‘breast’)
MM:	Tinputz	<i>vahuh</i>	‘give birth’ (<i>sisi?</i> ‘breast’)
MM:	Teop	<i>vahuhu</i>	‘give birth’ (<i>huhu-</i> ‘breast’)
MM:	Siar	<i>asus</i>	‘give birth’ (<i>susu-</i> ‘breast’)
SES:	Bugotu	<i>vahu</i>	‘bring forth, give birth to’ (<i>susū</i> ‘breast’)
		<i>vahuhu</i>	‘beget (of either parent)’
SES:	Gela	<i>vahu</i>	(VT) ‘bear, give birth to; be born’ (<i>susu, luhu</i> ‘breast’)
		<i>vahuhu</i>	‘be born, give birth to’
SES:	Tolo	<i>vasu-</i>	‘give birth, deliver (child), lay (egg)’ (<i>cucu</i> ‘breast’)
		<i>vasusu</i>	(VI) ‘give birth, deliver a child’
SES:	Arosi	<i>haʔa-susu</i>	‘beget a child, lay an egg’ (<i>haʔa-</i> CAUSATIVE, <i>susu-</i> ‘breast’)

PNCV **va-susu* ‘give birth, lay egg’ (Clark 2009)

NCV:	Mota	<i>vasus</i>	‘give birth, said of both sexes’ (<i>susi</i> ‘breast’)
NCV:	Raga	<i>bahuhu</i>	‘bring forth young, lay eggs’ (<i>huhu-</i> ‘breast’)
NCV:	Paamese	<i>vasu</i>	‘give birth’ (<i>sūsū</i> ‘breast’)
Fij:	Bauan	<i>vaka-suđu</i>	‘bring forth young’ (<i>suđu-</i> ‘breast’, <i>suđu</i> ‘be born, suck the breast’)
Fij:	Wayan	<i>vaka-suđu</i>	‘give birth’ (<i>-đuđu</i> ‘breast’, <i>suđu</i> ‘be born, give birth’)

Although POc **pusa* ‘be born’ is straightforwardly reconstructable, Oceanic languages also reflect several forms that are similar in that they have an initial labial followed by **-u-* or **-o-* and a medial apical, but they cannot be readily accounted for. Their resemblances have arisen by chance, and are listed below.

POc **pusa* ‘be born’

NNG:	Manam	<i>pura</i>	‘(baby) be born; come, arrive’
MM:	Nakanai	<i>(ta)posa</i>	‘to be born’
		<i>(ta)posa(la)</i>	(N) ‘birth of a child’
MM:	Nehan	<i>poha</i>	‘give birth, be born’
MM:	Petats	<i>posa</i>	‘(baby) be born’
MM:	Halia	<i>posa</i>	‘bear a child, give birth, lay an egg’

SES:	Bugotu	<i>vuha</i>	‘be born; begin, become, appear’
SES:	Gela	<i>vuha</i>	‘be born, become’ Also <i>vahu</i>
SES:	Lengo	<i>vuḏa</i>	‘be born’
SES:	Longgu	<i>vuta</i>	(VI) ‘be born’
SES:	Lau	<i>futa</i>	‘be born, originate, create’
		<i>futala</i>	(N) ‘birth’
SES:	Baegu	<i>futa</i>	‘line/kin’
SES:	Sa’a	<i>hute</i>	‘be born’
SES:	Kwaio	<i>futa</i>	‘be born, be related by kinship; appear, come out’
SES:	Arosi	<i>huta</i>	‘be born’
SES:	To’aba’ita	<i>futa</i>	(VI) ‘be born’
		<i>futalā</i>	(N) ‘birth’
		<i>faʔa-futa</i>	(VI) ‘bear a child, give birth’
		<i>faʔa-futā</i>	(VT) ‘bear a child, give birth’

cf. also:

MM:	Lamasong	<i>pasik</i>	‘(baby) be born’
MM:	Madak	<i>pisik</i>	‘(baby) be born’
Fij:	Bauan	<i>vusa</i>	‘a group, tribe, either of people or animals etc.’

POc **puta* and Proto Meso-Melanesian **p^woda* ‘be born’ are evidently irregular variants of POc **pusa(k)* ‘be born’.

?? POc **puta* ‘(baby) be born’

MM:	Tangga	<i>fut</i>	‘(baby) be born’
MM:	Bilur	<i>putai</i>	‘(baby) be born’
NCV:	Mota	<i>wota</i>	‘be born, come into being’
NCV:	Mwotlap	<i>wot</i>	‘be born’

cf. also:

Adm:	Seimat	<i>pet, petipet</i>	(VI) ‘be born’ (<i>p</i> - reflects <i>*b</i> -)

Proto Meso-Melanesian **p^woda* ‘(baby) be born’

MM:	Bulu	<i>poda</i>	‘(baby) be born’
MM:	Bola	<i>poda</i>	‘(baby) be born’
MM:	Uruava	<i>podo</i>	‘(baby) be born’
MM:	Torau	<i>podo</i>	‘(baby) be born’
MM:	Mono Alu	<i>poro</i>	‘(baby) be born’
MM:	Babatana	<i>podo</i>	‘(baby) be born’
MM:	Roviana	<i>podo</i>	‘(baby) be born’

cf. also:

NCV:	Raga	<i>vora</i>	‘be born, happen, become’
NCV:	Tamambo	<i>vora</i>	‘be born’

4.2.3 Growing

A number of PT and Mic reflexes of POc **tubuq* ‘grow, swell’ (vol.1:134), evidently used of humans, animals and plants, are glossed ‘be born’. Some Polynesian reflexes, although retaining the central meaning ‘grow’, extend it to include ‘originate’, ‘issue’, and ‘be descended from’, all ideas associated with birth.

PMP **tu(m)buq* ‘grow, thrive, swell’

POc **tubuq* ‘grow, swell’

NNG:	Numbami	<i>tubu</i>	‘grow, fatten’
NNG:	Roinji	<i>tubu</i>	‘(plant) grow’
NNG:	Kove	<i>tuvu-tuvu</i>	‘grow’ (<i>tuvu</i> ‘physique’; <i>pa-tuvu</i> ‘grow a child’)
PT:	Dobu	<i>tubua</i>	(VI) ‘be born’
PT:	Bwaidoga	<i>tubuya</i>	‘grow large, swell’
PT:	Gapapaiwa	<i>tupua</i>	‘be born’
PT:	Motu	<i>tubu</i>	‘grow; ferment; swell’
MM:	Nakanai	<i>tubu</i>	‘be fat, grow’
MM:	Ramoaina	<i>tubu</i>	‘grow (principally of men and animals, not trees)’
MM:	Teop	<i>subu</i>	‘swell’
SES:	Bugotu	<i>tubu</i>	‘swell’
SES:	Sa’a	<i>upu</i>	‘swell’
SES:	Arosi	<i>ubu</i>	‘swell’
NCV:	Mota	<i>tob^{wo}</i>	‘have the belly full’
NCV:	Port Sandwich	<i>ru^mb</i>	‘grow’
SV:	Anejom	<i>a-top^w</i>	‘grow, swell up’

PMic **t(i,u)p^wu* ‘be born, bear young’ (Bender et al., 2003)

Mic:	Mortlockese	<i>up^wu(tiw)</i>	‘be born’
Mic:	Puluwatese	<i>wup^wu(tiw)</i>	‘be born’
Mic:	Carolinian	<i>ub^wu(tiu)</i>	(VI) ‘be born’
Mic:	Satawalese	<i>up^wu(to)</i>	‘be born’
Mic:	Woleaian	<i>suφ^wu</i>	‘be born’
Fij:	Rotuman	<i>fupu</i>	‘grow, increase’
Fij:	Wayan	<i>tubu</i>	‘grow, increase’
Fij:	Bauan	<i>tubu</i>	‘grow, increase, spring up, of plants’

PPn **tupu* ‘grow’ (POLLEX)

Pn:	Tongan	<i>tupu</i>	‘grow up, originate, increase in size’
Pn:	Niuean	<i>tupu</i>	‘grow, sprout; be descended from’
Pn:	Samoan	<i>tupu</i>	‘grow’
Pn:	Tikopia	<i>tupu</i>	‘grow’
Pn:	Maori	<i>tupu</i>	‘grow; spring, issue, begin’

4.3 Ingestion and related activities and states

4.3.1 Eating and chewing

In this section are presented reconstructed verbs which have to do with the ingestion of solids. A pair of verbs meaning ‘eat’ is given in §4.3.1.1. This is followed by verbs of chewing, which fall into two categories, namely chewing something as part of the process of eating (§4.3.1.2), and chewing something in order to extract its ingestible content, after which the chewed remains are spat out (§4.3.1.3). The latter category includes general verbs of chewing without eating and verbs denoting the culturally significant activity of chewing betelnut.

4.3.1.1 Eating

Across the world’s languages the verbs for ingestion tend to be exceptional in their lexical and grammatical behaviour. A typical transitive verb like English *hit* (as in *The man hit the dog*) has a volitional agent as its subject (*the man*) and an affected patient as its object (*the dog*). English *eat* and *drink*, on the other hand, can occur quite naturally in both transitive and intransitive constructions, e.g. *The man ate the banana* vs. *The man ate*, whereas it requires considerable ingenuity to think up possible contexts for intransitive *The man hit* (cf Næss 2009:35). The apparent reason that ‘eat’ and ‘drink’ verbs allow a transitive/intransitive alternation in many languages is that they do not have the kind of meaning that is typically encoded by a transitive construction (Newman 2009:6). Certainly the person who eats or drinks is normally a volitional agent, and there is a sense in which what is eaten is an affected patient. But unlike verbs meaning ‘hit’, or even ‘destroy’, where the fate of the patient is part of what is profiled by the verb, ‘eat’ and ‘drink’ verbs primarily profile the agent and the effect of the activity on the agent (rather than on the patient), and this is what allows them to be used in intransitive as well as transitive constructions (Newman 2009:5, Næss 2009:27–28).

In some languages this distinction is carried further, as there are separate verbs for transitive ‘eat (something specified)’ and intransitive ‘eat’ (where what is eaten remains unprofiled) (Newman 2009:4, Næss 2009:29). One may say, with Newman (2009:5), that these reflect different conceptualisations of the ingestion activity, one which includes the ingested patient in its semantic profile (the transitive) and one which excludes it and profiles only the activity of ingestion (the intransitive). There are a number of Oceanic languages which have separate verbs for transitive and intransitive ‘eat’. The forms of these pairs of verbs are cognate with each other, and so it may be inferred that Proto Oceanic also made this distinction. Proto Malayo-Polynesian distinguished between transitive forms which consisted of the root plus a suffix or prefix, and an intransitive form with an actor subject. The intransitive form was marked with the prefix **paN-*, where **-N-* combined with the root-initial consonant to produce a nasal consonant. Although there are several reconstructed Proto Oceanic verbs that include a reflex of intransitive **paN-*, just one of these reconstructed verbs with **paN-* forms a pair with a corresponding reconstructed transitive. This is the pair meaning ‘eat’, POc **paŋan* ‘eat’ (VI) vs **kani* ‘eat’ (VT). They reflect the Proto Malayo-Polynesian forms **paŋan* ‘eat (VI)’ and **kaen-i* ‘eat (VT)’, where **paŋan* is derived from **paN-* + the root **kaen* ‘eat’,³ and **kaen-i* includes the location undergoer voice suffix **-i*, which became the POc transitive suffix **-i*.

³ The expected PMP form is †**paŋaen*, but all known reflexes point to **paŋan*.

The data are tabulated below.

	PMP	<i>*paŋan</i>	<i>*kaen-i</i>
	POc	<i>*paŋan</i>	<i>*kani</i>
Meso-Melanesian	Ramoaaina	<i>wəŋan</i>	<i>an</i>
SE Solomonic	Gela	<i>vaŋa</i>	<i>ɣani</i>
	Lau	<i>faŋa</i>	<i>ʔani-</i>
	To'aba'ita	<i>faŋa</i>	<i>ʔani-</i>
	Kwara'ae	<i>hoŋ</i>	<i>ʔen</i>
Temotu	Asumboa	<i>veveŋe</i>	<i>ka</i>
	Buma	<i>voŋo</i>	<i>e</i>
S Vanuatu	Sye	<i>vaŋ</i>	<i>eni</i>
	Ura	<i>eveŋ</i>	<i>eni</i>
	Lenakel	<i>a-uŋən</i>	<i>kən</i>
	Anejom	<i>haŋ</i>	<i>ɣiŋ</i>

As the data above are from primary subgroups of Oceanic, this intransitive/transitive pair evidently occurred in Proto Oceanic. The fact that this appears to be the only intransitive/transitive pair retained in modern Oceanic languages reflects the tendency for languages to encode intransitive and transitive 'eat' separately. This in turn reflects the centrality of eating in human life.

The forms **paŋan* and **kani* are treated separately below, as in many Oceanic languages one of them has displaced the other. More frequently, **kani* has replaced **paŋan*. The latter is not reflected at all (with the exception of certain forms described below) in New Guinea Oceanic (NNG and PT), Northwest Solomonic, North/Central Vanuatu, Central Pacific or Micronesian.

People in traditional Oceanic-speaking villages ate one cooked meal a day, usually after the day's work, and this presumably was also true of POc speakers. The meal typically consisted of starchy staples, made more appetising by the addition of coconut milk, leafy vegetables and sometimes some meat or fish (vol.3:36). The lexicons of Oceanic languages thus usually distinguish two main categories of ingredient, and POc evidently did so too. The relevant terms are:

- POc **kanaŋ*: starchy staples, including yams, taro, sweet potatoes and other root crops, cooking bananas and breadfruit (vol.3:40–41);
- POc **tamaji*: the additional ingredients: coconut milk, leafy vegetables and protein foods (meat, fish, shellfish) (vol.3:43).

The general meaning of **paŋan* and **kani* was 'eat', but Ross (vol.3:36–40) concludes that they also had the specific meaning 'eat starchy staples'. There are three kinds of evidence for this. First, **kanaŋ* 'starchy staples' is a nominalisation of the base also found in **kani*. Secondly, in Oceanic languages for which there is detailed information about verbs of eating, there is usually at least one other 'eat' verb, with the meaning 'eat starch and protein food together'. Sometimes there is also a verb meaning 'eat meat', 'eat fish' or 'eat protein food' and less often one meaning 'eat greens alone' or 'eat (s.t.) as an accompaniment to starchy food' (vol.3:39–41). Significantly, however, there is almost never a separate verb meaning 'eat starchy food', implying that this was the more specific sense of **paŋan*/**kani*. Thirdly, on the

rare occasions that a verb meaning ‘eat starch’ is found, it is the general verb of eating combined with an element indicating that nothing else (other than starch) is eaten, e.g. Anejom (SV) *top^w-haŋ* ‘eat starch without additions’, literally ‘just eat’, where *top^w* means ‘only’ and *haŋ* is the general verb ‘eat’ (< POC **paŋan*); Arosi (SES) *ŋau-konari* ‘eat one thing without relish’, where *ŋau* is the general verb ‘eat’ (< POC **ŋau* ‘chew and eat’, §4.3.1.2) and *konari* is ‘empty’.

There is a semantic association whereby terms for ‘sharp’ (referring to a blade, not a point) are derived from the verb ‘eat’ or ‘chew’. Reflexes of **paŋan*, often reduplicated, mean ‘sharp’ in a number of Meso-Melanesian and Southeast Solomonian languages, while reflexes of **kani* mean ‘sharp’ in a number of Northwest Solomonian, Micronesian and Polynesian languages. Isolated instances also occur in reflexes of the verbs of gnawing **ŋau* (Kwaio) and **ŋas(i,u)* (Hoava, Vangunu) (§4.3.1.2). Although this semantic extension of ‘eat’ seems rather an obvious one, it is not among those listed as occurring crosslinguistically by Newman (2009).

A number of the reflexes of **paŋan* with the sense ‘sharp’ display reduplication. This appears to have been an early Oceanic strategy for forming adjectives from members of other word classes. Colour adjectives, for example, were often reduplicated nouns (vol.2:207–210). This strategy did not occur with reflexes of **kani* that mean ‘sharp’, evidently because reduplication formed actor-subject intransitive verbs from transitives.

PMP **paŋan* (VI) ‘eat’

POC **paŋan* (VI) ‘eat’; **[pa[ŋa]]-paŋan* ‘sharp’ (vol.1: 29 ff, vol.3:39)

SJ:	Sobei	<i>pana</i>	‘eat’
MM:	Lavongai	<i>aŋan</i>	‘eat’
		<i>aŋ-aŋan</i>	‘sharp’
MM:	Tigak	<i>ŋan</i>	‘eat’
		<i>ŋa-ŋan</i>	‘sharp’
MM:	E Kara	<i>faŋan</i>	‘eat’
		<i>(pa)faŋan</i>	‘sharp’
MM:	W Kara	<i>faŋan</i>	‘eat’
MM:	Tiang	<i>ŋan</i>	‘eat’
		<i>aŋ-aŋan</i>	‘sharp’
MM:	Nalik	<i>faŋan</i>	‘eat’
		<i>faŋan</i>	‘sharp’
MM:	Notsi	<i>aŋan</i>	‘eat’
		<i>aŋen</i>	‘sharp’
MM:	Kandas	<i>uaŋon</i>	(VI) ‘eat; sharp’
MM:	Ramoaina	<i>wəŋan</i>	(VI) ‘eat’
MM:	Siar	<i>aŋan</i>	‘eat’
SES:	Bugotu	<i>vaŋa</i>	(VI) ‘eat’
		<i>vā-vaŋa</i>	‘sharp’
SES:	Gela	<i>vaŋa</i>	‘eat, have a meal; food, properly vegetable food’
		<i>va-vaŋa</i>	‘fruit; mollusc in its shell’
		<i>va-vaŋa-lua</i>	‘sharpen, sharp’

SES:	W G'canal	<i>va-vaŋa</i>	'sharp'
SES:	Talise	<i>va-vaŋa</i>	'sharp'
SES:	Birao	<i>vaŋa-vaŋa</i>	'sharp'
SES:	Malango	<i>va-vaŋa</i>	'sharp'
SES:	Lengo	<i>vaŋa</i>	'eat'
SES:	Longgu	<i>vaŋa</i>	'eat'
SES:	Lau	<i>faŋa</i>	(VI) 'eat, have a meal'; (N) 'food'
SES:	To'aba'ita	<i>faŋa</i>	(VI) 'eat', (N) 'food'
SES:	Baegu	<i>faŋa-</i>	'eat'
SES:	Kwara'ae	<i>hoŋ</i>	(VI) 'eat'
SES:	Langalanga	<i>fana</i>	'eat'
SES:	'Are'are	<i>hana(ha)</i>	'eat'
SES:	Arosi	<i>haŋan-i</i>	(VT) 'feed; a pet, adopted animal'
TM:	Asumboa	<i>veveŋe</i>	(VI) 'eat'
TM:	Buma	<i>voŋo</i>	(VI) 'eat'
SV:	Sye	<i>vaŋ</i>	(VI) 'eat'
SV:	Ura	<i>e-veŋ</i>	(VI) 'eat'
SV:	Lenakel	<i>a-uŋən</i>	(VI) 'eat'
SV:	Anejom	<i>haŋ</i>	'eat'

As noted above, reduplication forms actor-subject intransitive verbs from transitives, and there are a few reflexes of a possible POC **kani-kani* (VI) 'eat', namely Motu *yani-yani*, Nakanai *al-ali*, Hahon *an-an*, Lungga *ya-yani*, West Guadalcanal *ya-yani*, Tamambo *hani-hani*—but only the Motu and Tamambo forms are clearly marked as intransitive in the sources. Madak *an-an* and Barok *a-an*, both 'sharp', are exceptions to the generalisation above that adjectives are not formed from transitive verbs by reduplication. However, both sets of reduplicated forms here may be the result of post-Proto Oceanic applications of productive reduplication rules, rather than reflexes of reduplicated Proto Oceanic forms. It seems a little unlikely that a putative POC **kani-kani* (VI) 'eat' competed with **paŋan* (VI) 'eat'.

PMP **kaen* 'eat' (ACD)

POC **kani[-]* (VT) 'eat (s.t. starchy), eat (in general)'

Adm:	Seimat	<i>ani-</i>	(VT) 'eat'
Adm:	Loniū	<i>yani-</i>	(VT) 'eat'
NNG:	Kove	<i>-ani</i>	'eat'
NNG:	Bariai	<i>-an</i>	'eat'
NNG:	Kilenge	<i>-kan</i>	'eat'
NNG:	Sio	<i>-kan</i>	'burn'
		<i>kana(ŋo)</i>	'meat'
		<i>(i-i)ka</i>	'eat'
NNG:	Barim	<i>-kan</i>	'eat, burn'
NNG:	Lukep	<i>-kan(su)</i>	'eat'
		<i>kani(ŋ)</i>	'yam'
NNG:	Malasanga	<i>-kan</i>	'eat'
NNG:	Nenaya	<i>ʔan</i>	'eat'

NNG:	Roinji	<i>yan</i>	‘eat’
NNG:	Biliau	<i>aŋ</i>	‘eat’
NNG:	Gedaged	<i>ani-</i>	(VT) ‘eat’
NNG:	Takia	<i>-ani</i>	‘eat’
NNG:	Medebur	<i>-kan</i>	‘eat’
NNG:	Wogeo	<i>(e-kakaba)kan</i>	‘eat’
NNG:	Kis	<i>ani</i>	‘eat’
NNG:	Kairiru	<i>qan</i>	‘eat’
NNG:	Ulau-S	<i>(y)an</i>	‘eat’
NNG:	Sissano	<i>ʔaŋ</i>	‘eat’
NNG:	Sera	<i>-ʔaiŋ</i>	‘eat’
PT:	Kilivila	<i>kam</i>	‘eat’
PT:	Motu	<i>ani-</i>	(VT) ‘eat s.t.’
		<i>ani-ani</i>	(VI) ‘eat; food’
PT:	Lala	<i>ani</i>	‘eat’
PT:	Sinaugoro	<i>yani-</i>	(VT) ‘eat s.t.’
MM:	Vitu	<i>yani</i>	‘eat’
MM:	Bali	<i>yani</i>	‘eat; (dog) bite’
MM:	Bola	<i>kani</i>	‘eat; (dog) bite’
MM:	Bola Harua	<i>kani</i>	‘eat’
MM:	Nakanai	<i>al-ali</i>	‘eat’
MM:	Meramera	<i>ʔani</i>	‘eat’
MM:	Sursurunga	<i>ani</i>	‘eat’
MM:	Madak	<i>an</i>	‘eat’
		<i>an-an</i>	‘sharp’
MM:	Barok	<i>yan</i>	‘eat’
		<i>a-an</i>	‘sharp’
MM:	Tolai	<i>an</i>	(VI) ‘eat’
MM:	Ramoaina	<i>an</i>	(VT) ‘eat s.t.’
MM:	Tomoip	<i>han</i>	‘eat’
MM:	Nehan	<i>en</i>	‘eat’
MM:	Taiof	<i>aŋi</i>	‘eat’
MM:	Teop	<i>an</i>	‘eat’
MM:	Papapana	<i>ani</i>	‘eat’
MM:	Uruava	<i>ana</i>	‘eat; drink’
MM:	Torau	<i>ani</i>	‘eat; drink; sharp’
MM:	Mono Alu	<i>aŋ</i>	‘eat’
MM:	Lungga	<i>ya-yani</i>	‘eat’
		<i>yani</i>	‘sharp’
MM:	Roviana	<i>yani-a</i>	‘eat’
MM:	Kia	<i>yani-ni</i>	‘bite’
SES:	Gela	<i>yani</i>	(VT) ‘eat s.t.’
SES:	Bugotu	<i>yani</i>	‘eat’
SES:	Birao	<i>hani-a</i>	‘eat’
SES:	Kwara’ae	<i>ʔen</i>	(VT) ‘eat s.t.’
SES:	Lau	<i>ʔani-a</i>	(VT) ‘eat s.t.’

SES:	Kwaio	<i>ʔani-a</i>	(VT) 'eat s.t.'
SES:	To'aba'ita	<i>ʔani-a</i>	(VT) 'eat s.t.'
TM:	Asumboa	<i>ka</i>	(VT) 'eat s.t.'
TM:	Buma	<i>e</i>	(VT) 'eat s.t.'
NCV:	Mota	<i>yan</i>	'eat'
NCV:	Tamambo	<i>yani-</i>	(VT) 'eat s.t.'
		<i>yani-yani</i>	(VI) 'eat'
NCV:	Big Nambas	<i>xan</i>	'eat; sharp'
NCV:	Nahavaq	<i>ʔan</i>	'eat'
		<i>(kana)kan</i>	'sharp'
NCV:	Pt Sandwich	<i>xani</i>	'eat'
		<i>kan</i>	'sharp'
NCV:	N Efate	<i>kani</i>	'eat'
SV:	Sye	<i>eni</i>	(VT) 'eat s.t.'
SV:	Ura	<i>eni</i>	(VT) 'eat s.t.'
SV:	Lenakel	<i>kən</i>	(VT) 'eat s.t.'
SV:	Kwamera	<i>ani</i>	'eat'
SV:	Anejom	<i>yijɪ</i>	(VT) 'eat s.t.'
NCal:	Voh-Koné	<i>cani</i>	'eat starchy food'
NCal:	Xârâcùù	<i>kē</i>	'eat starchy food'
NCal:	Iaai	<i>han</i>	'eat'

PMic **kaŋi-* 'eat (s.t.)'; **ka-kaŋi* 'sharp' (Bender et al., 2003)

Mic:	Kiribati	<i>kaŋ</i>	'eat (more than one thing)'
		<i>ka-kaŋ</i>	'sharp'
Mic:	Marshallese	<i>kaŋ</i>	'eat'
		<i>k-kaŋ</i>	'sharp'
Mic:	Woleaian	<i>xaŋi-</i>	(VT) 'eat s.t.'
Mic:	Chuukese	<i>æri-</i>	(VT) 'eat s.t.'
		<i>k-ker</i>	'sharp'
Mic:	Carolinian	<i>aŋi-</i>	(VT) 'eat s.t.'
		<i>k-káŋ</i>	'sharp'
Mic:	Ponapean	<i>kaŋ</i>	(VT) 'eat s.t.'
		<i>kɛŋ</i>	'sharp'
Fij:	Bauan	<i>kani-a</i>	(VT) 'eat s.t.'

PPn **kai* 'eat' below reflects irregular loss of POc **-n-*.

PPn **kai* (v) 'eat', (N) 'food'; **ka-kai* (STATIVE VERB) 'sharp' (POLLEX)

Pn:	Tongan	<i>kai</i>	'eat, to bite (at bait); to experience, enjoy, suffer'
Pn:	Samoa	<i>ʔai</i>	'eat; food; bite, grip'
		<i>ma-ʔai</i>	'sharp'
Pn:	E Futunan	<i>kai</i>	'eat; food'
		<i>ka-kai</i>	'sharp'
Pn:	Tuvalu	<i>kai</i>	'eat; food; sharp'

Pn:	Tikopia	<i>kai</i>	‘food; eat; bite, as edged tool; be sharp, abrasive; swallow, engulf’
Pn:	Anutan	<i>kai</i>	‘eat; food’
		<i>ka-kai</i>	‘sharp (as a knife)’
Pn:	Rennellese	<i>kai</i>	‘eat, be eaten; smoke (tobacco); erode’
		<i>ka-kai</i>	‘be sharp’
Pn:	Pukapukan	<i>kai</i>	‘eat; food’

There is a small collection of oddments derived from **paŋan* which do not fit into the cognate sets above. The most intriguing of these is Arosi (SES) *maŋa* (vI) ‘eat’, (N) ‘bits of food in the crevices of the teeth after eating’. It appears to reflect PMP **maŋan* (Blust 1983–84), the independent intransitive form corresponding with dependent PAn **paŋan* (cf §1.3.5.5). Only a few Proto Malayo-Polynesian independent intransitive forms survived into Proto Oceanic, and the history of this form (and why there is just one known Oceanic reflex) is a mystery.

Less mysterious are PROc **va-vaŋan-i* (vT) ‘feed’ and PPn **fāŋai* ‘feed, provide food for’, both causative verbs with a root reflecting POc **paŋan* (vI) ‘eat’. It happens that the POc causative prefix was **pa-*, giving a causative form **pa-paŋan-i*, where *-i* was the transitive suffix. The suffix is reflected in Wayan and also accounts (i) for the retention of root-final *-n* in Mota, which would have been lost if it was word-final and (ii) for the final *-i* of PPn **fāŋai*. It appears that the repeated syllable **pa-* has been reduced by haplology in Mota and Rotuman, perhaps because reflexes of the root **paŋan* have no function in these languages outside the causative (as noted above, in the sense ‘eat’ reflexes of the root **paŋan* have been replaced by reflexes of **kani*). PPn **fāŋai* reflects two idiosyncratic innovations. The first is the replacement of †**fafa-* by **fā-*. The second is the loss of POc **-n-*, already noted above with regard to PPn **kai* ‘eat’.

PROc **va-vaŋan-i* ‘feed (animal, person)’

NCV:	Mota	<i>vaŋan</i>	‘feed’
Fij:	Wayan	<i>vaŋan-i-</i>	‘feed (usually an animal)’
Fij:	Rotuman	<i>haŋa</i>	‘feed’

PPn **fafaŋa* (vT) ‘feed (animal)’

Pn:	Tongan	<i>fafaŋa</i>	‘feed (animal)’
Pn:	Samoaan	<i>fafaŋa</i>	‘feed (animal)’

PPn **fāŋa-i* ‘feed, provide food for (animal, person)’ (POLLEX)

Pn:	Niuean	<i>fāŋa-i</i>	‘feed (animal, person)’
Pn:	Tikopia	<i>fāŋa-i</i>	‘feed (people, pets, plants), give solid food as opposed to <i>fāū</i> ‘feed with breast milk’
Pn:	Maori	<i>phāŋa-i</i>	‘feed, nourish, bring up (animal, person)’
Pn:	Hawaiian	<i>hāŋa-i</i>	‘raise, feed, nourish (animal, person)’

It was remarked above that POc **paŋan* and **kani* both probably had ‘eat starchy food’ as their more specific meaning. Modern Oceanic languages typically have at least one other ‘eat’ verb, with the meaning ‘eat starch and protein food together’. As the sample below shows, reconstruction of the POc term is impossible, but the concept must have been lexicalised in POc.

NNG:	Mapos Buang	<i>-rom</i>	‘eat mixed food including meat’
PT:	Gumawana	<i>goba</i>	‘eat yam and one other thing at the same time’
PT:	Iduna	<i>-kuda-taʔula</i>	‘eat starchy vegetables and meat together’ (- <i>kuda</i> chew, <i>taʔula</i> ‘banana leaf under food’)
MM:	Madak	<i>omon</i>	‘eat meat with’
MM:	Patpatar	<i>gama</i>	‘mix meat with starchy food’
MM:	Ramoaaina	<i>nanjin</i>	‘eat starch and meat together’
SES:	Arosi	<i>mamu</i>	‘eat two kinds of food together’
		<i>ʔau-b^wara-b^wara</i>	‘eat one thing with relish’ (<i>b^wara-b^wara</i> ‘fern species’)
SV:	Anejom	<i>aθepyañ</i>	‘eat meat or fish with taro’
SV:	Sye	<i>-etki</i>	‘eat meat or fish with starchy food’

Also widespread is the concept ‘eat meat/fish alone’:

NNG:	Labu	<i>-hungu</i>	‘eat meat only’
PT:	Iduna	<i>-a-k^wayak^waya</i>	‘eat meat alone’ (<i>k^wayak^waya</i> - ‘white’)
MM:	Sursurunga	<i>gemnai</i>	‘eat (s.t.) as an accompaniment to starchy food’ (<i>gemgem</i> ‘meat, meat animals’)
MM:	Ramoaaina	<i>bet</i>	‘eat meat alone’
SES:	Gela	<i>gona, gona-gona</i>	‘eat fish without vegetables’
SES:	Arosi	<i>ʔonari</i>	‘eat only fish’
SV:	Anejom	<i>leyley</i>	‘eat meat or fish without starch’
SV:	Sye	<i>elat</i>	‘eat meat or fish’

The concept ‘eat meat/fish alone’ was possibly already lexicalised in POC, as **[q,k]oda(q)*, but meaning occurs only in Roviana (MM) and as a subsidiary meaning in Wayan Fijian. More usually the reflexes mean ‘eat s.t. raw’, where the ‘something’ seems most frequently to be meat or fish (contra the gloss ‘raw seafood; eat raw seafood’ in vol.4:438, footnote 6).

PAn **qetaq* ‘eat s.t. raw’ (ACD)

PCEMP **qentaq* ‘eat s.t. raw’ (ACD)

POC **[q,k]oda(q)* ‘eat s.t. raw’ (ACD) (Blust 1972a; Lichtenberk 1994b:269; ACD)⁴

PT:	Molima	<i>oda</i>	‘eat raw food, of animals’
PT:	Kilivila	<i>koda</i>	‘eat something uncooked’
MM:	Roviana	<i>oda</i>	‘eat fish without relish or vegetables, etc.; eat garden produce, of pigs’
SES:	Gela	<i>oda</i>	‘eat raw; destroy a garden, of animals’
SES:	Kwaio	<i>oda</i>	‘eat raw; eat a garden, of a pig’
SES:	Arosi	<i>oga</i>	‘eat food raw, uncooked’
Mic:	Kiribati	<i>ora-ora</i>	‘act of eating fish or meat in a raw state’
Mic:	Kosraean	<i>oʃe</i>	‘eat raw’
Mic:	Woleaian	<i>xoʃʔʃ</i>	‘eat food raw’
Mic:	Pulo Annian	<i>xosa-</i>	‘eat food raw’
Mic:	Chuukese	<i>woça(amas)</i>	‘eat raw’

⁴ Reconstruction of the form **koda(q)* is required by the Woleaian, Pulo Annian and Fijian reflexes.

Fij:	Bauan Fijian	<i>koda</i>	‘eat raw meat’
Fij:	Wayan Fijian	<i>koda</i>	‘eat raw fish or shellfish; eat fish or meat by itself’
Pn:	Tongan	<i>ʔota</i>	‘raw, uncooked, mostly of meat, fish, shell-fish, or eggs; eat raw fish or shell-fish’
Pn:	Niuean	<i>ota</i>	‘eat raw; a dish of raw fish fixed with coconut cream’
Pn:	Samoaan	<i>ota</i>	‘pickle (fish for eating raw); dish of pickled raw fish’
Pn:	Tuvaluan	<i>ota</i>	‘raw fish or fruit; eat fish raw’
Pn:	Maori	<i>ota</i>	‘unripe, uncooked; eat raw or in an uncooked state’

Meat or fish was a less frequent food ingredient than starchy staples, but it was clearly valued, as the occurrence of verbs meaning ‘crave for meat/fish’ indicates:

PT:	Iduna	<i>-onanaga</i>	‘crave for meat’
MM:	Patpatar	<i>bite, bui</i>	‘crave for meat’
SV:	Sye	<i>-aŋot</i>	‘hungry for meat’ (lit. ‘itch’)
Fij:	Wayan	<i>tovi</i>	‘crave for meat or fish’

Terms for ‘eat greens alone’ are rarer, probably reflecting the fact that Oceanic speakers rarely eat leafy vegetables without any other food:

MM:	Ramoaaaina	<i>odo</i>	‘eat greens alone’
SES:	Arosi	<i>ŋau-kokona</i>	‘eat only greens’ (<i>kokona</i> ‘smooth, slippery’)
Pn:	Tongan	<i>hamu</i>	‘eat vegetables only’

PPn **samu* seems to have meant something like ‘eat one food only’, and in Nuclear Polynesian (reflexes other than Tongan and Niuean) ‘eat protein food only’. If the Gedaged terms below are cognate, then POc **samu* is reconstructable, perhaps with the sense ‘eat food that adds relish to staples’. In the Gedaged area this typically consists of green vegetables, with a small quantity of fish as a possible addition.

NNG:	Gedaged	<i>same</i>	‘eat fruit flesh’ (Milke 1961)
		<i>samu(n)</i>	‘savory kinds of food that add relish to staples’ (Mager 1952)

PPn **samu* ‘eat one food only’ (POLLEX)

Pn:	Tongan	<i>hamu</i>	‘eat vegetables only’
Pn:	Niuean	<i>(kai)hamu</i>	‘eat meat without vegetables’
Pn:	Anutan	<i>(kai)tamu</i>	‘eat fish only’
Pn:	E Uvean	<i>hamu(kō)</i>	‘eat one food only’
Pn:	E Futunan	<i>samu(kō)</i>	‘eat one food only (fish without vegetables or vice versa)’
Pn:	Tuvalu	<i>hamu</i>	‘eat only one food at a time’
Pn:	Emae	<i>(kai)samu</i>	‘eat meat only’

It is difficult to know if POc **kamu* meant more than just ‘eat’. The reflexes below that are glossed ‘chew (betelnut)’ all occur in the Southeast Solomonian area, and the Rennellese and

Tikopia terms must be borrowings from a Southeast Solomonian language as betelnut has never been a part of Polynesian culture.

POc **kamu* ‘eat’

MM:	Blablanga	<i>yamu</i>	‘eat’
MM:	Maringe	<i>yamu</i>	(VI, VT) ‘eat’
SES:	Lau	<i>kamu</i>	‘chew (betelnut)’
SES:	‘Are’are	<i>kamu</i>	‘chew (betelnut)’
SES:	Sa’a	<i>kamu</i>	‘chew (betelnut)’
Pn:	Tahitian	<i>ʔamu</i>	‘eat’
Pn:	Maori	<i>kamu</i>	‘eat, munch’

cf. also

Fij:	Bauan	<i>gamut-a</i>	‘take hold of between the teeth’
Fij:	Wayan	<i>gam</i>	(VI) ‘be clamped, as s.t. held between the teeth or by a vice’
		<i>gamt-i</i>	(VT) ‘clamp s.t., hold s.t. in the teeth or mouth’
Pn:	Rennellese	<i>kamu</i>	‘chew (betelnut)’ (borrowed)
Pn:	Tikopia	<i>kamu</i>	‘chew (betelnut)’ (borrowed)

4.3.1.2 Chewing and then eating, gnawing

Chewing is conceptualised in many Oceanic languages as two separate activities: chewing with the intention of eating, and chewing something of which the residue will afterwards be spat out. The object of the latter, either implied or specified, is typically sugarcane or betelnut. This section is concerned with chewing and eating, whilst chewing without eating is discussed in §4.3.1.3.

Lichtenberk (1994) and Ross, Clark and Osmond (vol.1:238) comment on the phonaesthetic pattern **k^wV[r,R,s]V⁻⁵* in POc terms meaning ‘scrape’. A similar pattern, but with initial **ŋ-*, appears to be present in chewing verbs such as POc **ŋari(s)*, **ŋaris-i-* ‘gnaw, of animals’ in this section and POc **ŋasu* (VI), **ŋasi* (VT) ‘chew (betelnut, sugarcane), bite into’ and PNNG **ŋuru* ‘chew (sugarcane)’ in §4.3.1.3, as well as a multiplicity of similar but not fully cognate forms which are listed under ‘cf. also’ beneath the **ŋari(s)/*ŋaris-i-* and **ŋas* (VI)/**ŋas-i* (VT) sets. The primary chew-and-eat verb POc **ŋau* ‘chew and eat’ also begins with **ŋ-*.

Two POc verb roots are reconstructed for ‘chew and eat’, **ŋau* ‘chew and eat’ and POc **ŋari(s)* ‘gnaw’, **ŋaris-i-* ‘gnaw (s.t.), of animals’. The semantic distinction is clear in Polynesian reflexes where **ŋari-* terms refer to gnawing or nibbling by animals, particularly rats, while reflexes of **ŋau* refer to human chewing/eating. A number of reflexes of the latter have become a general term for ‘eat’.

POc **ŋau* ‘chew and eat’

NNG:	Sio	<i>ŋau</i>	‘chew on repeatedly’
NNG:	Numbami	<i>ŋa-ŋau-i</i>	‘chew’
NNG:	Gitua	<i>ŋau</i>	‘chew’
MM:	Bola	<i>ŋau</i>	‘chew’

⁵ Neither source recognised the presence of POc **k^w*. On this, see Ross (2011).

MM:	Notsi	<i>ηau-ηau</i>	‘Canarium almond’
MM:	Tabar	<i>ηau</i>	‘eat’
MM:	Tangga	<i>ηau</i>	‘(dog +) bite’
MM:	Madak	<i>ηau</i>	‘(fire) burn’
MM:	Vaghua	<i>ηa-ηa</i>	‘eat’
MM:	Varise	<i>ηa-ηa</i>	‘eat’
MM:	Babatana	<i>ηa-ηau</i>	‘chew (food)’
MM:	Nduke	<i>ηa-ηau</i>	‘eat’
MM:	Vagunu	<i>ηa-ηau</i>	‘eat’
MM:	Blablanga	<i>ηau</i>	‘eat’
SES:	Gela	<i>ηau</i>	‘shell gimlet’
SES:	Kwaio	<i>ηau</i>	‘sharp, pointed’
SES:	Sa’a	<i>ηau</i>	(VT) ‘eat s.t.’
SES:	Arosi	<i>ηau</i>	(VT) ‘eat s.t.’
SES:	Bauro	<i>ηau</i>	‘eat’
NCV:	Mota	<i>ηau</i>	‘gnaw, champ, bite’
Mic:	Kiribati	<i>ηau-ηau</i>	‘eat voraciously’
Pn:	Tongan	<i>ηau</i>	‘gnaw, chew (to get juice only)’
Pn:	Rennellese	<i>ηau</i>	‘chew, as pandanus, sugar cane, betel husks; bite’
Pn:	Samoa	<i>ηau</i>	‘chew’
Pn:	Tikopia	<i>ηau</i>	‘bite, chew’

cf. also:

MM:	Tolai	<i>ηo(ηe)</i>	‘betel chew’ (where <i>-ηe</i> may reflect a nominaliser)

POc **ηari(s)*, **ηaris-i-* ‘gnaw, nibble, (perhaps of animals)’

PT:	Motu	<i>yari-a</i>	(VT) ‘gnaw s.t.’
MM:	Nakanai	<i>gari</i>	‘bite’ (for † <i>gali</i>)
MM:	Meramera	<i>gali</i>	‘bite’

PMic **ηari*, **ηari-ti* ‘nibble, gnaw, crunch’ (Bender et al., 2003)

Mic:	Kosraean	<i>ηar-ηar</i>	‘crushing, crunching, cracking sound’
Mic:	Marshallese	<i>ηar-ηar</i>	‘bite the dust, feed off a surface’
Mic:	Carolinian	<i>ηær</i>	‘be gnawed or nibbled’
Mic:	Woleaian	<i>ηazi-ηezis-i</i>	‘chew, crunch, gnaw’

PPn **ηali* ‘nibble, gnaw’ (POLLEX)

Pn:	Tongan	<i>ηali</i>	‘nibble, chew, gnaw, as a rat’
Pn:	Niuean	<i>ηali</i>	‘gnaw, as a rat’
Pn:	Rennellese	<i>ηagi-ηagi</i>	‘bite while holding in the hand’
Pn:	Samoa	<i>ηali</i>	‘gnaw’
Pn:	Tikopia	<i>ηari</i>	‘bite with teeth, gnaw, nibble’
Pn:	Tokelauan	<i>ηali</i>	‘gnaw; bite off piece by piece from a big piece’
Pn:	Hawaiian	<i>nali</i>	‘nibble, gnaw’

cf. also:

MM:	Roviana	<i>ɲuri-ɲurih-i</i>	‘gnaw’ (-h- < POc *-s-)
SES:	To’aba’ita	<i>ɲori-</i>	(VT) ‘of animals, gnaw, gnaw at s.t.’
SES:	Sa’a	<i>ɲero</i>	(VI) ‘chew, nibble, of rats’

4.3.1.3 Chewing without swallowing

Seven terms are reconstructed for chewing without swallowing:

1. POc **ɲas* (VI), **ɲas-i-* (VT) ‘chew (betelnut), suck and chew (sugarcane), bite into’
2. PNNG **ɲuru* ‘suck and chew (sugarcane)’
3. POc **qusi-* ‘suck and chew (sugarcane)’
4. POc **mamaq* (VI), **mamaq-i-* (VT) ‘chew, masticate but not swallow’
5. POc **meme* (VI), **[me]me-i-* (VT) ‘premasticate food for baby’
6. POc **jamu* (VI), **jam^w-i-* (VT) ‘chew (betelnut)’ (Ross 1988:78)
7. ?? PEOc **dramu* (VI), **dram^w-i-* (VT) ‘chew’

With so many POc terms for the same or similar activities, one would expect them to have had different uses. Among the glosses of their reflexes one can distinguish general terms that make no reference to what is chewed, specialist terms used for chewing betelnut or sugarcane, and terms that refer to premasticating food for a baby. However, it is difficult to attribute specific meanings to the POc reconstructions because reflexes have undergone meaning shifts. A small complication is that ‘chew betelnut’ was a meaning in the wordlists elicited by Ross, but it is possible that terms thus glossed are also used for other kinds of chewing.

Betelnut chewing is singled out in many Oceanic languages because of its social significance. Betelnut is a stimulant, *Areca catechu*, POc **buaq* (vol.3:391–395), chewed throughout lowland New Guinea and NW Island Melanesia.

Palms are grown in village groves or singly near houses. The seed may be chewed alone, but usually people chew a quid consisting of the seed, lime and a catkin or leaf of *Piper betle* [POc **[pu-]pulu*]. ... Chewing the seed induces salivation, and if lime is present it turns the chewed mass bright red. Some people swallow all but the initial burst of saliva, whilst others spit out the red masticate. Initially, chewing leads to a very short-lived dizziness, followed by a sense of renewed wakefulness. In Papua New Guinea and parts of the Solomons chewing betelnut is a social ritual when people meet. Convention requires that the host offer betelnut to visitors (vol.3:392)

So ‘chewing betelnut’ entails a semantic frame which includes not only the physical practices but also the assertion of social solidarity associated with chewing.

Betelnut is not chewed in Vanuatu, Fiji, Polynesia or Micronesia, where a similar social function is performed by kava-drinking (kava is made from *Piper methysticum*).

Another common activity in NW Melanesian villages is chewing a piece of sugarcane, *Saccharum officinarum*, POc **topu* (vol.3:389–391).

The jointed, fibrous stalks contain sucrose, obtained by cutting off a stem and chopping it into convenient lengths which are sucked and chewed as a refreshing snack. When the sugar has been sucked out, the rubbish is spat out. (vol.3:390)

It has proven easier to identify POc terms for chewing sugarcane than for chewing betelnut.

Reflexes of **ɲas/*ɲas-i-* and **mamaq/*mamaq-i-* are geographically interlaced in the North New Guinea and Meso-Melanesian clusters of Western Oceanic,⁶ whilst the former prevails in Southeast Solomonian, the latter in Vanuatu and the Central Pacific. It is difficult to infer a difference in meaning between them from the glosses of their reflexes. Glosses of the reflexes of **ɲas/*ɲas-i-* refer to both betelnut and sugarcane, but the term has reflexes only in the betelnut-chewing region, suggesting that it was used mainly of chewing betelnut. Glosses of Western Oceanic reflexes of **mamaq/*mamaq-i-* refer only to betelnut-chewing, but there are also reflexes outside the betelnut-chewing region, which tend to denote chewing without swallowing and in NCV and Polynesian sometimes refer specifically to premasticating food to be fed to a baby.

If the canonic derivation of POc verbs from PMP reduplicated monosyllables is applied (Blust 1977b; see also vol.2:25) to **ɲas/*ɲas-i-*, the expected intransitive form is †**ɲa-ɲas*, but this is nowhere reflected, perhaps because the verb's general meaning typically required an object specifying what was chewed. However, Banoni and Maringe *ɲasa* both reflect the Proto NW Solomonian final echo vowel **-a*, pointing to an earlier intransitive **ɲas*.

It is tempting to attribute Hoava *ɲahu* and Vangunu *ɲasu*, both 'sharp' (under 'cf. also' below), to this set, extending the observation that words for 'sharp' are sometimes derived from eating verbs (§4.3.1.1). However, two features speak against this. First, **ɲasi-* is not semantically a verb of eating. Second, final *-u* is non-etymological. From this perspective, Mono-Alu *asu* 'chew (betelnut)' is also not a regular reflex of POc **ɲas* or **ɲasi-*. Loss of initial **ɲ-* is regular, but final *-u* appears to reflect blending of regular pre-Mono-Alu †**ɲasa* (the expected reflex of POc **ɲas*) with a reflex of putative **ɲasu* 'sharp' (of unknown antiquity).

PMP **ɲasɲas* 'crush with the teeth' (ACD)

POc **ɲas* (VI), **ɲas-i-* (VT) 'chew (betelnut), suck and chew (sugarcane), bite into'

NNG: Bebeli	<i>nes</i>	'chew (betelnut)'
NNG: Rauto	<i>ɲes</i>	'chew (betelnut)'
NNG: Aria	<i>ɲes</i>	'chew (betelnut)'
NNG: Atui	<i>ɲas</i>	'chew (betelnut)'
NNG: Akolet	<i>ɲes</i>	'chew (betelnut)'
NNG: Apalik	<i>ɲes</i>	'chew (betelnut)'
NNG: Mangseng	<i>ɲas</i>	'chew (betelnut)'
NNG: Poeng	<i>ɲesi-</i>	'suck, chew (e.g. sugarcane)'
MM: Nakanai	<i>gari</i>	'chew up, bite into, eat'
MM: Madak	<i>ɲas</i>	'chew (betelnut)'
MM: Lamasong	<i>ɲas</i>	'chew (betelnut)'
MM: Sursurunga	<i>ɲasi</i>	(VT) 'bite, chew'
MM: Patpatar	<i>ɲas</i>	(VT) 'chew'
MM: Ramoaaina	<i>ɲa</i>	(VT) 'chew'
MM: Label	<i>ɲas</i>	'chew'
MM: Kandas	<i>ɲas</i>	'bite'
MM: Siar	<i>ɲas</i>	'chew (betelnut); bite'
MM: Taiof	<i>(a)ɲas</i>	'chew (betelnut)'

⁶ Neither is reflected in the Papuan Tip cluster, the third section of Western Oceanic.

MM:	Tinputz	<i>nah</i>	‘chew (betelnut)’
MM:	Teop	<i>nah</i>	‘chew (betelnut)’
MM:	Banoni	<i>ɲasa</i>	‘chew (betelnut)’
MM:	Maringe	<i>ɲasa</i>	‘chew s.t. tough’
SES:	Gela	<i>ɲasi</i>	‘suck, as sugarcane; bite; husk with the teeth, of coconuts’
SES:	Lengo	<i>(ɲa)ɲaɔ̃i</i>	‘chew (sugarcane)’
SES:	Longgu	<i>nasi-</i>	(VT) ‘chew s.t. (e.g. sugarcane)’
SES:	Kwaio	<i>ɲasi</i>	‘suck on sugar cane’
SES:	’Are’are	<i>nasi</i>	‘chew, gnaw’
SES:	Sa’a	<i>ɲasi</i>	(VT) ‘chew (sugarcane), roll about in the mouth’
SES:	Arosi	<i>ɲasi</i>	‘chew (sugarcane)’
SES:	To’aba’ita	<i>ɲasi</i>	‘sugarcane’
cf. also:			
MM:	Mono Alu	<i>asu</i>	‘chew (betelnut)’
MM:	Hoava	<i>ɲahu</i>	‘sharp’
MM:	Vangunu	<i>ɲasu</i>	‘sharp’
SES:	Bugotu	<i>ɲa-ɲata</i>	‘chew (sugarcane)’
SES:	Gela	<i>ɲata-ɲata</i>	‘bite off’
		<i>ɲaɲata</i>	‘chew’
SES:	Longgu	<i>ɲata-</i>	(VT) ‘chew something on one side of the mouth’
		<i>ɲata-ɲata</i>	(VI) ‘chew or grind on one side of the mouth, as when eating a nut’

PNNG **ɲuru* is listed here because it manifests the phonaesthetic pattern mentioned in §4.3.1.2.

PNNG **ɲuru* ‘suck and chew (sugarcane)’

NNG:	Kove	<i>ɲoho</i>	‘chew s.t. hardish or sticky’
NNG:	Bola	<i>ɲuru</i>	‘suck, kiss’
NNG:	Manga Buang	<i>ɲur</i>	‘chew or suck (sugarcane)’
NNG:	Mapos Buang	<i>ɲur</i>	‘chew or suck sugarcane’
NNG:	Mumeng (Patep)	<i>ɲul</i>	‘chew (sugarcane)’
NNG:	Kapin	<i>ɲul</i>	‘chew (sugarcane)’
NNG:	Piu	<i>(a)ɲor</i>	‘chew (sugarcane)’

Blust (ACD) offers evidence that Proto Malayo-Polynesian had a term referring specifically to chewing sugarcane. As Oceanic evidence he offers just the Mota reflex, and we have found one further Oceanic cognate.

PMP **ququs* ‘chewing on sugarcane’ (ACD)

POc **qusi-* (VT) ‘suck and chew (sugarcane)’⁷

MM:	Nehan	<i>uhu</i>	‘chew (sugarcane etc)’

⁷ **qusi* is reconstructed here rather than **qusu* because **-i* was added to verb roots in POc to form transitive verbs. Nehan *uhu* is assumed to reflect loss of **-i* followed by echo-vowel addition.

NCV: Mota *us* ‘chew sugarcane’

POc **mamaq* (VI), **mamaq-i-* (VT) is reconstructed with final **-q* on the basis of Tolai, Minigir, Label and Siar *-i* and Namakir *-ʔ*.

PMP **mamaq* ‘chew’ (Dempwolff 1938)

POc **mamaq* (VI), **mamaq-i-* (VT) ‘chew, masticate but not swallow’

Adm:	Seimat	<i>mama-i</i>	(VT) ‘chew’
NNG:	Malai	<i>mama(ŋ)</i>	‘betel chew’
NNG:	Mindiri	<i>mami</i>	‘chew (betelnut)’
NNG:	Bilibil	<i>-mam</i>	‘chew (betelnut)’
NNG:	Gedaged	<i>mam</i>	(VT) ‘chew, especially betel but also food’
NNG:	Megiar	<i>-mam</i>	‘chew (betelnut)’
NNG:	Takia	<i>-mam</i>	‘chew (betelnut)’
MM:	Vitu	<i>mama</i>	‘chew (betelnut)’
MM:	Bulu	<i>mama</i>	‘chew (betelnut)’
MM:	Bola	<i>mama</i>	‘chew (betelnut)’
MM:	Bola Harua	<i>mama</i>	‘betel chew’
MM:	Nakanai	<i>mama</i>	‘chew (betelnut)’
MM:	Meramera	<i>mama</i>	‘chew (betelnut)’
MM:	Sursurunga	<i>ma</i>	‘chew (betelnut)’
MM:	Minigir	<i>mamai</i>	‘chew (betelnut)’ (<i>-i < *-q</i>)
MM:	Tolai	<i>mamai</i>	(VI) ‘chew (betelnut)’ (<i>-i < *-q</i>)
MM:	Label	<i>mai</i>	‘chew (betelnut)’ (<i>-i < *-q</i>)
MM:	Ramoaina	<i>mama</i>	‘chew (betelnut)’
MM:	Siar	<i>mamai</i>	‘betel chew’ (<i>-i < *-q</i>)
MM:	Torau	<i>mama</i>	‘chew (betelnut)’
SES:	Gela	<i>mama</i>	(VT) ‘chew fine; feed a baby with pap’
SES:	Arosi	<i>ma-i-ma-i</i>	‘chew (sugarcane)’
NCV:	Kiai	<i>mama</i>	‘eat pre-chewed taro’,
		<i>mama-i-</i>	‘feed with pre-chewed taro’
NCV:	Raga	<i>mama</i>	‘chew, as mothers do for food for children’
NCV:	Namakir	<i>mamaʔ</i>	‘chew food for baby’
SV:	Lenakel	<i>a-ma-i</i>	‘chew’
SV:	Anejom	<i>a-ma-i</i>	‘chew’
Fij:	Bauan	<i>mamā</i>	‘chew and spit out again, of kava etc’

PPn **mama* ‘chew, masticate but not swallow’

Pn:	Tongan	<i>mama</i>	‘chew, esp. kava root in former times or candlenuts before using as soap, or food to be fed to a baby’
Pn:	Rennellese	<i>mama</i>	‘chew without swallowing’
Pn:	Samoa	<i>mama</i>	‘pre-masticate kava or food for infants’
Pn:	Tikopia	<i>mama</i>	‘chew but not swallow, as kava root’
Pn:	Tahitian	<i>mama</i>	‘pre-masticate kava or food for infants’
Pn:	Emae	<i>mama</i>	‘chew s.t. until soft’

Pn:	Hawaiian	<i>mama</i>	‘chew, masticate but not swallow’
cf. also:			
PT:	Roro	<i>momo</i>	‘betel chew’

Vanuatu reflexes of POc **meme* (VI), **[me]me-i-* (VT) have the very specific meaning ‘premasticate food for baby’, where the baby is the object of the transitive form. However, inspection of the glosses below and the glosses of reflexes of POc **mamaq* ‘chew betelnut’ above suggests that there has been some blending of the two terms, whereby one of the two verbs also takes on the meaning of the other. It seems likely that Vanuatu reflexes preserve the POc sense, since there is no other POc candidate for the meaning ‘premasticate food for baby’. No reflex from outside Vanuatu with this meaning has been found.

POc **meme* (VI), **[me]me-i-* (VT) ‘chew; (?) premasticate food for baby’

Adm:	Lou	<i>meme(m)</i>	‘chew food without swallowing it’
MM:	Sursurunga	<i>meme</i>	‘leftovers or waste from betel nut chewing’
MM:	Ramoaina	<i>meme</i>	‘chewed betelnut and lime; the red spittle from it’
SES:	Lau	<i>meme</i>	‘chew (sugarcane); masticate food generally’
SES:	Kwaio	<i>meme</i>	‘chew (sugarcane)’
SES:	’Are’are	<i>meme</i>	‘chew (betelnut)’
NCV:	SE Ambrym	<i>me-i</i>	‘feed (an infant)’
NCV:	Lewo	<i>meme</i>	‘chew food for baby’
		<i>mē-na</i>	‘food chewed by mother for baby’
NCV:	Uripiv	<i>-meme-i</i>	‘chew food to make it moist and soft for a baby’
Mic:	Marshallse	<i>meme</i>	‘eat (child speech); chew’

POc **jamu* perhaps meant ‘chew (betelnut)’, as this is its meaning throughout the betelnut-chewing area. Beyond this area it retains senses related to the fibrous residue remaining after a plant has been chewed or wrung out. PNCV **zam^wan* ‘chew, fibrous residue’ appears to have been a noun reflecting the POc nominalisation **jamu-an*, suggesting that the meaning of the verb at an immediately pre-PNCV stage was something like ‘spit out residue’, a meaning which is, however, not directly attested. In fact even the verbs in some, if not all, Vanuatu languages listed appear to be back-formations from the nominalisation. Mota *sam^wan*, Kiai *zama-i-*, Uripiv *o-jām-jām^we*, Ninde *sam^we*, Rerep *jamue*, Nguna *sam^wa-e* all appear to reflect the suffix **-an* (**-n* is mostly lost in NCV languages).

It is tempting to try to associate POc **jamu* with **d(r)amut* ‘lime spatula’ (vol.1:77), as the latter belongs to the paraphernalia of betel-chewing, but the resemblance seems to be a chance one.

PPn **samu* ‘eat scraps’ has the same form as PPn **samu* ‘eat one food only’ (§4.3.1.1), but this is also apparently a chance resemblance.

POc **jamu* (VI), **jam^w-i-* (VT) ‘chew (betelnut)’ (Ross 1988:78)

Adm:	Mussau	<i>rame</i>	‘chew (betelnut)’
NNG:	Bam	<i>-jemi</i>	‘chew (betelnut)’
NNG:	Manam	<i>zem</i>	‘chew (betelnut)’
NNG:	Wogeo	<i>(e)jimu</i>	‘chew (betelnut)’
NNG:	Kis	<i>(a)jem</i>	‘chew (betelnut)’

NNG:	Kairiru	<i>jem</i>	‘chew (betelnut)’
PT:	Motu	<i>ramu</i>	‘chew (betelnut)’ (<i>r-</i> for † <i>d-</i>)
MM:	Tiang	<i>səm</i>	‘chew (betelnut)’
PNCV * <i>zam^wan</i> ‘chew; fibrous residue’ (Clark 2009)			
NCV:	Mota	<i>sam^wan</i>	‘eat what is soft and juicy and has fibres in it’
		<i>sam^wa(i)</i>	‘useless remains, refuse’
NCV:	Raga	<i>ham^wa</i>	‘residue of kava root or sugarcane’
NCV:	Apma	<i>sem^wa</i>	‘residue when liquid has been expressed from grated coconut, yam, etc.’
NCV:	Nokuku	<i>jam</i>	‘residue of coconut, kava, sugarcane’
NCV:	Kiai	<i>zama-i-</i>	(VT) ‘masticate’
NCV:	Uripiv	<i>o-jəm-jəm^we</i>	‘chew fibrous substance’,
NCV:	Ninde	<i>sam^we</i>	‘chew noisily’
NCV:	Rerep	<i>jamue</i>	‘gnaw’
		<i>jaman</i>	‘wringings of coconut’,
NCV:	Namakir	<i>ham</i>	‘kava residue’
NCV:	Nguna	<i>sam^wa-e</i>	‘chew’
		<i>na-sam^wa</i>	‘dross (e.g. chewed sugarcane, sawdust, wood shavings, remains of squeezed-out kava)’
PCP * <i>jamu</i> ‘eat scraps of food’ (Geraghty 1986:301: ‘scraps of food’)			
Fij:	Rotuman	<i>jam-jamu</i>	‘eat sparingly’
PPn * <i>samu</i> ‘eat scraps’ (POLLEX)			
Pn:	Niuean	<i>(kai)hamu</i>	‘eat scraps’
Pn:	Samoan	<i>samu</i>	‘eat scraps’
Pn:	Tikopia	<i>samu</i>	‘pick out fastidiously’
Pn:	Rennellese	<i>samu</i>	‘bite seeds and spit out pulp’
Pn:	Tongarevan	<i>(kai)samu</i>	‘eat scraps of food’
Pn:	Tahitian	<i>(ʔai)hamu</i>	‘eat scraps’
Pn:	Tuamotuan	<i>hamu</i>	‘eat scraps’
Pn:	Marquesan	<i>hamu</i>	‘eat scraps’
Pn:	Mangarevan	<i>ʔamu</i>	‘eat leftover food’
Pn:	Hawaiian	<i>hamu</i>	‘eat scraps’
Pn:	Rarotongan	<i>(kai)ʔamu</i>	‘eat scraps of food’
Pn:	Maori	<i>hamu-hamu</i>	‘eat scraps’
Pn:	Rapanui	<i>hamu-hamu</i>	‘eat leftovers’
cf. also:			
MM:	Roviana	<i>hamu-a</i>	‘chew’ (<i>h</i> for † <i>z</i>)

The set below appears to reflect an earlier intransitive, POc **ñamu*, corresponding to POc **jamu* in the same way as POc **paʔan* (VI) ‘eat’ corresponds to **kani* (VT) ‘eat’. Blust (ACD) notes a corresponding Javanese pair, *ñamuk-ñamuk* (VI)/*camuk-camuk* (VT) ‘chew on something with the mouth full’.

POc **ñamu* (VI) ‘chew (betelnut?)’ (ACD)

NNG:	Gedaged	<i>nam</i>	‘eat’ (used when speaking to small children)
SES:	’Are’are	<i>namu</i>	‘chew betelnut; chew, masticate’

Fij:	Bauan	<i>namu-namu</i>	(VI) ‘chew and swallow’
		<i>namu-t-a</i>	(VT) ‘chew and swallow’

Tentatively reconstructed PEOc **dramu* (VI), **dram^w-i-* (VT) ‘chew’ below is suspect because the SE Solomonian reflexes other than Gela *dami* could equally well reflect POc **jamu* (VI), **jam^w-i-* (VT). The reflexes of PPn **lamu* ‘chew’, however, are clearly distinct from those of PPn **samu* ‘eat scraps’.

?? PEOc **dramu* (VI), **dram^w-i-* (VT) ‘chew’

SES:	Gela	<i>dami</i>	‘chew (betelnut)’
SES:	Lau	<i>dami</i>	‘chew (betelnut); betel pepper’
SES:	To’aba’ita	<i>damu-</i>	(VT) ‘chew s.t. (properly used only of animals)’
SES:	Lau	<i>damu</i>	‘smack lips’
SES:	Kwaio	<i>damu</i>	‘chew (betelnut)’
SES:	Ulawu	<i>damu</i>	(VI) ‘chew betel’
SES:	Arosi	<i>damu</i>	‘chew (betelnut)’
SES:	Bauro	<i>tamu</i>	‘chew (betelnut)’

PPn **lamu* ‘chew’ (POLLEX)

Pn:	Tongan	<i>lamu</i>	‘chew’
Pn:	Niuean	<i>lamu</i>	(VT) ‘eat, chew’
Pn:	Pukapukan	<i>lamu-lamu</i>	‘eat’
Pn:	E Futunan	<i>lamu</i>	‘chew’
Pn:	Rennellese	<i>gamu-gamu</i>	‘gobble food noisily’
Pn:	Samoan	<i>lamu</i>	‘chew’
Pn:	Tokelauan	<i>lamu</i>	‘chew’

4.3.2 Drinking and sucking

The verbs reconstructed in this section denote the ingestion of liquids. Like eating (§4.3.1.1), drinking in general was evidently expressed in Proto Oceanic by a pair of verbs, intransitive and transitive. There were evidently two lexically encoded manners of drinking. One entailed opening the mouth and pouring liquid from a vessel (often a young coconut) which did not touch the lips (§4.3.2.1.1). The other involved contact between the lips and the drinking vessel and translates roughly as sipping and slurping (§4.3.2.1.2).

Sucking for Proto Oceanic speakers was perhaps not one category but three or four: sucking other than at the mother’s breast in order to drink (§4.3.2.2), sucking at the mother’s breast (§4.3.2.3), sucking at a pipe in order to inhale its smoke (§4.3.2.4), and making sucking noises (in §4.3.6 below). The glosses of sucking verbs often include ‘kiss’, for which Proto Oceanic appears not to have had a dedicated term. The Oceanic way of greeting is or was by pressing the nose to face or limb and sniffing, an action often described as kissing (see POc **asok* (VI) **asok-i* (VT) ‘sniff’ in §8.4).

4.3.2.1 Drinking

Just as a pair of Proto Oceanic verbs **payan* and **kani-*, respectively intransitive and transitive (§4.3.1.1), can be reconstructed for ‘eat’, so too a pair can be reconstructed for ‘drink’:

**m^winum* (VI) and **inum-i-* (VT) (cf §1.3.5.5). Unlike terms for ‘eat’, reflexes of the two ‘drink’ verbs appear never to co-occur in an Oceanic language as an intransitive/transitive pair, and in many languages we find either that a new transitive has been formed from a reflex of intransitive **m^winum* or that a new intransitive has been back-formed from transitive **inum-i-*, giving intransitive **inum*. Reflexes of the intransitive and transitive do occur, however, in closely related languages. Thus Bauan Fijian *ɣunu/ɣunuv-* reflects **m^winum*, whilst Boumaa Fijian *inu/inum-* reflects **inum-i-*.

The derivation of the ‘drink’ pair is different from the ‘eat’ pair. The Proto Malayo-Polynesian intransitive of ‘eat’ was formed with **paN-*, whereas the intransitive of ‘drink’ was formed with a prefix allomorph of the PMP infix **um*, giving **um-inum* (§1.3.5.5). Non-Oceanic languages have sometimes lost initial **u-* (e.g. Malay *minum*), but there is evidence that it was still present at an immediately pre-Proto Oceanic stage, as it caused labialisation of **m-*, giving POc **m^winum* rather than **minum* (Lynch 2002). This is attested both by reflexes that retain *m^wi-* and by those that have simplified **m^wi-* to *mu-*.

PMP **um-inum* (VI) ‘eat’ (ACD)

POc **m^winum* (VI) ‘drink’ (Lynch 2002)

Adm: Bipi	<i>m^win</i>	‘drink’
NCV: Raga	<i>m^winu</i>	‘drink’
NCV: Lonwolwol	<i>muen</i>	‘drink’
NCV: SE Ambrym	<i>mu-mun</i>	(VI) ‘drink’
	<i>mun-i-</i>	(VT) ‘drink’
NCV: Uripiv	<i>min-i</i>	‘drink’
NCV: Port Sandwich	<i>mün-i</i>	‘drink’
NCV: Ninde	<i>mün</i>	‘drink, lap up’
NCV: Paamese	<i>mun</i>	(VT) ‘drink’
	<i>mun-mun</i>	(VI) ‘drink’
NCV: Lewo	<i>mu</i>	(VI) ‘drink, suck’
	<i>muni</i>	(VT) ‘drink, suck; kiss’
NCV: Namakir	<i>munum</i>	‘drink’
NCV: Nguna	<i>munu-ɣi</i>	‘drink’
NCV: S Efate	<i>min</i>	‘drink’

PSV **a-m^wuni(m,m^w)* ‘drink’ (Lynch 2001c)

SV: Sye	<i>omon-ki</i>	‘drink’
SV: Ura	<i>omni</i>	‘drink’
SV: Lenakel	<i>a-mnuum^w</i>	‘drink’
SV: Anejom	<i>a-m^wɔŋ</i>	(VI) ‘drink’
	<i>a-m^wɣ-i-</i>	(VT) ‘drink’
Fij: Bauan	<i>ɣunu</i>	‘drink’
	<i>ɣunu-v-</i>	‘be drunk (by s.o.)’

PMP **inum* ‘drink’ (ACD)

POc **inum* (VI), **inum-i-* (VT) ‘drink’

Adm: Wuvulu	<i>inu</i>	‘drink’

Adm:	Aua	<i>inu</i>	‘drink’ (Smythe)
Adm:	Lou	<i>im</i>	‘drink’
Adm:	Kaniet	<i>num</i>	‘drink’
NNG:	Maleu	<i>in</i>	‘drink’
NNG:	Sio	<i>inu</i>	‘drink’
NNG:	Lukep Pono	<i>-in</i>	‘drink’
NNG:	Malasanga	<i>-in</i>	‘drink’
NNG:	Bam	<i>in</i>	‘drink’
PT:	Motu	<i>inu-a</i>	(VT) ‘drink’
PT:	Dobu	<i>numa</i>	(VT,VI) ‘drink’
MM:	Bola	<i>(n)inu</i>	‘drink’
MM:	Bola Harua	<i>inu</i>	‘drink’
MM:	Nakanai	<i>liu</i>	‘drink’ (metathesis) ⁸
MM:	Lavongai	<i>inum</i>	‘drink’
MM:	Tigak	<i>inum</i>	‘drink’
MM:	E Kara	<i>num</i>	‘drink’
MM:	W Kara	<i>num</i>	‘drink’
MM:	Nalik	<i>inim</i>	‘drink’
MM:	Madak	<i>(n)in</i>	‘drink’
MM:	Barok	<i>(n)in</i>	‘suck’
MM:	Kandas	<i>inum</i>	‘drink’
MM:	Tolai	<i>inim</i>	(VI, VT) ‘drink’
MM:	Ramoaina	<i>inim</i>	‘drink’
MM:	Nehan	<i>inum</i>	‘drink’
SES:	Gela	<i>inu</i>	(VI) ‘drink’
SES:	W G’canal	<i>inu</i>	‘drink’
SES:	Tolo	<i>inu, inu-vi-</i>	‘drink’
SES:	Birao	<i>inu</i>	‘drink’
SES:	Lengo	<i>inu</i>	‘drink’
SES:	Sa’a	<i>inu</i>	(VI) ‘drink’
		<i>inu-hi</i>	(VT) ‘drink’
NCV:	Mwotlap	<i>in</i>	‘drink’
NCV:	Tangoa	<i>inu</i>	‘drink’
NCV:	Tamambo	<i>inu</i>	(VI) ‘drink’
		<i>inum-i</i>	(VT) ‘drink’
SV:	Kwamera	<i>a-num^w-i</i>	‘drink’
SV:	SW Tanna	<i>nəm</i>	‘drink’
Pn:	Tongan	<i>inu-</i>	(VI) ‘drink’
		<i>inu-ʔi-</i>	(VT) ‘drink’
Pn:	Samoa	<i>inu</i>	‘drink’
		<i>inum-i-a</i>	(V PERFECTIVE) ‘be drunk’
Pn:	Anutan	<i>inu</i>	‘drink’
Pn:	Maori	<i>inu</i>	‘drink’
		<i>inum-i-a</i>	(V PASSIVE) ‘be drunk’

⁸ Geraghty (1990) assigns Nakanai *liu* ‘drink’ to POC **iRup* ‘sip (as soup), slurp’ but Bender et al. (2003:29) point out that it reflects POC **inum*.

Pn:	Hawaiian	<i>inu</i>	‘drink; a drink, drinking’
		<i>inum-i-a</i>	‘be drunk’

A good many reflexes of POC **inum/*inumi* have replaced initial **i-* with *u-*. This is probably the result of anticipating the stressed vowel in **inúmi*, but may also reflect early analogy with the intransitive form, i.e. **m^winum > *munum*, then by analogy **inum > *unum*. Because reflexes with *u-* are readily explained and occur at scattered locations (in languages of East Nusantara as well as in Oceanic; ACD), we take them to reflect idiosyncratic local changes and do not reconstruct POC †**unum*.⁹ These reflexes are:

Adm:	Seimat	<i>un</i>	(VI) ‘drink’
		<i>unum-i</i>	(VT) ‘drink’ (Smythe)
Adm:	Titan	<i>un</i>	‘drink’
NNG:	Kove	<i>-unu</i>	‘drink’
NNG:	Bariai	<i>-un</i>	‘drink’
MM:	Notsi	<i>(n)un</i>	‘drink’
MM:	Tabar	<i>unu</i>	‘drink’
MM:	Lihir	<i>-un</i>	‘drink’
NCV:	Mota	<i>un</i>	‘drink’
		<i>unu-v</i>	‘cause drink; sink in, be absorbed, of a fluid’
NCV:	Suñwadaga	<i>unu</i>	‘drink’
PMic <i>*unu, *unum-i</i> ‘drink’			
Mic:	Woleaian	<i>uru</i>	(VI) ‘drink, smoke a cigarette’
		<i>urum-i</i>	(VT) ‘drink, smoke s.t.’
Mic:	Puluwatese	<i>win</i>	(VI) ‘drink, smoke, take medicine’
		<i>winim-i</i>	(VT) ‘drink, smoke, take medicine’
Mic:	Chuukese	<i>wir</i>	‘drink, smoke’
		<i>wirim-i</i>	(VT) ‘drink; smoke (tobacco); take (medicine); eat (honey); ingest (something) without chewing’
Fij:	Boumaa	<i>unu</i>	(VI) ‘drink’
		<i>unum-</i>	(VT) ‘drink’
Pn:	Nukuoro	<i>unu</i>	‘drink’
		<i>unum-ia</i>	(V PERFECTIVE) ‘be drunk’
Pn:	Maori	<i>unu</i>	‘drink’
		<i>unum-ia</i>	(V PASSIVE) ‘be drunk’

A number of reflexes of **inum/*inumi* have acquired an initial onset consonant, usually *y-* or *ʔ-*, bringing them into line with the consonant-initial majority of roots. Again, these appear to be local developments.

NNG:	Tuam	<i>yun</i>	‘drink’
NNG:	Malai	<i>-yun</i>	‘drink’
NNG:	Gitua	<i>-yun-yun</i>	‘drink’
NNG:	Malalamai	<i>-yun-yun</i>	‘drink’

⁹ However, Blust (1993a, 2009b) argues that PCEMP/POC **unum* should be reconstructed alongside PCEMP/POC **inum* because the lack of western Malayo-Polynesian forms reflecting **unum* implies that such forms in CEMP languages are not the result of local changes but of the innovation of a PCEMP variant **unum*.

MM:	Vitu	<i>yinu</i>	‘drink’
MM:	Bali	<i>yinum-i-</i>	(VT) ‘drink’
MM:	Bulu	<i>yinu</i>	‘drink’
MM:	Meramera	<i>ʔinu</i>	‘drink, suck’
SES:	Longgu	<i>ʔinu</i>	(VI) ‘drink’
		<i>ʔinu-vi</i>	(VT) ‘drink s.t, soak s.t. up’

4.3.2.1.1 Pouring down the throat

A common Melanesian way of drinking, especially from a young coconut with a hole in the shell, is to tip one’s head back, mouth open, and to pour the coconut water down the throat without the lips touching the coconut. There is evidence that Proto Oceanic speakers had a verb for this action, apparently with the form **g^wag^wa* or **g^waŋ^wa*. The first form is reflected in Tawala (PT), Hahon and Teop (MM, NW Solomonian), the latter by Sursurunga and Siar (MM, South New Ireland) and Gela (SES). The forms from Solos to Gela all reflect initial **k^(w)*-, suggesting that the form may have been **k^wag^wa* or **k^waŋ^wa*. It is possible that the Proto Oceanic form continues PMP **kaŋa* ‘be open, as the mouth’ and that the labialisation of the consonants is an Oceanic development, perhaps onomatopoeic. If so, then the Proto Oceanic form was presumably **k^waŋ^wa* or **g^waŋ^wa*.¹⁰

Because this was a traditional manner of drinking, it is unsurprising that a number of reflexes below have the simple gloss ‘drink’.

The items under ‘cf. also’ are listed because it is remotely possible that they are somehow related to the POc form. The two MM forms are from Santa Isabel languages, i.e. very close to Bugotu, and are probably borrowed from there.

PMP **kaŋa* ‘be open, as the mouth’ (ACD)

POc **(g^w,k^w)a(g^w,ŋ^w)a* ‘drink by pouring down the throat’

PT:	Tawala	<i>g^wag^wa</i>	‘trickle (water in the hills); drink coconut holding it away from the mouth’
MM:	Sursurunga	<i>gəŋ</i>	(VI) ‘guzzle, drink from something held up above the head’
		<i>gəŋ^wa-i</i>	(VT) ‘guzzle’
MM:	Siar	<i>gaŋ</i>	‘drink’
MM:	Hahon	<i>gaga</i>	‘drink’
MM:	Teop	<i>gaga</i>	‘drink’
MM:	Solos	<i>kua</i>	‘drink’; ‘water’
MM:	Petats	<i>kua</i>	‘drink’
MM:	Haku	<i>wa</i>	‘drink’
MM:	Selau	<i>wa</i>	‘drink’
MM:	Banoni	<i>kuu</i>	‘drink’
MM:	Piva	<i>kuu</i>	‘drink’

¹⁰ Oceanic specialists will recognise that this reconstruction entails one or perhaps two phonemes not usually reconstructed for Proto Oceanic (cf §1.3.4.1), namely **g^w* and **ŋ^w*. Ross (2011) adds to the Proto Oceanic consonant inventory the phoneme **k^w*, with a decidedly low token frequency and a tendency to appear in contexts where a phonaesthetic factor is at play. It would not be surprising if **g^w* and **ŋ^w* had also occurred, with even lower token frequency.

SES:	Gela	<i>kəŋa</i>	‘drink by pouring down the throat’
cf. also			
MM:	Blablanga	<i>koʔu</i>	‘drink; water’
MM:	Maringe	<i>koʔu</i>	‘drink; water’
SES:	Bugotu	<i>kou</i>	‘drink’
SES:	Lau	<i>g^wou</i>	‘drink’
SES:	Kwara’ae	<i>k^woʔhi-</i>	(VT) ‘drink’
SES:	Kwaio	<i>goʔufi-</i>	(VT) ‘drink’
SES:	‘Are’are	<i>koʔuh-</i>	(VT) ‘drink’

4.3.2.1.2 *Sipping and slurping*

The terms reconstructed below refer to drinking from a spoon or bowl and contrast semantically with the style of drinking denoted by POc **(g^w,k^w)a(g^w,ŋ^w)a* ‘drink by pouring down the throat’ in §4.3.2.1.1.

Despite the formal and semantic similarities between POc **iRup/*iRup-i-* ‘sip (as soup), slurp’ and POc **soRop/*soRop-i-* ‘absorb (liquid), suck up (liquid), sip, slurp’ (§4.3.2.2), the terms have separate origins.

PAn **SiRup* ‘sip, as soup or rice wine from a bowl’ (ACD)

PMP **hiRup* ‘sip, as soup or rice wine from a bowl’

POc **iRup* (VI), **iRup-i-* (VT) ‘sip (as soup), slurp’ (ACD)

SES:	Gela	<i>ilu, iluv-i-</i>	‘drink cabbage soup’
		<i>ilu-ilu</i>	‘drink medicine’
SES:	Lau	<i>ilu, iluf-i-</i>	‘drink with a spoon, sup, drink soup’
		<i>ilufia</i>	‘drunk’
SES:	‘Are’are	<i>iruh-i-</i>	‘drink slowly’
SES:	Ulawá	<i>ilu, iluh-i-</i>	‘sup (as yam soup)’
SES:	Arosi	<i>iru, iruh-i-</i>	‘sip yam soup; to sip, drink’
SES:	To’aba’ita	<i>elufi-, iluf-i-</i>	(VT) ‘slurp, drink s.t.’
		<i>elu-elu</i>	‘slurp food, drink’

4.3.2.2 *Sucking-and-drinking*

It was mentioned in §4.3.2 that what in European languages is classed as ‘sucking’ evidently fell into several categories in Proto Oceanic, and continues to do so in modern Oceanic languages. This section is concerned with verbs whose primary meaning is to suck in order to drink. These verbs are often also used figuratively of inanimate substances with the sense ‘absorb (liquid)’.

Three terms reconstructed below, POc **ñonop/*ñop-i-* ‘put the face against, kiss, suck, sniff’, POc **ñosop* ‘suck (?)’ and POc **sosop/*sop-i-* ‘put lips to, kiss, suck, absorb (moisture)’ are almost certainly derivationally related. The basic PMP form was **sepsep*, which by Blust’s (1977) ‘comparative paradigm’ became POc **sosop* (VI), **sop-i-* (VT). However, parallel with derivation of the intransitive/transitive pair **paŋan/*kani* ‘eat’ (§4.3.1.1), PMP would have formed an intransitive/transitive pair **(pa)ñepsep* (**paN* +

sepsep*)/sepsep*, the first member of which is reflected in Baegu, To'aba'ita and Lau below. Initial **pa-* was lost or was perhaps never present (as in Malay and other languages of western Indonesia), giving POc intransitive **ñosop* (reflected in Lau *noso*). With the collapse of the intransitive/transitive morphological contrast in early Oceanic, a new transitive was formed from the resulting disyllable, PSES **nosov-i*, the direct ancestor of the Baegu, To'aba'ita and Lau transitive forms. Somewhere in the Malayo-Polynesian dialects ancestral to Proto Oceanic **sepsep* also gave rise to a monosyllabic base **sep*, from which was formed the intransitive **(pa)ñep*, giving pre-POc **ñop*, from which by analogy POc **ñoñop* was created, followed by a transitive derivation in some daughter-languages.

Blust (ACD) reconstructs PMP **ñepñep*, but it has few non-Oceanic reflexes, and it seems likely that the process just described occurred independently in different languages where the systematic morphological relationship between intransitive (**paN-* + root) and transitive (reduplicated root) had been lost.

PMP **ñepñep* 'drink, slurp, suck' (ACD)

POc **ñoñop* (VI) 'put the face against, kiss, suck, sniff'

NNG: Sio	<i>ño</i>	'smell; sniff'
NNG: Manam	<i>nono</i>	'eat (only mangoes); suck'
MM: Tabar	<i>nop-i</i>	'suck'
MM: Lungga	<i>ñoñopo</i>	'suck'
MM: Nduke	<i>ñoñopo</i>	'suck'
MM: Roviana	<i>nonopo</i>	'suck'
SES: Longgu	<i>nono</i>	'kiss'
:	<i>nono-ʔi-</i>	'suck'
SES: 'Are'are	<i>nono</i>	'kiss, place the face against, sniff'
SES: Sa'a	<i>nono</i>	(VI) 'place the face against, sniff, kiss'
SES: Ulawa	<i>nonoh-i-</i>	(VT) 'place the face against, sniff, kiss'
SES: Arosi	<i>nono</i>	'put the lips to'
	<i>(hai)nono</i>	'kiss'

PMP **(pa)ñepsep* 'sip, suck'

POc **ñosop* 'suck (?)'

PSES **noso* (VI), **nosov-i-* (VT) 'suck, sip, (moisture)'

SES: Baegu	<i>notof-i-</i>	'suck'
SES: To'aba'ita	<i>notof-i-</i>	(VT) 'suck at, suck out'
SES: Lau	<i>noto</i>	(VI) 'suck, sip, soak up (moisture)'
	<i>notof-i-</i>	(VT) 'suck, sip, soak up (moisture)'

PMP **sepsep* 'sip, suck' (Blust 1983-4, ACD)

POc **sosop* (VI), **sop-i-* (VT) 'put lips to, kiss, suck, absorb (moisture)'

Adm: Mussau	<i>rop-i</i>	'drink'
NNG: Hote	<i>-sɔp-sɔp</i>	'lick (face), kiss, smack (lips)'
NNG: Takia	<i>(awa-) -supi-pi</i>	'kiss' (lit. 'mouth suck')
PT: Motu	<i>dodo-</i>	(VT) 'soak up, absorb'

MM:	Sursurunga	<i>so-sp-i</i>	‘suck’
MM:	Tolai (Nodup)	<i>rup-i-</i>	‘suck’
MM:	Nehan	<i>hop</i>	(VI) ‘drown’
SES:	Bugotu	<i>sop-i-</i>	‘suck’
SES:	Gela	<i>sop-i</i>	‘suck; absorb moisture; lick’
		<i>sopi-sopi</i>	‘suckle’
SES:	Kwaio	<i>tō-toto</i>	‘suck, make sucking noise’
		<i>totof-i-</i>	‘gulp, suck’
SES:	Arosi	<i>toto</i>	(VI) ‘put lips to, drink with lips, suck’
		<i>totoh-i-</i>	(VT) ‘put lips to, drink with lips, suck’
SES:	‘Are’are	<i>totoh-i-</i>	‘suck, inhale, draw absorb’
SES:	Arosi	<i>toto</i>	‘put lips to, drink with lips, suck; to sip honey (of birds)’
SES:	Sa’a	<i>tototoh-i-</i>	(VT) ‘sink into, be absorbed in, of liquids’

The glosses below indicate that making a noise while drawing in liquid or breath was an element of the meaning of POC **soRop/*soRop-i-*, and the Sursurunga gloss ‘sniffle’ suggests that this could occur with the nose as well as with the mouth. This is presumably the basis for NCV shifts in meaning to ‘snort’, ‘snore’, ‘grunt’, and ‘growl’. Bugotu and Gela *soropi* below are almost certainly borrowed from a NW Solomonian language, as the expected reflex is †*solo/solov-i-*. The items listed under ‘cf. also’ reflect an unexplained initial **t-* rather than **s-*.

PMP **seRep* ‘absorb, soak up’ (ACD)

POC **soRop* (VI), **soRop-i-* (VT) ‘absorb (liquid), suck up (liquid), sip, slurp, sniff’

PT:	Dawawa	<i>suruva</i>	‘rub with nose, kiss’
		<i>(wai)suruva</i>	‘kiss’ (<i>wai-</i> RECIP)
MM:	Sursurunga	<i>soropu(t)</i>	‘sniffle’
MM:	Nehan	<i>hirupu</i>	‘sip’
MM:	Vaghua	<i>joropo</i>	‘suck’
MM:	Varisi	<i>zorope</i>	‘suck’
SES:	Bugotu	<i>sorop-i-</i>	(VT) ‘absorb liquid’
SES:	Gela	<i>sorop-i-</i>	(VT) ‘sip, drink soup noisily; suck sugarcane’
NCV:	Mota	<i>sorov</i>	‘make a snorting noise at’
NCV:	Raga	<i>horov-i</i>	‘butt, snort as if to bite’
NCV:	Tamambo	<i>soro</i>	‘breathe’
NCV:	Kiai (Tazia)	<i>zorov-i</i>	‘sleep’
NCV:	Tolomako	<i>juruv-i</i>	‘snore’
NCV:	Namagir	<i>horov</i>	‘drink noisily’,
NCV:	Nguna	<i>sorov-i</i>	‘grunt, oink, growl’
NCV:	S Efate	<i>srof</i>	‘suck, breathe in’

cf. also

NNG:	Mumeng (Patep)	<i>həɭup</i>	‘sip, slurp (liquid); bubble (of liquids or cooking foods)’
MM:	Ririo	<i>torope</i>	‘suck’
MM:	Halia	<i>toropo</i>	‘sip’

The POC terms **tumu* ‘suck’ and **dumu(s)/*dumus-i-* ‘suck on, suck up (liquid)’ below evidently denoted sucking and drinking, but we are not able to infer how they may have differed in meaning from the terms above.

POC **tumu* ‘suck’

NNG: Mangseng	<i>tum</i>	‘suck’
	<i>tumo-ŋ</i>	‘sucking thing; mango’
NNG: Nenaya	<i>tum-tum</i>	‘suck’
MM: Tinputz	<i>tom</i>	‘suck’
MM: Teop	<i>tomo</i>	‘suck, kiss’
NCV: Ninde	<i>tum-tum</i>	‘suck’
NCV: Nguna	<i>tomi-</i>	‘suck’

POC **dumu(s)* (V1), **dumus-i-* (VT) ‘suck on, suck up (liquid)’

NNG: Poeng	<i>rumu</i>	‘suck (a liquid as through a straw)’
	<i>rume</i>	‘suck (as a baby), soak up’
MM: Ramoaaina	<i>dum</i>	‘suck, kiss, sip’

PNCV **dumu-si* (VT) ‘suck, sip, taste’ (Clark 2009)

NCV: Mota	<i>nim</i>	‘touch with the lips, sip, taste, kiss’,
	<i>nimis</i>	‘take a taste of, sip of’
NCV: Unua	<i>-rromj-i</i>	‘kiss, sip’
NCV: Namakir	<i>dom</i>	‘suck; smell’,
SV: Kwamera	<i>tum^wi</i>	‘suck on, savour’
Fij: Bauan	<i>domið-</i>	(VT) ‘sip, suck, as a child at the breast’
Fij: Wayan	<i>tom</i>	(V1) ‘suck or drink through a straw or teat’
	<i>tomið-i-</i>	(VT) ‘suck s.t. through a straw, etc.’

PNCV **zimi* ‘sip, suck, taste’, PPn **ŋoŋo* ‘suck liquid from a container’ and PPn **momi* ‘swallow, suck’ are more localised terms for sucking in liquid.

PNCV **zimi* ‘sip, suck, taste’ (Clark 2009)

NCV: Mota	<i>sim</i>	‘sip, suck’ (NCV reflexes show metathesis)
NCV: Raga	<i>him</i>	‘suck, sip’
NCV: Tamambo	<i>jimi</i>	‘sip’ (old word)
NCV: Kiai	<i>zim-zim</i>	‘drink meat stock by sucking meat’
	<i>zim-ia</i>	‘drink’
NCV: Lonwolwol	<i>himi</i>	‘taste’
NCV: Paamese	<i>simi</i>	‘suck water into mouth and spit it out again’

Comparison of the Wayan Fijian term *omi-* (under ‘cf. also’) with PPn **momi* suggests that a POC pair **m-omi* (V1)/**omi-* (VT) may have occurred, with an origin analogous to that of POC **m^winum* (V1)/**inum-i-* (VT) ‘drink’ (§1.3.5.5), but there is no solid evidence to support this conjecture.

PPn **momi* ‘swallow, suck’ (POLLEX)

Pn:	Tongan	<i>momi</i>	‘sunken mouth as when toothless’
Pn:	E Futunan	<i>momi</i>	‘eat with lips only; suck’
Pn:	Pukapukan	<i>momi</i>	‘swallow; eat till food is gone’
Pn:	Maori	<i>momi</i>	‘suck up, swallow up, suck’
Pn:	Tahitian	<i>momi</i>	‘swallow’
Pn:	Tuamotuan	<i>momi</i>	‘swallow, suck’

cf. also:

NNG:	Kela	<i>muŋ</i>	‘suck’
Fij:	Wayan	<i>omi-</i>	‘suck (liquid, breast), inhale’

4.3.2.3 Sucking the breast and suckling

POc apparently had a pair of near homophones for ‘suck (the breast)’, namely **susup* (VI), **susup-i-* (VT) and **susu* (VI), **susu-i-* (VT). POc **susup* continues an etymon of PAn antiquity. POc **susu* is the root that also occurs as **susu-* ‘breast, milk’ (§3.5.7). The forms are so similar that it is tempting to try to combine them into a single cognate set, but the differing transitive forms do not allow this. At the same time, in languages where word-final consonants are lost it is impossible to determine whether the intransitive form reflects **susup* or **susu*.

The set below reflects POc **susup* (VI), **susup-i-* (VT) ‘suck (the breast)’. In each language the transitive suffix *-i- has prevented loss of the root-final consonant, so that the reflex of root-final *-p- attests that this is a reflex of **susup*.

PAn **supsup* ‘sip, suck’ (ACD)PMP **cupcup* ‘sip, suck’ (ACD)POc **susup* (VI), **susup-i-* (VT) ‘suck (the breast)’

Adm:	Bipi	<i>susuh</i>	(VT) ‘suck’
PT:	Wedau	<i>yuyuv-i-</i>	(VT) ‘suck up through a tube’
SES:	Gela	<i>susuv-i</i>	(VT) ‘drink from breasts’
SES:	To’aba’ita	<i>susu</i>	(VI) ‘suck at the mother’s breast’
		<i>susuf-i-</i>	(VT) ‘suck (the breast)’
SES:	Lau	<i>susu</i>	(VI) ‘suck the breast’
		<i>susuf-i-</i>	(VT) suck (the breast)’
SES:	Kwaio	<i>susu</i>	‘suck’
		<i>susuf-i-</i>	(VT) ‘suckle’

The next set reflects POc **susu* (VI), **susu-i-* (VT) ‘suck (the breast)’. We know this either because *-p is absent in the transitive form or because—in the Papuan Tip and Meso-Melanesian languages listed below—if POc word-final *-p had been present it would have been retained (as it is in reflexes of **mawap* ‘yawn’; cf. §4.5.6).

PMP **susu* ‘suck (at the breast)’¹¹

POc **susu* (vI), **susu-i-* (vT) ‘suck (the breast)’

Adm:	Seimat	<i>susu-i-</i>	(vT) ‘suck’
Adm:	Titan	<i>súsu-i</i>	‘nurse, suckle’
PT:	Iduna	<i>-huhu</i>	‘suck at breast, suckle’
PT:	Gapapaiwa	<i>susu</i>	‘breastfeed; drink by sucking’
PT:	Dawawa	<i>susu</i>	‘suck’
PT:	Tubetube	<i>susu</i>	‘suck’
MM:	Tigak	<i>sut</i>	‘suck’
MM:	E Kara	<i>sus</i>	‘suck’
MM:	Nalik	<i>sus</i>	‘suck’
MM:	Patpatar	<i>sus</i>	‘suck’
MM:	Tolai	<i>u</i>	(vI, vT) ‘suck, of children and young animals’
MM:	Label	<i>(ha)sus</i>	‘suck’
MM:	Bilur	<i>u</i>	‘suck’
MM:	Siar	<i>sus</i>	‘suck’
MM:	Sursurunga	<i>sus</i>	(vI) ‘suck at the breast; ‘milk’
		<i>susu-i</i>	(vT) ‘suck at the breast’
NCV:	Nguna	<i>susu-e</i>	‘suck’

The remaining reflexes, listed below, could reflect either etymon, and one can reasonably infer that in many Oceanic languages reflexes of POc **susup* and **susu* were conflated as a single item when final-consonant loss took place.

POc **susup* (vI) OR **susu* (vI) ‘suck (the breast)’

NNG:	Kaulong	<i>sus</i>	‘suckle, nurse’
NNG:	Yalu	<i>-søs</i>	‘suck’
NNG:	Wampar	<i>-sos</i>	‘suck’
NNG:	Kapin	<i>lul</i>	‘suck’
MM:	Vitu	<i>ðuðu</i>	‘suck’
MM:	Bulu	<i>ruru</i>	‘suck’
MM:	Nakanai	<i>susu</i>	‘suck’
MM:	Meramera	<i>susu</i>	‘suck’
MM:	Nehan	<i>huhu</i>	‘nurse at the breast’
SES:	Sa’a	<i>susu</i>	(vI) ‘suck the breast; have children at the breast’
SES:	Arosi	<i>susu-</i>	(v) ‘suck the breast’
NCV:	Mota	<i>sus</i>	‘breast; suck’
NCV:	Raga	<i>huhu</i>	‘suck’
NCV:	Tamambo	<i>susu</i>	‘breastfeed’
NCV:	Port Sandwich	<i>süs</i>	‘suckle’
SV:	Anejom	<i>e-θeθ</i>	‘suck at breast’
Mic:	Carolinian	<i>tīt</i>	‘suckle, nurse from the breast’
Mic:	Ponapean	<i>tīti</i>	‘suckle, nurse’

¹¹ Blust (ACD) does not reconstruct the sense ‘suck (at the breast)’ for PMP **susu*, but it is clear from the data he cites that it can be reconstructed.

Mic:	Chuukese	<i>tīt, titti-</i>	‘suck (of a nursing child)’
Mic:	Pulo Annian	<i>titi</i>	‘suck mother’s breast’
Fij:	Bauan	<i>suðu</i>	‘be born, to suck the breast’
Pn:	Tongan	<i>huhu</i>	‘suck (as a baby does) from breast or bottle’
Pn:	Samoa	<i>susu</i>	‘suck (at the breast)’
Pn:	E Futunan	<i>ū</i>	‘nurse a baby’

The POC terms for ‘suckle, feed (baby) at the breast’ were **pa-susup-i-* or **pa-susu-i-*, literally ‘cause to suck’, formed with POC **pa-* CAUSATIVE. Conflation of **susup* and **susu* is probably also reflected here, and some of the terms listed under POC **pa-susu* may in fact reflect intransitive **pa-susup*.

POC **pa-susup-i-* ‘suckle, feed (baby) at the breast’

SES:	Kwaio	<i>faʔa-susuf-i-</i>	‘suckle’
SES:	Lau	<i>fā-susuf-i-</i>	‘suckle’
SES:	Arosi	<i>haʔa-suhi</i>	‘suckle’

PAn **pa-susu* ‘give the breast to, nurse a child’ (ACD)

POC **pa-susu* (vI), **pa-susu-i-* (vT) ‘suckle, feed (baby) at the breast’

Adm:	Titan	<i>a-súsu-i</i>	‘nurse’
Adm:	Nyindrou	<i>a-sus</i>	‘nurse, feed breast milk’
PT:	Kilivila	<i>va-lulu</i>	‘give birth; suckle’
PT:	Iduna	<i>ve-huhu</i>	‘breastfeed’
PT:	Molima	<i>ve-susu</i>	‘suckle’
MM:	Nakanai	<i>vi-susu</i>	‘suckle (a baby)’
MM:	Sursurunga	<i>asus-i</i>	‘feed at the breast’
MM:	Patpatar	<i>ha-sus</i>	‘nurse (with breast-milk)’
MM:	Teop	<i>vā-huhu</i>	‘suckle’
SES:	Arosi	<i>ha-susu</i>	‘suckle’
Fij:	Wayan	<i>vā-ðuðu-ni</i>	‘suckle (a baby)’
Pn:	Samoa	<i>faʔa-susu</i>	‘suckle’
Pn:	Niuean	<i>faka-huhu</i>	‘suckle’

It was noted in §4.2.2.4 that POC **pasu[su]* ‘give birth’ bears a striking resemblance to POC **pa-susu* ‘suckle’, but concluded that the two POC forms were not (or were no longer) related.

4.3.2.4 Sucking at a pipe to inhale smoke

The reconstruction of PEOC **komu* (vI), **komi* ‘suck at (a pipe)’ is somewhat tentative, as SE Solomonic reflexes except Bauro *omu* (listed by Fox 1978) end in *-e* or *-i*, presumably a transitive formative, whereas the Polynesian reflexes end in *-o* rather than *u*. However, the shared sense of sucking on a pipe implies cognacy.

PEOC **komu* (vI), **komi* ‘suck at (a pipe)’

SES:	Lau	<i>ʔome</i>	‘suck at a pipe’

SES:	Arosi	<i>omi-</i>	‘suck, smoke a pipe’
SES:	‘Are’are	<i>omi-a</i>	‘suck, make a sucking noise, pull on a pipe’
SES:	Sa’a	<i>ome-</i>	‘suck’
		<i>omi-a</i>	(VT) ‘suck s.t., smoke tobacco’
SES:	Bauro	<i>ume-</i>	‘suck’
		<i>omu, omi-</i>	‘suck, smoke a pipe’
SES:	Fagani	<i>ʔomi</i>	‘suck’
Pn:	Tongan	<i>komo</i>	‘suck in, suck up’
Pn:	E Futuna	<i>komo</i>	‘suck on (as a cigarette)’
Pn:	E Uvean	<i>komo-komo</i>	‘slowly inhale pipe smoke’
Pn:	Penrhyn	<i>omo</i>	‘smoke’
Pn:	Marquesan	<i>ʔomo</i>	‘suck’
Pn:	Tuamotuan	<i>komo</i>	‘drink’
Pn:	Rapanui	<i>omo-omo</i>	‘sip, suck’

4.3.3 Being hungry, thirsty, replete

4.3.3.1 Being hungry

POc **pitolon* seems originally to have been a noun meaning ‘famine’ or ‘hunger’, derived from PMP **bitil-en*, where **-en* is a nominaliser. The existence of Tuam, Malai, Lukep *pitola*, Malasanga *butola*, all with final *-a*, suggests that POc may also have had the alternant **pitolan*, from PMP **bitil-an*, where **-an* is also a nominaliser. However, in POc **pitolon* appears already to have been used as an adjective or stative verb as well.¹²

POc also had the term **m^walum*, with a meaning similar to that of **pitolon*.

PMP **bitil* ‘famine; hunger’ (ACD)

POc **pitolon* ‘hunger, famine; be hungry’

Adm:	Seimat	<i>hitol</i>	‘hunger, be hungry, starved’
NNG:	Mutu	<i>pitola</i>	‘hungry’
NNG:	Mangap	<i>petēle</i>	‘hunger’
NNG:	Sio	<i>putole</i>	‘hunger’
NNG:	Tami	<i>pitol</i>	‘hungry’
NNG:	Takia	<i>futol</i>	‘famine’
NNG:	Kaiep	<i>utol</i>	‘hungry’
PT:	Motu	<i>hitolo</i>	‘hunger, hungry’
MM:	Vitu	<i>vitolon(i)</i>	‘hungry’
MM:	Nakanai	<i>vitolo</i>	‘famine’
MM:	Bola	<i>vitolo</i>	‘hungry’
MM:	Meramera	<i>vitolo</i>	‘hungry’
MM:	Vitu	<i>vitolo</i>	‘hunger, famine’
MM:	Tabar	<i>vitoro</i>	‘hungry’
MM:	Tolai	<i>vitolon</i>	‘hunger, hungry’

¹² Whereas PMP **-an* survived as POc **-an*, a nominaliser, PMP **-en* survived only as a fossil in a few nouns like **pitolon* (§1.3.5.5, footnote 33).

SES:	Gela	<i>vitolo</i>	‘hungry’
		<i>vito-vitolo</i>	‘long hungry, weak from hunger’
SES:	Tolo	<i>vitolo</i>	‘hungry’
SES:	Longgu	<i>violo</i>	‘hungry’
SES:	Lau	<i>fiolo</i>	‘be hungry’ (<i>fioloa</i> ‘hunger, famine’)
SES:	Sa’a	<i>hiolo</i>	‘be hungry’ (<i>hioloŋa</i> ‘famine’)
SES:	’Are’are	<i>hioro</i>	‘to fast, starve’ (<i>hioro-na</i> ‘hunger, famine’)
SES:	Arosi	<i>hioro</i>	‘be hungry’ (<i>hioroha</i> ‘famine, hunger’)
SES:	To’aba’ita	<i>fiolo</i>	‘be hungry’ (<i>fioloa</i> ‘famine’)
PNCV * <i>vitolo</i> ‘hungry’			
NCV:	Lewo	<i>viso</i>	‘hungry’
NCV:	Nguna	<i>vitolo</i>	‘hungry’
SV:	Anejom	<i>e-tele</i>	‘hungry’ ¹³
Mic:	Ponapean	<i>isol</i>	‘famine’

POc **m^walum* ‘hungry’

Adm:	Mussau	<i>ma-malo</i>	‘hungry’
PT:	Kilivila	<i>molu</i>	‘hunger’
MM:	Lavongai	<i>mol</i>	‘hungry’
MM:	Tolai	<i>mul-mulum</i>	‘famine, hunger, be hungry’
MM:	Vagunu	<i>molu</i>	‘hungry’
NCal:	Cèmuhî	<i>mæ̃nɛ-n</i>	‘hunger’
NCal:	Xârâcùù	<i>mêrê</i>	‘hunger’

In certain Central Pacific languages the term for ‘be hungry’ is an expression meaning ‘wants to eat’ (cf. ‘want to drink’ for ‘thirsty’ and ‘want to sleep’ for ‘sleepy’; §4.3.3.2, §6.2.1).

PCP **via kani* ‘hungry’ (lit. ‘want eat’)

Fij:	Bauan	<i>via kana</i>	(vi) ‘be hungry’
PPn * <i>fia kai</i> ‘hungry’ (lit. ‘want eat’)			
Pn:	Tongan	<i>fie kaia</i>	‘hungry’
Pn:	Samoan	<i>fiaʔai</i>	‘hungry’
Pn:	Nanumea	<i>fiakai</i>	‘hungry’
Pn:	Takuu	<i>fikai</i>	‘hungry, want to eat; hunger’
Pn:	Maori	<i>hia kai</i>	‘be hungry’

cf. also:

Fij:	Wayan	<i>mata kani</i>	‘be hungry’ (lit. ‘want eat’)

A similar locution is reflected in the Mengen languages of SE New Britain, where the term for ‘want’ reflects **mate* ‘die’ (§2.1.2):

¹³ Anejom (*e*)*tele* shows unexpected loss of POc initial **p*–: the expected form is †(*e*)*htele* (John Lynch, pers. comm.)

Proto Mengen **mate kana* ‘hungry’ (lit. ‘die eat’)

NNG: Poeng	<i>mateka-</i>	(VI) ‘want food, be hungry’
	<i>matakan-na</i>	(ADJ) ‘hungry’
NNG: Kakuna	<i>matekana</i>	(ADJ) ‘hungry’
NNG: Uvol	<i>meteana</i>	(ADJ) ‘hungry’

4.3.3.2 Being thirsty

The root of POC **[ma]raqu* ‘be thirsty’ reflects PMP **laqu* ‘thirst, hunger’. Unprefixed POC **raqu* has just one known reflex, namely Sio *rako-ña*.¹⁴ Clark (2009) reconstructs the alternative PNCV forms **marou* and **madou*. These appear to reflect forms with different POC prefixes, namely **ma-raqu* and **madraqu*, the latter from **maN-raqu*. It is difficult to determine exactly what the difference in meaning might have been. POC **ma-raqu* would have meant ‘be thirsty, become thirsty’. The presence of **maN-* in **madraqu* implies some agentivity on the part of the subject, as in English ‘work up a thirst’ (§1.3.5.6).

Blust reconstructs PWMP **laqu*, implying an expected POC root *†*laqu*, but the data unanimously support POC **raqu*.

PMP **laqu* ‘thirst, hunger’ (ACD: PWMP)

POC **[ma]raqu* (VI) ‘be thirsty’

NNG: Sio	<i>rako(ña), roko(ña)</i>	(VI) ‘be thirsty’
NNG: Lukep (Pono)	<i>murak</i>	(N) ‘thirst’ (metathesis < <i>†maruk</i> < <i>†maraku</i>)
MM: Vitu	<i>maraho</i>	‘thirst’
NNG: Bola	<i>marohu</i>	(ADJ) ‘thirsty’
MM: Nakanai	<i>malehu</i>	‘thirsty’
MM: Meramera	<i>malou</i>	‘thirsty’
MM: Patpatar	<i>maruk</i>	(VI) ‘be thirsty’ (metathesis < <i>†maraku</i>)
MM: Ramoaaina	<i>maruk</i>	(VI) ‘be thirsty’ (metathesis < <i>†maraku</i>)
SES: Sa’a	<i>marou</i>	(VI) ‘thirst’
SES: Arosi	<i>marou</i>	‘be thirsty’

PNCV **marou* ‘thirsty’ (Clark 2009)

NCV: Mota	<i>marou</i>	‘thirsty’
NCV: Nokuku	<i>maro-rou</i>	‘thirsty’
NCV: Paamese	<i>maro-roo</i>	‘thirsty’
NCV: Bieria	<i>mereu</i>	(VI) ‘thirst’

PMic **marewu* ‘thirsty’ (Bender et al., 2003)

Mic: Marshallese	<i>marew</i>	‘thirsty’
Mic: Mokilese	<i>marew</i>	‘thirsty’
NCal: Nêlêmwa	<i>māluk</i>	‘thirsty’

¹⁴ Clark & Clark (1995) gloss *rako-ña* as an intransitive verb, but the presence of the 3SG possessor suffix *-ña* suggests that it is or has been an adjective (Ross 1998b).

POc **madraqu* (vi) ‘thirst’

PNCV **madou* ‘thirsty’ (Clark 2009)

NCV: Raga	<i>madou</i>	‘thirsty’
NCV: Port Sandwich	<i>ma^adreu</i>	‘thirsty’
NCV: Nguna	<i>matou</i>	‘thirsty’
NCV: S Efate	<i>manreu</i>	(vi) ‘thirst’

A good number of Oceanic languages express the concept of thirst phrasally, as they do for hunger, and we infer that this strategy may have been a POc alternative to the lexical items above. First, Central Pacific languages and certain others reflect an expression that means ‘want to drink’ (cf. ‘want to eat’ for ‘hungry’ and ‘want to sleep’ for ‘sleepy’; §3.3.1, §4.6.2.1)

PCP **via inu* ‘thirsty’ (lit. ‘want drink’)

Fij: Bauan	<i>via gunu</i>	‘thirsty’

PPn **fia inu* ‘thirsty’ (lit. ‘want drink’)

Pn: Tongan	<i>fie inu-a</i>	‘thirsty’
Pn: Nanumea	<i>fiainu</i>	‘thirsty’
Pn: K’marangi	<i>hieinu</i>	‘thirsty’
Pn: Takuu	<i>fūnu</i>	‘thirsty’

cf. also:

NNG: Takia	<i>you o -mat</i>	‘thirsty’ [water for -die]
MM: Nehan	<i>mala inum</i>	‘thirsty’ [want drink]
SES: Gela	<i>haga-inu</i>	‘thirsty’ [want-drink]
SES: Kwaio	<i>maali goʔu</i>	‘thirsty’ [in.need.of drink]
Fij: Wayan	<i>mata som</i>	‘thirsty’ [want drink]

Second, a number of languages use a body-part expression (cf §9.3) in which the body part is the neck or throat.

Adm: Nyindrou	<i>bale- amar</i>	‘thirsty’ [neck- dry]
NNG: Takia	<i>kulagu- itau</i>	‘thirsty’ [throat- blocked]
PT: Iduna	<i>ago- gi-tai-na</i>	‘thirsty’ [throat- SBJ:3SG-ebb-PF]
SES: To’aba’ita	<i>lio- e lālaŋa</i>	‘thirsty’ [throat- SBJ:3SG dry]

4.3.3.3 Being replete, sated

POc **masuR* ‘sated with food or drink’ is supported by well distributed reflexes across Oceania.

PMP **masuR* ‘sated, full (of food)’ (Goodenough 1997)¹⁵

POc **masuR* ‘sated with food or drink’ (Geraghty 1983: PEOc **mazu*)

Adm: Wuvulu	<i>magu</i>	‘satiated’
MM: Bola	<i>maru</i>	‘sated, full (of food)’
MM: Nakanai	<i>maru</i>	‘full (of stomach)’

¹⁵ The source of Goodenough’s citation is unclear.

MM:	Meramera	<i>masu</i>	‘sated, full (of food)’
MM:	Ramoaina	<i>maur</i>	‘full (with food), satisfied’
MM:	Siar	<i>masor</i>	‘full’
MM:	Nehan	<i>mah-mahuru</i>	(vi) ‘full of food’
MM:	Halia	<i>masul</i>	(vi) ‘full of food’
MM:	Teop	<i>mahun</i>	‘satisfied/full (up with food)’
SES:	Bugotu	<i>mahu</i>	‘replete with food, satisfied’
SES:	Arosi	<i>masu</i>	‘have had enough, be full, replete’
PMic <i>*masu</i> ‘sated with food or drink’ (Bender et al., 2003)			
Mic:	Marshallese	<i>mat</i>	‘full after eating’
Mic:	Puluwatese	<i>mat</i>	‘sated with food or drink’
Mic:	Carolinian	<i>mat</i>	‘sated with food or drink’
Mic:	Woleaian	<i>matu</i>	‘sated with food or drink’
Fij:	(dialect unknown)	<i>maðu</i>	‘sated’ (Geraghty 1983)
Pn:	Tongan	<i>mahu</i>	‘productive (of land, soil), have plenty of food’
Pn:	Niuean	<i>mahu</i>	(vi) ‘abound with food’; (N) ‘abundance of food’

4.3.4 Swallowing

Lynch (2001b) draws attention to the strange collection of hypothetically reconstructable POc forms for ‘swallow’—strange because they don’t reflect reconstructed PMP regularly and because they form an unusually large set of apparent variations on a single template.

If it is assumed that every cognate set found reflects a POc form, then the hypothetically reconstructable POc forms are those shown in Table 15. We infer that **tojol* reflects metathesis of **tolonj* and treat these two forms together.

Table 15 Hypothetical POc forms for ‘swallow’

	<i>*p-</i>	<i>*t-</i>	<i>*d-</i>	<i>*k-</i>	<i>*s-</i>
<i>*-l-, *-ŋ</i>	—	<i>*tolonj, *tojol</i>	—	—	—
<i>*-l-, *-m</i>	<i>*polom</i>	<i>*tolom</i>	<i>*dolom</i>	<i>*kolom</i>	—
<i>*-n-, *-m</i>	—	<i>*tonom</i>	<i>*donom</i>	<i>*konom</i>	<i>*sonom</i>
<i>*-d-, *-m</i>	—	<i>*todom</i>	—	<i>*kodom</i>	—

Earlier reconstructed forms provide some insight into what has happened here. Blust (ACD) reconstructs PCEMP **belen* ‘swallow’ and PMP **tilen* ‘swallow’. These have final **-n*, whereas the possible POc forms tabulated above have **-ŋ* or **-m*. This apparent idiosyncratic change requires an explanation. A search of the ACD for earlier forms that match the possible POc forms in **-ŋ* or **-m* yields PMP **teleŋ* and **telem*, both ‘sink, disappear under water’. Lynch suggests tentatively that the POc ‘swallow’ forms in **-ŋ* or **-m* reflect blends of earlier ‘swallow’ forms in **-n* with ‘sink’ forms in **-ŋ* or **-m* or with **inem* ‘drink’.¹⁶ This seems

¹⁶ **inem* ‘drink’ is a rarely reflected variant of **inum* (§4.3.2.1).

unlikely, however. When blends occur, there are typically reflexes that retain the meanings of both input forms, but no known Oceanic form for ‘swallow’ also means ‘sink’ or ‘drink’.¹⁷

A more probable explanation is to be found in the earlier forms themselves: **belen* ‘swallow’ and **tilen* ‘swallow’ both end in **-len*, giving POc **-lon*. The POc consonants **l* and **n* both probably had an alveolar point of articulation, and the replacement of **-lon* by **-loŋ* or **-lom* gave the final consonant a velar or bilabial articulation and thus increased its distinctiveness. Obviously, this explanation would be stronger if a parallel change were found in other morphemes. It isn’t. But there are no cases of **-lon* amongst our POc reconstructions.

The fact that pre-Oceanic **belen* ‘swallow’ and **tilen* ‘swallow’ (both containing the early Austronesian root **-len* ‘swallow’) have been reconstructed explains the distinction between the first and second columns of Table 15. Under the reasonable assumption that PCEMP **belen* was reflected as POc **polo(m)*, the only peculiarity about the set below is that it is restricted to Polynesia.

PCEMP **belen* ‘swallow’ (ACD)

POc **polo(m)* (VI), **polom-i-* (VT) ‘swallow’ (Lynch 2001b)

PPn **folo*, **folom-i* ‘swallow, ingest’ (POLLEX)

Pn:	Tongan	<i>folo(-ʔi, -a)</i>	‘swallow’
Pn:	Niuean	<i>folo</i>	(VT) ‘swallow (s.t.)’
		<i>fo-folo</i>	‘swallow in one gulp’
Pn:	E Futunan	<i>folo</i>	‘swallow, ingest’
Pn:	Rennellese	<i>hogo</i>	‘swallow whole without chewing; take bait; swallowed thing’
Pn:	Pileni	<i>folom-ia</i>	‘swallow’
Pn:	Emae	<i>forom-ia</i>	‘swallow’
Pn:	Pukapukan	<i>wolo</i>	‘swallow’
Pn:	Samoaan	<i>folo</i>	‘swallow’
Pn:	Tikopia	<i>foro</i>	‘swallow’
Pn:	Tokelauan	<i>folo</i>	‘swallow’
Pn:	Maori	<i>horom-i</i>	(VT) ‘swallow, devour (s.t.)’

cf. also:

Adm:	Lou	<i>por</i>	‘swallow’(-r- < POc <i>*-r-</i> , <i>*-dr-</i> , <i>*-t-</i>)

This brings us to the forms in the four rightmost columns of Table 15. Forms with initial **t-* and **k-* have one of three medial consonants: expected **-l-* and unexpected **-n-* or **-d-*. Forms with initial **d-* have one of two medial consonants: expected **-l-* and unexpected **-n-*. It is hardly likely that these forms all occurred in Proto Oceanic, unless a semantic factor like word taboo intervened, and there are no grounds to infer this. Instead, assuming for the moment that PMP **tilen* ‘swallow’ gave rise to the Proto Oceanic alternants **tiloŋ* and **tilom*, it seems likely from their sporadic distributions that replacements of **-l-* by **-n-* or **-d-* happened independently at different places and times.

¹⁷ The early Austronesian root for ‘sink’ was **-lem*, and forms derived from this occur in Oceanic languages: Nyindrou (Adm) *-lon* ‘sink’, Nakanai (MM) *tilomu* ‘sink, drown’, Sursurunga (MM) *lum* ‘dive’, *lum-i* ‘dive to obtain or catch s.t.’, Longgu (SES) *lulumi* ‘sink’.

Why might these changes have occurred (and recurred)? Again, the reason perhaps has to do with the fact that **t-* and **-l-* had a similar point of articulation. But this cannot be the whole reason, as the resulting combinations in Table 15, e.g. **donom*, also have similar or identical points of articulation. Lynch (2000b) shows that stress in Proto Oceanic words fell on the penultimate mora, i.e. **tilón* and **tilóm*,¹⁸ and on transitives **tilóni* and **tilómi*. Thus there would have been a strong tendency for the first syllable to be phonetically weakened or deleted, i.e. **[t^(ə)ˈlon]*, **[t^(ə)ˈlom]*, **[t^(ə)ˈloni]* and **[t^(ə)ˈlomi]*, giving the initial cluster **[tl]* in some dialects. Possible articulatory outcomes would have been

1. the extension of voicing to **[t]*, i.e. **[tl] > *[dl]*;
2. the nasalisation of **[l]* under the influence of **[m]*, i.e. **[tl] > *[tn]* or **[dl] > *[dn]*.¹⁹

A possible acoustic outcome would have been

3. the mishearing of **[tl]* as **[kl]* or of **[tn]* as **[kn]*.

Further articulatory outcomes would have been

4. the denasalisation of **[tn]* to **[td]* or of **[kn]* to **[kd]*.
5. reinterpretation of first-syllable shortened Pre-Oceanic [ə] as /o/, anticipating the stressed vowel, giving **tolon*, **tolom* etc.

This account explains

- i) why **-n-* and **-d-* don't co-occur with **p-*: there is no **ponom* or **podom* in Table 15, because the difference in point of articulation between **p* and **l* means that changes parallel to (1)-(4) did not occur.
- ii) why there is a gap in 4.3.2.3 where **dodom* would occur: **[dd]* would result in loss of distinctiveness.
- iii) why the first vowel of the forms in 4.3.2.3 is **-o-*, not **-i-* (as predicted by PMP **tilen*).
- iv) indirectly why **tolon*, was metathesised as **tonol*: metathesis increased distinctiveness by separating **t* from **l*.

Just one known Oceanic form reflects the vowels of PMP **tilen*. The POc status of the reconstruction has a question mark, as it is possible that the Fijian form has arisen by some other route. It is unlikely—but not impossible—that Fijian has preserved a form not found elsewhere in Oceanic. A number of forms reflecting metathesised PWOC **tonol* (p261) also have *-i-* in their first syllable, but these are presumably local developments.

PMP **tilen* 'swallow' (ACD)

POc (?) **tilo(m)-*tilom-i* 'swallow'

Fij:	Bauan	<i>tilo</i>	(VI) 'swallow'
		<i>tilom-a</i>	(VT) 'swallow s.t.'

¹⁸ A final CVC syllable had two moras and accordingly received stress.

¹⁹ **[dn]* could also have arisen through nasalisation, then extension of voicing, i.e. **[tl] > *[tn] > *[dn]*.

The POC forms **tolo(m)/*tolom-i-* and **toloŋ/*toloŋ-i-* with the vowel replacement proposed in (iii) have the scattered reflexes listed below. Lynch (2001b) points out that Proto New Caledonian **tonom* may reflect either POC **tolom* or POC **tonom*, as **-l-* and **-n-* have merged.

PMP **tilen* ‘swallow’ (ACD)

POC **tolo(m)* (VI), **tolom-i-* (VT) ‘swallow’ (Lynch 2001b)

Adm:	Seimat	<i>tolom-i</i>	(VT) ‘swallow’
NCV:	Mota	<i>tolo</i>	‘make a noise in the throat; belch’

Proto New Caledonia **tonom* ‘swallow’ (Lynch 2001b)

NCal:	Nyelâyu	<i>cêlêm</i>	‘swallow’
NCal:	Nêlêmwa	<i>(va)yanom</i>	‘swallow’
NCal:	Cèmuhi	<i>nēm(ihî)</i>	‘swallow’ ²⁰
NCal:	Tîrî	<i>num(i)</i>	‘swallow’

PMP **tilen* ‘swallow’ (ACD)

POC **toloŋ* (VI), **toloŋ-i-* (VT) ‘swallow’ (Lynch 2001b)

Adm:	Drehet	<i>-seleŋ</i>	‘swallow’
NNG:	Gedaged	<i>-talaŋ-ani-</i>	‘swallow’
NNG:	Megiar	<i>-tuluŋ-i-</i>	‘swallow’
NNG:	Medebur	<i>-tuluŋ-i-</i>	‘swallow’
NNG:	Psohoh	<i>klunji</i>	‘swallow’ ²¹
NNG:	Numbami	<i>-toloŋa</i>	‘swallow, gulp down’
PT:	Saliba	<i>tonor-i</i>	‘swallow’ (Capell 1943)
PT:	Dawawa	<i>tonoya</i>	‘swallow’
SV:	Anejom	<i>a-tleŋ, e-tleŋ</i>	‘swallow’

A metathesised form PWOc **toŋol/*toŋol-i-* is widely reflected in Western Oceanic languages. However, bear in mind that Western Oceanic was a dialect network, and ‘Proto Western Oceanic’ simply refers to the stage when innovations still spread freely across the network. Evidently the metathesised form coexisted with unmetathesised **toloŋ* (VI)/**toloŋ-i-*, as attested by the NNG and PT forms above. Indeed, the Megiar dialect of Takia has *-tuluŋ-i-*, whilst the Karkar Island dialects have *-tiŋal-i-*.

A similarly metathesised form occurs in South Efate and South Vanuatu, and coexists with an unmetathesised reflex in Anejom. As metathesised reflexes occur in widely separated Oceanic groups—Western Oceanic and South Vanuatu—one might reconstruct metathesised POC **toŋol/*toŋol-i-*. However, given the absence of reflexes elsewhere in Oceanic, we assume that the metathesised forms in Western Oceanic and South Efate/South Vanuatu reflect separate innovations. The fact that South Efate here groups with South Vanuatu is unsurprising, as South Efate is the closest external relative of the South Vanuatu languages (Lynch 2000a).

²⁰ These forms have removed an initial **tn-* cluster by deleting initial **t-*. Cf. footnote 22.

²¹ Replacement of **t-* by Psohoh *k-* appears to be a case of cluster misinterpretation, noted in (3) earlier.

PMP **tilen* ‘swallow’ (ACD)

POc **toloŋ* (VI), **toloŋ-i-* (VT) ‘swallow’ (Lynch 2001b)

PWOC **toŋol* (VI), **toŋol-i-* (VTI) ‘swallow’

NNG: Tami	<i>toŋ</i>	‘swallow’
NNG: Avau	<i>ŋon</i>	‘swallow’ ²²
NNG: Roinji	<i>tunja</i>	‘swallow’
NNG: Gedaged	<i>teŋali</i>	(VT) ‘swallow, gulp’
	<i>toŋol</i>	(VI) ‘eat fast, without chewing properly’
NNG: Bilibil	<i>-tiŋil</i>	‘swallow’
NNG: Takia	<i>-tiŋal-i</i>	‘swallow’
NNG: Kaiwa	<i>tmul</i>	‘swallow’
NNG: Mangga	<i>ŋoon</i>	‘swallow’ ²²
NNG: Mapos Buang	<i>-ŋon</i>	‘swallow’ ²²
NNG: Mumeng (Patep)	<i>ŋon</i>	‘swallow’ ²²
PT: Iduna	<i>-tonona</i>	‘swallow’ ²³
PT: Gumawana	<i>tonol</i>	‘swallow’
PT: Ubir	<i>tonan</i>	‘swallow’ ²³
PT: Dobu	<i>tone</i>	‘swallow’ ²³
PT: Misima	<i>tinon</i>	‘swallow’ ²⁴
MM: Haku	<i>toŋolo</i>	‘swallow’
	<i>to-toŋolo</i>	‘throat’
MM: Mono	<i>togon-i</i>	‘swallow’

PMP **tilen* ‘swallow’ (ACD)

POc **toloŋ* (VI), **toloŋ-i-* (VT) ‘swallow’

Proto S Efate/SV **a-tVŋol-i* ‘swallow’ (Lynch 2001b)

NCV: S Efate	<i>tnol</i>	‘swallow’
SV: Sye	<i>e-tŋol-i</i>	‘swallow’
SV: Ura	<i>e-rŋel-i</i>	‘swallow’
SV: Lenakel	<i>təŋai</i>	‘swallow’

Forms reflecting the change from POc **tolom* to **tono(m)* occur in two areas: in North New Guinea, where final **-m* is lost, and in SE Solomonic, where the contrast between intransitive and transitive forms is retained, final **-m* being retained in transitives.

PMP **tilen* ‘swallow’ (ACD)

POc **tolo(m)* (VI), **tolom-i-* (VT) ‘swallow’ (Lynch 2001b)

PNNG **tono* ‘swallow’

NNG: Tuam	<i>-tona</i>	‘swallow’

²² These forms have removed an initial **tj-* cluster by deleting initial **t-*. Cf. footnote 20.

²³ In certain PT languages **l* and **ŋ* have both become *n*, so these reflexes are ambiguous as to whether they reflect metathesis or not.

²⁴ In Misima **l* and **ŋ* have both become *n*. However, **ŋ* is lost word-finally, whereas **l* isn’t, so *tinon* reflects PWOC **toŋol*.

NNG: Malai	<i>-ton</i>	‘swallow’
NNG: Mangap	<i>-tene</i>	‘swallow’
NNG: Lukep	<i>-tono</i>	‘swallow’
NNG: Malasanga	<i>-tona</i>	‘swallow’
NNG: Manam	<i>-tono</i>	‘swallow’
NNG: Bam	<i>-tuon-i-</i>	‘swallow’
NNG: Wogeo	<i>-tune</i>	‘swallow’
NNG: Kaiep	<i>-tono-i-</i>	‘swallow’
NNG: Ulau-Suain	<i>-tuqɿ</i>	‘swallow’
NNG: Ali	<i>-tuəɻ</i>	‘swallow’
NNG: Sissano	<i>-toən</i>	‘swallow’ ²⁵
NNG: Sera	<i>ton-ton</i>	‘swallow’ ²⁵

PSES **tono*, **tonom-i-* ‘swallow’

MM: Maringe	<i>tomno</i>	‘swallow’ ²⁶
SES: Lengo	<i>tonom-i</i>	‘swallow’
SES: Lau	<i>-ono</i>	(VI) ‘swallow’
	<i>-onom-i-</i>	(VT) ‘swallow’
SES: Arosi	<i>-ono</i>	(VI) ‘swallow’
	<i>-onom-i-</i>	(VT) ‘swallow’
SES: Sa’a	<i>ono</i>	(VI) ‘swallow’
	<i>-onom-i-</i>	(VT) ‘swallow’
SES: Kwaio	<i>onom-i-</i>	‘swallow s.t.’
	<i>onom-a-</i>	‘neck’
SES: Dorio	<i>ōnom-ā-</i>	‘neck’

Forms reflecting the denasalisation of **-n-* in **tono(m)* to produce **todom* are found in a very limited range of Meso-Melanesian languages.

MM: Vitu	<i>todom-i</i>	‘swallow’
MM: Bulu	<i>todo</i>	‘swallow’
MM: Bola	<i>todo</i>	‘swallow’

The Micronesian set below reflects a hypothetical POc **to(r,R)om* rather than **todom*, but appears to be an outcome of denasalisation.

PMic **torom-i-* ‘suck, sip’ (Bender et al. 2003)²⁷

Mic: Kiribati	<i>tōm-a</i>	‘taste of, sip (s.t.)’
Mic: Marshallese	<i>corom</i>	‘drink up, suck up, absorb’
Mic: Carolinian	<i>sorom-i</i>	‘sip through a straw’
Mic: Woleaian	<i>sos-soro</i>	(VI) ‘suck, drink, sip’
	<i>sorom-i-</i>	(VT) ‘drink, sip, suck it’
Mic: Puluwatense	<i>horom-i-</i>	‘suck it in (as coffee)’
Mic: Pulo Annian	<i>θolom-i-</i>	‘suck it, drink it with a straw’

²⁵ In Sissano and Sera *n* reflects both POc **n* and **ŋ*.

²⁶ Note metathesis: **tonomo* > **tonmo* > *tomno*. This is probably borrowed from Bugotu.

²⁷ Bender et al. reconstruct PMic **Toromi*, but the data support **toromi* equally well.

Turning now to cases where initial **t-* has been voiced to initial **d-*, there is again no need to reconstruct these as POC alternants. Forms in *d-* occur only in NCV languages

PMP **tilen* ‘swallow’ (ACD)

POC **tolo(m)* (VI), **tolom-i-* (VT) ‘swallow’ (Lynch 2001a)

PNCV **dolo* (VI), **dolom-i-* (VT) ‘swallow’ (Clark 2009)

NCV: Mota	<i>nolo</i>	‘swallow’
NCV: Raga	<i>dolom-i-a</i>	‘swallow’
NCV: W Ambrym	<i>rlum</i>	(VI) ‘swallow’
	<i>rolm-e</i>	(VT) ‘swallow, swallow up’
NCV: Uripiv	<i>-rolm-i</i>	‘swallow’
NCV: Neve’ei	<i>dulum</i>	‘swallow’
NCV: Port Sandwich	<i>dröm-i</i>	‘swallow’

Forms reflecting a hypothetical **donom* appear in Kilivila and in languages scattered through north and central Vanuatu. We take the Vanuatu forms to reflect nasalisation of the **-l-* of PNCV **dolo* /**dolom-i-* above.

PT: Kilivila	<i>donom-i</i>	‘swallow’
NCV: Tamambo	<i>donom-i</i>	‘swallow’
NCV: NE Ambae	<i>dono</i>	‘swallow’
NCV: Lewo	<i>sinom-i</i>	‘swallow’
NCV: Nguna	<i>dinom-i</i>	‘swallow’

Moving to forms in which POC **t-* has been replaced by **k-*, the Psohoh and NCV terms below almost certainly reflect separate local changes.

NNG: Psohoh	<i>kluy-i</i>	‘swallow’ (see footnote 21)
NCV: Nokuku	<i>ʔolom-i</i>	‘swallow’
NCV: Kiai	<i>kolom-i-</i>	‘swallow’

A large block of Meso-Melanesian forms appears to reflect a PMM **konom*, which itself reflects nasalisation of **-l-* as **-n-* and acoustic reinterpretation of a **tn-* cluster as **kn-* (i.e. (2), then (3), above), followed by vowel insertion. Under ‘cf. also’ are listed MM terms for ‘neck’ which appear to be derived from reflexes of PMM **konom*.

PMP **tilen* ‘swallow’ (ACD)

POC **tolo(m)* (VI), **tolom-i-* (VT) ‘swallow’ (Lynch 2001b)

PMM **konom* (VI), **konom-i-* (VT) ‘swallow’ (Lynch 2001b)

MM: Lavongai	<i>konem</i>	‘swallow’
	<i>konomo</i>	‘throat’
MM: Tigak	<i>kanam</i>	‘swallow’
MM: Tiang	<i>kənəm</i>	‘swallow’
MM: W Kara	<i>kanam</i>	‘swallow’
MM: Nalik	<i>kənəm</i>	‘swallow’
MM: Notsi	<i>konm-en</i>	‘swallow’
MM: Tabar	<i>konom</i>	‘swallow’

MM:	Lihir	<i>konm</i>	‘swallow’
MM:	Sursurunga	<i>konm-i</i>	‘swallow’
MM:	Konomala	<i>konem-i</i>	‘swallow’
MM:	Patpatar	<i>kanam</i>	‘swallow’
MM:	Minigir	<i>konom-i</i>	‘swallow’
MM:	Tolai (Nodup)	<i>konome</i>	‘swallow’
MM:	Ramoaaina	<i>kanom</i>	‘swallow’
MM:	Kandas	<i>konoma</i>	‘swallow’
MM:	Nehan	<i>konomo</i>	‘swallow’

cf. also:

MM:	Tabar	<i>kono-kono-</i>	‘neck, throat’
MM:	Tangga	<i>korj-korjo-</i>	‘neck’
MM:	Vaghua	<i>kən-kənə-</i>	‘neck’
MM:	Varisi	<i>ko-koli-</i>	‘neck’
MM:	Ririo	<i>ku-kun</i>	‘neck’
MM:	Sisiqa	<i>ko-kunu-</i>	‘neck’
MM:	Babatana	<i>kunu</i>	‘swallow’
		<i>ku-kunu-</i>	‘neck’
SES:	Birao	<i>kono-kono-</i>	‘neck’
SES:	Fagani	<i>kono-kono-</i>	‘neck’

Forms reflecting the denasalisation of **-n-* in PMM **konom* to produce **kodom* are also found in Meso-Melanesian languages. The fact that Tolai *kodom* (below) appears alongside closely related Minigir *konomi* and Tolai (Nodup dialect) *konome* indicates that denasalisation is a localised and sporadic phenomenon.

MM:	Tolai	<i>kodom</i>	‘swallow’
MM:	Siar	<i>kodom</i>	‘swallow’
MM:	Tinputz	<i>orom</i>	‘swallow’
MM:	Teop	<i>oromo</i>	‘swallow’
MM:	Taiof	<i>korom</i>	‘swallow’
MM:	Banoni	<i>ko-kodomo</i>	‘neck’

Forms reflecting a hypothetical POc **sonom* (see Table 15) have not been accounted for. The hypothetical form POc **solom* is nowhere reflected, implying that **sonom* is not a phonologically modified form of POc **tolom*. We offer three hypotheses as to its origin, none of them fully satisfactory. First, POc **tilom* may have given rise to **silom* (**t > s* is common before *-i-* in Oceanic languages), followed by replacement of the vowel as suggested in (5) above. Second, it may reflect a blend of **tolom* with an ancestor of PNNG **sojo* ‘chew (betel)’, listed below—but this is unlikely, as Bariai reflects POc **sonom* and **sojo* separately. Or it may have a separate but unknown extra-Oceanic origin.

POc **sonom* (VT), **sonom-i-* (VT) ‘swallow’ (cf. PNNG **sojo* ‘chew betel’ above)

NNG:	Bariai	<i>-son</i>	‘swallow’
NNG:	Gitua	<i>son</i>	‘swallow’
PT:	Dawawa	<i>sonom</i>	‘suck’
PT:	Motu	<i>(ha)dono-a</i>	(VT) ‘swallow, gulp’ (<i>ha-</i> causative prefix)

SES:	Bugotu	<i>sono</i>	(VI) 'swallow'
SES:	Gela	<i>sono</i>	(VI) 'swallow'
		<i>sonom-i</i>	(VT) 'swallow'
		<i>sonom-ayi</i>	'cause to swallow'

PNGOc **soŋo* 'chew (betel)'

NNG:	Tami	<i>soŋ</i>	'chew (betel)'
NNG:	Kove	<i>(i)soŋo</i>	'chew (betel)'
NNG:	Bariai	<i>(i)soŋo</i>	'chew (betel)'
NNG:	Malai	<i>(i)soŋ</i>	'chew (betel)'
NNG:	Sio	<i>(i)soŋo</i>	'chew (betel)'
NNG:	Mangap Mb	<i>(i)seŋ</i>	'chew (betel)'
NNG:	Lukep	<i>(i)soŋo</i>	'chew (betel)'
NNG:	Roinji	<i>soŋu</i>	'chew (betel)'
NNG:	Biliau	<i>suŋ(oŋ)</i>	'chew (betel)'
NNG:	Labu	<i>-saŋa</i>	'chew'

There is just one possible reflex of **sonom* with denasalisation (i.e. hypothetical **sodom*), namely Nakanai *sogomu* 'swallow' ($g < *d[r]$), but final *-u* is unexplained.

The Micronesian set below appears to be formally connected with the sets above, but reflects a hypothetical POc **(w)o(rR)o/*(w)o(rR)omi*, which is perhaps explained as an unsourced loan.

Proto Central Micronesian **worom-i* 'swallow' (Bender et al. 2003)

Mic:	Kiribati	<i>ō-ŋa</i>	'swallow (s.t.)'
Mic:	Chuukese	<i>worom-i</i>	'swallow (s.t.)'
Mic:	Woleaian	<i>worom-i</i>	'swallow (s.t.)'
Mic:	Woleaian	<i>sorom-i</i>	'swallow (s.t.)'
Mic:	Carolinian	<i>orom-i</i>	'swallow (s.t.)'
Mic:	Puluwatese	<i>worom-i-</i>	'swallow (s.t.)'

4.3.5 Other actions performed with the mouth

This section contains a miscellany of actions performed with the mouth, the teeth, the tongue and the lips that do not necessarily entail ingestion.

4.3.5.1 Biting

POc **kaRati* and POc **kati*, both meaning 'bite' possibly share a single source somewhere in their history. Some of the *-r*-less NCV terms, especially from islands towards the south, and all the Fijian and Polynesian terms could be reflexes of either, though the short *-a-* of the Polynesian reflexes probably reflects **kati*.

PAn **kaRat* ‘bite’ (Blust 1999a)POc **kaRat* (vI), **kaRat-i-* (vT) ‘bite’

Adm:	Loniū	- <i>yeti</i>	(vT) ‘bite’
Adm:	Mussau	<i>kata</i>	‘bite’
NNG:	Tami	<i>kalat</i>	‘chew’
NNG:	Mutu	<i>kaʔal</i>	‘bite’
NNG:	Sio	<i>karat-i</i>	‘bite repeatedly and quickly’
NNG:	Poeng	<i>kala</i>	‘bite’
NNG:	Wab	<i>kal</i>	‘bite’
NNG:	Manam	<i>ʔarat-i</i>	(vT) ‘bite s.t.’
NNG:	Ali	- <i>ʔar</i>	‘bite’
NNG:	Sissano	- <i>ʔal</i>	‘bite’
NNG:	Wampur	- <i>gara</i>	‘bite’
NNG:	Adzera	<i>gara</i>	‘bite’
PT:	Dawawa	<i>karat-i-</i>	‘bite’
MM:	Bola	<i>kara</i>	‘bite’
MM:	Nakanai	<i>ala</i>	‘bite’
MM:	Lavongai	<i>kalat</i>	‘bite’
MM:	Tigak	<i>kagat</i>	‘bite’
MM:	Tiang	<i>ke-ket</i>	‘bite’
MM:	Nalik	<i>karat</i>	‘bite’
MM:	Tabar	<i>arat</i>	‘bite’
MM:	Mandak	<i>at</i>	‘bite’
MM:	Sursurunga	<i>arat</i>	(vI) ‘bite’
		<i>art-i</i>	(vT) ‘bite’
MM:	Tolai	<i>karat</i>	(vT) ‘bite’
MM:	Banoni	<i>kanata</i>	‘bite’
MM:	Torau	<i>karat-i-</i>	(vT) ‘bite’
MM:	Roviana	<i>ʔarata</i>	‘bite’
SES:	Bugotu	<i>ʔaʔat-i-</i>	(vT) ‘sting, bite s.t.’
SES:	Gela	<i>ʔala</i>	(vT) ‘bite s.t.’
SES:	Talise	<i>ʔalat-i-</i>	(vT) ‘bite s.t.’
SES:	Longgu	<i>ale-</i>	(vT) ‘bite s.t.’
SES:	To’aba’ita	<i>ʔalat(ai-tai)</i>	(vI) ‘bite and hold on’
SES:	Sa’a	<i>ala</i>	(vI) ‘bite’
SES:	Ulawā	<i>ala</i>	(vT) ‘bite off the outer skin of <i>Canarium</i> nuts’
NCV:	Mota	<i>ʔara</i>	‘eat, bite, speak’
		<i>ʔara-ʔara</i>	‘clench the teeth’

POc **kati[-]* ‘bite’

Adm:	Tench	<i>kati</i>	‘bite’
NNG:	Lukep (Pono)	- <i>kati</i>	‘sever’
NNG:	Kaiwa	- <i>ati</i>	‘bite’
NNG:	Labu	- <i>kasi</i>	‘bite into pieces’
PT:	Motu	<i>kasi-</i>	(vT) ‘snap s.t. with the teeth’

MM:	E Kara	<i>yet</i>	‘bite, burn, cook’
MM:	Tolai	<i>kat</i>	‘gnaw to bits, bite into pieces’
SES:	W G’canal	<i>yati</i>	‘bite’
NCV:	Mota	<i>yat</i>	‘chew’
NCV:	Kiai	<i>ati-</i>	‘bite’
NCV:	Raga	<i>yasi</i>	‘bite’
NCV:	Tamambo	<i>yati</i>	‘bite’
NCV:	Paamese	<i>ati-ati</i>	(VI) ‘bite’
		<i>ati-</i>	(VT) ‘bite’
NCV:	Lewo	<i>kari</i>	‘bite’
NCV:	Namakir	<i>kat</i>	‘bite’
NCV:	Ninde	<i>-es</i>	‘bite’
SV:	Lenakel	<i>kəs</i>	‘bite’
SV:	Kwamera	<i>ahi</i>	‘bite’
SV:	Anejom	<i>a-yas</i>	‘bite’
Fij:	Bauan	<i>kati-</i>	(VT) ‘bite’
Pn:	Samoa	<i>ʔati</i>	‘bite’
Pn:	Tikopia	<i>kati</i>	‘bite into, chew’

Unambiguous reflexes of POc **koto(p)* have been found only in NW Solomonian languages and in one NCV language. However, it is possible that POc **ɣoto* (VI), **ɣot-i* (VT) ‘bite’ reflects a putative PMP $\dagger*[ma]\etaete[b, p]$, a possible intransitive form of the same root (of which no non-Oceanic reflexes are known; cf. §1.3.5.5). If so, then the intransitivising function of initial **ɣ-* had clearly been lost in Proto Oceanic, as a new transitive was formed by adding the POc transitive suffix **-i* to the new root.

PMP **kete[b, p]* ‘bite’ (ACD)

POc **koto(p)* ‘bite’

MM:	Solos	<i>(he)koto</i>	‘bite’ (<i>he-</i> ‘causative prefix’)
MM:	Petats	<i>kot</i>	‘bite’
MM:	Selau	<i>(wi)koto</i>	‘bite’ (<i>wi-</i> ‘causative prefix’)
MM:	Taiof	<i>kot</i>	‘bite’
MM:	Hahon	<i>koto</i>	‘bite’
MM:	Tinputz	<i>kot</i>	‘bite’
MM:	Teop	<i>koto</i>	‘bite’
NCV:	Nokuku	<i>ko-kot</i>	(VI) ‘bite’

PMP $\dagger*[ma]\etaete[b, p]$ (VI) ‘bite’ (ACD)

POc **ɣoto* (VI), **ɣot-i* (VT) ‘bite, nibble’

MM:	Sursurunga	<i>ɣut-ɣut</i>	(VI) ‘bite, nibble, chew’
		<i>ɣut-i</i>	(VT) ‘bite, nibble, chew’
MM:	Nehan	<i>ɣoto</i>	‘gnaw, bite on’
NNG:	Bariai	<i>ɣot</i>	‘bite’
SES:	Gela	<i>ɣot-i, ɣoti-ɣoti</i>	‘gnaw, nibble’
SES:	Lengo	<i>ɣot-i</i>	‘bite’

SES: Malango *ŋot-i-* ‘bite’

Although Blust (ACD) finds plentiful non-Oceanic data for the reconstruction of PMP **gutgut*, the only Oceanic reflexes appear to be in Fijian and Micronesian. Blust’s (1977) canonic derivation of POc verbs from PMP reduplicated monosyllables applies, giving POc **kukut* (VI), **kut-i* (VT) ‘bite’.

PMP **gutgut* ‘front teeth, incisors; gnaw, bite or tear off with the incisors’ (ACD)

POc **kukut* (VI), **kut-i* (VT) ‘bite’

PMic **ku*, **kuku*, **kuti*, **kukuti* ‘bite’ (Bender et al., 2003)

Mic:	Marshallse	<i>kkic</i>	‘bite’
Mic:	Chuukese	<i>kik-kik</i>	‘bite, be wont to bite’
Mic:	Woleaian	<i>xuxxu</i>	‘bite, sting as mosquitoes’
		<i>xuu(w)</i>	‘bite or chew it’
Mic:	Carolinian	<i>xi</i>	‘feed together at water surface, of fish; eat together from same dish, of people’
Fij:	Bauan	<i>kū</i>	(VI) ‘bite’
		<i>kūt-a</i>	(VT) ‘bite (a piece of food)’
		<i>ku-rak-a</i>	(VI) ‘be painful (e.g. of a sting)’, (VT) ‘cause (s.o.) pain’

We note the small cognate set below because it again manifests the phonaesthetic pattern mentioned in §4.3.1.2.

POc (?) **ŋiri* ‘bite’ (?)

NNG:	Sio	<i>ŋiri</i>	‘bite’
NNG:	Bing	<i>ŋire-r</i>	‘bite’ (-r is final reduplication)
SES:	Bugotu	<i>ŋiri (kei)</i>	‘gnash teeth’ (<i>kei</i> ‘tooth’)

4.3.5.2 Licking and tasting

POc **d(r)am^{wi}(s)/*d(r)am^{is}-i-* ‘lick, taste’ is well reflected, but poses some small formal puzzles. First, PMic **cam^w(a,i)-ti* ‘lick’ is odd in that **-t-* reflects POc **-t-* (i.e. hypothetical POc **d(r)am^w(a,i)t-i-*) rather than the **-s-* reflected elsewhere. Second, the data suggest that both POc **d(r)am^{is}-i-* and **d(r)am^we* should be reconstructed as transitives corresponding to intransitive **d(r)am^{wi}(s)* ‘lick, taste’. It may well be that the two forms co-existed, perhaps in different dialects.

Third, there is a small cognate set reflecting PNGOc **d(r)am^{wa}/*d(r)am^{war}-i-* ‘lick’. It is treated as a separate verb rather than being integrated into the first set below, but the two sets cannot be distinguished on the basis of meaning.

POc **d(r)am^{wi}(s)* (VI), **d(r)am^{is}-i-* (VT), **(d,dr)am^we* (VT) ‘lick, taste’

Adm:	Mussau	<i>rame</i>	‘lick’
Adm:	Lou	<i>rem</i>	‘lick’
		<i>rem-rem</i>	‘lick, stick out tongue’

NNG:	Bariai	<i>dame</i>	'lick'
NNG:	Gitua	<i>damoz-i</i>	'lick'
NNG:	Lukep	<i>ramu</i>	'taste (food)'
NNG:	Lukep (Pono)	<i>-dam-dam</i>	'lick'
NNG:	Numbami	<i>-domos-i</i>	'lick, kiss'
NNG:	Yabem	<i>dam^we</i>	'lick, taste'
NNG:	Adzera	<i>dam^wis</i>	'lick'
NNG:	Gapapaiwa	<i>dami</i>	'taste, feel, sense'
MM:	Vitu	<i>dame</i>	'lick'
MM:	Bulu	<i>dame</i>	'lick'
MM:	Bola	<i>dame</i>	'lick'
MM:	Meramera	<i>dame</i>	'taste (food)'
MM:	Madak	<i>dem</i>	'lick'
MM:	Sursurunga	<i>dami</i>	'lick'
MM:	Patpatar	<i>dam</i>	'lick'
MM:	Ramoaina	<i>dam</i>	'lick'
MM:	Tolai	<i>dam</i>	'lick, kiss, suck, taste with the tongue'
		<i>dami-</i>	(VT) 'lick'
MM:	Halia	<i>ram</i>	'lick'
MM:	Teop	<i>rame</i>	'lick'
MM:	Tinputz	<i>rem</i>	'lick'
MM:	Nehan	<i>deme</i>	'lick'
MM:	Halia	<i>ram</i>	'lick'

PNCV **dam^wis-i* 'lick, taste' (Clark 2009: **damusi*, **damisi*)

NCV:	Mota	<i>namis</i>	'touch with tongue, taste'
NCV:	Raga	<i>damuh-i</i>	'taste'
NCV:	Paamese	<i>ramus-i</i>	'lick, taste'
NCV:	Nokuku	<i>jemis</i>	'lick'
		<i>jem-jemes</i>	'taste'

PMic **cam^w(a,i)t-i* 'lick' (Bender et al., 2003)

Mic:	Marshallese	<i>ram^w-rem^w</i>	'lick'
		<i>ram^wic</i>	'lick (s.t.)'
Mic:	Mokilese	<i>sam^w-sam^w</i>	'lick'
Mic:	Ponapean	<i>sam^we</i>	'lick (s.t.)'
Fij:	Bauan	<i>drami</i>	(VI) 'lap, lick'
		<i>dramið-</i>	(VT) 'lap, lick'

PNGOc **d(r)am^wa* (VI), **d(r)am^war-i-* (VT) 'lick'

NNG:	Mangseng	<i>romo</i>	'taste, lick'
		<i>romal</i>	'lick'
NNG:	Malasanga	<i>rama</i>	'taste (food)'
NNG:	Roinji	<i>rama</i>	'taste (food)'
NNG:	Sio	<i>damale-</i>	'lick'
NNG:	Manam	<i>damula</i>	'lick'
NNG:	Dawawa	<i>remo</i>	'lick, taste'

PT: Motu *demar-i-* (VT) ‘lick’

Cognates of the next set are evidently derived from POC **mea* ‘tongue’ (§3.4.12.4), but no reconstruction is proposed as borrowing across the NW/SE Solomonian boundary cannot be ruled out.

MM:	Roviana	(<i>me</i>) <i>mea</i>	‘lick’
SES:	Lau	<i>mea</i>	‘lick’
SES:	Sa’a	<i>meal-i</i>	(VT) ‘lick, taste with the tongue’
SES:	Arosi	<i>mear-i</i>	(VT) ‘lap, as a cat or dog; to lick’

4.3.5.3 Holding in the mouth

Oceanic languages display a number of apparently almost-but-not-quite-cognate forms with a range of meanings that centre on holding in the mouth. The reconstructable POC forms are

**komi* ‘close the jaws on s.t., hold s.t. in the mouth’ < PMP **kemi*
**ogom* (VI), **ogom-i* (VT) ‘hold in the mouth’ < PMP **eŋkem* (see below)
**gomu* ‘keep s.t. in the mouth’
**qumu(R)* ‘suck, hold in mouth’
**omu(R)* ‘roll food around in the mouth’ < PMP **emuR*
**mumu(R)* ‘hold in the mouth and suck’ < PMP **muRmuR*

Blust’s ACD reveals the reason for this plethora. Proto Malayo-Polynesian also had several such forms, and the analysis in Blust (1988) suggests that they each have their origins in two early (or pre-)Austronesian roots, the first two in **kem*, glossed as ‘enclose, cover, grasp’ and the last three in **-muR*, glossed as ‘gargle, rinse the mouth’ (ACD). Four of the resulting POC forms share **-om[-]*, giving rise to possible blending. The third, POC **gomu*, has no known non-Oceanic cognates, and appears to be an Oceanic blend of **ogom* and **omu(R)*.

A number of reflexes of POC **komi* below contain *-u-* for *-o-*. POC **komi* is reconstructed as it is the regular continuation of PMP **kemi*. Items with *-u-* reflect a tendency for stressed **-o-* to be raised before a sequence of **-m-* + high vowel (**-i* or **-u*; cf. POC **gomu* below).

PMP **kemi* ‘hold on by biting’ (ACD)

POC **komi* ‘close the jaws on s.t., hold s.t. in the mouth’

NCV:	Mota	<i>kom</i>	‘keep food in mouth, in cheek’
NCV:	Tamambo	<i>kumi</i>	‘hold in mouth’
NCV:	Raga	<i>yum-yumi</i>	‘gargle’
SV:	Lenakel	<i>a-kum^w</i>	‘hold s.t. in the mouth’
SV:	Anejom	<i>a-kum^w</i>	‘put in the mouth’
Fij:	Wayan	<i>kum-ti</i>	(VT) ‘hold s.t. in the mouth’
Pn:	Tongan	<i>komi-komi</i>	‘(of biting) be tenacious, refusing to let go’
Pn:	Rennellese	<i>komi</i>	‘clasp firmly; hold, as in the mouth’
Pn:	Maori	<i>komi</i>	‘bite, close the jaws on; eat’

Blust (ACD) also lists PMP **qen̄kem* ‘enclose; hold in the mouth’ as a possible ancestor of the forms below, but the absence of a **q-* reflex from the SE Solomonian forms points to PMP **engem*, or, considering the root **kem*, PMP **en̄kem*.

PMP **engem* (?) ‘hold in the mouth’ (ACD)

POc **ogom* (V1), **ogom-i* (VT) ‘hold in the mouth’

SES:	Gela	<i>ogom-i</i>	‘hold a solid in the mouth’
SES:	Sa’a	<i>okom-i</i>	(V1, VT) ‘roll around in the mouth and swallow whole’
SES:	Kwaio	<i>okom-ia</i>	‘swallow’
SES:	To’aba’ita	<i>okom-ia</i>	(VT) ‘swallow’

The cognate set below shows irregular replacement of **-o-* by PSV **-u-*, perhaps as a result of contamination by POc **gumu* ‘gargle, rinse mouth’ (§4.3.5.4).

POc **gomu* ‘keep s.t. in the mouth’

Adm:	Mussau	<i>gom-gom</i>	‘eat, swallow’
SES:	Gela	<i>go-gomu</i>	‘keep in mouth’
SES:	Lau	<i>gomu</i>	‘hold in the mouth, eat with the lips’
NCV:	Mota	<i>kom</i>	‘keep food in the mouth, in the cheek’
		<i>kom-kom</i>	‘something kept in the mouth’
NCV:	Avava	<i>gom</i>	‘put into mouth’
NCV:	Nguna	<i>go-gom-i</i>	‘keep in mouth’

PSV **a-gum^w-i* ‘put or hold in mouth, suck (on)’ (Lynch 2001c)

SV:	Sye	<i>aŋkm-i</i>	‘suck’
SV:	Ura	<i>aŋmu</i>	‘suck’
SV:	Lenakel	<i>akum^w</i>	‘hold s.t. in the mouth’
SV:	Kwamera	<i>ak^wm^w-i</i>	‘suck on, savour, keep in one’s mouth’
		<i>ukum^w-i</i>	‘gag, choke’
SV:	Anejom	<i>akum^w</i>	‘put in the mouth’

PAn**qumuR* ‘fill the mouth with food or water’ (ACD)

POc **qumu(R)* ‘suck, hold in mouth’

Adm:	Lou	<i>kum</i>	‘suck on something, as a popsicle’
Pn:	Ontong Java	<i>umi</i>	‘smoke’
Pn:	Rennellese	<i>umi</i>	‘suck, hold in mouth’
Pn:	Sikaiana	<i>umi-umi</i>	‘suck, a candy, kiss’
Pn:	Takuu	<i>umi</i>	‘taste, hold to the lips’
Pn:	W Futuna	<i>umi-a</i>	‘suck, nurse’
Pn:	Rennellese	<i>umi</i>	‘suck or hold in the mouth, kiss, smoke’

PMP **emuR* ‘hold in the mouth’ (ACD)

POc **omu(R)* ‘roll food around in the mouth’

SES:	’Are’are	<i>omu</i>	‘roll food in one’s mouth (of toothless people)’

PMP **muRmuR* ‘hold in the mouth and suck’ (ACD)POc **mumu(R)* ‘hold in the mouth and suck’

Adm:	Mussau	<i>mumumu</i>	‘suck’
SES:	Lau	<i>mumu</i>	‘close the lips’
SES:	Sa’a	<i>mumu</i>	(VI) ‘close up mouth
		<i>mumu-ʔi</i>	(VT) ‘hold in lips, teeth’
SES:	Arosi	<i>mumu</i>	(VI) ‘close up mouth
		<i>mumu-ʔi</i>	(VT) ‘hold in lips, teeth’

cf. also

Fij:	Bauan	<i>bubu</i>	‘suck sugarcane etc.’

4.3.5.4 Rinse mouth

The cognate set below shows occasional irregular replacement of medial **-u-* by *-o-*, perhaps as a result of contamination by POc **gomu* ‘keep s.t. in the mouth’ (§4.3.5.3), and the Micronesian items reflect initial **k-* rather than **g-*, but the rather specific agreement in meaning persuades us that this is a single set.

PMP **kumuR* ‘gargle, rinse mouth’ (ACD)POc **gumu* ‘gargle, rinse mouth’

PT:	Gumawana	<i>(kala)gum-gum</i>	‘swish water in mouth, rinse out mouth’
PT:	Motu	<i>(he)gomu-gomu</i>	‘gargle’
NCV:	Raga	<i>gu-gumu</i>	‘gargle’
NCV:	Uripiv	<i>-kum-kum-e</i>	‘move something around in mouth; chew noisily’
NCV:	Ninde	<i>gum-gum</i>	‘rinse one’s mouth’
NCV:	Namakir	<i>gumu-kum</i>	‘keep in mouth’

PMic **kum^wu* ‘have liquid in the mouth’ (Bender et al., 2003)

Mic:	Chuukese	<i>kumu-kum</i>	‘hold or swish a fluid in the mouth’
Mic:	Mortlockese	<i>kum^wu-kum^w</i>	‘rinse out mouth’
Mic:	Woleaian	<i>xum^wu-xum^wu</i>	‘put liquid in one’s mouth, suck, slurp’
Pn:	Ifira-Mele	<i>kō-komu</i>	‘have the mouth full of liquid, rinse mouth, wash something around in the mouth’
Pn:	Rennellese	<i>kumu-kumu</i>	‘rinse mouth’
Fij:	Rotuman	<i>kumu</i>	‘hold liquid in the mouth; rinse the mouth with’

4.3.6 Actions performed with the lips

The terms in this section denote sucking noises, and it appears that in Proto Oceanic, as in some modern Oceanic languages, two such noises were recognised. The first was a smacking of the lips to express a refusal or dissatisfaction, denoted by POc **misi(k)*. The second, a kissing noise used to call a dog or pig, or sometimes to attract someone’s attention, was the meaning of POc **[u]jumu/*[u]jum-i-*.

4.3.6.1 The sucking noise signal

POc **misi(k)* is accompanied below by two formally similar reconstructions, **musi* and **m^witi*, also meaning ‘suck’ or ‘make a sucking noise’. It is tempting to combine **musi* with **misi(k)*, reconstructing a hypothetical POc **m^wisi*. The reason for not doing so is that POc **misi(k)* has widespread reflexes associated with expressing refusal or dissatisfaction, whereas this element of meaning is missing from reflexes of **musi* and **m^witi*.²⁸ Reflexes of **musi* and **m^witi* have similar meanings, but their forms do not allow one to unite them in a single set.

PMP **misi(k)* ‘sucking noise made as a signal to another person’ (ACD)

POc **misi(k)* ‘make sucking noise with lips or teeth, as a signal or sign of annoyance’²⁹

NNG:	Wab	<i>mis</i>	‘suck’
PT:	Molima	<i>(lo)misi</i>	‘smack the lips (in rejection)’
PT:	Gumasi	<i>(kala)misi-misi</i>	‘say no by smacking lips’
MM:	Sursurunga	<i>mis(tek)</i>	‘smack the lips, indicating refusal of a request’

PEOc **misi* ‘suck through teeth’ (Geraghty 1983)

SES:	Gela	<i>misi-misi</i>	‘make sucking noise with teeth’
SES:	Lau	<i>misi</i>	‘smack the lips; call a dog with sucking sound’
SES:	To’aba’ita	<i>misi-misi</i>	(VI) ‘suck one’s teeth (to dislodge food); smack one’s lips when eating’
		<i>misi-misi-a</i>	(VT) ‘suck at (bones etc.)’

PMic **misi* ‘smack one’s lips’ (Bender et al., 2003)

Mic:	Chuukese	<i>miti-mit</i>	‘smack one’s lips, make a loud kissing noise’
Mic:	Carolinian	<i>m-mit</i>	‘noise made by smacking lips or tongue to show dissatisfaction, to make such a noise’
Fij:	Wayan	<i>(kata)misi</i>	‘click the tongue, sucking in air, go tut-tut’

PPn **misi* ‘sound made with the lips’ (POLLEX)

Pn:	Tongan	<i>mihi</i>	(VI) ‘sniff, as when one has a cold’
Pn:	Rennellese	<i>misi-misi</i>	‘make a kissing sound with rounded lips’
Pn:	Samoan	<i>misi</i>	‘smack the lips’
Pn:	Tikopia	<i>misi</i>	‘make sucking or chirping sound’ (quieter than <i>miti</i>)
Pn:	Tokelauan	<i>mihi</i>	‘make a tsk with the tongue and teeth to indicate frustration or annoyance’

cf. also:

Fij:	Bauan	<i>misi</i>	‘pick or nibble at (of bats)’

POc **musu* ‘suck, make a sucking or kissing noise’

NNG:	Bilibil	<i>-musi</i>	‘suck’
NNG:	Gedaged	<i>musi</i>	(VT) ‘suck, suckle, kiss, touch with the lips, sip, nibble’

²⁸ **m^w-* is reconstructed to account for Mapos Buang *mul*.

²⁹ Blust (ACD) also cites Ponapean *metik*, *mitik* ‘kiss’, but the final *-k* suggests that this is not a native Ponapean term. This leaves no Oceanic evidence for reconstruction of **-k*.

NNG:	Manam	<i>musu</i>	‘a puckered kiss to call a dog’
SJ:	Sobei	<i>(-)mus</i>	‘drink’
MM:	Tolai	<i>mui</i>	(vi) ‘make a noise as when sucking sugarcane’
SES:	Gela	<i>musu</i>	‘make sound with lips in calling a dog; put limestone stick to lips in betel chewing’
SES:	W G’canal	<i>mucu</i>	‘suck’
SES:	Talise	<i>mucu-</i>	‘suck’
SES:	Malango	<i>mucu-</i>	‘suck’
SES:	Lengo	<i>(mu)musu</i>	‘suck’
SES:	Longgu	<i>musu-musu</i>	‘suck; put lips together; the action used for kissing, smoking, drinking from a coconut’
SES:	Lau	<i>musi, musu</i> <i>musu(la)</i>	‘make sucking noise with lips’ ‘smack lips’
SES:	Kwaio	<i>musu</i>	‘kiss, smack lips’
SES:	Arosi	<i>musu</i>	‘spurt breath from lips, make a whistling noise’

POc **m^witi* ‘suck, make a sucking noise’

NNG:	Mapos Buang	<i>mul</i>	‘kiss, nuzzle’
MM:	Tolai	<i>mit-mit</i>	(vi) ‘make a sucking sound with mouth to indicate longing for food’

PPn **miti* ‘suck, lick up’ (POLLEX); ‘be sucked, be extracted’

Pn:	Tongan	<i>misi-misi</i>	‘make a sucking noise, as when calling a dog’
Pn:	Niuean	<i>miti</i>	‘suck, absorb’
Pn:	Rennellese	<i>miti</i>	‘suck or draw in’
Pn:	Pukapukan	<i>mi-miti</i>	‘sip’
Pn:	Samoa	<i>miti</i>	‘suck, kiss; kind of sucking noise made to draw someone’s attention quietly’
Pn:	Tikopia	<i>miti</i>	‘suck, sip, make sucking sound, chirrup’
Pn:	Tahitian	<i>miti-miti</i>	‘suck, lick’
Pn:	Maori	<i>miti</i>	‘lick up, undertow’
Pn:	Hawaiian	<i>miki</i>	‘suck in, undertow’

PAN **hisep* ‘suck, inhale’ (ACD)POc **isop* ‘suck up, inhale’ (ACD)

NNG:	Label	<i>isop</i>	‘drink’

4.3.6.2 Signalling with a kissing noise

Although some of the terms below are glossed ‘kiss’, it is questionable whether the POc concept was one of kissing, rather than of making a sucking noise to attract attention.

POc **[u]jumu* (vi), **[u]jum-i-* (vt) ‘suck, kiss, make kissing sound’

Adm:	Lou	<i>sum</i>	‘kiss’
		<i>sum(rek)</i>	‘push lips for “no”’
NNG:	Kaulong	<i>hom</i>	‘lick’

NNG:	Tuam	<i>usomu</i>	‘suck’
NNG:	Malai	<i>usome</i>	‘suck’
NNG:	Bariai	<i>sum-sum-i</i>	‘beckon with a kissing noise’
MM:	Bola	<i>dumu</i>	‘call a dog by a kissing sound’
MM:	Madak	<i>sumsu</i>	‘kiss’
MM:	Sursurunga	<i>usum</i>	(VT) [sic] ‘smell (s.t.), sniff’
		<i>usm-ai</i>	(VT) ‘smell (s.t.), sniff’
SES:	Arosi	<i>tom-i-</i>	‘suck’
PNCV <i>*zum-i</i> ‘kiss, make kissing sound’ (Clark 2009)			
NCV:	Mota	<i>sum</i>	‘the noise made to call pigs’
NCV:	Nokuku	<i>jum-i-</i>	‘kiss’
NCV:	Kiai	<i>-sm</i>	‘kiss’
NCV:	Avava	<i>(mi)sum</i>	‘attract somebody’s attention by going <i>tssst!</i> ’
NCV:	Nese	<i>jum</i>	‘kiss’
NCV:	Port Sandwich	<i>cum-i</i>	‘kiss’
		<i>cum^wi</i>	‘suck’
NCV:	Paamese	<i>sumu</i>	‘make noise with lips to attract attention’
NCV:	Lewo	<i>sumu</i>	‘kiss’
		<i>yumu-nia</i>	‘make sucking noise’
PSV <i>*a-s(u)mu-i</i> ‘suck’			
SV:	Anejom	<i>a-θmo-i</i>	‘suck’
Fij:	Wayan	<i>(kata)som</i>	‘signal by a squeaky kissing sound, used to call attention of person or dog’
		<i>(kata)som-ti</i>	(VT) ‘attract s.o.’s attention by making a squeaky kissing sound’

4.3.7 Other events involving the digestive system

4.3.7.1 Hiccups

A single cognate set covers much of Oceanic.

PAn **sedu* ‘hiccup’ (ACD)

POc **[ma]soru* (VI) ‘to hiccup’

Adm:	Titan	<i>masol</i>	(VI) ‘hiccup’
MM:	Roviana	<i>so-sori(ŋi)</i>	(VI) ‘hiccup’
SES:	Gela	<i>marohu</i>	(VI) ‘gulp, hiccup’ (metathesis of <i>*s-</i> and <i>*-r-</i>)
SES:	Longgu	<i>toro(go)</i>	(VI) ‘hiccup’ (<i>torogo-i</i> ‘a hiccup’)
SES:	Arosi	<i>toru</i>	(VI) ‘hiccup’
SES:	Bauro	<i>matoru</i>	(VI) ‘hiccup’
NCV:	Mota	<i>masor</i>	‘sob, sobbing’
NCV:	Raga	<i>mahoru</i>	‘hiccup’ (<i>horu</i> ‘sob’)
NCV:	Tamambo	<i>masoru</i>	‘hiccup’
NCV:	Uripiv	<i>-masor</i>	(VI) ‘hiccup’
NCV:	Nguna	<i>m^wasore</i>	‘hiccup’

PMic **maSeru* ‘hiccup’ (Bender et al., 2003)

Mic:	Puluwatese	<i>matər</i>	‘hiccup’
Mic:	Woleaian	<i>materu</i>	‘hiccup’
Fij:	Rotuman	<i>masori</i>	‘have the hiccups’
Fij:	Bauan	<i>ma-ðedru</i>	(N, V) ‘hiccup’ (-e- for †-o-; -dr- for -r-)
Fij:	Wayan	<i>[ma]ðedru</i> (<i>toko</i>) <i>medru</i>	‘inhale noisily, suck in air’ (-e- for †-o-; -dr- for †-r-) ‘hiccup; make a sharp noise in the throat or chest’ (-e- for †-o-; Ø for -ð-; -dr- for -r-; for <i>toko</i> - cf PPn)

PPn **toko-mahuru* ‘hiccup’

Pn:	Tongan	<i>toko-mohū</i>	‘hiccup’
Pn:	Niuean	<i>mohū</i>	‘hiccup’
Pn:	Rennellese	<i>toka-maugu</i>	‘have hiccups’
Pn:	Pukapukan	<i>toka-mauli</i>	(N) ‘hiccup’ (final -i reanalysed as from <i>mauli</i> ‘life force’?)
Pn:	Samoan	<i>toʔo-maunu</i>	‘hiccup’
Pn:	Tikopia	<i>toko-mauri</i>	‘hiccup’
Pn:	Maori	<i>toko-mauri</i>	‘hiccup’ (cf <i>toko-hana</i> ‘belch, hiccup’)

4.3.7.2 Belching

Blust (ACD) reconstructs POc **toRap* ‘belch’ on the basis of non-Oceanic evidence and a single Oceanic (Sa’a) reflex. Only two further cognates have been found.

PAn **CeRab* (N) ‘belch’ (ACD)PMP **teRab* (N) ‘belch’ (ACD)POc **toRap* ‘belch’ (ACD)

NNG:	Mapos Buang	<i>təq</i>	(N) ‘belch’
SES:	Sa’a	<i>ora (lulu)</i>	‘belch’
NCV:	Big Nambas	<i>i-dru</i>	‘belch’ ³⁰
NCV:	Neve’ei	<i>to-tor</i>	‘belch’
NCV:	Nāti	<i>tor</i>	‘belch’
NCV:	Uripiv	<i>e-raro</i>	‘belch’
Pn:	Samoan	<i>to-tō</i>	‘belch’

Bender et al. (2003) reconstruct PMic **kurer[ae]*, for which no non-Oceanic cognates are found.

PMic **kurer[ae]* ‘to belch’ (Bender et al., 2003)

Mic:	Puluwatese	<i>kirir</i>	(N,VI) ‘burp, belch’
Mic:	Carolinian	<i>xərər</i>	(VI) ‘to burp, belch’
Mic:	Woleaian	<i>xʔrere</i>	(VI) ‘to burp, belch’

³⁰ NCV data provided by John Lynch.

The obstacle to reconstructing a term for ‘belch’ is almost certainly paucity of data. The Roviana (Waterhouse 1949), Bugotu (Ivens 1940), Lau (Fox 1974) and Kwaio (Keesing 1975) dictionaries, for example, include no entry for ‘belch’ or ‘burp’.

4.3.7.3 Farting

There are a number of terms for ‘fart, break wind’. The most widespread is POc **b^wisi*, which seems from some of its glosses to have originally had the sense ‘spurt, splash’. This was perhaps a euphemism which almost replaced the inherited term, POc **(q)utut* ‘fart’, for which there is just one known reflex. Other terms are also likely to have arisen via euphemism.

POc **b^wisi* ‘to fart’ (ACD: *pisi*; Lynch 2002: PEOc **b^wisi* ‘spurt out, fart’)

Adm:	Mussau	<i>pisi</i>	‘to fart, break wind’
Adm:	Loniu	<i>isi</i>	‘break wind’
NNG:	Gedaged	<i>pis</i>	‘pass gases from the bowels’
PT:	Sinaugoro	<i>firi</i>	(N) ‘wind, flatulence’
MM:	Nakanai	<i>pisi</i>	‘break wind’
MM:	Halia	<i>pisi</i>	‘break wind’
MM:	Tangga	<i>pis</i>	‘emit wind’
MM:	Tinputz	<i>pih</i>	‘break wind’
MM:	Roviana	<i>p(in)isi</i>	‘break wind’
SES:	Gela	<i>pisi</i>	‘be ejected, of faeces’
SES:	Lau	<i>k^wisi</i>	‘splash; movements of bowels of a baby’
SES:	Arosi	<i>p^wisi</i>	‘spurt, splash’
SES:	Sa’a	<i>p^wisi</i>	‘spurt, splash’

PNCV **b^wisi* ‘buttocks; to fart’ (Clark 2009)

NCV:	Lewo	<i>p^wisi</i>	‘farting noise’
NCV:	Tolomako	<i>pisi</i>	‘fart’
NCV:	Big Nambas	<i>(i)p^wis</i>	‘break wind’
SV:	Lenakel	<i>e-p^wa-p^was</i>	(VI) ‘splash’
		<i>(auie)p^was</i>	(VT) ‘splash’
Mic:	Puluwatese	<i>p^wit</i>	‘let wind (vulgar)’
Pn:	Tongan	<i>pihi</i>	(VI) ‘splash up, squirt’
Pn:	Rennellese	<i>pisi(kia)</i>	‘wet, soak, splash; receive a splash of s.t. in the eye’
Pn:	Samoan	<i>pi-pisi</i>	‘gush, spout’

PMP **qutut* ‘flatulence; to fart’ (ACD)

POc **(q)utut* ‘fart’

MM:	Simbo	<i>utut-e</i>	‘ <i>flatus ventris</i> , wind from the bowels’

POc **siR[u,i]* (VI) ‘blow, hiss, fart’

MM:	Roviana	<i>hiru</i>	‘blow; to rise of wind or a storm’

PNCV **siri* ‘fart’ (Clark 2009)

NCV:	Tamambo	<i>siri</i>	‘to fart’
NCV:	Lonwolwol	<i>sĩ</i>	‘to leak (of air), hiss out’
NCV:	Kiai	<i>siri</i>	‘break wind, fart’
SV:	Sye	<i>a-sis</i>	‘fart’
SV:	Kwamera	<i>a-si</i>	‘fart, break wind, (octopus) squirt’
Fij:	Wayan	<i>siu</i>	‘break wind, fart’
Fij:	Bauan	<i>siu</i>	‘produce a hissing sound, as steam under pressure’
		<i>ōĩ</i>	‘fart’
Pn:	Mele Fila	<i>sũ</i>	‘fart’
Pn:	Maori	<i>hũ</i>	‘resound, make any inarticulate sound, any explosive sound; erupt’
Pn:	Tahitian	<i>hu</i>	‘wind emitted from the rectum’
Pn:	Tuamotuan	<i>hũ</i>	‘fart, any explosive sound, belch’

POc **siki* ‘to fart’

PT:	Dawawa	<i>siya</i>	‘break wind’
MM:	Banoni	<i>sigi</i>	‘break wind’
SES:	Gela	<i>hiyi</i>	‘break wind’
SES:	Lengo	<i>ōiyi</i>	‘break wind’
SES:	Kwaio	<i>siʔi</i>	‘fart’
SES:	’Are’are	<i>siʔi</i>	‘to fart’
SES:	Sa’a	<i>sĩ</i>	‘break wind’
SES:	Arosi	<i>siʔi</i>	‘break wind’
SES:	To’aba’ita	<i>siʔi</i>	(vI) ‘fart’

PMic **tiji* ‘fart’

Mic:	Kiribati	<i>tiji</i>	‘fart’
Mic:	Marshallese	<i>ciŋ</i>	‘fart’
Mic:	Carolinian	<i>siŋ</i>	‘fart’
Mic:	Woleaian	<i>siŋi</i>	‘fart’

4.4 Emitting and eliminating substances from the body

In §3.8, terms for the substances emitted by the body are reconstructed. In this section we reconstruct the verbs associated with the emission or elimination of these substances. However, there is no one-to-one correspondence between substance terms and verbs (and this is probably so across languages generally). POc speakers used the same terms, or terms derived from the same roots, for ‘saliva/spittle’ and ‘spit’ (§4.4.3), for ‘perspiration’ and ‘perspire’ (§4.4.6), ‘urine’ and ‘urinate’ (§4.4.7) and in one of two instances for ‘faeces’ (§3.8.6) and ‘defecate’ (§4.4.8). For ‘blood’ there was perhaps no associated verb ‘bleed’. For ‘earwax’ there is no corresponding verb. For ‘tears’ (§3.8.1) the associated verb is ‘weep’ (§4.7.3), but the latter has a wider range of meanings than ‘tears’ and there was in any case apparently no single-word term for tears. Oddly,

the term for ‘snot, nasal mucus’ (§3.8.3) is the root of a verb meaning ‘grunt, growl, snore’ (§3.3.7).

Some verbs associated with the emission of substances from the body are handled in other sections. Vomiting (§4.4.4) is placed under events involving the digestive system, and weeping (§4.7.3) under physical responses to emotion or pain.

Bodily function verbs like ‘sneeze’, ‘yawn’, ‘urinate’ and ‘die’ are intransitive in their simple form. However, a typical POc verb will also have derived transitive forms carrying additional information. With verbs of secretion and excretion the transitive form in **-i* took a location as its object (‘he urinated on the **ground**’), and the transitive form in **-akin[i]* marked the product as the object (Evans 2003:197–199).³¹

4.4.1 Bleeding

No POc verb meaning ‘bleed’ can be reconstructed with certainty. POc **ma-draRa(q)* (cf POc **draRa(q)* ‘blood’, §3.3.3) almost certainly meant ‘bloody’ (**ma-* formed property expressions; §1.3.5.4), but it is unclear whether it also had the dynamic verbal sense ‘bleed’, or whether the etymon first acquired this sense in PSOc.

PMP **ma-daRa*q ‘bloody, bleeding; menstruate’ (ACD)

POc **ma-draRa(q)* ‘bloody, bleed’

PSOc **ma-daRa* ‘bleed’ (Lynch 2001c)

NCV: Mota	<i>manara-nara</i>	‘bloody’
NCV: Mwotlap	<i>m[a]day</i>	‘bleed’
NCV: W Ambrym	<i>mrā</i>	‘flow (of blood)’
NCV: Paamese	<i>medā</i>	‘bleed’
NCV: Nguna	<i>madā</i>	‘bleed’
NCV: S Efate	<i>mra</i>	‘bleed’

PSV **a-mada[]* ‘bleed’ (Lynch 2001c)

SV: Sye	<i>o-mnre</i>	‘bleed’
SV: Lenakel	<i>ə-mta</i>	‘bleed’
SV: Kwamera	<i>meta</i>	‘bleed’
SV: Anejom	<i>ca</i>	‘bleed’

A number of Oceanic languages use a phrase meaning ‘blood flows’, and it is likely that such a phrase was also used in POc.

NNG: Bariai	<i>i-sij i-lele</i>	[his-blood it-flows] ‘he is bleeding’
NNG: Mangap	<i>sij i-rēre</i>	[blood it-flows] ‘it is bleeding’
SES: ’Are’are	<i>apu-na e ʔahe</i>	[blood-his it flows] ‘he is bleeding’
SES: To’aba’ita	<i>ʔabu e oka</i>	[blood it flows] ‘it is bleeding’

4.4.2 Menstruating

No reconstructions have been made. Many dictionary terms are euphemisms as in Molima *tabu-tabu*, Niue *gagao fifine* ‘woman’s illness’, Tongan *fakakelekele* ‘make unclean’, ’Are’are

³¹ Transitive forms of Longgu, NE Ambae and Boumaa Fijian in the following sets are from Evans 2003:198.

ʔoni i sihani ‘stay outside (the village)’. Marshallese uses a term *betektek*, an irregular derivation from POc **taqe* ‘excrement’. Various terms collected, including Tolo *reivula* (*vula* ‘moon’) and Owa *fagaifa* ‘moon, month, woman’s period’ reflect an association with the moon.

4.4.3 Spitting and spittle

Apart from compounds meaning ‘water of mouth’, i.e. saliva’ (§3.8.4), POc terms for ‘to spit’ and ‘spittle, saliva’ are remarkably recalcitrant when it comes to formal reconstruction, as two families of reconstructions are found, each containing several sets of related forms. For convenience we refer to them as (1) the **isu* and (2) the **supa* families. Each set within each family yields a distinct reconstruction attributable to POc or PWOC, a situation which does not allow reconstruction of a single form at the POc interstage.

The **isu* family includes POc **kanisu*, PWOC **kamusu*, POc **ɲisu* and POc **k(i,u)su*. Even these forms are questionable, as daughter languages also reflect the final *-isu* as *-usu* or *-usi*.³² This alternation appears to go back to PEMP, as Serui-Laut *kunui* reflects **kanusi* whilst Wandamen *kanisu* reflects **kanisu* (Blust 1978a:213). A further complication is that Blust reconstructs both the PEMP and POc forms with **q-*, but the two EMP forms and Ubir, Motu and Fijian all reflect **k-*, as reconstructed here. Polynesian languages reflect an irregular PPn **q-*.

PEMP **kanisu* or **kanusu* or **kanusi* or **kinusu* ‘to spit’ (Blust 1978a:213: PEMP **qanus-* (i))

POc **kanisu* or **kanusi* (N) ‘spittle’, (V) ‘spit’

Adm:	Mussau	<i>kanusu</i>	‘to spit’
NNG:	Kairiru	<i>qanswo-i</i>	(VT) ‘to spit on’
PT:	Ubir	<i>kanu</i>	‘saliva’
PT:	Motu	<i>kanudi</i>	(VI) ‘to spit; spittle’
PT:	Wedau	<i>anu(maina)</i>	‘spittle’ (<i>maina</i> ‘milk, sap’)
MM:	W Kara	<i>kanus</i>	‘spittle’
MM:	Tabar	<i>kinocu</i>	‘spittle’
MM:	Sursurunga	<i>kanusi</i>	(VT) ‘spit in a single stream’
MM:	Tangga	<i>kanus(lo)</i>	‘spittle’
NCV:	Mota	<i>anus</i>	‘spit’
SV:	N Tanna	<i>aŋah</i>	‘spit’
SV:	Lenakel	<i>aŋh</i>	‘spit’
Fij:	Nadrau	<i>kanisu[v-]</i>	(VT) ‘spit on’ (Geraghty 1983:315)
Fij:	Bauan	<i>kānusi</i>	(VT) ‘spit on’ (Geraghty 1983:137, 161)

PPn **qanu[si]* ‘to spit’ (POLLEX)

Pn:	Tongan	<i>ʔanuhi</i>	(VT) ‘to spit, spit on’
Pn:	Samoan	<i>anu</i>	‘spit’
Pn:	Emae	<i>nusi</i>	‘spit’
Pn:	Tikopia	<i>anu</i>	‘saliva’

³² It is tempting to argue that *-usi* includes a reflex of the transitive suffix **-i*, but the glosses do not support this, and the form would be irregular, the regular form being †*-isu-i* or †*-usu-i*.

At first sight the forms below look like reflexes of **kanisu* in which **-n-* has been replaced by *-m-*. However, there is nothing to cause this replacement, and the geographic distribution of the reflexes points to a separate earlier form with *-m-*.³³ SE Solomonian forms and Dorig lack **ka-*.

POc **kamusu* or **kimusu* ‘spittle, to spit’

NNG:	Kaulong	<i>kimos</i>	‘to spit’
MM:	Lihir	<i>kamic</i>	‘spittle’
MM:	Petats	<i>k<in>imus</i>	‘spittle’ (<in> nominaliser)
MM:	Selau	<i>k<öñ>msö</i>	‘spittle’ (<Vn> nominaliser)
MM:	Mono-Alu	<i>amisu</i>	‘spit’
MM:	Banoni	<i>kamusu</i>	‘spit’
MM:	Torau	<i>kamusu</i>	‘spit’
MM:	Vangunu	<i>kamusu</i>	‘spit’
MM:	Kia	<i>(ka)kamusu</i>	‘spit’
MM:	Kokota	<i>kmisu</i>	‘spit’
MM:	Laghu	<i>(ki)knisu</i>	‘spit’
MM:	Blablanga	<i>na-pnisu</i>	‘spit’
MM:	Maringe	<i>kmisu</i>	‘spit’
SES:	Owa	<i>misu</i>	‘spit’
SES:	Bauro	<i>mosu</i>	‘spit’
SES:	Kahua	<i>musu</i>	‘spit’
NCV:	Dorig	<i>m^wis</i>	‘spit’

POc **ηusu*/**ηisu* are reconstructed separately from the forms above, as its reflexes can only be derived from **kanisu* or **kanusu* by positing independent idiosyncratic innovations in NNG and SES languages.

POc **ηisu* or **ηusu* ‘to spit’

NNG:	Lukep	<i>ηō-</i>	‘spit’
NNG:	Wab	<i>ηus</i>	‘spit’
NNG:	Bing	<i>ηus-us</i>	‘spittle’
SES:	Gela	<i>(a)ηusu</i>	(VI, VT) ‘spit’
SES:	Bugotu	<i>(a)ηusu</i>	‘to spit, spit on; spittle’
SES:	Longgu	<i>ηisu</i>	‘to spit’
SES:	Lau	<i>ηisu-</i>	‘spittle, to spit’
SES:	Sa’a	<i>ηisu-</i>	(VI) ‘to spit’; ‘saliva’
SES:	Kwaio	<i>ηisu(-)</i>	‘saliva, spittle, gall’
SES:	Arosi	<i>ηisu, ηusu</i>	‘spit’
SES:	’Are’are	<i>ni-nisua-</i>	‘saliva, foam’

POc **kisu* or **kusu* is reconstructed below because it perhaps provides the key to understanding this family of reconstructions.

³³ We have chosen to treat Laghu *ki-knisu* and Blablanga *na-pnisu* as reflexes of an earlier **kmisu*, reflected in Kokota and Maringe, rather than of **kanisu*, but nothing depends on this decision.

POc **kisu* or **kusu* ‘to spit’

NNG:	Labu	<i>kusu</i>	(vi) ‘spit’
NNG:	Poeng	<i>utu</i>	‘to spit’ (expect † <i>kutu</i>)
PT:	Muyuww	<i>gus</i>	‘spit, spray spit in magic ritual’
MM:	Sisiqa	<i>ko-kosu</i>	‘spit’
MM:	Babatana	<i>ku-kusu</i>	‘spit’
MM:	Nduke	<i>yoso</i>	‘spit’
Mic:	Woleaian	<i>kut</i>	‘spit, spittle’
Pn:	Tongan	<i>kisu</i>	‘spit forcefully, spit out’
Pn:	E Futunan	<i>kisu</i>	‘spray out from the mouth (e.g. chewed-up medicinal leaves, or water)’

Alternating POc reconstructions sometimes reflect alternations in PMP verbal morphology (§1.3.5), and this appears to be the most complex case we have encountered. POc **kisu*/**kusu* evidently reflects a PMP verb, for which, however, no non-Oceanic evidence is known. POc **ɣisu*/**ɣusu* reflects the intransitive (actor voice) form of the verb, formed by replacing the initial **k-* of the root with the homorganic nasal **ɣ-* (§1.3.5.6). PWOC **kamusu*/**kimusu* appears to reflect an alternative form of the intransitive, formed by infixing *<um>* after the initial consonant of the root, giving expected POc †**k<um>isu* or †**k<um>usu*. Finally, the set **kanisu*/**kanusu*/**kanusi*/**kinusu* appears to reflect a nominalisation formed by infixing *<in>* after the initial consonant of the root, giving expected POc †**k<in>isu* or †**k<in>usu*, the latter reflected in Tabar *kinocu*. The **-a-* vowel in POc **kanisu*/**kanusu*/**kanusi* and PWOC **kamusu* is taken to reflect epenthesis, as the infixes were almost certainly not stressed in POc, giving forms like **[k(ə)nisu]* and **[k(ə)misu]* (cf. Kokota and Maringe *kmisu*).

The second family of forms includes POc **supa* and **ka-supā*, where **ka-* appears to reflect the PMP formative **ka-* found in stative intransitive verbs (§1.3.5.4). However, this is uncertain, as **ka-supā* is not stative in meaning. The Nakanai, Boumaa Fijian and Micronesian reflexes of **ka-supā* point to a transitive with an unexplained root-final **-t*.³⁴ Here again there are variant forms, but we have no explanation for these: the forms listed below **ka-supā[t-i]* under ‘cf. also’ reflect a replacement of **-s-* by **-n-* (Roinji), by **-t-* (Nakanai) or **-(r;R)-* (Bulu, Bola, Misima).

PMP **supa(q)* ‘to spit, spittle, saliva’ (ACD)POc **supa* ‘to spit’

NNG:	Mindiri	<i>sua</i>	‘spit’
MM:	Vaghua	<i>səve</i>	‘spit’
MM:	Varisi	<i>sue</i>	‘spit’
MM:	Ririo	<i>su-sui</i>	‘spit’
SES:	W G’canal	<i>cuve</i>	‘spit’
SES:	Talise	<i>cuve</i>	‘spit’
SES:	Birao	<i>cuve-cuve</i>	‘spit’
SES:	Lengo	<i>suve</i>	‘spit’
SES:	Arosi	<i>tuha</i>	‘spit’

³⁴ Non-etymological final consonants are often the result of reanalysis of POc **-C-i* as **-Ci*, then generalisation of one productive variant of **-Ci*.

POc **ka-supa*[*t-i*] ‘to spit [on], spittle’

NNG:	Kaulong	<i>kusap</i>	‘spit’ (vowel metathesis)
NNG:	Tuam	<i>ηazuba</i>	‘spittle’
NNG:	Malai	<i>nazuva</i>	‘spittle’
NNG:	Yabem	<i>kasop</i>	‘saliva, to spit’
NNG:	Bukawa	<i>gasup</i>	‘spittle’
NNG:	Numbami	<i>kanzuwa</i>	‘spit’
		<i>kanzuwa-ηa</i>	‘spittle’ (- <i>ηa</i> nominaliser)
NNG:	Misim	<i>kusuv</i>	‘spit’
NNG:	Mangga Buang	<i>kasuv</i>	‘spit’
MM:	Nakanai	<i>kavuras-i</i>	(VT) ‘to spit a spray into the air’ (metathesis)
MM:	Barok	<i>gi-gisip</i>	‘spittle’
MM:	Haku	<i>kahus</i>	‘spit’ (metathesis)
		<i>k<in>ahus</i>	‘spittle’ (metathesis + < <i>in</i> > nominaliser)
MM:	Taiof	<i>kisuf</i>	‘spittle’

PMic **ka(sS)i[sS]ifa* ‘spit, spittle’ (Bender et al., 2003)

Mic:	Chuukese	<i>ɔttif</i>	‘saliva, spittle’
		<i>ɔttifa(n)</i>	‘spit’
		<i>ɔttife(yiti)</i>	‘spit on’
Mic:	Puluwatese	<i>yottuf</i>	‘saliva, sputum’
		<i>ɔtife</i>	‘spit’
		<i>ɔttife-yiti</i>	‘spit on’
Mic:	Carolinian	<i>ɔttuf</i>	‘saliva, to spit’
Fij:	Bauan	<i>kasivi</i>	‘to spit (medicinal leaves, or water)’
Fij:	Boumaa	<i>kāsivi-ti-</i>	(VT) ‘spit (medicinal leaves, or water)’

cf. also:

PT:	Misima	<i>kuluv-i</i>	‘spit out’
NNG:	Roinji	<i>yanup</i>	‘spittle’
MM:	Bulu	<i>kalupe</i>	‘spittle’
MM:	Bola	<i>kalupe</i>	‘spittle’
MM:	Nakanai	<i>katupe</i>	‘spittle’
Fij:	Wayan	<i>katasiv-i</i>	(VI) ‘spit’; (N) ‘spittle’ ³⁵
		<i>katasivi-ti-</i>	(VT) ‘spit at s.o.’
		<i>katasivi-takini-</i>	(VT) ‘spit s.t. out’

Finally, Blust (ACD) reconstructs PMP **qizuR*,³⁶ with just two known Oceanic reflexes:

³⁵ Wayan *katasivi* and its derivatives reflect a blend of *kata-*, which occurs in verbs denoting noises from the mouth (*kata-sīsī* ‘hiss “psst”’, *kata-som* ‘signal with a squeaky kissing sound’) and PCP **kasivi* ‘spit’ (Andrew Pawley, pers. comm.).

³⁶ Blust reconstructs this form as Proto Western Malayo-Polynesian, but we do not believe that this node existed (vol.4, ch.1, §3.2.2). Instead, reconstructions at this interstage represent PMP items of which no CEMP reflexes were known at the time of reconstruction. The presence of Oceanic reflexes here confirms the PMP attribution.

PMP *qizuR ‘saliva, spittle’ (ACD)

POc *qijuR ‘to spit, spittle’

NNG: Tami	(ma)kiju-	‘spittle’
NNG: Mangap	-kiziu	‘spit’

One further term *puRuk ‘spray water from the mouth; spray a mixture of saliva and masticated medicinal herbs on an ailing body part in curing’ is included with supporting evidence in §5.4.2.1.

4.4.4 Vomiting

Two POc terms have been reconstructed, *[mu]mutaq and *luaq. A number of languages (Lou, Gela, Longgu, To’aba’ita, Kwaio) have reflexes in both sets. Their glosses suggest that *[mu]mutaq simply meant ‘vomit’, whereas *luaq denoted forceful ejection of a substance from the body, as discussed below.

POc *mutaq reflects PMP *um-utaq, i.e. the root preceded by the intransitive actor voice affix (§1.3.5.5).

PAn *utaq ‘vomit’ (ACD)

PCEMP *mutaq (VI) ‘vomit’ (ACD)

POc *[mu]mutaq (VI) ‘vomit’

Adm: Wuvulu	mu-muʔa	‘vomit’
Adm: Seimat	mutu-mut	(VI) ‘vomit’
Adm: Lou	mu-mut	‘to vomit’
Adm: Loni	mo-mota-ni	(VT) ‘spit s.t. out, vomit’
NNG: Bola	muta	‘vomit’
NNG: Poeng	muta	‘vomit’
NNG: Kairiru	mu-mut	‘vomit’
NNG: Ulau-Suain	mu-mut	‘vomit’
NNG: Mapos Buang	mutq	‘vomit’
NNG: Mumeng (Patep)	mutaʔ	‘vomit’
PT: Ubir	mout	(N, V) ‘vomit’
PT: Motu	mu-muta	(N, V) ‘vomit’
MM: Lavongai	mutak	‘vomit’ ?
MM: Notsi	muta	‘vomit’
MM: Lamasong	muta	‘vomit’
MM: Tinputz	mut	‘vomit’
MM: Vangunu	muta	‘vomit’
SES: Gela	mu-muta	‘vomit’
SES: Longgu	moa	(VI) ‘vomit’
	moa-li	(VT) ‘vomit on s.t.’
	moa-taʔini	(VT) ‘vomit s.t. up’
SES: Lau	mo-moa	‘to vomit’
SES: To’aba’ita	moa	(VI) ‘vomit’
	moa-si-a	(VT) ‘vomit on s.t.’

		<i>moa-tani-a</i>	(VT) 'vomit s.t. up'
SES:	Kwaio	<i>moa</i>	'vomit'
SES:	Sa'a	<i>moa</i>	'vomit'
SES:	Arosi	<i>moa</i>	'feel sick and desire to vomit'
		<i>moa-taʔi</i>	'feel sick from s.t.'
NCal:	Iaai	<i>m̥ita</i>	'vomit'
Mic:	Kiribati	<i>m^wu-m^wuta</i>	'regurgitation; to vomit, to regurgitate'
Mic:	Marshallse	<i>m^wm^wəc</i>	'vomit'
Mic:	Ponapean	<i>mm^wus</i>	'(N) vomit; (V) vomit'
Mic:	Puluwatese	<i>m^wm^wuh</i>	'(V) vomit'
Mic:	Woleaian	<i>m^wm^wute</i>	'vomit, throw up'

The Lou, Mangap, Gela, Kwaio and Samoan terms suggest that POc **luaq* may have implied a more forceful action of vomiting or spitting, perhaps also including the ejaculation of seminal fluid as in To'aba'ita and Rennellese. As with the verbs of secretion and excretion discussed in §4.4, the transitive form in **-i* took a location as its object (**luaq-i* 'vomit on'), and the transitive form in **-akin[i]* marked the product as the object (**luaq-akin[i]* (VT) 'vomit s.t. up').

PMP **liwaq* 'spit out, vomit' (Dempwolff 1938: **livah*)

POc **luaq* (VI) 'eject forcefully from body; vomit, spit out, (?) discharge seminal fluid', **luaq-i* (VT) 'vomit on', **luaq-akin[i]* (VT) 'vomit s.t. up'

Adm:	Mussau	<i>luek-i</i>	'vomit' (probably < POc <i>*luaq-aki</i> ; Blust 1998:95)
Adm:	Lou	<i>luek</i>	'spit out' (as above)
NNG:	Mangap	<i>lua-i</i>	'spit out of mouth'
NNG:	Gitua	<i>lua</i>	'vomit'
NNG:	Malasanga	<i>-lu-lua</i>	'vomit'
NNG:	Roinji	<i>lua</i>	'vomit'
NNG:	Gedaged	<i>-lu</i>	'vomit'
NNG:	Numbami	<i>lua</i>	'vomit'
NNG:	Labu	<i>-nu</i>	'vomit'
MM:	Bali	<i>luaka</i>	'vomit'
MM:	Nakanai	<i>lua</i>	'vomit'
MM:	E Kara	<i>luak</i>	'vomit'
MM:	Halia	<i>lua</i>	'vomit'
MM:	Petats	<i>lu-lua</i>	'vomit'
MM:	Roviana	<i>lua</i>	'vomit'
SES:	Bugotu	<i>lua</i>	'vomit'
SES:	Gela	<i>lua</i>	'burst out'
		<i>lua-lua</i>	'boil over, as food cooked in bamboo; to spit out'
		<i>lua-lagi</i>	'to spit out'
SES:	Longgu	<i>lue</i>	(VI) 'vomit'
		<i>lue-hi</i>	(VT) 'vomit on s.t.'
		<i>lue-gini</i>	(VT) 'vomit s.t. up'
SES:	To'aba'ita	<i>lua</i>	(VI) 'fall out, spill out, drop out; (of man) ejaculate'
		<i>lua-fia</i>	(VT) '(of a container) spill contents over s.t.'

SES:	Kwaio	<i>lua(ʔao)</i>	‘vomit’
		<i>lua-ŋaʔi</i>	‘burst out, spew out from’
TM:	Aiwoo	<i>la</i>	‘vomit’
TM:	Nembao	<i>liɔ</i>	‘vomit’
NCV:	Mota	<i>lua</i>	‘vomit’
NCV:	Tamambo	<i>lua</i>	(VI) ‘vomit’
NCV:	Araki	<i>lua</i>	(VI) ‘vomit’
NCV:	Lewo	<i>li-lua</i>	‘vomit’
SV:	SW Tanna	<i>lua</i>	‘vomit’
Fij:	Bauan	<i>lua</i>	‘vomit’
		<i>lua-ɔa</i>	(VT) ‘vomit on s.t.’
		<i>lua-ra, lua-raka</i>	(VT) ‘vomit s.t. up’
Fij:	Wayan	<i>lue-ɔi-</i>	VT ‘vomit on s.t.’
		<i>lue-ɔakini-</i>	(VT) ‘vomit s.t. up; blurt s.t. out’
Pn:	Tongan	<i>lua</i>	(VI) ‘vomit’
Pn:	Rennellese	<i>gua</i>	‘throw up, vomit; discharge seminal fluid’
Pn:	Samoa	<i>lua-i</i>	(VT) ‘expectorate, disgorge (phlegm)’
Pn:	Tikopia	<i>rūa</i>	‘vomit’
Pn:	Marquesan	<i>ʔua</i>	‘vomit’
Pn:	Tahitian	<i>ruaʔ-i</i>	‘vomit’
Pn:	Maori	<i>ruak-i</i>	‘vomit’

4.4.5 Ejaculation of seminal fluid

No separate term for ejaculation of seminal fluid can be reconstructable, but it seems possible that this was one of the senses of POc **luaq* above (§4.4.4), as this is one of the meanings of the To’aba’ita and Rennellese reflexes of the latter.

4.4.6 Sweating, perspiring and perspiration

POc **maqono* ‘sweat’ appears from its form (**ma-* + disyllabic root) to have originally been a verb, but a number of its reflexes, often reduplicated, are now nouns. The absence or presence of final *-ta*, reflected in ’Are’are and Maewo, is unexplained.

No extra-Polynesian cognates of PPn **ka-kawa* have been found.

POc **maqono[ta]* (v?) ‘sweat’

MM:	Nakanai	<i>maholo</i>	(N) ‘sweat’
MM:	Meramera	<i>maono</i>	‘sweat’
MM:	Tolai	<i>maga-magon</i>	(N,V) ‘sweat’
MM:	Ramoaina	<i>mak-magon</i>	(N,V) ‘sweat’
SES:	’Are’are	<i>ma-maonoa</i>	‘perspire, sweat’

PNCV **maono[ta]* ‘sweat’ (Clark 2009)

NCV:	Raga	<i>ma-maono</i>	(N) ‘sweat’
NCV:	Nokuku	<i>me-maon</i>	(N) ‘sweat’
NCV:	Ninde	<i>mone</i>	(V) ‘sweat’
NCV:	Maewo	<i>ma-maonota</i>	(N) ‘sweat’

NCV:	S Efate	<i>maono</i>	(N) ‘sweat’
PMic <i>*ma-wono</i> ‘perspiration’ (Bender et al. 2003)			
Mic:	Kiribati	<i>ma-ono</i>	‘perspiration’
Mic:	Chuukese	<i>mo-orōr, mo-orōre-</i>	‘perspiration’
Mic:	Puluwatese	<i>mɔ-ɔniyɔn</i>	‘perspiration’
Mic:	Pulo Annian	<i>ma-ora-rora</i>	‘perspiration’

PPn **ka-kawa* ‘sweat, be sweaty’

Pn:	Niuean	<i>kava-kava</i>	‘to sweat, perspire’
Pn:	Tongan	<i>ka-kava</i>	‘perspire, perspiration’
Pn:	E Futunan	<i>ka-kava</i>	‘sweat’
Pn:	Samoan	<i>ʔa-ʔava</i>	‘be pungent, acrid’
Pn:	Maori	<i>ka-kawa</i>	‘sweat’

4.4.7 Urinating and urine

PMP **mimi* ‘urinate, urine’ seems to have had two POc reflexes, (i) the expected form **mimi* and (ii) a form **mimi(s)* in which **-q* was replaced by **-s*. The final **-s* surfaces only in the transitive form **mimis-i-* ‘urinate on’, and it is of course possible that some of the reflexes assigned to **mimi(s)* below in which no final consonant is retained should be assigned to **mimi* and vice versa.

Assignments of forms in which no final consonant is retained are made on the basis of the geographic distribution of reflexes of the two forms. Forms that reflect **-q* are located in NNG and PT languages, in the northernmost subgroup of Meso-Melanesian, namely Tungag-Nalik of northern New Ireland, and in scattered NCV languages of Malakula. Forms that reflect **-s* are found in Nakanai (MM, Willaumez), in several SE Solomonian languages, in a number of NCV languages from Ambae and Malakula, and in Bauan and Wayan Fijian. Admiralties forms have all lost the final consonant, but are assigned to **mimi* on the assumption that Proto Admiralty separated early from the rest of Oceanic and is more likely to have preserved the conservative form **mimi*. All other forms that have lost the final consonant occur in the region of **mimis-i-* forms and are assumed to reflect **mimi(s)*.

But there are complications. Several languages assumed to reflect **mimi* actually reflect a variant **memeq*. They are Mussau, Mumeng, Kapin, Lala and Bali—well scattered. A number of South New Ireland languages and Proto NW Solomonian, assumed to reflect **mimi(s)*, usually retain POc final consonants, but the relevant reflexes below all have the form *mimi*, suggesting that the final consonant was irregularly lost in these languages. And finally a number of North/Central Vanuatu and New Caledonian languages reflect PSOc **meRe-* ‘urine’, **[me]meRe* ‘urinate’, *meRes-i-* ‘urinate on’.³⁷ This seems to be a variant of POc **mimi(s)* ‘urinate’, **mimis-i-* ‘urinate on s.t.’ which replaces the root **mimis* with the root **meRes*.³⁸

³⁷ The New Caledonian items listed here do not reflect POc **s* or **q*. John Lynch (pers. comm.) suggests that they should accordingly be assigned to **meRe-*, as they regularly lose **R*.

³⁸ Clark reconstructs **-r-*. We reconstruct **-R-* because François (2011) has shown that **R* tends more strongly to be lost the further south one moves in the NCV area, and **meRes* adheres to this pattern.

It is difficult to offer an explanation of this variation, other than to suggest that euphemism may have led to wordplay. But this does not account for the fact that almost all the forms mentioned above occur in NCV languages, and that closely related languages have in some cases inherited different forms.

PMP **miquiq* ‘urine, urinate’ (ACD)

POc **mimi* ‘urinate’

Adm: Mussau	<i>meme</i>	‘urine’
	<i>mme</i>	‘urinate’
Adm: Seimat	<i>mimi</i>	‘urine’
	<i>mimim</i>	‘urinate’
Adm: Lou	<i>mimi</i>	‘urinate’
	<i>mimi-a</i>	‘urine’
NNG: Kaiwa	<i>miemk</i>	‘urinate’
NNG: Hote	<i>momak</i>	‘urinate’
NNG: Mumeng (Kumaru)	<i>memk</i>	‘urine’
NNG: Kapin	<i>mamey</i>	‘urine’
PT: Sinaugoro	<i>miyi</i>	‘urinate’
PT: Lala	<i>meme?-i?a)</i>	‘bladder’
MM: Bali	<i>memeke</i>	‘urinate’
MM: Lavongai	<i>mik</i>	‘urinate’
MM: Tigak	<i>mik</i>	‘urinate’
NCV: Avava	<i>memek</i>	‘urinate’ ³⁹
NCV: Neve’ei	<i>maxma</i>	‘urinate’
NCV: Big Nambas	<i>mæxei</i>	‘urinate’
NCV: Tape	<i>moxwo</i>	‘urinate’
NCV: Neverver	<i>max-max</i>	‘urinate’ (John Lynch, pers. comm.)

POc **mimi(s)* ‘urinate’, **mimis-i-* ‘urinate on s.t.’, **mimis-aki[ni]-* ‘pass s.t. in the urine’

MM: Bola	<i>mimi</i>	‘urinate’
MM: Nakanai	<i>mimis-i</i>	‘urinate’
MM: Meramera	<i>mimi</i>	‘urinate’
MM: E Kara	<i>mi</i>	‘urinate’
MM: Tabar	<i>mimi</i>	‘urinate’
MM: Tangga	<i>mimi</i>	‘urinate’
MM: Patpatar	<i>mim</i>	‘urinate’
MM: Minigir	<i>mimi</i>	‘urinate’
MM: Siar	<i>mimi</i>	‘urinate’
MM: Teop	<i>mimi</i>	‘urine, urinate’
MM: Torau	<i>mimi</i>	‘urine, urinate’
MM: Banoni	<i>mimi</i>	‘urine’
MM: Roviana	<i>mimi</i>	‘urinate’
MM: Babatana	<i>mimi-</i>	‘urine, urinate’

³⁹ NCV forms are from John Lynch (pers. comm.).

SES:	Gela	<i>mimi-</i>	'urine, urinate'
		<i>mimih-i</i>	'pass urine on s.t.'
SES:	Bugotu	<i>mimi-</i>	'urine, to urinate'
SES:	Longgu	<i>mimis-i</i>	(VT) 'urinate on s.t.'
		<i>mimit-aʔini-</i>	(VT) 'pass s.t. in urine'
SES:	Arosi	<i>mimi</i>	'urinate'
		<i>mimis-i</i>	(VT) 'urinate on s.t.'
		<i>mimi-ŋ-aʔi</i>	'pass s.t. in urine' (-ŋ- for †-s-)
SES:	Kwaio	<i>mimi-</i>	'urine, urinate'
SES:	'Are'are	<i>mimi</i>	'urinate'
		<i>mimi-</i>	'urine'
SES:	Sa'a	<i>mimi</i>	'urinate'
SES:	To'aba'ita	<i>mimi</i>	'urinate'
		<i>mimis-i</i>	(VT) 'urinate on s.t.'
		<i>mimit-ania</i>	(VT) 'pass s.t. in urine'
NCV:	NE Ambae	<i>mimi-</i>	(N, VI) 'urinate, urine'
		<i>mimih-i</i>	(VT) 'urinate on s.t.'
		<i>mimi-gi(ni)</i>	(VT) 'urinate s.t.'
NCV:	Lendamboi	<i>məmieše</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Ninde	<i>müsmüs</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Avok	<i>mismis</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Nasvang	<i>mismis</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Nisvai	<i>mis/busbus</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Maskelynes	<i>mismis</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Pt Sandwich	<i>misü</i>	'urinate' (John Lynch, pers. comm.)
NCV:	Nahavaq	<i>mis</i>	'urinate' (John Lynch, pers. comm.)
SV:	Whitesands	<i>a-mi</i>	'urinate'
		<i>a-mialili</i>	'urinate on'
SV:	Kwamera	<i>a-mi</i>	'urinate'
Fij:	Bauan	<i>mī</i>	'urine'
		<i>mimi</i>	'urinate'
		<i>mið-a</i>	(VT) 'urinate on a place'
		<i>mið-aka</i>	(VT) 'urinate s.t., pass urine'
Fij:	Wayan	<i>mī</i>	'urinate; urine'
		<i>mimi</i>	'flow out as a stream'
		<i>mið-i-</i>	(VT) 'urinate on s.t.'
		<i>mið-akini-</i>	(VT) 'urinate s.t.'
Pn:	Tongan	<i>mimi</i>	'urinate, urine'
Pn:	Niuean	<i>mimi</i>	'urinate'
Pn:	Rennellese	<i>mimi</i>	'urinate'
Pn:	Samoan	<i>mīmī</i>	'urinate'
Pn:	Tikopia	<i>mī, mīmī</i>	'urinate'
Pn:	Maori	<i>mimi</i>	'urinate'
Pn:	Hawaiian	<i>mimi</i>	'urine, urinate'
cf. also:			
Pn:	Samoan	<i>mimi</i>	'genitals (male or female)' (euphemism)

Pn: Tikopia *mimi* ‘female genitalia’

PSOc **meRe-* ‘urine’, **[me]meRe* ‘urinate’, *meRes-i-* ‘urinate on’ (Clark 2009: PNCV **memere* ‘urine, urinate’)

NCV: Mota	<i>meme</i>	‘bladder; urine, urinate’
NCV: Mwotlap	<i>mem</i>	‘urinate’
NCV: Araki	<i>mere</i>	‘urine, urinate’
NCV: Nokuku	<i>mer-meris</i>	‘urinate’
NCV: Kiai	<i>mere</i>	‘urinate’
	<i>meres-i-</i>	‘urinate on’
NCV: Larëvat	<i>mie-</i>	‘urine’
NCV: Uripiv	<i>-meme</i>	‘urinate’
	<i>-meme-i</i>	‘urinate on’ (John Lynch, pers. comm.)
NCV: Ninde	<i>ne-mie-</i>	‘urine’
NCV: Port Sandwich	<i>mea-</i>	‘urine’
NCV: Raga	<i>mere</i>	‘urinate’
	<i>mere-</i>	‘urine’
NCV: Paamese	<i>mee-</i>	‘urine’
	<i>me-mee</i>	‘urinate’
	<i>me-meas-i</i>	‘urinate on’
NCV: Nguna	<i>na-mea</i>	‘urine’
	<i>me-mea</i>	‘urinate’
NCV: S Efate	<i>na-me</i>	‘urine’
	<i>me</i>	‘urinate’
NCal: Cèmuhî	<i>(i)me</i>	‘urinate’
NCal: Xârâcùù	<i>mĩã</i>	‘urinate’
NCal: Iaaï	<i>(hi)mæ</i>	‘urinate’

The set of forms below has no known cognates outside New Guinea Oceanic (NNG, PT) and raises several puzzles. If the PNGOc etymon was a trisyllable with final -CV, then its reduction to a disyllable in Wab, Bing and Numbami is puzzling. It would be explained if Sio *busali* were originally a transitive verb reflecting suffix **-i* ‘urinate on’. The PNGOc intransitive root ‘urinate’ would then have been **b^waju(r,R)*,⁴⁰ the transitive **b^waju(r,R)-i*, but the PT forms in final -u do not support this reconstruction, as the default vowel added after an inherited final consonant in Suauic languages (i.e. Tabetube and Suau) is -i, not the attested -u. Furthermore, the sets of forms listed under ‘cf. also’ appear to reflect PPT **b^wasoso* and PPT **b^wasi* and their relationship to the reconstructed form is not understood.

PNGOc **b^waju(r,R)(i,u)* ‘urinate’

NNG: Wab	<i>(bud)bud</i>	‘urinate’
NNG: Bing	<i>buz</i>	‘urinate’
NNG: Numbami	<i>busu</i>	‘urinate, defecate; urine, bladder, defecation, ink (of squid, cuttlefish)’

⁴⁰ The indeterminacy of **-(r,R)* is present in most PNGOc reconstructions that reflect POc **r* or **R* as the latter merged in most Western Oceanic languages.

NNG:	Sio	<i>busali</i>	‘urinate’
PT:	Dawawa	<i>bosuru</i>	‘urine, urinate’
PT:	Tubetube	<i>b^wasulu</i>	‘urinate’
PT:	Suau (Daui)	<i>bosulu</i>	‘urinate’
cf. also:			
PT:	Gumawana	<i>bisoso</i>	‘urinate’
		<i>bisoso-e</i>	‘urine; urinate on’ (-e from POc *-aki[ni])
		<i>b^wasi</i>	‘water’
PT:	Dobu	<i>b^wasi</i>	‘urinate’
PT:	Misima	<i>b^wasoso</i>	‘urinate’
		<i>b^waesi</i>	‘urinate’
PT:	Kilivila	<i>b^wesi</i>	‘urinate’
PT:	Muyu	<i>b^weis</i>	‘urinate’

4.4.8 Defecating

Like POc **mimi*q, reflexes of POc **pekas* are generally intransitive, but can be transitivised when additional information is included (**pekas-i* ‘defecate on s.t.’, **pekas-aki[ni]* ‘defecate s.t.’). POc **taqe* was primarily a noun, ‘faeces’, but is reflected as a verb in some languages (see §3.8.6).

When more than one term is reconstructable, one may be used as a polite term. e.g. in Tikopia *tiko* is the regular word, while *peka* is used in the presence of kin with whom constraint of relationship is observed.

POc **pekas* ‘defecate; faeces’, *pekas-i* ‘defecate on s.t.’, *pekas-aki[ni]* ‘defecate s.t.’

Adm:	Seimat	<i>pepe-a</i>	‘faeces, defecation’
Adm:	Loni	<i>pehe</i>	‘defecate’
Adm:	Lou	<i>peɛk</i>	‘excrete’
Adm:	Titan	<i>pe</i>	‘defecate’
NNG:	Manam	<i>(ta)beka</i>	‘defecate’
NNG:	Bariai	<i>be-bea</i>	‘excrete’
NNG:	Kaulong	<i>pias</i>	‘defecate’
NNG:	Labu	<i>-pe</i>	‘defecate’
PT:	Motu	<i>heku(kuri)</i>	‘diarrhoea’ (<i>kuri</i> ‘a little water etc.’)
MM:	Tabar	<i>peka</i>	‘excrete’
MM:	Minigir	<i>peka</i>	‘excrement’
MM:	Patpatar	<i>pēka</i>	‘defecate’
MM:	Tolai	<i>peke</i>	‘excrement, defecate’
MM:	Kandas	<i>peke</i>	‘excrement’
MM:	Bilur	<i>peke</i>	‘excrement’
MM:	Mono-Alu	<i>pea</i>	‘defecate’
MM:	Varisi	<i>beyā</i>	‘defecate’
MM:	Roviana	<i>pea</i>	‘defecate’
SES:	Bugotu	<i>ve-veya</i>	(v) ‘defecate’, (N) ‘excrement’
SES:	Longgu	<i>veʔa</i>	‘defecate’

SES:	To'aba'ita	<i>feʔa</i>	(VI) 'defecate'
		<i>feʔesi-a</i>	(VT) 'defecate on s.t.'
SES:	Sa'a	<i>heʔa</i>	(VI) 'defecate'
		<i>heʔas-i</i>	(VT) 'defecate on s.t.'
SES:	Arosi	<i>heʔa</i>	(VI) 'defecate'
		<i>heʔas-i</i>	(VT) 'defecate on s.t.'
		<i>heʔa-ŋaʔi</i>	(VT) 'expel s.t. from the anus'
PSV <i>*a-veyas</i> 'defecate' (Lynch 2001)			
SV:	Sye	<i>evyah</i>	'defecate'
SV:	Ura	<i>ivek</i>	'defecate'
SV:	Lenakel	<i>avhe</i>	'defecate'
Mic:	Kiribati	<i>peka</i>	'defecate'
Mic:	Marshallese	<i>pek</i>	'semen, sperm'
Mic:	Woleaian	<i>pāxe</i>	'defecate'
		<i>paxa</i>	'excrement, to defecate'
Fij:	Bauan	<i>veka</i>	'excrement, excrete'
Fij:	Boumaa	<i>veʔa</i>	'excrement, excrete'
		<i>veʔaθ-a</i>	(VT) 'defecate on s.t.'
		<i>veʔaθ-aʔin-a</i>	(VT) 'excrete s.t.'
Fij:	Wayan	<i>vē-veke</i>	(VI) 'defecate'
		<i>vekeθ-i</i>	(VT) 'defecate on s.t.'
		<i>vekeθ-akini-</i>	(VT) 'excrete s.t.'
PNPn <i>*feka-feka</i> 'entrails of fish'			
Pn:	Samoa	<i>feʔa-feʔa</i>	'entrails of bonito'
Pn:	Tuvaluan	<i>feka-feka</i>	'gills and gullet of fish'
Pn:	Rennellese	<i>heka-heka</i>	'be smeared, filth-littered'
cf. also:			
NNG:	Takia	<i>bei</i>	'defecate, excrete'
MM:	E Kara	<i>pes</i>	'sit to excrete faeces'
MM:	Nehan	<i>behe, beh</i>	'defecate'
MM:	Halia	<i>pi</i>	'defecate'
MM:	Tinputz	<i>bebeak</i>	'excrete'

A number of languages use reflexes of POc **tape* 'to flow' (vol.2:93), commonly referring to the flow of blood or other liquids, but sometimes referring to excretory functions (Gela *tave toba* 'diarrhoea', Mota *tatave* 'to excrete').

4.5 Respiration and events involving the respiratory organs

4.5.1 Breathing

POc **[ma]ñawa* 'breathe' is among a small group of experiential POc verbs beginning with the prefix **ma-* where the intransitive subject is a human experiencer (Evans 2003:276; §1.3.5.4). Other **ma-* initial verbs discussed here include POc **[ma]soru* 'hiccup', POc **mawap* 'yawn', and **[ma]turu(R)* 'sleep, to be asleep'.

There is a great deal of variation in the English glosses of reflexes, but much of it falls into place when it is recognised that the inherited core meaning of POc **[ma]ñawa* was something like ‘living essence, soul’ of a human being, which included breathing and the beating heart as the physical manifestation of life. ‘Rest’ follows from this: cf. English ‘take a breather’.

Occasional reflexes of POc **[ma]ñawa* include reference to the fontanelle. This is a visible pulse in a young baby, reflecting the fact that the baby is alive.

Proto Polynesian has two reflexes of POc **[ma]ñawa*, namely PPn **mānawa* ‘breathe; breath’ and PPn **manawa* ‘belly’. In consequence it is tempting to reconstruct a pair of POc (near-)homophones, but this would probably be a mistake, as the contrast between short and long vowels is a Central Pacific (Fijian and Polynesian) phenomenon. PPn **mā-* marked an undergoer-subject intransitive verb, and **mānawa* was a verb meaning ‘breathe’. The nominal ‘breath’ gloss represents a derivation. PPn **manawa* on the other hand was a noun, ‘belly’.

The two Polynesian sets are kept separate below, even though the reflexes of the two forms are identical in several (especially Eastern Polynesian) languages where the long/short vowel distinction has been lost in this pair of etyma.

PAn **LiSawa* ‘breathe, breath’ (ACD)

PMP **[ma]nihawa* ‘breathe; breath’ (Ross 1988, ACD)

POc **[ma]ñawa* (v) ‘breathe, rest, be alive’; (N) ‘breath, life, fontanelle’

Adm: Seimat	<i>naw</i>	‘breath’
	<i>(ha)naw</i>	‘breathe’
Adm: Lou	<i>mein</i>	‘fontanelle’
NNG: Bam	<i>-maneu</i>	‘rest’
NNG: Wogeo	<i>-mañawa</i>	‘rest’
PT: Kilivila	<i>mola-</i>	‘fontanelle’ (-o- for †-a-)
PT: Gapapaiwa	<i>manawa-</i>	‘stomach’
PT: Wedau	<i>manawa-</i>	‘belly, abdomen’
MM: Tolai	<i>mana-manau</i>	‘fontanelle’
MM: Vaghua	<i>(ma)nava-</i>	‘liver’
MM: Kokota	<i>na-nafa-</i>	‘heart’
MM: Laghua	<i>na-nafa-</i>	‘heart’
MM: Blablanga	<i>na-nafa-</i>	‘heart’
MM: Maringe	<i>na-ñafa-</i>	‘heart, chest’
	<i>ñafa</i>	‘rest’
SES: Oroha	<i>manoa(sa)</i>	‘breathe’
SES: Arosi	<i>manawa</i>	‘breathe, rest, pant; breath, lungs, fontanelle’
SES: Bauro	<i>manawa</i>	‘breathe’
SES: Fagani	<i>manawa</i>	‘breathe’
SES: Kahua	<i>manava(sa)</i>	‘breathe’
SES: Owa	<i>manawa</i>	‘breathe’
NCal: Nêlêmwa	<i>malep</i>	‘live, be alive’
NCal: Iai	<i>menə</i>	‘breathe’

PMic **ma-[n,ñ]awa* ‘life, alive’ (Bender et al. 2003)

Mic: Kiribati	<i>te-manawa-</i>	‘pit of the stomach’
Mic: Marshallese	<i>menewa</i>	‘breathe; heart, breath’

Mic:	Carolinian	<i>malaw</i>	‘be alive, live’
Mic:	Chuukese	<i>maraw</i>	‘life, heath, be alive’
Mic:	Woleaian	<i>malawa</i>	(VI) ‘be alive, give birth to a baby’
PPn * <i>mānawa</i> ‘breathe; breath’ (POLLEX)			
Pn:	Tongan	<i>mānava</i>	‘breath, breathe’
Pn:	Niuafu’ou	<i>mānava</i>	‘breath’
Pn:	Niuean	<i>faka-manava</i>	‘breath’ (<i>faka-</i> < POc * <i>paka-</i> CAUSATIVE)
Pn:	Samoa	<i>mānava</i>	‘breathe, breath; palpitate, pulsate; rest from work’
Pn:	Anutan	<i>mānava</i>	‘breath, to rest’
Pn:	E Uvean	<i>mānava</i>	‘breath, breathe’
Pn:	Tuvalu	<i>mānava</i>	‘breathe’
Pn:	E Futunan	<i>mānava</i>	‘breath, breathe’
Pn:	W Futunan	<i>manava</i>	‘breathe rapidly as with fright’
Pn:	Nukuoro	<i>manava</i>	‘breath, breathe’
Pn:	Emae	<i>mānava</i>	‘breathe’
Pn:	Rennellese	<i>manaba</i>	‘breathe; breath, fontanelle’
		<i>manaba-ʔaŋa</i>	‘breath, breathing’
		<i>haka-mānaba</i>	‘breath’ (<i>haka-</i> < POc * <i>paka-</i> CAUSATIVE)
Pn:	Pileni	<i>ma(a)nava</i>	‘rest, breathe’
		<i>māva</i>	‘breathe’
Pn:	Luangiua	<i>māŋava</i>	‘breath’
Pn:	Pukapukan	<i>mānava</i>	‘long-winded, good at holding breath under water’
Pn:	Sikaiana	<i>mānava</i>	‘breath’
Pn:	Tikopia	<i>mānava</i>	‘breath’
Pn:	Tokelauan	<i>mānava</i>	‘breath, breathing’
Pn:	Takuu	<i>mānava</i>	‘breathe’
Pn:	Hawaiian	<i>manawa</i>	‘anterior fontanelle’
Pn:	Marquesan	<i>menava</i>	‘breath, anterior fontanelle’
Pn:	Tuamotuan	<i>manava</i>	‘breath’ (poetic)
Pn:	Māori	<i>manawa</i>	‘breath’
PPn * <i>manawa</i> ‘belly’ (POLLEX)			
Pn:	Tongan	<i>manava</i>	‘belly’
Pn:	Niuafu’ou	<i>manava</i>	‘womb’
Pn:	Niuean	<i>manava</i>	‘belly’
Pn:	Samoa	<i>manava</i>	‘belly, abdomen’
Pn:	Anutan	<i>ma(a)nava</i>	‘belly, stomach’
Pn:	E Uvean	<i>manava</i>	‘belly, stomach’
Pn:	Tuvalu	<i>manava</i>	‘belly, seat of the emotions, entrails’
Pn:	E Futunan	<i>manava</i>	‘belly’
Pn:	W Futunan	<i>manava</i>	‘belly’
Pn:	Rennellese	<i>manaba</i>	‘abdomen, navel, navel-cord’
Pn:	Pileni	<i>manava</i>	‘stomach’
Pn:	Luangiua	<i>māŋava</i>	‘belly, seat of the emotions, entrails’

Pn:	Pukapukan	<i>manava</i>	‘abdomen, belly, stomach’
		<i>waka-manava</i>	‘rest, breathe’
		<i>(watu)manava</i>	‘heart’
Pn:	Sikaiana	<i>manava</i>	‘belly’
Pn:	Tikopia	<i>manava</i>	‘belly, stomach’
Pn:	Tokelauan	<i>manava</i>	‘belly, abdomen’
Pn:	Takuu	<i>manava</i>	‘belly, seat of the emotions, entrails’
Pn:	Tahitian	<i>manava</i>	‘belly’
Pn:	Mangarevan	<i>manava</i>	‘innards’
Pn:	Tuamotuan	<i>manava</i>	‘stomach’
Pn:	Māori	<i>manawa</i>	‘belly, bowels, heart’
Pn:	Rapanui	<i>manaba</i>	‘abdomen, belly, stomach’

The terms below include three cognate forms from north New Ireland languages and possible cognates from the Guadalcanal-Gelic cluster of the Southeast Solomons which differ only in lacking the initial consonant. The forms with *m-* apparently reflect an actor voice form (§1.3.5.5).

POc *[*m*]ase ‘breathe’ ?

MM:	Tabar	<i>mase</i>	‘breathe’
MM:	Lamasong	<i>mas</i>	‘breathe’
MM:	Madak	<i>mas</i>	‘breathe’
SES:	Bugotu	<i>ahe</i>	‘breathe’
		<i>ahe-ahe</i>	‘breath’
SES:	Gela	<i>ahe-ahe</i>	‘breathe, rest; bosom’
SES:	Talise	<i>ase-ase</i>	‘breathe’
SES:	Birao	<i>ase(bona)</i>	‘breathe’
SES:	Lengo	<i>aðe-aðe</i>	‘breathe’
SES:	Longgu	<i>aðe-aðe</i>	‘breathe’

4.5.2 Gasping and panting

There are no well populated cognate sets for ‘gasp’ or ‘pant’, but there are enough data to allow two reconstructions. Only the first, POc **oŋap* ‘pant, be out of breath’, has known non-Oceanic cognates, and only its Gela reflex is problem-free. Other reflexes display the irregularities indicated in parentheses, and the first three lack a reflex of initial POc **o-*.

PMP **eŋap* ‘gasp for breath’ (ACD)

POc **oŋap* ‘pant, be out of breath’

NNG:	Kove	<i>ŋave</i>	‘pant, as a dog’ (- <i>e</i> unexplained)
NNG:	Kaulong	<i>ŋep</i>	‘pant’ (- <i>e-</i> for †- <i>a-</i>)
MM:	Sursurunga	<i>ŋeh-ŋeh</i>	‘be out of breath’ (- <i>e-</i> for †- <i>a-</i>)
MM:	Tolai	<i>ŋua</i>	‘asthma’ (metathesis)
MM:	Roviana	<i>uŋa</i>	‘asthma, bronchitis’ (<i>u-</i> for † <i>o-</i>)
SES:	Gela	<i>oŋa</i>	‘be out of breath with running, as in bringing news’

The other reconstruction is POc **ŋaRa*, which, despite various meaning extensions in its reflexes, appears to have meant ‘be breathless, pant’ and to have included asthmatic panting.

POc **ŋaRa* ‘be breathless, pant’ (Geraghty 1990: PEOc)

MM:	Nehan	<i>ŋara</i>	‘breathless, winded’
MM:	Roviana	<i>ŋa-ŋara</i>	‘open the mouth, open as shellfish’
NCV:	Mota	<i>ŋala</i>	‘be out of breath, pant, be tired’
NCV:	Ninde	<i>ŋaxa</i>	‘breathe, be out of breath, asthmatic’
Fij:	Wayan	<i>ŋā</i>	‘catch liquid in a container or by holding the mouth open under running water’
		<i>(vā)ŋāŋāŋā</i>	‘with mouth or container opened; gaping’
Fij:	Bauan	<i>ŋā</i>	‘opening of mouth, gaping action; catch water in the mouth and drink it as it runs’

PPn **ŋā* ‘breathe, pant’ (POLLEX)

Pn:	Tongan	<i>ŋā</i>	‘pant, struggle for breath, as with asthma’
Pn:	Rennellese	<i>ŋā</i>	‘open the mouth, as a thirsty cormorant or dog’
Pn::	Tikopia	<i>ŋā</i>	‘screech, utter hoarse cry’
Pn:	Rarotongan	<i>ŋā</i>	‘pant, gasp’
Pn:	Maori	<i>ŋā</i>	‘take breath, breathe; make hoarse harsh noise, screech’
Pn:	Hawaiian	<i>nā</i>	‘moan, groan, wail’

cf. also:

NNG:	Sio	<i>ŋa-ŋa</i>	‘breathe hard, pant’
MM:	Nakanai	<i>lala(hate)</i>	‘breathe, sigh’ (<i>hate</i> ‘liver, innards’)
MM:	Ramoaina	<i>ŋoro-ŋoro</i>	‘pant, be breathless, be out of breath’ (conflates reflexes of <i>*ŋaRa</i> ‘pant’ and <i>*ŋorok</i> ‘grunt’)
MM:	Roviana	<i>ŋa-ŋaha</i>	‘pant with exertion’

4.5.3 Snoring

Probably POc **ŋorok* ‘grunt, growl, snore’ reflects the same root as **ŋorok* ‘snot’ (§3.8.3). A reduplicated form **ŋoro-ŋorok* means ‘channel above upper lip’ (§3.4.12).

PMP **ŋorok* ‘snore’

POc **ŋorok* ‘grunt, growl, snore’

Adm:	Lou	<i>ŋur</i>	‘grunt, growl, snore’
Adm:	Mussau	<i>ŋō</i>	‘to snore’ (for † <i>ŋol</i>)
NNG:	Takia	<i>ŋur</i>	‘snore’
NNG:	Lukep	<i>ŋoro</i>	‘breathe’
NNG:	Sio	<i>ŋoro</i>	‘snore, gasp for breath’
NNG:	Singorakai	<i>ŋuru</i>	‘breathe’
NNG:	Atui	<i>ŋorok</i>	‘sleep, lie’
NNG:	Manam	<i>ŋoro</i>	‘snore’
NNG:	Ali	<i>(ka)ŋor</i>	‘snore’

MM:	Vitu	<i>ɲoro</i>	‘sleep’
MM:	Nakanai	<i>goro</i>	‘snore’ (for † <i>golo</i>)
MM:	Meramera	<i>ɲolo</i>	‘sleep’
MM:	Ramoaaina	<i>ɲoro-ɲoro</i>	‘pant, be out of breath’
MM:	Babatana	<i>ɲor(apa)</i>	‘snore’
SES:	Gela	<i>ɲora</i>	‘(dog) bark’
SES:	Lau	<i>ɲoro, ɲora</i>	‘snore, growl, snarl’
SES:	To’aba’ita	<i>ɲora</i>	(VI) ‘snore, grunt (pigs)’
SES:	Kwaio	<i>ɲola</i>	‘snore’
SES:	Sa’a	<i>ɲora</i>	‘snore, snort, grunt’
NCV:	Mota	<i>ɲora</i>	‘grunt, snort, snore’
NCV:	Tamambo	<i>ɲora</i>	‘snore’
Mic:	Kiribati	<i>ɲō-ɲō</i>	‘snore’
Mic:	Marshallese	<i>ɲor(tak)</i>	‘snore’
Mic:	Woleaian	<i>ɲoro-ɲoro</i>	‘snore’
Pn:	Tikopia	<i>ɲoro</i>	‘snore, snort (as with laughter)’
Pn:	Rapanui	<i>ɲo-ɲoro</i>	‘snore’
Pn:	Mele Fila	<i>ɲora</i>	‘snore’
Pn:	Maori	<i>ɲo-ɲoro</i>	‘snore’

cf also:

Pn:	Tongan	<i>ɲolo</i>	‘make rattling or rumbling noise in breathing’

4.5.4 Blowing air from the mouth

Several POc verbs of blowing are reconstructable, but most of these refer to the blowing of the wind, and are presented in vol.2:125–127. The only POc verbs which we can say with some confidence denoted a person blowing air from the mouth are the pair **ipu* and **upi*, which probably have a common origin in PMP **ibut* ‘breeze, draught of wind’. We can be reasonably confident about their meaning because their reflexes are used of playing traditional flutes and by extension for the flutes themselves (vol.1:107–108).

PMP **ibut* ‘breeze, draught of wind’ (ACD)

POc **ipu* ‘(wind, person) blow’ (vol.1:107–108, vol.2:125)

NNG:	Bing	<i>yu</i>	‘(wind) blow’
NNG:	Sissano	<i>-iu</i>	‘(wind) blow’
MM:	Tinputz	<i>viu</i>	‘(wind) blow’ (metathesis)
MM:	Mono	<i>ihu</i>	‘(wind) blow’
MM:	Lungga	<i>ivu</i>	‘blow’
MM:	Roviana	<i>ivu-a</i>	‘blow on (fire), blow into (conch)’
MM:	Maringe	<i>ifu</i>	‘blow’
SES:	Bugotu	<i>ifu</i>	‘blow (fire, pan-pipes)’

PCEMP **upi* ‘(wind, person) blow’ (Blust, 1993a:180)

POc **upi* ‘(wind, person) blow’ (vol.1:107-108, vol.2:125)

Adm:	Seimat	<i>uhi</i>	‘blow on the fire’
NNG:	Mangap	<i>-wi</i>	‘(wind) blow’
NNG:	Apalik	<i>uwi</i>	‘northwest monsoon’
NNG:	Takia	<i>-wi</i>	‘(wind) blow’
NNG:	Yabem	<i>yu</i>	‘(s.o.) blow’
NNG:	Kaiwa	<i>u</i>	‘(wind) blow’
NNG:	Misim	<i>yuv</i>	‘(wind) blow’
NNG:	Vehes	<i>vin</i>	‘wind’
NNG:	Mangga	<i>va-</i>	(VI) ‘wind’
NNG:	Medebur	<i>-wi</i>	‘(wind) blow’
MM:	Tabar	<i>uvi</i>	‘(wind) blow’
SES:	Gela	<i>uvi-uvi</i>	‘blow with the breath, play pipes’
SES:	Lau	<i>ufi</i>	‘blow with the mouth; blow a conch or panpipes’
SES:	To’aba’ita	<i>ūfi-a</i>	(VT) ‘blow into s.t. to produce a sound’
SES:	Arosi	<i>uhi</i>	‘blow, breathe on’
NCV:	Mota	<i>uw</i>	‘blow with the mouth, or of wind’
NCV:	Raga	<i>uvi</i>	‘blow’
NCV:	Paamese	<i>uhi</i>	(VT) ‘blow’
Fij:	Wayan	<i>uvi, uvu</i>	(VI) ‘(fire, flute) be blown with the mouth, (ball, balloon) inflated, blown up’
		<i>uvi</i>	(VI) ‘blow s.t. with the mouth’

The following Eastern Oceanic forms appear to reflect a conflation of PEOc **b^wisi* ‘spurt out, fart’ (§4.3.7.3) and **p(ʷ)usi* ‘(wind) blow’ (vol.2:126).

PEOc **pus(u)-i* ‘blow s.t. forcefully from the mouth’

SES:	Longgu	<i>puzu-</i>	‘blow s.t. out’
NCV:	Mota	<i>pu-pus</i>	‘puff out from mouth’

PCP **pus-i* ‘blow energetically’

Fij:	Rotuman	<i>pusi</i>	(VI) ‘to burst, splash’

PPn **pus-i* ‘blow air from the mouth’ (POLLEX)

Pn:	Tongan	<i>puh-i</i>	(VI, VT) ‘blow energetically with the mouth; (of a whale) to spout; to puff, puff at’
Pn:	Niuean	<i>puh-i</i>	(VT) ‘blow, spurt out, spit out’
Pn:	Pukapukan	<i>pu-i</i>	‘blow, spit s.t. out of mouth’
Pn:	Rennellese	<i>pus-i</i>	‘(wind) blow, blow (flute)’
Pn:	Tikopia	<i>pus-i</i>	‘spit, squirt, spray from the mouth’
Pn:	Maori	<i>pu-puh-i</i>	‘blow (as the wind, a whale), shoot (a gun)’

4.5.5 Gaping

Three reconstructions with the same root, POc **(q)anap*, denote the notion of gaping or having one's mouth wide open. In the first set below the root occurs by itself. The other two reflect the affixes **um* (§1.3.5.5) and **paN-* (§1.3.5.6), both forming dynamic intransitive verbs.

PMP **qanap[p,b]* 'gape, open the mouth wide' (ACD)

POc **(q)anap* 'gape'

Adm:	Mussau	<i>anap</i>	'gape'
SES:	Lau	<i>ānap</i>	'open mouth wide'
		<i>ānap fapa</i>	'gape' (<i>fapā</i> 'wide open')
SES:	Sa'a	<i>anap</i>	'to open'
		<i>anap wawa</i>	'open the mouth to speak' (<i>wawa</i> 'mouth')
NCV:	Mota	<i>wanap</i>	'open the mouth, gape, gasp'
Fij:	Wayan	<i>ōanap</i>	'vagina'

PMP **qum>anap[p,b]* 'gape, open the mouth wide' (**um* actor voice)

POc **manap(p)* (v) 'to open wide, gape', (N) 'open mouth; gap, space'

MM:	Banoni	<i>manap</i>	'mouth'
MM:	Lungga	<i>manap</i>	'mouth'
MM:	Kia	<i>manap</i>	'mouth'
MM:	Kokota	<i>manap</i>	'mouth'
SES:	Gela	<i>manap</i>	'mouth', voice'
SES:	Bugotu	<i>manap</i>	(N) 'space, time, air'; (v) 'to be open, of space'
		<i>mā-manap</i>	'aperture'
SES:	Tolo	<i>manap</i>	'an opening, mouth, voice'
		<i>manap-manap</i>	'gap, opening (between two things)'
SES:	Lau	<i>manap</i>	'space'
SES:	Arosi	<i>manap</i>	(N) 'an opening, mouth'
SES:	To'aba'ita	<i>manā</i>	'air as the space between earth and sky'
NCV:	Mota	<i>manap</i>	(N) 'an opening with lips, mouth'; (v) 'to open, gape'
NCV:	Raga	<i>manap</i>	'pant, gape'
NCV:	Nguna	<i>mānap</i>	'open mouth, gape, be amazed'
Fij:	Rotuman	<i>manap</i>	'(of the mouth) to be open; (in general) to gape, to be wide open'
Fij:	Bauan	<i>manap</i>	'vagina'
Pn:	Tongan	<i>(faka)manap</i>	'gape'
Pn:	Niuean	<i>(faka)mamanap</i>	'open the mouth'
Pn:	Samoan	<i>(faka)manap</i>	'gape'
		<i>manap-manā(vae)</i>	'space between the toes'
Pn:	Tikopia	<i>(faka)manap</i>	'open wide, gape'
Pn:	Tokelauan	<i>manap</i>	'vagina'
Pn:	Maori	<i>manap</i>	'mouth'

PMP **paŋaŋa[p,b]* ‘gape, open the mouth wide’ (**paN*- actor voice + **qəŋa[p,b]*)

POc **paŋaŋap* ‘open mouth wide, gape’

NNG:	Poeng	<i>paŋa</i>	‘open mouth’
MM:	Patpatar	<i>paŋaŋa</i>	‘open-mouthed in wonder, yawn’
MM:	Ramoaaina	<i>paŋaŋa</i>	‘gape, open the mouth’
MM:	Label	<i>paŋaŋah</i>	‘yawn’
MM:	Nehan	<i>paŋaŋa</i>	‘open mouth’
MM:	Halia	<i>paŋa</i>	‘open mouth’

4.5.6 Yawning

A single cognate set embraces all of Oceanic and indeed all the Austronesian family. Blust (ACD) writes:

Irregular reflexes of PAn **Suab* are quite common, particularly in the Oceanic languages. The cognation of such Oceanic forms as Seimat *maw* (where only *-w/* remains from the original stem) with Western Malayo-Polynesian forms such as Kelabit *uab* is clear from the fairly abundant intermediate forms that reflect PAn **ma-Suab* (> *ma-huab* > *ma-uab* > *mawab*).

A perfect parallel is seen in PAn **ma-Seyaq*, POc **māyaq* ‘shy, ashamed’. In both cases the boundary between the stative prefix **ma-* and the stem has been lost in all CEMP witnesses. The only non-CEMP language in which a similar loss of morpheme boundary has taken place is Chamorro (with *magap*, for expected ***magwap* ‘yawn’). Following the reanalysis of **ma-uab* as **mawab* a number of CEMP languages have either introduced a new stative marker, or have reduplicated the first syllable of the new stem. It remains unclear how many of these added syllables (if any) are the result of convergent developments (ACD).

Reduplicated forms of the kind Blust refers to are shown separately below the main cognate set.

PAn **ma-Suab*, **Suab* (v) yawn, (N) yawning’ (ACD)

PMP **ma-huab* ‘(v) yawn, (N) yawning’ (ACD)

PCEMP **mawab* ‘(v) yawn, (N) yawning’ (Blust 1993a, ACD)

POc **mawap* ‘(v) yawn, (N) yawning’

Adm:	Loniū	<i>(yeli)maw</i>	‘yawn’
Adm:	Seimat	<i>maw</i>	‘yawn’
NNG:	Sio	<i>mōwa</i>	‘yawn’
NNG:	Manam	<i>mawa</i>	‘yawn’
NNG:	Wogeo	<i>m^wawa</i>	‘yawn’
PT:	Molima	<i>(lo)m^wava</i>	‘yawn’
PT:	Dobu	<i>m^waowa</i>	‘yawn’
PT:	Motu	<i>mava-mava</i>	(vi) ‘to yawn’
MM:	E Kara	<i>mauf</i>	‘yawn’
MM:	Tiang	<i>mau</i>	‘yawn’
MM:	Nalik	<i>mauf</i>	‘yawn’
MM:	Bilur	<i>muiap</i>	‘yawn’
MM:	Roviana	<i>mava</i>	‘yawn, breathe upon’

SES:	Sa'a	(<i>ahi</i>) <i>mawa</i>	'yawn'
NCV:	Mwotlap	(<i>yay</i>) <i>m^wa</i>	'yawn'
NCV:	Nguna	<i>mo-moa</i>	'yawn'
PSV * <i>a-mu(y)av</i> 'yawn' (Lynch 2002)			
SV:	Sye	<i>a-m^wap</i>	'yawn'
SV:	Anejom	<i>a-muya</i>	'yawn'
PMic * <i>mawa</i> 'yawn, be open mouthed'			
Mic:	Kiribati	<i>mawa</i>	'out of breath through weariness'
Mic:	Mortlockese	<i>maw</i>	'to yawn'
Mic:	Chuuukese	<i>mma-w</i>	'yawn'
Fij:	Bauan	(<i>lā</i>) <i>mawa</i>	'to yawn, gape'
Fij:	Wayan	<i>māwā</i>	'to yawn'
Pn:	Samoan	<i>māvava</i>	'to yawn'
Pn:	Tikopia	<i>mava</i>	(v) 'to yawn', (N) 'inhalation of deep breath'
cf. also:			
MM:	Tolai	<i>mauviap</i>	'yawn'
PCEMP * <i>ma-mawab</i> 'to yawn' (ACD)			
POc * <i>ma-mawap</i> 'to yawn' (ACD)			
Adm:	Wuvulu	<i>ma-mawa</i>	'yawn'
Adm:	Mussau	<i>ma-mama</i>	'to yawn'
Adm:	Nauna	<i>ma-maw</i>	'yawn'
Adm:	Penchal	<i>ma-maw</i>	'yawn'
NNG:	Mindiri	<i>ma-m^wavi</i>	'yawn'
MM:	Kandas	<i>ma-maup</i>	'yawn'
MM:	Simbo	<i>ma-mava</i>	'to yawn'
SES:	Bugotu	<i>mao-maova</i>	'yawn, gape'
SES:	Lau	<i>ma-maofi</i>	'yawn'
NCV:	Mota	<i>ma-maova</i>	'to gape, yawn'
NCV:	Raga	<i>ma-maova</i>	'to yawn'
NCV:	Tamambo	(<i>yani</i>) <i>mao-mao</i>	'yawn' (<i>yani</i> 'eat') (<i>awa</i> > <i>ao</i>)
PPn * <i>ma-mawa</i> 'to yawn' (POLLEX)			
Pn:	Tongan	<i>ma-mao</i>	'to yawn'
Pn:	Niuean	<i>ma-mao</i>	'to yawn'
Pn:	Rennellese	<i>ma-maba</i>	'to yawn'
Pn:	Tahitian	<i>mama</i>	'open, as the mouth'
Pn:	Maori	(<i>hā</i>) <i>mama</i>	'open, gaping, shout'
Pn:	Hawaiian	(<i>hā</i>) <i>mama</i>	'open, gape, yawn'

4.5.7 Coughing

It is difficult to detect any difference in meaning between POc **koso*, POc **pukuR*/PROc **puRuk* and PWOC **kuk(a,u)*. Rather, POc **pukuR* appears to be synonymous with **koso* and

to have won out in the Bel group (part of North New Guinea) and in much of SE Solomonic. POc **kuk(a,u)* is intriguing: few reflexes are found, but their distribution indicates a POc origin.

POc **koso* (VI), **koso-ŋa* (N) ‘cough’

Adm:	Drehet	<i>ohuŋ</i>	(N) ‘cough’
NNG:	Poeng	<i>koso</i>	‘cough’
NNG:	Medebur	<i>koso</i>	‘cough’
NNG:	Mapos Buang	<i>krɔq</i>	‘cough’ (final -q irregular)
NNG:	Mumeng (Patep)	<i>kəlɔʔ</i>	‘cough, cold, mucus’ (final -ʔ irregular)
PT:	Gapapaiwa	<i>koso-koso</i>	‘cough’
MM:	Patpatar	<i>kasorŋa</i>	(VI) ‘cough’
		<i>k<in>asorŋa</i>	(N) ‘cough’ (<in> NOMINALISER)
MM:	Tolai	<i>kaorŋo</i>	(N,VI) ‘cough’
MM:	Kandas	<i>kosorŋo</i>	‘cough’
MM:	Sursurunga	<i>kosorŋ</i>	‘cough’
MM:	Konomala	<i>kus</i>	‘cough’
MM:	Halia	<i>koso</i>	‘cough, have a cold’
MM:	Teop	<i>koho</i>	‘cough’
SES:	Gela	<i>kohu-kohu</i>	(V) ‘cough’
MM:	Roviana	<i>kohu</i>	‘cough’
NCV:	Tamambo	<i>ɣaso(ri)</i>	‘cough out’

PROc **puRuk* ‘cough’ is evidently a metathesised form of POc **pukuR*.

POc **pukuR* ‘cough’

NNG:	Biliau	<i>fu</i>	‘cough’
NNG:	Mindiri	<i>fo-fu</i>	‘cough’
NNG:	Gedaged	<i>fa-fu</i>	(VI) ‘to cough’
		<i>fa-fu-k</i>	(N) ‘a cough’ (-k NOMINALISER)
NNG:	Takia	<i>fu-fu</i>	‘cough’
SES:	Gela	<i>vuyu</i>	(VI) ‘cough’; (N) ‘a cough, a cold’
SES:	Longgu	<i>vuʔu</i>	(VI) ‘cough’
SES:	Sa’a	<i>huʔu</i>	‘cough, cold in the head’
SES:	To’aba’ita	<i>fuʔu</i>	(N) ‘cough’
SES:	Kwaio	<i>fuʔu</i>	‘cough, influenza’
SES:	Arosi	<i>huʔu</i>	‘to cough’
SES:	Lau	<i>fūl-ā</i>	‘a cough, coughing’

PROc **puRuk* ‘cough’ (François 2011: POc)

PNCV **vuru* ‘cough’ (Clark 2009)

NCV:	Mota	<i>vuru</i>	‘cough, disease causing coughing; a charm causing the disease’
NCV:	Mwotlap	<i>wuj</i>	‘cough’
NCV:	Nokuku	<i>wur</i>	‘cough’
NCV:	Tamambo	<i>vuru</i>	‘cough’

NCV:	Paamese	<i>hilu</i>	‘cough; have a cold’
NCV:	Lewo	<i>wuri</i>	‘choke’
NCV:	Port Sandwich	<i>pū</i>	‘cough’
NCV:	Nguna	<i>(maro)vuru</i>	‘be short of breath,
NCV:	S Efate	<i>puk</i>	(VI) ‘cough’
SV:	Sye	<i>na-vruy</i>	(N) ‘cough’
Fij:	Bauan	<i>vū</i>	(VI) ‘cough, cough up’

POc **kuk(a,u)* ‘cough’

Adm:	Lou	<i>kuuk</i>	‘cough’
NNG:	Mangseng	<i>kuk</i>	‘cough’
PT:	Sinaugoro	<i>yuya</i>	‘cough, cold’
MM:	Nakanai	<i>kuku-e</i>	‘cough’

The two Polynesian sets below may be historically connected.

PPn **tale* (N,V) ‘cough’ (POLLEX)

Pn:	Tongan	<i>tale</i>	(N,V) ‘cough’ (also <i>tae</i>)
Pn:	W Uvean	<i>tale</i>	‘cough’
Pn:	Samoan	<i>tale</i>	(N,V) ‘cough’
Pn:	Tikopia	<i>tare</i>	(N,V) ‘cough, esp. of severe type’
Pn:	Tahitian	<i>tare</i>	‘phlegm’
Pn:	Maori	<i>tare</i>	(V) ‘gasp for breath’

PPn: **male* (VI) ‘cough, clear the throat’ (POLLEX)

Pn:	Tongan	<i>male-male</i>	‘cough’
Pn:	Rennellese	<i>mage-mage</i>	‘clear throat of hoarseness’
Pn:	Samoan	<i>male, male-male</i>	‘cough’ (polite register)
Pn:	Tikopia	<i>mare</i>	‘clear the throat’
Pn:	Maori	<i>mare</i>	‘cough, phlegm’
Pn:	Tahitian	<i>mare</i>	‘cough’
Pn:	Takuu	<i>mare</i>	‘clear one’s throat’
Pn:	Tuamotuan	<i>mare</i>	‘cough’
Pn:	W Futunan	<i>mare-mare</i>	‘cough lightly’

4.5.8 Sniffing and blowing one’s nose

Two terms are reconstructed, POc **s(i,u)r(i,u)(t)* ‘sniff, blow nose’ and POc **paŋus*, **paŋus-i-* ‘blow one’s nose’. The latter almost certainly bears a historical relationship to PAN **Siŋus*/PMP **hiŋus* ‘sniff, snuffle (as with a runny nose)’ (ACD) and to the terms for ‘snot’ listed at the end of §3.8.3, but it is not clear what the (morphological) relationship is.

POc **s(i,u)r(i,u)(t)* ‘sniff, blow nose’

MM:	Nakanai	<i>sulu(mago)</i>	‘to sniff, snuffle’ (<i>mago</i> ‘cold in the nose’)
MM:	Kokota	<i>siri</i>	‘smell (s.t.)’

MM:	Blablanga	<i>siri</i>	‘smell (s.t.)’
PNCV <i>*s(i,u)r(i,u)</i> , <i>*s(i,u)r(i,u)t-i-</i> ‘blow nose’			
NCV:	NE Ambae	<i>suru</i>	‘snot, mucus; have runny nose’
NCV:	Nese	<i>sirī</i>	‘blow nose’
Fij:	Wayan	<i>suru</i>	(V) ‘sneeze’
		<i>surut-i</i>	(VT) ‘sneeze at s.o.’
Fij:	Bauan	<i>suru</i>	(V) ‘sneeze’
		<i>surut-a</i>	(VT) ‘sneeze at/on s.o.’

POc **paŋus*, **paŋus-i-* ‘blow one’s nose’

Adm:	Lou	<i>aŋus</i>	‘blow the nose’
Adm:	Mussau	<i>maŋusa</i>	‘blow the nose’
NNG:	Poeng	<i>paŋus-i</i>	‘blow (short and vigorously through nose), snort’

PMic **f(a,o)ŋ(o,u)s-i* ‘blow one’s nose’ (Bender et al., 2003)

Mic:	Chuukese	<i>foŋot-i</i>	(VT) ‘blow one’s nose’
Mic:	Mortlock	<i>foŋot-i</i>	‘blow one’s nose’
Mic:	Carolinian	(ɔ)foŋo-foŋ	‘blow one’s nose’

PPn **faŋo* ‘blow or speak through nose’ (POLLEX)

Pn:	Tuvalu	<i>faŋo</i>	‘blow nose’
Pn:	Hawaiian	<i>hano</i>	‘humming-sound, nose-flute’
Pn:	Maori	<i>φaŋo</i>	‘having nasal sound’
Pn:	Marquesan	<i>hako</i>	‘hold the nose to block it’
Pn:	Tahitian	<i>faʔo</i>	‘speech impediment caused by inability to block off nasal passages’
Pn:	Tikopia	<i>faŋo</i>	‘sniff, smell’
Pn:	Tuamotuan	<i>faŋo</i>	‘nasal speech impediment, nasal obstruction’

cf. also:

Pn:	Samoa	<i>foŋi</i>	‘blow the nose’

The set below also appears to reflect POc **paŋus* but with an idiosyncratic replacement of POc **-a-* by PCP **-e-* and of POc **-o* by PCP **-u*.

PCP **veŋu* ‘blow one’s nose’

Fij:	Rotuman	<i>heŋu</i>	‘blow one’s nose’
Fij:	Bauan	<i>venu</i>	‘pick one’s nose’ (<i>-n-</i> for †-ŋ-)

PPn **feŋu* ‘blow nose, snort’ (POLLEX)

Pn:	E Futunan	<i>feŋu</i>	‘blow nose’
Pn:	Tuamotuan	<i>heŋu-heŋu</i>	‘sniffle as from sobbing’
Pn:	Tahitian	<i>feu</i>	‘to snort, breathe short through the nose’
		<i>feʔu</i>	‘sob’
Pn:	Maori	<i>φeŋu</i>	‘snort, blow nose’

4.5.9 Sneezing

Forms for ‘sneeze’ can be divided into two main groups:

- a western group embracing the Admiralties, Western Oceanic and SE Solomonic, reflecting putative onomatopoeic POc forms such as $^{*}(k)asipe\eta$, POc $^{*}(k)asi\eta e(k)$ or $^{*}(k)asio$;
- an eastern group embracing Vanuatu and Micronesia, reflecting PROc $^{*}m^{u}at(i,u)a$ ‘sneeze’.

In addition there are numerous cognate sets too local in extent to be included here.

The reconstructions associated with the western group are prefixed by a question mark because (i) the data support several formally similar but distinct reconstructions; and (ii) the data contain a good many irregularities (shown in parentheses below) in relation to normal sound correspondences. Both phenomena suggest that onomatopoeia (sound symbolism) has been at work, sometimes resisting the effects of regular sound change, sometimes making otherwise arbitrary changes in forms. For example, the MM reflexes below of POc $^{*}(k)asipe\eta$ point to $^{*}(k)atipe\eta$, i.e. $^{*}-s-$ was at some point replaced by $^{*}-t-$. The Gela, Lengo and Longgu reflexes below reflect unpredicted loss of $^{*}(k)a-$ and Gela and Lengo reflect apparent resistance to the sound change that lenited $^{*}-s-$ to $-h-$ or $-\delta-$. In each case the innovation (or lack of one) is restricted to a small area.

POc $^{*}(k)asipe\eta$ ‘sneeze’

Adm:	Nyindrou	<i>asihen</i>	‘sneeze’
NNG:	Kove	<i>-kapuse</i>	(v) ‘sneeze’ (consonant metathesis)
NNG:	Labu	<i>asepe</i>	‘sneeze’
MM:	Solos	<i>hatineh</i>	‘sneeze’ ($-h-$ for $\dagger\emptyset-$; $-t-$ for $\dagger-s-$; consonant metathesis)
MM:	Taiof	<i>acufin</i>	‘sneeze’ ($-c-$ for $-\dagger-s-$)
MM:	Tinputz	<i>esven</i>	‘sneeze’ ($-s-$ for $\dagger-h-$)
MM:	Teop	<i>asive\eta</i>	‘sneeze’ ($-s-$ for $\dagger-h-$)
SES:	Gela	<i>sipe</i>	‘sneeze’ (loss of $^{*}(k)a-$; $-s-$ for $\dagger-h-$)
SES:	Lengo	<i>sipe</i>	‘sneeze’ (loss of $^{*}(k)a-$; $-s-$ for $\dagger-\delta-$)
SES:	Longgu	<i>sipe(a)</i>	(v) ‘sneeze’ (loss of $^{*}(k)a-$)
SES:	Kwaio	<i>\eta asi</i>	‘sneeze’ (loss of final syllable)
SES:	’Are’are	<i>\eta asihe</i>	‘sneeze’
SES:	Sa’a	<i>\eta asihe</i>	‘sneeze’
SES:	Arosi	<i>\eta asihe</i>	(vi) ‘sneeze’

cf. also:

MM:	Nehan	<i>si\eta ir</i>	‘sneeze’
MM:	Petats	<i>ha-hacilue</i>	‘sneeze’ ($-c-$ for $\dagger-s-$)
MM:	Halia (Haku)	<i>haci\eta ele</i>	‘sneeze’ ($-c-$ for $\dagger-s-$)
MM:	Selau	<i>acir</i>	‘sneeze’ ($-c-$ for $\dagger-s-$)

If the Mussau and Titan forms below are indeed cognate with the NNG forms (the correspondences are regular), then POc $^{*}(k)asi\eta e(k)$ can be tentatively reconstructed. All the NNG forms reflect $-s-$, the fortis reflex of POc $^{*}-s-$, where a lenis reflex (in languages from

Lukep to Ham either -y- or -Ø-) is expected. This seems to be an instance of resistance to sound change for the sake of onomatopoeia.

POc *?(k)asiŋe(k)* ‘sneeze’

Adm:	Mussau	<i>asiŋe</i>	‘sneeze’
Adm:	Titan	<i>ásiŋ</i>	‘sneeze’
Adm:	Lou	<i>amsi</i>	‘sneeze’ (metathesis of *-s- and *-ŋ-; -m- for †-ŋ-)
NNG:	Lukep (Pono)	<i>asina, aksina</i>	(said when someone else sneezes to keep evil spirits at bay) (metathesis of *ka-)
NNG:	Kilenge	<i>-kasine</i>	‘sneeze’
NNG:	Amara	<i>kasŋi</i>	‘sneeze’
NNG:	Rauto	<i>kisŋi</i>	‘sneeze’
NNG:	Aria	<i>ginsi</i>	‘sneeze’ (metathesis of *-s- and *-ŋ-)
NNG:	Apalik	<i>yaŋsi</i>	‘sneeze’ (metathesis of *-s- and *-ŋ-)
NNG:	Tuam	<i>-asinek</i>	‘sneeze’
NNG:	Malai	<i>-esnik</i>	‘sneeze’
NNG:	Ham	<i>-eskiŋ</i>	‘sneeze’ (metathesis of *k- and *-s-)
NNG:	Manam	<i>-kinso</i>	‘sneeze’ (metathesis of *-s- and *-ŋ-)
NNG:	Bam	<i>(i)aksieŋ</i>	‘sneeze’
NNG:	Hote	<i>-ik kasiŋe</i>	‘sneeze’ (-s- for †-l-)

cf. also:

NNG:	Akolet	<i>kicim</i>	‘sneeze’
NNG:	Mangseng	<i>(ia)ksiem</i>	‘sneeze’
NNG:	Mumeng (Patep)	<i>kəseb</i>	‘sneeze’

What kind of historical relationship exists between POc *?(k)asio* below and POc *?(k)asipeŋ* and POc *?(k)asiŋe(k)* above is a matter for speculation. POc *?(k)asio* is self-evidently onomatopoeic. Again -s-, the fortis reflex of POc *-s-, is found where a lenis reflex is expected. Precisely because of its sound symbolism, it is uncertain whether the form existed in POc.

POc *?(k)asio* ‘sneeze’ (ACD: **asio*)

Adm:	Wuvulu	<i>atio</i>	‘sneeze’
NNG:	Kis	<i>asio</i>	‘sneeze’
NNG:	Psohoh	<i>kisiu</i>	‘sneeze’
NNG:	Uvol	<i>-hsi</i>	‘sneeze’ (-h- reflects *k-)
PT:	Gumawana	<i>-asi</i>	‘sneeze’
PT:	Molima	<i>kasia</i>	‘sneeze’
PT:	Bwaidoga	<i>asio</i>	‘sneeze’
PT:	Gapapaiwa	<i>asio, gasio</i>	‘sneeze’ (alternant forms, g- unexpected)
PT:	Tawala	<i>hadiyo</i>	‘sneeze’ (h- for †Ø-; -d- for †-h-)
PT:	Sinaugoro	<i>asio</i>	(said when someone else sneezes) (-s- for †-r-)
PT:	Motu	<i>asi(mana)</i>	‘sneeze’ (<i>mana</i> ‘wind’?) (-s- for †-d-)
MM:	Meramera	<i>asie</i>	‘sneeze’
MM:	Lavongai	<i>asio(i)</i>	‘sneeze’

MM:	Torau	<i>asi(getu)</i>	‘sneeze’
MM:	Mono-Alu	<i>si(getu)</i>	‘sneeze’
SES:	To’aba’ita	<i>ʔasi(la)</i>	(v1) ‘sneeze’

The set below is also onomatopoeic, and it is open to debate whether the Meso-Melanesian and Polynesian forms reflect a single POc form or are the result of parallel independent innovations. The Nakanai forms are added because they illustrate effects of onomatopoeia. Superficially they appear to belong to this set, but Nakanai *-h-* reflects POc **-q-*, found in none of the forms reconstructed above. Whatever their origins, the Nakanai forms must have acquired *-h-* through sound symbolism, not by cognacy with forms in any of the western sets presented here.

POc **tise* ‘sneeze’

MM:	Roviana	<i>tihe</i>	‘sneeze’
MM:	Kia	<i>tihe</i>	‘sneeze’
MM:	Laghua	<i>tihe</i>	‘sneeze’
MM:	Maringe	<i>cihe</i>	‘sneeze’
SES:	Bugotu	<i>acihe</i>	‘sneeze’ (loan from Maringe)

PPn **tise* ‘sneeze’

Pn:	Niuean	<i>tihe</i>	‘to sneeze’
Pn:	Maori	<i>tihē</i>	‘sneeze’
Pn:	Hawaiian	<i>kihe</i>	‘sneeze, to sneeze’
Pn:	Tuamotuan	<i>(ma)tihe</i>	‘sneeze’

cf. also:

MM:	Nakanai	<i>[ha]tiho, atihe</i>	‘sneeze’

The eastern group of ‘sneeze’ forms, reflecting PROc **m^wat(i,u)a* ‘sneeze’, is perhaps historically related to an onomatopoeic form like those above via an earlier **mu-atia*, where **mu-* reflects the PMP actor-voice (intransitive) affix **⟨um⟩/*(u)m-* (§1.3.5.5).

PROc **m^wat(i,u)a* ‘sneeze’ (PSOc: Lynch 2001c)

NCV:	Mota	<i>matia</i>	‘sneeze’
NCV:	Lewo	<i>m^worue</i>	‘sneeze’
NCV:	Nguna	<i>m^wetu(r)</i>	‘sneeze’
NCV:	S Efate	<i>m^wetu</i>	‘sneeze’
SV:	Lenakel	<i>a-m^wta</i>	‘sneeze’
SV:	Kwamera	<i>a-m^weta</i>	‘sneeze’

PMic **m^waTie* ‘to sneeze’ (Bender et al., 2003)

Mic:	Kiribati	<i>m^watie</i>	‘to sneeze’
Mic:	Marshallese	<i>m^wacəy</i>	‘to sneeze’
Mic:	Chuukese	<i>m^wesi</i>	‘to sneeze’
Mic:	Carolinian	<i>m^wm^wusi</i>	‘to sneeze’
Mic:	Woleaian	<i>m^wosiye</i>	‘to sneeze’

cf. also:

Pn:	Tongan	<i>mafātua</i>	‘to sneeze’
Pn:	Samoan	<i>māfatua</i>	‘to sneeze’

4.6 Sleeping and waking

4.6.1 Sleeping

One POc term for sleeping is reconstructed, **[ma]turu(R)* ‘sleep, be asleep’, alongside two PWOC terms, **[ma]puta* ‘sleep’ and PWOC **mataip* ‘be fast asleep’. PEOc **mo(q)e* ‘be fast asleep’ and PCP **moze* ‘sleep’ are also discussed below.

POc **[ma]turu(R)* (vi) ‘sleep, to be asleep’ contains the **ma-* stative prefix that indicates that the subject is a human experiencer (Evans 2003:276). Only Bali and Blablanga (MM) reflect the root **tuduR* alone, whilst Bola, Nakanai and Meramera (all Willaumez languages) add *mata* ‘eye’ to the root to form ‘sleepy’ (§4.6.2.1).

No reflexes of POc **[ma]turu(R)* are found in New Guinea Oceanic (NNG, PT) languages. In these it is fairly consistently replaced by reflexes of **qenop* ‘lie’ (§6.2.3), its meaning extended to include both ‘lie’ and ‘sleep’. The converse meaning extension whereby a reflex of **[ma]turu(R)* comes also to mean ‘lie’ is much rarer but is reflected in three New Ireland languages below: Lavongai, Tigak and Tabar.

PAn **tuduR* ‘sleep’ (Blust 1999a)

PMP **[ma]tuduR*, **[ma]tiduR* ‘sleep’ (Blust 1993)

POc **[ma]turu(R)* (vi) ‘sleep, to be asleep’ (Blust 1998a: **matiruR*)

Adm:	Seimat	<i>matihu</i>	(vi) ‘sleep’
Adm:	Kaniet	<i>matu</i>	‘sleep’
Adm:	Wuvulu	<i>maʔiku</i>	‘sleep’
Adm:	Titan	<i>matil</i>	‘sleep’
Adm:	Lou	<i>metir</i>	‘sleep’
MM:	Bali	<i>turu-turu-ni</i>	‘sleepy’
MM:	Bola	<i>(mata)tulu</i>	‘sleepy’
MM:	Bola Harua	<i>(makenetu)tulu</i>	‘sleepy’
MM:	Nakanai	<i>(mata)tu-tulu</i>	‘sleepy’
MM:	Meramera	<i>(mata)tulu-tulu</i>	‘sleepy’
MM:	Lavongai	<i>matuŋ</i>	‘lie’
MM:	Tigak	<i>matuk</i>	‘lie’
MM:	Tabar	<i>mutur</i>	‘lie’
MM:	Blablanga	<i>turu</i>	‘sleep’
SES:	Gela	<i>maturu</i>	‘sleep’
		<i>maturu-hi</i>	(VT) ?
SES:	Bugotu	<i>matur(ijita)</i>	‘to dream, a dream’
SES:	W G’canal	<i>maturu</i>	‘sleep’
SES:	Talise	<i>makuru</i>	‘sleep’
SES:	Longgu	<i>mauru</i>	‘sleep’
SES:	’Are’are	<i>mauru</i>	‘sleep’
SES:	Ulawa	<i>mauru</i>	‘sleep’
SES:	Arosi	<i>mauru</i>	‘sleep’
		<i>mauru-ʔai</i>	(VT) ‘to dream of s.t.’
SES:	Bauro	<i>mauru</i>	‘sleep’

SES:	Fagani	<i>mauru</i>	‘sleep’
TM:	Tanema	<i>matou</i>	‘sleep’
NCV:	Mota	<i>maturu</i>	‘close the eyes, have eyes shut, sleep’
NCV:	Raga	<i>maturu</i>	‘to sleep’
NCV:	Tamambo	<i>maturu</i>	‘sleep’
NCV:	N Efate	<i>maturu</i>	‘sleep, lie down’
NCal:	Iaai	<i>mokuʔ</i>	‘sleep’
PMic <i>*maturu</i> ‘sleep’ (Bender et. al., 2003)			
Mic:	Kiribati	<i>matū</i>	‘sleep’
Mic:	Marshallese	<i>mācir</i>	‘sleep, asleep’
Mic:	Carolinian	<i>mayiri</i>	‘sleep, be asleep’
Mic:	Woleaian	<i>masuʔu</i>	‘sleep’
PWOC <i>*mataip</i> ‘be fast asleep’			
PT:	Wedau	<i>matave</i>	‘lie down, sleep, be asleep’
PT:	Dobu	<i>(ʔeno)m^wataya</i>	‘sleep’, as distinct from ‘lie’ (<i>ʔeno</i> ‘lie down’)
PT:	Iamalele	<i>(ʔeno)mataiva</i>	(VI) (fall) asleep
		<i>mataiva</i>	(ADVERB) (sleep) soundly
PT:	Iduna	<i>(-eno)mataiya</i>	‘sleep heavily, be dead to the world’
MM:	Tigak	<i>matai</i>	‘sleep’
MM:	Tiang	<i>mətəi</i>	‘sleep’
MM:	E Kara	<i>matef</i>	‘sleep’
MM:	W Kara	<i>mataif</i>	‘sleep’
MM:	Nalik	<i>milaif</i>	‘sleep’

How PWOC **[ma]puta* differed in meaning from POC **[ma]turu(R)* is not clear. Curiously, the seemingly cognate PPn verb **ma-futa* meant ‘start up, arise, awake from sleep’. Whether the apparent cognacy is real—with an odd reversal of meaning—or simply a chance resemblance remains unclear.

PWOC **[ma]puta* ‘sleep’

PT:	Motu	<i>mahuta</i>	‘sleep’
MM:	Nakanai	<i>mavuta</i>	‘lie down, sleep’
MM:	Meramera	<i>mavuta</i>	‘lie down, sleep’
MM:	Lungga	<i>puta</i>	‘sleep’
MM:	Nduke	<i>puta</i>	‘sleep’
MM:	Roviana	<i>puta</i>	‘sleep’
MM:	Hoava	<i>puta</i>	‘sleep’
MM:	Laghu	<i>puta(i)</i>	‘sleep’
NCal:	Iaai	<i>möök</i>	‘sleep’

The two reconstructions below, PEOC **mo(q)e* ‘be fast asleep’ and PCP **moze* ‘sleep’, are similar in form, but cannot be united. If the reflexes of PEOC **mo(q)e* are cognate with those of PCP **moze*, then the former have undergone unexpected loss of PEOC **-s-*.

PEOc **mo(q)e* ‘be fast asleep’

SES: Arosi *moe* ‘stay, sleep with s.o.’

PMic **m^woe* (VI) ‘sleep soundly’ (Bender et al., 2003: ‘sleep’)

Mic: Kiribati *m^wē* ‘sleep’

Mic: Mortlockese *(kina)m^wm^we* ‘sleep’

Mic: Puluwatese *(kəna)m^wm^we* ‘be at peace, comfortable’

Mic: Carolinian *(xila)m^wm^wey* ‘be sleeping deeply’ (*xila* ‘reach, attain’)

Mic: Woleaian *m^wm^we* ‘sleep well, sleep soundly’

PCP **moze* (N, VI) ‘sleep’ (Geraghty 1983:136)

Fij: Rotuman *mose* ‘sleep’

Fij: Bauan *moðe* (N,V) ‘sleep’

moðe-ra (VT) ‘sleep on s.t.’

PPn **mohe* (N, VI) ‘sleep’ (POLLEX)

Pn: Niuean *mohe* ‘sleep’

Pn: Tongan *mohe* ‘sleep, be asleep; to anchor for the night’

Pn: Rennellese *moe* ‘sleep, lie down, go to bed, dream, have sexual relations’

Pn: Samoan *moe* (N,V) ‘sleep’; (V) ‘have sexual intercourse’

Pn: Tikopia *moe* ‘lie down, sleep’

Pn: Tahitian *moe* ‘sleep’

Pn: Hawaiian *moe* ‘sleep, lie down, prostrate oneself as before a chief; sit on eggs’

Pn: Maori *moe* (N,V) ‘sleep’

4.6.2 Being tired

A number of languages distinguish between ‘sleepy’ (‘eye tired’) and ‘weary’ or ‘exhausted’ (‘body tired’) through the use of body-part metaphors.

Adm: Seimat *pula lihian* ‘sleepy’ [his.eye tired]

tinu nohan ‘exhausted, weary’ [his.skin tired]

PT: Kilivila *imama mati-la* ‘he is weary’ [tired eye-his]

imama nona ‘he is mentally exhausted’ [tired mind]

imama wou-la ‘he is utterly weary’ [tired body-his]

4.6.2.1 Being sleepy

In widely distributed Oceanic languages the idiomatic way of saying ‘I am sleepy’ is a phrase meaning ‘my eyes are sleeping’. In the examples below, the reflex of POC **mata-* ‘eye’ is shown with a following hyphen because it takes a possessor suffix (reflecting **-gu* ‘my’, **-mu* ‘your.S’, **-ña* ‘her/his’ etc). The verb in each case is glossed ‘sleep’.

NNG: Mangap *mata- pot* ‘be sleepy, slacken, abate, wane’

PT: Gumawana *mata- i-masisi* ‘be sleepy’

MM: Nehan *mata- hohou* ‘be sleepy’

In a number of languages the phrasal expression has evolved into a compound.

PT: Misima *mata-kenukenu* ‘sleepiness’
 MM: Bola *mata-tulu* ‘sleepy’
 MM: Nakanai *mata-tu-tulu* ‘sleepy’
 MM: Meramera *mata-tulu-tulu* ‘sleepy’
 SES: ‘Are’are *ma-mauru* ‘sleepy’ (for †*mā-mauru*)
 SES: Arosi *ma-mauruʔa* ‘sleepy’ (for †*mā-mauruʔa*)
 NCV: S Efate *met-matur* ‘sleepy’

In yet other languages a different verb is used with ‘eye’, either in a phrase or a compound. The meaning of that verb follows these examples.

PT: Tawala *mata-pota* ‘sleepy’ [eye-shut]
 PT: Motu *mata yara* ‘sleepy’ [eye burn]
 SES: Kwaio *mā- e olo-olo* ‘sleepy’ [eye- it roll.around]
 NCV: Mota *mata-marayai* ‘sleepy’ [eye-quiver]
 NCV: Lewo *mara- kawa* ‘sleepy’ [eye- ache]

And in other languages the meaning of the verb is not given independently in the dictionary. In some languages it is glossed ‘sleepy’, suggesting that an earlier independent meaning may have been lost.

Adm: Drehet *mata- i-mʷili*
 NNG: Takia *mala- i-of*
 PT: Iamalele *mata- i-duduna*
 PT: Iduna *mata- i-lowona*
 PT: Tawala *lu-mata-dudu* (*lu-* VERBALISER)
 MM: Ramoaaia *mata- i tutuaia*
 SES: To’aba’ita *mā- e mōmoʔosula*
 SES: ‘Are’are *mā- kukurua*
 SES: Lau *māa-liŋai*
 NCV: Paamese *mete- muloŋ*

A number of languages use a phrase meaning ‘wants to sleep’ for ‘sleepy’. Arosi has a desiderative prefix *gasi* that can be used before any verb, hence *gasi mauru* ‘sleepy’ [want sleep]. Some Central Pacific languages do the same thing with a reflex of the desiderative particle **via* (§11.5) and a term for ‘sleep’ (cf. ‘wants to eat’ for ‘hungry’ and ‘wants to drink’ for ‘thirsty’; §§4.3.3.1–2).

PCP **via moze* ‘sleepy’ (lit. ‘want sleep’)

Fij: Bauan *via moʔe* (vi) ‘sleepy’
 Pn: Tongan *fie mohe-a* (vi) ‘be sleepy’
 Pn: Marquesan *hia moe* ‘sleepy’

cf. also:

Fij: Wayan *mata-moʔe* ‘be sleepy’ (*mata-* ‘want’)

4.6.2.2 Being weary, exhausted

Oceanic languages commonly have different terms to express different kinds of bodily tiredness, e.g. ‘weak’, ‘fatigued’, ‘exhausted’. The Tolai and Bugotu dictionaries, for instance, each list five terms with general meaning ‘tired, weary’. Body part metaphors also make fine distinctions in meaning, e.g.

NNG: Yabem	<i>oli popo?</i>	‘he is exhausted, worn out (after hard work)’ [his.body shattered]
	<i>oli ktun</i>	‘his body aches, is worn out, exhausted’ [his.-body burns]

POc, PCP and PPn terms are reconstructed.

POc **malu[malumu]* ‘weak, tired’ is a partial reduplication of POc **[ma]lumu* ‘soft, gentle, easy’ (vol.2:215). The Polynesian reflexes show irregular loss of **-m-*.

POc **malu[-malumu]* ‘weak, tired’

MM: Ramoaina	<i>malu-malum</i>	‘weak, faint, sick’
MM: Tolai	<i>[mal-]malu</i>	‘weak, tired, of a part of the body’
MM: Patpatar	<i>mal-malu(ŋo)</i>	‘tired from working; lazy’
Fij: Bauan	<i>malu-malumu</i>	‘weak, faint, sick, soft’
Pn: Tongan	<i>molū</i>	‘soft, tender, flexible’
Pn: Niuean	<i>molū</i>	‘soft, weak, humble’
Pn: Pukapukan	<i>malū</i>	‘weak, gentle’
Pn: Tikopia	<i>malūlū</i>	‘weary; soft, weak, flabby’ (-l- for †-r-)

cf. also:

SES: Arosi	<i>marō</i>	‘weary, bodily tired’
NCV: Mota	<i>male</i>	‘weak’ ⁴¹
NCV: Namakir	<i>molo-mal</i>	‘lazy’

PCP **wai-wai* ‘weak, tired’ is apparently a reduplicated reflex of POc **waiR* ‘river, fresh water, stream’ (§1.3.5.4). The gloss of Wayan *wai-ōala* ‘be weak (of kava etc), diluted, melt, dissolve’ points to the connection between water and weakness.

PCP **wai-wai* ‘weak, tired’

Fij: Rotuman	<i>vai-vai</i>	‘flexible, easily bent’

PPn **wai-wai* ‘weak, lacking strength’ (POLLEX)

Pn: Tongan	<i>vaivaia</i>	(vi) ‘feel weak’
Pn: Samoan	<i>vāivai</i>	‘be weak; be tired; be timid, faint-hearted; watery (of a mix); faint, of colours’
Pn: Tokelauan	<i>vāivai</i>	‘tiredness, weariness, exhaustion’

PPn **fītaqa* ‘be tired, fatigued’ evidently reflects POc **pita* ‘heavy, difficult’, reconstructed below, with the addition of an apparent suffix **-qa* (which may reflect the POc adjectivaliser **-ka*; Ross 2000).

⁴¹ Clark (2009) reconstructs PNCV **malo ~*male* ‘lazy, tired, weak’. The relationship between this and POc **malu[-malumu]* is not clear.

PPn **fītaqa* ‘be tired, fatigued’ (POLLEX)

Pn:	Niue	(<i>faka</i>) <i>fītā</i>	‘become weary’
Pn:	Tongan	(<i>fite</i>) <i>fītaʔa</i>	‘to labour, toil’
Pn:	E Futunan	<i>fītaʔa</i>	‘fatigued, harassed, tired’
Pn:	Samoan	<i>fītā</i>	‘strenuous, difficult’
Pn:	Tikopia	<i>fīta</i>	‘sated, fed up’

cf. also:

POc **pita* ‘heavy, difficult’

PT:	Iduna	<i>vita-</i>	‘heavy, hard to do’
PT:	Dawawa	<i>vita</i>	‘heavy’
PT:	Tawala	<i>wita(i)</i>	‘heavy, difficult’
SES:	Ulawá	<i>hiʔa</i>	‘be heavy’ (for †* <i>hia</i>)
Pn:	Maori	<i>hia</i>	‘difficulty’ (for †* <i>hita</i>)

4.6.3 Dreaming

The two POc forms **nipi* and **mipi*, both ‘dream’, reflect fossilised combinations of a reflex of the PMP root **hipi* ‘dream’ and the PMP voice affixes *⟨*in*⟩ and *⟨*um*⟩ (§1.3.5.5). The fact that both forms are reflected, interspersed with one another across a substantial part of Oceania, indicates that the two forms co-existed in POc.

PMP **h-in-ipi* ‘a dream; was dreamt by’ (ACD)

POc **nipi* ‘to dream, have a dream’ (Ross 1988)

Adm:	Nali	<i>nihi-nih</i>	‘dream’
Adm:	Leipon	<i>ni-nih</i>	‘dream’
NNG:	Numbami	<i>ni-niwi</i>	‘dream’
NNG:	Kaiep	(<i>a</i>) <i>niu</i>	‘have a dream’
PT:	Motu	<i>nihi</i>	(N,V) ‘dream’
PT:	Mekeo	<i>nipi</i>	‘dream’
PT:	Roro	<i>nibi</i>	‘dream’
PT:	Molima	<i>nivi</i>	‘dream’
MM:	Vitu	(<i>maŋi</i>) <i>nuvi</i>	‘have a dream’
MM:	Bali	(<i>moŋe</i>) <i>ni-nipi</i>	‘have a dream’
NCal:	Nêlêmwa	<i>nivi-t</i>	(N) ‘dream’

PMP **h-um-ipi* ‘to dream’ (ACD)

POc **mipi* (vI) ‘to dream, have a dream’ (Ross 1988)

Adm:	Wuvulu	<i>mevi</i>	‘dream’
Adm:	Drehet	<i>im-mi</i>	‘dream’
Adm:	Hus	<i>mihi-mih</i>	‘dream’
Adm:	Kurti	<i>mihi-mih</i>	‘dream’
Adm:	Ponam	<i>mif</i>	‘to dream’
Adm:	Lou	<i>mɛp-mɛp</i>	‘to dream’
NNG:	Mangap Mb	(<i>i</i>) <i>miu</i>	‘have a dream’

NNG:	Lukep	(i)mi	‘have a dream’
NNG:	Malasanga	(i)mi	‘have a dream’
NNG:	Roinji	mip	‘have a dream’
NNG:	Kairiru	miu	‘have a dream’
MM:	Tigak	mi-mi	‘have a dream’
MM:	E Kara	mif	‘have a dream’
MM:	W Kara	mif	‘have a dream’
MM:	Tiang	me-me	‘have a dream’
MM:	Haku	mehe	‘have a dream’
MM:	Maringe	mifi	‘have a dream’
MM:	Sursurunga	mih	‘have a dream’
Mic:	Kiribati	mi	(N,V) ‘dream’
Mic:	Nauruan	mi	‘dream’

cf. also:

NNG:	Gitua	vivi	‘have a dream’
MM:	Nalik	mirif	‘have a dream’

The next set is almost in complementary geographic distribution to the **nipi*/**mipi* sets.

POc **(b,b^w)o(l,R)e* ‘to dream’ (Geraghty 1990: **boRe*; Lynch 2002: PEOc **b^woRe*)

MM:	Tabar	(para)bore	‘have a dream’
SES:	Lengo	bole	‘dream’
SES:	Lau	(teo)bole	‘to dream’ (teo ‘sleep’)
		(teo)bolea	‘a dream’
SES:	Kwaio	bole	‘dream’
SES:	’Are’are	(maʔasu) pore	‘to dream’ (maʔasu ‘sleep’)
		(maʔasu) poreha	(N) ‘a dream’
SES:	Sa’a	(maʔahu) p ^w ole	‘to dream’ (maʔahu ‘sleep’)
SES:	Arosi	b ^w ore	‘dream’
SES:	To’aba’ita	(bīŋa)bole	(VI) ‘dream’ (bīŋa ‘sleep’)

PNCV **bore* (N,V) ‘dream’ (Clark 2009)

NCV:	Mota	b ^w ore	‘to dream, dream of person or thing’
NCV:	Paamese	poi	‘dream’
NCV:	Namakir	bor	‘dream’
NCal:	Iaai	b ^w i	‘dream’
Fij:	Wayan	bū-bui	‘dream’

The next reconstruction is an apparent homonym of POc **tadra(q)* ‘look, look up’ (§8.2).

POc **tadra(q)* ‘have a dream’

NNG:	Sera	tar-tar	‘have a dream’
MM:	Meramera	tada	‘to dream’
MM:	Nakanai	tada	‘to dream’
MM:	Taiof	tora	‘have a dream’
MM:	Mono	(tan)tatara	‘have a dream’

Mic:	Kiribati	(mi)tara	(v) 'to dream, to muse'; (N) 'vision while dozing'
Fij:	Bauan	tadra	'to dream'

4.6.4 Waking up and opening the eyes

The POc transitive verb **paŋun* 'wake (s.o.) up' is of PAn antiquity and has reflexes throughout Oceanic.

PAn **baŋuL* (vi) 'wake up, get out of bed' (ACD)

PMP **baŋun* (VT) 'wake (s.o.) up, rouse (s.o.) from sleep' (ACD)

POc **paŋun* (VT) 'wake (s.o.) up' (ACD)

NNG:	Sio	paño	'wake s.o. up'
NNG:	Gitua	va-vaŋo	'wake s.o. up'
NNG:	Poeng	paŋoe	'awaken'
NNG:	Manam	aŋun	'wake up, bring to life'
NNG:	Numbami	wanuŋu	(VT) 'arouse, start, awaken'
PT:	Iduna	-lu-vayuna	'wake s.o. up'
PT:	Sinaugoro	vayō	(VT) 'wake s.o. up'
PT:	Motu	hao-	'to awaken, to arouse',
PT:	Kilivila	vagul-i	(VT) 'wake up'
PT:	Dobu	(lo)wano-wano	(VT) 'waken'
PT:	Suau	hano-	'waken',
PT:	Bunama	hano	'awaken'
MM:	Bola Harua	(tari)vaŋo	'breathe'
MM:	Nakanai	palo	'wake (s.o.) up'
MM:	Ramoaaina	ta-waŋun	(vi) 'be awake'
		waŋun	(VT) 'wake s.o. up'
MM:	Patpatar	haŋun	(VT) 'wake s.o. up'
		ta-ŋahun	(vi) 'awaken' (metathesis)
MM:	Roviana	vaŋunu	'awake'
MM:	Simbo	vaŋun-i-	'wake (s.o.) up'
MM:	Tolai	ta-vaŋun	'(s.o.) wake up'
		vaŋon(i)	'wake up (s.o.)'
NCV:	Mota	va-vaŋo	'awaken'

PMic **faŋu-ni* 'awakened, awaken' (Bender et al., 2003)

Mic:	Chuukese	fəŋi-fəŋ	'arouse from sleep, wake s.o. up'
Mic:	Satawalese	faŋi-i	'awaken (s.o.)'
Mic:	Woleaian	faŋu	(vi) 'be wakened, aroused'
		fəŋu-ni	'rouse (s.o.), wake s.o. up'

PPn **fafaju* 'awaken s.o.' (POLLEX)

Pn:	Tongan	fa-faju	(VT) 'to awaken, rouse from sleep', (vi) 'call out in order to awaken s.o.'
		faŋun-a	(vi) 'to be awakened by s.t. (esp. a smell)'
Pn:	Niuean	fa-faju	(VT) 'awaken s.o.'

Pn:	Samoan	<i>fa-faŋu</i>	(VT) ‘waken s.o., arouse’
		<i>fāŋu-a</i>	(VI) ‘be awakened, awake’
Pn:	Pukapukan	<i>wa-waŋu</i>	‘to awake, arouse’
Pn:	Tikopia	<i>fa-faŋo</i>	‘waken s.o.’
Pn:	Tokelauan	<i>fa-faŋu</i>	‘awaken s.o.’
Pn:	K’marangi	<i>hāŋo-no</i>	‘wake up (s.o.)’,
Pn:	Nukuoro	<i>hā-hāŋo</i>	‘wake up (s.o.) instantly’

A Proto Central Pacific intransitive verb, **qadra* ‘awaken, be awake’, is reconstructable, but no POC intransitive verb with this sense has been identified. The reason seems to be that an expression meaning ‘open the eyes’ is used in many languages for ‘wake up’.

PCP **qadra* (VI) ‘awaken, be awake’, **qadrav-i-* (VT) ‘keep watch over’

Fij:	Bauan	<i>yadra</i>	(VI) ‘open the eyes, wake up’
		<i>yadrav-a</i>	(VT) ‘watch for’
Fij:	Wayan	<i>adra</i>	(VI) ‘wake up’
		<i>adravi-</i>	(VT) ‘stand watch over s.t.’

PPn **qara* (VI) ‘wake up, (be) awake’ (POLLEX)

Pn:	Tongan	<i>ʔā</i>	‘awake’
		<i>ʔā-fia</i>	‘keep watch over (a corpse) at night’
Pn:	Samoan	<i>ala</i>	‘be awake’
Pn:	Rennellese	<i>ʔaga</i>	‘wake up, stay awake, be awake’
Pn:	Tikopia	<i>āra</i>	‘waken’
Pn:	Tahitian	<i>ara</i>	‘awake’
Pn:	Takuu	<i>ara</i>	‘be awake’
Pn:	E Futunan	<i>ʔala</i>	‘(be) awake’
Pn:	Hawaiian	<i>ala</i>	‘awake’

cf. also:

Pn:	Niuean	<i>ala</i>	(VI) ‘to wake, be awake’ (loan from a Nuclear Polynesian language)

If Lau *ada* ‘open the eyes, use the eyes’ belonged to this set, **(q)adra* could be reconstructed to PEOc. However, the regular Lau reflex of **(q)adra* would be *sada* with prothetic *s-* following loss of **q-*, and Lau *ada* appears instead to be a regular reflex of POC **tadraq* ‘look up, see’ (§8.2).

Polynesian languages use reflexes of POC **Ropok* ‘fly’ (§6.3.2.1; vol.4:281) to describe the event that occurs when one is suddenly surprised or woken.

POc **Ropok* ‘to fly, jump’ (see vol.4:281)

PPn **ofo* ‘be startled, surprised; wake up’ (POLLEX)

Pn:	Tongan	<i>ofo</i>	(VI) ‘be surprised’; ‘wake up’ (honorific)
Pn:	Niuean	<i>ofo</i>	‘to surprise, cause surprise, be surprised’
Pn:	E Futunan	<i>ofo</i>	‘wake up’
Pn:	Samoan	<i>ofo</i>	(Vst) ‘be surprised’
Pn:	Tikopia	<i>ofo</i>	‘spring up, appear’

Pn:	Tuamotuan	<i>oho</i>	‘wake up, be surprised’
Pn:	Maori	<i>oho</i>	‘wake up, be surprised’

PMP **bilat* ‘open the eyes’ has only one known reflex in Oceanic.

PMP **bilat* ‘open the eyes’ (ACD)

POc **bilat* ‘open the eyes’ (ACD has **pilat*)

SES:	‘Are’are	<i>pira</i>	‘open one’s eyes wide’

4.6.5 Blinking and closing the eyes

This section is concerned with the momentary action of closing and then opening the eye(s) as in winking or blinking, rather than the initial stage of going to sleep. There is a PMP etymon **kimet*, whose Oceanic reflexes are evidently restricted to Central Pacific languages.

PMP **kimet* ‘blink, flash’ (Blust 1986)

POc **kimo* ‘blink, wink’, **kimo-kimo* ‘keep blinking or winking’

Fij:	Bauan	<i>kimo-mo</i>	‘blink in bright light’
Fij:	Wayan	<i>kimo-mo</i>	‘(eyes) be half-closed’
		<i>kimo-kimo</i>	‘(eyes) blink constantly, (flame) flicker’
Pn:	Tongan	<i>kemo</i>	(VI) ‘wink, blink’
		<i>kemo-kemo</i>	(VI) ‘keep winking or blinking’
Pn:	Niuean	<i>kemo</i>	‘blink’
Pn:	Pukapukan	<i>ke-kemo</i>	‘close the eyes’
		<i>kemo-kemo</i>	‘close (eyes), flicker (flame), wink, blink’
Pn:	Samoaan	<i>?emo</i>	‘(eye) blink, (lightning) flash’
Pn:	Tikopia	<i>kemo</i>	‘wink, twinkle, blink’
Pn:	Anuta	<i>kemo</i>	‘close one’s eyes’

cf. also:

Fij:	Rotuman	<i>kemo</i>	‘blink’ (Polynesian loan)

PSOc **b^wil(i,u)* ‘close eyes’ (Lynch 2004)

NCV:	Tamambo	<i>buelu-buelu</i>	‘close eyes’
NCV:	Uripiv	<i>-p^wil</i>	‘shut eye, blink’
NCV:	Lonwolwol	<i>b^wil</i>	‘close eyes’
NCV:	N Efate	<i>p^wili</i>	‘close eyes’
NCV:	Lewo	<i>p^welu</i>	‘close eyes’
SV:	Lenakel	<i>a-pul</i>	‘close eyes, sleep’
SV:	Kwamera	<i>a-pri</i>	‘sleep, close eyes, wink, blink’

4.7 Physical responses to emotion, pain or cold

4.7.1 Laughing

POc **malip* ‘laugh’ has reflexes spread across several major Oceanic subgroups.

PCEMP **malip* ‘laugh’ (Blust 1993a, ACD)

POc **malip* ‘laugh’ (ACD)

Adm:	Seimat	<i>mal</i>	(vi) ‘laugh’
		<i>malini</i>	(vt) ‘laugh at’
NNG:	Tami	<i>(ma)mal</i>	‘laugh’
NNG:	Barim	<i>(i)mal</i>	‘laugh’
NNG:	Lukep	<i>mali(ai)</i>	‘laugh’
NNG:	Malasanga	<i>(i)mal</i>	‘laugh’
NNG:	Singorakai	<i>man</i>	‘laugh’
NNG:	Medebur	<i>(ma)mal(to)</i>	‘laugh’
NNG:	Kis	<i>(a)mal</i>	‘laugh’
NNG:	Kaiep	<i>(i-ma)mal</i>	‘laugh’
NNG:	Hote	<i>malik</i>	‘laugh’ (-k from POc <i>*-p</i> is regular)
NNG:	Yalu	<i>m^waip</i>	‘laugh’
PT:	Tawala	<i>maliwa</i>	‘laugh’
MM:	Label	<i>malih</i>	‘laugh’
Mic:	Woleaian	<i>mmali</i>	‘laugh, smile, grin’
Mic:	Puluwatese	<i>mel</i>	‘laugh, giggle a little, smile’

PCP **mali* ‘laugh, smile, grin’, **mali-mali* ‘keep laughing’

Fij:	Wayan	<i>mali</i>	(vi) ‘laugh, smile, grin’
		<i>mali-mali</i>	‘keep laughing’
		<i>mali-ōakini-</i>	(vt) ‘laugh at’
Pn:	Tongan	<i>mali-mali</i>	‘smile’
Pn:	E Futuna	<i>mali-mali</i>	‘smile, laugh quietly’

PEOc **mana* below is evidently not a reflex of POc **malip*.

PEOc **mana* ‘laugh’ (Clark 2009: PNCV)

SES:	Arosi	<i>mana</i>	‘laugh’
SES:	Fagani	<i>mana</i>	‘laugh’
SES:	Bauro	<i>mana</i>	‘laugh’
SES:	Kahua	<i>ma-mana</i>	‘laugh’
NCV:	Nokuku	<i>mana</i>	‘laugh’
NCV:	Tamambo	<i>mana</i>	‘laugh’
NCV:	Raga	<i>mana</i>	‘laugh, smile’
NCV:	Uripiv	<i>-men</i>	‘laugh’
NCV:	W Ambrym	<i>man</i>	‘laugh’

4.7.2 Grinning

Grinning is closely associated in Oceanic languages with baring the teeth, and in a number of languages the term for ‘tooth’ is derived from the term for ‘grin’. POC **sisi*, **ɲiji* and **ɲisi* each have a PMP antecedent. The history of POC **[ɲi]ɲisa* is discussed below.

Oceanic languages often appear to lack a dedicated verb for smiling. Instead, verbs for ‘laugh’ or ‘grin’ are sometimes additionally glossed ‘smile’.

PMP **ziziq* or **zizir* ‘grin, show the teeth’ (ACD)

POC **sisi* ‘smile, show one’s teeth, bare one’s teeth’

NNG: Gedaged	<i>sisi</i>	‘draw up (the lips, as when smiling)’
NNG: Manam	<i>(ao)sisi</i>	‘to smile, of long duration’ (<i>ao</i> ‘smile, laugh’, <i>sisi</i> ‘skin the bark off a tree’)
NNG: Nenaya	<i>(ma)sisi</i>	‘laugh’
SES: Tolo	<i>sisi(la)</i>	‘smile; show one’s teeth’
SES: Sa’a	<i>sisi</i>	‘roll back, grin like a dog, lay bare the teeth’
SES: Arosi	<i>sisi</i>	‘lay bare the teeth, as a dog, grinning’
NCV: Mota	<i>sis</i>	‘remove rind or bark; strip off outer part’
Fij: Bauan	<i>(vaka)sisi(bati)</i>	‘smile, show the teeth’ (<i>bati</i> ‘tooth’)

Blust (ACD) reconstructs both PWMP **ɲiji* ‘grin, show the teeth’ and PMP **ɲisi* ‘grin, show the teeth’. PMP **ɲiji* and **ɲisi* are evidently the antecedents of POC **ɲiji* and **ɲisi* below. The data also require the reconstruction of POC **[ɲi]ɲisa*. Any attempt to combine any two of the three sets fails, as we are compelled to posit irregular developments, and the existence of non-Oceanic cognates of both POC **ɲiji* and POC **ɲisi* confirms that both should be reconstructed. The presence of three formally similar POC terms with the same meaning may appear suspect, but the evidence requires their reconstruction, even though their reflexes have perhaps been conflated in some languages. Some reflexes could be attributed to more than one set, and we have made attributions as best we can on the basis of phonology and glosses.

The meaning ‘tooth’ could also be attributed to each of these reconstructions, but as there were other POC terms for teeth (§3.4.12.5) that do not include the sense ‘bare the teeth’, ‘tooth’ may be a secondary meaning that has arisen independently in various daughter-languages.

PMP **ɲiji* ‘grin, show the teeth’ (ACD: PWMP)

POC **ɲiji* ‘bare one’s teeth, grin’

NNG: Kove	<i>ɲiji</i>	‘laugh’
NNG: Gitua	<i>ɲij</i>	‘laugh’
NNG: Kilenge	<i>ɲij</i>	‘laugh’
NNG: Poeng	<i>ɲiji-</i>	‘tooth’
PT: Motu	<i>yɪyi</i>	‘snarl’
PT: Sudest	<i>ɲiji-</i>	‘teeth’

cf. also:

Mic: Ponapean	<i>ɲi-</i>	‘tooth’
Mic: Carolinian	<i>ɲi-</i>	‘tooth’
Mic: Woleaian	<i>ɲi-</i>	‘tooth’

PMP **ɲisi* ‘grin, show the teeth’ (Blust 1972, ACD)

POc **ɲisi* ‘bare one’s teeth, grin’

Adm:	Tenis	<i>ɲisi-</i>	‘tooth’
Adm:	Seimat	<i>ɲis</i>	‘tooth’
NNG:	Sengseng	<i>ɲi-</i>	‘tooth’
PT:	Tawala	<i>ɲis</i>	‘show teeth’
MM:	Vitu	<i>ɲiði</i>	‘show one’s teeth, smile’
MM:	Barok	<i>ɲisi-</i>	‘tooth’
MM:	Sursurunga	<i>ɲis</i>	‘show teeth’
MM:	Roviana	<i>ɲi-ɲisi</i>	‘grin’
MM:	Kia	<i>ɲi-ɲihi-</i>	‘show teeth’
Mic:	Kosraean	<i>[ɲis]ɲis</i>	‘laugh, guffaw’ (Bender et al. 2003: < PMic * <i>ɲiTi</i>)

POc **[ɲi]ɲisa* ‘bare one’s teeth, grin’

PT:	Tawala	<i>gigiha</i>	‘bare teeth in anger’
MM:	Lavongai	<i>ɲisa-</i>	‘tooth’
MM:	Tigak	<i>ɲisa-</i>	‘tooth’
MM:	Tabar	<i>ɲiɲica</i>	‘laugh’
MM:	Sursurunga	<i>ɲisa-</i>	‘tooth’
MM:	Patpatar	<i>ɲise</i>	‘show teeth’
		<i>ɲise-</i>	‘teeth’
MM:	Tangga	<i>ɲisa-</i>	‘tooth; mouth’
MM:	Madak	<i>ɲisa-</i>	‘tooth’
MM:	Tolai	<i>ɲie-</i>	‘mouth’
MM:	Label	<i>ɲis</i>	‘tooth’
MM:	Siar	<i>ɲise-</i>	‘tooth’
		<i>(kabin)ɲise-</i>	‘molar tooth’
SES:	Arosi	<i>ɲi-ɲita</i>	‘show the teeth, snarl’
NCV:	Mota	<i>ɲi-ɲisa</i>	‘grin’
NCV:	Raga	<i>ɲi-ɲiha</i>	‘smile’
NCV:	Uripiv	<i>-ɲis</i>	‘grin, smile’
SV:	Lenakel	<i>n-iɲhə</i>	‘gums; smile’
SV:	Kwamera	<i>n-iɲaha</i>	‘gums; smile’
Pn:	Tikopia	<i>ɲisa</i>	(N) ‘smile’
		<i>ɲisa-ɲisa</i>	(V) ‘smile’

cf. also:

PT:	Motu	<i>ise-</i>	‘tooth’ (s for †d)
PT:	Mekeo	<i>nie-</i>	‘tooth’

4.7.3 Weeping and crying

Two sets of POc terms are reconstructed for ‘cry, weep’:

- **taɲis* (VI) ‘cry, lament etc.’, **tanis-i-* (VT) ‘to cry for (s.t.)’, **tanis-aki[ni]-* ‘cry because of s.t.’

- **ɲara(s)* (VI) ‘cry’, (VT) **ɲaras-i-* ‘cry for (s.t.)’

POc **taɲis* appears to have been the default term. The glosses of both cognate sets suggest that their primary meaning had to do with the sound of crying rather than the shedding of tears, and the glosses of reflexes of POc **ɲara(s)* suggest that it denoted weeping accompanied by very loud crying.

PAn **Caɲis* ‘to cry’ (Blust 1999)

PMP **taɲis* ‘to cry’

POc **taɲis* (VI) ‘cry, lament; (of animals) make sound; (of musical instruments) sound’, **tanis-i-* (VT) ‘to cry for s.t.’, **tanis-aki[ni]-* ‘cry because of s.t.’

Adm: Seimat	<i>taɲi</i>	(VI) ‘cry, lament (used of any sound made by any animal)’
Adm: Lou	<i>teɲ</i>	‘cry, weep’
Adm: Titan	<i>taɲ</i>	‘weep, cry (of a child, cat or bird)’
NNG: Kove	<i>-taɲi</i>	‘weep, cry’
NNG: Gitua	<i>-taɲ</i>	‘weep, cry’
NNG: Lukep	<i>-taɲ</i>	‘weep, cry’
NNG: Wab	<i>taɲ</i>	‘cry, weep’
NNG: Manam	<i>taɲ</i>	‘cry, weep’
	<i>taɲr-i</i>	(VT) ‘to cry for s.o., mourn s.o.’
NNG: Kilenge	<i>-taɲ</i>	‘weep, cry’
NNG: Amara	<i>-taɲ</i>	‘weep, cry’
NNG: Mangseng	<i>-taɲ</i>	‘weep, cry’
NNG: Poeng	<i>tani</i>	‘weep, cry’
NNG: Uvol	<i>tan-taniɲ</i>	‘songs with sad themes and tunes. Story songs’
NNG: Numbami	<i>taɲi</i>	‘weep, cry, sing, sound’
PT: Gumawana	<i>taiya</i>	‘weep, cry’
PT: Iduna	<i>taya</i>	‘weep, cry’
PT: Sinaugoro	<i>tayi</i>	‘weep, cry’
PT: Motu	<i>tai</i>	(VI) ‘to cry, howl (of dogs)’
MM: Bola	<i>taɲi</i>	‘weep, cry’
MM: Nakanai	<i>tali</i>	‘weep, cry’
MM: E Kara	<i>taɲis</i>	‘weep, cry’
MM: Tabar	<i>taɲi</i>	‘weep, cry’
MM: Kandas	<i>taɲis</i>	‘weep, cry’
MM: Minigir	<i>taɲis-i</i>	(VT) ‘cry’
MM: Tolai	<i>taɲi</i>	‘cry, weep, wail, make a noise as of water shaken in a bottle; to sing of birds and musical instruments; (N) sound’
MM: Taiof	<i>taɲis</i>	‘weep, cry’
MM: Banoni	<i>tanis-i</i>	‘musical function of crying; laments’ (Stella)
SES: Bugotu	<i>taɲi</i>	‘cry, cry aloud, lament, wail’
SES: Gela	<i>taɲi</i>	‘make a sound; cry’
	<i>taɲih-i</i>	(VT) ‘cry for s.t., s.o.’
SES: Lau	<i>āɲi</i>	‘cry; produce a sound, eg bird, trumpet, thunder’

SES:	To'aba'ita	<i>aŋi</i>	(vi) 'cry, produce its characteristic sound' (also of musical instruments)
		<i>aŋisi</i>	(VT) 'cry for s.t., s.o.'
SES:	Arosi	<i>aŋi</i>	'to cry, sound (almost any sound, bell, bird, swish of water etc)'
		<i>aŋis-i</i>	(VT) 'cry for s.t., s.o.'
		<i>aŋit-aʔi</i>	'cry out at, wonder at s.t.'
NCV:	Mota	<i>taŋi</i>	'weep, cry, with ref. to both tears and sounds; cry of birds, animals; sound of musical instruments'
		<i>taŋis</i>	'cry for'
NCV:	Tamambo	<i>taŋis-i</i>	'cry for, mourn'
NCV:	Uripiv	<i>-tiŋ</i>	'cry, weep'
NCV:	Nguna	<i>taŋis-i</i>	'cry for, mourn'
SV:	Sye	<i>toŋi</i>	'cry for'
NCal:	Iaai	<i>teŋe</i>	'cry'
PMic * <i>taŋi</i> 'cry, weep', * <i>taŋiSi-</i> 'cry, weep for s.o./s.t.' (Bender et al. 2003)			
Mic:	Kiribati	<i>taŋ, taŋi-taŋ</i>	'cry'
		<i>taŋir-a</i>	'desire, cry for (s.t.)'
Mic:	Kosraean	<i>taŋ</i>	'cry',
		<i>taŋi</i>	'be sorry for'
Mic:	Marshallese	<i>caŋ</i>	'cry'
		<i>caŋi-t</i>	'cry for (s.o.)'
Mic:	Carolinian	<i>sæŋ, sæŋi-sæŋ</i>	'cry'
		<i>sæŋit-i</i>	'cry at (s.o.)'
Fij:	Bauan	<i>taŋi</i>	'give out sound; of humans, to cry, weep, lament, of animals, to cry, mew, crow etc'
		<i>taŋi-ðā</i>	(VT) 'cry for s.t.'
		<i>taŋi-ðaka</i>	(VT) 'cry on account of, lament the dead'
Pn:	Tongan	<i>taŋi</i>	'cry, weep, (of animals) make a characteristic sound'
		<i>teŋi-hi-a</i>	(VT) 'weep for s.t.'
Pn:	Pukapukan	<i>taŋi</i>	'a death chant; lament'
		<i>taŋi-taŋi</i>	'a boasting chant'
Pn:	Samoa	<i>taŋi</i>	'cry, weep, make a characteristic noise'
		<i>tāŋi-si-a</i>	(VT) 'cry over s.t.'
		<i>taŋi-saʔi</i>	(VT) 'miss s.o.'
Pn:	Rarotongan	<i>taŋi</i>	'any noise or sound, but especially of weeping'
Pn:	Tikopia	<i>taŋi</i>	'cry, wail, sing mourning song'
		<i>taŋi-si-a</i>	(VT) 'cry for s.o. or s.t.'
		<i>taŋi-saki</i>	(VT) 'wail over s.o., formally, as at a funeral'
Pn:	Hawaiian	<i>kani</i>	'cry out, sound'
POc * <i>ŋara(s)</i> 'cry loudly', * <i>ŋaras-i-</i> 'cry loudly for' (ACD: * <i>ŋara</i> 'complain loudly')			
Adm:	Mussau	<i>ŋala</i>	'cry'
MM:	Sursurunga	<i>ŋə-ŋə-ŋar</i>	'cry out in pain (of childbirth)'

		<i>ŋə-ŋra-i</i>	‘anguish; cry out in distress’
MM:	Konomala	<i>nanə</i>	‘cry’
MM:	Tolai	<i>ŋa-ŋara</i>	‘cry, scream, squeal, as a pig’
MM:	Solos	<i>ŋa</i>	‘cry’
MM:	Petats	<i>ŋal</i>	‘cry’
MM:	Halia (Haku)	<i>ŋala</i>	‘cry’
MM:	Selau	<i>ŋara</i>	‘cry’
SES:	Bugotu	<i>ŋara</i>	‘rail, shout at, threaten’
SES:	Gela	<i>ŋa-ŋarah-a</i>	‘cry loudly’
SES:	Talise	<i>ŋara</i>	‘cry’
SES:	Birao	<i>ŋara</i>	‘cry’
SES:	’Are’are	<i>nara</i>	‘cry’
SES:	Oroha	<i>nara</i>	‘cry’
SES:	Arosi	<i>ŋara</i>	‘cry’
		<i>ŋaras-i</i>	‘cry for’
SES:	Sa’a	<i>ŋara</i>	‘cry’
NCV:	Mota	<i>ŋara</i>	‘cry’
NCV:	Raga	<i>ŋara-i</i>	‘shout, call out, shriek, screech, yell’
NCV:	Tamambo	<i>ŋara</i>	‘cry (especially of children)’
Pn:	Tongan	<i>ŋala</i>	‘cry loudly, howl’

4.7.4 Grunting and moaning

Verbs of grunting, groaning, moaning and the like appear often to be local onomatopoeic innovations, so that cognate sets barely exist and, even where we find putative cognates, there is a possibility of independent parallel innovation. It is possible that some members of the set below do not reflect POc **[ŋuk]ŋuk* ‘grunt, moan’ but are independent coinages.

PMP **ŋuk*, **ŋuk-ŋuk* ‘grunt, moan’ (ACD)

POc **[ŋuk]ŋuk* ‘grunt, moan’ (ACD)

Adm:	Lou	<i>ŋok</i>	‘grunt from falling’
NNG:	Gedaged	<i>ŋuk-ŋuk</i>	‘stutter, catch one’s breath, when crying’
NNG:	Sio	<i>ŋɔ</i>	‘grunt (animal sound)’
NNG:	Mapos Buang	<i>ŋūk</i>	‘grunt, mumble’
MM:	Tolai	<i>ŋuk, ŋukuk</i>	(VI) ‘to whine, murmur, cry’
Fij:	Rotuman	<i>ŋu</i>	‘grumble, complain, grunt’
Fij:	Wayan	<i>ŋūŋū</i>	‘groan’
		<i>ŋūŋū-raki</i>	‘groan a lot’
Pn:	Tongan	<i>ŋū</i>	‘grunt’
Pn:	Samoan	<i>ŋū</i>	‘growl’
Pn:	Tikopia	<i>ŋu</i>	‘grunt; utter’
Pn:	Hawaiian	<i>nū-nū</i>	‘moaning, groaning, cooing, grunting’

4.7.5 Goosebumps

No POC reconstruction has been made, but a number of terms for goosebumps have been collected which identify it with thorns or prickles of plants, barbs of sago leaf or spikes of spiny fish. The Wayan Fijian and Niuean terms support reconstruction of a Proto Central Pacific term.

NNG:	Gedaged	<i>dudulu-n, didilu-n</i>	‘pricks, short protuberance, gooseflesh’ (POc <i>*(dr,r)uRi</i> ‘thorn’; vol.3:125)
NNG:	Dami	<i>didi</i>	‘small bumps, goose pimples’
PT:	Dobu	<i>losaka-sakalulu</i>	‘gooseflesh’ (<i>sakalulu</i> ‘porcupinefish’)
PT:	Sudest	<i>viⁿde</i>	‘goosebumps’ (<i>viⁿde-viⁿde</i> ‘thorns’)
Pn:	Niuean	<i>ta-tala</i>	‘have goosebumps, raise prickles’ (POc <i>*tara</i> ‘fish spear’, PPn <i>*tala</i> ‘barb’) (vol.2:224)

PCP **voto-voto* (v) ‘have goosebumps’

Fij:	Wayan	<i>voto, voto-voto</i>	‘thorn, prickle; gooseflesh’ (POc <i>*poto(k)</i>) ‘thorn’ (vol.3:125)
		<i>sē PRO votovoto</i>	(v) ‘have goosebumps’ (<i>sē</i> ‘blossom, bloom’)
Pn:	Niuean	<i>foto-foto</i>	‘feel prickly, have goosebumps’

4.7.6 Trembling and shivering

There were a number of POC terms for ‘tremble, shiver’. Six of these fall into three pairs. One member of each pair has the skeleton **rVrV*, the other **drVdrV*. The pairs are **riri* (with variant **ridriṅ*) and **dridri*, **rere* and **dredre* (with variant **drere*), and **ruru* and **drudru*.⁴²

The fact that there are three pairs of forms is intriguing, and the **rere*/**dredre* and **ruru*/**drudru* pairs appear to have arisen in POC, perhaps through onomatopoeic wordplay.

Of these roots, only **riri*/**ridriṅ* has possible non-Oceanic cognates, and its history and variation in form are discussed in §4.8.1, as it also occurs in terms for ‘be cold’. Suffice it to say here that the original form of the root was probably POC **ridriṅ*, but this is reflected in ‘tremble’ forms only in Mangap and Sio. Elsewhere, assimilation has occurred and widespread reflexes of **riri* are found, suggesting that this was already an alternant in POC. Only Sio and Marshallese reflect **dridri*.

The most widely reflected POC term for ‘tremble, shiver’ is **riri*/**ridriṅ*. Since this root also occurred in terms for ‘be cold’, one might infer that its earliest meaning was perhaps ‘shiver’, but the glosses of reflexes below suggest that it was used both for trembling with fear and for shivering with cold or a fever.

POc **riri*/**ridriṅ* ‘tremble, shiver’

NNG:	Mangap	<i>riṅriṅ</i>	‘tremor, shaking’
NNG:	Sio	<i>riⁿdi</i>	(ADJ) ‘standing on end (as a frightened cat’s fur)’
NNG:	Wab	<i>rir</i>	‘afraid’ (for † <i>lil</i>)

⁴² Of the six forms, only **ridriṅ* has a reflex (Mangap *riṅriṅ*) with a final consonant.

NNG:	Ulau-Suain	<i>rara-rir</i>	‘tremble’
NNG:	Ali	<i>ri-rir</i>	‘tremble’
MM:	Bola (Harua)	<i>pa-riri</i>	‘tremble’
MM:	Nakanai	<i>pa-ri-riri</i>	‘tremble’ (-r- three times for †-l-)
SES:	Bugotu	<i>ariri</i>	‘shake, tremble, of persons, shiver as with ague’
SES:	Longgu	<i>ʔari-ʔariri</i>	‘be excited, shake from excitement or cold’ (ʔ- for Ø-)
SES:	Lau	<i>a-riri</i>	‘be shaken, tremble with ague’
SES:	Kwaio	<i>a-lili</i>	‘tremble’
SES:	’Are’are	<i>a-riri</i>	‘tremble, shiver’
SES:	Sa’a	<i>a-riri</i>	‘tremble, shiver from cold or fear’
SES:	Arosi	<i>a-riri</i>	‘tremble with fear, be very feverish’
NCV:	Kiai	<i>(sarsarama)riri</i>	‘tremble (as in malaria)’
NCV:	Uripiv	<i>e-ri-rir</i>	‘shiver’ (John Lynch, pers. comm.)
Fij:	Bauan	<i>lili(wa)</i>	‘cold’
Pn:	Samoan	<i>lili</i>	‘shiver, tremble’
PPn <i>*taka-lili</i> ‘tremble, shiver’			
Pn:	Tongan	<i>teke-lili</i>	‘shiver, tremble, quiver, esp. with cold or rage’
Pn:	E Futunan	<i>taka-lili</i>	‘shiver with cold, tremble with fear’
Pn:	W Uvean	<i>taka-lili</i>	‘shiver with cold, tremble with desire’
Pn:	Anutan	<i>taka-riri</i>	‘shake as in shivering or convulsion’
Pn:	Rennellese	<i>taka-gigi</i>	‘shudder, as when hearing a sharp and painful noise’
cf. also:			
NNG:	Mangap	<i>-mo-riri</i>	‘be timid, afraid (to do s.t.)’
POc (?) <i>*dridri</i> ‘tremble’			
NNG:	Sio	<i>(ru)didi</i>	‘tremble, shivering’
PMic <i>*cici</i> ‘tremble’ (Bender et al. 2003)			
Mic:	Marshallese	<i>(wi)rir-ʔir</i>	‘tremble, quake’
cf. also:			
Fij:	Wayan	<i>driwa-driwa</i>	(VI, N) ‘cold’

The POc pair **rere* and **dredre* ‘tremble, shiver’ appear to be an alternant version of the pair **riri* and **dridri*. This is plausible formally, as POc **e* only reflects PMP **-ay*, i.e. in inherited items it occurs only morpheme-finally. Medial POc **-e-* is either the outcome of borrowing from a non-Oceanic language or of idiosyncratic innovation. We suggest that it is due to the latter here. Nowhere are both **rere* and **riri* reflected in a single language, and there is no evident contrast in meaning, beyond the fact that reflexes of **rere* have acquired the meaning ‘fear’ in Bel languages (Bilibil etc.) and in Fijian. The Takia phrase *tini-g i-rer* ‘my skin trembles’ [skin-my it-tremble] shows how the extension of meaning occurred.

POc **rere* ‘tremble, shiver, shake with fear, be fearful’

Adm:	Titan	<i>lel</i>	(VI) ‘shake, tremble’

	<i>lele-ani</i>	(VT) ‘shake’
NNG: Bilibil	<i>-rer</i>	‘fear (s.o.)’
NNG: Matukar	<i>rer</i>	‘fear (s.o.)’
NNG: Megiar	<i>-rer</i>	‘fear (s.o.)’
NNG: Takia	<i>-rer</i>	‘afraid, fearful; fear (s.o.)’
	<i>tini- i-rer</i>	‘be afraid’ [skin- it-afraid]
NNG: Medebur	<i>-rer</i>	‘fear (s.o.)’
NNG: Manam	<i>rere(sabu)</i>	‘fear, tremble, shudder’
NNG: Bam	<i>-rier</i>	‘tremble’
NNG: Wogeo	<i>-re-rere</i>	‘tremble’
NNG: Kaulong	<i>reh</i>	‘(?) shake’ [sic]
SES: Arosi	<i>rere(b^weru)</i>	‘run away’ (<i>b^weru</i> ‘run’)
NCV: Mota	<i>rere</i>	‘tremble, shake with fear’
NCV: Mwotlap	<i>yeyey</i>	‘tremble, quiver with cold, fever or age’
Fij: Bauan	<i>rere</i>	‘fear’
PMic <i>*rere</i> ‘tremble (with fear)’		
Mic: Kosraean	<i>rar-rar</i>	‘tremble (with fear)’
Mic: Chuukese	<i>rer</i>	‘tremble (with fear)’
Mic: Ponapean	<i>rɛr</i>	‘tremble (with fear)’

The second member of this pair was apparently POc **dredre* (with variant **drere*), but PPn **tete* raises a question of form. Was its POc ancestor **dredre* or **dede*? By regular sound change it was **dede*, but the likely history of the root **ridriŋ*, reflecting PMP **diŋdiŋ* (§4.8.1), points to POc **dr*, not **d*. We cannot resolve this conflict, but note that the POc consonant **d* was rare medially and almost non-existent initially, suggesting that **dredre* was modified to **dede* in an early Oceanic dialect ancestral to PPn.

POc **dre(r,dr)e* ‘tremble, shake’

MM: Tabar	<i>deri</i>	‘tremble’
MM: Notsi	<i>dil</i>	‘tremble’
MM: Lihir	<i>del</i>	‘tremble’
MM: Lamasong	<i>de</i>	‘tremble’
MM: Madak	<i>dede</i>	‘tremble in fear’
MM: Ramoaaina	<i>dada-der</i>	‘shake, shiver, tremble (from fright)’
MM: Siar	<i>te-ter</i>	‘tremble’ (<i>t-</i> for <i>†d-</i>)
SES: Gela	<i>dede</i>	‘shake (of something unstable)’

PMic **cece* ‘shake, tremble’ (Bender et al. 2003)

Mic: Kiribati	<i>rere</i>	‘dart quickly’
Mic: Chuukese	<i>ççēç</i>	‘quake, tremor, shake, shiver, tremble’
Mic: Puluwatese	<i>ceec, cece-</i>	(VI, N) ‘shake, tremble’
Mic: Carolinian	<i>şec</i>	‘shake, tremble’
Mic: Woleaian	<i>ççøççø</i>	‘shake, tremble’

PPn **tete* ‘shiver, tremble’

Pn: Tongan	<i>tete</i>	‘tremble, shiver, quiver, vibrate’
Pn: Samoan	<i>tete</i>	‘tremble, shiver, shake’

Pn:	E Futunan	<i>tete</i>	(VI, N) ‘tremble’
Pn:	E Uvean	<i>tete</i>	‘tremble’
Pn:	Luangiua	<i>ke-keke</i>	‘quiver’
Pn:	Rapanui	<i>tete-tete</i>	‘fever; tremble’
Pn:	Mangarevan	<i>tete</i>	‘tremble with fear or shiver with cold’
Pn:	Tuamotuan	<i>tete</i>	‘chatter, as teeth with cold’
Pn:	Māori	<i>tete-tete</i>	‘chatter, rattle’

The PNCV reflex of POc **ruru* (VI) ‘shake’ had acquired the additional sense of ‘earthquake’ (vol.2:82), but there is no evidence of this elsewhere, and the POc pair **ruru* and **drudru* do not seem to have differed in meaning from the two pairs above. The form **drudru* is reflected only in Remote Oceanic languages. The Polynesian forms may reflect either **ruru* or **drudru*.

POc **ruru* ‘shake, tremble’

NNG:	Tuam	<i>-rur</i>	‘tremble’
NNG:	MalaI	<i>-rur</i>	‘tremble’
NNG:	Gitua	<i>ruru</i>	‘tremble’
NNG:	Mangap	<i>-mu-rur</i>	‘shiver, tremble; be frightened, be surprised’
NNG:	Sio	<i>ruru</i>	‘shake; fear, be afraid’
NNG:	Kaulong	<i>roh</i>	‘shake’
NNG:	Takia	<i>-rut</i>	‘be frightened, be surprised’

PNCV **rur* ‘earthquake; shake’

NCV:	Raga	<i>ruru</i>	‘tremble’
		<i>ruru-i, ruru-ti</i>	‘shake’
NCV:	Uripiv	<i>-rur</i>	‘shake’,
NCV:	W Ambrym	<i>ru-ru</i>	‘shiver’
NCV:	Nguna	<i>na-ruru</i>	‘earthquake’

PROc **drudru* ‘shake, tremble’

PSV **a-rur* ‘shake’

SV:	Kwamera	<i>e-rur</i>	‘shake, shake down (fruit from tree), fizz’

PMic **cucu* ‘tremble, shake’

Mic:	Kosraean	<i>(ku)ṣuṣ</i>	‘tremble, quake, vibrate’

PPn **lulu* ‘shake, tremble’

Pn:	Tongan	<i>lulu</i>	‘shake’
Pn:	Niuean	<i>lulu, lūlū</i>	‘shake’
Pn:	Samoan	<i>lūlū</i>	‘shake’
Pn:	E Futunan	<i>lulū</i>	‘shake, shiver’
Pn:	E Uvean	<i>lulu</i>	‘shake’
Pn:	Tuvalu	<i>lū</i>	‘shake’
Pn:	K’marangi	<i>ruru</i>	‘shake’
Pn:	Rennellese	<i>gūgū</i>	‘shake’
Pn:	Tuamotuan	<i>rū</i>	‘shake’
		<i>ruru</i>	‘tremble with cold’

Pn:	Mangarevan	<i>rū-rū</i>	‘shake’
Pn:	Marquesan	<i>ʔū</i>	‘tremble’
		<i>ʔū-ʔū</i>	‘shake’
Pn:	Tahitian	<i>rūrū</i>	‘shake, tremble, quake (of persons)’
cf. also:			
Fij:	Rotuman	<i>rū</i>	‘shake (e.g. branch of tree, bottle)’ (Polynesian loan?)

In vol.2:80, POc **ninir* ‘earthquake’ was reconstructed. Like PNCV **ruru* above, this seems to have reflected a verb meaning ‘tremble, shake’. The final **-r* is not reflected in the non-Oceanic cognates from which PMP **ninih* is reconstructed, and the sets supporting PMP **ninih* and POc **ninir* may resemble each other by chance.

PMP **ninih* ‘shake, tremble, rock’ (ACD)

POc **ninir* ‘tremble, shake; earthquake’

NNG:	Gedaged	<i>nini</i>	‘swing, oscillate, shake, rock’
NNG:	Mapos Buang	<i>-nel</i>	‘earthquake’
NNG:	Mumeng (Zenag)	<i>nēr</i>	‘earthquake’
MM:	Bulu	<i>nunu</i>	‘tremble’
MM:	Patpatar	<i>ninir</i>	‘quake, shake, be agitated’
MM:	Babatana	<i>nene(dere)</i>	‘shake, tremble, chiefly with fright’ (<i>dere</i> ‘stand’)
MM:	Roviana	<i>nene(gara)</i>	‘tremble, shaking with cold; palsy’
SES:	Sa’a	<i>nini(koʔa)</i>	‘trembling, shivering from fright or cold’
Fij:	Bauan	<i>nini</i>	‘tremble, quake with fear or anger’
Pn:	Tongan	<i>nini-nini</i>	(vi) ‘shiver with cold’

4.8 Temperature

The reconstruction of terms for ‘hot’ and ‘cold’ is tricky, because the English words have a number of senses for which Oceanic speakers use different words or phrases. The English use of ‘cold’ to denote a sickness is set aside here. Some Oceanic languages distinguish between

- a. a person feeling cold (the sense §4.8.1 is concerned with),
- b. a substance being cold to the touch, and
- c. the air, wind or weather being cold.

Thus in To’aba’ita the terms are (a) *tega* or *aqai*, (b) *g^wari*, and (c) *ʔoleʔoleʔa*. However, there is a twist: (a) may also be *g^wa-g^wari*, a reduplicated form of (b) (Lichtenberk 2008).

In Dobu (a) and (c) are both *gogai*, and (b) is *gonituna*, or *goyuyuwana* if the cold substance is water (Lithgow & Lithgow 2006).

Very few of the available dictionaries differentiate the senses of ‘cold’ as carefully as these two, so there is a data problem. This is compounded, as seen in both To’aba’ita and Dobu, by the fact that a term may span two of the three senses. Much the same is true of words for ‘hot’.

A consequence of this is that §§4.8.1–2 are revisions of the section on temperature in vol. 2:217–218—this despite the fact that those terms were concerned with (b), whereas we are

here concerned with (a). Although it may be assumed that POc made distinctions of the kind listed above, it is not possible to determine accurately how reconstructed terms for ‘hot’ and ‘cold’ related to (a), (b) and (c).

4.8.1 Feeling cold

There are several POc forms for ‘cold’ which are derived ultimately from PMP **diŋin* ‘cold’. However, Chamorro *manĩhiŋ* ‘cold’ reflects PMP **maN-diŋdiŋ* (Blust 1970:133), and it can be assumed that the POc forms reflect the PMP reduplicated root **diŋdiŋ*. The expected POc form of the root is **ridriŋ*, which is plentifully reflected, but this has been subject to assimilations and perhaps metathesis at various post-POc interstages. The root alone is reflected as POc **ridri(ŋ)*, or **riri(ŋ)* ‘shiver’ (with assimilation of medial **-dr-* to initial **r-*), discussed in §7.6.

Forms for ‘cold’ consist of one of the prefixes **ma-*, **maN-* and **maka-* + **ridriŋ*, giving expected POc forms **ma-ridriŋ*, **madridriŋ* (from **maN-ridriŋ*) and **maka-ridriŋ*, all of which are reflected in present-day Oceanic languages. Matters are complicated by the fact that forms are also found which appear to reflect **ma-ririŋ*, **madririŋ*, i.e. with medial **-dr-* replaced by **-r-*. There are several possible explanations of these forms, including assimilation, dissimilation and metathesis, but these are ignored here as their distribution in the data suggests that they are local innovations. This means that in a few cases forms reflecting **ma-ridriŋ* may have been attributed to **madridriŋ*, and vice versa.

It is possible that the forms here attributed to POc **madridriŋ* are actually all reflexes of **ma-ridriŋ* that have undergone assimilation of root-initial **-r-* to medial **dr-*. However, their wide distribution speaks against this. As **madridriŋ* reflects **maN-ridriŋ*, and **maN-* has an agentive implication, the question arises, How could a term for ‘cold’ be agentive? The answer is perhaps that it denoted coldness of weather, and there is a sense in which weather can be regarded as agentive (‘causing shivering’): ‘cold (of weather)’ is the gloss assigned to PMP **maN-diŋdiŋ* by Zorc (2007).

We take **ma-ridriŋ* and **maka-ridriŋ* both to have meant ‘feel cold’, but their meanings may have been wider than this. No semantic difference between them is discernible.

PMP **ma-diŋdiŋ* ‘cold’ (Blust 1970)

POc **ma-ridri(ŋ)* ‘(s.o.) be cold’

NNG: Mutu	<i>marir</i>	‘(s.o.) cold’ (final <i>-r</i> for † <i>-d</i>)
NNG: Apalik	<i>miri-n</i>	‘(s.o.) cold’ (or < POc <i>*madridriŋ</i>)
NNG: Bebeli	<i>merir</i>	‘(s.o.) cold’ (or < POc <i>*madridriŋ</i>)
NNG: Kaiep	<i>marir</i>	‘(s.o.) cold’ (or < POc <i>*madridriŋ</i>)
NNG: Kairiru	<i>-merir</i>	‘(s.o.) cold’ (or < POc <i>*madridriŋ</i>)
SJ: Kayupulau	<i>mariri-e</i>	‘(s.o.) cold’ (or < POc <i>*madridriŋ</i>)
NCV: Mota	<i>ma-marir</i>	‘cold’ (final <i>-r</i> for † <i>-n</i>)
NCV: Merlav	<i>marir</i>	‘cold’ (final <i>-r</i> for † <i>-n</i>)
NCV: Kiai	<i>(sarsara)mariri</i>	‘tremble (as in malaria)’
NCV: Namakir	<i>miladi-n</i>	‘cold’ (<i>-l-</i> for † <i>-r-</i>)
NCV: Nguna	<i>malādi</i>	‘cold’ (<i>-l-</i> for † <i>-r-</i>)

PMP ?**mandiŋ-diŋ* (< **maN-diŋ-diŋ*) ‘cold’ (Blust 1970)POc **madridriŋ* ‘be cold’

Adm:	Aua	<i>maxixi</i>	‘cold’
Adm:	Mondropolon	<i>madri</i>	‘cold’
NNG:	Takia	<i>madid</i>	‘(s.o.) cold’
NNG:	Manam	<i>madidi</i>	‘cold’
NNG:	Ulau-Suain	<i>madid</i>	‘(s.o.) cold’
NNG:	Poeng	<i>ma-mariri</i>	‘(s.o.) cold’
MM:	Nakanai	<i>magigi</i>	‘to shake (as in epilepsy)’
MM:	Tolai	<i>madiriŋ</i>	‘cold (water, food)’ (- <i>r</i> - for †- <i>d</i> -)
MM:	Haku	<i>maririŋ</i>	‘(s.o.) cold’
NCV:	Raga	<i>masisi</i>	‘cold’
NCV:	Kiai	<i>makiki</i>	‘cold’
NCV:	W Ambrym	<i>marid</i>	‘cold’
NCV:	Uripiv	<i>-me-mĩali</i>	‘cold, cool’ (- <i>l</i> - for †- <i>ĩ</i> -)
NCV:	Paamese	<i>madil</i>	‘cold’ (- <i>l</i> for †- <i>r</i>)

PMic **maci*, **macici* ‘be cold’ (Bender et al. 2003)

Mic:	Kiribati	<i>mariri</i>	‘feel cold’
Mic:	Kosraean	<i>mišiš</i>	‘cold, chilly, cool, goosebumps’
Mic:	Marshallese	<i>məʔ</i>	‘cooled off (of food once hot)’
Fij:	Rotuman	<i>matiti</i>	‘cold’

PMP **maka-diŋdiŋ* ‘cold’ (Blust 1970)⁴³POc **maka-ridriŋ* ‘(s.o.) be cold’

MM:	Nakanai	<i>maka-rigi</i>	‘cold, be cold’
MM:	Notsi	<i>maka-dil</i>	‘(s.o.) cold’
SES:	Bauro	<i>mayā-risi</i>	‘cold’
NCV:	Tamambo	<i>mayā-riri</i>	‘cold’ (second - <i>r</i> - for †- <i>d</i> -)

PPn **maka-lili* ‘cold, chilly’ (POLLEX)

Pn:	Niuean	<i>maka-lili</i>	‘cold, chilly’
Pn:	Samoa	<i>maʔa-lili</i>	(vi) ‘feel cold, shiver’; (N) ‘cold (weather)’
Pn:	E Futunan	<i>maka-lili</i>	‘cold, chilly’
Pn:	E Uvean	<i>maka-lili</i>	‘chilly’
Pn:	Tuvalu	<i>maka-lili</i>	‘cold, shiver’
Pn:	W Futunan	<i>maka-ligi</i>	‘cold’
Pn:	Nukuoro	<i>maga-lili</i>	‘feel cold, shiver’
Pn:	Sikaiana	<i>maka-lili</i>	‘shiver, tremble, fever’
Pn:	Luangiua	<i>mā-lili</i>	‘cold, chilly’
Pn:	Anutan	<i>maka-riri</i>	‘cold’
Pn:	Tikopia	<i>maka-riri</i>	‘coldness; shiver from malaria’
		<i>kaka-riri</i>	‘coldness’
Pn:	Hawaiian	<i>maʔa-lili</i>	‘cooled’

⁴³ The only non-Oceanic cognate listed by Blust (1970) is (CMP) Roti *makalini* ‘cold’, so the etymon is perhaps only of PCEMP antiquity.

Pn:	Mangarevan	<i>maka-riri</i>	‘cold, chilly’
Pn:	Maori	<i>maka-riri</i>	(vi) ‘feel cold, cold (of weather)’; (N) ‘cold’

Another cognate set meaning ‘cold’ appears to reflect both **malaso* ‘cold (verb)’ and **malaso-ŋ* ‘cold (noun)’.

POc **malaso* (vi) ‘be cold’, **malaso-ŋ* (N) ‘cold’

NNG:	Roinji	<i>malasu(na)</i>	‘(s.o.) cold’
NNG:	Wab	<i>malsuŋ</i>	‘cold’
NNG:	Bing	<i>malsoŋ</i>	‘cold’
NNG:	Mindiri	<i>malas</i>	‘cold’
NNG:	Megiar	<i>malas</i>	‘(s.o.) cold’
MM:	Nehan	<i>malahon</i>	‘(s.o.) cold’
SES:	Gela	<i>malaho</i>	‘cold, chill’
NCV:	Mota	<i>malaso</i>	(N) ‘cold’
NCV:	Uripiv	<i>melas</i>	(N) ‘cold’
SV:	SW Tanna	<i>(ə)m̥la</i>	‘be cold’

Finally, the cognate set below has an uneven distribution, but the correspondence is good.

POc **p^(w)o(q)ut* ‘be cold’

MM:	Nehan	<i>pous-pous-pousu</i>	‘stiff, numb with cold’
MM:	Petats	<i>pout</i>	‘(s.o.) cold’
MM:	Halia	<i>bout</i>	‘(water) cold’

PMic **fou* ‘feel cold’

Mic:	Marshallese	<i>(pi)yaw</i>	‘chilly, cool’
Mic:	Mokilese	<i>pow</i>	‘feel cold’,
		<i>(ko)pow</i>	‘feel cold (of people)’
Mic:	Chuukese	<i>fəw</i>	‘cold, be cold’
		<i>əffəw</i>	‘chills’
		<i>a-ffəw</i>	‘be cold to 3the touch’
Mic:	Woleaian	<i>fəu</i>	‘be cold, cool, shiver’
		<i>(xazi)fəu</i>	‘be cold, chilly’
Mic:	Carolinian	<i>ffōy, ffəy</i>	‘feel cold’

4.8.2 Feeling hot

Three terms are reconstructable for ‘hot, warm’, POc **[ma]panas*, POc **maɲini(t)* and POc **tunu-tunu*. The first was probably the general term, to judge from its distribution and its glosses, whilst **maɲini(t)* probably had some specialised sense. The third was apparently derived from the verb POc **tunu* ‘roast on embers or in fire’ (vol.1:293).

PMP **[ma]panas* ‘be/become warm, hot (of fire, sun, fever, water)’ (ACD)

POc **[ma]panas* ‘warm, hot’, **pa-panas-i-* ‘warm (s.t.) up’

Adm:	Mussau	<i>anasa</i>	‘(s.o.) hot’

NNG:	Kove	<i>wana-wana</i>	‘(s.o.) hot’
NNG:	Tami	<i>wa-wan</i>	‘(s.o.) hot’
NNG:	Arawe	<i>ka-wanes</i>	‘(s.o.) hot’
NNG:	Takia	<i>wana-na-n</i>	‘hot’
NNG:	Numbami	<i>wa-wana</i>	‘hot’
NNG:	Mapos Buang	<i>vane</i>	‘hot’
SJ:	Sobei	<i>me-fna</i>	‘(s.o.) hot’
MM:	Tigak	<i>ma-nas</i>	‘(s.o.) hot’
MM:	Ramoaina	<i>vu-van</i>	‘(s.o.) hot’
SES:	Gela	<i>pa-pana</i>	‘heat up (food)’
SES:	Longgu	<i>pa-pana</i>	‘be warm’
		<i>pa-panaz-i-</i>	‘warm (s.o.)’
SES:	Bauro	<i>ma-hana</i>	‘warm’
SV:	Kwamera	<i>-a-p^wan-a-p^wan</i>	‘hot’
SV:	Anejom	<i>a-hen-hen</i>	
Fij:	Rotuman	<i>mah-mahana</i>	‘warm’
PPn <i>*ma-fana</i> ‘be warm’, <i>*faka-fana</i> ‘warm (s.t.) up (POLLEX)’			
Pn:	Tongan	<i>ma-fana</i>	‘warm (of food, water, drink); unpleasantly warm, stuffy (of room)’
		<i>mā-fana</i>	‘warmth; warm (of country, time, day); pleasantly warm’
Pn:	Niuafo’ou	<i>mā-fana</i>	‘warm’
Pn:	Niuean	<i>ma-fana</i>	‘warm’
		<i>faka-fana</i>	‘warm up (as food)’
Pn:	Samoan	<i>mā-fana-fana</i>	‘warm’
		<i>faʔa-fana</i>	‘reheat, warm up food’
Pn:	Tuvalu	<i>ma-fana</i>	‘warm, re-bake’
Pn:	E Futunan	<i>mā-fana</i>	‘warm’
		<i>faka-fana</i>	‘warm up cold food’
Pn:	Sikaiana	<i>mā-hana</i>	‘warm’
Pn:	Luangiua	<i>ma-haʔa</i>	‘warm; feverish’
Pn:	Takuu	<i>ma-fana</i>	‘(of water, etc. but not weather) warm; feverish’
Pn:	Hawaiian	<i>ma-hana</i>	‘warm’
Pn:	Tahitian	<i>ma-hana-hana</i>	‘warm’
Pn:	Mangarevan	<i>maʔana</i>	‘warm’

PMP **maN-qinit* ‘hot, warm’ (ACD: **qinit* ‘heat, warmth’)

POc **majini(t)* ‘become hot, warm (?)’

MM:	Lungga	<i>majini</i>	‘warm’
MM:	Roviana	<i>majini</i>	‘warm’
MM:	Hoava	<i>majini</i>	‘warm’

The reflexes of the term below suggest the form †**tun-tunu*, but the phonotactics and reduplication patterns of POc require **tunu-tunu*, even though the second of the four instances of **-u-* happens not to be reflected in the cognate set below.

POc **tunu-tunu* 'hot'

Adm: Lou	<i>tuntun-an</i>	'feel hot'
NNG: Malai	<i>tun-tunu</i>	'hot'
NNG: Gitua	<i>tun-tun</i>	'hot'
MM: Sursurunga	<i>tun-tun</i>	'warm (as house), tepid (as water)'
MM: Konomala	<i>tun-tun</i>	'(s.o.) hot'

PNCV **tu-tunu* 'warm, hot' (Clark 2009: **tunu*)

NCV: Mota	<i>tu-tun</i>	'warm, hot'
NCV: Nokuku	<i>tu-tunu</i>	'warm, hot'
NCV: Uripiv	<i>o-tu-tun</i>	'hot'
Fij: Wayan	<i>tu-tunu</i>	'be warm, not very hot; tepid'

5

Health and disease

MEREDITH OSMOND

5.1 Introduction¹

Reconstruction of POc terms for diseases carries with it a substantial problem. To the extent that descriptions of current languages include disease terms at all, they reflect not only the diseases of the present or near present (such as measles, syphilis, poliomyelitis), but also the medical knowledge of their compilers. It follows that for this particular semantic field, linguistics can convey only a broad idea of the health of POc speakers, albeit one that accords loosely with descriptions given by the first westerners to visit the region.

Although Portuguese and Spanish explorers had sailed along, and sometimes briefly visited the north coast of New Guinea from as early as the 16th century, our first reliable information as to the health of the indigenous inhabitants of mainland New Guinea dates from over three hundred years later when Miklukho-Maclay, in 1871, apparently the first white person seen by the natives of Astrolabe Bay on the north New Guinea coast, noted in his diary: ‘Of these eight Papuans of my first meeting, four appeared sick. Two had legs disfigured by elephantiasis, and one was an interesting case of psoriasis, which had spread over his entire body. The back and neck of the fourth was studded with boils, which formed large, hard protuberances and on his face were several scars, probably of previous such boils’ (1975:19). Later he mentioned that a native from Bilibil complained very much of a pain in the back and shoulders (probably rheumatism) (p.83). He also noted that ‘Digu’s face [one of the first local people to befriend him] bore traces of smallpox. He explained to me that the illness came from the north-west and that many died from it. When it happened and whether it happened more than once, I was not able to find out.’ (p.91).

Other information on the health of early Oceanic populations may be derived from skeletal remains. Our best evidence at present comes from the remains of 36 individuals, 29 of them adult, found at Teouma, Vanuatu, dated to ca. 3100–3000 BP (Buckley et. al. 2008), i.e. very soon after the initial dispersal of Proto Oceanic speakers. Examination of these skeletons indicates that in addition to dental caries, three quarters of the sample suffered from degenerative joint disease (p.97). ‘Because populations were probably small, chronic infectious diseases such as tuberculosis and yaws are unlikely to have been present’ (p.91). Nonetheless, the authors add that ‘the types of rib lesions observed in the Teouma samples are frequently observed in pulmonary tuberculosis sufferers ... but can also be caused by other respiratory conditions such as pneumonia and bronchitis’ (p.109). In a separate article Hallie

¹ Thanks are due to Malcolm Ross who has made numerous additions to the data, and to Matthew Spriggs for advice on current findings on skeletal remains in Vanuatu.

Buckley (2007:747) argues that erosive arthritis noted in six of these individuals may be evidence of gout.

5.2 Concept of illness

As described in a number of early Melanesian ethnographies (Romilly 1889, Codrington 1891, Seligman 1910, Fortune 1932, Powdermaker 1933, Wedgwood 1934), illness and death were formerly (and in places still are) seen as the result of sorcery, performed because of some perceived transgression by the sufferer. However, there is considerable variation in the degree to which sorcery is implicated in any given condition, in the ways in which it is practised, and the methods by which it may be counteracted.

Ian Hogbin (1978:47) describes beliefs held in Wogeo, one of the Schouten Islands off the north New Guinea coast. According to his informants, nothing in Wogeo happens by chance: sorcery is believed to be implicated even in minor illnesses. He writes:

Everybody can list a score or more of common ailments such as headache, toothache, boils, indigestion, nausea, diarrhoea, fainting attacks, sore throat, bronchitis, strained muscles, and fever. ... To the Wogeo the cause lies in a mild form of sorcery, differing from that leading to death, and relief demands the performance of beneficent magic to counteract the evil. ... Each of the diseases has an associated ritual system, with spells to induce the complaint and spells to cure it.

Hogbin adds that even succumbing to snakebite or a serious accident is attributed to sorcery (1978:51), although he exempts the deaths of infants and those already senile (p.54). However, in earlier writing he attributes the deaths of small infants to spirits stealing their souls, while deaths of adults after protracted illness are put down to breaches of religious taboos (1934:328).

To the Manam Islander as described by Camilla Wedgwood (1934:64-65),

Minor illnesses which are more or less endemic and from which the patient easily recovers, such as colds, coughs and mild attacks of fever, are often lightly dismissed as natural, *imore baia* ("he is just ill") they will say, or their attitude might be more accurately represented by saying that, because such ailments are common, of brief duration and show none of the signs which are regarded as serious, the natives do not trouble about their cause. But if a person is seriously ill or is suffering from some abnormality such as lunacy, physical deformity or bad sores which will not respond to treatment, such a departure from the normal condition of good health is believed to be due to a supernatural agency.

Ann Chowning (1989:222) describes the situation among the Kove, in west New Britain. Here, serious diseases in older children and adults, as well as their deaths from a variety of immediate causes such as accidents, tended to be attributed to sorcery. An exception was death or injury in warfare. The death or sudden illness of young children was usually attributed to attack by spirits, either a ghost of dead kin angry with the child's parents or a spirit of non-human origin whose territory had been intruded upon by the parents. A similar belief among the Longgu speakers in the southeast Solomons has been noted by Hogbin (1964:58), who writes that 'when a youngster under the age of about five succumbs the parents are prepared to accept a verdict of "just the sickness of a child", resulting from a ghost's having played with him or her. But all other deaths (including those from what we would call bad luck) are attributed to black magic'.

Hortense Powdermaker (1933:293) writes that in Lesu, on the east coast of New Ireland, death, unless it has some obvious cause, such as falling from a tree or drowning, or unless it

happens in old age, is thought to be due to black magic. Illness may be due to magic or more natural causes.

A major problem experienced by early ethnographers in obtaining information on all matters connected with sorcery and magic was the natural reticence of the locals when it came to discussing secret and mysterious processes with strangers. Missionaries in particular could be expected to discourage any such beliefs as incompatible with Christianity. In British New Guinea from the 1880's on, there was also a very real fear of the results of government interference, for sorcery became an indictable offence (Seligman 1910:278). Similar reticence has been noted elsewhere. It may take years for an outsider living within a community to be allowed to know of such matters. Raymond Firth who spent a year in Tikopia in 1928-9, learnt much later that the chiefs had given orders that he was to be told nothing about their gods and ritual practices (1957:8).

Spells whose purpose is to cause illness or death, and conversely, to aid in recovery, are typically guarded jealously, sometimes handed down from generation to generation, at other times able to be bought (Wedgwood 1934:292). Terms for these may themselves carry power and will be used with great caution. Consequently, our knowledge of such practices as they apply to the cause of disease and its treatment and eventual outcome is patchy, to say the least, and an area in which comparative linguistics can play very little part. As I have found, the only terms to do with disease and healing likely to be recorded by wordlist compilers are those referring to natural processes or actions. Almost all reconstructions are restricted to the physical manifestations of disease and healing.

The following sections present reconstructions of POc terms for diseases and healing. Higher level reconstructions are included if known, most from Blust's Austronesian Comparative Dictionary (ACD).

5.3 Illnesses and afflictions

5.3.1 General terms

Of the three general terms reconstructed, POc **masaki(t)* (v) 'be in pain, sick'; (N) 'sickness' is the most inclusive in meaning, applicable both to illnesses and other afflictions. In southeast Solomonic languages its reflexes have come to have specific reference to feverish illness, particularly malaria.

PMP **masakit* 'be in pain, be sick' (ACD; Dempwolff: **sakit* 'injury, pain, illness, disease')

POc **[ma]saki(t)* (v) 'be in pain, sick'; (N) 'sickness'

NNG: Gitua	<i>mazai</i>	'sick'
NNG: Kaulong	<i>sahi</i>	'sick, sickness'
NNG: Mapos Buang	<i>rak</i>	'sick'
NNG: Sengseng	<i>sahi</i>	'sick' (<i>h</i> reflects <i>*g</i>)
MM: Vitu	<i>maḍayi</i>	'sick'
MM: Tigak	<i>masak</i>	'be in pain'
MM: Tolai	<i>maki</i>	(N) 'pain, ache', (VI) 'to ache, be sore'
SES: Gela	<i>(va)hayi</i>	'be in pain; be ill, have malaria'
SES: Talise	<i>masaye</i>	'sick'

SES:	Tolo	<i>masahe</i>	‘sick, ill; illness, disease’
SES:	Kwaio	<i>mataʔi</i>	‘fever, malaria’
SES:	To’aba’ita	<i>mataʔi</i>	(vI) ‘be sick’
SES:	Arosi	<i>(mara)mataʔi</i>	‘to feel malaria coming on’
		<i>mataʔi</i>	‘to have fever, malaria, be feverish’
SES:	Sa’a	<i>mataʔi</i>	(vI) ‘malaria, to have malaria’
NCV:	Mota	<i>masay</i>	‘ague’
NCV:	Paamese	<i>mesai</i>	‘sick, sickness’
NCV:	Dorig	<i>msāy</i>	‘fever’
PSV <i>*a-misa</i> ‘sick, be in pain’ (Lynch 2001c) (vowel metathesis)			
SV:	Lenakel	<i>a-mha</i>	‘be sick, in pain’
SV:	Kwamera	<i>a-misa</i>	‘be sick, in pain’
SV:	Anejom	<i>e-mθa</i>	‘be sick, in pain’
Mic:	Kiribati	<i>maraki</i>	‘pain, suffering, grief; painful’
Mic:	Chuukese	<i>meteki</i>	‘pain, hurt, be painful’
Mic:	Ponapean	<i>metek</i>	‘be painful’
Mic:	Woleaian	<i>metax</i>	‘sick, sickness, in pain’
Pn:	Tongan	<i>mahaki</i>	‘sickness, disease, ailment’ (first element in many compounds ²)
Pn:	Rennellese	<i>masaki</i>	‘sickness’ (first element in many compounds ³)
Pn:	Samoa	<i>maʔi</i>	‘be sick; fall ill’ (first element in many compounds ⁴)
Pn:	Tuvaluan	<i>mahaki</i>	‘illness’
Pn:	Maori	<i>mahaki</i>	‘ill; sick person; cutaneous disease’
cf. also:			
SES:	Fagani	<i>(ha)siyī</i>	‘(s.t.) sore’
Fij:	Bauan	<i>mosi</i>	(v) ‘be in pain’
		<i>mosit-a</i>	(VT) ‘cause pain to s.o.’

The following set is an apparent PWOC variant of POc **masa(k,q)i(t)* with the vowel sequence moving from *a-a-i* to *a-i-i*, and *-s-* replaced with *-j-*. Both contain the stative prefix **ma-*. Lukep, W Kara and Nalik terms below could reflect either POc root **jiki* or **siki*, while the Bali (without prefix) and Bola terms reflect only **jiki*.

PWOC **[ma]ji(k,q)i* ‘be in pain, be sore’

NNG:	Lukep	<i>-masigi</i>	‘be in pain’
MM:	Bali	<i>(vari)tiyi</i>	‘be in pain’
MM:	Bola	<i>madiyi</i>	‘be in pain’
MM:	W Kara	<i>masik</i>	‘be in pain’
MM:	Nalik	<i>masik</i>	‘be in pain’

² e.g. *mahaki-kili* ‘skin disease’, *mahaki-mata* ‘eye disease’, *mahaki hela* ‘asthma’, *mahaki moa* ‘epilepsy, be epileptic’.

³ e.g. *masaki tinaʔe* ‘stomach ache’, *masaki tuʔa* ‘backache’, *masaki niho* ‘toothache’, *masaki yotoi* ‘epilepsy; flinching sickness’.

⁴ e.g. *maʔi-lili* ‘shivering; convulsions’, *maʔi-māliu* ‘epilepsy’, *maʔi-sua* ‘boil’.

A different term with two variants refers more specifically to aching or throbbing pain. Both **pitik* and **p^(w)idik* are reconstructable.

PMP **pi(n)tik* ‘throb, beat’ (ACD)

POc **pitik* ‘to feel pain, throb’

Adm:	Drehet	(<i>kanro</i>) <i>p^wisip</i>	‘horsefly’
NNG:	Buang	<i>vti(g^wib)</i>	‘small stinging fly’ (<i>g^wib</i> ‘cassowary’?)
NNG:	Nenaya	<i>vusi</i>	‘sick’
NNG:	Numbami	<i>witi</i>	‘be in pain’
NNG:	Wogeo	<i>-vir</i>	‘be in pain’
PT:	Kilivila	<i>pisi</i>	‘hurt, ache’
		<i>pi-pisi</i>	‘to throb’
PT:	Sudest	<i>viri</i>	‘feel hurt, pain’
PT:	Motu	<i>hisi</i>	‘pain’
		<i>hisi e ania</i>	‘suffer’ (lit. ‘to eat pain’)
MM:	Nakanai	<i>piti</i>	‘unidentified disease’
SES:	Lengo	<i>vi-viti</i>	‘(s.t.) sore’
SES:	Gela	<i>viti-viti</i>	‘to throb’
SES:	Kwaio	<i>fī</i>	‘suffer, be sick’
SES:	Lau	<i>fī</i>	‘feel pain, hurt’
SES:	To’aba’ita	<i>fī</i>	(VI) ‘hurt, be painful, be sore’
		<i>fīa</i>	(VT) ‘cause s.o. to feel pain, hurt s.o.’
NCV:	Mota	<i>vitiy</i>	‘to feel pain’

The reconstruction below is evidently a variation of **pitik*. It is noteworthy that Gela and To’aba’ita retain reflexes of both forms, albeit with no apparent difference in meaning.

POc **p^(w)idik* ‘throb’

MM:	Bulu	<i>vidi</i>	‘be in pain’
MM:	Tolai	<i>pidik</i>	(VI, VT) ‘to sting, of insects, nettles etc., tap with the fingers’
		<i>pi-pidi(l)</i>	(VI) ‘to throb; knock at a door’
SES:	Gela	<i>vidi</i>	‘to throb or smart, of a cut, pulse’
SES:	Longgu	<i>pidi-pidi</i>	‘feel an itch, pins and needles, a small pain’
SES:	To’aba’ita	<i>fidi</i>	(VI) ‘of a body part, be sore, ache’
		<i>fidi-</i>	(VT) ‘of a sickness, injury, cause ache, pain in s.o.’s body’
Fij:	Bauan	<i>vidi</i>	‘jump, spring, fly up’
		<i>vidik-a</i>	‘flick s.t., fillip’
		<i>vidi-vidi</i>	(N) ‘tick (of clock or watch)’
		<i>vidi-raka</i>	‘suffer jumping pain, in fits and starts’
Fij:	Wayan	<i>vidik-i</i>	‘flick s.t.’
		<i>vidi ni uto</i>	(N) ‘heartbeat’ (<i>uto</i> ‘heart’)

Reflexes of PAn **maCay*, PMP **matay* ‘die, dead’ (§4.2.1.2) carry a number of extended meanings. POc **mate*, sometimes reduplicated, evidently included among its meanings ‘be

weak or ill', 'be motionless, be unconscious', 'be paralysed'. As a result, if the meaning 'dead' is intended, some qualification is usually required, e.g. Sa'a *mae ʔoto* 'quite dead', Manam *imate tina* 'dead + intensifier'.

The antonym of both POc *[*ma*]*sakit* and stative POc **mate* was evidently POc **maquirip* 'be in good health, be alive' (§4.2.1.1).

5.3.2 Painful skin conditions

Listed next are a number of terms that refer to skin conditions—first the painful infections that include tropical ulcers, abscesses and boils. The large number of reconstructions no doubt reflects the commonplace nature of these conditions, and indicates that a more specialised POc vocabulary existed for them. However, dictionary definitions do not provide enough information for us to distinguish between, for instance, terms for boil or infected scratch or wound or tropical ulcer, or perhaps terms that might indicate the severity of the infection. All reconstructions are nouns bar POc **makini(t)* 'to be stung, have a stinging pain', which may have been the verb used to describe an insect sting

5.3.2.1 Boil, ulcer, wound

POc **manuka* below reflects PAn **ma-Luka*/PMP **ma-nuka*, meaning 'wounded'. In POc it has become a general term for a sore. However, unprefixated PAn **Luka*/PMP **luka* became the POc term for yaws (§5.3.4).

PAn **ma-Luka* 'wounded' (ACD)

PMP **manuka* 'wounded'

POc **manuka* 'ulcer, sore, wound'

NNG:	Wogeo (Koil)	<i>manuk</i>	'sore (on skin)'
NNG:	Kairiru	<i>manuq</i>	'sore (on skin)'
PT:	Sinaugoro	<i>manuya</i>	'sore, wound'
MM:	Bola	<i>manuka</i>	'sore'
MM:	Sursurunga	<i>manu</i>	'sore (on skin)'
MM:	Patpatar	<i>manua(na)</i>	'sore (on skin)'
MM:	Minigir	<i>manua</i>	'sore (on skin)'
MM:	Tolai	<i>manua</i>	'ulcer'
MM:	Bilur	<i>manua</i>	'sore (on skin)'
MM:	Ramoaina	<i>manua</i>	'sore (on skin)'
MM:	Mono-Alu	<i>manua</i>	'sore (on skin)'
NCV:	Mota	<i>maniya, manuya</i>	'ulcer, sore'
NCV:	Raga	<i>manuya</i>	'wound, sore'
NCV:	Paamese	<i>manue</i>	(N) 'sore; wound'
Pn:	Tongan	<i>monuka</i>	'be wounded, injured (and of royalty's goods, be damaged)'
Pn:	Samoa	<i>manua</i>	'wound'
Pn:	Pukapukan	<i>mānuka</i>	'a scar'

POc **loto* ‘boil, abscess’

Adm:	Titan	<i>lot</i>	‘boil’
Adm:	Nyindrou	<i>lok</i>	‘boil, ulcer, pus-filled sore’
Adm:	Drehet	<i>lɔk</i>	‘boil, (large) sore’
Adm:	Loniu	<i>lot</i>	‘skin disease involving heavy rash, possibly a type of ringworm’
Adm:	Lou	<i>lot</i>	‘boil, abscess’
NNG:	Kaiep	<i>lot</i>	‘sore (on skin)’
NNG:	Wogeo	<i>-lot</i>	‘swell’
NNG:	Mutu	<i>lot</i>	‘sore (on skin)’
NNG:	Sera	<i>lok</i>	‘sore (on skin)’
MM:	Vitu	<i>loto</i>	‘boil’
MM:	Bali	<i>loto</i>	‘sore (on skin)’
MM:	Bulu	<i>loto</i>	‘boil’
MM:	Sursurunga	<i>lot</i>	‘boil’
MM:	Nehan	<i>loto</i>	‘sore (on skin)’
SES:	Bugotu	<i>ɔto</i>	‘pus’
SES:	Lau	<i>lō</i>	‘boil, abscess’
Pn:	Samoa	<i>(ʔati)loto</i>	‘skin disease, erysipelas’ (<i>ʔati</i> ‘bite’)

POc **paR(a,o)(q)* ‘boil’ is attested in EOC languages and by non-Oceanic cognates, but appears to have been lost in WOC.

PAN **baReq* ‘abscess, boil, swelling on the body’ (ACD)POc **paR(a,o)(q)* ‘boil’ (ACD: POc **paRoq*)

SES:	Arosi	<i>hara</i>	‘to swell, of the body; become hard and round, of a swelling’
SES:	Bauro	<i>hara</i>	‘a boil’
Fij:	Bauan	<i>bō</i>	‘a boil’
Fij:	Wayan	<i>bō</i>	‘a boil’
Pn:	Tongan	<i>fā</i>	‘blister’

cf. also:

PT:	Dobu	<i>para</i>	‘yaws on anus’ (for † <i>pala</i>)

PMP **mata ni baReq* ‘core of a boil’ (ACD)POc **mata ni paR(a,o)(q)* ‘core of a boil’

Fij:	Bauan	<i>mata ni bō</i>	‘core of a boil’

POc **p^wasa* ‘sore on skin’

PT:	Kilivila	<i>p^wasa</i>	‘sore (on skin), ulcer’
PT:	Iduna	<i>-f^waʔa(na)</i>	‘(get) sore or pimple (from lime mixed with betelnut)’
PT:	Tawala	<i>paya</i>	‘sore’
SES:	Gela	<i>posa</i>	‘break (of a boil)’

PNCV**vosa* ‘a sore, a boil’ (Clark 2009)

NCV: Mota	<i>wosa</i>	‘boil’
NCV: Nokuku	<i>wosa-</i>	‘boil’
NCV: Kiai	<i>vosa</i>	‘sore’
NCV: Tamambo	<i>vosa</i>	‘boil; skin infection or wound’
NCV: Uripiv	<i>(mela)wos</i>	‘boil’
NCV: Lendamboi	<i>na-v^wose</i>	‘abscess, boil’
NCV: Atchin	<i>na-vos</i>	‘sore, wound’
NCV: Neve’ei	<i>ne-v^wes</i>	‘sore, wound’
NCV: Nguna	<i>na-po-posa</i>	‘yaws’

cf. also:

NNG: Manam	<i>poake</i>	‘sore, tropical ulcer, wound’
NNG: Buang	<i>pyes</i>	‘sore, ulcer’
PT: Iduna	<i>b^wake</i>	‘(very large) sore, wound (extensive, lasts for months or years)’ (borrowing?)

PMP **bisul* ‘boil, abscess’ (ACD)

POc **bisu(l)* ‘sore on skin’

NNG: Poeng	<i>biso</i>	‘sore (on skin)’
NNG: Kakuna	<i>viso</i>	‘sore (on skin)’
MM: E Kara	<i>vis</i>	‘sore (on skin)’
MM: W Kara	<i>bis</i>	‘sore (on skin)’

The following reconstruction appears to be the same term as POc **buku*, glossed in vol.1 (p85) as ‘node (as in bamboo or sugarcane); joint; knuckle; knot in wood, string or rope’, in vol.2 (p51) as ‘hill’, and in §3.6.8.1.2 as ‘mound, knob, joint’, where it was noted that the term focussed on the shape of the referent rather than on what it was. In the present instance it denotes a swollen lump on the skin, and a number of reflexes are also used as a verb ‘swell’. However, the alternation between *b-* and *p-* across reflexes remains unexplained.

POc **buku* ‘mound, knob; boil, skin sore’

NNG: Takia	<i>-puk</i>	‘swell to bursting point; burst open’
NNG: Mapos Buang	<i>vūq</i>	‘swelling; swell’
PT: Kilivila	<i>puku(na)</i>	‘boil (on lower body)’
MM: Nakanai	<i>pu-puku</i>	‘swollen’
	<i>buku-a</i>	‘swollen, protruding’
MM: Halia	<i>puku</i>	‘boil, swollen sore’
MM: Madak	<i>buk</i>	‘boil’
MM: Patpatar	<i>buk</i>	‘boil on a person, usually small’
MM: Tolai	<i>buk</i>	‘boil, abscess’
MM: Nehan	<i>puk-puku-ana</i>	‘measles, skin sickness, chicken pox etc.’
MM: Halia (Haku)	<i>puku</i>	‘swell’
MM: Kia	<i>boku</i>	‘tropical ulcer, boil; swell’
SES: Bugotu	<i>puku</i>	‘swelling, knot, lump’
Pn: Tongan	<i>poku</i>	‘scabies’

POc **boto[-]* probably denoted swellings in general, but its meaning has evidently narrowed to ‘sore, boil’ in NNG languages, to elephantiasis in Arosi, and to chicken pox rash in Mokilese.

POc **boto[-]* probably ‘swelling’

NNG: Lukep (Pono)	<i>botoboto</i>	‘sore’
NNG: Mangap	<i>^mbeete</i>	‘sore, ulcer’
NNG: Sio	<i>^mboto</i>	‘sore’
NNG: Bariai	<i>boto</i>	‘ulcerated sore’
NNG: Poeng	<i>boto</i>	‘pimple, boil’
SES: Arosi	<i>p^wō-p^wō</i>	‘elephantiasis’

PMic **p^woto* ‘swelling’ (Bender et al. 2003)

Mic: Kiribati	<i>(te)p^woto</i>	‘a bulbous root’
	<i>p^woto</i>	‘having a bulb’
Mic: Marshallese	<i>p^wp^wec</i>	‘swollen, swell, lump’
Mic: Mokilese	<i>(um)p^wɔs</i>	‘sickness, chicken pox’
Mic: Ponapean	<i>(m)p^wos</i>	‘boil, swelling, infection’
Mic: Woleaian	<i>φ^wō, φ^wōφ^wō</i>	‘swelling’
Mic: Chuukese	<i>p^wō, p^wō-</i>	‘swelling of any kind’
Mic: Mortlockese	<i>p^wō</i>	‘swelling’
Mic: Puluwatese	<i>p^wo, p^wōp^wo</i>	‘swelling’
Mic: Carolinian	<i>b^wō, b^wōb^wo</i>	‘swelling’
Mic: Satawalese	<i>p^wō</i>	‘swelling’

5.3.2.2 Pus

POc **nanaq* ‘pus’ is notable for the fact that it is retained in languages right across the Pacific, except in Polynesia.

PAn **nanaq* ‘pus’ (Dempwolff 1938)

POc **nanaq* ‘pus’

Adm: Sori	<i>nana</i>	‘pus’
Adm: Bipi	<i>nana</i>	‘pus’
Adm: Ponam	<i>nana</i>	‘pus’
NNG: Kove	<i>nanai</i>	‘pus’
NNG: Maleu	<i>nane</i>	‘pus’
NNG: Malai	<i>nanag</i>	‘pus’
NNG: Gitua	<i>nanak</i>	‘pus’
NNG: Malasanga	<i>nana</i>	‘pus’
NNG: Poeng	<i>nana</i>	‘pus’
NNG: Bilbil	<i>nan</i>	‘pus’
NNG: Takia	<i>nan</i>	‘pus’
NNG: Manam	<i>nana</i>	‘pus’
NNG: Wogeo	<i>nana</i>	‘pus’
NNG: Ali	<i>naŋ</i>	‘pus’

NNG:	Sissano	<i>nan</i>	‘pus’
PT:	Are	<i>nana</i>	‘pus’
PT:	Gapapaiwa	<i>nana</i>	‘pus’
PT:	Diodio	<i>nanaya</i>	‘pus’
PT:	Iduna	<i>nanaya</i>	‘pus’
PT:	Suau	<i>nana</i>	‘pus’
PT:	Tubetube	<i>nane</i>	‘pus’
MM:	Lavongai	<i>nan</i>	‘pus’
MM:	Tigak	<i>nan</i>	‘pus’
MM:	E Kara	<i>nan</i>	‘pus’
MM:	Tabar	<i>nana</i>	‘pus’
MM:	Lihir	<i>nan</i>	‘pus’
MM:	Tangga	<i>nan</i>	‘pus’
MM:	Lamogai	<i>na-nan</i>	‘pus’
MM:	Label	<i>nana</i>	‘pus’
MM:	Vitu	<i>nana</i>	‘pus’
MM:	Bali	<i>nanaka</i>	‘pus’
SES:	Gela	<i>nana</i>	‘pus’
SES:	Lau	<i>nana</i>	‘pus’
SES:	Kwaio	<i>nana</i>	‘pus’
NCV:	Mota	<i>nana</i>	‘pus’
NCV:	Mwotlap	<i>na-nana</i>	‘pus’
NCal:	Jawe	<i>hna</i>	‘snot, nasal mucus’
Mic:	Ponapean	<i>nān</i>	‘pus’
Fij:	Bauan	<i>nana</i>	‘pus’

5.3.2.3 Stinging

POc **makini(t)* ‘to be stung, have a stinging pain’ is the stative form of POc **kinit*, **kinit-i-* ‘to pinch, nip’ (vol.1:280).

POc **makini(t)* ‘to be stung, have a stinging pain’

MM:	Nakanai	<i>makili-kili</i>	‘black gnats’
NCV:	Efate	<i>makini-kini</i>	‘itchy’
Pn:	Tongan	<i>makini</i>	‘to have a shooting pain, e.g. hitting a funny bone, or pricking and tingling, pins and needles’
Pn:	Pukapukan	<i>makini</i>	‘sting, slight pain’
Pn:	Samoaan	<i>maʔini</i>	‘sting, smart’

5.3.2.4 Itching

Two formally similar but unrelated reconstructions found elsewhere, POc **kaRat-i* ‘to bite’ (§4.3.5.1) and POc **karak* ‘ringworm, itch’ (§5.3.3.2 below) each have scattered reflexes meaning ‘itch’. Their cognate sets listed below have been limited here to those reflexes with ‘itch’ meanings. It is possible that the loss of POc final consonants in many languages and the close association between (insect) ‘bite’ and ‘itch’ resulted in some conflation of reflexes so

that the Kaiwa, Numbami and the EOC reflexes of POc **kaRat* added to their meaning the ‘itch’ sense of **karak*.

PAn **kaRat* ‘bite’ (Blust 1999a)

POc **kaRat* (VI), **kaRat-i* (VT) ‘bite’

NNG: Kaiwa	<i>alas</i>	‘itchy’
NNG: Numbami	<i>ka-kalata</i>	‘itchy’
SES: Bugotu	<i>yaðat-i</i>	(VT) ‘to sting, bite s.t.’

PNCV **kaRa-ti* ‘itchy, stinging; bite’ (Clark 2009)

NCV: Mwotlap	<i>yaj</i>	‘to itch, bite’
NCV: Mota	<i>yara</i>	‘to itch’
	<i>yayarat</i>	‘the itch, to have the itch’
NCV: Raga	<i>yayara</i>	‘painful’
NCV: Tamambo	<i>hat-hati</i>	(VT) ‘itch, make itchy’

POc **karak* ‘ringworm; to itch’

Adm: Lou	<i>kara(mosa)</i>	‘an itch’ (<i>mo-mosa-n</i> ‘itchy’)
NNG: Yabem	<i>(ŋa)kala?</i>	‘burning, itchy, scratchy, tickling, sexually excited’
NNG: Bukawa	<i>(ŋa)gala?</i>	‘itchy’
NNG: Kaulong	<i>kalek</i>	‘to itch; to scratch’
PT: Dawawa	<i>yara-yara</i>	‘itching’
MM: E Kara	<i>ma-yarak</i>	‘itch’
MM: Tolai	<i>kara-karek</i>	‘itchy’
MM: Ramoaina	<i>kəra(bi)</i>	‘to itch, smart’
MM: Babatana	<i>kiraka</i>	‘to itch’ (-i- for †-a-)

A number of languages across cognate sets also use their term for ‘itchy’ to mean ‘sexually excited’ (Gedaged, Buang, Yabem and Bukawa in NNG, Tolai in MM, Rennellese and Hawaiian in Pn; §4.2.2.2).

PAn **gaCel* ‘itch, feel itchy’ (ACD)

PMP **gatel* ‘itch’ (N); **ma-gatel* ‘be itchy’ (ACD)

POc **makato* ‘(be) itchy’

NNG: Medebur	<i>makato</i>
NNG: Kaiep	<i>maket</i>
MM: Lihir	<i>makat</i>

cf. also:

Adm: Drehet	<i>m^waʔatoŋ</i>	‘itchy’ (<i>m^waʔati</i> ‘to itch’)
NNG: Gedaged	<i>maga(gau)</i>	‘to itch, lust after’
MM: Nakanai	<i>makasili</i>	‘to itch’

PPn **maŋe(s,h)o* ‘itch(y), sexually titillated’ (POLLEX: **maŋeho*)

Pn:	Niuean	<i>maŋiho</i>	‘to itch; scabies, a tree whose leaves cause a painful sting; to be hot (of spices)’ (- <i>h</i> < *- <i>s</i> - or *- <i>h</i> -)
Pn:	Samoaan	<i>maŋeso</i>	(v) ‘itch’ (- <i>s</i> < *- <i>s</i> -)
Pn:	E Futunan	<i>maŋeo</i>	‘itchy’
Pn:	Rennellese	<i>maŋeo</i>	‘itch, sore; be sexually titillated’
Pn:	Tikopia	<i>maŋeo</i>	‘yaws, be afflicted with yaws’
Pn:	W Futunan	<i>maŋeo</i>	‘be itchy, the itch’
Pn:	Hawaiian	<i>maneʔo</i>	‘itch, itchy; sexually titillated’ (-ʔ- for †-θ-)

cf. also:

Adm:	Lou	<i>ŋaəs</i>	‘scratch an itch’

Although PMic **kāSu* is glossed ‘to scratch’ by Bender et al. (2003), most reflexes support ‘to itch’.

PMic **kāSu* ‘to itch’ (Bender et al., 2003: ‘to scratch’)

Mic:	Puluwatese	<i>kāt</i>	‘to itch’
Mic:	Carolinian	<i>kkāt</i>	‘to be scratchy, itchy’
Mic:	Woleaian	<i>kkōtu</i>	‘be itchy (from eating s.t.)’
Mic:	Chuukese	<i>kkāt</i>	‘to itch, scratch an itch’

5.3.2.5 Wart, cyst

Certain PMP trisyllabic roots with *-*e*- (*[ə]) as the nucleus of their second syllable, like PMP **buteliR* ‘wart’ below, had in POc lost PMP *-*e*- along with the second consonant of the resulting consonant cluster (§1.3.4.2), giving in this instance POc **putiR*.

PMP **buteliR* ‘wart, cyst, non-purulent skin eruption’ (ACD)

POc **putiR* ‘wart, cyst, non-purulent skin eruption’ (ACD)

PT:	Motu	<i>husi-husi</i>	‘pimple, wart; sty on eye’
SES:	’Are’are	<i>hui</i>	‘wart’
SES:	Sa’a	<i>uhi</i>	‘warts on the hand’ (metathesis)
SES:	Arosi	<i>uhi</i>	‘wart on the hands’ (metathesis)
Mic:	Ponapean	<i>pʷut(oniap)</i>	‘wart’

5.3.3 Skin infections

Next are skin infections like scabies or the two most common forms of tinea, ringworm (*Tinea imbricata*) and the skin infection that causes white patches to appear on the skin (*Tinea versicolor*).

5.3.3.1 Scabies

Scabies is a highly contagious parasitic skin disease caused by the itch-mite, *Sarcoptes scabiei*, and it is no coincidence that terms for the disease are similar to terms for ‘scratch’ or ‘scrape’, as noted below.

PAn **kuris* ‘scurfy skin disease, scabies’; (v) ‘scratch’ (ACD)

POc **kuri-kuri* ‘scabies’

PT:	Dobu	<i>kuli-kuli</i>	‘scabies’
PT:	Molima	<i>kuli-kuli</i>	‘skin disease in people; mange in dogs’
PT:	Iduna	<i>kuli-kuli</i>	‘scabies’
SES:	Kwaio	<i>koli-koli</i>	‘scabies’

cf. also:

PT:	Motu	<i>kuhi-kuhi</i>	‘scabies; itch’

PMP **karut* ‘scratch, rasp’⁵

POc **k^waru-k^waru*, **k^waro-k^waro* ‘k.o. skin disease, probably scabies’ (POc **k^waru(t)*, **k^warut-i-* ‘scratch with fingernails’; vol.1:237, modified by Ross 2011)

Adm:	Lou	<i>kor-koro</i>	‘patchy skin fungus’
MM:	Nehan	<i>kar-karu(ana)</i>	‘rash’
NCV:	Lewo	<i>koro-koro</i>	‘k.o. skin disease’
NCV:	Nguna	<i>karo(a)</i>	‘scabies, rough surface’ (<i>karo</i> ‘scratch, scrape’)
NCV:	Avava	<i>koro-kor</i>	‘scabies’
NCV:	Nāti	<i>nū-kar</i>	‘scabies’
Fij:	Bauan	<i>karo-karo</i>	‘scabies’

Dictionary-makers of Papua New Guinea languages tend to attribute reflexes of POc **k^wasi-k^wasi* below to borrowing from Tok Pisin *kaskas* ‘scabies’. Some reflexes may indeed have a Tok Pisin origin, but the presence of Polynesian reflexes indicate (a) that POc **k^wasi-k^wasi* should be reconstructed, and (b) that an Oceanic language is the source of Tok Pisin *kaskas*. The Polynesian reflexes indicate that PPN **kasi* denoted scrofula, eruptions around the neck caused by a bacterial infection of local lymph nodes, but this shift in denotation is not a surprising one, as scabies also causes skin eruptions.

POc **k^wasi-k^wasi* ‘scabies’ (cf. POc **k^wasi[-]* ‘scrape, scratch’; **k^wasi* ‘scraper made from mussel shell’; vol.1:240–241, modified by Ross 2011)

NNG:	Yabem	<i>kasɪ</i>	‘scabies, itch, rash’
NNG:	Kaulong	<i>ma-kas</i>	‘ringworm, tinea (?)’ (<i>ma-</i> < PMP <i>*ma-</i> ‘stative’)
MM:	Nakanai	<i>kasi-kasi</i>	‘scabies’
MM:	Patpatar	<i>kas-kās</i>	‘scabies’ (<i>kas</i> ‘scrape’)

⁵ Blust (ACD) reconstructs PAn **karut* ‘scrape, rasp’, but the Formosan reflexes mean ‘rake’. The ACD’s Malayo-Polynesian reflexes, however, appear to be cognate with the POc term reconstructed here (Isneg *kárut* ‘sharpen the edge of a tool by means of another blade’, Cebuano *kalút* ‘scratch an itch’, Malay *karut* ‘rasp’). Hence we reconstruct to PMP rather than PAn.

MM:	Sursurunga	<i>kaskas</i>	‘scabies’ (<i>kasi</i> ‘scrape’)
Pn:	Tongan	<i>kahi</i>	‘diseased swellings, scrofula on neck, piles’
Pn:	E Uvean	<i>kahi</i>	‘scrofula’
Pn:	E Futunan	<i>kasi</i>	‘scrofula’

5.3.3.2 Ringworm, *tinea imbricata*

The English term ‘ringworm’ is a misnomer, as the skin infections it labels are caused by fungi. One of these is *Tinea imbricata*, found mainly in and around the Pacific, and caused by the fungus *Trichophyton concentricum*. It appears as an eruption of concentric rings of overlapping scales which often covers much of the sufferer’s body. The main POC term for *Tinea imbricata* was **puni*, which reflects a sound change discussed in §1.3.4.2.

PAn **buqeni* ‘ringworm, *Tinea imbricata*’ (ACD)

PMP **buqeni* ‘ringworm, *Tinea imbricata*’ (ACD)

POC **puni* ‘ringworm, *Tinea imbricata*’ (ACD)

NNG:	Lukep-Pono	<i>pun</i>	‘skin fungus’
PT:	Motu	<i>huni</i>	‘ringworm’
MM:	Nakanai	<i>vu-vuli</i>	‘k.o. painful ringworm; a smallpox-like disease’
SES:	Tolo	<i>vuni</i>	‘fungal skin infection’
SES:	Longgu	<i>vuni</i>	‘fungal skin disease’
SES:	Sa’a	<i>huni</i>	‘skin disease, ringworm’
SES:	Ulaw	<i>huni</i>	‘skin disease, ringworm’
SES:	Arosi	<i>huni</i>	‘ringworm’
NCV:	Neve’ei	<i>na-vinvin</i>	‘ringworm’ (John Lynch, pers. comm.)
NCV:	Naman	<i>nə-vənvən</i>	‘ringworm’ (John Lynch, pers. comm.)
SV:	Sye	<i>no-vun</i>	‘ringworm’
Pn:	W Futunan	<i>fune-fune</i>	‘itch, to itch’
Pn:	Takuu	<i>fune</i>	‘skin disease, tinea’
Pn:	Tikopia	<i>fune</i>	‘skin disease, possibly scabies’
Pn:	Tahitian	<i>hune-hune</i>	‘the itch, or a cutaneous disorder resembling the itch’

As noted in §5.3.2.4, POC **karak* perhaps also primarily denoted ‘ringworm’ and had itching as a secondary sense.

POC **karak* ‘ringworm; to itch’

Adm:	Drehet	<i>karaʔ(ah)</i>	‘ringworm’
NNG:	Manam	<i>kare</i>	‘ringworm’ (for † <i>ʔare</i>)
NNG:	Tami	<i>gala-gal</i>	‘ringworm’
NNG:	Hote	<i>kalak</i>	‘ringworm’
MM:	Vitu	<i>kere</i>	‘ringworm’
MM:	Bulu	<i>kera</i>	‘ringworm’
MM:	Nakanai	<i>kara(kobe)</i>	‘ringworm’
MM:	Sursurunga	<i>kar-kar</i>	‘ringworm’

MM:	Tolai	<i>kara-kare(n)</i>	‘a person covered with ringworm and therefore without hair on the body; an abusive term’
		<i>kar-kar</i>	‘ringworm’
Fij:	Bauan	<i>kara</i>	‘ringworm’
Fij:	Wayan	<i>kara</i>	‘skin disease in which pale spots appear on the skin’ (probably <i>tinea versicolor</i>)

Proto Malaita-Makira (SES) **garat-a* ‘ringworm’ looks superficially like an irregular development from POc **karak* above, but this is probably a chance resemblance. The form **garat-a* is a nominalisation with **-a* (< POc **-aŋ*) of a root reflected without nominalisation in To’aba’ita *ma-gara* (vi) ‘be covered with sores or a skin condition such as scabies’. Its POc antecedent would be †**garas*, for which we have no other evidence.

Proto Malaita-Makira **garat-a* ‘ringworm’ (**-a* NOMINALISER)

SES:	Lau	<i>garata</i>	‘ringworm’
SES:	To’aba’ita	<i>garata, karata</i>	‘skin disease, tinea, ringworm’
SES:	Kwaio	<i>kalata</i>	‘ringworm; afflicted with ringworm’
SES:	’Are’are	<i>karata</i>	‘ringworm’
SES:	Sa’a	<i>karata</i>	‘ringworm’

5.3.3.3 *Tinea versicolor* alias *pityriasis versicolor* or *tinea flava*

Tinea versicolor is known as ‘white spot’ across much of Melanesia. Caused by the yeast *Malassezia globosa*, the infection leads to skin eruptions. These result in pigmentary changes in people with dark skin tones that leave lighter patches of skin. The POc term for white spot, supported by non-Oceanic cognates as far away as the Philippines, was **pano*, but reflected in just a few Oceanic languages. Recorded under ‘cf. also’ below are Papuan Tip terms that appear to reflect †**pana(k,q)* or †**pana(r,R)*. They remain unexplained.

PMP **panaw* ‘fungus infection which produces light patches on the skin: *Tinea flava* or *Pityriasis*’ (ACD)

POc **pano* ‘skin disease which produces light patches on the skin, *Tinea versicolor*’

MM:	Nakanai	<i>palu-lu</i>	‘have hives-like swelling’
SES:	’Are’are	<i>hano</i>	‘a skin disease, white spots without scales’
SES:	Sa’a	<i>hano</i>	‘a skin disease, small white spots on the skin, but no scales’

cf. also:

PT:	Gumawana	<i>vana</i>	‘lightened skin pigment’
PT:	Kilivila	<i>vana</i>	‘eczema’
PT:	Gapapaiwa	<i>vanaya</i>	‘disease called “white spot”’
PT:	Iduna	<i>vanala</i>	‘k.o. ringworm (on scalp)’

The set below supports only a Proto Remote Oceanic reconstruction. The Longgu term, disqualified as a reflex by its initial *t-*, was probably borrowed from a reflex in another (unidentified) Guadalcanal language. If so, the reconstruction would be raised to PEOc. The

cognacy of the Tawala term below is suspect on both semantic and formal grounds (Tawala *d* < POc **d*, **dr* or **j*).

PROc **tani* ‘disease characterised by pale patches on skin’

Mic:	Ponapean	<i>çen-çen</i>	‘disease characterised by pale patches on skin’ (Christian 1899:37)
Mic:	Kiribati	<i>tan-tan</i>	‘spotted, as skin’
Mic:	Marshallese	<i>can</i>	‘skin disease, white spots on skin’
Fij:	Bauan	<i>dani</i>	‘chloasma, spots or discolouration of skin; tinea’

PPn **tane* ‘skin disease, tinea’ (POLLEX)

Pn:	Tongan	<i>tane</i>	(N,V) ‘skin disease, pityriasis, k.o. skin disease’
Pn:	Samoan	<i>tane</i>	‘name given to various skin conditions includ. tinea’
Pn:	Tikopia	<i>tane</i>	‘light skin patch in colour, not disease’
Pn:	Hawaiian	<i>kane</i>	‘tinea’

cf. also:

PT:	Tawala	<i>dani</i>	‘scratch, rash or irritation from scrub or grass’
SES:	Longgu	<i>tani</i>	‘white spot, skin infection that causes white patches to appear on the skin’ (borrowing)

5.3.4 Yaws (Framboesia)

Yaws is considered to be among the earliest diseases known to man⁶, and must have been present among Austronesian speakers prior to their movement into the Pacific. The disease occurs in tropical regions and begins as an inflammatory lesion through which bacteria enter the body as a result of direct contact with an already infected person. The disease manifests itself in the form of raspberry-like nodules on the skin which may become deep open sores, and in severe cases, result in facial scars and bone deformity. It is common among children who typically develop sores around the mouth and anus, but confers a degree of immunity so that secondary, more crippling stages that can result in bone lesions are more likely in those whose first exposure is as adults (McNeill 1976:177, 218). Once widespread in New Guinea, yaws is now almost totally eradicated, and terms for the condition have largely fallen into disuse within the last fifty or so years.

Languages in the region would no doubt have had a number of terms for the different stages of yaws and for the disease as it affects different parts of the body. (Babatana terms include *tapae sua* ‘secondary yaws - ulcers’ (*tapa* ‘ulcer’, *sua* ‘child’), *boka* ‘yaws affecting mouth and chin’, *ɲore* ‘yaws affecting the nose’, *maoqe* ‘yaws affecting bone’ and so on.) A number of terms have been located for the raspberry-like nodules once commonly found in children (PCP **tona* ‘skin blemishes caused by yaws’), while some cognates included under reconstructions for painful skin conditions above, such as in POc **manuka*, ‘ulcer, sore, wound’ (§5.3.2.1), may refer to these sores. Indeed, the unprefixated form of this term, PAN **Luka*/PMP **luka*, gave rise to POc **luka*, the term for yaws. Oceanic reflexes are restricted

⁶ Analysis of *Homo erectus* skeletal remains suggests the disease yaws had its origins in Middle Pleistocene Africa 1.5 million years ago (Mark Rose 1996, Yaws origin. In *Newsbrief* 49(3), report of the Archaeological Institute of America (www.archaeology.org/9605/newsbriefs/yaws.html)).

to the Southeast Solomonian subgroup, but the existence of non-Oceanic cognates (Banggai (wMP) *nuka*, Selaru (CMP) *nua* [ACD]) with this sense supports the POc reconstruction. The loss of the first **-k-* of PSES **luka-luka* reflects a regular reduplication process (Andrew Pawley, pers. comm.).

PAn **Luka* ‘sore, wound’, **ma-Luka* ‘wounded’ (ACD)

POc **luka* ‘yaws’

PSES **luka-luka* ‘yaws in adults’

SES:	Bugotu	<i>lua-luka</i>	‘yaws’
SES:	Lau	<i>lu-luka</i>	‘yaws in adults’
SES:	To’aba’ita	<i>lū-luka</i>	‘yaws’

cf. also:

PT:	Molima	<i>lilīʔu</i>	‘a skin ailment which produces sores around the mouth and on palms and soles, and affects liver’
		<i>lolaʔa-laʔa</i>	‘a rash; loss of nose’ (unexpected vowels)
MM:	Nakanai	<i>(ma)lulu</i>	‘skin disease, sometimes fatal’

There is evidently a belief among some Central Pacific communities that the marks left by octopus sucker on the skin are similar to skin blemishes caused by yaws (Geraghty 1986).

PCP **jona* ‘yaws; octopus sucker’ (Geraghty 1986)

Fij:	Rotuman	<i>jona</i>	‘be afflicted with or suffer from yaws’
Fij:	Bauan	<i>tona</i>	‘yaws’
Pn:	Tongan	<i>tona</i>	‘yaws’
Pn:	Rennellese	<i>tona</i>	‘skin blemish, suction cups of octopus tentacle’
Pn:	Samoaan	<i>tona</i>	‘yaws’
Pn:	Rarotongan	<i>tona</i>	‘yaws’
Pn:	Tikopia	<i>tona</i>	‘tropical ulcer, yaws’ (<i>maŋeo, tona, para</i> in order of severity)
Pn:	Maori	<i>tona</i>	‘wart, excrescence’

cf. also:

SES:	To’aba’ita	<i>tona</i>	‘ulcer on soles of feet, appears with yaws’ (borrowing)

5.3.5 Fever, malaria

Was malaria endemic among the speakers of Proto Oceanic? Linguistics does not provide an answer to this question. Reconstructions carry glosses no more precise than ‘be hot’, ‘be cold’, ‘tremble’, ‘shiver’ and so on, conditions which have a range of causes but are symptoms of malaria. Nor is the malaria-carrying mosquito found in Micronesia, New Caledonia, Fiji or Polynesia. Proto Malaita-Makira **mataki* ‘malaria, to have malaria’ is reconstructable, but this is a reflex of POc **masakit* ‘be sick’ (§5.3.1), the specific reference to malaria apparently limited to the southeast Solomons. There are today two main strains of malaria in New Guinea, transmitted by *Plasmodium vivax* and *P. falciparum* by way of certain species of the Anopheles

mosquito. *P. vivax* can lodge in the liver, causing a relapse up to two years after the initial infection, and can be easily transported with its human hosts. It is considered to be of Southeast Asian rainforest origin, and, where it is long-established in a stable population, can result in a degree of tolerance in its victims (Groube 1993:168, 171). Groube, a prehistorian, writes (p.169) that ‘it would be incredible, considering the proximity of Southeast Asia (the possible homeland of *P. vivax*), if this parasite was not introduced [to New Guinea] before the end of the Pleistocene.’ *P. falciparum*, on the other hand, is of African origin. The resultant illness, although non-relapsing, is more virulent than that transmitted by *P. vivax*. As the parasite cannot survive within its host beyond the duration of its initial infection, it requires large host populations moving rapidly for successful migration. It is considered a latecomer to Melanesia, its arrival ‘unlikely to have been much before a thousand years ago’ (p.168), i.e. more than two thousand years after the initial dispersal of Proto Oceanic speakers.

Almost all verbs in the data with the meaning ‘be ill with malaria’ are from SES or NCV languages. They are either from POc **malaso* ‘be cold’ (Gela *malaho* ‘cold, chill; to be cold, chilly; malaria, to be ill with malaria’, Lo-Toga *mela* ‘cold, fever, malaria’) or POc **riri/*rere* ‘tremble, shiver’, variants of POc **ma-ridrij* ‘(s.o.) cold’. For supporting evidence see §4.7.6 and §4.8.1.

5.3.6 Rheumatism, arthritis

A single POc reconstruction is proposed for ‘inflammation of joints’, **ŋu-ŋu(l)*. Although Oceanic cognates are all Polynesian, the existence of a PMP reconstruction **ŋu-ŋul* ‘arthritic or rheumatic pain’ indicates that there was a POc reflex. Instances of gout, a disease evidently suffered by Austronesian populations from Taiwan to Polynesia (Buckley 2007) are in places identified by this term.

PMP **ŋulŋul* ‘arthritic or rheumatic pain’ (ACD)

POc **ŋu-ŋu(l)* ‘inflammation of joints’

PPn **ŋu-ŋu* ‘rheumatism, arthritis’ (POLLEX)

Pn:	Niuean	<i>ŋuŋu</i>	‘inflammation of the joints, gout, arthritis’
Pn:	Tongan	<i>ŋuŋu</i>	‘various kinds of swelling or tumour’
Pn:	E Futunan	<i>ŋuŋu</i>	‘arthritic swelling of the joints’
Pn:	Pukapukan	<i>(maki) ŋuŋu</i>	‘rheumatic pain’
Pn:	Samoan	<i>ŋuŋu</i>	‘name given to a number of complaints, including rheumatism, gout, arthritis, etc.’
Pn:	Rarotongan	<i>ŋuŋu</i>	‘rheumatism; lameness’
Pn:	Hawaiian	<i>nunu</i>	‘swollen, puffed up; to swell’

cf. also:

MM:	Nakanai	<i>golu</i>	‘painful condition of the bones’ (Chowning)

5.3.7 Asthma, breathlessness

Asthma was probably not recognised as a sickness by pre-modern Oceanic speakers, who referred to it by terms for breathlessness. Two POc terms are reconstructed, **oŋa(p)* and **ŋaRa* (for discussion see §4.5.2). A PPn term, **sela*, is also reconstructable.

PMP **eŋap* ‘gasp for breath’ (ACD)POc **oŋap* ‘pant, be out of breath’

NNG:	Kove	<i>ŋave</i>	‘pant, as a dog’ (-e unexplained)
NNG:	Kaulong	<i>ŋep</i>	‘pant’ (-e- for †-a-)
MM:	Sursurunga	<i>ŋeh-ŋeh</i>	‘be out of breath’ (-e- for †-a-)
MM:	Tolai	<i>ŋua</i>	‘asthma’ (metathesis)
MM:	Roviana	<i>uŋa</i>	‘asthma, bronchitis’ (u- for †o-)
SES:	Gela	<i>oŋa</i>	‘be out of breath with running, as in bringing news’

POc **ŋaRa* ‘be breathless, pant’ (Geraghty 1990: PEOc)

MM:	Nehan	<i>ŋara</i>	‘breathless, winded’
MM:	Roviana	<i>ŋa-ŋara</i>	‘open the mouth, open as shellfish’
NCV:	Mota	<i>ŋala</i>	‘be out of breath, pant, be tired’
NCV:	Ninde	<i>ŋaxa</i>	‘breathe, be out of breath, asthmatic’
Fij:	Wayan	<i>ŋā</i>	‘catch liquid in a container or by holding the mouth open under running water’
		<i>(vā)ŋāŋāŋā</i>	‘with mouth or container opened; gaping’
Fij:	Bauan	<i>ŋā</i>	‘opening of mouth, gaping action; catch water in the mouth and drink it as it runs’

PPn **ŋā* ‘breathe, pant’ (POLLEX)

Pn:	Tongan	<i>ŋā</i>	‘pant, struggle for breath, as with asthma’
Pn:	Rennellese	<i>ŋā</i>	‘open the mouth, as a thirsty cormorant or dog’
Pn::	Tikopia	<i>ŋā</i>	‘screech, utter hoarse cry’
Pn:	Rarotongan	<i>ŋā</i>	‘pant, gasp’
Pn:	Maori	<i>ŋā</i>	‘take breath, breathe; make a hoarse harsh noise, screech’
Pn:	Hawaiian	<i>nā</i>	‘moan, groan, wail’

cf. also:

NNG:	Sio	<i>ŋa-ŋa</i>	‘breathe hard, pant’
MM:	Nakanai	<i>lala(hate)</i>	‘breathe, sigh’ (<i>hate</i> ‘liver, innards’)
MM:	Ramoaina	<i>ŋoro-ŋoro</i>	‘pant, be breathless, be out of breath’ (conflates reflexes of * <i>ŋaRa</i> ‘pant’ and * <i>ŋorok</i> ‘grunt’)
MM:	Roviana	<i>ŋa-ŋaha</i>	‘pant with exertion’

PPn **sela* ‘asthma, gasp for breath’

Pn:	Tongan	<i>hela</i>	‘tired, asthma’
Pn:	E Uvean	<i>hela</i>	‘suffocation’
Pn:	E Futunan	<i>sela</i>	‘gasp, asthma’
Pn:	Samoa	<i>sela</i>	‘gasp for breath, asthma’

5.3.8 Coughing

The English term is vague, referring to anything from throat-clearing to severe paroxysms. Perhaps the POc terms were more specific. Two POc terms, **koso* (VI), *koso-ŋa* (N) and **puku(R)/PROc *puRuk*, both glossed ‘cough’, have been reconstructed: for cognate sets see §4.5.7.

5.3.9 Diarrhoea

Oceanic languages often describe diarrhoea in descriptive or euphemistic terms (cf. English ‘trots’, ‘runs’), like these three PT languages: Bunama *gam^wa-pili* [stomach-run], Dobu *diya-salisali* [intestine-rot/melt], Iamalele *kamo taitai-na* [stomach landslide-its]. Similarly Sye (SV) *ne-vcāh norari* [the-faeces flow].

Nonetheless, two monomorphemic POc reconstructions have been made, **surup* and, less secure, **sana*. Reflexes of the first are well distributed.

POc **surup* ‘diarrhoea’

NNG:	Mutu	<i>suruv</i>	‘have diarrhoea’
PT:	Kilivila	<i>solu</i>	‘diarrhoea, dysentery’
MM:	Kia	<i>suru</i>	‘diarrhoea’
MM:	Babatana	<i>suru</i>	‘diarrhoea’
		<i>moro suru</i>	‘dysentery’ (<i>moro</i> ‘ill’)
MM:	Maringe	<i>s(n)uru</i>	‘have diarrhoea’
MM:	Roviana	<i>huru</i>	‘diarrhoea’
SES:	Bugotu	<i>su-suru</i>	‘diarrhoea’
SES:	Gela	<i>suru</i>	‘diarrhoea’
		<i>suru gabu</i>	‘dysentery’ (<i>gabu</i> ‘blood’)
NCV:	Mota	<i>si-sire</i>	‘looseness of bowels, diarrhoea’
NCV:	Lewo	<i>suru</i>	‘defaecate’
NCV:	Namakir	<i>si-sirie?</i>	‘have diarrhoea’
NCV:	Nguna	<i>siro</i>	‘have diarrhoea’

The POc status of **sana* depends on Kilivila *-sola* being a reflex, as no other non-Polynesian reflexes have been found.

POc **sana* ‘diarrhoea’

PT:	Kilivila	<i>(i)sola</i>	‘diarrhoea, dysentery’
Pn:	Tongan	<i>hana</i>	(VI) ‘be loose in the bowels, have diarrhoea’
Pn:	E Uvean	<i>sana</i>	
Pn:	E Futunan	<i>sana</i>	
Pn:	Samoaan	<i>sana(toto)</i>	‘dysentery’
Pn:	K’marangi	<i>hana-hana</i>	

cf. also:

Fij:	Rotuman	<i>sana</i>	‘have diarrhoea’ (borrowed from Pn)

Terms for dysentery are typically compounds that include a term for ‘blood’: Gedaged *tae daʔ* [excrement blood]; Roviana *pea ehara* [defecate blood]; Gela *suru gabu*, Tongan *hana toto*, Samoan *sana toto* [diarrhoea blood].

5.3.10 Vomiting

Two POC reconstructions for the verb ‘vomit’, **m^wutaq* and **luaq*, are well-supported, each having antecedents at least as far back as PMP. They are discussed in §4.4.4.

5.3.11 Swelling, elephantiasis

Although swelling is a symptom of a wide range of afflictions, wordlists tend to single out one particular highly visible form, elephantiasis. This is the term given to gross swelling of parts of the body, typically legs or scrotum, a late-stage, chronic condition of filariasis. The disease is caused by nematode parasites in the lymph glands of the body, and is transmitted via various species of mosquito including *Anopheles*, the species also responsible for malaria transmission. Early stages of the disease are often accompanied by severe rigor and fever, and may be mistaken for malaria. Elephantiasis is present in the entire Oceanic region, including Polynesia and Micronesia. The particular form of filaria found in most of Oceania (due to *Wuchereria bancrofti*) is also widely distributed through the warmer parts of Asia (Sasa 1976).

One reconstruction, POC *p^{wi}Ra*, refers specifically to elephantiasis. POC **tubuq* is a generic term meaning ‘to swell’, but may be compounded with the relevant body-part term, such as a reflex of POC **qaqe* ‘leg’ or **laso* ‘testicles’ to refer to elephantiasis.

POC **p^{wi}Ra* is reconstructed, rather than **puRa*, to account for the numerous reflexes that do not undergo the lenition of the initial consonant that is expected of **p-* but not of *p^{w-}*.

POC **p^{wi}Ra* ‘elephantiasis’ (Geraghty 1990: **puRa*)

Adm:	Lou	<i>pi</i>	‘filariasis, swelling of leg’
NNG:	Gedaged	<i>pile-n</i>	‘elephantiasis, filariasis’
NNG:	Gitua	<i>pira</i>	‘(leg) swollen’
SES:	Bugotu	<i>lupa</i>	‘dropsy’ (metathesis)
SES:	Gela	<i>lupa</i>	‘dropsy’ (metathesis)
SES:	Longgu	<i>lupa</i>	‘a disease that causes the body to swell up’ (metathesis)
SES:	Arosi	<i>pura</i>	‘dropsy, elephantiasis’ (for † <i>hura</i>)
SES:	Sa’a	<i>pule</i>	‘elephantiasis, dropsy’
NCV:	Mota	<i>pura</i>	‘elephantiasis’
NCV:	Raga	<i>bura</i>	‘elephantiasis’
NCV:	Tamambo	<i>bura</i>	‘elephantiasis’
NCV:	Lewo	<i>pula</i>	‘elephantiasis’
Mic:	Chuukic	<i>piri</i>	‘hard growth or lump under the skin’
Mic:	Kosraean	<i>pili</i>	‘mumps, have mumps’
Mic:	Mokilese	<i>pir</i>	‘lymph nodes’
Pn:	Tongan	<i>fua</i>	‘elephantiasis’ (<i>veʔe-fua</i> ‘of legs’, <i>loho-fua</i> ‘of testicle’ etc.)
Pn:	Niuean	<i>(hui)fua</i>	‘elephantiasis’ (lit. ‘leg swell’)

Pn:	Samoan	<i>fua-fua</i>	‘abscess, pimple’
Pn:	Tikopia	<i>(faka)foa</i>	‘swelling on body’

POc **tubuq* may be used for all kinds of swelling, both desirable and undesirable, including growth of tubers (vol.1:134). A nominalised form, PEOc **tubuŋa* ‘general term for swelling’ is also reconstructable, but the initial syllable is lost in Polynesia. For swelling as it applies to boils and the like, see §5.3.2.1.

PMP **tu(m)buq* ‘grow, thrive, swell’ (Blust 1986)

POc **tubuq* ‘to grow, swell’

NNG:	Numbami	<i>tubu</i>	‘grow, fatten’
PT:	Kilivila	<i>tob^wawa</i>	‘elephantiasis’
PT:	Kukuya	<i>(ae) tubu-tubu</i>	‘elephantiasis’ (of leg <i>ae</i>)
PT:	Molima	<i>(ae) tubu-tubu</i>	‘elephantiasis of the legs’
PT:	Motu	<i>tubu</i>	‘grow; ferment; swell’
PT:	Bwaidoga	<i>tubuga</i>	‘grow large, swell’
PT:	Mekeo	<i>ufu</i>	‘swell’
MM:	Nehan	<i>tubu</i>	‘a boil’
MM:	Teop	<i>subu</i>	‘swell’
MM:	Roviana	<i>tubu</i>	‘sore, ulcer’
SES:	Bugotu	<i>tubu</i>	‘swell; a simple ulcer; an ulcerous person’
SES:	Lau	<i>ūbu</i>	‘swell, as a boil; a swelling, boil’
		<i>ūbu-a</i>	‘swollen’
SES:	Kwaio	<i>ubu</i>	‘swell, swelling, swollen’
		<i>ubu²-a</i>	‘boil, swelling’
SES:	Sa’a	<i>upu</i>	(VI) ‘swell in body’
SES:	Arosi	<i>ubu</i>	‘swell’
NCV:	Port Sandwich	<i>tö^mb</i>	‘swell, swollen’
NCV:	Ninde	<i>ti^mb</i>	‘swell’
NCal:	Yuanga	<i>khi^mbu</i>	‘swell’
NCal:	Nemi	<i>hi^guk</i>	‘swell’
Mic:	pi	<i>tibu</i>	‘swell, swelling, swollen’
Fij:	Wayan	<i>tubu</i>	‘grow’
Fij:	Bauan	<i>tubu</i>	(VI) ‘grow, increase; (N) ‘a rash, any disease that rises above the skin’
Pn:	Tongan	<i>tupu</i>	(VI) ‘grow, rise, swell’
Pn:	Pukapukan	<i>tupu</i>	‘grow, develop’
Pn:	Samoan	<i>tupu</i>	‘grow, break out, happen’; (N) ‘growth’
Pn:	Tikopia	<i>tupu</i>	‘grow, change into; abnormal growth, swelling’

cf. also:

Pn:	Samoan	<i>tupa⁷</i>	‘elephantiasis’

⁷ Samoans may refer to a leg swollen by elephantiasis as *vae-tupa*. Stair (1983:170) translates this as ‘crab-claw leg’, from *vae* ‘leg’, *tupa* ‘a species of land crab with very large claws’. This may be a folk etymology. Curiously, the disease may also be called *feʔe-feʔe* (*feʔe* ‘octopus’).

PEOc **tubuŋa* ‘general term for swelling’ (-*ŋa* ‘nominaliser’)

SES:	Lau	<i>ūbuŋa</i>	‘small swelling’
SES:	To’aba’ita	<i>ūbuŋa</i>	‘general term for any k.o. swelling on the body’

cf. also:

Fij:	Rotuman	<i>puŋa</i>	‘abscess, esp. between legs or under arm’ (Pn loan)

PPn **puŋa* ‘swelling, abscess’ (loss of initial syllable)

Pn:	Tongan	<i>puŋa</i>	‘abscess in armpit’
Pn:	Samoan	<i>puŋa</i>	‘inflammation of inguinal lymphatic gland’
Pn:	Tahitian	<i>pua</i>	‘disease accompanied by a swelling’ (for † <i>puʔa</i>)
Pn:	Maori	<i>puŋa</i>	‘swelling, lump’
Pn:	Tuamotuan	<i>puŋa</i>	‘lump, knob, protuberance’

POc **popo(l)* (with antecedent PMP **belbel*), evidently referred to bodily swelling caused by water retention, but only a single Oceanic cognate has been traced.

PMP **belbel* ‘hydropoesia, bodily swelling caused by water retention’ (ACD)

POc **popo(l)* ‘hydropoesia, bodily swelling caused by water retention’ (ACD)

SES:	Arosi	<i>hoho</i>	‘swelling on woman’s body’

5.3.12 Epilepsy

Although no POc reconstruction for epilepsy has been made, a number of clues suggest that the convulsions of an epileptic fit were seen as similar to the sudden movements of some birds. For instance, Sa’a has a term *kokoko* which refers to ‘a bird, the megapode’ and also to ‘a disease and its convulsions, so called in allusion to the startled movements of the megapode when discovered’. Tongan has a term *mahaki-moa* ‘to be epileptic’ (*mahaki* ‘illness’, *moa* ‘fowl’). Wayan Fijian uses a similar metaphor, *manumanu-ni-soni* (*manu* ‘flying creature’, *soni* ‘vine used to trap bats, which struggle to get free’). Two *manu* terms from SES languages, Arosi *manu* and ‘Are’are *manu susuru* (*susuru* ‘?’) also mean ‘epilepsy’.

5.3.13 Eye disorders

Blust (ACD) reconstructs PMP doublets for ‘cataract’, **bileR* and **bulaR*, both of which appear to have Oceanic reflexes, which have broadened their meaning to include sight impairments and blindness generally and have acquired the additional sense ‘close one’s eyes’. The latter is used as a metaphor for blindness in various WOc languages, e.g. Mangap *mata- i-pis*, Takia *mala- i-tau*, both [eye- it-closed] ‘blind’.

PMP **bileR* ‘cataract of the eye’ (ACD)

POc **p^wilo(R)* ‘close one’s eyes; blind; be sight-impaired’ (ACD: **piloR* ‘blind’)

MM:	Patpatar	<i>pulo</i>	‘blind; blind person; close eyes’
NCV:	Tamambo	<i>b^welu-b^welu</i>	‘shut eyes’
NCV:	W Ambrym	<i>b^wil</i>	‘close eyes’
NCV:	Uripiv	<i>-p^wil</i>	‘close eyes’

NCV: Lewo	<i>-p^welu</i>	‘close eyes’
NCV: Namakir	<i>p^wil</i>	‘blind’
NCV: Nguna	<i>p^wili</i>	‘close the eyes’ (final <i>-i</i> unexpected)
	<i>p^wtli</i>	‘blind; blind person’
Mic: Marshallese	<i>pilo</i>	‘blind; trachoma; inflamed eye; not see well’

PAn **bulaR* ‘cataract of the eye’ (ACD)

POc **pula(R)* (v) ‘close one’s eyes; blind’; (N) ‘cataract’

MM: Ramoaaaina	<i>pula</i>	‘be blind; close one’s eyes’
MM: Tolai	<i>pula</i>	‘be blind, short sighted, have blight; blindness’
SES: Sa’a	<i>hu-hule</i>	‘cataract’

PPn **pula* ‘foreign body in eye’

Pn: Tikopia	<i>pura</i>	‘difficult to see, murky’
Pn: Hawaiian	<i>pula</i>	‘have s.t. in eye’
Pn: Maori	<i>pura</i>	‘foreign body in eye, impairment of vision’
Pn: Tuamotuan	<i>pura</i>	‘any small foreign substance in eye’

cf. also:

Adm: Seimat	<i>pulaxa</i>	‘blind’ (borrowed?)

A single Oceanic reflex supported by one from wMP permits a POc reconstruction for ‘cross-eyed’.

PMP **zilak* ‘cross-eyed’ (ACD)

POc **(j,s)ila* ‘be cross-eyed’

Fij: Rotuman	<i>cila</i>	‘squint, be cross-eyed’

Oceanic languages frequently use a reflex of **mata-* ‘eye’ with a range of modifiers to refer to various eye conditions including cataracts, squinting, conjunctivitis, trachoma and undifferentiated blindness. For the latter, typical compounds are ‘eye’ + ‘closed’ (see above) and ‘eye’ + ‘night/dark’, although no bimorphic reconstruction has been possible. Pukapukan, for instance, has *matapō* ‘blind’ (from POc **mata-* + **boŋi* ‘night/dark’). To’aba’ita has *mā-rodoa* ‘any serious eye condition that prevents good vision’, and Lau has *mā-rodo* ‘blind’ (both from POc **mata-* + **rodrom* ‘be dark, be night’).

5.3.14 Deafness and dumbness

The PMP antecedent of POc **tuli* evidently referred to ‘earwax’, but the POc cognates extend the meaning to ‘deaf’. Examples with final *-e* may represent independent instances of lowering of *-i* to *-e*. For further discussion and a further cognates, see §3.8.2

PMP **tuli, *tilu* ‘earwax’ (ACD)

POc **tuli* ‘deaf, earwax’

PT: Kiriwina	<i>tuli</i>	‘deaf, crazy’
PT: Dobu	<i>(tena) tui</i>	‘deafness’ (<i>tena</i> ‘ear’) (<i>tenana</i> ‘i tui’ ‘be deaf’)

PT:	Misima	<i>tui</i>	‘deaf’
MM:	Nakanai	<i>tule</i>	‘earwax’
NCV:	Mota	<i>tul</i>	‘earwax’
NCV:	NE Ambae	<i>dule</i>	‘earwax’
NCV:	Paamese	<i>a-ruli</i>	‘earwax’
Fij:	Bauan	<i>dule</i>	‘earwax’ (-e for †-i)
Fij:	Wayan	<i>tule</i>	‘earwax’ (-e for †-i)
Fij:	Rotuman	<i>fuli</i>	‘be deaf’

PPn **tuli* ‘deaf’, **taqe-tuli* ‘earwax’ (**taqe* ‘faeces’) (POLLEX)

Pn:	Tongan	<i>tuli</i>	‘deaf’
Pn:	Samoa	<i>tuli</i>	‘deaf’
Pn:	E Futunan	<i>tuli-tuli</i>	‘deaf’
Pn:	Maori	<i>turi</i>	‘deaf’
Pn:	Hawaiian	<i>kuli</i>	‘deaf’

Commonly associated with deafness is the inability to speak. Two further POc reconstructions are proposed, one with pre-Oceanic antecedents.

PMP **beŋel* ‘deaf’ (ACD)

PCEMP **beŋel* ‘mute, unable to speak’ (ACD)

POc **boŋol* ‘deaf mute’

Adm:	Mussau	(<i>taliŋa</i>) <i>boloŋo</i>	‘deaf’ (metathesis)
MM:	Ramoaaina	<i>boŋ</i>	‘foolish, mute’
SV:	Sye	<i>o-mŋol</i>	‘deaf’

cf. also:

MM:	Patpatar	<i>ŋulo</i>	‘confused, dumb, unable to speak’

POc **p^wapo* ‘deaf and dumb’

Adm:	Mussau	<i>pavo</i>	‘dumb’
NNG:	Kaulong	<i>peh-peh</i>	‘unable to speak, stupid, insane’
PT:	Ubir	<i>fawa</i>	‘earwax’
MM:	Nakanai	<i>vou</i>	‘deaf’
MM:	Patpatar	<i>bāu</i>	‘be deaf, not hear well’
MM:	Nehan	<i>pau</i>	‘dumb, unable to talk’

The inability to speak that is commonly associated with deafness is in some communities also considered a sign of mental deficiency or stupidity. Note the glosses of the Kiriwina item in the **tuli* set, the Ramoaaina item in the **boŋol* set and the Kaulong item in the **p^wapo* set. Examples from other languages include Yabem *melo?* ‘insane, dull, foolish, deaf and dumb, epileptic’, Tawala *bade-bade* ‘insane, deaf and dumb, naked’, Kiriwina *nagowa* ‘deaf, dumb, insane’. Tolai *beg-beg* ‘deaf, dumb; fool, idiot’, Arosi *bweu* ‘be foolish, stupid, thick-witted, deaf and dumb’, ‘Are’are *peu* ‘dull, foolish, idiotic, insane, be in a trance, be deaf and dumb’.

5.3.15 Tooth decay and toothache

There is a widespread belief among Austronesian speakers that dental caries is caused by a small worm. Both the creature and the associated condition are named in different languages by reflexes of various reconstructed terms for ‘worm’. Blust comments on two wMP languages, Cebuano and Malagasy, whose reflexes of PAn **qulej* ‘maggot’ refer also to ‘tooth decay’ or ‘toothache, supposed to be occasioned by a small worm in the tooth’ (ACD). Other wMP languages refer to tooth decay by reflexes of PMP **bukbuk* ‘weevil that infests wood, bamboo, and rice; dust produced by the boring of this insect; tooth decay’ (ACD). Dobu (PT) has a term *kim^wata* ‘the supposed insect which causes caries in children’, from *m^wata* ‘snake’. The To’aba’ita (SES) term is *wā-lifo* ‘tooth decay, believed to be caused by worms’ (*wā* ‘worm, grub, maggot, caterpillar, larva’, *lifo* ‘tooth’). Codrington also reports the belief as existing in the Banks Islands (NCV), but gives no terms (1891:193).

In some languages toothache is referred to simply by a compound, ‘tooth’ + ‘pain’ or similar.

5.3.16 Giddiness

Cognates from Seimat and Tolai support POc **ta-lili* ‘(be) dizzy’ (PMP **ta-* SPONTANEOUS; §1.3.5.4) while Polynesian cognates support PPn **lili-ka* (POc **-ka* adjective formative). Other terms reflect **lili* in combination with still other affixes. Western Micronesian languages reflect a stem **aliali*, which presumably arose as a variant of **lili*.

POc **lili*, **talili* ‘(be) dizzy’

Adm:	Seimat	(pula) <i>tali-talia</i>	‘giddy’ (‘eye revolving’)
NNG:	Gedaged	(ki) <i>lili</i>	‘giddy, vertiginous; to faint’
NNG:	Manam	(soa) <i>lili</i>	(vi) ‘be dizzy’ (soa ‘very much’)
MM:	Tolai	<i>talili</i>	(vi) ‘be dizzy or giddy’
SES:	Lau	<i>lili(ŋi)</i>	‘giddy from too much betel chewing’
Fij:	Wayan	<i>lili(bō)</i>	‘dizzy’
Pn:	Tongan	<i>lili(ka)</i>	‘be giddy, feel like falling from a height’
Pn:	Samoan	<i>lili(ʔa)</i>	‘feel giddy’
Pn:	Tikopia	<i>ri(ka)</i>	‘get off balance’
Pn:	Emae	<i>riri(ka)</i>	‘feel dizzy, experience vertigo’

Proto Western Micronesian **m^wa-ali-ali* ‘circle, circling, dizzy’ (Bender et al. 2003)

Mic:	Ponapean	<i>m^wa-aliēl</i>	‘be dizzy’
Mic:	Mokilese	<i>m^we-elēl</i>	‘dizzy’
Mic:	Chuukese	<i>m^wæ-æriyen</i>	‘dizziness, be dizzy’
Mic:	Puluwatese	<i>m^wæ-æliyel</i>	‘be dizzy, confused’
Mic:	Carolinian	<i>m^wæ-æliyæl</i>	‘dizzy’
Mic:	Woleaian	<i>m^wa-aliyeli</i>	‘be dizzy, giddy, dazed’

Many Oceanic languages use an eye-related metaphor, especially ‘eye’ + spin’.

Adm:	Seimat	(pula) <i>tali-talia</i>	‘giddy’ (‘eye revolving’)
PT:	Motu	<i>mata madai-madai</i>	‘giddy’ (<i>madai</i> ‘going round’)

PT:	Dobu	<i>mata-kwaniweniwe</i>	'giddy'
PT:	Kilivila	<i>biluya matala</i>	'dizzy' ('eye revolving')
SES:	Longgu	<i>mama-gali</i>	(vi) 'feel giddy, eyes are spinning' (<i>gali</i> 'circle')
Fij:	Bauan	<i>mata-butō</i>	'dizzy, giddy' (<i>butō</i> 'dark')

PPn had the term *[ni]nimo for dizziness or vertigo.

PPn *[ni]nimo 'vertigo' (POLLEX)

Pn:	Tongan	<i>ni-nimo</i>	'suffer from vertigo, dizziness, giddiness'
Pn:	E Futunan	<i>ninimo</i>	'vertigo'
Pn:	Pukapukan	<i>(taka)nimo-nimo</i>	'giddiness'
		<i>nini(wi)</i>	'move unsteadily, be giddy'
Pn:	Tikopia	<i>nimo</i>	'clouded, swimming, of vision'
Pn:	Tokelauan	<i>ni-nimo</i>	'move round in a circle, be confused in mind, be giddy, dizzy'

cf. also:

Pn:	Samoa	<i>nini(va)</i>	'feel giddy'

5.3.17 Club-footed

Club foot is a relatively common congenital deformity whereby the affected foot appears to have been rotated internally at the ankle. It is seen rarely in western communities because it is successfully treated in early childhood, but without treatment people with club feet often appear to walk on their ankles or on the sides of their feet.

The only cognate set with this meaning allows a PCP reconstruction.

PCP *sape 'malformed, of foot, club-footed' (Milke 1961)

Fij:	Bauan	<i>sabe</i>	'stiff-legged, unable to bend the knee'
Pn:	Tongan	<i>hape</i>	'malformed, of foot'
Pn:	E Futunan	<i>sape</i>	'malformed (foot)'
Pn:	Samoa	<i>sape</i>	'malformed, of foot'
Pn:	Tikopia	<i>sape</i>	'club-footed, deformed of foot'
Pn:	Tahitian	<i>hape</i>	'faulty, malformed, mistaken'
Pn:	Hawaiian	<i>hape</i>	'faulty'

5.3.18 Madness

In §5.3.14 it was noted that the inability to speak that is commonly associated with deafness is in some communities considered a sign of mental deficiency or stupidity. Communities will also have a term for someone whose behaviour is considered suddenly abnormal. Although its reflexes are not widely distributed, POc **ɲau* 'crazy' can be reconstructed. PPn **fasa* 'mad, crazy' is also reconstructable.

POc **ɲau* 'crazy'

Adm:	Titan	<i>ɲow</i>	'crazy, silly'

Adm: Nyindrou	<i>ñoi</i>	‘crazy, silly’
NNG: Takia	<i>-ŋao-ŋ</i>	‘ignorant, stupid, confused’
NNG: Manam	<i>ŋao</i>	(VI) ‘be crazy’
	<i>ŋao-ŋao</i>	(ADJ) ‘crazy’
NNG: Mangseng	<i>ŋo-ŋoŋ</i>	‘crazy person’
	<i>ŋo-ŋoŋ-a</i>	‘crazy’

PPn **fasa* ‘mad, crazy’ (POLLEX: ‘insane’)

Pn: Tongan	<i>faha</i>	‘mad, insane’
	<i>faha-faha</i>	‘act like a lunatic, rave’
Pn: E Uvean	<i>faha</i>	‘mad, furious, frantic’
Pn: Rennellese	<i>hasa-hasa</i>	‘wail, groan, moan’
Pn: Samoan	<i>fasa</i>	‘delirious’

5.4 Healing

5.4.1 Natural healing

Healing may occur naturally, without human intervention. POc **mapo* ‘heal, be healed, cured’ is well supported across major subgroups, with particular application to wounds and sores, although in some languages its reflexes refer also to recovery from illness.

POc **mapo* ‘heal, be healed, cured, especially of wounds and sores’

Adm: Mussau	<i>mao</i>	‘heal, recover’
Adm: Lou	<i>m^wap</i>	‘heal’
NNG: Gedaged	<i>mao</i>	‘heal, return to a sound state’
NNG: Gitua	<i>mavu</i>	‘healed’
PT: Kilivila	<i>(katu)mova</i>	‘heal’ (vowel metath.)
MM: Bola	<i>mavu</i>	‘healed, of sore or wound’
MM: Tolai	<i>map</i>	(VI, VT) ‘heal, of a wound’
MM: Tangga	<i>maf</i>	‘heal’
MM: Halia	<i>maho</i>	‘heal, as sore or wound’
MM: Maringe	<i>mafo</i>	(VI) ‘heal, be cured, recover from pain, injury or illness’
SES: Bugotu	<i>mavo</i>	‘to heal up, be healed’
SES: Longgu	<i>mavo</i>	(VI) ‘to be healed’
SES: Lau	<i>mafo</i>	‘to be healed’
SES: To’aba’ita	<i>mafo</i>	(VI) ‘heal, be healed’
NCV: Mwotlap	<i>maw</i>	‘heal, heal over as a wound’
NCV: Mota	<i>mawo</i>	‘heal, heal over as a wound’
SV: Lenakel	<i>aməv</i>	‘heal, be healed’
SV: Anejom	<i>mah</i>	‘heal, be healed’
Mic: Kiribati	<i>mao</i>	‘heal, as a wound’
Mic: Marshallese	<i>mew</i>	‘to heal’
Fij: Bauan	<i>mavo</i>	‘healed, of a sore’

Pn:	W Futunan	<i>mafo</i>	‘be healed, be well’
Pn:	Pukapukan	<i>mafo</i>	‘heal, of sore’
Pn:	Samoa	<i>mafu</i>	‘heal, dry up, of a wound’
Pn:	Tikopia	<i>mafu</i>	‘become healed, get well’
Pn:	Maori	<i>mahu</i>	‘healed, cicatrised’

cf. also:

MM:	Nakanai	<i>mahavu</i>	‘healed, of a sore’

5.4.2 Assisted healing

Just as communities attributed some illnesses to natural processes and others to the result of sorcery, so their treatments dealt with both magical and practical aspects of the condition, and the two are sometimes difficult to separate. Practical treatment may have included application of herbal remedies both by ingestion and in external use, and massage. Focus here is on the physical treatment given, rather than on investigation and removal of the cause.

Ways of effecting treatment were multiple, varying from place to place and with the nature of the ailment, although some commonality is evident.

5.4.2.1 Spraying masticated substances on to affected part

The spraying of some masticated substance such as ginger mixed with saliva from the mouth on to an affected body part is evidently a very old and widely practised treatment right across the Austronesian world. Blust lists, in addition to numerous cognates of PAn **buReS* that carry a general meaning ‘spray water from the mouth’, terms from Cebuano and Sundanese (wMP), Asilulu, Kamarian and Boano (CMP) that carry a meaning of spraying something from the mouth for the specific purpose of healing (ACD). In Oceanic communities we have descriptions of similar treatment from Manam (Wedgwood 1934), Nakanai (Chowning 2014), and Gela (Codrington 1891). Although POc **puRas* ‘spray water from the mouth’ can be reconstructed, a second term, POc **puRuk*, similar but apparently unrelated, has wider support.

PAn **buReS* ‘spray water from the mouth’ (ACD)

PMP **buRah* ‘spray water from the mouth; spray a mixture of saliva and masticated medicinal herbs on an ailing body part in curing’ (ACD)

POc **puRas* ‘spray water from the mouth’

NNG:	Mangap	<i>pures</i>	‘blow out from mouth’
PT:	Molima	<i>wula</i>	‘blow out water, as a whale’
PT:	Dobu	<i>ulasa</i>	‘to spit as in sorcery’
MM:	Nakanai	<i>(ka)vuras-i</i>	‘to spit a spray into the air’
NCV:	N Efate	<i>vura-i</i>	‘spit on’
NCV:	Paamese	<i>hula-i</i>	‘spray; ejaculate’

cf. also:

PT:	Tawala	<i>ula-ulasi</i>	‘whale’ (expect w-)

POc **puRuk* ‘to spray spittle etc. from the mouth for magical purposes’ (cf. **puku(R)* ‘cough’)

Adm: Seimat	<i>pūk</i>	(VI) ‘spit’
NNG: Gedaged	<i>fūle-k</i>	‘to spray, by blowing saliva, ginger, water etc.; besprinkle, splatter’
NNG: Hote	<i>apok</i>	‘to spit’
NNG: Lukep	<i>puru</i>	‘to spew; whale’
PT: Motu	<i>pururu-a</i>	(VT) ‘to spit out’
MM: Patpatar	<i>puruk</i>	‘spit with a lot of air’
MM: Tolai	<i>puruk</i>	(VI,VT) ‘blow from the mouth in such a way as to scatter its contents, as a wizard blows lime into the air, and as a doctor blows saliva on to a wound’
SES: Kwaio	<i>fulu</i>	‘blow’
NCV: Kiai	<i>puru-sia</i>	‘spit on’
cf. also:		
Adm: Lou	<i>pirek</i>	‘blow with the mouth’
	<i>purik</i>	‘break wind, fart’

5.4.2.2 Massage

Another form of treatment involved massage, the purpose of which may have been location and removal of an offending substance (Romilly 1889 for Motu,⁸ Codrington 1891 for Banks Islands) or simply to ease a person’s pain or discomfort (Codrington 1891 for Gela, Whistler 1996 for Samoa). It became more highly developed in Fiji and Polynesia. Wayan Fijian, for example, has at least seven terms describing different kinds of massage such as massage by stroking, by kneading, with fingers, with palm of hand and so on (Pawley and Sabaya 2003).

POc **samo(s)*, **samos-i-* ‘massage, stroke’ has few but well distributed reflexes. PROc **amosi* seems to reflect the same item with unexpected loss of **s-*, while most NCV terms reflect loss of the initial syllable.

POc **samo(s)*, **samos-i-* ‘massage, stroke’

NNG: Takia	<i>-amis-i</i>	‘massage, rub’
NNG: Sio	<i>yamə</i>	‘stroke; rub gently’
NNG: Bariai	<i>sama</i>	‘rub on’
NNG: Labu	<i>-samo</i>	‘to stroke, pet; sweep’
SES: Longgu	<i>tamoz-i-</i>	‘to stroke, caress s.t.’
NCV: Ninde	<i>sm^w-i</i>	‘to stroke (a cat)’

PROc **amosi* ‘massage, stroke’ (Clark 2009: PNCV **amosi*)

NCV: Nokuku	<i>mosi-</i>	‘wipe’
NCV: Paamese	<i>amusi</i>	‘stroke, massage, caress’
NCV: Port Sandwich	<i>m^{wis}-m^{wis}-i</i>	‘to stroke (a cat)’
NCV: Nguna	<i>m^wo-m^wosi</i>	‘massage’
NCV: Valpei	<i>m^wosi</i>	‘rub’
Fij: Bauan	<i>yamo</i>	‘feel with the hand’

⁸ Also described in Seligman 1910:167.

Fij:	Wayan	<i>amoð-i</i>	(VT) ‘massage s.o. lightly’
PPn <i>*amo(amo)</i> ‘stroke, rub gently’			
Pn:	Tongan	<i>amo</i>	‘stroke with palm of hand’
Pn:	E Futunan	<i>amo-amo</i>	‘rub gently, stroke’
Pn:	Rennellese	<i>amo</i>	‘rub gently, anoint, caress’
Pn:	Tikopia	<i>āmo(āmo)</i>	‘smear on (with repeated stroking motions)’

cf. also:

NCV:	Paamese	<i>kamusi</i>	‘stroke, massage, caress’

The following term, with POC meaning ‘wring out (liquid)’, continues that meaning in PPn, but PCP has also a partly reduplicated form that refers specifically to massaging.

PAn **peRes* ‘squeeze out’ (vol.1:169)

POc **poRos, *poRos-i-* ‘squeeze out, wring out (liquid)’

PCP **bō* ‘squeeze, rub firmly, massage in this way’

Fij:	Bauan	<i>bō</i>	‘squeeze, lay hands firmly’
Fij:	Wayan	<i>bōbō</i>	‘massage by squeezing’
PPn <i>*fō</i> ‘rub, as in washing clothes, extracting starch from arrowroot’			
PPn <i>*fofō</i> ‘massaging’			
Pn:	Niuean	<i>fofō</i>	(VT) ‘to massage’
Pn:	Tongan	<i>fofō</i>	(VT) ‘to massage by rubbing downwards’
Pn:	Samoan	<i>fofō</i>	‘apply massage; give medical treatment’; (N) ‘remedy, cure; person skilled in massage’
Pn:	Tokelauan	<i>fōfō</i>	‘apply massage gently’

PMP **lemiq* ‘press, knead’ (Blust 1970)

POc **lomi(q)* ‘press upon’

PPn **lomi* ‘squeeze, press down upon’ (POLLEX)

Pn:	Niuean	<i>lomi</i>	‘press’
Pn:	Tongan	<i>lomi</i>	‘press’
Pn:	E Futunan	<i>lo-lomi</i>	‘press on, massage’
Pn:	Samoan	<i>lomi</i>	‘squeeze’
		<i>lomi-lomi</i>	(1) ‘gentle rubbing of body part with tips of fingers to ease pain’; (2) ‘slight pressure or kneading, as massage’
Pn:	K’marangi	<i>lomi-lomi</i>	‘massage by squeezing the skin’
Pn:	Tokelauan	<i>lomi</i>	‘massage, knead’
Pn:	Tahitian	<i>rumi</i>	‘wring, massage’
Pn:	Hawaiian	<i>lomi</i>	‘squeeze’

POc **(d,dr)aRi* ‘rub, smear, anoint’

Adm:	Mussau	<i>rari-a</i>	‘to rub, as medicine on the skin’
SES:	Gela	<i>dali</i>	‘paint, smear, anoint, massage’

SES: To'aba'ita *daria* (VT) 'massage'

PPn **mili* 'rub, massage' (POLLEX)

Pn:	Tongan	<i>mili</i>	'massage, rub with the hand, esp. the body with oil; rub between the hands'
Pn:	Niuean	<i>mili</i>	'rub with palm of the hand'
Pn:	E Futunan	<i>mili</i>	'stroke, rub gently; anoint; lotion'
Pn:	Rennellese	<i>migi</i>	'rub, move back and forth'
Pn:	Pukapukan	<i>mili-mili</i>	'feel, touch, masturbate'
Pn:	Samoan	<i>mili</i>	'rub'
		<i>mili-mili</i>	'rub very gently'
Pn:	Tikopia	<i>miri</i>	'anoint'
Pn:	Tahitian	<i>miri-miri</i>	'handle, examine, massage, fondle, caress'
Pn:	Maori	<i>miri</i>	'rub, stroke, wipe; soothe'
Pn:	Hawaiian	<i>mili</i>	'handle, feel, fondle, caress'

However, ordinary non-specialised vocabulary may carry a more technical meaning in the context of healing. As Biggs reports for the language of East Futuna, in ordinary speech *vai*, *mili*, *tuluʔi*, *kisu* mean 'water', 'rub', 'drip', 'spit out' respectively. In the context of healing, they take on the technical meanings of 'medicine to be drunk', 'embrocation', 'medicinal drops', and 'spraying chewed up medicinal leaves from the mouth' (Biggs 1995:120).

5.4.2.3 Use of plants

The role of plants in the treatment of illness is not dealt with here, but there is evidence that plants such as ginger (POc **laqia*, vol.3:414), and dracaena (POc **jiRi*, vol.3:418) were in widespread use, together with lime (POc **qapu(R)*), vol.2:64). See also Ross (2008) for more detailed discussion on the role of plants in the treatment of illness.

5.5 Conclusion

Specific POc terms have been reconstructed for a few visible or otherwise readily recognisable disorders – for boils and tropical ulcers, for skin conditions now identifiable as tinea or scabies, for inflammation of joints, for eye conditions like cataracts, and for diseases with very specific visible characteristics like elephantiasis. Reconstructions for a number of behavioural verbs – to shiver, cough, vomit, (none of which necessarily indicate the presence of disease), and states such as itching are included in chapter 4. Terms that refer to pain in particular parts of the body tend to be compounds along the lines of English earache, toothache, headache, stomachache and so on. However, no fossilised reconstructable compounds have been found, but rather lists of transparent descriptions, with elements that vary slightly but are close in meaning. Wordlist compilers may simply not see the need to include such descriptions.

More detailed information on the range and severity of illnesses present in early Oceanic-speaking populations will be dependent on the findings of other disciplines. Further analysis of the Lapita skeletal remains from Teouma, Vanuatu, may provide evidence of diseases such as tuberculosis. Epidemiologists may be able to tell us more about the behaviour of the various

strains of diseases such as malaria and elephantiasis, the size of populations necessary for transmission, and the degree of immunity some people may have or acquire. Diseases that were not known to POc society are those where we have some record of their introduction. From the end of the 18th century, parts of the Pacific were increasingly exposed to contact by missionaries, whalers, traders in search of sandalwood, pearlshell, tortoiseshell and beche-de-mer, and escaped convicts from Botany Bay, all potentially carrying transmissible diseases. The local people had no resistance, and therefore had apparently received no prior exposure to such diseases as influenza, whooping cough, measles, mumps, chicken pox, syphilis and gonorrhoea. Diseases such as leprosy, smallpox and tuberculosis which were known throughout much of the world from very early times, were probably introduced much earlier, but whether they were present at the time of the breakup of POc I cannot say.

6 *Posture and movement*

MALCOLM ROSS

6.1 Introduction

The reconstructions presented in this chapter cover a wide semantic range of verbs concerned with posture and movement. The semantic domain is a complex one, and the reader will find more reference to the typological literature than in other chapters in these volumes, in an effort to make sense of the domain's structure in Proto Oceanic. Languages structure the posture and movement domain in different ways, and Oceanic languages have their own shared peculiarities in this regard, described at appropriate points in the chapter.

The most important division is into posture verbs and movement verbs. Posture verbs in turn are divided into cardinal posture verbs—those denoting ‘sit’, ‘stand’ and ‘lie’, found in most languages around the world and often used as simple verbs of location (‘be at’)—and non-cardinal posture verbs, which are more culturally specific. The subdomain of movement verbs is much more complex. There are straightforward movement verbs like ‘go’, ‘fly’ and ‘descend’ (§§6.3–6.5), which have a single argument, the theme (the person or thing that is moved), and there are caused movement verbs like ‘raise’, ‘carry’, ‘put’ and ‘send’, which have two arguments: an agent that causes movement and a theme which moves. These complexities are discussed at greater length below.

6.2 Posture verbs

Posture verbs are verbs meaning ‘sit’, ‘stand’, ‘lie’, ‘hang’, ‘lean’, ‘squat’, ‘kneel’ and the like. These can be divided into cardinal and non-cardinal posture verbs. Cardinal posture verbs have the meanings ‘sit’, ‘stand’ and ‘lie’ and have a broader range of use in many languages than non-cardinal posture verbs, i.e. verbs denoting other postures (‘hang’ etc) and verbs denoting a more specific posture (e.g. ‘sit crosslegged’) than the cardinal posture verbs.

The cardinal posture verbs ‘sit’, ‘stand’ and ‘lie’ have two kinds of use in many of the world's languages, including Oceanic. In the first use they are simply intransitive verbs denoting the posture of their subject (‘Mary is sitting’). They are often accompanied by a location (‘Mary is sitting on a chair’). This gives rise to their second use, as default verbs in locative constructions (Ameka & Levinson 2007, Lichtenberk 2002). A locative construction is one that answers the question ‘Where is X?’. Across languages locative constructions come in three main kinds:¹

1. a construction with no copula (‘The cup — on the table’)
2. a construction with a copula verb corresponding to English *be* (‘The cup **is** on the table’),

¹ This is a simplified version of Ameka & Levinson's (2007) categorisation, which see for more detail.

3. a construction with a posture verb ('The cup **sits** on the table'. 'The vase **stands** on the table').

Oceanic languages tend to have constructions of types 1 and 3, but not type 2. The Seimat (Adm) sentence below is of type 1:²

Tok mom hahitak-e tehu ij.
CLF chicken under-CSTR CLF house

'The chicken [is] under the house.' (Wozna & Wilson 2005:66)

The difference between a postural and a locative use is that in the latter, the verb is bleached of its postural meaning. Thus Manam (NNG) has a type 3 locative construction where the verb *-eno* 'lie' is used in locative and existential sentences³ with abstract subjects where there is no postural orientation at all.

Malipi di-eno, masa n-duma-i?o.
work s:3P-lie INDEF.IRR s:1S.IRR-help-o:2s
'If there is work, I'll help you.' (Lichtenberk 2002:277)

More ilo-gu-lo i-eno.
sickness inner. belly-P:1S-in s:3S.REAL-lie
'I'm sick in the belly.' (Lit. 'The sickness is in my belly.') (Lichtenberk 2002:277)

With a human subject, on the other hand, *-soa?i* 'sit' is used in a locative sentence, again with no postural implication:

Barasi rua ?au taun-lo u-soa?i.
year two I town-in s:1S.REAL-sit
'Two years I was/stayed/lived in the town.' (Lichtenberk 2002:275)

The choice of *-eno* 'lie', rather than *-soa?i*, with a human subject is clearly a postural usage.

Kadiaraj maka bale ne-na-lo i-eno be i-tan~taj.
K. here men's. house CLF-P:3S-in s:3S.REAL-lie and s:3S.REAL-REDUP-CRY
'Kadiarang is lying in his house (and is) crying.' (Lichtenberk 2002:274)

As these Manam examples show, the choice of posture verb depends on two factors. The first is whether the intended construction is locative or postural. If it is locative, then the second factor comes into play, namely the conventional collocation of particular nouns or semantic categories of nouns with a given posture verb. These collocations vary from language to language and almost always involve 'sit', 'stand' or 'lie' (Lichtenberk 2002:273–274, 305; see also Early 2000). Non-cardinal posture verbs almost never occur in a locative construction.

The three main posture verbs are also often used as aspectual verbs in Oceanic languages, usually as the second verb of a serial verb construction, but Lichtenberk (2002:270) thinks

² Abbreviations in these examples are as follows: ASP aspect marker, CLF classifier, INDEF indefinite, IRR irrealis, REAL realis; ~ connects reduplicates.

³ Oceanic existential constructions tend to be similar to locative constructions, with the one difference that their subject is indefinite (e.g. 'A cat is sitting under me' = 'There is a cat sitting under me). For present purposes, existential constructions are treated as a subtype of locative construction, as in the first Manam example below.

these meanings are impossible to reconstruct (and I agree with him) as different languages reflect different developments. He also thinks that reconstructing uses of posture verbs as default locative verbs is impossible. Here I am a little more sanguine (§6.2.1).

Typically in Oceanic languages intransitive verbs encode both posture and assumption of posture (inchoative posture). The latter use is sometimes distinguished by a path element meaning ‘upward’ or ‘downward’. Path was probably encoded in POc as the second verb of a serial verb construction, as in Mussau *toka sio* ‘sit down’ and *tiŋina sae* ‘stand up’, where *sio* ‘go down’ and *sae* ‘go up’ are verbs of vertical direction (vol.2:260-267). Such usages were certainly conventionalised in POc and were perhaps also grammaticised, like Manam *go-soaʔi-ria* [2SG. IRR-sit-go. down] ‘sit down’ (Lichtenberk 2002:269-270) or Carolinian *sɔ̃-tiw* [settle-go. down] ‘alight, land (of flying things)’.

Some Oceanic languages have transitives with a location object, e.g. Bugotu *mono* ‘abide, stay, dwell, be at’ vs *monon-i-* ‘abide in’; To’aba’ita *ʔono* ‘sit’ vs *ʔonof-i-* ‘sit on’ (Lichtenberk 2002:269), Wayan *toko* ‘squat; sit on one’s heels or haunches’ vs *tokoði-* ‘squat or sit on’. Our sources are often silent on this matter, but there are sometimes enough reflexes to support the reconstruction of transitives.

In addition to cardinal posture verbs, verbs meaning ‘squat’, ‘kneel’ and ‘hang’ can be reconstructed, but they are not nearly as widely reflected as cardinal verbs. Many languages also cut the main domains into smaller, more specific ones. For example, as well as *soaʔi* ‘sit’ Manam has *basaʔi* ‘sit cross-legged’ (Newman 2002:3). However, the data do not permit reconstruction of such semantically narrow posture verbs.

6.2.1 Sit, be located

Two POc forms meaning ‘sit, stay, dwell’ are reconstructable: **mono(ŋ)*/**monon-i* and POc **nopo(q)*. A third form, **mia[n]*, is reconstructed subject to certain caveats mentioned below. Significantly, a purely postural meaning (‘sit’) is reconstructable for none of these verbs. In all three instances, reflexes tend to mean ‘sit’, ‘stay’ or ‘dwell’ or a combination of these, whereas reflexes of reconstructions meaning ‘stand’ (§6.2.2) and ‘lie’ (§6.2.3) tend to have glosses with only a postural sense. There is a reason for this. In traditional Oceanic societies there were no chairs or custom-made seats. People sat or squatted on the ground, so any ‘sit’ verb would not have had the postural sense of English *sit* but would have meant ‘be located’ and have been a candidate for service as the default POc locative verb.⁴

Reflexes of the widely reflected POc **toka* ‘come to rest, settle (of vessel, on reef)’ also fall into the ‘sit, stay, dwell’ domain, but its POc meaning seems to have been narrower and indeed inchoative, a matter discussed below.

POc **mono(ŋ)* ‘sit, stay, dwell’, **monon-i* ‘sit on’

MM:	Tabar	<i>mon</i>	‘dwell’
MM:	Lihir	<i>mon</i>	‘dwell’
MM:	Sursurunga	<i>mon-mon</i>	‘remain, stay behind at home’
MM:	Patpatar	<i>mona</i>	‘stay at home; lounge around; keep watch’
MM:	Tolai	<i>mono</i>	‘remain and take care of the home, boat etc.’
SES:	Gela	<i>mono</i>	‘stop a while, stay’

⁴ A number of sources gloss a verb as ‘be’, but ‘be (at)’ is used here to indicate locative usage,

SES:	Bugotu	<i>mono</i>	‘abide, stay, dwell, be (at)’
		<i>monoj-i</i>	(VT) ‘abide in’
SES:	Talise	<i>mono</i>	‘lie down’
SES:	Tolo	<i>mono</i>	‘lie down’
SES:	Arosi	<i>mono</i>	‘live, dwell, reside’
		<i>monoj-aʔi</i>	(VT) ‘reside at’
SES:	Bauro	<i>mono</i>	‘stay in another village’
NCV:	Lewo	<i>mono</i>	‘lie down, be horizontal; remain (at)’
NCal:	Nengone	<i>menej</i>	‘reside, be in a place’

POc **nopo(q)* ‘sit, stay, dwell’ is reconstructed with possible final **-q* on the basis of Polynesian reflexes, as Polynesian languages preserve root-final consonants in transitive verbs more faithfully than SE Solomonic languages like Lau below. Wayan Fijian shows two apparent reflexes of **nopo(q)*. Wayan *novo* is the regular reflex, whereas *nō* is irregular, as is Bauan *no*. The items listed under ‘cf. also’ may be cognate, but they display irregularities.

POc **nopo(q)* ‘sit, stay, dwell’ (Milke 1968), ‘sit’ (Blust 1993a)

PT:	Motu	<i>noho</i>	‘dwell, remain’ (persons, not things)
MM:	Patpatar	<i>noh</i>	‘dwell, lie’
SES:	Lau	<i>nofo</i>	‘dwell, stop, stay’
		<i>nofo-s-i</i>	(VT) ‘dwell, stop, stay (somewhere)’
SES:	Arosi	<i>nohu</i>	‘sit quiet’
NCV:	Mota	<i>(va)nov</i>	‘cause to dwell’
NCal:	Xârâcùù	<i>nōō</i>	‘stay’ (Moyse-Faurie 2015)
Mic:	Carolinian	<i>no</i>	‘be (at), stay, remain, live’
Fij:	Bauan	<i>nō</i>	‘lie (of things)’
Fij:	Wayan	<i>nō</i>	‘live, be (at), stay, dwell’
		<i>novo</i>	‘keep still, be motionless, stay without moving, keep quiet, be subdued, acquiescent, peaceful’
Fij:	Rotuman	<i>noho</i>	‘dwell’

PPn **nofo* ‘sit, dwell’, **nofoq-i* (VT) ‘sit on, dwell in’ (POLLEX)

Pn:	Tongan	<i>nofo</i>	‘sit, stay, dwell’
		<i>nōfoʔ-ia</i>	‘be constantly occupied’
		<i>nōfoʔ-i</i>	(VT) ‘sit on, dwell in, occupy’
Pn:	Niuean	<i>nofo</i>	‘sit, dwell’
Pn:	Samoa	<i>nofo</i>	‘sit, dwell, stay’
		<i>nōfo-ia</i>	‘be occupied’
		<i>nōfo-aʔi</i>	(VT) ‘sit on/at, occupy’
Pn:	W Uvean	<i>nō</i>	‘sit, be (at)’ (Moyse-Faurie 2015)
Pn:	E Futunan	<i>nofo</i>	‘sit, be (at) (of animates)’ (Moyse-Faurie 2015)
		<i>nofoʔ-i</i>	‘be inhabited by’
		<i>nofoʔ-aki</i>	‘stay together’
Pn:	Tikopia	<i>nofo</i>	‘sit, stay, dwell, live’
Pn:	Tokelauan	<i>nofo</i>	‘sit, reside, stay’
Pn:	Pukapukan	<i>nō</i>	‘sit, stay, dwell’
Pn:	W Futunan	<i>nofo</i>	‘sit’

Pn:	Rapanui	<i>noho</i>	‘sit’
Pn:	Marquesan	<i>noho</i>	‘sit, dwell, stay’
Pn:	Tuamotuan	<i>noho</i>	‘sit, dwell’
Pn:	Tahitian	<i>noho</i>	‘sit, dwell’
Pn:	Māori	<i>noho</i>	‘stay, live’
		<i>noh-ia</i>	‘be sat on, be inhabited’

cf. also:

NNG:	Malai	<i>(u)nep</i>	‘dwell’
NNG:	Lukep	<i>nepa</i>	‘sit down’
MM:	Kia	<i>nohe</i>	‘sit’
MM:	Bugotu	<i>nohe</i>	‘sit’

If Drehet (Adm) *-miŋ* ‘sit’ and/or Ponapean (Mic) *mi* ‘exist, be (at)’ reflect **mia[n]*, as they appear to, then POc **mia[n]* ‘sit, stay, live’ can also be reconstructed. If not, then the form is of PWOC antiquity. Final *-ŋ* of Drehet *-miŋ* appears to reflect an added morpheme, as Admiralties languages lose POc final consonants. Evidence as to whether **mia[n]* has a final **-n* is ambiguous, and Bali reflects it both without (*mia* ‘dwell’) and with **-n* (*mianja*, a regular reflex).

POc (?) **mia[n]* ‘sit, stay, live’

Adm:	Drehet	<i>-mi(ŋ)</i>	‘sit’
NNG:	Mangseng	<i>mimi(ŋa)</i>	‘alive’
NNG:	Numbami	<i>-mi</i>	‘dwell, live, stay, remain, be (at)’
NNG:	Bam	<i>(i)mi</i>	‘dwell’
NNG:	Wogeo	<i>mi-mia</i>	‘dwell’
NNG:	Sissano (Arop)	<i>-men</i>	‘stay, remain, wait, be (at)’
PT:	Iduna	<i>-mia</i>	(v) ‘stay, live’; (N) ‘staying, existence, living’
PT:	Dobu	<i>mia(toa)</i>	‘sit’
PT:	Saliba	<i>-mia</i>	‘stay’
PT:	Ubir	<i>-mian</i>	‘dwell’
PT:	Tawala	<i>-mi-mie(ya)</i>	(v) ‘live permanently’; (N) ‘permanent residence’
PT:	Dawawa	<i>-mia</i>	‘live, stay’
		<i>-(tau)mia</i>	‘stay for a while’
PT:	Misima	<i>mi-</i>	‘still; staying’
PT:	Misima	<i>mina</i>	‘stay’
PT:	Motu	<i>-mia</i>	‘remain’ (things, not persons)
PT:	Gabadi	<i>-mia(do)</i>	‘sit’
MM:	Vitu	<i>mia</i>	‘sit, dwell’
MM:	Bali	<i>mia</i>	‘dwell’
		<i>mianja</i>	‘sit’
MM:	Tigak	<i>min(aŋ)</i>	‘dwell’
MM:	W Kara	<i>mi(ta)</i>	‘dwell’
Mic:	Ponapean	<i>mi</i>	‘exist, be (at)’

The primary sense of POc **toka* was apparently one of settling in a position following movement, giving rise to glosses like ‘settle down’, ‘hit the bottom (of particles in suspension in a liquid and of canoes)’ and ‘land (after flying)’. In many languages its reflex denotes the result of settling, ranging from ‘stuck on the reef’ (Roro [PT]) and ‘be aground’ (Tongan [Pn]) to the more general ‘sit’, ‘stay’ or ‘dwell’. In Poeng, Gela, Sa’a and PCP reflexes occur, sometimes with a qualifier, with the meaning ‘sit on one’s haunches, squat’, and this seems to have been a subsidiary meaning, overlapping with the domain of POc **tike* (§6.2.4.1).

A number of reflexes point to a possible alternant **toko*, and a few to a short alternant **tok*. Thus Nehan *toko* reflects **tok* with a regular echo vowel; the expected reflex of POc **toka* is †*toa*.

PMP **tekas* ‘come to rest in a place’ (ACD)

POc **toka* ‘come to rest, settle (on bottom of vessel, on reef)’

Adm:	Mussau	<i>toka</i>	‘sit, live, dwell’
Adm:	Tenis	<i>toka(sio)</i>	‘sit’
Adm:	Seimat	<i>to</i>	(vi) ‘sit, stay, remain, live, dwell’
Adm:	Lou	<i>tok</i>	‘sit, stay, settle down’
Adm:	Baluan	<i>tok</i>	‘sit’
		<i>to[k]</i>	‘stay, exist, be at’
Adm:	Loni	<i>to[w]</i>	‘be at, live’
NNG:	Poeng	<i>toa(kuru)</i>	‘squat’
PT:	Dobu	<i>(mia)toa</i>	‘sit’
PT:	Molima	<i>toa</i>	‘sit’
PT:	Roro	<i>-toʔo</i>	‘be stuck fast on reef’
MM:	Lamasong	<i>lok</i>	‘dwell’
MM:	Madak	<i>lo</i>	‘dwell’
MM:	Bilur	<i>tok</i>	‘(post) be erect’
MM:	Halia (Haku)	<i>(ha)toka</i>	(vt) ‘erect (e.g. a post)’
MM:	Babatana	<i>(toka)toka</i>	‘ladder’
MM:	Nehan	<i>toka, toko</i>	‘stay put, perch (as a bird)’
MM:	Teop	<i>toka</i>	‘perch, stand on’
SES:	Gela	<i>toya</i>	‘dwell’
		<i>kabu toya-toya</i>	‘squat on one’s heels; be on sentry duty’ (<i>kabu</i> ‘attentive’)
SES:	Sa’a	<i>oʔa</i>	(vi) ‘settle, of birds; squat on haunches’
SES:	Arosi	<i>oʔa</i>	‘stay, dwell, abide; to settle, of birds’
SES:	Bauro	<i>oya</i>	‘sit’
TM:	Asumboa	<i>to</i>	‘sit’

PNCV **toka, *toko* ‘sit, stay, be in a place’ (Clark 2009)

NCV:	Mota	<i>toya</i>	‘abide, dwell, endure, live, behave, be’
NCV:	Mwotlap	<i>toy</i>	‘live’
NCV:	Raga	<i>toyo</i>	‘stay, sit, dwell, be’
NCV:	Tamambo	<i>toyo</i>	‘remain’
NCV:	Lewo	<i>tō</i>	‘sit, stay, be at’
NCV:	Namakir	<i>tok</i>	‘stand, stay, live, be in a place’

NCV:	N Efate	<i>toko</i>	‘stay, live; be in, be at’
PSV <i>*a-toy</i> ‘sit, stay, live at, be at’ (Lynch 2001c)			
SV:	Sye	<i>e-te</i>	‘sit, stay’
SV:	N Tanna	<i>a-təŋ</i>	‘live, dwell’
SV:	Lenakel	<i>a-rək</i>	‘live, dwell’
SV:	Kwamera	<i>a-ra</i>	‘live, stay at, be at’
SV:	Anejom	<i>a-tey</i>	‘sit’
		<i>-tey</i>	‘exist, be, stay (of inanimates)’
NCal:	Ajië	<i>tō</i>	‘be at’ (Moyse-Faurie 2015)
PMic <i>*Toka</i> ‘settle, alight’ (Bender et al 2003)			
Mic:	Marshallese	<i>cek^w</i>	‘settle (of liquids), alight, land’
Mic:	Mokilese	<i>cok</i>	‘swoop’
Mic:	Ponapean	<i>sok</i>	‘land (of s.t. that flies), touch bottom with one’s feet in water’
Mic:	Woleaian	<i>soxo</i>	‘remain on the bottom (as dregs)’
Mic:	Chuukese	<i>so, sō(tiw)</i>	‘precipitate out (as starch derived from washing grated arrowroot or manioc), come to rest, land (of flying things)’
Mic:	Puluwatese	<i>hō</i>	‘land (as a plane)’
Mic:	Carolinian	<i>sō(tiw)</i>	‘alight, land (of flying things)’
Mic:	Satawalese	<i>sō, sō(tiw)</i>	‘land, alight’
PCP <i>*toka</i> ‘sit, squat, live, stay, settle, coagulate’ (Hockett 1976)			
Fij:	Rotuman	<i>foʔa</i>	‘land, come ashore’
Fij:	Bauan	<i>toka</i>	‘squat; be placed, situated (of people and small objects), be at’
Fij:	Boumaa	<i>toʔa</i>	‘be at’
Fij:	Wayan	<i>toko</i>	‘squat; sit on one’s heels or haunches; crouch with back of thighs and buttocks resting on the heels’
		<i>tokoŋi-</i>	‘squat or sit on s.t.’
PPn <i>*toka</i> ‘sit, settle, coagulate, run aground’			
Pn:	Tongan	<i>toka</i>	‘(boat) run aground, rest on the bottom; (water, particles in suspension, people) come to rest, settle down’
Pn:	Samoa	<i>toʔa</i>	‘(liquid) be still, settle; (boat) run aground; (people) stop, settle’
Pn:	Tikopia	<i>toka</i>	‘stop, cease (blood flow etc), quieten down (sea)’
Pn:	Māori	<i>to-toka</i>	‘solidify, set, congeal’

6.2.2 Stand

Two POc verbs for ‘stand’ are reconstructable: **tuqur* ‘stand’ and **madriRi* ‘be standing upright’. Both have PMP antecedents. Apparently no language in the data reflects both terms, with a reflex of **tuqur* sometimes occurring in one language and a reflex of **madriRi* in a quite closely related language. The competition between them seems to have been won in EOC languages by **tuqur*, as there are no EOC reflexes of **madriRi*.

PNCV appears to have had two reflexes of POc **tuqur*, namely **tuqu* and **tuquru* (Clark (2009) reconstructs **tuqu-ru*). PNCV **tuʔu* is the expected reflex. PNCV **tuquru* reflects the POc form plus an echo vowel, a minority pattern that occurs from time to time in PNCV.

The Choiseul forms shown under ‘cf. also’ have expected consonant reflexes but the ‘wrong’ vowels. It is tempting to attribute them to an ‘Old Oceanic’ substrate (Ross 2010:263).

A set of forms reflecting apparent POc **tutu* follows below, and may or may not ultimately reflect POc **tuqur*.

PMP **tuqud* ‘stand’ (ACD)

POc **tuqur* ‘stand’

Adm: Seimat	<i>tua</i>	(vi) ‘stand’ (expected reflex is <i>tu</i>)
	<i>tu</i>	(vi) ‘sit, stay, remain, live, dwell’
Adm: Baluan	<i>tu</i>	(renders preceding stative verb ongoing)
NNG: Ali	<i>tou</i>	‘stand’
NNG: Mindiri	<i>tekur</i>	‘stand’
NNG: Takia	<i>-tur</i>	(vi) ‘stand up, be in erect position’
NNG: Patep	<i>lay</i>	‘stand up’
PT: Iamalele	<i>tovoi</i>	‘stand’
PT: Dobu	<i>tōlo</i>	‘stand’
PT: Bunama	<i>toholo</i>	‘stand’
PT: Tawala	<i>towolo</i>	‘stand, wake; (become) leader’
MM: Lavongai	<i>tuj</i>	‘stand’
MM: Tigak	<i>tuk</i>	‘stand’
MM: Nalik	<i>tur</i>	‘stand’
MM: Tabar	<i>turi</i>	‘stand’
MM: Nochi	<i>til</i>	‘stand’
MM: Patpatar	<i>tur</i>	‘stand’
MM: Sursurunga	<i>tur</i>	‘stand’
MM: Siar	<i>tur</i>	‘stand’
MM: Ramoaaina	<i>tur</i>	‘stand’
MM: Tolai	<i>tur</i>	(vi) ‘be, exist, stand, stop’
MM: Nehan	<i>turu</i>	‘stand’
MM: Selau	<i>tur</i>	‘stand’
MM: Tinputz	<i>sun</i>	‘wake up, get up, stand up’
MM: Teop	<i>sun</i>	‘stand’
MM: Taiof	<i>tu-tun</i>	‘stand’
MM: Banoni	<i>ciyom</i>	‘stand’
MM: Piva	<i>cuyonu</i>	‘stand’
MM: Nduke	<i>turu</i>	‘stand’
MM: Roviana	<i>turu</i>	‘stand’
SES: Gela	<i>tuyuru</i>	‘stand’
SES: Bugotu	<i>tū</i>	‘stand’
SES: Lengo	<i>tu</i>	‘stand’
SES: Kwara’ae	<i>ū</i>	‘stand’

TM:	Nanggu	<i>tu</i>	‘stand’
TM:	Tanimbili	<i>sū</i>	‘stand’
PNCV * <i>tuqu</i> , * <i>tuquru</i> ‘stand’ (Clark 2009)			
NCV:	Mota	<i>tur</i>	‘stand, be sufficient, prevail’
NCV:	Tamambo	<i>туру</i>	‘stand, be at’
NCV:	Lonwolwol	<i>(rd)u</i>	‘remain, rest, stop, stay, endure, last; be, continue (of process or action); exist; keep on’
NCV:	Raga	<i>tu</i>	‘stand’
		<i>tu(a-mare)</i>	‘stand (up), arise’
NCV:	Kiai	<i>туру</i>	‘stand’
NCV:	Sakao	<i>tūr</i>	‘stand (in line)’
NCV:	Uripiv	<i>-tur</i>	‘stand’
NCV:	Port Sandwich	<i>tūl</i>	‘stand’
NCV:	Ninde	<i>tox</i>	‘dwell’
NCV:	Lewo	<i>sū</i>	‘be at, remain, stay’
		<i>su(m^[w]alu)</i>	‘stand, get up’
NCV:	Namakir	<i>tu(marak)</i>	‘stand’ (<i>marak</i> ‘rise’)
NCV:	Nguna	<i>dū</i>	‘stand, be standing’
		<i>tu(leana)</i>	‘get up, stand up, rise’ (<i>leana</i> ‘straight’)
NCV:	Neve’ei	<i>tur</i>	‘stand’
NCV:	Rerep	<i>tu</i>	‘stand’
NCV:	N Ambrym	<i>to-tor</i>	‘stand’
SV:	Sye	<i>e-tur</i>	‘stand’
SV:	Whitesands	<i>a-tul</i>	‘stand’
NCal:	Jawe	<i>cūt</i>	‘stand’
NCal:	Caac	<i>cōr</i>	‘stand’
		<i>cu-</i>	‘stand’ (in compounds; Cauchard 2014:97)
NCal:	Iaai	<i>teṭ, tooṭ</i>	‘stand’
PMic * <i>tuu</i> ‘to stand; stopped, halted’ (Bender et al 2003)			
Mic:	Kosraean	<i>tu</i>	‘stand up; stop’
Mic:	Marshallese	<i>ciw(tak)</i>	‘stand up’
Mic:	Mokilese	<i>u</i>	‘stand’
		<i>ū(ta)</i>	‘stand up’
Mic:	Ponapean	<i>ū</i>	‘stand’
		<i>ū(ti)</i>	(VI) ‘stop (of moving objects)’
Mic:	Pulo Annian	<i>θī</i>	‘stand; stop’
Mic:	Woleaian	<i>sī</i>	‘stand, take an upright position’
Mic:	Carolinian	<i>ī(tæ)</i>	‘stand up’
		<i>ī(lɔ)</i>	‘stop’
Mic:	Puluwatese	<i>wī(tæ)</i>	‘stand up, rise’
Mic:	Chuukese	<i>wī</i>	‘stand erect, be upright; be stopped, halted (of s.t. in motion)’
PCP * <i>tuqu</i> ‘stand, be somewhere’, <i>tuqur-a</i> (VT) ‘stand on/near s.t.’, <i>tuqur-aki-</i> ‘stand up with’			
Fij:	Rotuman	<i>fū</i>	‘stand, be situated’
Fij:	Bauan	<i>tū</i>	(VI) ‘stand, be in a place’

		<i>tūr-a</i>	(VT) ‘stand on/near s.t.’
		<i>tur-ak-a</i>	‘stand up with’
Pn:	Tongan	<i>tuʔu</i>	(VI) ‘stand; stop; be situated, exist’
		<i>tuʔul-aki</i>	(PLURAL SUBJECT) ‘stand in position, form up’
Pn:	Rennellese	<i>tuʔu</i>	‘stand, be upright’
Pn:	Tikopia	<i>tū</i>	‘stand, remain’
		<i>tūr-ia</i>	‘be stood by’
		<i>tūr-aki</i>	(PLURAL SUBJECT) ‘stand (together)’
Pn:	Samoa	<i>tū</i>	‘stand, stand up, stand erect; be stationary’
		<i>tūl-aʔi</i>	‘stand up, get up on one’s feet’
		<i>tul-ia</i>	‘be stood on, occupied, guarded’
Pn:	E Futunan	<i>tuʔu</i>	‘stand, be at’ (Moyse-Faurie 2015)
		<i>tuʔul-aki</i>	‘walk together, walk carrying a crying child’
Pn:	Tahitian	<i>tū</i>	‘stand, be upright’
Pn:	Māori	<i>tū</i>	‘stand, be upright’
		<i>tūr-ia</i>	‘be arranged, entered upon’

cf. also:

MM:	Vaghua	<i>deyere</i>	‘stand’
MM:	Varese	<i>deyere</i>	‘stand’
MM:	Ririo	<i>der</i>	‘stand’
MM:	Babatana	<i>dere</i>	‘stand’
MM:	Sisingga	<i>dere</i>	‘stand’

The set below appears to reflect something like POc **tutu*. It is not clear whether this is an idiosyncratic alternant of **tuqur* or not. What is obvious is that the first **-u-* has a variety of reflexes, suggesting that its POc stress fell on the second syllable, leading to reduction or loss of the first **-u-*.

POc **tutu* (?) ‘stand’

Adm:	Lou	<i>a-tatu-t</i>	‘stand firm’
Adm:	Nyindrou	<i>a-tutu-n-iy</i>	(VT) ‘put (it) up, stand (it) up’ (<i>a-</i> CAUSATIVE)
		<i>tutu-n-i</i>	(VT) ‘put up, set up, stand up, erect’
NNG:	Manam	<i>tu(i-rake)</i>	‘stand up’ (<i>rake</i> ‘go upward’)
NNG:	Sissano	<i>-to</i>	‘standing’
PT:	Kilivila	<i>-totu</i>	(VI) ‘stand’
		<i>-tito-k-i</i>	(VT) ‘stand on’
MM:	Patpatar	<i>tut</i>	‘rise, stand up’
MM:	Roviana	<i>tutu</i>	‘stand’
MM:	Kia	<i>tetu</i>	‘stand’
MM:	Kokota	<i>tetu</i>	‘stand’
MM:	Blablanga	<i>t^hetu</i>	‘stand’

The set below is restricted to WOc languages but is clearly inherited from PAn. However, a PMP form with **ma-*, i.e. **ma-diRi*, has not been reconstructed, and would in any case have resulted in POc *†*ma-riri*. Instead the presence of **-dr-* in POc **madriRi* suggests earlier *†*ma-n-diRi*. CMP languages with a nasal prefix occur (the ACD lists Fordata *n-diri* and Kei

en-dir), but not enough is known about pre-Oceanic diachronic morphology to allow a firm pre-Oceanic reconstruction.⁵

PAn **diRi* ‘stand’ (Blust 1999a)

POc **madriRi* ‘be standing upright’

NNG:	Bariai	<i>-mad-madid</i>	‘stand’
NNG:	Kilenge	<i>-mari</i>	‘stand’
NNG:	Tami	<i>moji</i>	‘stand’
NNG:	Sio	<i>-madi</i>	‘stand’
NNG:	Mbula	<i>meⁿder</i>	‘stand up, be in vertical position; rest from, stop, take a break from activity’
PT:	Dawawa	<i>-(wai)midiri</i>	‘stand s.t. up’
PT:	Misima	<i>mīlil</i>	‘stand’
MM:	Bali	<i>madiri</i>	‘stand’
MM:	Vitu	<i>madi</i>	‘stand’
MM:	Nakanai	<i>magiri</i>	‘stand’

cf. also:

MM:	Meramera	<i>magili</i>	‘stand’ (apparently a Nakanai loan)

The NNG and PT forms listed below may also reflect POc **madriRi*. They allow the reconstruction of putative PNGOc **midi* ‘stand’. If the latter reflects POc **madriRi*, then two idiosyncratic changes must be inferred: (a) **ma-* became **mi-* by assimilation to the **-i-* of **-driRi*; (b) loss of the final syllable **-Ri*. Change (a) is also reflected in Dawawa *-(wai)midiri* ‘stand s.t. up’ and Misima *mīlil* above, and change (b) in Kilenge *-mari*, Tami *moji*, Sio *-madi* and Vitu *madi*. It is thus not unexpected that the two changes have sometimes occurred simultaneously, and the terms listed below may well reflect independent parallel innovations rather than a single PNGOc innovation.

PNGOc **midi* (?) ‘stand’

NNG:	Amara	<i>mid</i>	‘stand’
NNG:	Apalik	<i>mid</i>	‘stand’
PT:	Iduna	<i>-midi</i>	‘stand’
PT:	Gapapaiwa	<i>-mīri</i>	‘stand; get up’
PT:	Dawawa	<i>-midi</i>	‘stand’
PT:	Nimioa	<i>-midi</i>	‘stand’

cf. also:

NNG:	Numbami	<i>-ⁿdi</i>	‘stand, bask (in/at)’
NNG:	Hote (Misim)	<i>(va)diŋ</i>	‘stand’ (the presence of the causative prefix <i>va-</i> is anomalous)

⁵ See also the discussion of terms for ‘cold’ in §4.8.1.

6.2.3 Lie

One POc term, **qenop*, is reconstructed for ‘lie, rest horizontally’. A good many reflexes also mean ‘sleep’, but this is a natural development from ‘lie’. Distinct terms for ‘sleep’ are reconstructed in §4.6.1.

Blust (ACD) reconstructs the PAn term **qinep*, of which the expected POc reflex is †**qinop*. He also reconstructs the doublet PEMP **qenəp*,⁶ reflected as POc **qenop*. He apparently infers that both forms were inherited into POc because a few terms in -i- occur in NNG languages, listed below under ‘cf. also’. One might alternatively infer, however, that these reflect a NNG height assimilation. Also listed under ‘cf. also’ is the form *inep*, reflected in three South New Ireland languages. The presence of -e- for †-o- in the second syllable is unexplained.

The distribution of reflexes of **qenop* shows some curious restrictions. Regular reflexes occur nowhere in MM, in apparently only a few northern NCV languages, and not at all in Micronesian or Central Pacific languages. In each of these areas other terms, some of them words for ‘sleep’, have replaced **qenop*, but it is not clear why this replacement is so widespread. The only fairly widespread replacement is PCP **koto*/PPn **ta-koto* below. PPn *ta-* appears to reflect POc **ta-*, which marks the event denoted by the verb as spontaneous. However, it is difficult to conceive of lying down as spontaneous.

PAn **qinep* ‘lie down to sleep’ (ACD)

PEMP **qenəp* ‘lie down to sleep’ (ACD)

POc **qenop* ‘lie, rest horizontally’ (ACD)

Adm: Seimat	<i>ej</i>	(vi) ‘stay in one place, lie down, sleep’
Adm: Lou	<i>en</i>	‘lie down’
Adm: Nauna	<i>en</i>	‘lie down’
NNG: Manam	<i>eno(ria)</i>	‘lie down’
NNG: Wogeo	<i>-eno</i>	‘sleep’
NNG: Gedaged	<i>en</i>	‘lie, rest, sleep’
NNG: Matukar	<i>en</i>	‘sleep’
NNG: Bariai	<i>eno</i>	‘lie, sleep; be located’
NNG: Tuam	<i>-yēn</i>	‘sleep’
NNG: Gitua	<i>yeno</i>	‘sleep’
NNG: Lukep	<i>kien</i>	‘sleep’
NNG: Mbula	<i>-keene</i>	‘sleep, lying down, be in horizontal position’
NNG: Sio	<i>keno</i>	‘lie (of inanimates)’
NNG: Numbami	<i>-e</i>	‘lie (of inanimates)’
NNG: Poeng	<i>keno</i>	‘lie down’
NNG: Avau	<i>kene</i>	‘sleep’
NNG: Kela	<i>-en(si)</i>	‘lie’
PT: Ubir	<i>en(rir)</i>	‘lie down’
PT: Molima	<i>ʔeno</i>	‘sleep, lie down, remain’
PT: Tawala	<i>eno</i>	‘sleep’
PT: Saliba	<i>keno</i>	‘lie’

⁶ Blust labels this form PCEMP, implying that there are also CMP reflexes, but none are listed.

PT:	Dobu	<i>ʔeno</i>	‘sleep’
		<i>ʔeno-ʔeno</i>	‘lie down’
PT:	Motu	<i>eno</i>	(VI) ‘lie down’
PEOc * <i>qenop</i> ‘lie, rest horizontally’, (VT) * <i>qenop-i-</i> ‘lie on, rest on s.t.’			
SES:	Gela	<i>eno</i>	‘lie down’
		<i>enov-ayi</i>	‘lay s.t. down’
SES:	Talise	<i>eno</i>	‘lie down’
SES:	Birao	<i>eno</i>	‘lie down’
SES:	Lengo	<i>eno</i>	‘lie down’
SES:	Longgu	<i>eno</i>	‘lie down’
SES:	Lau	<i>eno</i>	‘lie down’
SES:	Kwaio	<i>eno</i>	‘lie, sleep’
SES:	’Are’are	<i>eno</i>	‘lie down’
SES:	Sa’a	<i>eno-eno</i>	(VI) ‘lie down’
		<i>enoh-i</i>	(VT) ‘lie in/on’
SES:	Arosi	<i>eno</i>	‘lie down, rest’
		<i>enoh-i</i>	(VT) ‘rest on’
NCV:	Hiw	<i>en</i>	‘lie down’
NCV:	Mwotlap	<i>en(hiy)</i>	‘lie down’
NCV:	Tamambo	<i>eno</i>	‘lie down, stay, be at’
		<i>enov-i</i>	‘lay s.t. down’
NCV:	NE Ambae	<i>eno</i>	(VI) ‘lie’
NCV:	Raga	<i>eno</i>	‘lie down, be’
NCV:	Maewo	<i>eno</i>	‘lie down’
NCal:	Caac	<i>kẽ-</i>	‘lie’ (in compounds; Cauchard 2014:97)
cf. also:			
NNG:	Roinji	<i>kinu</i>	‘sleep’
NNG:	Tami	<i>gin</i>	‘sleep’
MM:	Ramoaina	<i>inep</i>	(VI) ‘lie down, sleep’
MM:	Kandas	<i>inep</i>	‘sleep’
MM:	Tolai	<i>inep</i>	‘lie down, sleep’
PCP * <i>koto</i> ‘lie down’			
Fij:	Bauan	<i>koto</i>	‘lie in a place’
PPn * <i>takoto</i> ‘lie down’ (POLLEX)			
Pn:	Tongan	<i>tokoto</i>	‘lie down (of persons and animals)’
Pn:	Niuean	<i>takoto</i>	‘lie down’
Pn:	Samoan	<i>taʔoto</i>	‘lie’
Pn:	E Futunan	<i>takoto</i>	‘lie down’
Pn:	K’marangi	<i>takoto</i>	‘lie down’
Pn:	Takuu	<i>takoto</i>	‘lie down, recline’
Pn:	Tikopia	<i>takoto</i>	‘stretch out, lie prone’
Pn:	Nukuoro	<i>dagodo</i>	‘lie down, be in place’
Pn:	Luangiua	<i>kaʔoko</i>	‘remain (things), leave, lie down (?)’

Pn:	Tongarevan	<i>takoto</i>	‘lie down’
Pn:	Pileni	<i>takoto</i>	‘lie down; abide, dwell’
Pn:	Pukapukan	<i>takoto</i>	‘remain, be left over, be established’
Pn:	Rarotongan	<i>takoto</i>	‘lie or rest in a reclining position’
Pn:	Rennellese	<i>takoto</i>	‘lie down’
Pn:	Tahitian	<i>taʔoto</i>	‘sleep, lie, lie down’
Pn:	Tuamotuan	<i>takoto</i>	‘recline, lie down, be in a reclining position’
Pn:	Māori	<i>takoto</i>	‘lie down’

6.2.4 Non-cardinal posture verbs

6.2.4.1 Squat, sit on haunches

Sitting on one’s haunches is still a posture frequently assumed in traditional villages in Northwest Melanesia, so the reconstruction of POc **tike* ‘squat, sit on haunches’ is no surprise. More of a surprise is that its reflexes are few, perhaps because its meaning is not collected by linguists who use a standard word list, but their distribution points clearly to its presence in POc.

POc **tike* ‘squat, sit on haunches’

Adm:	Lou	<i>tik-tik</i>	‘squat, hunker down, sitting on one’s toes’
NNG:	Kove	<i>(po)tike</i>	‘squat, sit on heels’
PT:	Kilivila	<i>siki</i>	‘sit down’
		<i>sigigi(na)</i>	‘squat on haunches’ (- <i>g-</i> for †- <i>k-</i>)
MM:	Bola	<i>(pa)sike</i>	‘crouch’

PPn **tike* ‘squat’, *tike-tike* ‘keep squatting’ (POLLEX)

Pn:	Tongan	<i>sike</i>	‘squat, sit on heels’
		<i>sike-sike</i>	‘keep squatting’
Pn:	Niuean	<i>tike-tike</i>	‘squat on the heels’
Pn:	Samoa	<i>tiʔe-tiʔe</i>	‘ride, sit astride; sit (on a chair); to be seated on s.t. above the ground’
Pn:	E Futunan	<i>tike-tike</i>	‘squat on heels’
Pn:	Rennellese	<i>tike-tike</i>	‘crouch or squat, as on the heels’

6.2.4.2 Kneel

No POc term for ‘kneel’ has been reconstructed, but a small cognate set points to PWOC **tudruŋ* ‘kneel’. This is evidently related to POc **turu-* ‘knee, joint’ (§3.6.5.2). As *dr* is the prenasalised equivalent of **r*, it is possible that **tudruŋ* reflects infixation of PMP **t<um>*, which formed intransitive verbs, i.e. **tudruŋ* reflects earlier **t<um>uruŋ* (§1.3.5.5). Final **-ŋ* is unaccounted for.

PWOC **tudruŋ* ‘kneel’ (< (?) POc **t<um>uruŋ*)

NNG:	Sio	<i>tudu</i>	‘kneel down’
MM:	E Kara	<i>turuŋ</i>	‘kneel’
MM:	Patpatar	<i>tu-tuduŋ</i>	‘kneel down with head to ground; bowed down’

MM: Ramoaaina *tu-tudun* 'kneel'

Nakanai in the west and Fijian and Polynesian in the east have compounds with two components, the first a verb meaning 'stand (a pole or spear) up straight' or a noun meaning 'supporting pole, stake' and the second the term for 'knee'. They form a collocation which perhaps occurred in POc and which one might translate into English as 'to knee-stand'. The data below do not allow a POc reconstruction, but the Polynesian terms point to a possible PPn **toko-turi* (**toko* (v) 'support, prop up', (N) 'supporting pole, stake'; **turi* 'knee').

MM:	Nakanai	<i>toto-tulu</i>	'kneel' (<i>toto</i> 'stand s.t. up'; <i>tulu</i> 'knee')
Fij:	Bauan	<i>teki-duru</i>	'kneel' (<i>teki</i> 'stick upright in ground'; <i>duru</i> 'knee')
Fij:	Wayan	<i>tiki-turu</i>	'kneel' (<i>tiki</i> 'stand s.t. right side up'; <i>turu</i> 'knee')
Pn:	Niuean	<i>faka-toko-tui</i>	'kneel' (<i>toko</i> 'supporting pole'; <i>tui</i> 'knee')
Pn:	Samoaan	<i>toʔo-tuli</i>	'kneel' (<i>tuli</i> 'knee')
Pn:	E Futunan	<i>toko-tuli, tuʔu-tuli</i>	'kneel' (<i>tuʔu</i> 'stand', <i>tuli</i> 'knee')

cf. also:

Pn: Tongan *tū-ulu-tui* 'kneel' (*tui* 'knee')

6.2.4.3 Hang

Of the postures, 'hang' has proven the most difficult to reconstruct forms for, but the reason for this is clear. Oceanic languages have a variety of intransitive verbs of hanging (some of which seem to be used transitively without derivation), but they differ from each other semantically, and the same was presumably true of POc. Often dictionaries, let alone wordlists, do not provide distinctive glosses for 'hang' words. The following three lists are illustrative.

Nehan (MM) (Glennon & Glennon 2006)

<i>abeke</i>	'hang above'
<i>horohoro</i>	'hang down'
<i>uakusu</i>	'snag on something, hang against something' (< POc <i>*paqus</i> 'bind, lash; construct by tying together')
<i>lolo</i>	'tie up, hang up'
<i>lilioro</i>	'hang; drape especially around neck or shoulders'

Gela (SES) (Fox 1955)

<i>soya-mate</i>	'hang'
<i>tari</i>	'hang'
<i>havi</i>	'hang in a cluster'
<i>kiloro</i>	'hang down'
<i>ki-kiloro</i>	'hang out of hole'
<i>saūdola</i>	'hang down'
<i>leleyi</i>	'hang down (as fruit)'
<i>loyoti</i>	'hang by rope'
<i>loiloi</i>	'hang down (of pigs' genitals)'
<i>loro</i>	'hang down to the ground (of loin cloth)'
<i>loro-loro</i>	'hang very low when carried'
<i>salala</i>	'hang on a line (as clothes)'

<i>saupiri</i>	‘hang down in front; hang down suspended from neck’
<i>soro</i>	‘hang up’
<i>sasarau</i>	‘hang on a peg; hang (as a bat)’

Wayan Fijian (SES) (Pawley & Sayaba 2003)

<i>lili</i>	‘hang, be suspended’
<i>riri</i>	‘hang, be suspended by a cord or by draping over a support’
<i>robe</i>	‘droop, hang down’
<i>teteru</i>	‘hang down, droop (of laden branches, fringe of a mat, hair)’
<i>tiro</i>	‘hang down, droop (a dress, line, banana leaves)’

The most widely reflected, and perhaps the most neutral, term for ‘hang’ is POc **tau(r)*.

POc **tau(r)* ‘hang, be suspended’

NNG:	Labu	<i>-towi</i>	(vi) ‘be hanging’
PT:	Motu	<i>-tau-a(dae)</i>	‘hang up, of s.t. with string’ (<i>-dae</i> ‘go down’)
PT:	Dawawa	<i>dawe</i>	‘hang’ (<i>d-</i> for <i>†t-</i>)
PT:	Sinaugoro	<i>tou-kau</i>	‘hang up’
MM:	Bola	<i>tau</i>	‘hang up’
SES:	Longgu	<i>dau</i>	(vi) ‘hang down; drop anchor’ (<i>d-</i> for <i>†t-</i>)
		<i>dau-dau(lele)</i>	‘be hanging’
		<i>daur-aʔini-a</i>	(vt) ‘hang s.t. up’
SES:	Kwaio	<i>tao</i>	‘hang down (of leaves and branches); hanging down in front (of a person’s hair)’
Fij:	Wayan	<i>tau</i>	(vi) ‘be located, situated, positioned, placed; be in, at or on a place’
Pn:	Tongan	<i>tau</i>	(vt) ‘hang’
Pn:	Niuean	<i>tau</i>	‘hang, suspend’
Pn:	E Uvean	<i>tau-tau</i>	‘hang, suspend’
Pn:	Rennellese	<i>tau</i>	‘hang (as clothes), wear (as necklace)’
Pn:	Pukapukan	<i>tau-tau</i>	‘hang, suspend’
Pn:	Samoaan	<i>tau</i>	‘hang (clothes on line, basket on hook etc.)’
		<i>tāu-taul-ia</i>	‘be hung up, be opposed’
Pn:	Tikopia	<i>tau</i>	‘hang, as necklace on neck’
Pn:	Tahitian	<i>tau-tau</i>	‘hang down’
Pn:	Hawaiian	<i>kau</i>	‘hang, perch, rest’
Pn:	Maori	<i>tau-tau</i>	‘hang suspended’

There is evidence to allow a more specific gloss for POc **tuku* below, ‘(person) hang by the arms, dangle’, but data on which POc **sorop* ‘hang’ and POc **kuRu* (vi) ‘hang’ are based do not allow a more specific gloss. In the **kuRu* set the To’aba’ita gloss indicates the kind of hanging the verb denotes, but a single gloss is an insufficient basis for a POc gloss.

POc **tuku* ‘(person) hang by the arms, dangle’

NNG:	Lukep (Pono)	<i>-tuk-a</i>	‘hang (as when climbing a tree trunk)’
NNG:	Mutu	<i>-tūk</i>	‘hang (of a broken branch)’

NNG:	Patep	<i>yuy</i>	‘(be) hanging’
Fij:	Wayan	<i>tuku</i>	‘hang, dangle (while holding on to a support with one’s arms)’
		<i>tukuci-</i>	‘hang onto s.t. by the arms’
cf. also:			
NNG:	Bariai	<i>tututu</i>	‘hang’
POc * <i>sorop</i> ‘hang’			
Adm:	Lou	<i>so</i>	‘hang’
		<i>sor-ek</i>	‘hang s.t. up’
NNG:	Mapos Buang	<i>sō</i>	‘swing, hang’
MM:	Nehan	<i>horo-horo</i>	‘hang down’ (<i>h-</i> and <i>s-</i> both reflect POc * <i>s-</i>)
		<i>sosoro</i>	‘hang s.t. up’
SES:	Gela	<i>soro</i>	‘hang s.t. up’
		<i>sorov-ayi</i>	‘hang (s.t.) on s.t.’
cf. also:			
NNG:	Lukep (Pono)	<i>-saur-ai</i>	‘hang s.t. up; get snagged’ (<i>-au-</i> for † <i>-o-</i>)
POc * <i>kuRu</i> (VI) ‘hang’			
MM:	Banoni	<i>va-yū</i>	‘hanging (of fruit etc)’
		<i>va-yu-yuru</i>	‘hang up’ (<i>va-</i> CAUSATIVE)
SES:	To’aba’ita	<i>kulu</i>	(VI) ‘hang down, be suspended (of things too short to dangle)’
		<i>kulu-fani-</i>	(VT) ‘hang, suspend’
SES:	Lau	(<i>dau</i>) <i>kulu-kulu</i>	(VI) ‘hang’
		<i>ku-kulu-</i>	(VT) ‘hang up’
		<i>fā-kulu</i>	(VT) ‘hang up’ (<i>fā-</i> CAUSATIVE)
		<i>fā-ku-kulu</i>	‘cause to hang down’
SES:	’Are’are	<i>kuru-a</i>	‘hang up, suspend’

The cognate set below formally resembles the set above, but this is probably a matter of chance.

POc *(<i>u</i>) <i>kuku</i> (<i>t</i>) ‘hang, suspend’			
NNG:	Kaulong	<i>kuk</i>	‘hang, suspend’
PT:	Misima	<i>kuki</i>	‘hang, swing’
MM:	Patpatar	<i>kukūt</i>	‘hang oneself’
SES:	Lau	<i>ukūku</i>	‘hang down (as vines)’
SES:	’Are’are	<i>kuku</i>	(VI) ‘hang down’
		<i>kuku-a</i>	(VT) ‘hang up, suspend’
SES:	Sa’a	<i>ʔuʔu</i>	‘hang down, depend’
SES:	Ulawa	<i>kuku</i>	(VI) ‘hang down, depend’
		<i>haʔa-kuku</i>	(VT) ‘hang up, to suspend’

6.2.4.4 Lean, slant

POc **p^waralat* ‘be leaning, slanting’ is a posture verb, but the glosses suggest that its typical use was with inanimate rather than human subjects. The medial consonant correspondences are irregular, and the most natural inference is that Seimat reflects **-r-* and **-l-* regularly (as do the Polynesian reflexes), whilst the remaining languages reflect assimilations. The Malaita-Makira form *hatara* is probably cognate, but its history is less clear.

POc **p^waralat* ‘be leaning, slanting’

Adm:	Seimat	<i>palaho</i>	(vi) ‘lean, slant’ (-o for †-a)
MM:	Tolai	<i>balala-n</i>	‘crooked, aslant, as a tree; to sag’ (for † <i>varala</i>)
MM:	Teop	<i>vananata</i>	‘lie on a slant or angle’
SES:	Gela	<i>varava</i>	‘lean on physically’ (for † <i>varala</i>)
		<i>varavay-i</i>	‘rely, lean on’
SES:	Tolo	<i>varara</i>	‘leaning’ (for † <i>varala</i>)
		<i>vararah-i</i>	‘lean on, lean against’
SES:	Longgu	<i>varara</i>	‘lean against, top part touching but bottom part separate (e.g. of two trees in an X shape)’ (for † <i>varala</i>)

PPn **falala* ‘lean, stoop, slant’ (POLLEX)

Pn:	Tongan	<i>falala</i>	‘lean on or against; rely, trust, confide’
Pn:	Samoan	<i>falala</i>	‘lean (as a coconut tree leaning over the water)’
Pn:	Rennellese	<i>hagaga</i>	‘slanting, leaning, bent; lean against’
Pn:	K’marangi	<i>halala</i>	‘slant; oblique (angle)’
Pn:	Maori	<i>farara</i>	‘lean, stoop, decline (as the setting sun)’

cf. also:

SES:	’Are’are	<i>hatara</i>	‘leaning (on s.t.)’ (for † <i>harara</i>)
SES:	Sa’a	<i>hatara</i>	‘lean, rest upon’ (for † <i>harala</i>)
SES:	Arosi	<i>hatara</i>	‘rest upon, lean, press’ (for † <i>harara</i>)

6.3 Manner of movement verbs

There is a copious literature on movement verbs and movement constructions in the world’s languages, much of it stemming from the work of Leonard Talmy (1972, 1974, 1985, 1991, 2000). Talmy observed that languages tend to have either movement constructions in which the main verb encodes the manner of motion, as in English as in *He ran into the cave*, or movement constructions in which it encodes the path of motion, as in Spanish *Entró corriendo a la cueva* [**entered.3SG** running to the cave]. Path is encoded in the English example by the preposition *into*, and manner in the Spanish example by the participle *corriendo* ‘running’.⁷

These English and Spanish movement constructions each have just one finite verb. Talmy’s classification also allows for serial verb constructions like those which occur in

⁷ More recent work (Aske 1989, Huang & Tanangkingsing 2005, Croft et al. 2010) emphasises that many languages have constructions of both types, depending on the semantics of the event.

Oceanic languages, discussed in Ross (2004a) and briefly in vol.2 (pp257–258), and illustrated in this Hoava (MM) example:⁸

<i>Hagala</i>	<i>vura</i>	<i>mae</i>	<i>sa</i>	<i>manue.</i>
run	go. out	come	ART:S	possum
MANNER	PATH	DEIXIS		

‘The possum came running out.’ (Davis 2003:155)

In this construction, the elements of manner, path and deixis are each encoded by a finite verb, respectively of locomotion, geographic direction (vol.2:259–267) and deictic direction (vol.2:269–282). This ordering also occurs in other language families, e.g. in Thai (Thepkanjana 1986:136). Omission of any one of the three elements is quite common, as here in Hoava.

<i>Keba</i>	<i>sayeli-a</i>	<i>sa</i>	<i>koburu</i>	<i>sa</i>	<i>ɲohara.</i>
climb	go. up. TR-O:3s	ART:S	child	ART:S	coconut
MANNER	PATH				

‘The child climbed up the coconut tree.’ (Davis 2003:155)

Elaboration of this manner–path–deixis schema, often by the presence of more than one path verb, is quite common across Oceanic languages, as in this Tuam (NNG) sentence:⁹

<i>Waax</i>	<i>tsiei</i>	<i>i-looy</i>	<i>i-pot</i>	<i>i-zi</i>	<i>nuy</i>	<i>tawe.</i>
canoe	our.EXC	s:3s-enter	s:3s-float	s:3s-descend	place	that.over.there
		PATH	MANNER	PATH		

‘Our canoe/boat went coastwards and floated to that place there.’ (Bugenhagen 2007)

Talmy’s original classification of movement constructions and verbs did not include a deictic element, but Talmy (2008) treats deixis as a subpart of path. Path and deixis are typically encoded separately in Oceanic languages, but in some of them verbs of deixis have been grammaticised as a separate morpheme class (Ross 2004a).

The remainder of this section is concerned with verbs of locomotion, i.e. verbs that occur in the manner slot of a movement construction. Verbs of geographic and deictic direction, filling the path and deixis slots, are reconstructed in vol.2 (pp259–272).

Verbs of locomotion can be conveniently divided according to the medium on/in which movement takes place: on land (§6.3.1), in the air (§3.2) or in water (§3.3).

6.3.1 Locomotion on land

Verbs of land-based locomotion include meanings like ‘go’, ‘walk’, ‘run’, ‘crawl’, ‘creep’, ‘limp’, ‘hop’ and ‘roll’.

6.3.1.1 Go, move

The broadest of these meanings is ‘go’, which in some Oceanic languages also denotes sea-based locomotion. Traditional travel on land was always on foot, and so the ‘go’ verb often also

⁸ There has been debate (Slobin 2004, Zlatev & Yangklang 2004, Talmy 2008, Ameka & Essegbey 2013) as to whether a serial verb construction contains a main verb. One criterion offered by Talmy is that the verb belonging to the set with the largest number of members is the main verb. In Oceanic languages this would be the manner verb if there is one, otherwise the path verb.

⁹ Most descriptions are silent as to how such constructions should be analysed.

means ‘go on foot, walk’. The verbs of deictic direction away from the speaker or towards a location other than the speaker, described in vol.2 (pp273-282), all seem to have been polysemous insofar as they also served as verbs of locomotion with the basic meaning ‘go’. These verbs were:

POc **lako*/**la* ‘go (away, to)’

POc **pano*/**pa* ‘go (away)’

POc **ua* ‘go towards addressee’

POc **[y]aku* ‘go, go away’

These are presented and their locomotion uses discussed below. The verbs **lako* (vol.2:258, 269-270, 277-279) and **pano* (vol.2:279–280). also had short forms, *la* and *pa*, and in a number of languages the short form displaced the long form altogether. A few languages—Gitua (NNG), Manam (NNG), Mota (NCV), Woleaian (Mic), Puluwatense (Mic)—have verbal reflexes of a long and a short form side by side.

Where a form reflecting **lako* or **laka* (§6.3.1.3 below) has lost its final vowel, it can be difficult to know which verb it reflects. Tuam *-lay* and Kaiep *-lak* are assumed to be cognate with Gitua *-layo* and Manam/Wogeo *-lako* respectively, and Sursurunga *lak-lək* is taken to reflect **lako* because the root *lək(ə)* occurs in the compound *ləkə(m)* ‘come’, reflecting **lako* + **mai*, a combination occurring in other MM languages.

PMP **lakaw* ‘move, go, walk’ (ACD)

POc **lako* ‘go (away, to)’

Adm:	Mussau	<i>lao</i>	‘go far’ (<i>la</i> in compounds)
NNG:	Poeng	<i>lao</i>	‘go’
NNG:	Kove	<i>la-lao</i>	‘walk’
NNG:	Tuam	<i>-lay</i>	‘walk’
NNG:	Gitua	<i>-layo</i>	‘go, walk’
NNG:	Manam	<i>-lako</i>	‘go, move away’
NNG:	Wogeo	<i>-lako</i>	‘go’
NNG:	Kaiep	<i>-lak</i>	‘go’
PT:	Kilivila	<i>-la</i>	‘go’ (Senft 2000)
PT:	Molima	<i>-nao</i>	‘go’
PT:	Dawawa	<i>-nayo</i>	‘go’
PT:	Saliba	<i>-lao</i>	‘go, go across’
PT:	Magori	<i>-yao</i>	‘go’
PT:	Sinaugoro	<i>-iayo</i>	‘go’
PT:	Roro	<i>-ao</i>	‘go, walk’
MM:	Bola	<i>layo</i>	‘walk’
MM:	Sursurunga	<i>lək-lək</i>	‘walk’
		<i>ləkə(m)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)
MM:	Solos	<i>nao(meh)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)
MM:	Hahon	<i>nao</i>	‘go’
MM:	Tinuputz	<i>no(h)</i>	‘go; walk’
		<i>no(mah)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)

MM: Teop	<i>nao</i>	‘go’
	<i>no(mo)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)
MM: Papapana	<i>nau</i>	‘go’
MM: Torau	<i>lao</i>	‘go’
	<i>lao(ma)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)
MM: Mono-Alu	<i>lao(ma)</i>	‘come’ (< POc <i>*lako</i> + <i>*mai</i> ‘come’)
MM: Nduke	<i>layo</i>	‘go’
MM: Zabana	<i>lao</i>	‘go’
MM: Kokota	<i>lao</i>	‘go’
SES: Sa’a	<i>laʔo</i>	‘approach; go/steer toward (a place)’
SES: Bauro	<i>rayo</i>	‘go’
SES: Fagani	<i>rayo</i>	‘go’
NCV: Mota	<i>layo</i>	‘step, stretch the legs’
NCV: Raga	<i>layo</i>	‘walk, travel’
NCV: Nokuku	<i>lako</i>	‘step, walk, go’
Mic: Kiribati	<i>nako</i>	‘go’
Mic: Chuukese	<i>ɾɔ</i>	‘go, walk’
Mic: Woleaian	<i>nako</i>	‘go’
Mic: Puluwatese	<i>lɔ</i>	‘go, walk’
Mic: Pulo Annian	<i>raxo</i>	‘go, walk’
Fij: Rotuman	<i>laʔo</i>	‘go’
Fij: Bauan	<i>lako</i>	‘go’

The long vowel in ‘Are’are and Oroha *rā* below probably reflects a preference for bimoraic roots.¹⁰ However, Andrew Pawley (pers. comm.) suggests that perhaps all forms reflecting **la* are bimoraic, but that length is not represented in their orthographies. If this is so, then the POc form should also be reconstructed as bimoraic, i.e. **lā*.

The forms listed below under ‘cf. also’ appear to reflect a POc form **lae*, but it is not clear how this might have differed from **la*. It is possible that these forms represent independent developments (perhaps associated with bimoraicity preference), the more so as the sequence **-ae* is not otherwise found in reconstructed POc.

In the short-form set below Loniū (Adm) *-le*, Titan (Adm) *-le*, both ‘go to’, and Lonwolwol (NCV) *-le* ‘leave (a place)’, reflect coalescence either of **la* + transitive suffix **-i* or possibly of **la* + locative preposition **i*.

PMP **lakaw* ‘move, go, walk’ (ACD)

POc **la* ‘go (away, to)’

Adm: Loniū	<i>-la</i>	‘go’
	<i>-le</i>	‘go to’
Adm: Kele	<i>-la</i>	‘go to’
Adm: Titan	<i>-la</i>	‘go’
	<i>-le</i>	‘go to’
Adm: Lou	<i>-la</i>	‘go to, walk’
NNG: Numbami	<i>la</i>	‘go, get a move on’

¹⁰ The expected reflex of **laka* (§6.3.1.3) in both languages is †*laʔa*.

NNG:	Mapos Buang	<i>ya</i>	‘go’
NNG:	Gitua	<i>-la</i>	‘go, walk’
NNG:	Mangap	<i>-la</i>	‘go’
NNG:	Sio	<i>lo</i>	‘go’
NNG:	Gedaged	<i>la</i>	‘go (away, on foot, by boat, etc.); walk, depart, get underway, set out; continue, keep on (with an action), maintain a course’
NNG:	Takia	<i>la</i>	‘move away from speaker; go round the island’
NNG:	Manam	<i>-la</i>	‘go, move away’
PT:	Kiriwina	<i>-la-</i>	‘go (to some place away from here)’
PT:	Iduna	<i>-na</i>	‘go’
PT:	Misima	<i>na</i>	‘go’
PT:	Motu	<i>la</i>	‘go away’
MM:	Notsi	<i>la</i>	‘go’
MM:	Nehan	<i>la</i>	‘go’
MM:	Halia (Selau)	<i>la</i>	‘go’
MM:	Vangunu	<i>la</i>	‘go’
MM:	Hoava	<i>la</i>	‘go away from speaker and addressee’
SES:	Marau Sound	<i>ra</i>	‘go’
SES:	‘Are’are	<i>rā</i>	‘go’
SES:	Oroha	<i>rā</i>	‘go’
TM:	Tanema	<i>la</i>	‘go, walk’
NCV:	Sa	<i>-la</i>	‘walk’
NCV:	Lonwolwol	<i>la</i>	‘take a step, go’
		<i>le</i>	‘go, come, pass from, leave’
NCV:	Sakao	<i>la(m)</i>	‘come’ (< POc <i>*la</i> + <i>*mai</i> ‘come’)
Mic:	Woleaian	<i>la</i>	‘go, walk’
Mic:	Puluwatese	<i>la</i>	‘go, walk’
cf. also:			
NNG:	Mangap	<i>lae</i>	‘move in horizontal direction’
PT:	Gapapaiwa	<i>-nae</i>	‘go’
PT:	Tawala	<i>nae</i>	‘go’
SES:	Longgu	<i>lae</i>	‘go’
NCV:	Lonwolwol	<i>lae</i>	‘walk, go’

There was evidently a difference in usage between POc **lako* ‘go (to)’ and POc **pano* ‘go (away)’. As noted in vol.2 (p279), many verbal reflexes of **lako* have a valency which implies or requires a destination (expressed, for example, as a prepositional phrase), whilst those of **pano* are intransitive.

A few reflexes of POc **pano* indicate that it was also a geographic directional verb meaning ‘move in a transverse direction’, contrasting with ‘go up, go inland’ and ‘go down, go seawards’. This is discussed in vol.2 (p279).

PMP **panaw* 'go away, depart, leave on a journey' (ACD)

POc **pano* 'go (away)', (?) 'move in a transverse direction'

NNG:	Kaulong	<i>van</i>	'move'
MM:	Vitu	<i>vano</i>	'go (away)'
MM:	Tiang	<i>pən</i>	'go'
MM:	Bola	<i>vano</i>	'go'
MM:	Bilur	<i>van</i>	'go'
SES:	Bugotu	<i>vano</i>	'go, come'; (DIR) 'thither'; (used in comparisons:) 'beyond, more'
SES:	Gela	<i>vano</i>	'walk'
SES:	Ghari	<i>vano</i>	'walk'
SES:	Gela	<i>vano</i>	'away, further off; to go'
SES:	Bauro	<i>hano</i>	'go'
SES:	Arosi	<i>hano</i>	'make a journey, set out; go'
NCV:	Mota	<i>van[o]</i>	'go, come'
NCV:	NE Ambae	<i>vano</i>	'move in transverse direction'
NCV:	Raga	<i>vano</i>	'go'
NCV:	Nokuku	<i>vano</i>	'go'
NCV:	Kiai	<i>vano</i>	'go, move away',
NCV:	Sakao	<i>yan</i>	'go'
NCV:	Merei	<i>van[a]</i>	'move in transverse direction'
NCV:	Tamambo	<i>vano</i>	'go away from speaker'
NCV:	Uripiv	<i>-van</i>	'go'
NCV:	Port Sandwich	<i>van</i>	'to go, to walk'
NCV:	Lonwolwol	<i>van</i>	'go, pass (and so also of time); continue (to do s.t.)'; (DIR) 'away'
NCV:	Lewo	<i>vano</i>	'go'
NCV:	Nguna	<i>vano</i>	'go'

PSV **van* 'go', **a(v, p)an* 'go, walk'

SV:	Sye	<i>a-van</i>	'walk'
SV:	Whitesands	<i>vən</i>	'go'
SV:	Lenakel	<i>vən</i>	'go'
		<i>a-vən</i>	'go, walk'
SV:	SW Tanna	<i>vən</i>	'go'
		<i>a-vən</i>	'go, walk'
SV:	Kwamera	<i>vən</i>	'go'
		<i>a-vən, u-vən, e-vən</i>	'go, walk'
SV:	Anejom	<i>han</i>	'go'
		<i>a-pan</i>	'go, walk'
NCal:	Nyelâyü	<i>van</i>	'go'
NCal:	Nemi	<i>hen</i>	'go'
NCal:	Tinrin	<i>(ã)va</i>	'there, the other side of stream'
Pn:	Niuean	<i>fano</i>	'go'
Pn:	Samoan	<i>fano</i>	'(of time) be gone, past; perish'
Pn:	Nanumean	<i>fano</i>	'go'

Pn:	Rennellese	<i>hano</i>	‘go; depending on, according to; on and on; little by little; one by one’
Pn:	Maori	<i>fano</i>	‘go, proceed; lead, of a road; verge towards; be on the point of; act, behave’

PMP **panaw* ‘go away, depart, leave on a journey’ (ACD)

POc **pa* ‘go away; move in a transverse direction’

NNG:	Lukep (Pono)	<i>pa</i>	‘go, walk’
NNG:	Mutu	<i>-wa</i>	‘go’
NNG:	Mangap	<i>-pa</i>	‘walk’
NNG:	Roinji	<i>pa(la)</i>	‘walk’ (< <i>*pa</i> + <i>*la</i> ‘go’)
NNG:	Adzera	<i>fa</i>	‘go’
PT:	Kilivila	<i>-va-</i>	‘go to’ (Senft 2000)
PT:	Sinaugoro	<i>va(riyo)</i>	‘go down’
PT:	Motu	<i>ha</i>	(V AUX) ‘go and ...’
SES:	Gela	<i>va</i>	(V AUX) ‘be going to ...’
NCV:	Mota	<i>va</i>	‘go, come’; (V AUX) ‘go on ...-ing’
NCV:	Araki	<i>ǝa</i>	‘go; go in a direction other than north or south’
NCV:	Nokuku	<i>va</i>	‘go’
NCV:	Merei	<i>va</i>	‘move in transverse direction’
NCV:	Big Nambas	<i>ǝa</i>	‘go’
NCV:	Lonwolwol	<i>va</i>	‘go’
NCV:	SE Ambrym	<i>ha</i>	‘go, leave, depart’
NCV:	Paamese	<i>vā</i>	‘go’
NCV:	Nguna	<i>vā</i>	‘go’ (short form of <i>vano</i> , Clark 1996)
SV:	Sye	<i>ve</i>	‘go, arrive’
SV:	Ura	<i>va</i>	‘go’
SV:	N Tanna	<i>va</i>	‘come’
SV:	Whitesands	<i>va</i>	‘come’
SV:	Lenakel	<i>va</i>	‘come’
SV:	Anejom	<i>ha-m</i>	‘come’ (< <i>*pa</i> + <i>*mai</i> ‘come’)

A small number of forms from Schouten (NNG) and Reefs/Santa Cruz (TM) languages and one from Sobei (SJ) are listed below. It would be easy to attribute them to POc **pa* above, but in all instances except Medebur initial *w-* reflects **w-* or **u-*. They evidently reflect the POc deictic directional verb **ua* ‘go towards addressee’ (vol.2:273–274). There is no other evidence to suggest that POc **ua* functioned as a locomotion verb, and its extended use as a verb of locomotion may have developed separately on the north coast of New Guinea and in the Reefs/Santa Cruz languages.

NNG:	Medebur	<i>-wa</i>	‘go’
NNG:	Ali	<i>-wa</i>	‘go’
NNG:	Sissano	<i>-wa</i>	‘walk’
NNG:	Sera	<i>-wa</i>	‘walk’
SJ:	Sobei	<i>-wo</i>	‘go’
TM:	Äiwoo	<i>wæ</i>	‘go’

The medial consonant of POc *[y]aku ‘go, go away’ is reconstructed on the basis of Yabem low tone, which reflects the loss of a Proto Huon Gulf voiced obstruent, probably either *v or *ɣ, lenis reflexes of POc *p or *k. Of these, both are lost intervocalically in Takia, but only *k is lost in the Admiralties languages.

POc *[y]aku ‘go, go away’

Adm:	Nyindrou	<i>au</i>	‘leave, go away’
Adm:	Loniu	<i>yaw</i>	(DIR) ‘away’
Adm:	Kele	<i>aw</i>	‘go away’
Adm:	Titan	<i>aw</i>	‘leave, go, disappear’
NNG:	Yabem	<i>-yà</i>	‘go (to her/him/them)’ (? < *yay)
NNG:	Bilibil	<i>au</i>	‘walk’
NNG:	Takia	<i>-ao</i>	‘go, go away, depart, flow’
NNG:	Megiar	<i>-au</i>	‘go’
SJ:	Sobei	<i>awo</i>	‘walk’
MM:	Vaghua	<i>zao</i>	‘go’
MM:	Maringe	<i>zao-zaʔo</i>	‘walk’
MM:	Sisiqa	<i>zo-zo</i>	‘walk’
TM:	Tanema	<i>au</i>	‘walk’

Only a few reflexes of POc *oRo ‘come, go’ have been found outside Polynesia. The glosses of its reflexes indicate that it was not a deictic directional verb, but it is otherwise difficult to further specify its meaning.

POc *oRo ‘come, go’

NNG:	Manam	<i>oro</i>	‘go landwards’
SES:	To’aba’ita	<i>olo</i>	‘arrive’
SES:	Lau	<i>olo</i>	‘come, go’
SES:	Arosi	<i>oro</i>	‘come, go for a purpose’
Fij:	Rotuman	<i>ō</i>	‘come, go’ (probable Pn loan)
Pn:	Tongan	<i>ō</i>	‘go’ (non-singular form of both <i>hau</i> ‘come’ and <i>alu</i> ‘go’)
Pn:	Niue	<i>ō</i>	‘come, go’ (non-singular form of both <i>hau</i> ‘come’ and <i>fano</i> ‘go’)
Pn:	Samoa	<i>ō</i>	plural of <i>alu</i> ‘go, get’; ‘go side by side, go together with’
Pn:	Anuta	<i>ō</i>	‘come, go’
Pn:	E Uvean	<i>ō</i>	‘come, go’ (plural)
Pn:	Takuu	<i>ō</i>	‘come, go’ (plural)
Pn:	Tikopia	<i>ō</i>	‘proceed’ (plural)
Pn:	Sikaiana	<i>ō</i>	‘come’ (plural)
Pn:	Tokelauan	<i>ō</i>	‘go’ (plural)

Just as it is sometimes difficult to distinguish between reflexes of *lako (above) and *laka (§6.3.1.3), so it is sometimes difficult to distinguish between reflexes of *pano (above) and *pana (below). Languages as far apart phylogenetically as Vitu and Māori have reflexes of

both forms, indicating that both occurred in POc, but there are few languages reflecting both and it is difficult to be sure what the POc meaning contrast was.

Blust (ACD) notes that, ‘In many languages reflexes of this form [**pana*] are indistinguishable from reflexes of the far more common PAN **paNaw*, POc **pano* ‘go away, depart, leave on a journey’. Label *han* is assumed to reflect POc **pana* rather than **pano* since its closest relatives which have preserved the final vowel point to **-a*.’ The same assumption is made here regarding other New Ireland reflexes, except for those with reduplicated versions that mean ‘walk’. These are attributed to **pano* (see POc (?) **pa(no)-pano* ‘walk’ in §6.3.1.3), but this decision may be mistaken.

POc **pana* ‘go, move, walk’ (ACD)

PT:	Sudest	<i>vana</i>	‘go’
PT:	Sinaugoro	<i>fana-</i>	‘step’ (in compounds: <i>fana-beretoya</i> ‘step to the side’, <i>fana-kau</i> ‘step on’, <i>fana-tari</i> ‘step down’)
MM:	Vitu	<i>vana</i>	‘walk, travel’
MM:	E Kara	<i>pan</i>	‘go’
MM:	Patpatar	<i>han</i>	‘go, walk’
MM:	Tolai	<i>vana</i>	‘go, move; come’
MM:	Sursurunga	<i>han</i>	‘go’
MM:	Konomala	<i>fan</i>	‘go’
MM:	Label	<i>han</i>	‘go, go away; come’
Pn:	Kapingamarangi	<i>hana</i>	‘go’
Pn:	Rarotongan	<i>ana</i>	‘move (of a person)’
		<i>ana mai</i>	‘come/move here (toward speaker)’
		<i>aná-atu</i>	‘go/move away (from speaker)’
Pn:	Maori	<i>fana</i>	‘travel, come, go’

6.3.1.2 Move from one location to another

POc **(ali)ali* ‘move from one location to another’ was inherited from PMP. In Vanuatu excluding the Banks and Torres Islands in the north, it has undergone a semantic shift to mean ‘walk’.

PMP **aliq* ‘move, change place’ (ACD)

POc **(ali)ali* ‘move from one location to another’

NNG:	Kaulong	<i>al</i>	‘move, change location of, transplant’
NNG:	Awad Bing	<i>al</i>	‘go’
SES:	Gela	<i>ale-ale</i>	‘move’
NCV:	Mota	<i>al</i>	‘move’
		<i>ali-al</i>	‘move from place to place’
NCV:	Kiai	<i>ali-ali</i>	‘walk’
NCV:	Sakao	<i>yal-yal</i>	‘walk’
NCV:	Merei	<i>ali-ali</i>	‘walk’
NCV:	Wusi	<i>ali-ali</i>	‘walk’
NCV:	Maskelynes	<i>-iar</i>	‘walk’

NCV: Paamese	<i>ali</i>	‘walk, go to work in the garden’
NCV: Lamenu	<i>-yali</i>	‘walk’
SV: Lenakel	<i>-ali(uok)</i>	‘walk’
SV: Whitesands	<i>-ali(wak)</i>	‘walk’

6.3.1.3 Walk, step, stride

It is difficult to distinguish between the meanings of **lako*/**la* and **pano*/**pa* ‘go on foot’ (§6.3.1.1) and of the terms in the present section, but the terms below each perhaps denote the specific action of walking as opposed to generic going on foot.

Two POC terms meaning ‘go, walk’, **raka(t)* and **laka*, are formally similar to POC **lako* ‘go (away, to), walk’ above. Where the nucleus of the second syllable reflects **-o* or **-a*, the distinction between **lako* and **raka(t)*/**laka* is straightforward. The attribution to **lako* of reflexes that have lost the final vowel is briefly explained in §6.3.1.1. Where a verb reflects the short form **la*, it is taken to reflect **lako*.

It is more difficult, however, to distinguish between reflexes of POC **raka(t)* ‘go, walk’ and of POC **laka* ‘go, walk’ in languages that have merged POC **r* and **l*, but terms that have the sense of stepping over something are attributed to **laka*. This motivates the attribution of PPN **laka* ‘step, march; pass, cross over’ and its many reflexes to **laka* rather than to **raka(t)*, although phonologically they could reflect either. It seems likely that reflexes of the two terms were conflated in some languages. The PMP ancestors of POC **raka(t)* and **laka* are respectively **rakat* and **la(ŋ)kaq*, but transitive Wayan (Fij) *lakat-i* reflects **l-* (not **r-*) but **-t* (not **-q*), pointing to a hybrid **lakat*.

Lihir merges **r* and **l* as *l*, but on semantic grounds Lihir *laka(n)*, listed under ‘cf. also’, probably reflects **raka(t)* rather than **laka*. Other items listed under **raka(t)* have an unambiguous initial consonant.

PAn **rakat* ‘walk’ (ACD)

PMP **rakat* ‘walk’ (ACD)

POC **raka(t)* ‘go, walk’

PT: Dobu	<i>laga</i>	‘go towards bush, southwards’ (-g- for †-ʔ-)
PT: Motu	<i>raka</i>	‘step, go, walk’
PT: Sinaugoro	<i>raka</i>	‘go, walk’
SES: Baelelea	<i>rā</i>	‘go up’

cf. also:

MM: Lihir	<i>laka(n)</i>	‘go’

Motu has dozens of compounds denoting manners of walking, e.g. *raka-edea* ‘walk alone’, *raka-hanai* ‘walk past’, *raka-hekapu* ‘walk side by side’, *raka-muri* ‘walk backwards’, *raka-roho* ‘stride along’, *raka-kahira* ‘draw near’, and *raka-kava* ‘walk aimlessly’. Its Sinaugoro cognate behaves similarly: *raka-rosi* ‘go outside’, *raka-vesiri* ‘go away’, *raka-yeyeyayi* ‘go from place to place’.

PMP **la(ŋ)kaq* ‘step, stride; omit or skip over’ (ACD)

POc **laka* ‘go, walk; step over’¹¹

MM:	Patpatar	<i>laka</i>	‘go inside, enter’
MM:	Sursurunga	<i>ləkə-i</i>	‘step over, disregard’
NCV:	W Ambae	<i>laka</i>	‘walk’
Fij:	Rotuman	<i>laʔa</i>	‘go’
Fij:	Wayan	<i>laka</i>	‘go, move along, proceed’
		<i>lakat-i</i>	‘go to or over (a place)’
		<i>laka-laka</i>	(vi) ‘go, keep going’; (N) ‘route, method, procedure; conduct, behaviour; style, characteristics; contributions to a feast or presentation, what one brings’

PPn **laka* ‘step, march; pass, cross over’

Pn:	Tongan	<i>laka</i>	‘go, walk (usually a short distance only); step, march; move forward, proceed, progress, develop, advance; pass, cross over; surpass, exceed, omit, skip over’
Pn:	Niuean	<i>laka</i>	‘step; cross over’
		<i>fe-laka</i>	‘step over s.o./s.t. (formerly considered an insult or desecration)’
		<i>laka-aŋa</i>	‘a step, a pace’
		<i>lakaf-ia</i>	‘stepped over, exceeded’
Pn:	Samoa	<i>laʔa</i>	‘step, march’
		<i>laʔa-laʔa</i>	‘go step by step’
		<i>la-laʔa</i>	‘step over; put someone above (in estimation or respect)’
		<i>laʔas-ia</i>	‘step over, go beyond’
Pn:	Tuvaluan	<i>laka</i>	‘step’
		<i>laka-laka</i>	‘take several steps’
		<i>la-laka</i>	‘press down with foot (as when firming soil)’
Pn:	Anuta	<i>raka</i>	‘step over something’
		<i>raka-raka</i>	‘walk with large brisk steps; walk quickly’
Pn:	Futunan	<i>faka-laka</i>	‘pass over’
		<i>lakaf-ia</i>	‘be passed over’
Pn:	Nukuoro	<i>laga-laga</i>	‘put down one foot after the other (as in walking or marching in place)’
Pn:	Māori	<i>faka-raka</i>	‘walk, step out’

A reduplicated reflex of POc **pano* ‘go (away)’, (?) ‘move in a transverse direction’ (§6.3.1.1) means ‘walk’ in a number of languages with a discontinuous distribution including some MM languages of New Ireland, some SES languages, and a number of northern Vanuatu languages. The reduplicated form is tentatively attributed to POc.

¹¹ John Lynch points out that Clark (2004) reconstructs PNCV **lakau~*lakawa* ‘cross over’. I suggest this may be a lexicalised serial verb construction made up of **laka* and POc **ua* ‘go towards addressee’ (vol.2:284).

POc (?) **pa(no)-pano* ‘walk’

MM:	Tiang	<i>pan-pan</i>	‘walk’
MM:	Bilur	<i>van-an</i>	‘walk’
SES:	Tolo	<i>va-vano</i>	‘walk’
SES:	Ghari	<i>va-vano</i>	‘walk’
SES:	Talise	<i>va-vano</i>	‘walk’
SES:	Fagani	<i>ha-hano</i>	‘walk’
SES:	Bauro	<i>ha-hano</i>	‘walk’
NCV:	Mwotlap	<i>van-van</i>	‘walk’
NCV:	Dorig	<i>van-van</i>	‘walk’
NCV:	Araki	<i>ḍaano-vano</i>	‘walk’
NCV:	Aore	<i>ḍan-ḍano</i>	‘walk’
NCV:	Tambotalo	<i>ḍan-ḍano</i>	‘walk’
NCV:	Tamambo	<i>v^wano-v^wano</i>	‘walk’
NCV:	Tutuba	<i>vano-vano</i>	‘walk’
NCV:	Mafea	<i>ḍan-ḍanō</i>	‘walk’
NCV:	Narango	<i>fan-fan</i>	‘walk’

At first sight POc **pajale* ‘walk about, take a walk’ looks suspiciously like the root **jalan* ‘path’, preceded by the causative prefix **pa-*. However, this would give rise to Lavongai †*asalen* (*salen* ‘path’) and Tigak †*asalan* (*salan* ‘path’) instead of *pasal* in both languages.

POc **pajale* ‘walk about, take a walk’

NNG:	Takia	<i>-padal</i>	‘go astray, disappear’
NNG:	Manam	<i>alale</i>	‘walk’ (for † <i>adale</i>)
NNG:	Kairiru	<i>-vyal</i>	‘walk’
NNG:	Kis	<i>asali</i>	‘walk’
MM:	Lavongai	<i>pasal</i>	‘walk’
MM:	Tigak	<i>pasal</i>	‘walk’
MM:	Teop	<i>pahana</i>	‘cross (s.t.), go over (to s.t.)’
MM:	Tinputz	<i>pahan</i>	‘go across’

PMic **faSale* ‘walk, move around’

Mic:	Marshallese	<i>yetal</i>	‘walk’
Mic:	Tanapag Carolinian	<i>fatal</i>	‘walk, journey, take a walk’
Mic:	Mortlockese	<i>fətal</i>	‘walk about’
Mic:	Satawalese	<i>fetæl, fetæn</i>	‘walk’
Mic:	Woleaian	<i>fetare</i>	‘move by its own power, go’
Mic:	Pulo Annian	<i>θatare</i>	‘walk around’

6.3.1.4 Move quickly, hurry, run

Terms in this area of meaning are difficult to reconstruct, as lexical replacement seems to have been frequent. For this probable reason reflexes of the reconstructed etyma have spotty distributions.

POc *(*i,a*)*ropu* ‘run’ bears a superficial resemblance to POc **Ropok* ‘fly’ (§6.3.2.1), and indeed some terms meaning ‘run’ reflect the latter (e.g. Longgu [SES] *lovo-lovo* ‘run quickly’,

a reduplicated form of *lovo* ‘fly’). The terms listed below, however, reflect POc **r-*, as reflexes of **r* and **R* are distinct in Admiralties languages. Furthermore, terms for ‘fly’ reflecting **Ropok*—Mussau *loo*, Titan *yo*, Misima *you*—are different from those reflecting **(i,a)ropu* ‘run’.

POc **(i,a)ropu* ‘run’

Adm:	Mussau	<i>ilou</i>	‘run’
Adm:	Titan	<i>ilow</i>	‘run’
Adm:	Nyindrou	<i>arou</i>	‘(people) rush in a disorganised manner’
PT:	Misima	<i>lou</i>	‘run away’
PT:	Tawala	<i>lowo</i>	‘run, run away’

The cognate set supporting POc **jonas* ‘move quickly’ entails two small phonological difficulties. First, the non-Micronesian reflexes reflect POc **j-*, but Bender et al. (2003) reconstruct PMic **caŋa*. PMic **c-* regularly reflects POc **d* or **dr*. However, Kiribati *r-* reflects POc **d*, **dr* or **j-*, and the most economic assumption is that Ponapean *t-* and Chuukese *ɕ-* reflect an irregular intra-Micronesian sound change. Second, evidence as to the first vowel is conflicting. Admiralties and NNG languages reflect *-o-*, MM and Micronesian languages *-a-*. I have assumed here that the protovowel was **-o-* and that *-a-* is the result of assimilation.

POc **jonas* ‘move quickly’

Adm:	Lou	<i>sɔŋ</i>	‘run, run away’
Adm:	Baluan	<i>soŋ</i>	‘run’
Adm:	Titan	<i>coŋ</i>	‘run away and hide’
NNG:	Aria	<i>suoŋ</i>	‘run, quickly’
NNG:	Apalik	<i>soŋ</i>	‘run, (wind) blow’
MM:	W Kara	<i>saŋas</i>	‘quickly; walk’
MM:	E Kara	<i>saŋas</i>	‘walk’
MM:	Nalik	<i>saŋas</i>	‘walk’
MM:	Sursurunga	<i>saŋar</i>	‘hurry, (be) quick; quickly’ (<i>-r</i> for <i>†-s</i>)

PMic **Saŋa* ‘move quickly’ (Bender et al. 2003: **caŋa*)

Mic:	Kiribati	<i>raŋa</i>	‘move fast’
Mic:	Ponapean	<i>taŋ</i>	‘run, flee, swim (as fish); ‘run to (s.t.)’
Mic:	Chuukese	<i>ɕaŋ</i>	‘fly, be flying (as a bird)’

6.3.1.5 Crawl, creep

Two POc terms for ‘crawl, creep’ can be reconstructed. The term with the most widely distributed reflexes is POc **kaRaka* ‘crawl on all fours’. Less widely distributed, with only one non-WOc reflex is POc **(d,dr)aRaC* ‘crawl (along the ground)’ below.

POc **kaRaka* ‘crawl on all fours’

Adm:	Mussau	<i>kalaa</i>	‘crawl’
NNG:	Takia	<i>karak</i>	‘creep, crawl’

NNG:	Mangap	<i>kara-ra</i>	'crawl'
MM:	Bola	<i>karaka</i>	'crawl'
NCV:	Nokuku	<i>kerak</i>	'climb'
NCV:	Tamambo	<i>haraha</i>	'(child) crawl'
NCV:	Araki	<i>hadaho</i>	'crawl, walk on all fours'
NCV:	Rerep	<i>karah</i>	'creep on the knees'
NCV:	Port Sandwich	<i>kalax</i>	'crawl'
NCV:	Paamese	<i>keaa</i>	'crawl'
NCV:	N Efate	<i>karaka</i>	'walk bent over, hands supporting body (indicates child will soon walk properly)'
SV:	Anejom	<i>a-yray</i>	'creep, crawl'

POc **(d,dr)aRaC* 'crawl (along the ground)'

NNG:	Mutu	<i>"darab</i>	'crawl'
NNG:	Poeng	<i>ralaŋ</i>	'crawl; walk on hands and feet/knees'
		<i>ralasi</i>	'crawl; go underneath'
PT:	Gumawana	<i>dale</i>	'crawl on the ground; bow (to s.o.)'
PT:	Iamalele	<i>dale</i>	'crawl, walk, move across ground'
PT:	Tawala	<i>dala</i>	'crawl, swim'
PT:	Saliba	<i>dala</i>	'crawl'
PT:	Wedau	<i>dara</i>	'crawl'
PT:	Dawawa	<i>dara</i>	'crawl'
PT:	Sinaugoro	<i>dara</i>	'crawl'
MM:	Nakanai	<i>gala</i>	'crawl'
SES:	'Are'are	<i>da-dala</i>	'creep, crawl, glide as a snake'

PCP **dolo* 'crawl (along the ground)' bears a vague formal similarity to POc **(d,dr)aRaC* above, but in fact only their initial consonants correspond and they are not related.

PCP **dolo* 'crawl (along the ground)'

Fij:	Wayan	<i>dolo</i>	'crawl, wriggle or slide along on one's belly, like a snake'
Pn:	Tongan	<i>to-tolo</i>	'crawl'
Pn:	Niuean	<i>to-tolo</i>	'crawl'
Pn:	Rennellese	<i>togo</i>	'crawl'
Pn:	Samoan	<i>tolo</i>	'crawl, swarm (of creatures found in large numbers)'
		<i>to-tolo</i>	'crawl, creep'
Pn:	Tikopia	<i>toro</i>	'crawl, creep'
Pn:	Tahitian	<i>toro</i>	'run or creep as vines or roots of plants'
Pn:	Maori	<i>to-toro</i>	'creep, crawl'
Pn:	Hawaiian	<i>ko-kolo</i>	'creep, crawl'

6.3.1.6 Limp, hop

The senses of reflexes of POc **tige* vary between ‘hop on one leg’, ‘limp’ and ‘walk on tiptoe’. Iduna *sike* and Longgu *tike* occur where respectively †*yige* and †*tige* would be the regular reflexes and are evidently loans. PPn **teki* reflects vowel metathesis.

POc **tige* ‘hop on one leg, limp’

PT:	Iduna	(-lufa)sike-sike	‘hop on one leg’ (s- for † <i>y</i> -; -k- for †-g-)
PT:	Gapapaiwa	sike	‘limp’
PT:	Sudest	sike	‘hop’ (-k- for †-g-)
MM:	Sursurunga	sik-si(kok)	‘limp, walk on tiptoe’ (-k- for †-g-)
MM:	Teop	sige	‘lame’
		sige-sige	‘limp, hop’
SES:	Longgu	ti-tike	‘hop’ (t- for † <i>θ</i> ; -k- for †-g-)
NCV:	Avava	si-sige/(t)	‘hop’ (John Lynch, pers. comm.)
NCV:	Ninde	sage-sage	‘hop’ (John Lynch, pers. comm.)
NCV:	S Efate	tig-tig	‘hop’

PPn **teki* ‘hop’ (POLLEX)

Pn:	Emae	saere fakatuu-teki	‘walk or stand on tiptoe’ (saere ‘go’)
Pn:	Marquesan	teki	‘limp, lame, hop’
Pn:	Tongarevan	teki	‘hop’
		(pere)teki	‘hopscotch’
Pn:	Pukapukan	teki	‘hop on one foot’
Pn:	Tahitian	teʔi	‘hop, limp’
Pn:	Tuamotuan	teki	‘hop on one leg’
Pn:	Māori	(hii)teki	‘hop on one foot’

6.3.1.7 Roll

This subsection concerns ‘roll’ as an intransitive locomotion verb expressing the manner in which its subject moves, e.g. ‘The stone rolled down the hill.’ At first sight, the items in the three sets below seem to form a single cognate set, but closer examination shows that they reflect three different POc etyma. The first, **buliŋ* (VI) ‘roll’, was intransitive (or just possibly ambitransitive, i.e. used both transitively and intransitively). The other two, **p^(w)uluk-i-* (VT) ‘roll’ and **p^(w)uri-* (VT) ‘roll’, were transitive, and intransitive forms meaning ‘roll’ in its locomotion sense were formed with the spontaneity prefix **ta-* (§1.3.5.4). Drehet *ta-pulu-i* and Samoan *ta-fuli* (VI) reflect POc **ta-*, while Bariai *ma-pul* reflects POc **ma-*. These prefixes are described by Evans (2003:268–271, 279–284), who notes that both were only semi-productive in POc, both were valency-decreasing, removing the agent, while **ta-* also emphasised the spontaneity of the event (2003:300).

PMP **puliŋ* (VI) ‘turn round, rotate’POc **buliŋ* (VI) ‘roll’

NNG:	Takia	-bu-buli	(VT) ‘roll’
PT:	Dobu	buni	(VI) ‘roll (as a canoe at sea)’
MM:	Tolai	buli	(VT) ‘turn, roll, turn s.t. upside down’

MM:	Ramoaaina	<i>buli</i>	(VI, VT) 'roll' (dialect variant <i>bulu</i>)
SES:	Gela	<i>pili</i>	(VI) 'roll over and over'
SES:	To'aba'ita	<i>(a)buli</i>	(VI) 'roll'
SES:	Lau	<i>(ā)buli</i>	(VI) 'roll; headlong'
SES:	Arosi	<i>buri</i>	'wallow, roll on the ground (as a dog)'
		<i>buriŋ-aʔi</i>	'roll on (s.t.)'

POc **p^(w)uluk-i-* (VT) 'roll'

Adm:	Drehet	<i>ta-pulu-i</i>	(VI) 'roll, capsize'
MM:	Patpatar	<i>puluk-ane</i>	(VT) 'overturn; roll' (- <i>ane</i> APPLICATIVE)

PNCV **[v,b]uluk-i* 'fold, bend' (Clark 2009)

NCV:	Mota	<i>wuluy</i>	'close over'
NCV:	Uripiv	<i>-bulk-i</i>	'bend, fold'
NCV:	Port Sandwich	<i>^mburu^g-i</i>	'bend knees; fold (material); roll'

POc **p^(w)uri-* (VT) 'roll'

Adm:	Mussau	<i>puli</i>	(VT) 'roll'
NNG:	Bariai	<i>ma-pul</i>	(VI) 'roll spontaneously'
PT:	Gumawana	<i>si-pula</i>	(VI) 'roll (by accident)'
PT:	Dobu	<i>puli</i>	(VI, VT) 'roll (of a stone)'
PT:	Molima	<i>puli-</i>	(VT) 'push or roll along (as a log)'
PT:	Tawala	<i>wili</i>	'roll'
Fij:	Wayan	<i>vuli</i>	'(of a baby lying down) turn over, move position'

PPn **fuli* 'turn round or over'

Pn:	Tongan	<i>fuli</i>	'turn (round or over)'
Pn:	Samoan	<i>fuli</i>	(VT) 'turn over, roll over (as a tree trunk)'
		<i>ta-fuli</i>	(VI) 'roll'
Pn:	Anutan	<i>puri</i>	'turn'
Pn:	Tahitian	<i>huri</i>	'turn over, roll (as a cask)'
Pn:	Tuamotuan	<i>huri</i>	'turn (round or over)'

6.3.1.8 Climb

'Climb' has two main senses in English: 'go up' and 'propel oneself up or down (a tree, a cliff etc)'. The first of these senses is a verb of direction, and its POc equivalent is **sake*, reconstructed in vol.2 (pp 263-264). The sense intended here is the second, although the glosses below suggest that its meaning was readily extended to include the first sense. The POc verb is **panaik*, and one of the activities it denoted was one that is still readily seen in Melanesian villages, nicely defined in Ivens' (1918) dictionary definition: 'climb trees ... with a rope round the feet, ascending by alternate jumps of hands and feet'.

Blust (ACD) reconstructs **panek*, as supported by his data. POc **panaik* is reconstructed here to take account of Lukep *painak*, which appears to reflect metathesis of the two syllable nuclei.

PMP **panahik* ‘climb’ (ACD)POc **panaik* ‘climb (tree etc.)’ (ACD: **panek*)

NNG:	Lukep (Pono)	<i>-painak</i>	‘climb up a steep hill’
PT:	Molima	<i>vane</i>	‘climb’
PT:	Bunama	<i>hane</i>	‘climb, go up’
PT:	Sudest	<i>vana</i>	‘climb up’
PT:	Misima	<i>pani</i>	‘climb (tree)’
SES:	Gela	<i>vane</i>	‘grow abnormally’
SES:	Longgu	<i>vane</i>	‘climb, rise’
		<i>vaneʔ-i-</i>	‘climb s.t.’
SES:	Lau	<i>fane</i>	‘rise up in sky, of sun, moon, or cloud’
SES:	Kwaio	<i>fane</i>	‘climb, go up’
SES:	’Are’are	<i>hane</i>	‘climb, ascend, rise (of sun and moon); rise, ferment’
SES:	Sa’a	<i>hane</i>	(VI) ‘climb trees ... with a rope round the feet, ascending by alternate jumps of hands and feet’
SES:	Arosi	<i>hane, haneʔ-i</i>	(VI, VT) ‘climb (not a hill) a rope, tree, cliff, using hands’

6.3.2 Locomotion in the air

There are far fewer terms for locomotion in the air than for on land or in/on water simply because human beings in traditional societies do not engage in aerial locomotion. The two main meanings associated with movement through the air are ‘fly’ and ‘fall’.

6.3.2.1 Fly

The most widespread cognate set for ‘fly’ reflects POc **Ropok*. It is not found, however, in Micronesian or in this meaning in Central Pacific languages. Reflexes exist in Polynesian but with changed meaning (PPn **ofo* ‘be startled, wake up’; §4.6.4) In Micronesian languages **Ropok* is replaced by various terms. In Eastern Fijian we find Bauan *vuka*, Boumaa *vuʔa*, in Western Fijian Wayan *ḍavu*, whilst the PPn term was **lele* (see below). The Fijian terms listed under ‘cf also’ look at first sight like reflexes of **Ropok*, but are not, as the expected reflex is †*ovo*.

It is interesting that some reflexes of POc **Ropok* and PPn **rere* taken from sources that provide more detailed definitions are glossed not only as ‘fly’ but also as ‘jump’, implying perhaps that the core meaning of the POc and PPn terms was something like ‘move through the air without touching the ground’.

PMP **Rebek* ‘to fly’ (ACD)POc **Ropok* ‘to fly’

Adm:	Mussau	<i>lō</i>	‘fly’
Adm:	Loniū	<i>wəh</i>	‘fly, jump’
NNG:	Poeng	<i>lo</i>	‘fly, go’
NNG:	Yabem	<i>-lob</i>	‘fly’

NNG:	Takia	<i>-rou</i>	'fly'
NNG:	Manam	<i>ro</i>	'fly'
NNG:	Kairiru	<i>-ruo</i>	'fly'
PT:	Gapapaiwa	<i>rovo</i>	'fly'
PT:	Muyuwa	<i>yow</i>	'fly'
PT:	Motu	<i>roho</i>	'fly, leap, skip'
MM:	Bali	<i>rovoko</i>	'fly'
MM:	Nakanai	<i>lovo</i>	'fly'
MM:	Lavongai	<i>ŋoi</i>	'fly'
MM:	Tiang	<i>io-io</i>	'fly'
MM:	Tabar	<i>rovo</i>	'fly'
MM:	Lihir	<i>lah</i>	'fly'
MM:	Sursurunga	<i>roh</i>	'fly'
MM:	Ramoaina	<i>rowo</i>	'fly (as birds)'
MM:	Siar	<i>rofoi</i>	'fly'
SES:	Bugotu	<i>ðovo</i>	'fly'
SES:	Longgu	<i>lovo</i>	'fly'
SES:	Lau	<i>lofo</i>	'jump, fly'
SES:	Sa'a	<i>loho</i>	'fly, swoop'
TM:	Äiwoo	<i>luo</i>	'fly'
PNCV * <i>rovo</i> 'run, flow, jump, fly'			
NCV:	Mota	<i>rowo</i>	'spring, leap, move quickly up forward, rise, grow; fly (of birds and flying fish)'
NCV:	Raga	<i>rovo</i>	'run, sail, flow, fall'
NCV:	Kiai	<i>rovo</i>	'move, get out of the way, flee',
NCV:	Uripiv	<i>-row</i>	'fly, jump',
NCV:	Lonwolwol	<i>roo</i>	'run (also of liquids); go well, prosper'
NCV:	Paamese	<i>loho</i>	'run'
NCV:	Namagir	<i>dow</i>	'go, go by, pass',
NCV:	Nguna	<i>dowo</i>	'fall'
SV:	Lenakel	<i>ivək</i>	'fly'
cf. also			
Fij:	Wayan	<i>rō</i>	'fly up, rise up through the air; land, alight, come down' (for † <i>ovo</i>)
		<i>rōv-i</i>	'land, settle, alight on s.t.'
Fij:	Boumaa	<i>rō</i>	'alight (of housefly or bird)' (for † <i>ovo</i>)
		<i>rōv-a</i>	'alight on s.t.'
PPn * <i>lele</i> 'fly, run, leap' (POLLEX)			
Pn:	Niuean	<i>lele</i>	'fly'
Pn:	Tongan	<i>lele</i>	'run'
Pn:	Rennellese	<i>gege</i>	'jump, fly, leap, swing'
Pn:	E Futunan	<i>lele</i>	'fly, run quickly'
Pn:	E Uvean	<i>lele</i>	'fly, run'
Pn:	Pukapukan	<i>lele</i>	'run, swim quickly, of fish'

Pn:	Samoaan	<i>lele</i>	‘fly’
Pn:	Tikopia	<i>rere</i>	‘run, fly, rush’
Pn:	Maori	<i>rere</i>	‘fly, jump, run’
Pn:	Tahitian	<i>rere</i>	‘fly, leap’
Pn:	Hawaiian	<i>lele</i>	‘fly, jump, run’

6.3.2.2 Fall (from a height)

The English term ‘fall’ is polysemous, and only the locomotion sense ‘fall from a height’ is considered here. As Zlatev & Yangklang (2004) point out in relation to serial verb constructions in Thai, ‘fall’ is not strictly a verb of locomotion, but rather a path verb, i.e. a verb of geographic direction. What is more, unlike most locomotion verbs it is not agentive. These facts perhaps provide a clue as to why no Oceanic-wide cognate set for ‘fall’ is found: a number of languages instead use their geographic direction verb ‘go down’ for ‘fall’, thus treating ‘go down’ as unmarked for agentivity.

The most widely reflected form in the data is POc **p^(w)uk^(w)a* ‘fall’. Under ‘cf. also’ are listed a number of WOc items that reflect the appropriate consonants but lack the ‘right’ vowels. This is a conundrum that awaits explanation.

POc **p^(w)uk^(w)a* ‘fall’

MM:	Bali Vitu	<i>poke</i>	‘fall’
MM:	Tigak	<i>puka</i>	‘fall’
MM:	E Kara	<i>poʔo</i>	‘fall’
MM:	W Kara	<i>poko</i>	‘fall’
MM:	Tiang	<i>pukə</i>	‘fall (from tree +)’
MM:	Lihir	<i>puok</i>	‘fall’
MM:	Konomala	<i>puka</i>	‘fall’
MM:	Patpatar	<i>puko</i>	‘fall’
MM:	Kandas	<i>puku</i>	‘fall’
MM:	Ramoaaaina	<i>puka(pari)</i>	‘fall’
MM:	Uruava	<i>uka</i>	‘fall’
MM:	Torau	<i>uka(u)</i>	‘fall’
MM:	Hoava	<i>uke</i>	‘fall’
MM:	Kokota	<i>uka</i>	‘fall’
MM:	Maringe	<i>uka</i>	‘fall’
SES:	W G’canal	<i>puka</i>	‘fall’
SES:	Talise	<i>puka</i>	‘fall’
SES:	Birao	<i>puka</i>	‘fall’

cf. also

NNG:	Numbami	<i>-peka</i>	‘fall, fall down’
PT:	Iduna	<i>(-)beʔu</i>	‘fall down’
PT:	Gapapaiwa	<i>peku</i>	‘fall’
PT:	Tawala	<i>peu</i>	‘fall’
PT:	Dawawa	<i>beku</i>	‘fall’
MM:	Halia	<i>puku</i>	‘fall’

In support of the PMP monosyllabic root **-buq* ‘fall’, Blust (ACD) cites Yamdena (CMP) *fu-fu* ‘fall from a height’ and Arosi *ahu* below. With the NNG items these imply the possibility of POC **(a)pu*.

POC **(a)pu* (??) ‘fall’

NNG: Mangseng	<i>pu</i>	‘fall’
NNG: Poeng	<i>pu</i>	‘fall from standing position or from height’
SES: Arosi	<i>ahu</i>	‘fall, come down’

6.3.3 Locomotion in and on water

In a study of verbs used in various languages for locomotion in and on water Lander, Maisak & Rahilina (2012) divide this semantic domain into three semantic subdomains: (a) swimming (self-propelled motion of an animate being); (b) floating (uncontrolled and non-agentive motion); and (c) sailing (motion of vessels and of the people aboard). Some languages (e.g. English) have verbs for each of these domains and little more. Others elaborate the subdomains. For example, Indonesian elaborates (c) with many verbs formed from nouns denoting vessels or areas of water. Others, on the other hand, conflate the three subdomains, like Russian, where *plyt’/plavat’* is a verb denoting locomotion in and on water in general.

Given that the speakers of POC were skilful sailors, in many cases long-distance sailors, one might expect POC to have been like Indonesian. Indeed, perhaps it was, but the available data do not allow reconstruction of an elaborate set of terms for (c). Only POC **palau(r)* ‘go to sea, make a sea voyage’ is reconstructable (§6.3.3.1). This may be because relevant terms in modern languages have been lost with the demise of the ocean-going canoe, or simply because researchers have not been conscious of the need to collect such terms. POC terms can be reconstructed for the three subdomains proposed by Lander et al., but not for much more. There was also a verb for ‘wade’ (§6.3.3.2), a concept not included in their analysis. There are two reconstructions for ‘swim’ (§6.3.3.3) and one for ‘go under water’ (§6.3.3.4). The ‘swim’ terms presumably differed in meaning in some now irretrievable way. Modern languages often distinguish between swimming on the surface and swimming under the surface. There were also terms for ‘float’ (§6.3.3.5). Thus if one is to believe the testimony of the reconstructions presented in this section, POC was like English in its lexicalisation of locomotion in and on water, but this may well be an artefact of data collection and/or modernisation.

6.3.3.1 Travel by sea

No term for a locomotion verb ‘sail’ is reconstructable. POC **palau(r)* meant ‘go to sea, make a sea voyage’, and is derived from PMP **lahud*/POC **laur* ‘sea, seawards’ (vol.2:91–92).

PMP **pa-lahud* ‘go down to the sea or coast’

POC **palau(r)* ‘go to sea, make a sea voyage’ (vol.1:206–207)

SES: Tolo	<i>vola-volau</i>	‘run, race’
NCV: Raga	<i>walau</i>	‘guide, steer, direct’
NCV: Mota	<i>wala-walau</i>	‘paddle all together’
NCV: Nguna	<i>wo-wolau</i>	‘steer canoe’

Mic:	Kiribati	<i>porau, po-porau</i>	‘travel by sea’ (prob. borrowed from a Pn source)
Fij:	Bauan	<i>volau</i>	(v) ‘make a sea voyage’; (N) ‘boat house’
Pn:	Tongan	<i>folau</i>	‘voyage, travel by sea’
		<i>folau(?aŋa)</i>	‘boat in which one voyages’ (-?aŋa < NOM)
		<i>folau(?ia)</i>	‘be constantly visited by ships’
Pn:	Rennellese	<i>hogau</i>	(1) ‘ocean voyage’; (2) ‘canoe making an ocean voyage’
Pn:	Samoa	<i>folau</i>	‘travel by sea, make a voyage; depart, sail’
		<i>fōlau(ŋa)</i>	‘voyage’ (-ŋa < NOM)
		<i>folau(vaʔa)</i>	‘sailor’
Pn:	Tikopia	<i>forau</i>	‘voyage overseas, travel abroad’
Pn:	Maori	<i>farau</i>	(1) ‘travel, particularly by water’; (2) ‘company of travellers’
cf also:			
PT:	Misima	<i>alalau</i>	‘(go on a) voyage (by boat)’

6.3.3.2 Wade

POc had a term for wading, i.e. for walking through water deep enough to impede free movement, namely **tuRu(p)*. Blust (ACD) is uncertain whether the medial consonant is **R*, but this is confirmed by the Baluan reflex. He suggests on the basis of SES transitive reflexes that the POc form may have ended in **-p*. The latter is parenthesised here as we so far have evidence of it only in SES languages.

POc **tuRu(p)* ‘wade’ (ACD; Geraghty 1990:76; PEOc)

Adm:	Baluan	<i>tui</i>	‘wade through water’
PT:	Motu	<i>turu</i>	‘wade’
MM:	Vitu	<i>turu</i>	‘walk in shallow water’
MM:	Nakanai	<i>tulu</i>	‘wade’
MM:	Bola	<i>tulu</i>	‘walk’
SES:	Gela	<i>tulu</i>	‘wade; float’
		<i>tuluv-i-</i>	‘wade to (s.t.)’
SES:	Lau	<i>ulu</i>	‘wade’
		<i>uluf-i-</i>	‘wade to (s.t.)’
SES:	To’aba’ita	<i>ulu</i>	‘cross a stream, river’
SES:	’Are’are	<i>uru</i>	‘wade’
SES:	Kwaio	<i>ulu</i>	‘wade’
SES:	Sa’a	<i>ulu</i>	‘wade’
SES:	Arosi	<i>uru</i>	‘wade’
		<i>uruh-aʔi</i>	‘wade with, wade and carry’
Mic:	Ponapean	<i>sūr</i>	‘sink or wade in mud’

6.3.3.3 Swim

Four POC terms possibly meaning ‘swim’ are reconstructable, namely **kaRu* and **qasa*, both ‘swim’, **loso* ‘bathe, swim’ and **k^waya* ‘immerse self, swim’. It is reasonable to infer that their meanings differed, but, because there is a tendency for reflexes to shift meaning, the protoglosses are inevitably tentative. A major distinction that was evidently made is that between swimming as a physical activity entailing movement of arms and legs, and immersing oneself in water, typically with the intention of washing one’s body. The first two verbs, **kaRu* and **qasa* appear to have denoted the physical activity of swimming by moving arms and legs, whereas **loso* and **k^waya* apparently denoted immersion. Hence **kaRu* and **qasa* were locomotion verbs, and their cognate sets are listed below. POC **loso* and **k^waya*, on the other hand, denoted a physical activity other than locomotion and appear in chapter 7.

POC **kaRu* ‘swim’ (Pawley 1976: Blust 1993a: **kakaRu*)

Adm:	Seimat	<i>ki-kau</i>	(VI) ‘wash’
Adm:	Titan	<i>kaw</i>	‘swim’
Adm:	Nauna	<i>kokaw</i>	‘swim’
NNG:	Sio	<i>kɔlo</i>	‘wade in water’
SES:	To’aba’ita	<i>ʔar(aŋa)</i>	‘swim (of people and animals, but not fish)’
SES:	Kwara’ae	<i>ʔaru</i>	‘swim’
NCV:	Mota	<i>yaru</i>	‘wade/swim advancing by movement of arms and legs’
NCV:	Kiai	<i>karo</i>	‘swim’
NCV:	Mwotlap	<i>yey</i>	‘swim’
NCV:	Vurës	<i>yer</i>	‘swim, wade’
NCV:	Maewo	<i>ya-yaru</i>	‘swim’
NCV:	Raga	<i>ya-yaru</i>	‘swim, float by moving arms and legs; take a bath’
NCV:	Sakao	<i>yer</i>	‘swim’
NCV:	Nguna	<i>karu</i>	‘swim side-stroke’
Fij:	Wayan	<i>gau</i>	‘swim’ (<i>g-</i> for <i>†k-</i>)
		<i>gau-vi-</i>	(VT) ‘swim across, swim to’

PPn **kau*, **ka-kau* ‘swim’ (POLLEX)

Pn:	Tongan	<i>ka-kau</i>	‘swim (of man and ducks, but not fish)’
Pn:	Niuean	<i>ka-kau</i>	‘swim’
Pn:	Samoan	<i>ʔa-ʔau</i>	‘swim’
		<i>ʔāus-ia</i>	‘be swimming with, be full of’
		<i>ʔaus-aʔi</i>	‘swim with (s.o. or s.t.)’
Pn:	Tuvaluan	<i>ka-kau</i>	‘swim’
Pn:	Pukapukan	<i>ka-kau</i>	‘swim’
Pn:	Tikopia	<i>ka-kau</i>	‘swim (of man, but not fish)’
Pn:	Rennellese	<i>ka-kau</i>	‘swim’
Pn:	E Futuna	<i>ka-kau</i>	‘swim’
Pn:	K’marangi	<i>kau</i>	‘swim’
Pn:	Rapanui	<i>kau</i>	‘swim’
Pn:	Hawaiian	<i>ʔau</i>	‘swim’
Pn:	Mangareva	<i>kau</i>	‘swim’

Pn:	Tahitian	<i>ʔau</i>	‘swim’
Pn:	Rapanui	<i>kau</i>	‘swim’
Pn:	Rarotongan	<i>kau</i>	‘swim’
Pn:	Māori	<i>kau(hoe)</i>	‘swim’

POc **qasa* ‘swim’

Adm:	Mussau	<i>asa</i>	‘swim on the surface’
NNG:	Sissano	<i>-yiəs</i>	‘swim’
SJ:	Sobei	<i>-yas</i>	‘swim’
MM:	E Kara	<i>ɲəs</i>	‘swim under water’
MM:	Patpatar	<i>ias</i>	‘swim’
MM:	Kandas	<i>was</i>	‘swim’
MM:	Laghu	<i>aha</i>	‘swim’

Also reconstructable is PEOc **olo* ‘swim’. A possible WOc cognate is Teop (MM) *oro* ‘drift, float, be carried by the current’.

PEOc **olo* ‘swim’

SES:	Gela	<i>olo</i>	‘swim’
SES:	Bugotu	<i>oðo</i>	‘swim’
SES:	W Guadalcanal	<i>olo</i>	‘swim’
SES:	’Are’are	<i>ōro</i>	‘swim’
SES:	Sa’a	<i>olo</i>	‘swim’
TM:	Vano	<i>wowo</i>	‘swim’
NCV:	Vunapu	<i>olo</i>	‘swim’
NCV:	Paamese	<i>olo</i>	‘swim’

6.3.3.4 Dive, go under water

Although most Oceanic languages have verbs that denote various kinds of diving as a human physical activity, the data do not allow POc reconstructions to be made for these meanings. The directional aspect of diving is often indicated by one of the geographic verbs for ‘go down’, POc **sipo* and **sobu*, reconstructed in vol.2:261-262. Nonetheless, one of the meanings of POc **ruku* was ‘go under water’.

POc **ruku* ‘go under water, duck under (s.t.), bow the head’

NNG:	Bam	<i>-ruk</i>	‘swim’
NNG:	Roinji	<i>luyu</i>	‘dive’
MM:	Nakanai	<i>lu-lū</i>	‘duck under’
MM:	Solos	<i>ruku</i>	‘dive’
SES:	Bugotu	<i>rugū</i>	‘duck the head’
SES:	Lau	<i>rū</i>	‘enter’
SES:	Sa’a	<i>ruʔu</i>	‘draw back, retire’
SV:	Sye	<i>o-ruy</i>	‘swim’
SV:	Anejom	<i>e-rey</i>	‘swim, bathe, be in water’

PMic **ruku* ‘tip, go under water’ (Bender et al. 2003)

Mic:	Carolinian	<i>ru^x</i>	‘go under water, of outrigger’
Mic:	Chuukese	<i>ruk</i>	‘tip, be unsteady, tip with the outrigger going under water’
Mic:	Woleaian	<i>ru^{xu}(tiw)</i>	‘bend forward from waist, bow’ (<i>tiw</i> ‘go down’)
Mic:	Mokilese	<i>ruk</i>	‘to bow, bend’
Fij:	Wayan	<i>ruku</i>	‘bow down, stand or walk bent over or in a stooping posture’
Pn:	Rarotongan	<i>ruku</i>	‘dive under water’
Pn:	Hawaiian	<i>luʔu</i>	‘dive, plunge into water, immerse, dip (as shrimp net)’
Pn:	Maori	<i>ruku</i>	‘dive feet first, sink, dive, submerge’

6.3.3.5 Float, drift

Two POC terms meaning ‘float, drift’ can be reconstructed, but it is debatable whether either of them was a locomotion verb. POC **ma-qañur* ‘floating, adrift’ is a promising candidate, as its Seimat and Arosi reflexes have glosses that imply movement. POC **saliR* ‘flow, of water’ denoted movement of water, but the glosses of some of its reflexes also denote the movement of an object floating on flowing water. Whether the latter sense is reconstructable to POC is unclear. NCV reflexes do mean ‘float’, but the unexpected final vowel of PNCV **sale* calls into question its descent from POC **saliR*. PWOC **p^wati* ‘float, drift, be carried on water’ does seem to have denoted movement, but no EOC reflexes have been found.

PAn **qañud* ‘drift on a current, carried away by flowing water’ (ACD)

POC **maqañur* ‘floating, adrift’ (ACD; vol.2:92–93)

Adm:	Seimat	<i>man</i>	‘drift, float on a current’
SES:	Lau	<i>manu-manu</i>	‘float’
SES:	’Are’are	<i>manu-manu</i>	‘float’
SES:	Sa’a	<i>manu</i>	‘float’
SES:	Arosi	<i>manu</i>	‘float in water or air’
SV:	Anejom	<i>a-man-a-man</i>	‘float (VI)’

PMic **maanu* ‘adrift, drift’ (Bender et al. 1983)

Mic:	Chuukese	<i>mār</i>	‘be becalmed; drift’
Mic:	Mortlockese	<i>mān</i>	‘float’
Mic:	Puluwatese	<i>mān</i>	‘drift’
Mic:	Carolinian	<i>māl</i>	‘drift’
Mic:	Satawalese	<i>mān</i>	‘drift, float’
Mic:	Woleaian	<i>māl^u</i>	‘drift, be adrift’
Mic:	Pulo Annian	<i>māri</i>	‘float, drift’
Fij:	Rotuman	<i>mōnu</i>	‘float’

PPn **maqanu* ‘be afloat’ (POLLEX)

Pn:	Tongan	<i>maʔanu</i>	‘be afloat, not to be resting on or touching the bottom’
Pn:	Samoan	<i>mānu</i>	‘come to the surface, emerge (as a turtle)’

Pn:	E Futunan	<i>maʔanu</i>	‘bathe, wash oneself’
Pn:	E Uvean	<i>maʔanu</i>	‘afloat, float’
Pn:	Nukuoro	<i>mānu</i>	‘float in place’
Pn:	K’marangi	<i>mānu</i>	‘buoyant; float’
Pn:	Rennellese	<i>maʔanu</i>	‘float, drift, soar; leap, as in a dance’
Pn:	Tongarevan	<i>mānu</i>	‘afloat, float’
Pn:	Tikopia	<i>mānuu</i>	‘floating on water’
Pn:	Māori	<i>mānu</i>	‘float; be launched; overflow; be flooded’

PMP **saliR* ‘flow, of water’ (ACD)POc **saliR* ‘flow, of water’ (vol.2:94)

NNG:	Takia	<i>-sarir</i>	‘submerge, drown, sink, bury’
PT:	Gumawana	<i>salili</i>	‘drown, sink’
MM:	Nakanai	<i>sali</i>	‘flow’
MM:	Tigak	<i>salik</i>	‘flow’
MM:	Tolai	<i>alir</i>	‘swim, float, drift; float through the air, as a bird with motionless wings; adrift, drifting; run’
MM:	Ramoaina	<i>alir</i>	‘flow; float, drift’
MM:	Bilur	<i>alir</i>	‘swim’
SES:	Gela	<i>hali-hali</i>	‘flow swiftly’

PNCV **sale* ‘float, flow’ (*-e for †*-i)

NCV:	Mota	<i>sale</i>	‘float, drift, soar with open wings; flow, run with water’
NCV:	Nokuku	<i>sale</i>	‘float’
NCV:	Kiai	<i>sale</i>	‘float, fly, sail’
NCV:	Tamambo	<i>sale</i>	‘float, travel’,
NCV:	Sakao	<i>hal</i>	‘float’
NCV:	Uripiv	<i>-sal</i>	‘float’
NCV:	Lonwolwol	<i>hal</i>	‘gush out (of liquids); float, spread, flow; drift (of water or objects floating on water)’
NCV:	Nguna	<i>sale</i>	‘float, drift’
Fij:	Bauan	<i>sali</i>	‘flow’
Fij:	Wayan	<i>sali</i>	‘flow’

PWOC **pʷati* ‘float, drift, be carried on water’

NNG:	Bariai	<i>pat</i>	‘float, drift, float away’
NNG:	Mangap	<i>pot-pot</i>	(vi) ‘float’
NNG:	Sio	<i>pɔti</i>	‘float in one place’
NNG:	Mangseng	<i>(mon)pot</i>	‘float downstream’
NNG:	Poeng	<i>potue</i>	‘carry on water, float’
NNG:	Takia	<i>-fot</i>	‘float, drift’
NNG:	Bing	<i>fat-at</i>	‘float’
NNG:	Manam	<i>poati</i>	‘float’
MM:	Vitu	<i>pati</i>	‘float’
MM:	Bulu	<i>pasi</i>	‘float’

MM:	Bola	<i>pasi</i>	‘drift’
MM:	Nakanai	<i>pati</i>	‘float’
MM:	Nehan	<i>pat-pat-aja</i>	‘float’

6.4 Direction verbs

A section with this title also occurs in vol.2 (pp 256-282). It presents reconstructions of the semantically most basic verbs of geographic direction, i.e. **sipo*, **sobu* and **[s,j]u[(a,u)]* ‘go downward’, **sake* ‘go upward’, **surup* ‘enter, penetrate’, and of deictic direction, i.e. **ma[i]* ‘come (towards speaker)’, **ua/*watu* ‘towards addressee’, **la[ko]*, **pa[no]* and **[y]aku* ‘away from speaker’. The purpose of the present section is to offer reconstructions of verbs that are semantically more complex but have a directional semantic component.

6.4.1 Return

Verbs of returning arguably encode both an element of geographic direction, in that there is a reversal of path direction, and an element of deixis, as movement is towards a goal identical with an earlier starting point of movement.

Three verbs of returning reflect a single PMP root **uliq*. Final **-iq* is often raised to Oceanic *-e*. POc evidently had reflexes of both the plain root **uliq* (POc **uli(q)*, **ule*) and of **um-uliq* (POc **mule*), where PMP **um-* is the marker of actor voice, present by default as the PMP verb was intransitive.

PMP **uliq* ‘return home; return something; restore, repair; repeat; motion to and from’ (ACD)

POc **uli(q)*, **ule* ‘come back’

MM:	Bulu	<i>ule(mai)</i>	‘come back’
MM:	E Kara	<i>ula</i>	‘come back’
MM:	Nalik	<i>uli</i>	‘come back’
MM:	Konomala	<i>ule(i)</i>	‘come back’
MM:	Uruava	<i>ure</i>	(VI) ‘turn round’
Fij:	Wayan	<i>uli</i>	(VI) ‘(of a visitor’s speech) be replied to’
		<i>uli-</i>	(VT) ‘reply to (of a visitor’s speech)’
Pn:	Rarotongan	<i>uri</i>	‘turn round or turn about; to translate, as one language into another’

cf. also:

NNG:	Poeng	<i>ule</i>	‘put behind one with a sense of completion’

In serial verb constructions reflexes of POc **mule* are often treated as verbs of geographic direction, as in this Takia (NNG) example:

<i>u-mul</i>	<i>Ø-palu</i>	=wa
2SG-return	2SG-come	PRF
PATH	DEIXIS	
‘You’ve come back.’		

PMP **um-uliq* 'return home' (ACD)POc **mule* 'return, restore' (ACD)

Adm: Titan	<i>muli-e</i>	'return'
NNG: Gitua	<i>mule</i>	'return, back, again'
NNG: Lukep	<i>-mulu</i>	'come back, turn around, go back'
NNG: Mangap	<i>-mīli</i>	(vi) 'return, turn oneself around, go until, go as far as, stop at'
NNG: Kilenge	<i>-mule</i>	'come back'
NNG: Tami	<i>mul</i>	'backside; come back'
NNG: Poeng	<i>mule</i>	'come back'
NNG: Kaiwa	<i>(lu)mol</i>	'come back' (<i>lu-</i> < POc <i>*liu</i> 'turn aside, change direction')
NNG: Bilibil	<i>-mul</i>	'come back'
NNG: Takia	<i>-mul</i>	'come back'
NNG: Manam	<i>-mule</i>	'come back'
	<i>mule-aki</i>	'return (s.t.)'
NNG: Bam	<i>-mul</i>	'come back'
MM: Vitu	<i>(va)mule</i>	'come back'
MM: Bola	<i>(ya)mule</i>	'come back'
MM: Notsi	<i>mulə</i>	'come back'
MM: Tabar	<i>mure(ɣai)</i>	'come back'
MM: Lihir	<i>miel</i>	'come back'
MM: Madak	<i>ml(oŋ)</i>	'return'
MM: Tolai	<i>mule</i>	(vi) 'come back, return, of persons or things; again, afresh, more, yet'
MM: Simbo	<i>mule</i>	'return; go back, come back; again, once again'
NCV: Mota	<i>mule</i>	'come, go; refresh, restore in sickness'
NCV: Nokuku	<i>mule</i>	'go back, go home',
NCV: Kiai	<i>mule</i>	'go home, return',
	<i>mule-i-</i>	'give back'
NCV: NE Ambae	<i>mule</i>	'go home
NCV: Raga	<i>mule</i>	'reach a certain point'
NCV: Malo	<i>mule</i>	'return home'
NCV: N Ambrym	<i>mol</i>	'return, back'
SV: Anejom	<i>(a-θu)m^woc</i>	'return'

Blust (1983:11–13) draws attention to an idiosyncratic innovation shared by CMP and Oceanic languages. This is the raising of PMP **u-* to **o-* giving a PCEMP variant **oliq* 'return', reflected in Oceanic only in SES languages.

PMP **uliq* 'return home; return something; restore, repair; repeat; motion to and from' (ACD)PCEMP **oliq* 'return' (ACD)POc **oli(q)* 'go back, come back'

SES: Bugotu	<i>oli</i>	'change'
	<i>olih-i</i>	(VT) 'exchange'

		<i>va-oli</i>	(VT) 'exchange; in turn' (<i>va-</i> CAUSATIVE)
SES:	Gela	<i>oli</i>	'come back, return; back, again'
		<i>oli-oli</i>	'go and return'
		<i>oliv-i</i>	'return to'
SES:	Longgu	<i>oli</i>	(VI) 'to return; go back'
SES:	Kwaio	<i>oli</i>	'return, come back to; commit incest'
		<i>faʔa-oli-</i>	'cause to return, send back; return something to a person' (<i>faʔa-</i> CAUSATIVE)
SES:	Sa'a	<i>oli-oli</i>	'return, relieve, replace'
		<i>olis-i</i>	'change, alter'
SES:	Arosi	<i>ori</i>	'return; stroll about'
SES:	'Are'are	<i>ori</i>	'return; come back, go back (home)'

There are relatively few EOC reflexes of the terms reconstructed above, partly perhaps because their function had been taken over by reflexes of PEOc **poki* 'return'.

PEOc **poki* 'return'

SES:	Gela	<i>voyi</i>	'go back, turn over'
SES:	Sa'a	<i>hoʔi</i>	'return'
SES:	Arosi	<i>(a)hoʔi</i>	'return, go back; change, turn into, become'
NCV:	Mota	<i>woy</i>	'change, in character or colour'
Mic:	Kiribati	<i>oki</i>	'return'
Mic:	Carolinian	<i>woxo-wox</i>	'turn food when cooking'
Mic:	Woleaian	<i>wegi-ti</i>	'turn, change, transfer, convert (it)'
Fij:	Bauan	<i>vuki, vuki-ca</i>	'turn, change'
		<i>(ta)vuki</i>	'turned over, capsized'
		<i>voki</i>	'shift, of the wind'
Fij:	Wayan	<i>vuki</i>	'be turned around/over; turn oneself round; change direction'
Fij:	Rotuman	<i>hoʔi</i>	'go back, return'
Pn:	Niuean	<i>foki</i>	'turn, return'
		<i>fo-foki</i>	(VT) 'turn inside out, turn over'
Pn:	Tongan	<i>foki</i>	(VI) 'return'
Pn:	E Uvean	<i>foki</i>	'return'
Pn:	Rennellese	<i>hoki</i>	'go or come back, return'
Pn:	Samoan	<i>foʔi</i>	'return'
Pn:	Tikopia	<i>foki</i>	'return, retreat'
Pn:	Hawaiian	<i>hoʔi</i>	'return'

6.4.2 Turn round

POc apparently had two homophonous verbs with the root **liu*, one glossed 'turn aside, change direction' (this section) and the other **liu* 'go beyond, pass, surpass' (§6.4.3). It is possible that both reflect PAn **liuS*, which Blust (ACD) glosses 'circumambulate, circumvent'. However, its Formosan reflexes suggest that PAn **liuS* formed both intransitive and transitive verbs

meaning ‘turn around’,¹² the sense inherited by POC. Whether PAn **liuS* was also ancestral to PMP **liu* ‘surpass, exceed’ is not clear.

In addition to POC **liu* ‘turn aside, change direction’, a reduplicated **li-liu* ‘turn around, go back’ is also reconstructable (the different glosses of POC **liu* and **li-liu* are tentative at best). Many reflexes of these two forms are similar in meaning to reflexes of the items in §6.4.1, but the overall pattern of their glosses suggests that **liu* and **li-liu* profiled the semantic element of turning around rather than simply of going back.

The forms listed under ‘cf. also’ below appear to reflect a POC **[ri]riu* ‘turn’, i.e. a form in which **l* had been replaced by **r*. This is not a regular sound change.

POC **liu* ‘turn aside, change direction’; **li-liu* ‘turn around, go back’ (ACD)

Adm: Baluan	<i>li-liu</i>	‘go back’
NNG: Poeng	<i>(ga)liu</i>	‘return (said to person nearby)’
	<i>(kaga)liu</i>	‘return (said to someone going far away)’
	<i>(taoga)liu</i>	‘return (by turning around and going back), chase (s.t.)’
NNG: Numbami	<i>-leleu</i>	‘return’
NNG: Kaiwa	<i>lu(mol)</i>	‘come back’ (<i>mol</i> < <i>*mule</i> ‘return’)
NNG: Manam	<i>(-soa)li-li</i>	(VI) ‘turn round’
MM: Minigir	<i>(ta)li-li</i>	‘come back’
MM: Tolai	<i>li-li(kun)</i>	(VI) ‘come back, turn back, return’
	<i>(ma)li-liu</i>	(VI) ‘having gone before, as shown by flattened grass’
MM: Bilur	<i>(va)li-li(kun)</i>	‘come back’
MM: Roviana	<i>li-liu</i>	‘turn around’
SES: Bugotu	<i>(pi)liu</i>	‘turn’
SES: Gela	<i>liu</i>	‘turn aside, go in another direction or by another way’
	<i>li-liu</i>	‘become, change into’
SES: Lengo	<i>(pi)li-liu</i>	‘turn’
SES: Malango	<i>lel-eo</i>	‘turn’
SES: Longgu	<i>liu-</i>	(VT) ‘turn (s.t.) over, e.g. in the fire’
SES: Sa’a	<i>(a)liu</i>	‘turn; change one’s mind’
	<i>li-li</i>	(VI) ‘change, move about’; (VT) ‘change position of, push to one side’
SES: Kahua	<i>ri-ri</i>	‘turn’

PNCV **li(u)-liu* (VI) ‘return; be backwards, be upside down’ (Clark 2009: **liu*)

NCV: Raga	<i>v^wa-liu</i>	‘answer’
NCV: Uripiv	<i>-luwi</i>	‘return’
	<i>-li-li</i>	‘turn (end to end), change positions’,
NCV: Port Sandwich	<i>li-l</i>	‘backwards’
	<i>li-li</i>	‘upside down’
	<i>li-li-in-i</i>	‘back to front’

¹² Budai Rukai *ma-liu-lius* (VI) ‘turn round’, Tamalakaw Puyuma *mu-liu-lius* (VT) ‘turn (s.t.) round’, Amis *liyuc* (VT) ‘turn (s.t.) round’.

NCV: Lonwolwol	<i>lu-lu (ne)</i>	‘backwards, back to front, wrong way round, upside down’,
NCV: Tolomako	<i>li-liu</i>	‘return’,
NCV: Neve’ei	<i>ma-li-li</i>	‘return’
NCV: Naha’ai	<i>ma-li-liu</i>	‘return’
NCV: Lewo	<i>li-liu</i>	‘go upside down’
NCV: Nguna	<i>li-liu</i>	‘return’
	<i>laki-pi-liu</i>	‘sister exchange marriage’ (<i>laki</i> ‘marry’)
Fij: Rotuman	<i>liu</i>	‘jibe (of a boat)’
PPn * <i>liu</i> ‘turn round’ (POLLEX)		
Pn: Tongan	<i>li-liu</i>	(VT) ‘turn round, turn or change into s.t. else’
Pn: Niuean	<i>liu</i>	‘to turn, change’
Pn: Samoan	<i>liu</i>	‘alter, change; turn into’
	<i>li-liu</i>	(VT) ‘turn’
	<i>liu-liu</i>	‘turn over and over’
Pn: E Futunan	<i>li-liu</i>	‘turn back, return’
Pn: E Uvean	<i>li-liu</i>	‘return, come back’
Pn: Rennellese	<i>giu</i>	‘return, go back’
Pn: K’marangi	<i>riu</i>	‘turn, reverse’
Pn: Emae	<i>riu-a</i>	(VT) ‘turn over’
Pn: Rarotongan	<i>riu</i>	‘turn round’
Pn: Tuamotuan	<i>riu</i>	‘turn round’
Pn: Tahitian	<i>riu-riu</i>	‘be moving around’
Pn: Hawaiian	<i>liu-a</i>	‘spinning, whirling, dizzy; shocked; fascinated’
cf. also:		
MM: Sursurunga	<i>-ri-riu</i>	(VI) ‘turn round’
MM: Roviana	<i>ta-liri</i>	‘turn’ (consonant dissimilation?)
SES: Bugotu	<i>riu</i>	‘move position, change place of’
	<i>riu-riu</i>	‘wander about’
SES: Gela	<i>riu</i>	‘turn round’
SES: Lengo	<i>ri-riu</i>	‘turn’
SES: Longgu	<i>ri-riu</i>	‘turn’

PPn **ma-liu* reflects the same root with the addition of the detransitivising prefix **ma-* (see also the entries for Neve’ei and Naha’ai above).

PAn **ma-liuS* ‘turn round’¹³

POc **ma-liu* ‘change direction, turn’

PPn **ma-liu* ‘change direction, turn’ (POLLEX)

Pn: Niuean	<i>maliu</i>	‘turn towards the speaker; change one’s mind, attitude, etc.’
Pn: Tuvaluan	<i>maliu</i>	‘turned’

¹³ Reconstructed on the basis of Formosan data: Budai Rukai *ma-liu-lius* (VI) ‘turn round’ (Ferrell 1969, cited ACD).

Pn:	E Futunan	<i>maliu</i>	‘return’
Pn:	E Uvean	<i>maliu</i>	‘return, change direction’
Pn:	K’marangi	<i>maliu</i>	‘swerve’
Pn:	Rarotongan	<i>mariu</i>	‘change direction, return, go, come’
Pn:	Tuamotuan	<i>mariu</i>	‘turn to one side’
Pn:	Hawaiian	<i>maliu</i>	‘turn toward’

Three further POC terms meaning ‘turn round’ or ‘turn back’ are reconstructable. The first, **likot*, is reconstructed on the basis of evidence from western Malayo-Polynesian languages noted in the ACD and a single regular Oceanic reflex, Bali (MM) *liyota*. The Vangunu reflex *likoso* is irregular, as the expected form is † *liyoto*.

PMP **liget* ‘turn, rotate’ (ACD: PWMP)

POC **likot* (VI) ‘turn round’

MM:	Bali	<i>liyota</i>	(VI) ‘turn round’

cf. also:

MM:	Vangunu	<i>likoso</i>	‘turn’

The other two reconstructions are formally similar, and it is hard to believe that they are not historically connected in some way, as both display the pattern **LABIAL-ulos*. They are:

- POC **[ta]bulo(s)* (VI) ‘turn round, turn back’, *bulos-i-* (VT) ‘turn round, turn back’
- POC **pulo(s)* (VI) ‘turn round’, **pulos-i-* (VT) ‘turn (s.t.) round’

However, there is no straightforward way to unify them.

The first, **[ta]bulo(s)*, **bulos-i-*, is internally consistent. Most of the intransitive forms reflect the semi-productive POC prefix **ta-*, which decreased valency by removing the agent, and emphasised the spontaneity of the event (§1.3.5.4; Evans 2003:300). However, in this instance, the prefix simply functions to reduce valency.

POC **[ta]bulo(s)* (VI) ‘turn round, turn back’, *bulos-i-* (VT) ‘turn round, turn back’

NNG:	Medebur	<i>ta-wul</i>	(VI) ‘turn round’
NNG:	Wogeo	<i>ta-bul</i>	(VI) ‘turn round’
NNG:	Kis	<i>-tu-bu-bl-i</i>	(VI) ‘turn round’
NNG:	Kairiru	<i>-ta-bul</i>	(VI) ‘turn round’
MM:	Blablanga	<i>bulo</i>	‘turn’
SES:	Bugotu	<i>ta-bulo</i>	‘suddenly’
		<i>ta-bulos-i</i>	‘be sudden’
SES:	Gela	<i>ta-bulo</i>	‘dash off suddenly’
SES:	To’aba’ita	<i>a-bula</i>	(VI) ‘turn, veer to the side’
SES:	Langalanga	<i>bulus-i</i>	‘turn’
SES:	Lau	<i>a-bulo</i>	‘turn round, turn back, turn aside’
SES:	Kwara’ae	<i>a-b^wel</i>	‘turn’
SES:	Kwaio	<i>a-bulo</i>	‘turn’
		<i>bulos-i-</i>	(VT) ‘turn’
SES:	Sa’a	<i>pulo</i>	(VI) ‘reach, turn back, return’

		<i>ʔa-pulo</i>	‘reversed, returned, turned back on a journey’
SES:	Arosi	<i>buro</i>	(VI) ‘turn around, revolve’
		<i>a-buro</i>	‘turn back, return, fail to reach home’
NCV:	S Efate	<i>plos</i>	‘wring clothes’
SV:	Ura	<i>o-pre-i</i>	‘turn’
Mic:	Kosraean	<i>tæ-pʌl</i>	(VI) ‘turn’

POc **pulo(s)* (VI) ‘turn round’, **pulos-i-* (VT) ‘turn (s.t.) round’ entails some formal challenges:

- The presence of fortis *p-* in Bulu, Harua, Roviana, W Guadalcanal, Talise and Birao, where a lenis reflex is expected, is probably explained by the fact that the sequence **pu-* sometimes gives rise to [**p^wu*], where [**p^w*] resists lenition.
- The sequence [**p^wu*] sometimes becomes [**p^wi*] in Oceanic languages, i.e. the rounding feature is fully transferred from [**u*] to preceding [**p^w*], accounting for *-i-*, instead of *†-u-*, in W Guadalcanal, Talise, Birao and all NCV reflexes except Kiai.
- The second vowel, **-o-*, is fronted to *-e-* (or *-i-* in Tabar and Neve’ei) in both intransitive and transitive forms. This is especially common in NCV reflexes, leading Clark (2009) to reconstruct two PNCV forms, **viles-i* and **vilos-i*. There is no obvious explanation for this alternation, but it is very unlikely that *†*pules-i-* occurred in POc, as **e* is usually stem-final, reflecting PMP **-ay*.

These considerations point to the reconstruction of POc **pulo(s)* (VI) ‘turn round’, **pulos-i-* (VT) ‘turn (s.t.) round’, and also suggest that early Vanuatu Oceanic must also have retained the form **vulos-i*.

POc **pulo(s)* (VI) ‘turn round’, **pulos-i-* (VT) ‘turn (s.t.) round’

Adm:	Seimat	<i>hūlo</i>	(VI) ‘turn about, as a man’
NNG:	Gitua	<i>pule-le</i>	(VI) ‘turn round’
NNG:	Kove	<i>-pale-le</i>	(VI) ‘turn round’
NNG:	Bariai	<i>-pale-le</i>	(VI) ‘turn round’
NNG:	Kilenge	<i>-pulie</i>	(VI) ‘turn round’
NNG:	Amara	<i>-pul</i>	(VI) ‘turn round’
NNG:	Maleu	<i>-pule</i>	(VI) ‘turn round’
MM:	Bulu	<i>pulo</i>	(VI) ‘turn round’
MM:	Harua	<i>pule</i>	(VI) ‘turn round’
MM:	Nakanai	<i>vulo</i>	(VI) ‘turn round’
MM:	Tabar	<i>vurisi</i>	‘turn’
MM:	Babatana	<i>vule</i>	‘return, come/go back’
MM:	Roviana	<i>pule</i>	‘again, once more; to return’
SES:	W Guadalcanal	<i>pilo</i>	‘turn’
SES:	Talise	<i>pilo</i>	‘turn’
SES:	Birao	<i>pilo</i>	‘turn’
SES:	Arosi	<i>a-huro</i>	(VI) ‘turn round, twist, slip around’ (<i>a-</i> SPONTANEOUS)
SES:	Bauro	<i>a-horo</i>	‘turn’ (<i>a-</i> SPONTANEOUS)

PNCV **viles-i*, **vilos-i* ‘turn’ (Clark 2009)

NCV: Mota	<i>vile-ris</i>	‘change, be changed’ [<i>ris</i> ‘change’],
NCV: Mwotlap	<i>vɪy</i>	‘reverse direction’
NCV: Kiai	<i>ri-vules-i-</i>	(VT) ‘turn’
NCV: Naman	<i>vələs</i>	‘turn around; change’
NCV: Port Sandwich	<i>vləs-i</i>	‘to roll on one’s thigh’
NCV: Neve’ei	<i>vilih</i>	‘turn around; put on back to front; stir; change’,
NCV: SE Ambrym	<i>-hilesi</i>	‘turn’
NCV: Paamese	<i>hiles</i>	(VI) ‘turn around, turn over; turn corner (in vehicle); change, become different’
	<i>hilesi</i>	(VT) ‘turn around, turn over; sprain muscle’,
NCV: Namakura	<i>viloh</i>	‘turn, turn back, come back’

The POc stems **bulos* and **pulos* which are central to the reconstructions above must have a common origin, but they are not related by any known morphological pattern.

6.4.3 Go beyond, pass by, surpass

The formal identity of POc **liu* ‘go beyond, pass, surpass’ and POc **liu* ‘turn aside, change direction’ is discussed in the introduction to 6.4.2 above.

Grammaticalisation of a verb meaning ‘surpass’—often a figurative extension of a verb meaning ‘go beyond, pass’—as a comparative marker is common in Oceanic languages, such that *My house is bigger than yours* is expressed by a clause containing a serial verb construction with the sense ‘My house **big surpasses** yours.’ Such a use is noted in the ‘Are’are and Arosi dictionary entries from which items below are drawn.

PMP **liu* ‘surpass, exceed’ (ACD)POc **liu* (VT) ‘go beyond, pass, surpass’

MM: Tolai	<i>liu</i>	(VT) ‘pass’
SES: Bugotu	<i>liu</i>	(VT) ‘go beyond, pass’
SES: Lau	<i>liu</i>	‘go, pass by, move about’
SES: ‘Are’are	<i>riu-</i>	(VT) ‘surpass, win, excel, go beyond, pass over, of time’
SES: Sa’a	<i>liu</i>	‘pass by’
SES: Arosi	<i>riu</i>	‘go on, go past; beyond’

PNCV **liu* ‘go beyond, exceed’ (Clark 2009)

NCV: Raga	<i>liu</i>	‘surpass, more than’
NCV: Nokuku	<i>liu</i>	‘above, greater (used in comparative constructions)’
NCV: Kiai	<i>lui-</i>	‘lead, go first, be ahead; go beyond’
NCV: Tamambo	<i>liu</i>	‘win; be better’
NCV: Sak	<i>lō(d)</i>	‘exceed, surpass, go beyond’
NCV: Paamese	<i>lii (muli)</i>	‘pass, go past; miss; more than’
NCV: Lewo	<i>liu</i>	‘pass, go past; miss; more than’
NCV: Namakir	<i>liw</i>	‘too much, too many, very’,
NCV: Nguna	<i>lius-</i>	‘past, beyond; to surpass, pass’

Fij:	Bauan	<i>liu</i>	‘precede, surpass, excel, go before, be the first to do a thing’

6.4.4 Arrive, appear

Four POc verbs are reconstructed in this section: **potu* ‘appear, come into view’, **p^wosa* ‘appear’, **pura* ‘arrive, appear’, **p^waka* ‘come into view’. They share similar clusters of meanings: ‘arrive’, ‘come into view’, ‘rise (especially of the moon)’ and ‘appear’. They are included here because reflexes of the most widely reflected of the four, **potu*, serve as direction verbs in serial verb constructions in at least the languages of southern New Ireland, as in this Ramoaaaina (MM) example.

<i>i</i> =	<i>wan</i>	<i>pat</i>
3SG=	go	arrive
	MANNER	DEIXIS

‘He came.’ (Fritzell & Davies, Ramoaaaina vocabulary)

Clark (2009) notes that in north and central Vanuatu languages reflexes of **potu* are used of the emergence of the new moon: e.g. Mota *o vula we wot ma* ‘a new moon appears’, and occur as an attribute in the phrase ‘new moon’: e.g. Nokuku *wul wotu* ‘new moon’, Tamambo *vitu-votu* ‘new moon’, Rerep *nebur mi uet* ‘new moon’.

PMP **betu* ‘appear, come into view’ (ACD)

POc **potu* ‘appear, come into view’ (ACD)

Adm:	Mussau	<i>otu</i>	(VI) ‘show up’
NNG:	Amara	<i>pod/uod</i>	(VI) ‘appear, arrive’
NNG:	Bariai	<i>ot</i>	‘arrive; emerge’
NNG:	Kove	<i>put</i>	‘appear, enter a garden, come out’
NNG:	Mangseng	<i>=pot</i>	‘out, off’ (‘=’ marks an enclitic boundary)
PT:	Sinaugoro	<i>votu</i>	‘arrive’
MM:	Madak	<i>vot</i>	‘come, arrive’
MM:	Sursurunga	<i>hut</i>	‘come, arrive’
MM:	Ramoaaaina	<i>pat</i>	‘come, arrive’
MM:	Tinputz	<i>vōs</i>	‘arrive at, reach home’

PNCV **votu* ‘emerge, appear’ (Clark 2009)

NCV:	Mota	<i>wot</i>	‘rise up, stand up, appear, shoot up (as land coming into sight when at sea)’
NCV:	Raga	<i>votu</i>	‘arrive, come, reach’
NCV:	Merei	<i>vu-vut</i>	‘appear’
NCV:	Nokuku	<i>wot(?er)</i>	‘appear, happen’
NCV:	Uripiv	<i>-wut</i>	‘come out (guts from a wound; new moon)’
NCV:	W Ambrym	<i>fur</i>	‘appear, come clear, come out’
NCV:	Paamese	<i>hotu</i>	‘(of reef) come out and disappear under waves, come out at low tide; (of something floating) bob up and down in waves’
NCV:	Lewo	<i>woru</i>	‘appear, arrive, reach’

NCV:	S Efate	<i>put(sak)</i>	‘emerge, as from water’
Fij:	Rotuman	<i>hofu</i>	‘rise, of moon; emerge, esp. from interior at coast’
Fij:	Bauan	<i>votu</i>	‘appear, become visible (as a ghost)’
Fij:	Wayan	<i>votu</i>	‘appear, come into view, become visible’
Pn:	Tongan	<i>fotu</i>	‘emerge, come into view; appear (as fish in season), become manifest, stand out, or to be or become prominent’
Pn:	Rennellese	<i>hotu</i>	‘come forth, appear’
Pn:	Samoa	<i>fotu</i>	‘appear (as a boat coming around a point); (of trees) blossom out, come into blossom’
		<i>fōtu-aʔi</i>	‘emerge, heave in sight (as a boat)’
Pn:	Tokelauan	<i>fotu</i>	‘appear, emerge’
Pn:	Maori	<i>hotu</i>	‘dawn’

The other three verbs are less widely reflected and their usage is less well understood than that of **potu*.

POc **p^wosa* ‘appear’

NNG:	Arop-Lukep	<i>-pa-pos-i</i>	‘cause to appear, reveal’
NNG:	Poeng	<i>pota</i>	‘appear’
PT:	Dobu	<i>(a)p^wesa</i>	‘appear, arrive, arrive there, depart, happen’
PT:	Bunama	<i>(ha)p^wesa</i>	‘appear’
MM:	Patpatar	<i>posa</i>	‘appear, stick out’
		<i>po-posa/pa-posa</i>	(N) ‘appearing of sun, moon, stars’
SES:	’Are’are	<i>huta</i>	‘be born, appear, rise up’
SES:	Sa’a	<i>uwota</i>	‘appear on the horizon’

POc **pura* ‘arrive, appear’

NNG:	Manam	<i>pura</i>	‘come, arrive’
NNG:	Bam	<i>-pur</i>	‘come back’
NNG:	Kairiru	<i>-fur</i>	‘appear, arrive on the scene’
MM:	Roviana	<i>vura</i>	‘appear’
		<i>va-vura-ia</i>	‘cause to appear, reveal’
NCV:	Lonwolwol	<i>fur</i>	‘appear, come clear, (moon) come out’
NCV:	Lewo	<i>ula</i>	‘arrive at; attain’
Fij:	Bauan	<i>vura</i>	‘arrive, emerge, appear’
Fij:	Wayan	<i>vura</i>	‘appear, come into view’

The presentation of POc **p^waka* ‘come into view’ below retains Bender et al.’s (2003) presentation of Micronesian data supporting PMic **pwax(a,e)* but separates off under ‘cf. also’ the transitive reflexes they list meaning ‘show’ or ‘announce’. This is done to highlight a difficulty in Bender et al.’s analysis. They reconstruct PMic medial **-x-* (< POc **g*) on the basis of the seemingly regular sound correspondence Kosraean *-k*, Ponapean, Mokilese and Pingelapese *-r* and Chuukese, Puluwatese, Carolinian and Woleaian zero (Bender et al. 2003:4). This is achieved by segmenting the transitives as Chuukese *p^wē-ri* etc. But if, as is usual, the consonant preceding the transitive suffix *-i* belongs to the PMic root (Chuukese

p^wær-i etc.), then Chuukese, Puluwatese, Carolinian and Woleaian have *-r* in this position, and all items except Kosraean reflect PMic **p^war(a,e)*, not PMic **p^wax(a,e)*. If this reinterpretation is correct, then it is possible that all Micronesian items other than Kosraean reflect POC **pura* above, rather than POC **p^waka*.

POC **p^waka* ‘come into view’

NNG:	Sissano	<i>pak</i>	‘come up, appear, come into being, stay close’
NNG:	Mangap	<i>pok</i>	‘burst forth into the open, appear, come into view, break’
SES:	Arosi	<i>p^wā</i>	‘rise’
SES:	Sa’a	<i>p^waʔa</i>	‘rise (of heavenly bodies)’
?? PMic <i>*p^wax(a,e)</i> ‘come into view, reveal’ (Bender et al. 2003)			
Mic:	Kosraean	<i>fæk</i>	‘say, tell, announce’
Mic:	Ponapean	<i>p^war</i>	‘appear’
Mic:	Mokilese	<i>p^war</i>	‘emerge, come to view’
Mic:	Pingelapese	<i>p^war</i>	‘appear, rise (of sun)’
Mic:	Chuukese	<i>p^wæ, p^wær-</i>	‘come into view’
Mic:	Puluwatese	<i>p^wá, p^wær-</i>	‘appear’
Mic:	Carolinian	<i>b^wæ</i>	‘be(come) visible, appear’
		<i>p^wp^wæ</i>	‘appear suddenly’
Mic:	Woleaian	<i>φ^wā, p^wā</i>	‘emerge into view, come from behind’
cf. also:			
Mic:	Chuukese	<i>p^wær-i</i>	‘show’
Mic:	Puluwatese	<i>p^wær-i-</i>	‘show’

6.5 Accompanied movement verbs

6.5.1 Accompany

POC **ud(r)u* ‘accompany, go with (s.o.)’

NNG:	Sio	<i>wuru</i>	‘accompany, go with (s.o.)’
MM:	Ramoaaina	<i>we-ur</i>	‘accompany, go together’ (we- RECIPIENT)
SES:	Bugotu	<i>udu</i>	‘walk in file’
SES:	Gela	<i>udu</i>	‘accompany’

6.5.2 Gather, congregate

A POC verb of the form **so(k,g)o(n)* is reconstructable with a meaning that has to do with gathering or assembly, but both its form and its semantics are problematic. The Mussau, Mota and Paamese reflexes point to medial **-k-*, the Lonwolwol and Wayan reflexes to **-g-* (and Nguna to **-ŋ-*). The glosses make it difficult to determine which form is intransitive, which transitive. On formal grounds, **so(k,g)o(n)* was presumably intransitive, **so(k,g)on-i* transitive, but the Nguna and Wayan Fijian use of **so(k,g)on-i* as intransitive render this a little uncertain.

POc **so(k,g)o(n)* (VI) ‘gather, congregate’, **so(k,g)on-i* (VT?) ‘gather, bring together’

Adm: Mussau *ai-soko-soko-iaa* (VT) gather together (*ai-* RECIP)

PNCV **soko* ‘add, join’ (Clark 2009)

NCV: Mota	<i>soyo</i>	‘give, bring, contribute, distribute; descriptive prefix to numerals, of things together in a bunch, such as coconuts; to measure money, a measure of money’
	<i>soyon</i>	‘bring together, pack, stow’
NCV: Lonwolwol	<i>sogo</i>	‘come together, to be close together’,
NCV: Paamese	<i>se-soon-i</i>	(VT) ‘join’
NCV: Nguna	<i>soŋon-i-a</i>	(VI) ‘gather, congregate’
Fij: Wayan	<i>sogo, sogon-i</i>	(VI) ‘gather, assemble, come together in a crowd, congregate’
	<i>sogon-i-ti-</i>	(VT) ‘draw or attract a crowd, cause people to come together’
Pn: Tongan	<i>hoko</i>	‘join or unite (two things)’
	<i>hoko-hoko</i>	‘join or unite (many things)’
Pn: Samoan	<i>soʔo</i>	‘join, splice’
	<i>soʔo-soʔo</i>	‘join (many things)’

Just four reflexes of POc ‘gather, congregate’ have been found.¹⁴

POc **lupun* ‘gather, congregate’

NNG: Bariai	<i>lup</i>	‘meet, gather, collect together, join, put together’
NNG: Kaulong	<i>lup</i>	‘join, gather’
MM: Patpatar	<i>luhu</i>	‘gather about’
SV: Lenakel	<i>ləpun</i>	‘join (VI, VT)’

6.5.3 Precede and follow

Two POc locative nouns **muri-* ‘rear, back part’ and **muqa-* ‘front’, along with PWOC **muga*, a variant form of **muqa*, are reconstructed in vol.2 (pp247–249, 251–252). It is noted there that **muqa*/**muga* and **muri* both also occurred as verbs, respectively meaning ‘be in front’ and ‘be behind, be after’. Only verbal reflexes are listed below.

POc **muqa* ‘be in front, precede’ (vol.2:247–248)

Adm: Mussau	<i>mua</i>	‘go first’
NNG: Manam	<i>mua</i>	‘go first, precede’
NNG: Labu	<i>-mo</i>	‘lead; go first’
NCV: Mota	<i>m^woa-i</i>	‘first, foremost, principal; to be first’
NCV: Lewo	<i>(va)mo</i>	‘front’ (<i>va</i> ‘go’)

PMic **m^w(o,u)a* ‘ahead, going before’ (Bender et al. 2003)

Mic: Chuukese	<i>-m^wm^we-ri</i>	‘lead him, go before him’
Mic: Puluwatese	<i>m^wm^we-</i>	‘lead’

¹⁴ We thank John Lynch for drawing our attention to the Lenakel reflex.

Mic:	Woleaian	<i>m^wm^wa-</i>	‘go ahead of it’
Fij:	Wayan	<i>mua</i>	(vi) ‘head for a place, set course for a place’
PPn * <i>muqa</i> ‘be first, precede’; * <i>muqa-ki</i> ‘before, first’			
Pn:	Tongan	<i>muʔa</i>	(vi) ‘precede, be/go in front’
		<i>muʔa-ki</i>	‘be the first or leading person’
Pn:	Samoaan	<i>mua</i>	‘be first, arrive first’
Pn:	Rennellese	<i>muʔaʔa-ki</i>	‘to lead, direct’
Pn:	Samoaan	<i>mua-ʔi</i>	‘be first’
Pn:	Tikopia	<i>mua-ki</i>	‘give/send/perform etc. first’

PWOC **muga* ‘be in front, precede’ (vol.2:249)

NNG:	Gitua	<i>mu^ŋga</i>	‘precede, go ahead, future’
NNG:	Lukep (Pono)	<i>-pa-mugu</i>	‘cause to go first’ (<i>pa-</i> CAUSATIVE)
NNG:	Mangap	<i>-mū^ŋgu</i>	‘go ahead, go first, precede, go before’
NNG:	Sio	<i>muga</i>	‘precede; before’
NNG:	Gedaged	<i>mug</i>	‘precede’
NNG:	Takia	<i>mug</i>	(vi) ‘go ahead, go first’
NNG:	Poeng	<i>muge</i>	‘go ahead of, lead’
NNG:	Yabem	<i>muŋ</i>	‘precede’
NNG:	Numbami	<i>-mu^ŋga</i>	‘precede, go first’
NNG:	Mapos Buang	<i>mug-in</i>	‘go first, go ahead’
NNG:	Hote	<i>-mɔŋ</i>	‘pass, go first’
NNG:	Adzera	<i>moŋʔ(an)</i>	‘precede’
PT:	Muyuw	<i>mug</i>	‘go ahead, go first, precede’
PT:	Suau	<i>-muga-i</i>	‘precede’
MM:	Nakanai	<i>muga</i>	‘go ahead, forward, onward’
MM:	Bola	<i>muga</i>	‘go first; lead, go first’
MM:	Madak	<i>mgo</i>	‘go first’
MM:	Ramoaaina	<i>muga</i>	‘go first’
		<i>muga-in</i>	‘lead’
MM:	Siar	<i>muga-i</i>	‘lead the way’

PMP **ma-udehi* ‘be last; be after or behind; be late, be later; future’ (ACD)POC **muri* ‘be behind, be after, follow’ (vol.2:251-252)

PT:	Gapapaiwa	<i>muri</i>	‘follow’
PT:	Dobu	<i>muli-</i>	‘follow’
PT:	Bunama	<i>muli-</i>	‘follow’
MM:	Nakanai	<i>(ku)muli-</i>	‘chase after (+s.t.)’
MM:	Ramoaaina	<i>muru</i>	‘follow; behind, back; last’
MM:	Teop	<i>muri-na</i>	‘follow (s.o., s.t.)’
MM:	Banoni	<i>mū-muri</i>	‘last, follow last’
SES:	Arosi	<i>muri-</i>	‘follow; behind, back; outside of s.t.; afterwards; left hand when facing an object’
Fij:	Bauan	<i>muri</i>	‘following, after’
Pn:	Samoaan	<i>mui</i>	‘be/go behind, be late/last’

		<i>mui-aki</i>	‘be the last person(s), bring up the rear’
Pn:	Samoaan	<i>muli</i>	‘come last, be last; young, new’
Pn:	Rennellese	<i>mugi</i>	‘follow, be or go behind or after; rear end, esp. lower or western end’
Pn:	Hawaiian	<i>muli</i>	‘behind, afterwards; last, following behind; younger, youngest; (canoe) stern’

6.6 Caused movement verbs

Caused movement refers to an event where an agent, usually a person, causes a theme (the person or thing that is moved) to move. The semantic frame of caused movement is rather complex. It involves

- an agent (who/which moves the theme)
- a theme (what is moved)
- a source (the location the theme is moved from)
- a goal (the location the theme is moved to)
- the movement event itself

Thus in an English sentence like

She moved the pot from the table to the ground

AGENT EVENT THEME SOURCE GOAL

all five frame elements are profiled.¹⁵ Caused movement constructions differ as to whether these elements are all profiled. In this construction the source and the goal are each optional. In construction with, say, *put* (instead of *moved*), the goal is obligatory and for many English-speakers the source is obligatorily absent.

Crucially, however, the verb itself may also profile certain frame elements. Predictably some caused movement verbs profile elements associated with posture and movement verbs, discussed in earlier sections. These include:

4. the resulting posture of the theme (cf §6.2): transitive *sit/seat/set, stand, lay, hang*
5. locomotion (cf §6.3), i.e. the manner of movement of the theme: *drop* (‘let fall, cause to fall’), *send* (‘cause to go’), *throw* (‘cause to fly’), transitive *roll*
6. the direction of vertical movement (§6.4): *lift, raise* (‘cause to go up’), *lower, drop* (‘cause to go down’)
7. the path of movement (§6.4): *insert* (‘cause to go into’), *extract* (‘cause to come out of’), *immerse* (‘cause to go into water’), *box* (‘cause to be in boxes’)
8. Other frame elements profiled by caused movement verbs relate to human causal agency:

¹⁵ Semantic frames, frame elements and profiling are terms from Frame Semantics, a theory of meaning deriving from the work of Charles J. Fillmore (see especially Fillmore 1982, 1985). Croft & Cruse (2004:8–22 and *passim.*) provide an overview. A short set of definitions is given at <https://framenet.icsi.berkeley.edu/fndrupal/about>.

9. whether or not the agent accompanies the theme in its movement:¹⁶
10. not specified, with *take*, *push* and *pull*
 - a. yes, with carrying verbs like *carry*, *bring*, *drag*
 - b. if no, then whether or not some part or tool of the agent touches the theme until it reaches its goal
 - i. yes, with putting verbs like *put*, *insert*, *immerse*
 - ii. no, with sending verbs like *send*, *drop*, *throw*
 - iii. the kind of force that the agent applies in order to move the theme: *push*, *pull*, *drag*, *throw*
11. change of possession: *give*, *present*, *distribute*, *receive*, *exchange*, *steal*

The elements listed above are not mutually exclusive. Some of the English verbs given as examples occur more than once because their meaning potentially profiles more than one element. Because of this, verbs can be somewhat arbitrarily categorised in various ways. The organisation below is an attempt to categorise verbs by meaning in a way that is appropriate to Oceanic languages. A primary three-way division is based on item 9 which distinguishes among the following: a few verbs like *take*, *push* and *pull* where the agent may or may not accompany the theme in its movement (9a); carrying verbs, quite numerous in Oceanic languages (9b); and verbs of putting and sending (9c). Explanations of lower-order categories are distributed through the sections below, which are arranged as follows:

6.6.1. Simple caused movement:

6.6.1.1. Taking (9a)

6.6.1.2. Verbs that profile vertical direction: raising and lowering (3)

6.6.1.3. Force-profiling verbs: pushing and pulling (9a, iii)

6.6.2. Accompanied caused movement (9a):

6.6.2.1–12. Carrying verbs that profile the physical relationship between agent and theme

6.6.2.13. Dragging

6.6.3. Unaccompanied caused movement:

6.6.3.1. Putting (9c-i)

6.6.3.1.1. Simple putting

6.6.3.1.2. Putting verbs that profile the resulting posture of the theme (1)

6.6.3.1.3. Putting verbs that profile the path of movement (4)

6.6.3.1.4. 'Putting' in reverse: taking

6.6.3.2. Sending (9c-ii)

The verbs reconstructed in the sections below consist of a root or, in the case of transitives formed from a root ending in *-a* or a consonant, of root + **-i*. POC evidently had two morphological means of forming a caused movement verb from a locomotion (§6.3) or direction verb (§6.4). One was to prefix it with the causative derivational prefix **pa-*, a process reflected in this Kwaio (SES) example:

¹⁶ This distinction is adopted from Levin's (1993) analysis of English verbs. Note, though, that by no means all distinctions that work for English verbs work for Oceanic verbs. English *take* and *bring* contrast in deixis ('away from deictic centre' vs 'towards deictic centre'), but deixis is not usually profiled by caused movement verbs in Oceanic languages, as the discussion in §6.6.1.1 indicates.

Kwaio *oli* ‘return, come back to’ > *faʔa-oli-* ‘cause to return, send back’

The other was to add the applicative suffix **-akin[i]*. Semantically this had two functions, as Evans (2003:203) notes. In the first it produced a verb like those formed with **pa-*, in which the agent causes the theme to perform the action denoted by the root, as in

Manam	<i>gege</i> (VI) ‘roll’	>	<i>gege-ak</i> (VT) ‘roll’
	<i>alale</i> (VI) ‘walk’	>	<i>alale-ak</i> (VT) ‘help s.o. walk’
NE Ambae	<i>saga</i> ‘go on top’	>	<i>sagat-agi[ni]</i> ‘put s.t. on top’
Bauan	<i>ǫuru</i> ‘enter’	>	<i>ǫurum-aki</i> ‘insert s.t.’
	<i>dromu</i> ‘sink’	>	<i>dromuǫ-aki</i> ‘push s.t. under (water),

In the typology above, these are simple or unaccompanied caused movement verbs.

In the second function **-akin[i]* formed a verb in which the agent performs the action denoted by the root, and the theme is a concomitant:

NE Ambae	<i>toa</i> ‘run’	>	<i>toa-gi[ni]</i> ‘run off with s.t.’
	<i>hivo</i> ‘go down’	>	<i>hivo-gi[ni]</i> ‘go down with s.t., take s.t. down’
	<i>vano</i> ‘go’	>	<i>vano-gi[ni]</i> ‘go with s.t., take s.t.’
Bauan	<i>ǫiǫi</i> ‘run’	>	<i>ǫiǫiv-aki</i> ‘run off with s.t.’
	<i>galo</i> ‘swim’	>	<i>galov-aki</i> ‘swim with s.t.’

Such verbs are verbs of accompanied caused movement, resembling verbs of carrying. However, in a carrying verb it is the physical relationship between the agent and the theme that is profiled. In an **-akin[i]* verb it is the manner or direction of the agent’s movement that is profiled.

Verbs formed with **pa-* and **-akin[i]* are not considered further here, because we cannot be sure which derived verbs occurred in POc. But we can be sure that the morphosemantic processes reflected in these examples occurred in POc. The functions of **pa-* have been widely discussed in the literature, and Evans (2003:195, 203) shows that the two functions of **-akin[i]* mentioned here are reflected so widely that they must be reconstructed for POc.

6.6.1 Simple caused movement

The word ‘simple’ is used here of verbs that are unspecified for a certain frame element. Verbs of taking (§6.6.1.1) and the force-profiling verbs of pushing and pulling (§6.1.2) are unspecified for item 9 in the list above. That is, they sometimes denote accompanied caused movement, sometimes unaccompanied. In the case of verbs of pushing and pulling, this is rather obvious: one can push a cart along a street (accompanied caused movement) or push a pot over (unaccompanied caused movement). In the case of ‘take’, the lack of specification is less obvious, and is explained in the following section.

6.6.1.1 Taking

Simple verbs of caused movement are often glossed as ‘get’, ‘take’ or ‘bring’. They are used in constructions that also profile the source, e.g. ‘he took the knife from the table’, and in constructions that only profile the caused movement, e.g. ‘he took/brought my knife’.

English *take* occurs in dozens of idiomatic phrases (*take heart, take hold, take a sip, take a break, take over*, etc), but its core meaning involves accompanied movement by an agent of

something (the theme) from one location to another. Either the source location or the goal location may be profiled, as for instance, in ‘take it off the ground’ and ‘take it to its mother’. In this respect Oceanic languages are similar to English. The Vitu (MM) verb *pele-* is used with a source in this example. The source is ‘her betelnut basket’.

Na tavine hanitu e pele-a na tureturea na ka-na kolopi mamaha.
 ART woman spirit RLS:3 take-3SG ART stamper PREP PCL-3SG basket chew.betelnut
 ‘The spirit woman took a stamper from her betelnut basket.’ (129)

However, English *take* also profiles direction away from the deictic centre, contrasting with *bring*, which profiles direction towards it. Oceanic languages, however, encode this deictic contrast with a deictic direction verb—or a deictic morpheme derived from a verb (vol.2:273-282)—in the last slot of a serial verb construction, as in these Vitu (MM) examples.

Ia pele-a vano.
 He take-3SG go
 MANNER DEIXIS
 ‘He took it away.’ (Berg & Bachet 2006:180)

Pele-a haine mai!
 take-3SG iron.spear come
 MANNER DEIXIS
 ‘Bring the spear here!’ (Berg & Bachet 2006:181)

This leaves *pele-* profiling only the means of movement, namely that the agent moves the theme, i.e. simple caused movement. The verb *pele-* is the same in all three examples. This is a typical Oceanic configuration, such that one caused movement verb corresponds to both English *take* and *bring*. A practical result of this is that these Oceanic verbs are often glossed as one or more of ‘take’, ‘get’ and ‘bring’, but the verbs have the same functions whichever of these glosses is used. Thus the verbs reconstructed here overlap two semantic domains. The first is ‘reverse putting’, e.g. ‘taking off the table’ as opposed to ‘putting on the table’ (§6.6.3.1.4), a subdomain of unaccompanied caused movement. The other is carrying (§6.2), a subdomain of accompanied caused movement.

A second semantic complication, discussed by D’Jernes (2013) with regard to Lukep (Pono) *-kaua/-kap* ‘get, give’ (where the first form takes a singular object, the second a plural) is that a verb meaning ‘take, get’ in some languages also means ‘give’. In others, the ‘give’ verb is derived historically from a ‘take, get’ verb. This is less strange than it appears. If the basic meaning of these verbs is simply that the agent moves the theme, then the addition of a recipient is enough to narrow the movement to ‘giving’.¹⁷

The verbs reconstructed below also raise formal challenges. Broadly, these are due to the fact that words of high token frequency may fail to undergo changes that would otherwise affect them. For example, the Lukep (Pono) pair mentioned above, *-kaua* and *-kap*, are exceptional in encoding their object respectively as singular and plural. Lukep (Pono) has generally lost POc object indexing enclitics, but retains *-a* 3SG on a small number of now ‘irregular’ verbs (D’Jernes (2002).

However, at least one such irregularity originated long before the emergence of POc. Blust (ACD) reconstructs PAN/PMP **alap*, PMP **alaq* both ‘fetch, get, take’, and PAN **ala* ‘take,

¹⁷ Narasimhan et al. (2012:10) note that Tzeltal, a Mayan language of Mexico, has a semantically general ‘put’ verb that encompasses both ‘put’ (inanimate goal) and ‘give’ (animate recipient) meanings.

get, fetch, obtain'. Their similarities of form and meaning indicate that they have a shared origin that cannot be reconstructed. PMP **alap* and **alaq* were both inherited into POc, but with a complication. The predicted POc transitive forms are **alap-i-* and **alaq-i-*. The former is reflected in Gela and Tongan (immediately below). But more widely reflected are forms in which initial **a-* has vanished, i.e. **lap-i-* and **la(q)-i-*. The **a-*-less forms evidently already occurred in POc, and for clarity's sake are reconstructed separately below

PAn/PMP **alap* 'fetch, get, take' (ACD)

POc **alap*, **alap-i-* 'get, take'

SES:	Gela	<i>alav-i</i>	'get, take'
Pn:	Tongan	<i>alaf-i</i>	'catch it'

PAn/PMP **alap* 'fetch, get, take' (ACD)

POc **lapi* 'take, get, give'

Adm:	Baluan	<i>lp</i>	'get'
SES:	Gela	<i>lavi</i>	'bring, take, get'

PNCV **lavi* 'carry, take'

NCV:	Mota	<i>lav</i>	'take, receive'
NCV:	Nokuku	<i>lap-i</i>	'give'
NCV:	Valpei	<i>lavi-</i>	'take'
NCV:	Tangoa	<i>lavi</i>	'take, receive'
NCV:	NE Ambae	<i>lawe</i>	'to' (dative)
NCV:	Big Nambas	<i>-laōi</i>	'take'
NCV:	Port Sandwich	<i>liv</i>	'carry'
NCV:	Aulua	<i>levi-</i>	'take, give, receive',
NCV:	Maskelynes	<i>lavi</i>	'take'
		<i>lav-xin-i</i>	'give'
NCV:	Naman	<i>lev</i>	'give; take, get, fetch'
NCV:	Apma	<i>lev</i>	'take'
NCV:	Paamese	<i>lahi</i>	'carry; pick up (especially of many small things)'
NCV:	Lewo	<i>lavi-</i>	'take'
NCV:	Nguna	<i>lavi</i>	'bring, take'

PMP **alaq* 'fetch, get, take' (ACD)

POc **ala(q)* 'take, get'

NCV:	Lo-Toga	<i>ɔlə</i>	'bring, take'
NCV:	Hiw	<i>ɔyə</i>	'bring, take'

PMic **ala* 'take, get' (Bender et al. 2003)

Mic:	Kiribati	<i>ana-</i>	'take, subtract, take away, remove, take off'
Mic:	Ponapean	<i>alɛ</i>	'take, get (s.t.)'
Mic:	Mokilese	<i>ɔlə</i>	'get, take, gather (s.t.)'
		<i>ɔlə-ɔl</i>	'get, take, gather'

PMP **alaq* ‘fetch, get, take’ (ACD)

POc **la(q)-i-* ‘take, get, bring’

Adm: Titan	<i>la-i</i>	‘take, get’
PNCV <i>*la-i</i> ‘take, give’ (Clark 2009)		
NCV: Mota	<i>le, la</i>	‘give, take’ (disambiguated by directional particles)
NCV: Raga	<i>lai</i>	‘give, take, bring, get’
NCV: Nokuku	<i>lɔ</i>	‘put, take, receive, have’
	<i>lei-a</i>	‘take’
	<i>la-ma</i>	‘bring’
NCV: Tamambo	<i>lai</i>	‘take, get, bring’
NCV: Uripiv	<i>-la-i</i>	‘take’,
	<i>-la</i>	‘give’
NCV: Lewo	<i>la</i>	‘bring, give’
NCV: Namakir	<i>la</i>	‘hold’
SV: Anejom	<i>le</i>	‘get, take, receive (SG OBJ)’ (John Lynch, pers. comm.)

Three further verbs which, like those above, denote simple caused movement, are reconstructed below. The first, POc **pa*, is phonologically unusual in that its root is a monosyllabic CV form. Most POc roots are polysyllabic. The New Caledonian forms in this set are from Ozanne-Rivierre (2004).

POc **pa*, **pa-i-* ‘get, take, bring’

NNG: Amara	<i>pei</i>	‘get’
NNG: Kaulong	<i>va</i>	‘get, take, bring’
PT: Tawala	<i>wa-i-</i>	‘carry, get, select, take’
PT: Iduna	<i>-va-i-</i>	‘get, take, fetch’
SES: Kwaio	<i>fee-</i>	‘take, convey, take in marriage’
NCal: Nyelâyu	<i>p^ha</i>	‘take’
NCal: Nêlêmwa	<i>f^he</i>	‘take, carry’
NCal: Nemi	<i>fe</i>	‘take’ (< <i>*pa-pa</i>)
NCal: Paicî	<i>pá</i>	‘take, bring’ (< <i>*pa-pa</i>)
NCal: Cèmuhi	<i>pé</i>	‘take’ (< <i>*pa-pa</i>)

POc **ŋal(e,i)* ‘get, take, carry, bring’

NNG: Gedaged	<i>-ŋale</i>	‘get, lay hold of, acquire, come to hand, obtain, procure, come by’
NNG: Takia	<i>-ŋale, -ŋili-</i>	‘get, obtain’
SES: To’aba’ita	<i>ŋali-</i>	‘take, carry’
SES: Lau	<i>ŋali-</i>	‘take, carry, bring, get’
SES: Kwaio	<i>ŋali</i>	‘hold, carry’

The exact form of the reconstruction below is not entirely clear. Evidence for the phoneme following initial **ka...* is conflicting. Seimat and Kilivila *kau*, Lukep (Pono) *-kau-a*, Patep *ko*, Sinaugoro *-yau*, Wayan Fijian *kau* and Samoan *?au-mai* support the reconstruction of POc

**k^wau*. Other evidence points to a labial, but which labial is unclear. Tuam *yam*, Mangap *kam*, and Nehan *kaba* support **k^wabV*, while a number of items indicate **k^wap*. There are two possible explanations here. One is that the cognate set reflects more than one POc morphological variant, just as Lukep (Pono) preserves two variants (D’Jernes 2013). The other is that this is not one cognate set but two, reflecting similar but separate POc forms. The forms listed under ‘cf. also’ complicate the picture, but appear to reflect a separate form **ka[-i-]*.

POc **k^wau*, **k^wa(p,b)-i-* (?) ‘get, take’

Adm:	Seimat	<i>kau</i>	‘bring, carry, take’
		<i>kau-ma</i>	‘bring, carry hither’ (<i>ma</i> ‘come’)
NNG:	Tuam	<i>-yam</i>	‘take, bring, get, give’
NNG:	Lukep (Pono)	<i>-kap</i>	‘get, give’ (with plural object)
		<i>-kau-a</i>	‘get, give’ (with singular object)
NNG:	Mangap	<i>-kam</i>	‘take, bring, get, give, put, do, cause’
NNG:	Mangseng	<i>ke(ne)</i>	‘get’
NNG:	Patep	<i>ko</i>	‘get, take’
PT:	Kilivila	<i>-kau-</i>	‘take (away), carry’
PT:	Dawawa	<i>-kaua</i>	‘do’
PT:	Sinaugoro	<i>-y^wa</i>	‘carry (in general)’
MM:	Sursurunga	<i>kip-i</i>	‘get, carry’
MM:	Patpatar	<i>kap</i>	‘get, take’
MM:	Tolai	<i>kap</i>	‘carry’
MM:	Label	<i>kep</i>	‘carry’
MM:	Siar	<i>kep</i>	‘get’
MM:	Nehan	<i>kaba</i>	‘carry, lift’
SV:	Anejom	<i>a-kau</i>	‘carry (wood etc) in the middle (twisting and turning to avoid obstacles)’
Fij:	Wayan	<i>kau</i>	(VI, inanimate subject) ‘be carried, taken’; (VT, inanimate object) ‘carry, take s.t.’
Pn:	Samoa	<i>ʔau-mai</i>	‘bring’
		<i>ʔav-atu</i>	‘take’ (< * <i>kau-atu</i>)

cf also:

Adm:	Mussau	<i>ga</i>	‘get’
NNG:	Kove	<i>kea</i>	‘take’
NNG:	Sio	<i>kai</i>	‘hold, get; carry’
NNG:	Kaulong	<i>kai</i>	‘be stuck; grasp, hold’
PT:	Dawawa	<i>-k^waya</i>	‘grab s.t. from s.o.’
MM:	Madak	<i>ka-ka</i>	‘get’
SES:	Owa	<i>ya-i-</i>	‘remove s.t.’

Almost certainly related to the above is POc **k^(w)awe* ‘carry, carry away’, but the relationship does not reflect a known derivational process.

POc **k^(w)awe* ‘carry, carry away’

NNG:	Sio	<i>kawe-</i>	‘snatch, grab s.t. and flee with it’

PPn **kawe* (VT) ‘carry, bear’

Pn:	Tongan	<i>kāve-</i>	‘be carried off one’s feet, especially by love’
Pn:	Samoan	<i>ʔave</i>	‘give (s.t.) to, hand (s.t.) to; carry, take s.t.; send s.o./s.t.’
Pn:	Tuvalu	<i>ka-kave</i>	‘carry’
Pn:	E Uvean	<i>kave-kave</i>	‘carry’
Pn:	Sikaiana	<i>k-kave</i>	‘carry to’
Pn:	Tikopia	<i>kave</i>	‘carry, bear off’
Pn:	Tokelauan	<i>kave</i>	‘take, carry, give’
Pn:	Tuamotuan	<i>kave</i>	‘carry’
Pn:	Pukapukan	<i>kave</i>	‘take, remove, carry, give’
Pn:	Rennellese	<i>ka-kabe</i>	‘escort, accompany, take, as in a canoe; be escorted, taken’
Pn:	Marquesan	<i>kave</i>	‘carry’
Pn:	Maori	<i>kawe</i>	(VT) ‘carry, convey, bring, go to fetch’

6.6.1.2 Raising and lowering

A verb for a certain kind of raising, POc **laŋa(t)*, **laŋat-i-* ‘raise, pull up, lever up’, is reconstructable.

POc **laŋa(t)*, **laŋat-i-* ‘raise, pull up, lever up’

Adm:	Lou	<i>laŋ</i>	‘lift up’
PT:	Molima	<i>layas-i-</i>	‘raise’
MM:	Nakanai	<i>laga</i>	‘pull up on snare in which animal is caught; pull a rope; fish with a net, lift fish out in net’
SES:	Arosi	<i>raŋa-i-</i>	‘raise, lift up’

PNCV **laŋa* ‘lift (flat object from surface)’ (Clark 2009)

NCV:	Mota	<i>laŋa</i>	‘lift up, turn up, so as to show underside’
NCV:	Raga	<i>laŋa-i</i>	‘raise as on hinge; raise thatch layer, mend roof’
Fij:	Rotuman	<i>laŋa</i>	‘raise one side of’

PPn **laŋa* ‘raise up’ (POLLEX)

Pn:	Niuean	<i>laŋa-aki</i>	‘raise up’
Pn:	Tongan	<i>laŋa</i>	‘raise up’
Pn:	E Futunan	<i>laga</i>	‘lever up, dig up yams etc’
Pn:	Pukapukan	<i>laŋa</i>	‘pull up, raise, pull in a line in fishing’
Pn:	Samoan	<i>laŋa</i>	‘raise up, as a heavy weight or a conquered party; rise from a sitting position’
Pn:	Tuvalu	<i>laŋa-laŋa</i>	‘pull up’
Pn:	Tikopia	<i>raŋa</i>	‘raise, rise, swell; arrange’
Pn:	K’marangi	<i>laŋa</i>	‘lift or move with a lever’
Pn:	Maori	<i>raŋa</i>	‘raise up, cast up, pull up by roots’

No verb of lowering can be reconstructed, but a number of languages form a verb ‘lower’ by attaching a reflex of the POc causative prefix **pa-* to a verb meaning ‘be deep’ or ‘go down’. Examples include Bariai (NNG) *pa-sil* from *sil* ‘deep’, Sursurunga (MM) *a-sih-əi* from *sih* ‘go

down', To'aba'ita (SES) *faʔa-sifo-a* from *sifo* 'go, move down, descend, more or less vertically'.

6.6.1.3 Force-profiling verbs: pushing and pulling

Verbs of pushing and pulling profile the force that the agent exerts on the theme in order to move it. Whether the agent accompanies the theme along the path of movement is not part of the verb's lexical meaning, but is conveyed by the construction in which the verb is used, e.g. *They pulled the canoe up the beach* (accompanied caused movement) vs *He pulled the bag open* (unaccompanied caused movement).

6.6.1.3.1 *Pushing*

Oceanic languages tend to have a number of path-profiling verbs of pushing, e.g. 'push open', 'push in', 'push through', 'push aside', 'push away', 'push under', 'push against'. None of these can be reconstructed from available data, but these 'push' terms from Lou (Adm), Lewo (NCV) and Sinaugoro (PT) give an indication of one reason for this.

Lou (Adm)

<i>suek</i>	'push'
<i>suer</i>	'push ground'
<i>susuer</i>	'push ground with foot'
<i>suput</i>	'push away, make go'
<i>susuj</i>	'push clothes up'

Lewo (NCV)

<i>suponia</i>	'push'
<i>suponipu</i>	'push and turn s.t.'
<i>sup^woni</i>	'push, shove'
<i>susuni</i>	'move, push'
<i>suwani</i>	'push into hole to block it'

Both the lists above, geographically separated as they are, consist of words with initial *su-*. The fact that so many 'push' verbs in each language begin with the same syllable cannot be coincidence, and probably tells us that these forms reflect earlier nuclear serial verb constructions, a productive construction in which two verbs formed a compound (Lou *suek* 'push' is an exception: *-ek* reflects the POC applicative suffix **-aki(n)*). This hypothesis is supported by the fact that in Sinaugoro, such forms still are transparent compounds where the second element has its own lexical meaning (forms preceded by a hyphen in the third column always occur as the final part of a compound).

Sinaugoro (PT)

<i>dori</i>	‘push’		
<i>dori-faka</i>	‘open by pushing’	<i>faka</i>	‘between’
<i>dori-yau</i>	‘close by pushing’	<i>-yau</i>	‘cover’
<i>dori-maraye</i>	‘push up’	<i>raye</i>	‘go up’
<i>dori-riyo</i>	‘push down’	<i>riyo</i>	‘go down’
<i>dori-rosi</i>	‘push out’	<i>-rosi</i>	‘out’
<i>dori-tari</i>	‘push down on the ground’	<i>-tari</i>	‘down’
<i>dori-toya</i>	‘push inside’	<i>-toya</i>	‘inside’

Sinaugoro *dori* ‘push’ is not cognate with Lou or Lewo *su-* but the latter are probably cognate with each other and probably reflect POc **qusur* ‘push, shove’ with loss of the first syllable. Other Oceanic ‘push’ forms with initial *su(r)-* are listed under ‘cf. also’.

PMP **qunzur* ‘thrust out, extend forward’ (ACD)POc **qusur* ‘push, shove’ (ACD)

SES:	Talise	<i>usu-</i>	‘push’
SES:	Tolo	<i>usua-</i>	‘push’
SES:	To’aba’ita	<i>ūsū(tani-)</i>	‘push’
SES:	Lau	<i>usu</i>	‘push’
		<i>usu-i-</i>	‘push, impale’
SES:	Kwaio	<i>usu</i>	‘push’
SES:	’Are’are	<i>usu</i>	‘push, shove’
SES:	Sa’a	<i>usu</i>	‘push, shove, launch a boat’
		<i>usu-i-</i>	‘push, shove, launch a boat’
Fij:	Bauan	<i>usu</i>	‘thread through, as a rope through a hole’
Fij:	Wayan	<i>usu</i>	‘press against s.o., importune s.o.’
Pn:	Samoan	<i>usu-i-</i>	‘thrust’
Pn:	Tuvalu	<i>uhu</i>	‘push’
Pn:	Nanumea	<i>uhu</i>	‘push’
Pn:	Rennellese	<i>usu</i>	‘push, as a canoe into water’

cf. also:

NNG:	Lukep (Pono)	<i>-surpak-i</i>	‘push’
NNG:	Bariai	<i>su-sur-an</i>	‘push’ (<i>-an</i> APPLICATIVE)
PT:	Dawawa	<i>suriya</i>	‘push over violently’
MM:	Nakanai	<i>susu</i>	‘push into, pierce’
MM:	Kokota	<i>huzu-i-</i>	‘push’ (<i>h-</i> < POc <i>*s-</i>)

A second POc term for ‘push’, **juju(n)*, **juni-* ‘push’, is reconstructed below. There are some unanswered marginal queries about this reconstruction. It is reflected to my knowledge in only one non-WOc language, Lau, but Lau does not usually contain WOc loans, and is a reliable witness. Ughele and Marovo *juno-* suggest a transitive form †**juno-*, but all other reflexes point to instantiation of the paradigm identified by Blust (1977a) (vol.1:25), i.e. the forms as reconstructed.

POc *juju(n), *juni- ‘push’

NNG:	Sio	<i>zuzu-</i>	‘push forward; shove from behind with force’
NNG:	Takia	<i>-duduni-</i>	‘push, push through, push inside with something, urge on’
NNG:	Patep	<i>du</i>	‘move, push’
PT:	Gapapaiwa	<i>dudu</i>	‘push’
PT:	Tawala	<i>dudu</i>	‘push’
PT:	Sinaugoro	<i>dudu(g^wanu)</i>	‘put the spear on an object and push’ (<i>g^wanu</i> ‘stab’)
MM:	Kubokota	<i>juju-</i>	‘push’
MM:	Lungga	<i>juju</i>	‘push’
MM:	Simbo	<i>juju</i>	‘push’
MM:	Nduke	<i>zuzu-</i>	‘push’
MM:	Ughele	<i>juno-</i>	‘push’
MM:	Marovo	<i>juno-</i>	‘push’
SES:	Lau	<i>dudu</i>	(VI) ‘push, move’
		<i>du</i>	(VT) ‘push, move’

6.6.1.3.2 *Pulling*

There are a good many path-profiling ‘pull’ verbs in Oceanic languages. One, POc *pupu(t), *puti- ‘pick (fruit +), pluck (feathers +), pull out (weeds +)’, is widely reflected (vol.1:277–278). An apparently simple verb of pulling, POc *Rape ‘pull, drag’, has quite widely distributed reflexes. POc *dradra ‘pull’ has just three known reflexes, all NNG, but non-Oceanic cognates support the POc reconstruction.

POc *Rape ‘pull, drag’

NNG:	Takia	<i>-rae</i>	‘inhale, pull (e.g. on a rope), attract, extend (e.g. talk), drag, stretch out (by pulling)’
NNG:	Sio	<i>lae</i>	‘pull behind, drag’
MM:	Nakanai	<i>lave</i>	‘pull’
MM:	Madak	<i>rep</i>	‘pick, pull’
MM:	Patpatar	<i>rahi</i>	‘pull, drag’
MM:	Tinputz	<i>ræh</i>	‘pull’
SES:	Lau	<i>lafi</i>	(VI) ‘pull, draw, draw a tooth, pull a string’
		<i>lafi-</i>	(VT) ‘drag, pull up’
SES:	Kwaio	<i>la-lafi-</i>	‘pull (tight), pull on, snatch’

PNCV *rave ‘pull’ (Clark 2009)

NCV:	Mota	<i>rave</i>	‘pull; draw out fish, catch fish with a line’
		<i>rave-g</i>	‘drag s.o./s.t.’
NCV:	Raga	<i>rava</i>	‘pull, draw, write’
NCV:	Nokuku	<i>rav-rav</i>	‘catch fish’
NCV:	Kiai	<i>reve-a</i>	‘pull, drag’
NCV:	Tamambo	<i>reve</i>	‘pull’
NCV:	Uripiv	<i>-rev</i>	‘pull’

NCV: Lonwolwol	<i>re</i>	‘hold, take, pull, etc.’
	<i>rvi</i>	‘to pull along, tow, haul’
NCV: Paamese	<i>lehe-lehe</i>	(VI) ‘pull’
	<i>lehe</i>	(VT) ‘pull’
PSV * <i>a-yevi</i> (Lynch 2001c)		
SV: Sye	<i>yevi</i>	‘pull’
SV: Ura	<i>yevi</i>	‘pull’
SV: N Tanna	<i>i</i>	‘pull’
SV: Lenakel	<i>vi</i>	‘pull’
	<i>evi</i>	‘pull out’
	<i>evi-evi</i>	‘pull in jerks’
SV: Anejom	<i>a-yihi-i</i>	‘pull’
PCEMP * <i>dada</i> ‘pull, haul, drag’ (ACD: PCMP)		
POc * <i>dradra</i> ‘pull’		
NNG: Bariai	<i>dada</i>	‘pull’
NNG: Hote	<i>-dadi</i>	‘pull (on ground or from hole)’
NNG: Mapos Buang	<i>dad</i>	‘pull’

6.6.2 Accompanied caused movement

Verbs of accompanied caused movement are verbs of carrying and dragging. Many Oceanic languages have no default verb of carrying, but employ a number of carrying verbs, depending on how something/someone is carried and to a lesser degree on what is carried.¹⁸ Meanings that crop up with considerable frequency include

- carry on the head
- carry hanging from the head
- carry a child in a sling on the back
- carry on the shoulder
- carry hanging from shoulder
- carry piggyback
- carry with a shoulder pole
- carry on a long shoulder pole between two people
- carry under the arm (and on the hip)
- carry in both arms
- carry on a canoe

Of these, the first three modes listed are usually restricted to women, whilst carrying something on or hanging from the shoulder is typically a male mode. Hill (2015) remarks, ‘In the villages of Longgu district there is only one way to transport goods or children on land and that is for people to carry them. There are no animals used to carry loads, no bicycles, wheelbarrows or

¹⁸ I am indebted to Andrew Pawley for a copy of Pawley (1997), to Deborah Hill for allowing me to read a pre-publication draft of Hill (2016), and to people who provided Hill with lists of carrying verbs: Wolfgang Sperlich for Nakanai (drawing on Chowning & Goodenough 2014), Ralph Lawton for Kilivila and Alexandre François for Hiw.

cars.’ This was true of all pre-contact Oceanic speaking communities and was true of communities speaking POc. Hill goes on to point out that while Longgu does not have a generic verb ‘carry’, it does have a verb *zabe* ‘not carry anything’, ‘behavior that is considered either unusual or unacceptable’ in a community where every able-bodied person must contribute to the daily labour of the village.

6.6.2.1 Carrying in general

POc, however, appears to have used **puat* as a generic verb of carrying and transporting, although when the agent was male it apparently also could have the specific meaning ‘carry on the shoulder’. In its generic sense it probably overlapped with POc **k^wau*, **k^wap(i)* ‘get, take’ (§6.6.1.1), but the glosses in the cognate set below suggest that generic **puat* profiled carrying or transporting a load, whereas **k^wau*, **k^wap(i)* denoted carrying in a more general sense.

PMP **buhat* ‘lift, stand up, arise, emerge, begin, depart, carry; cargo; take something; take a wife’ (ACD)

POc **puat* ‘carry, transport from place to place; carry on shoulder’

NNG:	Kaiwa	<i>vuat</i>	‘carry’
PT:	Motu	<i>hua-</i>	‘carry on the shoulder’
SES:	Longgu	<i>hua-</i>	‘carry something in a bag slung from the head’
SES:	Lau	<i>fūa</i>	‘carry, as a haversack’
SES:	Kwaio	<i>fua</i>	‘carry a load (of vegetables, coconuts, water); bring food’
		<i>fua-<i>geni</i></i>	‘marry, take a woman in marriage’ (<i>geni</i> ‘woman’)
SES:	‘Are’are	<i>hua</i>	‘bring, carry’

PMic **wua*, *wuawua*, *wua-ti*, *wua-ta* ‘carry, convey, transport’:

Mic:	Kiribati	<i>uot-a</i>	‘carry (s.t.), carry in arms, rock, lull to sleep’
		<i>uou-a</i>	‘engage in carrying a child’
Mic:	Chuukese	<i>wuwa</i>	‘convey, ship, carry from one place to another’
		<i>wue-yi</i> , <i>wue-e-</i>	‘carry, convey, transport (s.t.)’
Mic:	Mortlockese	<i>ua</i>	‘carry’
		<i>uæ-æ-</i>	(VT) ‘carry’
Mic:	Puluwatese	<i>wua-</i>	‘carry, transport (s.t.)’
		<i>wuŋwo</i>	‘carry’
Mic:	Woleaian	<i>uate</i>	‘load, belongings’
Mic:	Ponapean	<i>wwa</i>	‘carry’
Mic:	Kosraean	<i>wiwe</i>	‘do carrying’
		<i>wɛ-n</i>	‘carry, transport (s.t.)’
Fij:	Bauan	<i>vua</i>	‘bear two burdens on the shoulder (one at each end of a pole)’
Fij:	Wayan	<i>vua</i>	‘be carried on a pole’
		<i>vuat-i</i>	‘carry (s.t.) on a pole resting on the shoulder’
Pn:	Tongan	<i>fua</i>	‘lift, carry on shoulder with a stick’
		<i>fue-si-a</i>	‘carry, bear (a burden)’

Pn:	Niue	<i>fua</i>	‘carry on the shoulder; weigh’
cf. also:			
SES:	Sa’a	<i>fuʔe</i>	‘carry suspended from the head’
SES:	Arosi	<i>hua, huas-i</i>	‘carry suspended from the head’

6.6.2.2 Carrying on the head

The central meaning of POc **suqun* was with reasonable certainty ‘carry on the head’, attested by non-Oceanic cognates from Taiwan to CMP (ACD). In Takia and Megiar the meaning has been extended to carrying in general. In NCV, as Clark (2009) recognises, the extension is to wearing on the head, then to wearing in general. That these terms are cognate is confirmed by the presence of the glottal stop in Namakir *hiʔin*, Namakir being the only NCV language regularly to reflect POc/PNCV **q*.

PAn **suquL* ‘carry on the head’ (ACD)

POc **suqun*, **suqun-i-* ‘carry on the head’

NNG:	Megiar	<i>-suni</i>	‘carry’
NNG:	Takia	<i>-sini-, -suni-</i>	‘carry or bear’
MM:	Siar	<i>sun, su-sun</i>	‘carry on the head’
MM:	Sursurunga	<i>sun-sunun</i>	(vi) ‘carry on the head’
PNCV <i>*suqun</i> , <i>*suqun-i-</i> ‘carry on the head, wear on the head’ (Clark 2009: <i>*suquni</i>)			
NCV:	NE Ambae	<i>huna</i>	‘umbrella’
NCV:	Tolomako	<i>su-suni</i>	‘wear on head’
		<i>sunu-n</i>	‘hat, umbrella’,
NCV:	Raga	<i>huni</i>	‘carry or wear on head’
NCV:	Nokuku	<i>suni-m</i>	‘hat’
		<i>sun</i>	‘umbrella’
NCV:	Uripiv	<i>-sun-sun</i>	‘carry or wear on head’
NCV:	Pt Sandwich	<i>cün-i</i>	‘carry on head, dress oneself, put on a hat, put flowers in the hair’
NCV:	Lonwolwol	<i>sun-e</i>	‘put on, wear in belt at back (used of scented leaves worn by chiefs)’
NCV:	Paamese	<i>sinu</i>	‘dressed; dress up; get dressed’
NCV:	Namakir	<i>hiʔin</i>	‘wear’
NCV:	Nguna	<i>sün-i</i>	‘carry on head; put on, wear (on upper body)’
cf. also:			
Fij:	Wayan	<i>sū</i>	‘(inanimate, e.g. fruit) be carried in one’s skirts or shirt’
		<i>sün-i</i>	‘cover or wrap s.t.; carry s.t. in one’s skirts’

PWOC **kud(r)u* is also reconstructable as a term for carrying on the head. How this differed in meaning from POc **suqun* is not clear, but the Mangap and Nakanai glosses below note that women carry burdens in this way, and it may be that **kud(r)u* denoted a female carrying style.

PWOC **kud(r)u* ‘carry on the head’

NNG: Takia	<i>-kud-i</i>	‘wear on one’s head, carry on head’
NNG: Bing	<i>kud</i>	‘hold, carry on head, carry child on shoulder’
NNG: Sio	<i>kudu</i>	‘carry on head’
NNG: Mangap	<i>-kū^hdu</i>	‘carry s.t. on head (women carry like this)’
NNG: Bariai	<i>ud</i>	‘carry on head’
NNG: Lukep (Pono)	<i>-kudu</i>	‘carry on head’
NNG: Mangseng	<i>ur</i>	‘carry on head’
NNG: Poeng	<i>kuru</i>	‘carry on head’
	<i>kur-e</i>	‘carry s.t. on head’
NNG: Mapos Buang	<i>kud</i>	‘carry; carry on head or shoulders’
NNG: Mangga Buang	<i>kud</i>	‘carry on head’
NNG: Vehes	<i>kud</i>	‘carry on head’
PT: Iduna	<i>-kedu</i>	‘carry on head’ (for † <i>-kudu</i>)
PT: Sinaugoro	<i>yuru</i>	‘carry on head’
MM: Nakanai	<i>hugu</i>	‘carry on head, of women’s loads or men’s masks’ (<i>h-</i> for † <i>k-</i> ; <i>h-</i> < * <i>q-</i>)

cf also:

NNG: Kaulong	<i>un</i>	‘carry on head’ (for † <i>kuh</i>)
NNG: Numbami	<i>-kuku</i>	‘carry on head, astride shoulders’ (for † <i>kudu</i>)

6.6.2.3 Carrying hanging from the head

When a woman from New Guinea carries a loaded netbag (*bilum* in New Guinea Tok Pisin), she lets it hang down behind her resting on her back and she pulls its woven handle over her head to rest across her forehead so that the bag is suspended from it. Occasionally other loads are carried in this way too. Interestingly, no POC term for this mode of carrying can be reconstructed, and this matches the fact that no term for a netbag can be reconstructed either (vol.1:79), apparently because the *bilum* was a New Guinea highland artefact that spread to the lowlands after the dispersal of Oceanic languages from NW Melanesia. This carrying mode has spread into the Solomon Islands, but is attested only at odd locations in the north of Vanuatu.

Some Admiralties and WOC terms for this carrying mode, along with one NCV term, look as if they are reflexes or borrowings of reflexes of PWOC **kud(r)u* ‘carry on the head’ (§6.6.2.2). Note that Tawala and Gapapaiwa *gedu* share the replacement of *-u-* by *-e-* also found in Iduna *kedu* above.

Adm: Loni	<i>kun</i>	‘carry suspended from the head’
Adm: Lou	<i>kun</i>	‘carry on the back; basket worn on the back’
Adm: Baluan	<i>kun</i>	‘small basket made of tree bark fibre worn on the shoulder’
NNG: Lukep (Pono)	<i>-gud</i>	‘carry on the head or by the second rope on the head’
NNG: Poeng	<i>kul-e</i>	‘carry hanging from the head’ (borrowed? <i>-l-</i> does not reflect * <i>-d(r)-</i>)
PT: Tawala	<i>gedu</i>	‘carry supported by cord around forehead’
PT: Gapapaiwa	<i>gedu</i>	‘carry suspended from the head’
NCV: Hiw	<i>k^wot</i>	‘carry on back (one burden) using headstrap’

The most likely borrowing above is Poeng *kule* as Poeng *-l-* reflects POC **-r-*, *-R-* or *-l-* but not **-d(r)-*. Significantly Madden (n.d.) annotates this entry with a comment that Poeng speakers do not normally make or use *bilums*.

6.6.2.4 Carrying piggyback

The main POC term for carrying someone piggyback (or pick-a-back, the older English form) is **p^wap^(w)a*, which is of PAn antiquity. Its exact POC form is uncertain, as the phonological evidence is conflicting. At the same time, the similarities in both form and meaning make it probable that these items form a cognate set. PMP **baba* could regularly have become either POC **baba* or **papa*. Clark (2009) correctly observes that NCV items reflect either PNCV/POC **baba* or PNCV **bava* (POC **bapa*). One might reconstruct alternant POC forms, but there is a solution which unites the apparently conflicting lines of evidence. Lynch (2002) shows that PMP labials surface sporadically as POC labiovelars, and that the reflex of POC **p^w* in WOC languages is often a fortis *p*. The evidence below suggests that the initial POC consonant was indeed **p^w*, an inference supported by the rounded vowels of Poeng *pope* and Arosi *boha*. It is less clear whether the medial consonant was **-p^w-* or **-p-*, as some reflexes are fortis, others lenis.

There are also forms reflecting POC **papa*, but I argue in §6.6.2.5 that these form a separate cognate set.

PAn/PMP **baba* ‘carry a person pick-a-back; ride pick-a-back’

POC **p^wap^(w)a* ‘carry pick-a-back’ (ACD)

Adm:	Mussau	<i>baō</i>	‘carry pick-a-back’
Adm:	Lou	<i>pap</i>	‘carry s.o. on the back’
NNG:	Poeng	<i>pop-e</i>	‘carry on the back’
NNG:	Vehes	<i>(pir)pev</i>	‘carry piggyback’
NNG:	Mapos Buang	<i>piv</i>	‘carry piggyback’
NNG:	Mangga Buang	<i>pēv</i>	‘carry piggyback’
NNG:	Patep	<i>piv</i>	‘carry piggyback’
NNG:	Piu	<i>pep</i>	‘carry piggyback’
PT:	Kilivila	<i>-papi-</i>	‘carry piggyback’
MM:	Roviana	<i>papa</i>	‘carry a child on one’s back’
SES:	Bugotu	<i>papa</i>	‘ride on back’
SES:	Gela	<i>papa</i>	‘carry piggyback’
SES:	Longgu	<i>papā</i>	‘carry s.o. on the back’
SES:	Arosi	<i>baha, boha</i>	‘carry pick-a-back or in cloth on back’

PNCV **bava*, **baba* ‘carry child; bear child’ (Clark 2009)

NCV:	Hiw	<i>pep</i>	‘carry on back (child+)’
NCV:	Mota	<i>pepe</i>	‘carry a child on the back or astride on the hip’
NCV:	Raga	<i>bava</i>	‘carry (child or load) on back; carry on hip; bear (child)’
NCV:	NE Ambae	<i>baba</i>	‘give birth’
NCV:	Nokuku	<i>papa</i>	‘be born’
		<i>pap-i (jura)</i>	‘bear (child)’
NCV:	Kiai	<i>pava</i>	‘give birth’

NCV: Uripiv	<i>-pepe</i>	‘carry child on back’,
NCV: Pt Sandwich	<i>ˀbav-e</i>	‘bear a child on the back; carry on one’s back’
NCV: Lonwolwol	<i>baba</i>	‘used of a baby, ride (on its mother’s back), or of the mother, to carry by slinging on her back’
NCV: Lewo	<i>papa</i>	‘carry (children’s talk)’

6.6.2.5 Carrying a child in a sling on the back

During the research for this chapter the set below was included in the set in §6.6.2.4 above. Two facts led to its separation and to the reconstruction of POc **papa*. First, Lonwolwol has two forms, *baba* and *feɸa* (N Ambrym *fafa*), admittedly not very different in meaning. Second, Polynesian forms reflect PPn **fafa* rather than **papa*.

It may well be that there is a historical connection between POc **p^wap^(w)a* ‘carry pick-a-back’ and POc **papa*, tentatively ‘carry a child slung on the back’. It is also possible that reflexes of one have been contaminated by reflexes of the other.

POc **papa* ‘carry a child slung on the back’

Adm: Wuvulu	<i>fafa</i>	‘carry s.o. on one’s shoulders (legs straddling neck)’
SES: To’aba’ita	<i>fafā</i>	‘carry piggyback’
SES: Lau	<i>fafa</i>	‘carry on shoulders, pick-a-back; carry a bag round the neck’
SES: ’Are’are	<i>haha</i>	‘carry one the back’
SES: Sa’a	<i>haha</i>	‘carry s.o. on one’s back’
NCV: Lonwolwol	<i>feɸa</i>	‘carry baby or child slung on the back’
NCV: Paamese	<i>hehe</i>	‘carry child on back in cloth’
Fij: Bauan	<i>vava</i>	‘carry a child on the back’
Pn: Tongan	<i>fafa</i>	‘carry on the back; be carried, have a ride on someone’s back’
Pn: Niuean	<i>fafa</i>	‘carry on back’
Pn: Samoan	<i>fafa</i>	‘carry (child or other load) on one’s back’
Pn: Anutan	<i>papa</i>	‘carry s.o. on one’s back, piggyback’
Pn: Hawaiian	<i>waha</i>	‘carry on the back, as a child’
Pn: Maori	<i>waha</i>	‘carry on the back’

6.6.2.6 Carrying on the shoulder

See also the generic carrying verb POc **puat* (§6.6.2.1), which also seems to have had a specific use ‘carry on shoulder’.

The terms listed below reflect POc **[qa]paRa-* ‘shoulder’, reconstructed in §3.5.3. It is possible that the term has been repurposed as a verb at various times and places, but two facts speak against this. First, all the forms listed reflect **qapaRa* rather than simply **paRa*. As noted in the reconstruction of **[qa]paRa-*, there are a number of body-part and other nouns that are reflected with and without **qa-*. If the repurposing had taken place on various occasions, we would expect some reflexes without **qa-*, but none are found. Second, the repurposing must be quite old, as the Malalamai, Gapapaiwa and Longgu forms are no longer

used for ‘shoulder’, and the Gumawana, and Misima forms are no longer identical to the noun ‘shoulder’.

PAn *[qa]baRa ‘shoulder’ (ACD)

POc *[qa]paRa- ‘shoulder; carry s.t. on the shoulder’

NNG:	Malalamai	<i>avala</i>	‘carry, esp. on the shoulder’
PT:	Gapapaiwa	<i>kavara</i>	‘carry’
PT:	Gumawana	<i>kavala</i>	(VI) ‘carry on shoulder’ (<i>vala-vala</i> - ‘shoulder’)
		<i>kavale</i>	(VT) ‘carry s.t. on shoulder’
PT:	Tawala	<i>awala</i>	‘carry on shoulder’ (<i>awala</i> - ‘shoulder’)
PT:	Misima	<i>havalala</i>	‘carry hanging from the shoulder’ (probable loan)
		<i>kaval</i>	‘carry, carry on shoulders, load carried’ (<i>vevela</i> - ‘shoulder’)
SES:	Longgu	<i>kaveria</i>	‘carry s.t. by hanging it on shoulder’ (-r- for †-l-)
SES:	Arosi	<i>ʔabara</i>	‘carry on the arms clasped on chest; shoulder’ (-b- for †-h-)

PMic *afara ‘shoulder’ (Bender et al. 2003)

Mic:	Puluwatese	<i>yayefar</i>	‘load carried on the shoulder; shoulder’
Mic:	Pulo Annian	<i>yaθaθala</i>	‘carry on the shoulder’

6.6.2.7 Carrying hanging from shoulder

POc *sape below is not widely attested, but non-Oceanic cognates support its reconstruction.

PMP *sampay ‘drape over the shoulder or from a line, as a cloth’ (ACD)

POc *sape ‘carry by a strap over the shoulder’

Fij:	Wayan	<i>ðove</i>	‘be carried slung from the shoulder or slung from a hook, peg, or line’ (-o- for †-a-)
Pn:	Tongan	<i>hafe</i>	‘carry by means of a strap or rope, etc. across the shoulder’
Pn:	Futunan	<i>safe</i>	‘be slung over the shoulder’

6.6.2.8 Carrying with a shoulder pole

A carrying mode that is quite common among men in Oceanic societies is to attach a load to one end of a short pole and to balance the pole on the shoulder with the load hanging behind and the hand holding the pole’s front end. The POc term for this was *sola(t), *solat-i-, widely reflected in Oceanic languages.

POc *sola(t), *solat-i- (VT) ‘carry with a shoulder pole’

NNG:	Sio	<i>sola</i>	‘carry object with stick slung over one’s shoulder’
NNG:	Lukep (Pono)	<i>-solo, -sol-a</i>	‘carry on the shoulder with a stick’
NNG:	Bing	<i>sōl</i>	‘carry on a pole’
MM:	Tabar	<i>sorak</i>	‘carry’

MM:	Mandak	<i>solok</i>	‘carry on shoulders’
MM:	Sursurunga	<i>sol-solat</i>	‘carry s.o. on one shoulder with legs straddling one shoulder’
SES:	Bugotu	<i>hođa</i>	‘carry on pole’
SES:	Gela	<i>hola, holat-i</i>	(VI, VT) ‘take, carry, bring, fetch’
SES:	Lengo	<i>đola</i>	‘carry’
SES:	Lau	<i>tole</i>	‘carry’
SES:	Arosi	<i>tora</i>	‘carry’
SES:	Bauro	<i>tora</i>	‘carry’

PNCV **solo*, **zolo* ‘carry over shoulder on a stick’ (Clark 2009)

NCV:	Raga	<i>(ya)holo</i>	‘carry on the shoulder; stick used for this’ (<i>yai</i> ‘stick’)
NCV:	Nokuku	<i>sol</i>	‘carry’
NCV:	Uripiv	<i>-solo</i>	‘carry with a pole on the shoulder; feel burdened; be pregnant’
NCV:	Pt Sandwich	<i>co-co-ini</i>	‘carry balanced on the shoulder; carry on the end of a stick’
NCV:	Lonwolwol	<i>hol</i>	‘carry a load in a basket on a stick over shoulder; be pregnant’
NCV:	SW Bay	<i>(aj)hol</i>	‘carry on the end of a stick’
NCV:	S Efate	<i>sol, slati</i>	‘carry, bring’

PSV **a-curia* ‘carry on pole or shoulder’ (Lynch 2001c)

SV:	Anejom	<i>a-helui-i</i>	‘carry on shoulder’
SV:	Ura	<i>e-surye</i>	‘carry on shoulder’
SV:	Lenakel	<i>a-sulie</i>	‘carry on stick over shoulder’
SV:	Kwamera	<i>a-soria</i>	‘carry by hanging on an elongated object (pole or finger)’
NCal:	Nyelâyü	<i>c^hôlĩĩ</i>	‘carry on shoulder’
Fij:	Bauan	<i>colat-a</i>	‘carry on shoulder’
Fij:	Wayan	<i>đolat-i-</i>	‘carry a burden of work for s.o.’

6.6.2.9 Carrying on a long shoulder pole between two people

Once a pig has been captured for slaughter, the favourite way to carry it in Melanesian communities is to tie its legs to a pole, such that the pole can be placed across the shoulders of two men, standing one behind the other, one at each end of the pole, the pig hanging between them. Terms for this mode of carrying occur in numerous Oceanic languages, but no extensive cognate sets are found. The three items below are nonetheless attested.

POc **sirip-i* ‘carry on a long shoulder pole between two people’

Adm:	Loniü	<i>siʔihi</i>	‘carry suspended from shoulder or from pole’
Adm:	Lou	<i>sirip</i>	‘carry a load on a pole, of one or two men’
SV:	Sye	<i>surie</i>	‘tie pig by legs to a pole so it can be carried by two people’

POc **tib^wola* ‘carry on a long shoulder pole between two people; long shoulder pole (?)’

MM:	Banoni	<i>ci-cibora</i>	‘tie up (a pig)’
MM:	Babatana	<i>sigolo</i>	‘poles or handles for carrying two poles between two people’
NCV:	S Efate	<i>sip^wol</i>	‘carry balanced on the shoulder’

PNGOc **pak(u,o)* ‘carry on a long shoulder pole between two people’

NNG:	Poeng	<i>pau-e</i>	‘carry, lift (by two people)’
NNG:	Mapos Buang	<i>vaqu</i>	‘tie, fasten; carry on a pole between two people’
PT:	Gapapaiwa	<i>-pawo</i>	‘carry on a pole over the shoulder or between two people’

6.6.2.10 Carrying under the arm (and on the hip)

The stem of POc **qap^(w)i(s)*, **qap^(w)is-i-* ‘carry (a child) on the hip or under the arm’ appears to reflect PAn **qapiC*/PMP **qapit* ‘tongs, anything used to hold things together by pinching’ (ACD). However, aside from the extension in meaning, this derivation is not straightforward. An irregular reflex, POc **kapit* ‘tongs’; **kapi(t)*, **kapit-i-* ‘grasp (with tongs)’ is reconstructed in vol.1 (p148) (with hindsight this should more accurately be **kap^(w)it* ‘tongs’; **kap^(w)i(t)*, **kap^(w)it-i-*). Its irregularity lies in the presence of **k-* for expected **q-*. The terms in the set below, however, do reflect **q-*.

POc **qap^(w)i(s)*, **qap^(w)is-i-* is nonetheless irregular in a different respect. Instead of stem-final **-t* it reflects **-s*. The one exception is the Teop term under ‘cf. also’ below, which reflects **kap^(w)it-i-* ‘grasp (with tongs)’. The apparent replacement of **-t* by **-s* in the POc form may reflect palatalisation or borrowing at a very early stage, perhaps pre-POc. Alternatively, the resemblance between **kap^(w)it* and **qap^(w)i(s)* may be a matter of chance.

POc **qap^(w)i(s)*, **qap^(w)is-i-* ‘carry (a child) on the hip or under the arm’

NNG:	Lukep (Pono)	<i>-wis</i>	‘carry under the armpit’
PT:	Tawala	<i>aweh-i</i>	‘carry (under arm)’
PT:	Kilivila	<i>-p^wesi-</i>	‘carry under one’s arm’
SES:	Gela	<i>avi</i>	‘carry (a child) under the arm’
		<i>aveh-i</i>	‘carry under the arm’

PMic **afi*, *afis-i-* ‘carry on the hip or under the arm’ (Bender et al. 2003: **afi*, **afi-Si*)

Mic:	Marshallese	<i>ab(cāce)</i>	‘carry tucked under arm’ (<i>jaja</i> ‘carry on the hip’)
Mic:	Ponapean	<i>apit</i>	‘carry (s.t.) on one’s side or under one’s arm’
Mic:	Mokilese	<i>apit</i>	‘carry (s.t.) under arm’
Mic:	Mortlockese	<i>afiy-af</i>	‘carry under the arm’
		<i>afit-i</i>	‘carry (a child) on the hip’
Mic:	Puluwatese	<i>yafit-i-</i>	‘to carry (a child) on one’s side’
Mic:	Carolinian	<i>afit-i</i>	‘carry (a child or object) on one’s side’
Mic:	Satawalese	<i>æfiy-æf</i>	‘carry on the hip (as a baby)’
		<i>æfit-i</i>	‘carry (a child) in the arms on the side’
Mic:	Woleaian	<i>yafiy-efi</i>	‘carry under one arm’
		<i>yafit-i-</i>	‘carry s.t. under the arm’

Mic:	Pulo Annian	<i>yaθit-i</i>	‘carry s.t. under the arm’
PPn	<i>*qafi</i> , <i>*qafis-i</i> ‘hold or carry under the arm’		
Pn:	Tongan	<i>ʔefi-ʔefi</i>	‘hold or carry under the arm’
Pn:	E Futunan	<i>ʔefi</i>	‘carry under the arm (as a letter, another’s hand)’
Pn:	E Uvean	<i>ʔefi-ʔefi</i>	‘carry under the arms’
Pn:	Samoaan	<i>ʔafis-i</i>	‘carry under the arm or on the hip’
Pn:	Tokelauan	<i>afih-i</i>	‘carry or hold s.t. under arm; carry (child) on hip’

cf also:

MM:	Teop	<i>kapis-i</i>	‘carry s.t. under your arm’

Despite its formal similarity to the set above, the cognate set below evidently reflects PMP **qabin* ‘hold or carry under the arm’, POc **qapi(n)*, **qapin-i-* ‘hold or carry under the arm’. However, contamination from POc **qapiŋa* ‘armpit’, itself a nominalisation formed from POc **qapi(n)* (§3.5.4), has evidently occurred in Yalu, Mota, Raga and Rennellese and in the Dangkal and Buang forms under ‘cf. also’, which have *ŋ* for *†n*. All the forms under ‘cf. also’ reflect **k-* rather than *†*q-*, apparently reflecting contamination from POc **kapi(t)*, **kapit-i-* ‘grasp (with tongs)’ (vol.1:148).

PMP **qabin* ‘hold or carry under the arm’ (ACD)

POc **qapi(n)*, **qapin-i-* ‘hold or carry under the arm’

NNG:	Yalu	<i>-apuiŋ</i>	‘carry’
NNG:	Mapos Buang	<i>kpiŋ</i>	‘carry, hold; carry astraddle the hip; hold under the arm, against the side’
MM:	E Kara	<i>(yə)kəpin-e</i>	‘carry under the arm’
MM:	Halia	<i>api-api(c)</i>	‘armpit; carry under the arm’
MM:	Bugotu	<i>avin-i</i>	‘carry in the arms’

PNCV **qavin-i-* ‘carry under arm’ (Clark 2009: **qavi-ŋa*)

NCV:	Mota	<i>avŋa-g</i>	‘carry in the arm, on or under’ (<i>viŋa-i</i> ‘armpit’)
NCV:	Raga	<i>viŋa-i</i>	‘carry in arms, embrace’ (<i>malaviŋa-</i> ‘armpit’)
NCV:	Paamese	<i>ahin-i</i>	‘carry under arm’, (<i>hiŋo-</i> ‘armpit’)
NCV:	Nguna	<i>avin-i-</i>	‘hold under arm’

PPn **qafin-i* ‘hold or carry under the arm’

Pn:	Ifira-Mele	<i>avin-i-a</i>	‘stand close to, hold by side’
Pn:	Rennellese	<i>ʔaviŋ-i</i>	‘carry under the arm or on the hip (as a child)’

cf also:

NNG:	Dangkal	<i>kafiŋ</i>	‘carry’
NNG:	Mapos Buang	<i>kpiŋ</i>	‘carry, hold; carry astraddle the hip; hold under the arm, against the side’
NNG:	Mangga Buang	<i>kāpin</i>	‘carry on hip’
NCV:	Pt Sandwich	<i>xavin-i</i>	‘carry under arm’

6.6.2.11 Carrying in both arms

The common factor among the glosses of items reflecting POc **tabe* is one of holding something with both arms.

POc **tabe* ‘carry in both arms’ (ACD: ‘hold tightly or firmly’)

PT:	Tawala	<i>tape(uni)</i>	‘grab, catch hold of’
MM:	Tolai	<i>tabe</i>	‘hold s.t. so that s.o. else will not take it’
MM:	Babatana	<i>töbe</i>	‘hold, carry in the arms’
SES:	Gela	<i>tabe</i>	‘take, hold’
SES:	Arosi	<i>abe</i>	‘carry against chest, as firewood’
NCV:	Nguna	<i>tape-</i>	‘take, carry; to bear (a child)’

PMic **tap(a,e)*, *tap(a,e)-ki* ‘lift up, carry, bear in one’s hands’

Mic:	Kosraean	<i>taptap</i>	‘support, uphold, bear’
		<i>tæpʌ-k</i>	‘support, uphold, or bear (s.t.)’
Mic:	Kiribati	<i>tapetape</i>	‘engage in carrying, carry repeatedly’
		<i>tape-ka</i>	‘lift or take (s.t.) up in the hands’,
		<i>tape-ki-</i>	‘lift s.t. up’
Mic:	Marshallese	<i>cepak</i>	‘support, hold up’
Mic:	Chuukese	<i>sap</i>	‘be holding up with open palm (of the hand)’,
		<i>sapa, sassapa</i>	‘hold (s.t.) up in the open palm’
Mic:	Mortlockese	<i>sapa</i>	‘carry (s.t.) with both hands, support (s.t. or s.o.)’
Mic:	Ponapean	<i>sapɛ</i>	‘carry (s.t.) in one’s arms’
Mic:	Mokilese	<i>capa-k</i>	‘lift (s.t.) up from the rear end’
Fij:	Bauan	<i>tabe</i>	‘hold or carry with the hands under’
Fij:	Wayan	<i>tabe</i>	‘hold or carry a burden in the extended arms, esp. resting on both palms extended horizontally in front’

6.6.2.12 Carrying on a canoe

Blust (ACD) reconstructs three formally similar PMP terms for ‘load a canoe’: **Rujan*, **lujan*, and **ujan*. He offers no explanation for the existence of three similar forms, and nor can I. In vol.1 (p198) it was inferred that Oceanic items reflected POc **lujan*, and **ujan*. With a better understanding of Oceanic sound correspondences, **Rujan* is inferred here, rather than **lujan*, and the two POc forms are reconstructed as **Rujan*, **Rujan-i-* and **ucan*, **ucan-i-*, both ‘load (s.t.) onto a canoe, transport by canoe’. The two reconstructions differ in two consonant correspondences. The key lies in the medial correspondence. SE Solomonic, Fijian and Polynesian terms unambiguously reflect POc **-j-* and are assigned to a single cognate set, whose initial consonant correspondence—PSES **l-*, PCP **Ø-*—regularly reflects POc **R-*.

The second set reflects POc **ucan*, **ucan-i-*. Several irregularities in the medial consonant reflex are noted below, but none is assignable to **-j-*.

Finally, the Micronesian set assembled by Bender et al. (2003) may reflect either POc **Rujan* or **ucan*. POc **R* is lost in many Micronesian etyma, while **c* and **j* are merged except in Kosraean, which does not have a known reflex of either **Rujan* or **ucan*.

PMP **Rujan* ‘load a canoe; cargo’ (ACD)

POc **Rujan*, **Rujan-i*- ‘load (s.t.) onto a canoe, transport by canoe’ (Geraghty 1983: PEOc **Ruja*)

MM: Teop *ruhana* ‘transport s.t., ship s.t.’

PSES *luda ‘load (s.t.) onto a canoe, transport by canoe’

SES: Gela *luda* ‘load a canoe or ship with cargo; embark passengers; cargo’

SES: Longgu *ludā* ‘load s.t. on a truck, boat or canoe’

SES: Lau *luda* ‘carry in a canoe, carry as cargo; load a canoe or ship’

luda-i ‘carry cargo’

SES: Kwaio *luda* 'load in a canoe'

SES: Sa'a *luda* 'carry cargo, load a canoe'

lude ‘carry cargo, load a canoe, be heavily laden’

luden-i ‘carry as cargo; recruit men’

SES: Ulawa *luda* ‘carry cargo, load a canoe, be heavily laden’

SES: 'Are'are *ruta* 'charge, load, carry a load'

SES: Arosi *ruta* ‘load a canoe, carry to canoe and stow’

PCP *uja ‘be loaded onto a canoe, be transported by canoe’, *ujan-i- ‘load (s.t.) onto a canoe, transport by canoe’

Fij: Bauan *usa* ‘be carried by boat’

usan-a 'carry (s.t.) by boat'

Fij: Wayan *usa* ‘be shipped, carried (as cargo), by boat or other vehicle’

usan-i- ‘carry s.t. as cargo or passengers’

Pn: Tongan *uta* 'carry or convey by boat or vehicle; goods so carried'

Pn: Niue *uta* ‘load (as a canoe or truck); a load’

Pn: K'marangi *uda* 'transport (cargo)'

Pn: Rennellese *uta* 'put aboard a canoe or ship; bear nuts, as a coconut palm'

Pn: Rarotongan *uta* 'convey from one place to another; load up, as a canoe'

Pn: Maori *uta* ‘put persons or goods on board a canoe’

PMP *ujan ‘load a canoe; cargo’

POc **ucan*, **ucan-i* ‘load (s.t.) onto a canoe, transport by canoe’

Adm: Seimat *uxan-i* ‘load s.t. into a boat’

Adm: Nauna *us* ‘load s.t. into a boat’

Adm: Titan *usun-i* ‘carry from one place to another, usually by canoe’ (-s- for †-l-)

NNG: Mutu *yūza* ‘carry, transport’

NNG: Mangap -ūzu ‘transport, convey by canoe, vehicle’

PT: Gapapaiwa *uan* ‘load s.t. into a container or boat’

PT:	Misima	<i>usan</i>	'put inside; pick up people or things (in car); (be) overloaded' (-s- for †-h-)
PT:	Sinaugoro	<i>yura(udi)</i>	'load a canoe'
PT:	Motu	<i>uda-uda</i>	'load pots into a trading canoe'
MM:	Meramera	<i>uda</i>	'carry' (-d- for †-s-)
MM:	Nehan	<i>ute</i>	'load up a container with contents' (-t- for †-h-)

PMic **u[s,S]a, u[s,S]an-i* 'load (s.t.) onto a canoe, transport by canoe'

Mic:	Puluwatese	<i>witæn</i>	'(cargo) be loaded'
Mic:	Carolinian	<i>-wut</i>	'be loaded, have s.t. inside'
Mic:	Satawalese	<i>-yit</i>	'load s.t.'
		<i>-yita</i>	'load it'
Mic:	Ponapean	<i>itan</i>	'carry (s.t.) in a vehicle'
Mic:	Mokilese	<i>itan</i>	'transport (s.t.)'

6.6.2.13 Dragging

Dragging is a form of accompanied caused movement, in that the agent follows the same path as the theme (the thing dragged). In this respect it differs from pulling, where, as with putting, some part of the agent remains in contact with the theme but the agent doesn't follow the theme's path (§6.6.3). Only one dragging verb is reconstructable, and only to PROc.

PROc *(q)ara 'haul, drag'

Fij:	Wayan	<i>ara</i>	'be hauled, dragged, pulled'
		<i>ara-ki-</i>	'drag, haul, pull s.t. along; trail s.t. behind one'
Fij:	Bauan	<i>yara</i>	'be hauled, be dragged'
		<i>yara-ka</i>	'haul, drag'

PMic **are, arek-i* 'haul, pull, tow'

Mic:	Kiribati	<i>ā-i</i>	'tow'
		<i>aeae-</i>	'tow, drag (s.t.)',
		<i>æk-</i>	'take (a passenger) ashore in a canoe; take (food) from the fire'
Mic:	Kosraean	<i>ælak</i>	'lift, pull, scoop (s.t.)'
Mic:	Marshallese	<i>yar</i>	'haul a canoe or vessel up on shore'
		<i>yarek</i>	'haul (a boat) up on shore'

6.6.3 Unaccompanied caused movement

Verbs of unaccompanied caused movement form two categories, based on whether or not some part or tool of the agent remains in contact with the theme until the theme reaches its goal. If it does, then we have a putting verb like *put*, *insert* or *immerse* (§6.6.3.1). If it doesn't, the verb is a verb of sending, like *send*, *drop*, *throw* or *pour* (§6.6.3.2).

6.6.3.1 Putting

‘Putting’ is used here in a specialised sense. The English verb *put* is ubiquitous. It occurs in dozens of idiomatic phrases like *put out the light*, *put on clothes*, *put to death*, *put down* (‘humiliate’), *put out* (‘annoy’), *put off* (‘postpone’). Its core meaning, however, has to do with moving something to a named location, as in *put on the table*, *put into the bag* and so on.

Some verbs of putting profile the resulting posture of the theme, e.g. *He sat the child on the chair* (result: the child was sitting on the chair). Others profile the path to the resulting location, e.g. *He inserted the key into the keyhole* (result: the key was in the keyhole).

Verbs of putting in the world’s languages vary as to whether they have a simple verb of putting like English *put*, whether they have verbs that specify the target posture of the theme (i.e. the thing that is put), like German *setzen* ‘sit, seat’, *stellen* ‘stand’ and *legen* ‘lay’, or whether they have a number of putting verbs that, like *insert*, specify the path of putting, e.g. ‘put into’, ‘put through’, ‘put on top of’, ‘put down’, ‘put up (e.g. onto a shelf)’, ‘put out (e.g. to dry)’, ‘put on a pile’ and ‘put in a line’ (Narasimhan et al. 2012).

These three possibilities are not mutually exclusive. Oceanic languages tend to be of the third type, and the list of path-of-putting categories in the previous sentence is based on Oceanic tendencies. At the same time, most Oceanic languages have a simple ‘put’ verb (§6.6.3.1.1), and many have verbs for ‘stand (s.t.) (on s.t.)’ and ‘lay (s.t.) (on s.t.)’ (§6.3.1.2). Few, however, have a verb for ‘sit (s.t.) (on s.t.)’, presumably because, as noted in §2.1, sitting is typically not encoded by a dedicated verb.

Oceanic dictionaries sometimes appear to be incomplete when it comes to putting verbs. One which does contain a comprehensive collection is Pawley & Sayaba’s (2003) dictionary of Wayan Fijian, which includes the putting verbs tabulated below (two leftmost columns) together with the bases from which they are derived (third and fourth columns). All have the theme as their object except *drosomi-/drosoti-* ‘put s.t. inside’, which takes the location as its object.

Some interesting patterns emerge from the tabulation. There are far more path-profiling than posture-profiling verbs. All the verbs listed except the last are derived from a base listed in the dictionary, and a majority are derived from undergoer-subject verbs (U-verbs; vol.1:23). Four are derived from a noun denoting the path’s destination. Each of the derived verbs is simply a transitive form of its base, with the exception of *vaka-dureni* ‘stand s.t. up, make s.t. stand’, formed with the causative prefix *vaka-*. The latter is a posture-profiling putting verb, and supports the view that Wayan Fijian is indeed, in the preliminary typology of Narasimhan et al. (2012), a language that elaborates path-profiling rather than posture-profiling verbs of putting.

None of these observations is inconsistent with the data available for other Oceanic languages (other than perhaps Polynesian). Certainly, path verbs play a major role everywhere. Whether they are commonly derived from U-verbs it is impossible to say, as comprehensive dictionaries are not available for other languages that may share this derivation. Another extensive set of verbs of putting is from Mangap-Mbula, which, like all Oceanic languages on or near the New Guinea mainland, does not have U-verbs. and lacks transitive derivational morphology other than the causative prefix *pV-*, which occurs on three posture verbs (the language is exceptional in having a ‘sit’ verb here) and two path verbs. Mangap-Mbula putting verbs are shown in Table 17.

Table 16 Verbs of putting in Wayan Fijian

Simple verbs of putting			
<i>tauni-</i>	put or place s.t., lay s.t. down, deposit s.t.	<i>tau</i>	be located, situated, positioned, placed; be in, at or on a place
<i>nāki-</i>	put or place s.t.	<i>naki</i>	be situated, put, placed
Posture-profiling verbs of putting			
<i>tavani-</i>	put s.t. up lengthwise	<i>tava</i>	(of a long object) be placed lengthwise in an elevated position, as on a shelf or stack.
<i>ruva-, ru-vani-</i>	lay s.t. in place, fix or place s.t. in or on a place (object the thing fixed).	<i>ruva</i>	(of a flat object) be laid, put in place, fixed in position
<i>vaka-dureni</i>	stand s.t. up, make s.t. stand	<i>dure</i>	stand, stand up
Path-profiling verbs of putting			
<i>ðilini-</i>	put or rest a thing on s.t.	<i>ðili</i>	be on top, rest on s.t.
<i>ðuruni-, ðuruti-</i>	bag s.t., secure s.t. in a bag or basket.	<i>ðuru</i>	be bagged, put into a bag or basket with top fastened
<i>koroni-</i>	gather s.t. in a heap, accumulate or pile up s.t.	<i>koro</i>	be gathered in a heap or mound; be heaped, piled, mounded
<i>livati-</i>	take s.t. off, put down a burden, leave a position	<i>liva</i>	be taken off, removed
<i>duŋui-, duŋuni-</i>	heap, pile, stack things	<i>duŋu</i>	be stacked in a heap; be heaped, piled, stacked
<i>tavo-, tavoni-</i>	put s.t. in a container, bag s.t., etc.	<i>tavo</i>	be put in a container; thus, bagged, put in a sack, boxed, crated, put in a basket, etc.
<i>uðuni-</i>	put s.t. in a container	<i>uðu</i>	go into a house or other living place, disappear in-side.
<i>drosomi-, drosoti-</i>	put s.t. inside, insert into, enclose in, sheathe in, penetrate	<i>droso</i>	go inside, enter
<i>bolani-</i>	put s.t. in a case, record s.t., commit s.t. to memory	<i>bola</i> (N)	basket woven from coconut leaves, large enough to carry several long yams or a small pig
<i>taŋani-</i>	bag or pocket s.t., put s.t. in a bag or pocket	<i>taŋa</i> (N)	any deep woven or netting receptacle with open top: bag, sack, pocket
<i>tāvata</i>	be put on a platform, bed, etc; be shelved, tabled	<i>tāvata</i> (N)	any constructed surface acting as a platform; thus shelf, table
<i>atuni-</i>	line (things) up	<i>atu</i> (N)	group of things standing in a row or line
<i>abani-</i>	line (things) up, place (things) in a line or row	—	

Table 17 Verbs of putting in Mangap-Mbula

Simple verbs of putting			
-kam	do, give, take, get, put, cause	—	
-ur	put, place	—	
Posture-profiling verbs of putting			
-pa- ^m butul	put into a sitting position; -	- ^m butul	sit
-pe-gēne	put to bed/ put into lying position;	-kēne	sleep, lie down, be in horizontal position
-pa-me ⁿ der	put into a standing position;	-me ⁿ der	stand
-su ⁿ gun	put into a standing position	-su	go down
		- ⁿ gun	plant s.t. upright in the ground
Path-profiling verbs of putting			
-dāba	put into, fill with	—	
-zēbe	put into	—	
-kuru	put through a hole, thread	—	
- ⁿ dou	collect/ put together/ heap/ gather/ accumulate	—	
-pi-zil	put, slip in through a small hole/ hide inside	-zil	go through a hole
-pa-māla	put out to be seen/ show/ advertise	māla	look at, watch, observe
-salakāla	put on top of	-salakāla	be on top of
-san	put out to dry	—	
-pa-rāza	put out to dry	rāza	dry out

Simple verbs of putting often occur in serial verb constructions. In terms of the division into manner (locomotion), path (geographic direction) and deictic direction verbs put forward in §6.3 on the basis of occurrence in these constructions, simple verbs of putting occupy the manner slot, i.e. they are verbs of (caused) locomotion. This follows from their encoding the act of putting and from their lack of directional meaning, as well as from their place in serial verb constructions.

Mangap-Mbula (NNG)

Zin ti-ur i-su tōno
 they 3PL-put 3SG-go.down ground
 MANNER PATH

‘They put it on the ground.’ (Bugenhagen 1995:166)

Kusaghe (MM):

Lohe lae-ni-a pa beha
 put go-TR-3SG PREP basket
 MANNER DEIXIS

‘Put it in the basket.’ (Davis 2003:166)

NE Ambae (NCV)

...da-mo	tau	na	loko	mo	hivo
1INC-RLS	put	ACC	pudding	RLS	go.down
	MANNER				PATH

‘We put the pudding down.’ (Hyslop 2001:302)

Posture-profiling verbs of putting occur so rarely in sentence examples that one cannot classify them in this way. Path-profiling verbs of putting, as their label suggests, are verbs of geographic direction.

6.6.3.1.1 Simple putting

The most widely reflected simple ‘put’ verb is POc **taRu(q)* ‘put down, lay down’. The Mapos Buang and Meramera forms are shown under ‘cf also’ as the expected forms are Mapos Buang †*taɣu*, Meramera †*talū*.

POc **taRu(q)* ‘put down, lay down’ (Geraghty 1990: PEOc)

Adm:	Mussau	tau	‘give’
Adm:	Wuvulu	ʔau	‘put’
Adm:	Titan	to, taw-i	‘give, send, bring, put; make pregnant’
Adm:	Lou	tu	‘give’
NNG:	Poeng	talū-	‘hide’
PT:	Motu	taru-	‘cover, as with a sheet; wrap oneself in’
		taru(adiho)	‘put down, of a loaded netbag’
MM:	Vitu	taruy-i-	‘put, place’
MM:	Nakanai	talū	‘put down on the ground, as a bundle carried on the head’
SES:	Bugotu	talū	‘put, place, appoint’
SES:	Gela	talū	‘put, place, set’
SES:	Tolo	talū-	‘put, place’
SES:	To’aba’ita	alu-	‘put, put down, place’
SES:	Lau	alu	‘place, put, lay down’
SES:	Kwaio	alu, alu-a	‘put, keep’
SES:	Sa’a	ʔalu	‘put, place’
NCV:	Mota	tau	‘set in place so as to catch or intercept’
NCV:	Tamambo	tau	‘put’
NCV:	NE Ambae	tau	‘put’
Fij:	Bauan	tau	‘(of burden) be put down’
		tau-ði	‘put down (of burden), lay one thing on another’
Fij:	Wayan	tau	‘be located, situated, positioned, placed; be in, at or on a place’
		tau-ni-	‘put or place s.t., lay s.t. down, deposit s.t.’
cf also:			
NNG:	Mapos Buang	tagu	‘put; hit against, knock over, fall on, smash’
MM:	Meramera	tau	‘put’

Other apparently simple ‘put’ verbs have only two or three known reflexes. However, whether POc had more than one or two simple ‘put’ verbs is questionable, and it is possible that both **taRu* and the two verbs below each had a more specific meaning.

POc **aso* ‘put’

NNG: Sio	<i>o</i>	‘put, place’
NNG: Mangseng	<i>as[o]</i>	‘put’
SES: Lau	<i>ato</i>	‘put, place’

PEOc **naki-* ‘put’

SES: Longgu	<i>naʔi-</i>	‘put, leave’
Fij: Wayan	<i>naki</i>	‘be put, be placed’
	<i>nāki-</i>	‘put or place s.t.’

Two other apparently simple ‘put’ etyma have reflexes that are not widespread enough to support POc reconstruction.

PNGOc **ku(rR)a* ‘put’

NNG: Mutu	<i>yur</i>	‘put, appoint, give, take’
NNG: Mangap	<i>-ur</i>	‘put, place’
PT: Sinaugoro	<i>yura</i>	‘put into’

PSOc **liŋi* ‘put, leave’ (Clark 2009)

NCV: Nokuku	<i>lin</i>	‘put, leave’
NCV: Kiai	<i>lini-</i>	‘deliver, bring, leave’
NCV: Uripiv	<i>-liŋ-i</i>	‘put, put on; select out; allow, let; leave’
NCV: Big Nambas	<i>ln</i>	‘leave’
NCV: Port Sandwich	<i>riŋ-i</i>	‘put’
NCV: Lonwolwol	<i>liŋ-i</i>	‘put, place; let, allow; let go, let down; leave, miss; leave out; to forget; bear (a child), beget; leave alone’
NCV: Paamese	<i>liŋi</i>	‘put; leave behind’
NCV: Lewo	<i>liŋ-ani</i>	‘let go, put, leave, place’
NCV: Araki	<i>liŋ-i-</i>	‘carry, take (s.o.) on a vehicle’,
NCV: Naman	<i>ləŋ</i>	‘put’

PSV **a-liŋi-i* ‘put, leave’

SV: Anejom	<i>i-cñi-i</i>	‘put, leave (plural subject)’

6.6.3.1.2 *Posture-profiling verbs of putting*

Assuming that lexical sources are reliable, Oceanic languages have far more underived path- than posture-profiling verbs of putting. Where posture-profiling ‘put’ verbs occur, they tend to be transparently derived from posture verbs, as the Wayan and Mangap examples above show. Other instances include those in [Table 18](#).

Table 18 Posture-profiling verbs of putting in Oceanic languages

Adm:	Titan	<i>taRul-ani</i>	stand s.t. up, erect; set up, establish	<i>taRul</i>	stand, stand up
NNG:	Bariai	<i>pa-gun</i>	build; put.upright	—	
	Takia	<i>-guni</i>	plant (in ground) vertically	<i>guni</i>	stand up (e.g. posts in the ground)
	Mangseng	<i>pa-ŋou</i>	put; make lie	<i>ŋou</i>	lie down
NNG:	Poeng	<i>pa-keno-e</i>	lay s.o./s.t. down	<i>keno</i>	(of inanimates) lie horizontally
		<i>pa-maisi-a</i>	stand up (something)	<i>meisi</i>	stand
	Hote	<i>-ek</i>	put in a horizontal position	<i>-ek</i>	sleep
PT:	Misima	<i>pa-kenu</i>	lay s.t. on its side	<i>kenu</i>	lie down, sleep
	Gumawana	<i>va-tao</i>	stand s.t./s.o. up	<i>taoya</i>	stand (up)
	Dawawa	<i>wai-midir-i</i>	stand s.t. up	<i>midir</i>	stand
	Tawala	<i>lu-towolo</i>	stand s.t. up	<i>towolo</i>	stand, wake
MM:	Nakanai	<i>hi-mavuta</i>	lay (s.o. down to sleep)	<i>mavuta</i>	lie down, sleep
	Madak	<i>vaxa-mdi</i>	lay s.t. down	<i>mdi</i>	recline, lay down
	Patpatar	<i>ha-tu-tur</i>	cause to stand; raise up	<i>tur</i>	stand
SES:	Gela	<i>enov-agi</i>	lay s.t. down	<i>eno</i>	lie down
		<i>koliv-agi</i>	lay s.t. down	<i>koli</i>	lie down

No underived POC posture-profiling verbs of putting can be reconstructed, but it is likely that there were verbs consisting of cardinal posture stems (§2.1–2.3) prefixed by causative **pa-*. The data in §6.2.4.3 also suggest that transitive ‘hang’ was formed from an intransitive ‘hang’ verb.

6.6.3.1.3 Path-profiling verbs of putting

Despite the high numbers of verbs of putting in Oceanic languages that specify a path (§6.6.3.1), only one POC path-profiling verb of putting can be reconstructed, namely **soŋo* ‘put into, insert’.

At first blush, the absence of POC reconstructions seems to contradict the statement that Oceanic languages have numerous path-profiling ‘put’ verbs. However, it is probably the very plethora of such verbs in Oceanic languages that leads ironically to the absence of cognate sets. The large number of ‘put’ verbs and their propensity to be derived apparently means that the lexical replacement rate is high in this semantic domain, so that cognates often vanish.

POC **soŋo* ‘put into, insert’

Adm:	Lou	<i>soŋ(pek)</i>	‘put into (e.g. a bag)’
NNG:	Patep	<i>zoŋ</i>	‘put into, force into; aim at’
MM:	Madak	<i>saja</i>	‘put, place’ (for † <i>soŋo</i>)
MM:	Patpatar	<i>saŋ</i>	‘put into’ (for † <i>soŋo</i>)
MM:	Konomala	<i>saja-i</i>	‘give’ (for † <i>soŋo</i>)
MM:	Nehan	<i>oŋo</i>	‘put into’ (for † <i>hoŋo</i>)

MM:	Teop	<i>vā-hogo</i>	‘put s.t. (into s.t.)’ (<i>hogo</i> ‘be crowded, overfilled, packed with things or people’)
MM:	Maringe	<i>hono</i>	‘load, put inside a bag, basket or case’
SES:	Lau	<i>toŋ-i</i>	‘pack, put in a box, etc’
NCV:	NE Ambae	<i>hono-ni</i>	‘put inside’

6.6.3.1.4 ‘Putting’ in reverse: removing

‘Removing’ in the title of this section refers to acts of unaccompanied caused movement that are opposite in direction to ‘putting’ (e.g. *He took the knife from the table*). In §6.6.1.1 it is argued that POc probably had no simple verb of removing that denoted the reversal of putting. Instead it had a simple verb of caused movement that covered both the reversal of putting and accompanied caused motion, i.e. ‘bring’ and ‘take’.

Across the world’s languages verbs of putting often profile both the path along which the object is moved and/or its resulting posture, but verbs of removing tend to profile only the source from which it is moved, not its former posture. Languages in which a verb of removing also encodes the object’s posture are rare (Narasimhan et al. 2012:10), but one of them occurs in the heart of Melanesia. In the Papuan language Yélî Dnye, located on the periphery of WOc, there are verbs meaning both ‘put into’ and ‘take out of’, ‘put onto’ and ‘take off of’, ‘stand/lay/hang at a location’ and ‘unstand/unlay/unhang from a location’ (Levinson & Brown 2012). Oceanic languages, however, do not resemble Yélî Dnye in this respect. This is no surprise, as even their verbs of putting tend not to profile posture (§6.6.3.1.2). Instead, we typically find a simple verb of removing (‘take out of/from/away’) along with numerous specialised removal verbs, depending on what is being removed and from where. Many of these verbs concern common domestic processes: removing bark from wood, removing the husk from a coconut, removing fruit from a branch, removing flesh from a coconut or a mollusc, removing the stones from an earth oven, or removing the serrated edge from pandanus leaves. No attempt is made to reconstruct verbs for these meanings here, because they lie outside the semantic domain with which this chapter is concerned and are reconstructed elsewhere (vol.1:165–168, 277–279). However, Blust (ACD) has reconstructed a simple verb of removal, POc **unus*, **unus-i-* ‘withdraw, pull out, extract’ (I take ‘pull’ in the glosses below simply to be a consequence of caused movement towards the agent).

PAn **SuLus* ‘withdraw, pull out, extract’ (ACD)

PMP **hunus* ‘withdraw, pull out, extract’ (ACD)

POc **unus*, **unus-i-* ‘withdraw, pull out, extract’ (ACD)

MM:	Roviana	<i>unusu</i>	‘pull out, as a tooth, a nail, a post’
SES:	Arosi	<i>unu</i>	‘take out of’
		<i>unus-i</i>	‘take body out of shirt, i.e. take off shirt; fall out of’
Mic:	Chuukese	<i>wini</i>	‘drawn out, extracted’
Mic:	Woleaian	<i>ururu</i>	‘pull, draw, pull something from a group’
Pn:	Tongan	<i>unu</i>	‘pull out, draw out’
		<i>uhuh-i</i>	‘pull out, draw out, e.g. a sword from its sheath, or a tooth’

Pn:	Rennellese	<i>unu</i>	‘take off, remove, pull out, peel’
Pn:	Anuta	<i>unu-i</i>	‘pull out’
Pn:	Nukuoro	<i>unus-i</i>	‘pull out (e.g. a sword from its scabbard)’
Pn:	Hawaiian	<i>unuh-i</i>	‘take out, withdraw (as money from a bank, or a drawer from a desk); unsheath; take off (as a ring)’
Pn:	Maori	<i>unu</i>	‘pull off, put off, doff; draw out, pull out, withdraw’

6.6.3.2 Sending, dropping, throwing and pouring

‘Send’ verbs denote caused movement where the agent neither accompanies the theme in its movement nor, unlike ‘put’ verbs, remains in contact with the theme until it reaches its goal. In this semantic domain one might expect to be able to reconstruct a simple ‘send’ verb and one or two more verbs whose meaning satisfies these criteria, namely ‘drop’ (‘let fall, cause to fall’) and ‘throw’.

Curiously, neither a simple ‘send’ verb nor one meaning ‘drop’ is reconstructable on the basis of available data. There is no immediately obvious reason for this, as Oceanic languages often have verbs with each of these meanings, but they do not form widespread cognate sets. Many ‘send’ verbs appear to reflect the POc causative prefix **pa[ka]-* but the roots to which it is attached do not occur independently in the data. Two that do are Teop (MM) *va-nao* ‘send’ (*nao* ‘go’) and Wayan Fijian *vā-kauti-* ‘send s.t., have s.t. carried or taken’ (*kau* ‘be carried, taken’). Takia uses a periphrastic causative *-gane -ao* ‘send’ (*-gane* ‘do’, *-ao* ‘go’). A number of ‘drop’ verbs similarly reflect the causative prefix: Poeng (NNG) *pa-pu-e* ‘drop, cause to fall’ (*pu-pu* ‘fall’), Iduna (PT) *-ki-ve-beʔu-* ‘drop from hand, make something fall’ (*beʔu* ‘fall’, *ki-* ‘do with hand’, *ve-* CAUSATIVE), Misima (PT) *pa-bun* ‘drop’ (*bun* ‘fall’), Wayan Fijian *vaka-lutu-ni-* ‘drop (s.t.)’ (*lutu* [VI] ‘drop, fall’). It thus seems possible that POc used causatives for ‘send’ and ‘go’, and that the plethora of ‘send’ forms in Oceanic languages reflects a re-purposing of other verbs.

The situation with ‘throw’ and ‘pour’, however, is quite different, perhaps because ‘throw’ also profiles the kind of force applied to the theme and ‘pour’ the action applied to the vessel containing the liquid.

6.6.3.2.1 Throwing

It seems fairly clear that throwing stones was a primary sense of POc **piri(ŋ)*.

PCEMP **biriŋ* ‘stone, throw a stone at’ (ACD)

POc **piri(ŋ)* ‘stone, throw a stone at’ (ACD)

NNG:	Mangap	<i>-piri</i>	‘throw, cast away, toss, throw oneself into’
MM:	Tolai	<i>bir</i>	(v) ‘stone; throw or fling a stone; chase away with stones’
SES:	Gela	<i>piri</i>	‘throw with a twist, with finger and thumb’
SES:	Bugotu	<i>piri</i>	(v) ‘stone with stones’
NCV:	Mota	<i>vi-vir</i>	(v) ‘throw, giving a twist, twirling motion, as to a stone’
NCV:	Vurës	<i>vi-virr</i>	‘throw’
NCV:	Nume	<i>vi-vir</i>	‘throw’
Fij:	Bauan	<i>viri</i>	(VI) ‘throw at, pelt’

		<i>virī-ka</i>	(VT) ‘pelt s.t.’
		<i>virī-tak-a</i>	(VT) ‘throw s.t.’
Fij:	Wayan	<i>virī</i>	(VI) ‘throw or hurl overarm’
		<i>virī-ki-</i>	(VT) ‘pelt s.t., hit s.t. with a thing thrown’

6.6.3.2.2 *Pouring*

Several verbs of pouring can be reconstructed. The most widely reflected is POc **liŋi(s)*, *liŋis-i-* ‘pour out, spill (liquid)’. POc **puRi* ‘pour water on’ took the goal as its object. PWOC **jiwaR*, **jiwaR-i-* ‘pour out (liquid)’ is reflected only in WOC languages, and seems to have replaced **liŋi(s)/liŋis-i-*. It is not clear whether its object was the (liquid) theme or the goal of pouring. As noted below, it may have an earlier shared history with PCP **suqi* ‘pour water on/into’, which took the goal as its object.

PMP **iliŋ* ‘pour’ (ACD)

PCEMP **liŋi* ‘pour’ (ACD)

POc **liŋi(s)*, *liŋis-i-* ‘pour out, spill (liquid)’

NNG:	Tuam	<i>-liŋ</i>	‘pour’
NNG:	Mangap	<i>-liŋ</i>	‘pour out, shed’
NNG:	Sio	<i>liŋi</i>	‘pour out, spill; throw away or discard’
NNG:	Poeng	<i>liŋ-a</i>	‘pour out’
PT:	Sudest	<i>liŋgi</i>	‘pour’
PT:	Misima	<i>liŋi-n</i>	‘pour out (onto the ground), spill’
SES:	Sa’a	<i>liŋi</i>	(VI) ‘pour’
		<i>liŋis-i-</i>	(VT) ‘pour’
SES:	Arosi	<i>riŋi</i>	(VI) ‘pour, incline a vessel’
		<i>riŋis-i-</i>	(VT) ‘pour, incline a vessel’
SES:	Owa	<i>riŋi-</i>	‘pour s.t.’

PNCV **liŋi* ‘pour’

NCV:	Mota	<i>liŋ</i>	‘pour gently’
NCV:	Raga	<i>liŋ</i>	‘pour out’
NCV:	Sakao	<i>liŋ</i>	‘pour’
NCV:	Nguna	<i>liŋi</i>	(VI) ‘spill over’,
		<i>liŋis-i</i>	(VT) ‘spill’
NCV:	S Efate	<i>liŋ</i>	(VI, VT) ‘pour out’
Fij:	Wayan	<i>liŋi</i>	(VI) ‘be poured, pour’
		<i>liŋi-</i>	(VT) ‘pour (liquid)’
Pn:	Tongan	<i>li-liŋi</i>	(VT) ‘pour s.t. out’
		<i>liŋi-ʔi</i>	(VT) ‘pour s.t. out’
Pn:	Samoa	<i>liŋi, li-liŋi</i>	(VT) ‘pour s.t.’
		<i>ma-liŋi</i>	(VI) ‘(rain, tears) pour, run’

POc **puRi* ‘pour water on’ (Geraghty 1990: PEOc **vuRi* ‘pour water on, rinse’)

NNG:	Kairiru	<i>-pul</i>	‘pour’
NNG:	Mangap	<i>-puri</i>	‘rinse, clean something small’

PT:	Motu	<i>huri</i>	‘wash, scrub’
SES:	Gela	<i>vuli</i>	‘pour water’
		<i>vu-vuli</i>	‘pour, sprinkle’
PNCV <i>*vui</i> ‘pour water on’ (Clark 2009)			
NCV:	Mota	<i>vu-vui</i>	‘pour water upon, cool with water’
NCV:	Nguna	<i>vue</i>	‘pour water on, water, sprinkle’
PSV <i>*a-vwi(i)</i> ‘to water, pour water on’			
SV:	Sye	<i>avwi</i>	‘to water, pour water on’
SV:	Lenakel	<i>vi</i>	‘to water, pour water on’
SV:	Anejom	<i>ahwi-i</i>	‘to water, pour water on’

The relationship, if any, between the two reconstructions below, PNGOc **jiwaR*, **jiwaR-i* ‘pour out (liquid)’ and PCP **suqi* ‘pour water on/into’, is somewhat puzzling. Each is based on a regionally restricted cognate set, and the formal similarities between them suggest that they may share an earlier history. Indeed, the Fjian (Bauan and Wayan) terms under PCP **suqi* could also reflect **jiwaR-i*, if one assumes that the sequence **-iwa-* is readily reduced to **-ua-* (as in Takia and Sio), then **-u-* (as in Kela and Numbami). This would give PCP **juRi*, hence, e.g. Wayan *sui*. Concomitantly, **suqi* would then be demoted to PPn status. Either way, though, PPn **-q-* cannot be reconciled with PWOC **-R-* without resorting to *ad hoc* speculation.

PWOC **jiwaR*, **jiwaR-i* ‘pour out (liquid)’

NNG:	Takia	<i>-suari</i>	(VT) ‘pour out, empty’
NNG:	Sio	<i>zuala</i>	‘rinse out with water; slosh back and forth’
NNG:	Kela	<i>zui</i>	‘pour out’
NNG:	Numbami	<i>-zu-zula</i>	‘pour, flow’
PT:	Gumawana	<i>siwo-i</i>	‘pour’
PT:	Dobu	<i>siwa</i>	‘pour (water)’
		<i>siwala(ga)</i>	‘pour more water in’
		<i>siwal(olo)</i>	‘pour water on’
PT:	Yamalele	<i>iwa(ga)</i>	‘pour (water)’
PT:	Iduna	<i>-yiwa-</i>	‘pour, fill’
PT:	Are	<i>sewa-i-</i>	‘pour’
PT:	Tawala	<i>hiwo(ga)</i>	‘pour out, tip out, unload’
PT:	Misima	<i>hol</i>	‘pour’
MM:	Babatana	<i>jili-ni</i>	‘pour out, spill’

PCP **suqi* ‘pour water on/into’

Fij:	Bauan	<i>sū</i>	‘pour water on, irrigate, quench (fire)’
		<i>sūy-a</i>	(VT) ‘pour water on, irrigate’
		<i>sui-bokoð-a</i>	(VT) ‘quench (fire +)’ (<i>boko</i> ‘extinguished, erased’)
Fij:	Wayan	<i>sui</i>	‘be watered, have water poured or sprayed on’
		<i>sui-</i>	‘water s.t., quench a fire’

PPn **suqi* 'dilute, mix with liquid' (POLLEX)

Pn:	Tongan	<i>huʔi</i>	'thin down, dilute'
Pn:	Samoa	<i>sui</i>	'add water to, dilute'
Pn:	E Futunan	<i>suʔi</i>	'dilute'
Pn:	Tuvalu	<i>hui</i>	'mix with water'
Pn:	E Futunan	<i>sui</i>	'dilute dry or thick substances with water'
Pn:	Nukuoro	<i>s-sui</i>	'wet'
Pn:	Rennellese	<i>suʔi</i>	'mix'
Pn:	Tokelauan	<i>hui</i>	'water down, thin down (soup +)'

7 *Physical acts*

MALCOLM ROSS

7.1 Introduction

This chapter presents reconstructions of POC verbs for acts performed with the body or its parts that do not readily fit into the volume's other chapters. It is, in a sense, a collection of leftovers, but it is a collection that has lessons to teach us.

Terminological reconstruction uses the terminologies of present-day speakers of Oceanic languages as the basis for constructing a hypothesis about the semantic structure of a corresponding POC terminology. This is relatively easy to do if we are reconstructing a set of nouns, like terms for the parts of a canoe (vol.1, ch.7) or the parts of the human body (this volume, ch.3), as these are objects or entities that can be identified visually. It is more difficult when the terms to be reconstructed consist of classes of objects or entities, and class boundaries are determined by cultural and environmental factors, as is true, for example, of plant (vol.3, ch.3) and animal taxonomies (vol.4, chs.3 and 8), of the times of the day (vol.2:294–304), and of human age cohorts (this volume, §2.4.1).

Such classifications differ from one part of the world to another, and sometimes differ across Oceanic communities too. But these classifications can often also be related to objects or entities that have material existence. Verbs, however, denote events and states. Some of the semantic distinctions they make relate to events with physical components ('winds blow', 'people urinate'), but others are more abstract. The more abstract they are, the more careful we need to be not to assume that distinctions encoded by English verbs are similarly encoded by verbs in Oceanic languages and the more semantic change we find reflected across Oceanic cognate sets. To draw examples from this short chapter, Oceanic languages tend to encode 'beckon' and 'wave' by the same verbs (§7.3.1), and this is also true of 'slap' and 'clap' (§7.4.1). Acts of washing in Oceanic languages defy single-verb English translations (§7.6).

The somewhat abstract nature of verb meanings means that the internal classification and even the grammatical encoding of a whole domain may be quite different from its classification and encoding in English. For example, many Oceanic languages use serial verb constructions to encode movement, thereby partitioning meanings into manner of movement, geographic direction of movement, and deictic direction of movement (vol.2:256–283 and this volume, §§6.3–6.4), with verbs (or directional morphemes) that occupy each slot in the construction.

A second effect of the abstract nature of verb meanings, however, is that verbs cannot always be neatly assigned to terminologies, as they sometimes overlap more than one semantic domain. Verbs meaning 'wait' and 'hide' both have a location component. In this

they resemble the posture verbs discussed in §6.2, but neither has a posture component. Instead, ‘wait’ has a component of expectation which in certain contexts allows interpretation as a verb of cognition (ch.10), whilst intransitive ‘hide’ resembles a location verb (§6.2) and transitive ‘hide’ a putting verb (§6.6.3.1), but both entail the element of concealment from certain people.

Most of the verbs in this section are verbs that defy neat assignment. Verbs of working (§7.2.2) arguably belong with the verbs associated with horticultural practices (vol.1:129–134), as POc speakers—unsurprisingly—had no concept corresponding to ‘work’ in its western sense. The closest equivalent was ‘work in the food garden’. The pair of verbs meaning ‘clap hands’ and ‘slap with open hand’ in §7.4.1 properly belongs with verbs of hitting in vol.1:267–274, and is a corrigendum in the light of more data to a reconstruction presented there.

All the reconstructions in this chapter denote physical acts, beginning in §7.2 with the most general of these, verbs of doing and working. Then follow two sections on actions done with the hand or arm: beckoning, waving, fanning, seizing and taking hold of, and grasping and holding (§7.3), clapping, slapping and tickling (§7.4). Section 7.5 contains verbs of stamping and treading on, these being the only foot and leg actions that do not fit neatly into manner-of-movement verbs in §6.3. Section 7.6 similarly deals with actions in water that do not belong in the Oceanic manner-of-movement category. Section 7.7 contains the verbs of waiting and hiding briefly discussed above.

7.2 Doing and working

7.2.1 Doing

Probably every Oceanic language has a verb meaning ‘do’. Its most common use is with a nominal object denoting an activity, especially in phrases meaning ‘do work’. In many languages it also occurs in the question ‘What are you doing?’ but this usage is somewhat less widespread, as a number of Oceanic languages have an interrogative verb ‘do what?’.

It is clear that POc **pai(t)/*pait-i-* can be reconstructed, but it is striking that there are large geographic gaps in the distribution of its reflexes, pointing to widespread lexical replacement leading to numerous local cognate sets but none that unambiguously reconstructs to PROc, PEOc or PWOC, let alone POc. This is probably a result of the fact that in ‘do’ + nominal syntagms, ‘do’ is frequent and typically unstressed. It is therefore subject to phonological reduction which encourages replacement. There is, for example, a scattering of forms with the template **gV*: Takia (NNG) *-ga[ne]*, Iduna (PPT) *-ga*, Nakanai (MM) *igo*, all meaning ‘do, make’, and Tolo (SES) *ago* ‘work’, but their monosyllabicity and the mismatches among their vowels suggest that they could readily be due to independent parallel development.

PCEMP **bai(t)* ‘do, make’ (ACD)

POc **pai(t)*, **pait-i-* ‘do, make’ (ACD: **pai*)

Adm: Baluan	<i>pe</i>	‘make, cause’
Adm: Lou	<i>pe</i>	‘do, make’
NNG: Sio	<i>vet-</i>	‘make, do’
NNG: Numbami	<i>pai</i>	‘do, make’

NNG:	Mengen	<i>bai</i>	‘do’ (<i>ba-vai</i> durative)
PT:	Molima	<i>vei, ve-</i>	‘become, to turn into s.t. else’
PT:	Iamalele	<i>vai, vai-</i>	‘do’
MM:	Lihir	<i>pec</i>	‘do work’
MM:	Ramoaaina	<i>pet</i>	(VT) ‘do, make, cause’
MM:	Tolai	<i>pait</i>	(VT) ‘do, make, work, effect’
PNCV <i>*vai, *vei</i> ‘make, do, be’ (Clark 2009)			
NCV:	Tolomako	<i>vei</i>	‘do, action’
NCV:	Valpei	<i>vei</i>	‘make, do’
NCV:	Kiai	<i>ve, vei-</i>	‘make, do, kill’
NCV:	Tamambo	<i>vai</i>	‘make, do, be’
NCV:	Duidui	<i>vai</i>	‘make, do, be’
NCV:	NE Ambae	<i>vai</i>	‘make, do, be’
NCV:	Tape	<i>ve</i>	‘do, make, cause’
NCV:	Naman	<i>ve</i>	‘make, do; happen; be’
NCV:	Neve’ei	<i>vi</i>	‘be, copula; cause, do, make’
NCV:	Lonwolwol	<i>we</i>	‘be, become’,
NCV:	N Paamese	<i>vī</i>	‘be, have’,
NCV:	S Paamese	<i>vē</i>	‘be, have’,
NCV:	Lewo	<i>ve</i>	‘be, exist’
NCV:	Nguna	<i>vei</i>	‘be’,
		<i>vai-vai-ki</i>	‘perform, depict in play’
PPn <i>*fai</i> ‘do, make’ (POLLEX)			
Pn:	Tongan	<i>fai</i>	‘do, attend to, carry out, carry on with, engage in, perform; tell, utter’
Pn:	Niuean	<i>fai</i>	‘make’
Pn:	Samoan	<i>fai</i>	‘do, make, become; say’
Pn:	Rennellese	<i>hai</i>	‘do, get, act as, represent, have, own’
Pn:	Tikopia	<i>fai</i>	‘make, do, prepare, produce, have’
Pn:	Tokelauan	<i>fai</i>	‘happen, become’
Pn:	Tuvaluan	<i>fai</i>	‘do, make’

7.2.2 Working

Pre-contact Oceanic languages had no term for ‘work’ in its Western senses of ‘work as opposed to leisure’ or ‘work as gainful employment’. The closest concept, and one the term for which has in some languages been extended to include gainful employment, is that of labouring in the garden to grow food crops, and especially working to clear land for a garden.

The POc verb for ‘work in the food garden’ was identical in form to the noun for ‘food garden’ (vol.1:117–118), **quma*.

PAn **qumah* ‘swidden; work a swidden’ (ACD)

PMP **quma* ‘swidden; work a swidden’ (ACD)

POc **quma* (N) ‘food garden’; (v) ‘clear land for a food garden, work in a food garden’ (ACD)

NNG:	Gitua	<i>yum^{wa}</i>	‘work in garden’

NNG: Kove	<i>umo</i>	‘work in garden’
NNG: Maleu	<i>kumo</i>	‘do work’
NNG: Atui	<i>kum</i>	‘do work’
NNG: Avau	<i>kumu</i>	‘do work’
NNG: Bebeli	<i>kumu-mu</i>	‘do work’
NNG: Kaulong	<i>kum</i>	‘do work’
NNG: Mangseng	<i>um</i>	‘work with your hands’
	<i>umo-ŋ</i>	(N) ‘work’
NNG: Poeng	<i>kume</i>	‘prepare a garden’
NNG: Uvol	<i>um-ume</i>	‘do work’
NNG: Adzera	<i>-gum</i>	‘do work’
MM: Roviana	<i>uma</i>	‘make a garden’
SES: Gela	<i>uma</i>	‘clear away the bushes in making a garden’
SES: Arosi	<i>um^wa</i>	‘weed a garden’
PNCV <i>*qum^wa</i> ‘work, clear land’		
NCV: Mota	<i>um^wa</i>	‘clear away growth from a garden, first stage of preparation’
NCV: Raga	<i>uma</i>	‘division in garden’
NCV: Sakao	<i>yø̃m</i>	‘to work’
NCV: Uripiv	<i>-um</i>	‘clear the ground’
NCV: Paamese	<i>umo</i>	‘to work’
NCV: Lewo	<i>yuma</i>	‘clear scrub from garden’
	<i>yum^wa-e</i>	‘to work’
NCV: Apma	<i>um^wa</i>	‘keep garden clear of weeds’
NCV: N Ambrym	<i>om</i>	‘work’
NCV: Namakir	<i>ʔum</i>	‘cut grass, clear bush’
NCV: Nguna	<i>uma</i>	‘cut bush, clear land’
Fij: Wayan	<i>uma(ni)</i>	‘turn the soil over’

The terms for ‘food garden’ in three MM languages are nominalisations formed with the nominalising infix **<in>* and **quma*, indicating that in the early MM linkage, **quma* was a verb meaning ‘make a garden’. The three forms that reflect **q<in>uma* ‘garden’ are Bulu *y<in>uma*, Kia (*n-un*)*uma* and Roviana (*in*)*uma*, all ‘food garden’.

A second term for working in the garden is found in a number of PT languages and MM languages of northern New Ireland which appears to reflect WOc **pai-sok*, **pai-sok-i* ‘plant (tuber +)’.

PWOc **pai-sok*, **pai-sok-i* ‘plant (tuber +)’

PT: Kiriwina	<i>paisewa</i>	‘work’
PT: Gumawana	<i>paisewe</i>	‘work at’
PT: Dobu	<i>paisewa</i>	‘work’
PT: Bunama	<i>paihowa</i>	‘do, make, work, create’
PT: Iamalele	<i>faisewa</i>	‘work’ (borrowed from Dobu?)
PT: Iduna	<i>-faisewa-</i>	‘work’
MM: Lavongai	<i>aisok</i>	‘do work’
MM: Tigak	<i>aisok</i>	‘do work’

MM: E Kara *faisok* ‘do work’

The etymology of these terms is complex and not entirely clear. Their shape suggests that they reflect a compound, as morpheme-internal **-ai-* is not a usual part of the POC phonological template. An obvious candidate for the first morpheme is POC **pai(t)* ‘do, make’, reconstructed above in §7.2.1. However, the MM forms bear an obvious resemblance to the set reflecting POC **paso(k)*, **pasok-i* below, an expanded version of the set in vol.1:132. POC **paso(k)* has a history as a unitary morpheme, and to account for PWOC **pai-sok*, folk etymologising must be assumed, whereby **paso(k)* was reanalysed as **pa-(a)so(k)*, consisting of **pa-*, the POC causativiser, and the root POC **asok* ‘plant in holes in the ground’ (ACD).¹ The prefix **pa-* was then replaced by **pai-*.

PAn/PMP **pasek* ‘wooden nail, dowel; drive in, as a wooden nail, dowel, or fencepost’ (ACD)

PCEMP **pasek* ‘drive in, as a stake; to plant (crops)’ (ACD)

POC **paso(k)*, **pasok-i* ‘plant (tuber +); drive in (wooden nail +)’

Adm:	Baluan	<i>pat</i>	(v) ‘plant’
NNG:	Gedaged	<i>pae</i>	(v) ‘plant’
NNG:	Malai	<i>vazogi</i>	‘plant (tuber +)’
NNG:	Gitua	<i>va-vazok</i>	‘plant (tuber +)’
NNG:	Hote	<i>vaðo</i>	‘plant (by making hole in the ground)’
PT:	Tawala	<i>wayo</i>	‘plant by pushing into the ground; strike a cutting’
PT:	Hula	<i>varo</i>	‘plant (tuber +)’
PT:	Motu	<i>hado</i>	‘plant (tuber +)’
MM:	Bali	<i>vazoyi</i>	‘plant (tuber +)’
MM:	Bola	<i>varo</i>	‘plant (tuber +)’
MM:	W Kara	<i>fasu</i>	‘plant (tuber +)’
MM:	Nalik	<i>fasu</i>	‘plant (tuber +)’
NCV:	Mota	<i>was</i>	‘drive a hole, make a hole by hammering in some tool’

PMic **faSo*, **faSok-i* ‘plant; planted; a planted thing’ (Bender et al. 2003)

Mic:	Kiribati	<i>arok-a</i>	‘a plant, cultivated plants’
Mic:	Chuukese	<i>fɔtuk-i</i>	plant (s.t.)’
Mic:	Puluwatese	<i>fɔt</i>	(v) ‘plant, insert, pick out, select; be inserted, selected’
Mic:	Woleaian	<i>fat</i>	(N) ‘plant’
		<i>fatox-i</i>	(VT) ‘plant it, put it in place’
Mic:	Ponapean	<i>pɔt</i>	‘be planted’
		<i>pɔtok</i>	‘plant (s.t.)’

There remains the question of the origin of the apparent PT reflexes of PWOC **pai-sok* listed above. First, a majority of PT languages reflects an innovation whereby **-a* is added after a PWOC final consonant, i.e. PWOC **paisok* > **paisoka*. There is also a tendency for **k* to become **kʷ* next to a rounded vowel, hence **paisokʷa*. Medial **-k-* was deleted through

¹ From PMP **hasek* ‘dibble, plant seeds with a dibble stick’ (ACD).

lenition, giving **paisowa*, the form reflected by Bunama *paihowa*. Finally, vowel unrounding adjacent to a rounded consonant (**w*, **k^w* etc) is widespread in PT, giving **paisewa*.

7.3 Hand and arm actions

Hand and arm actions for which reconstructions are given in this section include beckoning and waving (often the same verb), fanning, taking hold of, seizing by force, and holding something in one's hand. Verbs meaning 'point (at)' are not given here but are listed as part of the cognate set supporting POc **tusu-* (N) 'forefinger'; **tusuq-i-* (VT) 'point at' in §3.6.8.2.

7.3.1 Beckoning and waving

POc speakers perhaps had two beckoning gestures. In one, the hand was extended palm down, in the other, hand up. In traditional Oceanic societies (and in SE Asia), the beckoning palm down is the polite gesture, whilst beckoning palm up, European-style, particularly with an extended forefinger, is considered rude. There are a few indications among the glosses of reflexes (Babatana, Longgu, Marshallese) that POc **qalo(p)*, **qalop-i-* denoted beckoning with the palm down. However, it seems possible that it also had the generic meaning of waving or making hand gestures.

Alongside POc **qalo(p)* we also find **ta(Ra)-qalo(p)* (VI) 'beckon, wave'. The function of the prefixed element is not understood,² and it is not clear how the prefixed and intransitive unprefixed forms differ in meaning.

PAn/PMP **qalep* 'beckon, wave' (ACD)

POc **qalo(p)*, **qalop-i-* 'beckon with the palm downward, wave'

Adm:	Seimat	<i>aloh-i</i>	(VT) 'beckon'
Adm:	Lou	<i>al-alop</i>	'wave for help'
NNG:	Manam	<i>alo-i</i>	'beckon'
NNG:	Mangap	<i>-koolo</i>	'make hand sign to come, beckon to come'
MM:	Babatana	<i>kalopo, kalip-i</i>	(VI, VT) 'beckon using hand with palm down'
MM:	Maringe	<i>kaflo</i>	'wave, beckon' (metathesis?)
SES:	Bugotu	<i>aōo-aōo, aōov-i</i>	'beckon, signal'
SES:	Gela	<i>alo, alov-i</i>	(VI, VT) 'beckon'
SES:	Tolo	<i>kalopi-</i>	'wave to someone to call them, beckon'
SES:	Longgu	<i>alo-alo, alo-</i>	(VI, VT) 'beckon s.o.; call s.o. without speaking; wave s.o. down'
SES:	Lau	<i>alof-i-</i>	'beckon with the hand'
SES:	Kwaio	<i>lalof-i-</i>	'beckon by waving the hand'
SES:	Sa'a	<i>salo, saloh-i</i>	(VI, VT) 'beckon, invite with signs'
SES:	Arosi	<i>aro, aroh-i</i>	(VI, VT) 'beckon with the hand'

PNCV **qalov-i* 'beckon, wave' (Clark 2009)

NCV:	Mota	<i>alov-ay</i>	'beckon to, invite, greet, by signs'
NCV:	Araki	<i>alov-i</i>	'beckon, wave to s.o.'

² POc **ta-* formed undergoer-subject verbs, but this is not the function of the prefix here.

NCV:	Raga	<i>alov-i</i>	‘beckon, wave’
NCV:	Tamambo	<i>alov-i</i>	‘beckon, wave’
NCV:	Paamese	<i>aleh-e</i>	‘wave to s.o. to come; beckon’
NCV:	Uripiv	<i>-luv</i>	‘beckon’
NCV:	Namakir	<i>(bi)ʔalov</i>	‘wave’
NCV:	Nguna	<i>alo-alo, aluv-i</i>	(VI, VT) ‘beckon to’
PMic <i>*[alo]alo, *alo[f]-i</i> ‘wave, beckon’ (Bender et al. 2003)			
Mic:	Kiribati	<i>ano-ano, ano[i]-</i>	(VI, VT) ‘beckon to s.o.’
Mic:	Marshallese	<i>(ceyya)hal^u</i>	‘beckon with downward motion of hand or by waving arm’
Mic:	Ponapean	<i>ʔɔɔ-ʔɔɔ, ʔɔɔ</i>	(VI, VT) ‘wave, signal’ to s.o.’
Mic:	Mokilese	<i>(cei)ʔɔɔ, (cei)ʔɔɔli</i>	(VI, VT) ‘wave at s.o.’
Fij:	Bauan	<i>yalo, yalov-a</i>	‘beckon’
Fij:	Wayan	<i>alo, alov-i- alovi- mai</i>	(VI, VT) ‘wave to s.o. or s.t.’ ‘beckon s.t., signal s.t. to come’
Pn:	Niuean	<i>alo</i>	‘beckon, signal’
Pn:	Takuu	<i>arof-āki</i>	‘beckon’
Pn:	Maori	<i>aro-arof-aki</i>	‘a motion of hands in dance’
POc <i>*ta(Ra)-qalo(p), *ta(Ra)-qalop-i-</i> ‘beckon, wave’			
Adm:	Titan	<i>ta-kalo</i>	(VI) ‘beckon, wave’
Fij:	Wayan	<i>tā-[y]alo</i>	(VI) ‘signal by waving either to beckon or say goodbye, with the fingers of the extended hand curled down’
		<i>tā-alovi-/tā-aloti-</i>	(VT) ‘wave to s.o.’
PPn <i>*ta-qalo, *ta-qalof-i-</i> ‘beckon, signal with the hand’ (POLLEX)			
Pn:	Tongan	<i>ta-ʔalo</i>	(VI) ‘wave or beckon with the hand’
Pn:	E Uvean	<i>ta-ʔalo</i>	‘make signs with the hand’
Pn:	Samoan	<i>ta-alo</i>	‘wave, signal, beckon’
Pn:	Tikopia	<i>ta-aro</i>	‘beckon’
Pn:	W Uvean	<i>ta-alof-ia</i>	‘call by sign’
Pn:	Tuvaluan	<i>ta-alo</i>	‘wave the hand’
Pn:	Pukapukan	<i>ta-alo</i>	‘beckon, indicate to come’

POc **kamo(t), *kamot-i-* may have denoted the impolite beckoning style, with the palm turned up and forefinger extended, but this is attested only by the Kove gloss. In Polynesian languages reflexes of this term denote both hand and eye signals. The Rennellese reflex denotes the polite beckoning style, but this may be the result of an extension in meaning from impolite beckoning to hand and eye signals in general.

POc **kamo(t), *kamot-i-* ‘signal with the hand, beckon (with the palm upward ?)’

NNG:	Bariai	<i>kamo</i>	‘beckon, or gesture with the hand’
NNG:	Kove	<i>kamo</i>	‘beckon with forefinger (palm up)’
MM:	Tinputz	<i>kamot</i>	‘beckon’

PPn **kamo, kamo-t-ia* ‘beckon; make sign with hand or eye’ (POLLEX: **kamo*)

Pn:	Tongan	<i>kamo</i>	(VI) ‘beckon or make signs with eyes or hands’
Pn:	Tuvalu	<i>kamo-kamo</i>	‘brief, sly wave’
Pn:	E Futunan	<i>[kamo]kamo</i>	‘beckon’
Pn:	E Uvean	<i>[kamo]kamo</i>	‘call by sign’
Pn:	Rennellese	<i>kamo</i>	‘beckon with downward flap of hand’
Pn:	Tikopia	<i>kamo</i>	‘wink, make signs with hand or eye’
Pn:	Pukapukan	<i>kemo</i>	‘wink, blink once’
		<i>kemot-ia</i>	‘signal with eyes’
Pn:	Tongarevan	<i>kamo</i>	‘wink; agree’
Pn:	Rarotongan	<i>kamo</i>	‘blink, beckon, make a sign with the hand’
Pn:	Māori	<i>kamo</i>	‘wink’

Blust (ACD) reconstructs PMP **away* ‘beckon with the hand’ and PMP **kaway* ‘wave the hand or arms; call by waving’. The morphological relationship between the two is uncertain: they may reflect the same Austronesian root (Blust 1988). A few Oceanic reflexes of **kaway* are found, allowing reconstruction of POc **kawe* ‘wave the hand’. There are also reflexes of an apparent POc **dawe*, perhaps descended from a PMP form reflecting the same Austronesian root, but in the absence of non-Oceanic reflexes this can be reconstructed only to PNGOc.

PMP **kaway* ‘wave the hand or arms; call by waving’ (ACD)

POc **kawe* ‘wave the hand’

PT:	Iduna	<i>(-lau)yawe</i>	‘wave with the hand’
PT:	Sinaugoro	<i>iave</i>	(VT) ‘wave to, make sign to’
		<i>iave-iave</i>	(VI) ‘fan’
MM:	Bola	<i>kave</i>	‘wave’

PNGOc **dawe* ‘wave the hand’

NNG:	Numbami	<i>-ⁿdawe</i>	‘wave, wave (back and forth)’
PT:	Sinaugoro	<i>dave</i>	‘wave’

7.3.2 Fanning

The commonest fan in Oceanic speaking communities is probably one made from the coconut frond.

Reflexes of POc **iri(p)*, **irip-i-* (V) ‘fan’ and its nominalisations are common in EOC languages. If the analysis of Lou *terip* and Nyindrou *taleh* as reflexes of the root **irip*, prefixed with **ta-* SPONTANEOUS (§1.3.5.4), are correct, then the form **ta-irip-i-* ‘fan oneself’ is reconstructable to POc. However, this analysis presupposes an early Oceanic form **ta-iripV* in order to account for the retention of Lou and Nyindrou *-p*, and it is not clear why there should have been a final vowel here.

The final consonants of PMP **irid* and POC **irip* do not match, but the Oceanic evidence supports only **irip*.³

There are no known WOC reflexes of **irip*, which seems to have been replaced by PWOC **tapi* (v) ‘fan’, reconstructed below.

PMP **irid* (v, n) ‘fan’ (ACD)

POC **irip*, **irip-i* (v) ‘fan’

Adm: Lou	<i>terip</i>	‘fan oneself’ (< <i>*ta-irip-i</i>)
Adm: Nyindrou	<i>taleh</i>	(v) ‘fan’ (< <i>*ta-irip-i</i>)
SES: Kwaio	<i>iluf-i-</i>	(VT) ‘blow, fan’
SES: ’Are’are	<i>ereh-i-</i>	‘fan the fire’

PNCV **iri*, **iriv-i* (v) ‘fan’; **iriv-irivi* (n) ‘fan’

NCV: Mota	<i>riv-riv</i>	(N) ‘fan’
NCV: NE Ambae	<i>iri</i>	(v) ‘fan’
NCV: Tolomako	<i>iri</i>	(v) ‘fan’
NCV: Raga	<i>rive-rive</i>	(v) ‘fan’
	<i>iri</i>	(N) ‘fan’
NCV: Nokuku	<i>iri-</i>	(v) ‘fan’
	<i>iri</i>	(N) ‘fan’
NCV: Uripiv	<i>-riv-riv-i</i>	(v) ‘fan’
	<i>ne-riv-riv</i>	(N) ‘fan’
NCV: Pt Sandwich	<i>ri-rvi-si</i>	(v) ‘fan’ (-s- unexplained)
	<i>rivi-riv</i>	(N) ‘fan’
NCV: Neve’ei	<i>riv-riv</i>	(v) ‘fan’
	<i>n-iriv</i>	(N) ‘fan’
NCV: W Ambrym	<i>e-ri-ri</i>	(N) ‘fan’
NCV: Paamese	<i>lihi-lihi</i>	‘fan oneself’
	<i>ei-lihi-lihi</i>	(N) ‘fan’
NCV: Baki	<i>rivi-riv</i>	(N) ‘fan’

PSV **a-iri-iri* (v, n) ‘fan’

SV: N Tanna	<i>k-el-el</i>	(N) ‘fan’ (k- INSTRUMENT)
SV: Whitesands	<i>k-ei-eil</i>	(N) ‘fan’ (k- INSTRUMENT)
SV: Lenakel	<i>il-il</i>	(v) ‘fan’
	<i>k-il-il</i>	(N) ‘fan’ (k- INSTRUMENT)
SV: SW Tanna	<i>k-il-il</i>	(N) ‘fan’ (k- INSTRUMENT)
SV: Kwamera	<i>eri-eri</i>	(v) ‘fan’
SV: Anejom	<i>er-ere-i</i>	(v) ‘fan’

PMic **irip*, **irip-i* (v) ‘fan’

Mic: Ponapean	<i>iri-ir, iri-p</i>	(VI, VT) ‘fan’
Mic: Mokilese	<i>irip</i>	(VI, N) ‘fan’
	<i>irip-i</i>	(VT) ‘fan’
Mic: Mortlockese	<i>uru(pə)</i>	(v) ‘fan’

³ Final PMP **-d* is not reflected in all wMP languages. Blust (ACD) cites Balinese *ilih* ‘kind of fan; to fan’, where *-h* reflects **-q*, not **-d* or **-p*.

Mic:	Satawalese	<i>uru(pə)</i>	(v) 'fan'
Mic:	Ulithian	<i>ri(pəi)</i>	(v) 'fan'
Mic:	Pulo Annian	<i>iri(pai)</i>	(v) 'fan'
Fij:	Rotuman	<i>iri</i>	(v) 'fan, (wind) blow'
Fij:	Bauan	<i>iri</i>	(vi) 'fan'
		<i>iriv-a</i>	(N) 'fan'
Fij:	Wayan	<i>iri</i>	(vi) 'be fanned'
		<i>iriv-i-</i>	(VT) 'fan s.t., blow air on s.t. by fanning'
Pn:	Tongan	<i>ī</i>	(v) 'fan'
Pn:	Niuean	<i>ili</i>	(v) 'fan; to swing, as a weapon'
Pn:	Samoa	<i>ili</i>	(N) 'fan'; (v) 'blow (of wind, horn)'
		<i>ilif-i-a</i>	(v) 'be blown'
Pn:	Rennellese	<i>igi</i>	(v) 'fan'; (N) 'coconut leaf fan'

PWOC **tapi* (v) 'fan'

NNG:	Takia	<i>ti-tawi</i>	'move or impel air with a fan'
NNG:	Mangseng	<i>tep</i>	'wave'
PT:	Gapapaiwa	<i>tapi</i>	'fan, wave, flap'
MM:	Nakanai	<i>t<il>ave</i>	(N) 'fan' (<il> < *in> NOMINALISER)
MM:	Patpatar	<i>tah</i>	(VT) 'fan, beckon, wave hand to stop s.o.'
MM:	Ramoaina	<i>tap</i>	(VT) 'fan'
		<i>tap-tap</i>	(N) 'fan'
MM:	Sursurunga	<i>tap-i-</i>	(VT) 'fan'
MM:	Teop	<i>ta-tava</i>	(N) 'fan'

7.3.3 Seizing, grabbing, snatching, taking hold of

A good many Oceanic languages make a distinction between a verb meaning 'take hold of' and one meaning 'hold'. POC verbs that evidently meant 'hold' are found in §7.3.4. POC **lawe* meant 'take hold of', whilst POC **paRo* appears to have denoted seizing something violently.

POC **lawe* 'take hold of'

NNG:	Poeng	<i>lau-e</i>	'catch, hold'
SES:	Longgu	<i>lau-a</i>	'grab s.t.'

PPN **lawe* 'take hold of, lay hold of' (POLLEX)

Pn:	Samoa	<i>lāve-</i>	'apply to, concern, affect'
		<i>lave-ia</i>	'be attained, achieved'
Pn:	Pukapukan	<i>lave</i>	'take hold of'
Pn:	Mangarevan	<i>rave</i>	'grasp (only of tools)'
Pn:	Rarotongan	<i>rave</i>	'take, lay hold of'
Pn:	Tahitian	<i>rave</i>	'take, undertake'
Pn:	Tuamotuan	<i>rave</i>	'take, take hold of, grasp, snatch'
Pn:	Hawaiian	<i>lawe</i>	'take, accept, carry, bring'
Pn:	Māori	<i>ra-lawe</i>	'clasp tightly'

POc **paqaRo(k)*, **paqaRok-i-* ‘snatch, seize, rob’ (ACD: **paRo*)

MM:	Tabar	<i>paro</i>	‘hold’
SES:	Gela	<i>valo</i>	‘rob openly, take and keep, refuse to return’

PMic **faro*, *farok-i* ‘hold tightly’ (Bender et al. 2003: Proto Central Micronesian)

Mic:	Kiribati	<i>aok-a</i>	‘deny or refuse (a request)’.
Mic:	Marshallese	<i>harek</i>	‘miserly, covetous, greedy, stingy,’
Mic:	Ponapean	<i>parok</i>	‘catch s.t. animate, to arrest’
Mic:	Chuukese	<i>f̥ro(paɕ)</i>	‘embrace’
		<i>fórus-i</i>	‘embrace him, strangle him, hang him’
Mic:	Carolinian	<i>fore-</i>	‘hang oneself’
Mic:	Woleaian	<i>fazo</i>	‘be tight’
		<i>fāzox-i-</i>	‘tie it tight, bind it, hug her’

PPn **paqao* ‘seize, take by force, rob’ (POLLEX)

Pn:	Tongan	<i>faʔao</i>	‘grab, seize, take by force, confiscate’
Pn:	Samoan	<i>fao</i>	‘snatch, seize, grab; rob (of belongings, money, spouse)’
Pn:	E Uvean	<i>faʔao</i>	‘take by force, usurp, take hold of’
Pn:	Rennellese	<i>haʔao</i>	‘take, capture, snatch, rob’
Pn:	Hawaiian	<i>hao</i>	‘scoop or pick up; grasp, pillage, plunder; rob-ber’
Pn:	Māori	<i>fāō</i>	‘take greedily, devour’

7.3.4 Grasping, gripping, holding with hand

Four verbs in the semantic domain ‘hold in the hand’ are reconstructed below. They are POc **qabi* ‘take hold of, grasp’, POc **tau(r)/*taur-i-* ‘hold (in hand)’, POc **poso* ‘hold’, POc **gogo(m)/*gom-i* ‘hold in the fist’. It is difficult to assign more precise meanings to them, but the meaning ‘hold in the fist’ for POc **gogo(m)* is strengthened by that of non-Oceanic cognates.

Blust (ACD) reconstructs POc **qabi* and POc **abi*, both ‘take hold of, grasp’, and POc **abit* ‘hold, get, take’, reflecting PMP **ambit* ‘seize with the hands’. On the assumption that the cognate set below reflects a single POc form, the data attest POc **qabi(t)*, **qabit-i-*. Root-final **-t* is attested in the Lenakel forms.⁴ This suggests that the PMP reconstruction should be **qambit*.

PMP **(q)ambit* ‘seize with the hands’ (ACD)

POc **qabi(t)*, **qabit-i-* ‘take hold of, grasp’ (ACD)

NNG:	Mindiri	<i>kabi</i>	‘hold (in hand)’
NNG:	Gedaged	<i>abi</i>	‘take hold of, grab, seize, grasp, clutch, take’
NNG:	Takia	<i>-[a]bi-</i>	‘hold, grab, grasp, clutch, carry in hand, touch, trap, knead, squeeze out, sieve, strain, rape’
		<i>-abi(tani)</i>	‘seize, grasp, keep, retain’
NNG:	Megiar	<i>-abi</i>	‘hold (in hand)’

⁴ John Lynch kindly drew our attention to these forms and their significance.

NNG:	Matukar	<i>-abi</i>	‘hold (in hand)’
NNG:	Numbami	<i>-abi</i>	‘hold, get, take’
NNG:	Yabem	<i>kam</i>	‘hold (in hand)’ (<i>k-</i> for † <i>θ-</i>)
NNG:	Kaiwa	<i>-eb</i>	‘hold (in hand)’
NNG:	Sissano	<i>-ep</i>	‘hold’
PT:	Kilivila	<i>kabi</i>	‘hold, take hold of’
PT:	Molima	<i>kapi</i>	‘hold’
PT:	Diodio	<i>abi</i>	‘hold’
PT:	Iduna	<i>-abi-</i>	‘hold, lay hands on’
PT:	Suau	<i>ʔabi</i>	‘hold’
PT:	Saliba	<i>kabi</i>	‘hold’
PT:	Magori	<i>abi(tari)</i>	‘hold’
PT:	Sinaugoro	<i>yabi(tari)</i>	‘seize, hold’
		<i>yabi(yero)</i>	‘carry (swing in the hand)’
PT:	Doura	<i>api(kai)</i>	‘hold’
PT:	Lala	<i>-ʔabi(akau)</i>	‘hold’
PT:	Gabadi	<i>-abi-</i>	‘hold’
PT:	Kuni	<i>-afi</i>	‘hold’
PT:	Mekeo	<i>-afi-</i>	‘hold’
MM:	Nakanai	<i>abi</i>	‘take, catch, get, hold’ (<i>θ-</i> for † <i>h-</i>)
		<i>ab-abi</i>	‘carry in hand’
		<i>abi(gabuto)</i>	‘take or hold tentatively’
MM:	Bola	<i>yabi-</i>	‘give’
SV:	Lenakel	<i>a-p^wiit</i>	‘stick fast to, cleave to’
		<i>a-p^wiit(etai)</i>	‘hold fast, cling’

PMP **cekep* ‘seize, grasp’ has just one known Oceanic reflex:

PMP **cekep* ‘seize, grasp’ (ACD)

POc **soko(p)* ‘seize, grasp’

PT:	Motu	<i>doʔo-</i>	‘seize, take hold of, restrain’

POc **tau(r)*, **taur-i-* has well distributed reflexes and was perhaps the default POc term for ‘hold in the hand’.

POc **tau(r)*, **taur-i-* ‘hold in the hand’

NNG:	Gitua	<i>tol</i>	‘hold (in hand)’
NNG:	Malalamai	<i>-ton</i>	‘hold (in hand)’
PT:	Dawawa	<i>tau(didi)</i>	‘hold (tight, firm)’
MM:	Lavongai	<i>teŋ</i>	‘hold (in hand)’
MM:	Tigak	<i>ton</i>	‘hold (in hand)’
MM:	Tiang	<i>toi</i>	‘hold (in hand)’
MM:	E Kara	<i>təu-e</i>	‘hold (animate being)’
MM:	Barok	<i>ton(sik)</i>	‘hold (in hand)’
NCV:	Mota	<i>taur</i>	‘hold’
NCV:	Mwotlap	<i>ty</i>	‘hold’ (< PNCV <i>*tauri</i>)

NCV: Merlav	<i>tor</i>	‘hold’
NCV: Dorig	<i>tær</i>	‘hold’
NCV: Mafea	<i>taur-i-</i>	‘hold’
NCV: Suñwadaga	<i>tor-i</i>	‘hold’
NCV: Rerep	<i>-tor-i</i>	‘hold’
NCV: Uripiv	<i>-tor-i</i>	‘hold’
NCal: Iaa	<i>kɔɔʔ</i>	‘hold’
Mic: Kiribati	<i>tau-</i>	‘seize, grasp, hold back, retain, hold’
	<i>tau-tau</i>	‘engage in holding or retaining’
Mic: Woleaian	<i>tau</i>	‘be saved, preserved, kept’
Fij: Bauan	<i>taur-a</i>	‘hold’

POc **poso* ‘hold’ has only two known reflexes, but given their exact correspondence and geographic distance from one another the term can be reconstructed to POc.

POc **poso* ‘hold’

Adm: Mussau	<i>poso</i>	‘hold’
MM: Babatana	<i>poso</i>	‘hold in hand, hold onto’

It is important to distinguish between POc **gogo(m)/*gom-i* ‘hold in the fist’ below and **gomu* ‘hold in the mouth’, reconstructed in §4.3.5.3.

PAn **gemgem* ‘fist; hold in the fist’

POc **gogo(m), *gom-i* ‘hold in the fist’

NNG: Sengseng	<i>kom</i>	‘hold’
NNG: Tami	<i>gu-gum</i>	‘hold (in hand)’
NNG: Yabem	<i>(me)gom</i>	‘hold (in hand)’
NNG: Numbami	<i>gu-gum-i</i>	‘hold’
MM: Torau	<i>gomo-</i>	‘hold’
TM: Tanimbili	<i>gomu</i>	‘hold’
NCV: Lonwolwol	<i>gomu</i>	‘hold’
NCV: Banam Bay	<i>-gum-i</i>	‘hold’
NCal: Nêlêmwa	<i>cim^w-i</i>	‘hold’
Fij: Wayan	<i>gō</i>	‘grasp s.t., grab s.t., take s.t. in the hand’
	<i>gom-i-</i>	‘grasp s.t., envelop s.t., close the hand’

7.4 Interpersonal actions

This section is concerned with acts that people perform on each other, again with the hands. Verbs of hitting are reconstructed in vol.1:271–274. Not all of these are typically used of hitting a fellow human being, but one that is reconstructed afresh in §7.4.1 in the light of a much expanded data base. A term that might have found its way into this section is ‘stroke’ (in the sense of running one’s hand over part of another’s body), but the only relevant POc reconstruction is **samo(s), *samos-i-* ‘massage, stroke’, reconstructed in §5.4.2.2. Reconstructing a verb for ‘tickle’ raises a formal challenge that is discussed in §7.4.2.

7.4.1 Slapping and clapping

A verb for slapping, POC **p^wasa(r,R)*, **p^wasa(r,R)-i-* ‘slap, hit’, was reconstructed in vol.1:273. With considerably more data the form and gloss of the reconstruction can be edited as shown below.

POC **p^waja(R)* (VI) ‘clap hands’, **p^wajaR-i-* (VT) ‘slap with open hand’

Adm: Mussau	<i>posala</i>	(VT) ‘slap with an open hand’
	<i>posalā</i>	(VI) ‘clap’
Adm: Baluan	<i>(yek) pōt</i>	‘slap, hit with open hand’ (<i>yek</i> ‘hit’)
	<i>(yek) potpot</i>	‘clap the hands’
NNG: Sissano	<i>-pot</i>	‘clap, beat’
NNG: Sio	<i>poⁿza</i>	‘slap; clap one’s hands’
NNG: Bariai	<i>poda</i>	‘slap’
NNG: Mangseng	<i>(so)pōal</i>	‘slap’
	<i>(so)po-pōal</i>	‘clap hands’
PT: Gumawana	<i>p^wasi</i>	‘clap’
PT: Bunama	<i>(lima)p^wasi</i>	‘clap hands’
PT: Sinaugoro	<i>foro</i>	‘slap, hit’
MM: Madak	<i>pasa</i>	‘clap’
MM: Sursurunga	<i>posar, posri</i>	‘slap, clap, hit with the open palm’
MM: Patpatar	<i>pasar</i>	‘slap; beat drum’
MM: Ramoaaaina	<i>par</i>	‘clap ; slap, hit ; play (hourglass drum)’
MM: Minigir	<i>pasari</i>	‘hit’
MM: Nehan	<i>posala</i>	‘slap, especially on the back of the head’ (- <i>l-</i> for †- <i>r-</i>)
MM: Solos	<i>pasan</i>	‘hit’
MM: Teop	<i>panana</i>	‘slap, hit’
MM: Babatana	<i>po-posara</i>	‘clap hands’
SES: Tolo	<i>pica-pica</i>	‘clap hands (together)’
	<i>picali-</i>	‘spank; hit, slap or tap with open hand’
SES: To’aba’ita	<i>fida-fida</i>	‘clap one’s hands in applause’
	<i>fidal-i-</i>	‘slap hard’
SES: Kwaio	<i>fodal-i-</i>	‘slap’
SES: Arosi	<i>hida</i>	‘slap’
	<i>(faʔa)hidar-i-</i>	‘slap’

PNCV **voza* ‘clap, slap, strike’

NCV: Mota	<i>wosa</i>	‘slap, smack, clap’
NCV: Raga	<i>voha-i</i>	‘strike, throw, shoot’
	<i>vosa</i>	‘slap (with one hand) once, clap hands together once’
NCV: Tamambo	<i>voja-i</i>	‘strike, slap’
	<i>voja-voja-i (lima)</i>	‘clap, pat’ (<i>lima</i> ‘hand’)
NCV: Uripiv	<i>-wuj-e</i>	‘smack, slap, pat’
NCV: Big Nambas	<i>-usa</i>	‘slap’
NCV: Port Sandwich	<i>voc-i</i>	‘strike with the hand, slap’

NCV: Nguna	<i>wosa+e-a</i>	‘clap (hands or flat objects)’
	<i>wosa-wosa</i>	‘clap one’s hands’
Fij: Wayan	<i>voða-, voða-ki</i>	‘slap s.t. with the open hand or hands together’

7.4.2 Tickling

The collection of Oceanic items considered here is better described as a set of lookalikes than as a cognate set, as it includes instances where regular sound changes have simply not taken place and perhaps also instances where idiosyncratic changes have occurred. This appears to be the result of onomatopoeia, such that the overall shape of a word is retained but some phonological contrasts are unimportant. Clearly this was already the case in PMP, as Blust (ACD) reconstructs **kilik*, **kirik*, **kidi*, **gidik* and **giri*, all ‘tickle’. The onomatopoeic template is clear: **KiRi(k)*, where **K* is a velar stop, voiced or unvoiced, and **R* is a voiced apical (PMP **l*, **r* or **d*). These shapes survive remarkably well into Oceanic, despite the fact that PMP **k-* and **g-* regularly merge then split into POc **k-* and **g-* with a strong preference for POc **k-*, whilst PMP **-d-* and **-r-* normally merge as POc **-r-*. This implies that onomatopoeic terms for ‘tickle’ have not been affected by regular sound changes.

Partly as a means of simplifying presentation, I reconstruct POc forms below, but because regularity of sound change does not apply, there is no guarantee that a given item is directly descended from the reconstruction under which it is listed. It follows from this that there is also no guarantee that the reconstructions are correct, especially where there are fewer reflexes.

PMP **kilik* ‘tickle’ (ACD)

? POc **kilik-i-* ‘tickle’

NNG: Mangap	<i>-kilik</i>	(VT) ‘tickle’
MM: Patpatar	<i>kilik</i>	(VT) ‘tickle’
MM: Ramoaaina	<i>kilik</i>	(VT) ‘tickle’
MM: Tolai	<i>kilik</i>	(VT) ‘tickle’
SES: Lau	<i>kili-kili-</i>	‘tickle so as to make s.o. laugh’
NCV: Tamambo	<i>hili</i>	(VT) ‘tickle s.o.’

PMP **kilik* ‘tickle’ (ACD)

? POc **gili(k)*, **gilik-i-* ‘tickle’

NNG: Manam	<i>gili</i>	‘tickle’
PT: Dobu	<i>gini</i>	(VT) ‘tickle’
MM: Sursurunga	<i>gilik</i>	(VI) ‘tickle’
	<i>gilki-</i>	(VT) ‘tickle’
MM: Roviana	<i>gili-gili-</i>	‘tickle’

PMP **kirik*, **kidi*, **gidik*, **giri* ‘tickle’ (ACD)

POc **kiri(s)*, **kiris-i-* ‘tickle’

Adm: Nyindrou	<i>(te)kere-ker</i>	‘tickle’
MM: Kubokota	<i>(si)kiri</i>	‘poke, tickle’
SES: ‘Are’are	<i>kiri(pae-a)</i>	‘tickle’
NCV: S Efate	<i>kir-kis</i>	(VI, VT) ‘tickle’

Mic:	Marshallese	<i>kir-kir</i>	(vi) ‘tickle’
		<i>kir-kirey</i>	(VT) ‘tickle s.o.’
Fij:	Bauan	<i>kiri, kirið-a</i>	‘tickle under the armpits’
cf also:			
MM:	Maringe	<i>(fa)ki-kili</i>	‘tickle’
SES:	Arosi	<i>kiri-kiri</i>	‘tickle under the armpit’

The items listed under ‘cf. also’ immediately above may reflect either **kili(k)* or **kiri(s)*.

The three putative POc forms above have reasonable support both from reflexes and from non-Oceanic cognates. But their root-final consonants are perhaps also significant. If the root-medial liquid is **-l-*, then the root-final consonant is **-k*, but if the root-medial liquid is **-r-*, then the root-final consonant is **-s*. This suggests two distinct early Oceanic templates, **Kilik* and **Kiris*.

There is a variety of other Oceanic forms that conform to one of these templates but reflect the ‘wrong’ protoform. The items below are shown with in the fifth column the POc forms they reflect if regular sound changes are applied. All the latter display medial **-d(r)-*, but it seems somewhat unlikely that such protoforms ever occurred, as they would reflect PMP **Kindis*, for which there is no evidence. The hypothetical forms in the sixth column are the forms expected if regular sound changes had applied to the template **Kiris*. It is fairly obvious that Mussau *kiri*, Halia *giri-* and Paamese *kir-kiris-i* reflect the failure of a sound change to apply to the medial **-r-*. Dawawa *gidi* perhaps reflects the formation of a new template **Kidi*, which was also the antecedent of Mwotlap *yin-yin*. Voiced stops normally occur in Gapapaiwa only in loans from nearby PT languages, but *gidi* may reflect the presence of unusual sounds in an onomatopoeic item.

Adm:	Mussau	<i>kiri</i>	‘tickle’	<i>*kid(r)i</i>	† <i>kili</i>
MM:	Halia	<i>giri-</i>	(VT) ‘tickle’	<i>*gid(r)i</i>	† <i>gili</i>
NCV:	Paamese	<i>kir-kiris-i</i>	(VT) ‘tickle’	<i>*gid(r)is-i-</i>	† <i>kilis-i</i>
PT:	Dawawa	<i>gidi</i>	‘tickle’	<i>*gid(r)i</i>	† <i>giri</i>
PT:	Gapapaiwa	<i>gidi</i>	‘tickle’	<i>*gid(r)i</i>	† <i>kiri</i>
NCV:	Mwotlap	<i>yin-yin</i>	‘tickle’	<i>*kid(r)i</i>	† <i>yiy</i>

The two items below both reflect failure of a sound change to apply: POc **r* > Nakanai **l*, and POc **g* > To’aba’ita **k*.

MM:	Nakanai	<i>giri</i>	‘tickle’	<i>*gisi</i>	† <i>gili</i>
SES:	To’aba’ita	<i>gili-</i>	(VT) ‘tickle’	<i>*dili</i>	† <i>kiri</i>

The items listed below are less easily explained, but they perhaps reflect the emergence of yet another templatic variant, **Kisi*.

MM:	Nehan	<i>(uel)kis-kisi</i>	‘tickle’	<i>*kiti</i>	† <i>kiri</i>
MM:	Teop	<i>gisi-gisi</i>	‘tickle’	<i>*giti</i>	† <i>giri</i>
SV:	Anejom	<i>i-yiθi(luk)</i>	(vi, VT) ‘tickle’	<i>*kisi</i>	† <i>yiri</i>

7.5 Foot and leg actions

A good many actions of the feet and legs are obviously verbs of locomotion like ‘walk’, ‘step’, ‘run’, ‘crawl’, ‘limp’ and ‘hop’, for which reconstructions are presented in §6.3, and ‘wade’ (§6.3.3.2). Dancing is an activity with substantial cultural associations in Oceanic communities, and belongs in vol.6. This section was planned to deal with the remainder: kicking, stamping and treading on. However, no cognate sets with the narrow meaning ‘kick’ have been found. When someone deliberately kicks something or someone, this is often expressed with ‘hit with the foot’, and some reflexes of verbs for stamping and treading on sometimes have as one of their senses ‘kick with the sole of the foot’. Hence the reconstructions in this section both relate to stamping and treading on: POc **paRas* (vI) ‘step, tread’, **paRas-i-* (vT) ‘step on, tread on’ and PEOc **butu* (vI) ‘stamp foot, tread, kick’, **butuR-i-* ‘stamp on, tread on, trample’.

7.5.1 Stamping and treading on

POc **paRas* (vI) ‘step, tread’, **paRas-i-* (vT) ‘step on, tread on’ (Geraghty 1990:66: PEOc **(p,v)aRa(c,z)* ‘tread on, step on’)

NNG: Mangap	<i>-para(ama)</i>	‘hold by stepping on, stamp on’
	<i>-para(mut)</i>	‘stamp on, tread on, hurt by stepping on’
NNG: Takia	<i>-par</i>	‘step, pace, tread on’
NNG: Sio	<i>pale</i>	‘shove down with great force; step down into, onto’
NNG: Mangseng	<i>pa-pal</i>	‘step; boost; stand on’
MM: Madak	<i>vas</i>	‘step on’
MM: Nehan	<i>paraha</i>	‘put foot against something, place foot firmly’
SES: Gela	<i>pala-pala</i>	‘steps into a house’

PNCV **varas-i* ‘step on, step over’

NCV: Mota	<i>vara</i>	‘tread, stamp, walk; measure by feet’
	<i>varas</i>	‘trample on’
NCV: Raga	<i>vara</i>	‘step’
	<i>varah-i</i>	‘step heavily, stamp (in dance etc); tread on, step in; straddle’
NCV: Apma	<i>vahr-i</i>	‘step heavily, stamp (in dance etc.)’
NCV: Naman	<i>veres</i>	‘step on’
NCV: Uripiv	<i>-ver</i>	‘kick’
	<i>-veras-i</i>	‘step on, jump on’,
NCV: Port Sandwich	<i>ves-i</i>	‘crush something by stepping on it’,
NCV: W Ambrym	<i>vereh</i>	‘put foot on, tread on’,
NCV: Nguna	<i>vāsi-</i>	‘hold with foot, step, walk on, ride (horse)’

PMic (vI) **fā* ‘apply the sole of the foot’, **fās-i* ‘apply the sole of the foot to s.t.’ (Bender et al. 2003)

Mic: Chuukese	<i>ffa, ffæ</i>	‘kick with the sole of the foot’
	<i>fæt-i</i>	(vT) ‘kick’

Mic:	Carolinian	<i>ffa</i>	‘kick’
		<i>fāt-i</i>	(VT) ‘kick’
Mic:	Woleaian	<i>fā-fā</i>	‘kick’
		<i>fā-ti-</i>	‘kick it’
Mic:	Mokilese	<i>pā-t-</i>	‘push with the feet’,
		<i>pā-tek</i>	‘push (s.t.) with the feet’
Fij:	Bauan	<i>vā</i>	(VI) ‘tread softly’
		<i>va-ōa</i>	(VT) ‘tread softly on s.t.’
Fij:	Wayan	<i>valaō-i-</i>	‘step or tread on s.t.’

POc **butu* (VI) ‘stamp foot, tread, kick’, **butuR-i-* ‘stamp on, tread on, trample’

Adm:	Seimat	<i>putu-i</i>	(VT) ‘stamp, kick’
PT:	Saliba	<i>utu</i>	‘to step’
SES:	Bugotu	<i>bū-butu</i>	‘stamp the foot in dancing, tread hard’
		<i>butul-i</i>	‘trample, kick’
SES:	Gela	<i>butu-butu</i>	‘kick with the feet, as in swimming’
SES:	Tolo	<i>butu</i>	‘kick’
		<i>butul-i-</i>	‘step on’
SES:	Longgu	<i>butu-butu</i>	‘beat (of heart); do things to show that you are looking for a fight (e.g. stamping feet, preparing to punch someone)’
SES:	To’aba’ita	<i>bū</i>	‘step on the ground, put one’s foot on the ground’
SES:	’Are’are	<i>pū</i>	‘hit, stamp, tread, rely on, stand firm’
SES:	Kwaio	<i>bū</i>	‘tread, step’
SES:	Sa’a	<i>pū</i>	‘tread, stamp, stand firm’,
		<i>pūl-i</i>	‘strike with the talons (of birds)’
SES:	Arosi	<i>pū</i>	‘tread, stamp, rest, stand firm, rely on’
		<i>pūli</i>	‘pounce on, of birds, to strike with the talons’
NCV:	Mota	<i>put</i>	‘stamp on the ground (in anger, in singing)’
NCV:	Raga	<i>butu</i>	‘stand strongly’
NCV:	Uripiv	<i>-Bət</i>	‘take a step’
NCV:	Port Sandwich	<i>ˀbyr-ˀbyr-in-i</i>	‘trample underfoot’
NCV:	Neve’ei	<i>bit</i>	‘step on, in’

PMic **pˀutu* ‘step, tread, apply one’s foot’

Mic:	Kosraean	<i>fut-fut</i>	‘kick’
		<i>futu-ŋ</i>	‘kick, stomp (s.t.)’
Mic:	Marshallese	<i>bˀic-bˀic</i>	‘kick, a dance’
		<i>bˀic(cik)</i>	‘kick, be kicking’
Mic:	Chuukese	<i>pˀu</i>	‘place one’s foot’
		<i>pˀū-pˀu</i>	‘step, tread, place one’s foot on s.t.’
		<i>pˀūr-i</i>	‘step on, tread on’
Mic:	Puluwatese	<i>pūr-i-</i>	‘stamp or tread on’
Mic:	Carolinian	<i>bˀu, bˀū-bˀu</i>	‘step, stand on’
		<i>bˀū-rī</i>	‘step, stomp, tread on (s.t.)’

		<i>b^wū-ræx</i>	‘stomp the feet (as when throwing a tantrum)’
Fij:	Bauan	<i>butu</i>	‘stamp, tread’
		<i>butu-ka</i>	‘stamp or tread on’
Fij:	Wayan	<i>butu-ki-</i>	‘stamp or tread on s.t., trample s.t.’

7.6 Bathing and washing

Like §7.5, the present section presents reconstructions for verbs encoding concepts other than locomotion. Hence reconstructions for verbs of swimming, moving about under water, and floating are given in §6.3.3. They include POc **tuRu(p)* ‘wade’ and POc **kaRu*, POc **qasa* and PEOc **olo*, all ‘swim’. The reconstructions in this section are actions involving water but not locomotion, and fall into two semantic sets: verbs denoting bathing, i.e. washing one’s body by immersion in water (§7.6.1), and verbs denoting the washing of either part of the body or an object (§7.6.2).

7.6.1 Bathing, immersing oneself

In traditional Oceanic societies the characteristic method of washing oneself all over is to immerse oneself in a river or, failing that, in the sea. On the basis of the glosses of their reflexes two reconstructions seem to have been terms primarily for washing oneself or someone else, typically a child, in this way. They are POc **siu-siu* ‘wash oneself’/**siuw-i-* ‘wash s.o.’ and POc **ri-riu(s)* ‘wash, bathe’/*rius-i-* ‘wash s.o., bathe s.o.’ There is a note in Hutchisson’s Sursurunga dictionary file that *siwi*, the reflex of **siuw-i-*, is a generic term for washing, and this was evidently true of the POc form too.

The transitional consonant **-w-* in **siuw-i-* reflects a minor reconstructive challenge. PMP **ziuq* shows final **-q*, but there is no reflex thereof in Oceanic reflexes. Instead, Oceanic reflexes point to **-p*. However, I infer that pre-POc **siu-i* acquired a transitional [w] which was strengthened to Tolai and PEOc bilabial fricative **-v-*.

PMP **ziuq* ‘bathe’ (ACD)

POc **siu-siu* (VI) ‘wash oneself’, **siuw-i-* (VT) ‘wash s.o’ (Geraghty 1983: PEOc **si(q,θ)u-v-* ‘wash’)

NNG:	Kairiru	<i>-si</i>	‘wash (child +)’
PT:	Gumawana	<i>-siwo</i>	(VI) ‘bathe oneself, wash oneself’
PT:	Dobu	<i>(e)siwe</i>	(VI) ‘wash oneself, bathe’
MM:	Patpatar	<i>si-siu</i>	(VI) ‘bathe’
		<i>siu</i>	(VT) ‘wash (child +)’
MM:	Tolai	<i>(va)iuv-e</i>	(VT) ‘wash (child +)’
MM:	Sursurunga	<i>siu-siu</i>	(VI) ‘bathe, swim’
		<i>siw-i-</i>	(VT) ‘wash (child +), clean (s.t.)’
MM:	Konomala	<i>siu</i>	(VT) ‘wash (child +)’
MM:	Solos	<i>si-siuh</i>	(VT) ‘wash (child +)’

PEOc **siu-siu* ‘wash oneself’, **siuv-i-* ‘wash s.o’

SES:	Bugotu	<i>siu</i>	(VI) ‘bathe, wash oneself’

SES: Gela	<i>siu</i>	(VI) 'bathe'
	<i>siuv-i</i>	(VT) 'bathe s.o.'
SES: To'aba'ita	<i>sī-siu</i>	(VI) 'wash oneself, bathe'
	<i>siuf-i-</i>	(VT) 'wash, bathe s.o.; give s.o. a bath'
SES: Lau	<i>siu</i>	(VI) 'bathe, wash standing in water'
	<i>siuf-i</i>	(VT) 'wash s.o., standing in water'

POc **ri-riu(s)/rius-i-* apparently reflects PAn/PMP **diRus* 'bathe', but with irregular loss of medial **-R-*. Only in Wayan Fijian would this loss be irregular.

PAn/PMP **diRus* 'bathe' (ACD)

POc **ri-riu(s)* (VI) 'wash, bathe', *rius-i-* (VT) 'wash s.o., bathe s.o.' (ACD: *riRus*)

NNG: Arop-Lukep	<i>-riu</i>	'bathe'
NNG: Mangap	<i>-ri</i>	'wash, bathe s.o. by pouring water on them'
NNG: Sio	<i>lili</i>	'bathe, swim'
NNG: Amara	<i>ri</i>	'bathe'
NNG: Kilege	<i>(-wa)liu-e</i>	'wash (child +)'
NNG: Gitua	<i>ri-riuz-</i>	'wash (child +)'
NNG: Mutu	<i>ri-riu</i>	'bathe oneself, wash oneself'
NNG: Kove	<i>li-liu</i>	'bathe'
NNG: Bariai	<i>li-liu</i>	'bathe'
MM: Ramoaaina	<i>ra-riu</i>	'wash, bathe'
Fij: Wayan	<i>riu</i>	'dive, plunge under water'
	<i>riu-vi-</i>	'dive for s.t., dive and get s.t.'

POc **su-su(p)*, **sup-i-* below is phonologically very similar to **siu-siu*, **siuw-i-* above, and it is tempting to assume that the disyllabic root **siu* [**siju*] has been reduced from disyllable to monosyllabic [**sju*], then, because the latter conflicts with Oceanic phonotactics, to [**su*]. This might have resulted in alternant forms in POc or have happened on various occasions post-POc. However, there is reason to think that this inference is wrong. Reflexes of **siu-siu*, **siuw-i-* all have to do with washing. Reflexes of **su-su(p)*, **sup-i-* point to a semantic element of submersion and diving as well as of washing. Moreover, Gela has contrasting reflexes of **siuv-i-* and **sup-i-*.

POc **su-su(p)* 'wash by immersing oneself, dive', **sup-i-* 'wash s.o. by immersing them; dive for s.t.'

Adm: Mussau	<i>sū</i>	(VI) 'bathe, swim, dive'
	<i>sūs-i</i>	(VT) 'bathe s.o.'
NNG: Sera	<i>su-i</i>	(VT) 'wash (child +)'
MM: Tiang	<i>su</i>	(VT) 'wash (child +)'
MM: E Kara	<i>su-suf</i>	(VI) 'bathe, wash'
MM: Nalik	<i>suf</i>	(VI, VT) 'swim, dive; wash (child +)'
MM: Madak	<i>su-su</i>	(VI) 'bathe'
	<i>su</i>	(VT) 'wash (child +)'
MM: Tangga	<i>suf-i</i>	(VT) 'wash (child +)'
MM: Nehan	<i>hu-hu</i>	(VI) 'bathe, wash'

MM:	Tinputz	(va)hū	‘wash, bath’
MM:	Uruava	ui-u-i	(VI, VT) ‘wash’
MM:	Banoni	sū	(VI) ‘swim, dive into water (dive into and through water)’
MM:	Roviana	suvu	(VI) ‘swim’
SES:	Bugotu	hū	‘dive, sink’
SES:	Gela	huv-i	‘bathe’
SES:	Lau	sū	‘dive, sink; set (of heavenly bodies)’
SES:	Kwaio	sū	(VI) ‘dive, sink’
		sū-fi-	(VT) ‘dive for’
SES:	Sa’a	sū	(VI) ‘dive, sink’
		sūh-i	(VT) ‘dive for’
SES:	Arosi	sū	(VI) ‘dive’
		sū-hi	(VT) ‘dive for’
NCV:	Vurës	suv-suv	(VI) ‘bathe, swim’
		suv	(VT) ‘wash (hands or plates)’
NCV:	Mwotlap	suw	(VT) ‘wash’
PMic *Sū-Sū ‘bathe’, Sū ‘dive down’, Sūf-i- ‘bathe s.o., dive for s.t.’ (Bender et al. 2003)			
Mic:	Kosraean	yi, yi-yi	‘bathe, take a shower’
Mic:	Marshallese	tiw-tiw	‘bathe’
Mic:	Mokilese	tū-tu	‘bathe’
		tūp	‘bathe (s.o.)’
Mic:	Chuukese	tī-tī	‘bathe, take a shower, be bowed (of the head)’
		tī	‘dive, duck the head under water’
		tīf-i	‘dive for (s.t.)’
Mic:	Mortlockese	tī-tī	‘bathe’
Mic:	Puluwatese	tī-tī	‘swim, bathe’,
		tī	‘dive deep’,
		tīf-i(y)	‘dive for (s.t.)’
Mic:	Carolinian	tī-tī	‘bathe’
		tu, tī	‘submerge, dive from the surface’
		tīf-i	‘dive for (s.t.)’
Mic:	Satawalese	tī-tī	‘bathe’
Mic:	Woleaian	tū-tū	‘bathe’
		tū(loro)	‘dive in’
Mic:	Pulo Annian	tīt-tīt	‘bathe’
Mic:	Ulithian	θu-θu	‘bathe’
cf. also:			
MM:	Teop	si-sibu	(VI) ‘bathe’ (< *ti-tibu)

POc *sugu(p), *sugup-i- below appears to have been identical in meaning with POc *su-su(p), *sup-i- immediately above. If there is a historical connection between them, however, it is difficult to see what it is. Neither has known non-Oceanic cognates, and one can only speculate that two POc dialects perhaps borrowed cognate terms from neighbouring Papuan languages. The Tongan and Niuean reflexes below reflect PPn *uku rather than expected *huku (which Tongan and Niuean would reflect as *huku*).

POc **sugu(p)* (VI) ‘wash by immersing oneself, dive’, (VT) **sugup-i-* ‘wash s.o. by immersing them; dive for s.t.’ (Blust 1984: **suku*)

NNG: Manam	<i>-ruku-</i>	(VI, VT) ‘bathe, wash’ (- <i>k-</i> for †- <i>g-</i>)
NNG: Bam	<i>-ruk-i-</i>	‘wash (child +)’ (- <i>k-</i> for †- <i>g-</i>)
NNG: Yabem	<i>-sagu</i>	‘wash (child +)’
NNG: Roinji	<i>sugu</i>	‘bathe, swim’
	<i>sug-i-</i>	‘wash (child +)’
NNG: Mindiri	<i>suga</i>	‘bathe’
NNG: Bing	<i>sūg</i>	‘bathe, wash’
NNG: Matukar	<i>sug</i>	‘wash’
NNG: Takia	<i>-sug, -sugu-</i>	‘wash, bathe (s.o.)’
NNG: Gedaged	<i>sug</i>	(VI) ‘bathe’
	<i>sug-i-</i>	(VT) ‘make wet, bathe, wash’
NNG: Kilenge	<i>-suk</i>	‘dive’
NNG: Tami	<i>juŋ</i>	‘swim’
NNG: Sio	<i>sugu</i>	‘dive into the water, swim’
NNG: Mutu	<i>-zug</i>	‘dive’
NNG: Gitua	<i>-zugu</i>	‘swim on surface’
NNG: Bariai	<i>-duk</i>	‘dive’
NNG: Sengseng	<i>suh</i>	‘swim’
PT: Dawawa	<i>sigu</i>	‘washing the body’
PT: Misima	<i>hig-hig</i>	‘(have a) wash; (have a) swim’
PT: Motu	<i>digu</i>	‘bathe’
MM: Vitu	<i>(va)ḍuyuv-i</i>	‘wash (child +)’
MM: Bulu	<i>ru-rugu</i>	‘wash (self)’
	<i>(va)rugu</i>	‘wash (child +)’
MM: Patpatar	<i>suguh</i>	‘immerse, dive’
NCV: Mota	<i>suy-suy</i>	‘bathe’ (- <i>y-</i> for †- <i>k-</i>)

PPn **uku* ‘dive, submerge’, **ukuf-i-* ‘dive for s.t.’ (POLLEX: **huku*)

Pn: Tongan	<i>uku</i>	‘dive’
	<i>ukuf-i</i>	‘dive’ for s.t.
Pn: Niuean	<i>uku</i>	‘dive’
Pn: Anutan	<i>uku</i>	‘bathe in fresh water, skin dive’
Pn: Tuvalu	<i>uku</i>	‘dive, swim under water’
Pn: E Futunan	<i>uku</i>	‘dive under water; submerge’
Pn: E Uvean	<i>uku</i>	‘dive under water’
Pn: Emae	<i>uku</i>	‘dive’
Pn: Luangiua	<i>ʔuʔu</i>	‘dive’
Pn: Rennellese	<i>uku</i>	‘dive’
Pn: Sikaiana	<i>uku</i>	‘dive or swim under water’
Pn: Tikopia	<i>uku</i>	‘dive’
Pn: Tokelauan	<i>uku</i>	‘dive’
Pn: W Uvean	<i>uku</i>	‘dive’

The forms in initial *ñ-* and *n-* listed below under POc **ñu-ñu(p)*/**ñup-i-*, **ñugu-i-* and **ñulu-i-* presented a reconstructive problem, as the non-initial consonants do not correspond.

The transitive verbs below are each followed by a parenthesised protoform from which they could be descended. At first sight, these appear chaotic, but two sets of facts conspire to provide a solution. The first is that an initial **ñ-* on a verb sometimes reflects the application of the PMP actor-voice formative **[pa]N-* (vol.1:29–30) to a root with initial **s-*. The second is that the non-initial consonants are identical to those found in **s-*initial forms with the same meanings, including **sup-i-* and **sugu-i-* reconstructed above. The hypothesis that emerges is that the transitive forms in **ñ-* reflect application of **[pa]N-* to **s-*initial roots. It is difficult to be certain how the fragmentary survivals from the PMP system worked in POC, but it is reasonable to infer that, for example, **ñu-ñu(p)* was the actor-voice intransitive form, **sup-i-* the transitive (see the discussion of intransitive and transitive forms of the verb ‘eat’ in §4.3.1.1). This implies that reduplicated intransitive forms like E Kara *su-suf* and Vurès *suv-suv*, listed above under POC **su-su(p)/*sup-i-*, were back formations created from transitive **sup-i-* corresponding intransitives, by applying the POC pattern noted in vol.1:25 (see also Evans 2003:81–84). Similarly, transitives like Seimat *nuh-i* and Baluan *nup* reflect the converse application of this pattern to intransitive **ñu-ñu(p)*. The fact that two POC verb pairs, *su-su(p)/*sup-i-* and **ñu-ñu(p)/*ñup-i-* can be reconstructed suggests that these processes occurred at some pre-POC stage.

POC **ñu-ñu(p)* ‘wash by immersing oneself, dive’, **ñup-i-* ‘wash s.o. by immersing them; dive for s.t.’ (cf **sup-i-* above)

Adm: Seimat	<i>nuh-i</i>	(VT) ‘wash’ (< <i>*(n,ñ)u(p,r,R)-i-</i>)
Adm: Lou	<i>nu</i>	‘bathe, submerge’
	<i>nup</i>	‘wash’ (< <i>*(n,ñ)up-i-</i>)
Adm: Baluan	<i>nu</i>	‘bathe, wash oneself’
	<i>nup</i>	‘wash a person, bathe s.o.’ (< <i>*(n,ñ)up-i-</i>)
Adm: Titan	<i>ñu</i>	(VI) ‘dive, bathe, go under water’
Adm: Drehet	<i>nu-nu</i>	‘bathe’
Adm: Nyindrou	<i>ñu</i>	‘wash, bathe’
NNG: Mangseng	<i>nu-nu</i>	‘wash, bathe’
NNG: Wab	<i>nu-n</i>	‘swim’

POC **ñugup-i-* ‘wash s.o. by immersing them’ (cf **sugu-i-* above)

NNG: Ulau-Suain	<i>-ñuk</i>	‘wash (child +)’ (< <i>*ñug-i-</i>)
NNG: Ali	<i>-ñuk</i>	‘wash (child +)’ (< <i>*ñug-i-</i>)
NNG: Yalu	<i>-nσ?</i>	‘wash (child +)’ (< <i>*(n,ñ)u(k,q,r,R)-i-</i>)
NNG: Dangal	<i>nuk</i>	‘wash (child +)’ (< <i>*(n,ñ)u(k,q,r,R)-i-</i>)

The third of these sets, supporting the reconstruction of **ñulu-i-*, does not correspond to a form in **s-* reconstructed above. Instead we find three Admiralties forms reflecting **ñ-* and three New Ireland (MM) forms reflecting **s-* which together allow us to reconstruct two POC transitive forms, **ñulu-i-* and **sulu-i-* ‘wash s.o.’.

POC **ñulu-i-* and **sulu-i-* ‘wash s.o.’

Adm: Lou	<i>niol</i>	‘wash’ (< <i>*(n,ñ)ul-i-</i>)

Adm: Baluan	<i>nul</i>	‘wash s.t., such as food or dishes, laundry’ (< * <i>(n,ñ)ul-i-</i>)
Adm: Titan	<i>ñulu-i</i>	(VT) ‘bathe, wash s.o. or s.t.’ (< * <i>ñu(r,dr,d,l,c)u-i-</i>)
MM: Tabar	<i>suruv-i-</i>	‘wash (child +)’
MM: Notsi	<i>sil</i>	‘wash (child +)’
MM: Lihir	<i>sul</i>	‘wash (child +)’

POc **su-su(p)/sup-i-* and POc **sugu(p)/sugup-i-*, both reconstructed above, denoted bathing but also had a more specialised sense of swimming. The gloss of the Nakanai reflex of POc **lo-losop* suggests by contrast that it denoted bathing with a more specialised sense of swimming, perhaps under the surface. In a number of Vanuatu languages the main sense is now ‘swim’.

POc **lo-losop*, **losop-i-* ‘bathe, wash by swimming’ (ACD: **losop-losop* ‘bathe, swim’)

NNG: Wogeo	<i>losop-losop</i>	‘bathe’
	<i>-la-lose</i>	‘wash (child +)’
NNG: Kairiru	<i>-luos</i>	‘wash oneself’
	<i>-lis</i>	‘wash s.o.’
MM: Nakanai	<i>losop</i>	‘dive, surface-dive, swim under water’
SES: Bugotu	<i>ōō-ōōho</i>	‘swim, bathe’
SES: Tolo	<i>lesop</i>	(VI) ‘bathe’ (-e- for †-o-)
	<i>lesop-i-</i>	(VT) ‘bathe s.o.’ (-e- for †-o-)
SES: Ghari	<i>lesop</i>	‘bathe’ (-e- for †-o-)
SES: Birao	<i>lesop</i>	‘bathe’ (-e- for †-o-)
SES: Longgu	<i>loto</i>	‘wash oneself by playing or swimming in the water’
SES: ’Are’are	<i>roto</i>	‘bathe’
SES: Sa’a	<i>loto</i>	‘bathe’
SES: Fagani	<i>ro-roto</i>	‘bathe’
SES: Oroha	<i>roto</i>	‘bathe’
TM: Nembao	<i>lo</i>	‘swim, bathe’
TM: Tanimbili	<i>lo</i>	‘bathe’
NCV: Tasmate	<i>lo-losop</i>	‘swim’
NCV: Nokuku	<i>lo-losop</i>	‘swim, bathe, wash’
	<i>losov</i>	‘swim, bathe, wash’
NCV: Tamambo	<i>lo-losop</i>	(VI) ‘wash’
	<i>losov-i-</i>	(VT) ‘wash’
NCV: Wusi	<i>lo-loho</i>	‘swim’
NCV: Unua	<i>-ros-ros</i>	‘swim’
NCV: Banam Bay	<i>-rorox</i>	‘swim’
NCV: Rerep	<i>-rosā-ros</i>	‘swim’
NCV: Uripiv	<i>-la-los</i>	‘swim’
NCV: Sa	<i>-lo-los</i>	‘swim’
NCV: Lonwolwol	<i>-loh</i>	‘swim’
	<i>-loh-loh</i>	‘bathe’

NCV: Apma	<i>le-leh</i>	(VI) 'bathe'
	<i>lehew-i</i>	(VT) 'wash'
NCV: Bieria	<i>-loho</i>	'swim'
NCV: Nguna	<i>lo-losa</i>	'swim; bathe, have a shower'
NCV: S Efate	<i>los</i>	'swim, bathe, wash oneself'
SV: Sie	<i>o-ruh</i>	'swim'

There is a small doubt about the formal reconstruction of POc **k^waya*, as NNG languages have initial *w-*, most non-NNG languages *k-*. However, the latter are fortis reflexes (rather than lenis *ɣ-* or *ʔ-*), and thus plausible reflexes of **k^w-*.

POc **k^waya* (??) 'bathe, swim'

Adm: Lou	<i>kea</i>	'swim'
NNG: Mangap	<i>-we</i>	'dive'
NNG: Maleu	<i>-we</i>	'swim'
NNG: Mutu	<i>waia</i>	'swim'
NNG: Mangseng	<i>ke</i>	'swim free'
NNG: Wogeo	<i>-wa-we</i>	'dive'
PT: Kilivila	<i>kakaya</i>	'swim'
PT: Gumawana	<i>kaya</i>	'swim'
	<i>kay-ei</i>	'swim with s.t.'
PT: Kiriwina	<i>ka-kaia</i>	'bathe, wash body'
PT: Muyuw	<i>ka-kay</i>	'bathe'
PT: Iamalele	<i>kayo</i>	'swim'
PT: Iduna	<i>-kayo</i>	'swim (on front)'
PT: Dawawa	<i>gayo</i>	'float'
PT: Misima	<i>gayu</i>	'swim'

cf also:

Adm: Nyindrou	<i>aya</i>	'swim'
Adm: Titan	<i>yay</i>	'bathe, wade, swim'

7.6.2 Washing and cleaning

In contrast to the terms reconstructed in §7.6.2, the terms presented in this section denote washing one's hands or face and sometimes washing objects. When they denote washing objects, it is fairly common to find reflexes with glosses that also mention rubbing something to get it clean, suggesting that their central meaning is one of cleaning in general, not just of washing.

Various scholars have suggested that the particular reflex of POc **wasi-* known to them (e.g. Lichtenberk 2008) is borrowed from English *wash* via the local pidgin. However, the collection of reflexes below suggests that a POc term is reconstructable, and that the resemblance between its reflexes and, e.g., Vanuatu Bislama *wasem* is a matter of chance.

POc **wasi* 'wash'

PT: Tawala	<i>oya</i>	'wash in or under water'
MM: Nakanai	<i>uasi</i>	'wash, bathe'

SES:	To'aba'ita	<i>wasi-</i>	(VT) 'wash s.t. (inc. one's own body)'
SES:	Lau	<i>wasi-</i>	'wash (hands)'
SES:	'Are'are	<i>wasi-kaʔi</i>	'wash (hands)'
SES:	Arosi	<i>wasi-</i>	'rub, wash clothes'
		<i>wasi-raʔi</i>	'rub, wash'
SES:	Fagani	<i>wasi-</i>	'wash (hands)'
SES:	Kahua	<i>wasi</i>	'wash (hands)'
NCV:	Tamambo	<i>osi-osi</i>	(VI) 'wash hands'
NCV:	Lewo	<i>was</i>	'wash clothes'
NCV:	Uripiv	<i>(te)wasi</i>	'wipe, rub'

The fact that POc **pulu*, **puRiq* and **puqi* below all begin with **pu-* appears to be a matter of chance, but has on occasion led to the attribution of an item to the wrong cognate set.⁵

PMP **bulu* 'wash the hands' (ACD)

POc **pulu* 'rub to make clean, wash' (cf vol.1:243)

SES:	Lau	<i>fulu</i>	'clean, wipe, rub off dirt, wash away earth (of rain)'
NCal:	Iaai	<i>üña</i>	'rub, massage' (John Lynch, pers. comm.)
Fij:	Bauan	<i>vulu-vulu</i>	'wash the hands'
Fij:	Wayan	<i>vū-vulu</i>	'wash the hands, feet or hair'
		<i>vulu-y-</i>	'wash a body part; rinse hair with colouring agent, bleach hair with lime'
Pn:	Tongan	<i>fu-fulu</i>	'wash or scrub; clean (a blackboard)'
Pn:	Niue	<i>fu-fulu</i>	'rinse, wash, wash out'
Pn:	Samoa	<i>fulu</i>	'wash, clean'
		<i>fu-fulu</i>	'wash (body or object); to clean (as the teeth)'
Pn:	Anuta	<i>pu-puru</i>	'wash an object other than oneself'
		<i>puru-puru</i>	'wash oneself'
Pn:	Tuvaluan	<i>fulu</i>	'wash (of one dish, etc.)'
		<i>fu-fulu</i>	'wash (hands, dishes, floor, etc., but not clothes)'

PMP **buRiq* 'wash, as the hands' (ACD)

POc **puRiq* 'wash, as the hands' (ACD)

NNG:	Mangap	<i>-puri</i>	'clean s.t. small, rinse'
PT:	Sinaugoro	<i>yuriyi</i>	(VT) 'wash'
PT:	Motu	<i>huri-</i>	'wash, scrub'
SES:	Bugotu	<i>vuli</i>	'wash s.o., pour water on s.t., quench'
SES:	Gela	<i>vuli</i>	'pour water, sprinkle'
SES:	Tolo	<i>vuli-</i>	'wash (hands, clothes)'
SES:	W Guadalcanal	<i>vuli</i>	'wash (hands)'
SES:	Talise	<i>vuli-</i>	'wash (hands)'

⁵ Tolo *vuli-* 'wash (hands, clothes)' was attributed to POc **pulu* in vol.1:243, instead of to **puRiq*.

POc *puqi 'rinse, wash'

MM:	Nakanai	<i>vuhi</i>	'rinse'
SES:	Longgu	<i>vui</i>	'wash'
SES:	Fagani	<i>hui-</i>	'wash (hands)'
Fij:	Bauan	<i>vū</i>	(VI) 'wash, cleanse (feet or hands) with water'
		<i>vuy-a</i>	(VT) 'wash'

PPn *fuqi 'wash feet or hands, pour water over, soak' (POLLEX)

Pn:	Tongan	<i>fuʔi-fuʔi</i>	'pour water on, douse'
Pn:	Niuean	<i>fui</i>	'dip in water'
		<i>fui-fui</i>	'wash, water (as plants)'
Pn:	Samoan	<i>fui</i>	'dip, steep in water'
Pn:	Tuvalu	<i>fui-fui</i>	'sprinkle water over'
Pn:	E Futunan	<i>fuʔi</i>	'dip, soak'
		<i>fufuʔi</i>	'dip, soak'
Pn:	E Uvean	<i>fui</i>	'dip, soak'
Pn:	K'marangi	<i>hui</i>	'immerse in water'
Pn:	Rarotongan	<i>ʔui</i>	'dash water into'
Pn:	W Uvean	<i>fu-fui, fui-a</i>	'wash, rinse (hands, dishes), clean (house)'
Pn:	W Futunan	<i>fuia</i>	'moisten something, dunk something, dip, rinse something in liquid and take it out (as in washing clothes)'

cf. also:

Fij:	Wayan	<i>vue</i>	'(hair) be washed by rubbing hands on the scalp, be dyed'
		<i>vue-ti</i>	(VT) 'wash or dye (hair)'

The presence of *-u* for *†-o* in the Mangseng and Hoava reflexes below may indicate that they reflect a protoform other than POc *paño. Nonetheless, the presence of non-Oceanic cognates and the Polynesian reflexes means that Blust is right to reconstruct in the ACD.

PAn *bañaw 'wash the body' (ACD)

PMP *bañaw 'wash the hands' (ACD)

POc *paño 'wash the hands' (ACD)

NNG:	Mangseng	<i>panu-nu</i>	'wash' (<i>-u</i> for <i>†-o</i>)
MM:	Hoava	<i>vanu-vanu</i>	'wash (hands)' (<i>-u</i> for <i>†-o</i>)
Pn:	Tongan	<i>fano-fano</i>	'wash hands'
Pn:	Niuean	<i>fano</i>	'rub, wash (clothes)'
		<i>fano-fano</i>	'rub (as in washing clothes)'
Pn:	Samoan	<i>fa-fano</i>	'wash hands or feet'
Pn:	Anuta	<i>pano-pano</i>	'wash hands'
Pn:	Tuvalu	<i>fano</i>	'wash hands'
Pn:	E Futunan	<i>fano-fano</i>	'wash hands'
Pn:	W Uvean	<i>fa-fano</i>	'wash hands'

The two terms below display skewed geographic distributions of reflexes, but both meet the criteria for POc reconstruction.

POc **japula* ‘wash one’s hands, clean s.o.’

MM:	Nakanai	<i>savula</i>	‘brush dirt off a child’
SES:	Gela	<i>havul-i-</i>	‘wash with water’

PNCV **zavula* ‘wash one’s hands’ (Clark 2009)

NCV:	Mota	<i>savula</i>	‘wash one’s hands’
NCV:	Nokuku	<i>jo-jowul</i>	‘wash one’s hands’
NCV:	Kiai	<i>za-zavula</i>	‘wash one’s hands’
NCV:	Uripiv	<i>-jejavəl</i>	‘wash one’s hands’
NCV:	Nduindui	<i>sa-savula</i>	‘wash one’s hands’
NCV:	Unua	<i>-je-javur</i>	‘wash one’s hands’
NCV:	Naman	<i>nsəvəl</i>	‘wash’
		<i>nsə-nsəvəl</i>	‘wash one’s hands’
Fij:	Bauan	<i>savu-y-a</i>	‘wash feet or hands’

POc **goso* ‘wash s.o./s.t.’

NNG:	Rauto	<i>gos</i>	‘wash (child +)’
MM:	Lamasong	<i>goso</i>	‘wash (child +)’
MM:	Madak	<i>gos</i>	‘wash (s.t.)’
MM:	Label	<i>gos</i>	‘wash (child +)’
MM:	Siar	<i>gos</i>	‘wash’
NCV:	Vurës	<i>gøs</i>	‘wash (clothes)’

7.7 Verbs with a location component

The verbs reconstructed below, translated as ‘hide’ and ‘wait’, each have a semantic component of location, but not of posture.

7.7.1 Wait

One waits somewhere for something to happen. Semantically the verb has both a locational component (being somewhere) and a cognitive component (expecting an event). Just one POc verb is reconstructed with this sense.

POc **tari* (VI) ‘wait’, (VT) ‘wait for s.t.’⁶

NNG:	Dami	<i>tari</i>	‘wait’
NNG:	Mangseng	<i>te-tal</i>	‘wait for’
MM:	Nakanai	<i>-tali</i>	‘wait for’ (in compounds, e.g. <i>magiri-tali</i> ‘stand and wait for’)

⁶ John Lynch points out that Naman *tərav* Uripiv *e-triv*, Tirax *trəv*, Nisvai *tarv-i* appear to reflect **tarav*, while Neve’ei *terax-en*, Big Nambas, Tape *tərax* reflect **tarak*. These forms are all from Malakula, and we can offer no account of them.

MM:	Vaghua	<i>tar</i>	‘wait’
NCV:	Aulua	<i>dare</i>	‘wait’ (John Lynch, pers. comm.)
NCV:	Pt Sandwich	<i>terere</i>	‘wait’ (John Lynch, pers. comm.)
NCV:	Naman	<i>i-tər</i>	‘wait’ (John Lynch, pers. comm.)
NCV:	Neverver	<i>der</i>	‘wait’ (John Lynch, pers. comm.)
Pn:	Tongan	<i>tali</i>	‘wait, wait for, expect’
Pn:	Niuean	<i>tali</i>	‘wait, expect’
Pn:	Samoan	<i>tali</i>	‘wait for’
Pn:	Tikopia	<i>tari</i>	‘wait’
Pn:	Hawaiian	<i>kali</i>	‘wait, loiter, hesitate’
Pn:	Maori	<i>ta-tari</i>	‘wait for’

Motu (PT) *nari* (VI) ‘wait’, may be the sole reflex of a POc morphological intransitive **nari* (reflecting **[pa]N-* + **tari*) (§1.3.5.6).

7.7.2 Hiding

Oceanic languages preserve reflexes of three POc forms descended from PMP **buni* ‘hide, conceal’. Two of these are **puni* and **muni*. Their origin, briefly mentioned in §1.3.5.5, is transparent. POc **puni* was the root form, reflecting PMP **buni*, and was originally transitive. POc **muni* reflected PMP **m-uni*, the outcome of adding the actor-voice infix **⟨um⟩* to the root **puni*, to form an intransitive, involving a morphophonemic rule whereby **⟨um⟩* + **p-* became **m-*. Probably this transitive/intransitive contrast was maintained in POc, as it survives in Siar (MM) *mumun* (VI) vs *wun* (VT) (Frowein 2011:94), but, as the cognate sets below show, various languages have created an intransitive from **puni* and a transitive from **muni*, with or without a derivational morpheme.

PAn **buLi* ‘hide, conceal’ (ACD)

PMP **buni* ‘hide, conceal’ (ACD)

POc **puni* (VT) ‘hide, conceal s.t.’

Adm:	Baluan	<i>(ta)pɔn</i>	(VI) ‘hide s.t.’
NNG:	Numbami	<i>uŋa</i>	(VT) ‘hide’
NNG:	Kaiwa	<i>(vai)vun</i>	(VI) ‘hide’
NNG:	Hote	<i>-vuŋ</i>	(VT) ‘hide, cover’
NNG:	Mapos Buang	<i>vun</i>	(VT) ‘hide, cover up’
NNG:	Patep	<i>vun</i>	(VT) ‘steal, hide’
NNG:	Yalu	<i>-fɔm-ɔn</i>	(VI) ‘hide’
NNG:	Sukurum	<i>-fɔm-bun</i>	(VI) ‘hide’
PT:	Ubir	<i>(bai)bu-buni-n</i>	‘hidden’
PT:	Motu	<i>huni-</i>	(VT) ‘hide, cover’
		<i>(ta)huni</i>	‘be hidden’ (<i>ta-</i> < <i>*ta-</i> SPONTANEOUS)
PT:	Gabadi	<i>uni-ni</i>	(VT) ‘hide’
PT:	Kuni	<i>-buni</i>	(VI) ‘hide’
		<i>-buni-ai</i>	(VT) ‘hide’ (<i>-ai</i> < POc <i>*-aki(n)</i> APPLICATIVE)
MM:	Tiang	<i>uən</i>	(VI) ‘hide’
MM:	E Kara	<i>fun</i>	(VI) ‘hide’

		<i>fu-fun-ai</i>	(VT) 'hide' (-ai < POc *-aki(n) APPLICATIVE)
MM:	Nalik	<i>fun</i>	(VI) 'hide'
MM:	Sursurunga	<i>pun(mai)</i>	(VT) 'hide' (mai 'come')
MM:	Konomala	<i>funi</i>	(VI) 'hide'
MM:	Siar	<i>wun</i>	(VT) 'hide'
MM:	Mono-Alu	<i>funi</i>	(VT) 'hide'
SES:	'Are'are	<i>(raʔe)huni</i>	(VI) 'hide'
		<i>([haʔa]raʔe)huni-</i>	(VT) 'hide'
SES:	Arosi	<i>huni-huni</i>	(VT) 'hide, conceal'
NCV:	Mota	<i>vun</i>	'deceive, hide'
		<i>(ta)vun</i>	'be hidden' (ta- < *ta- SPONTANEOUS)
Fij:	Bauan	<i>vuni, vuni-</i>	(VI) 'be hidden'; (VT) 'hide, conceal'
Fij:	Wayan	<i>vuni, vuni-</i>	(VI) 'be hidden'; (VT) 'hide (oneself)'

PMP *m-uni (VI) 'hide'

POc *muni (VI) 'hide oneself, be hidden,

NNG:	Sio	<i>mun-</i>	'hide from (living things, only)'
NNG:	Tami	<i>mu-muŋ</i>	(VI) 'hide'
NNG:	Kairiru	<i>-muñ-aqa-</i>	(VT) 'hide' (-aqa- < POc *-aki APPLICATIVE)
MM:	Lavongai	<i>mun</i>	(VI) 'hide'
MM:	Lihir	<i>muni-n</i>	(VI) 'hide'
		<i>muni-nie</i>	(VT) 'hide'
MM:	Patpatar	<i>mun</i>	'hide; hidden (of people, objects)'
MM:	Siar	<i>mu-mun</i>	(VI) 'hide'
MM:	Haku	<i>(hata)mun</i>	(VI) 'hide'
MM:	Taiof	<i>(fa)muiŋ</i>	(VI) 'hide'
MM:	Torau	<i>(mu)muni</i>	(VI) 'hide'
MM:	Laghu	<i>(ne)muni</i>	(VI) 'hide'
SES:	Lau	<i>muni</i>	(VT) 'hide, put out sight'
SES:	'Are'are	<i>(a)muni</i>	'hidden, lost to sight' (a- < *ta- SPONTANEOUS)
SES:	Sa'a	<i>mu-muni</i>	(VT) 'hide, conceal'; (VI) 'be hidden'
		<i>(ʔa)muni</i>	'lost to sight, sunk below the horizon'
Pn:	Anutan	<i>mu-muni</i>	'hide'
Pn:	Tuvalu	<i>m-muni</i>	(VI, VT) 'hide'
Pn:	E Uvean	<i>mu-muni</i>	(VT) 'hide s.t.'
Pn:	E Futunan	<i>mu-muni</i>	(VI) 'hide oneself'
Pn:	Emae	<i>mu-muni</i>	(VI) 'hide oneself'
Pn:	Ifira-Mele	<i>mu-muni</i>	(VT) 'hide s.t.'
Pn:	Nukuoro	<i>m-muni</i>	'be hidden'
Pn:	Luangiua	<i>muŋi</i>	'be hidden'
Pn:	Pileni	<i>muni</i>	(VI) 'hide'; (ADVERB) 'secretly'
Pn:	Rennellese	<i>mu-muni</i>	(VI) 'hide'
Pn:	W Uvean	<i>mu-muni</i>	'hide oneself'
Pn:	W Futunan	<i>muni</i>	'be hidden'

The third POc form descended from PMP **buni* ‘hide, conceal’ is POc **buni*. This is almost certainly not a direct descendant of PMP **buni*, as POc **puni* has that privilege. Instead, it appears from the glosses of its reflexes to be an alternant to **muni*, i.e. an intransitive. The best hypothesis to account for it is that it arose at a pre-POc stage when marking intransitive with **⟨um⟩* was at least still partially productive, but instead of **m* replacing **p-* (the effective outcome of the rule mentioned above), it was added to it to form pre-POc **mpuni*, which by regular sound change became **buni*.

PAn **buLi* ‘hide, conceal’ (ACD)

PMP **buni* ‘hide, conceal’ (ACD)

POc **buni* (v1) ‘hide oneself, be hidden’

MM:	Tolai	<i>bu-bun</i>	‘keep secret, keep quiet; vanish, as a ghost or a spirit’
SES:	Lau	<i>buni</i>	‘hide one’s tracks’
SV:	Lenakel	<i>a-pn-ín</i>	‘hide or conceal an action’
Pn:	Samoa	<i>puni</i>	‘screen off, hide; curtain, screen’
Pn:	Pukapukan	<i>pu-puni</i>	‘close, shut, concealed’
Pn:	Hawaiian	<i>(hoʔo)puni</i>	‘deceive, delude’ (<i>hoʔo</i> < <i>*paka</i> - CAUS)
Pn:	Tahitian	<i>pu-puni</i>	‘hide oneself’
Pn:	Mangaia	<i>puni</i>	‘hide oneself’
Pn:	Marquesan	<i>pu-puni</i>	‘hide oneself’
Pn:	Mangarevan	<i>pu-puni</i>	‘hide; be enclosed, shut in’
Pn:	Rarotongan	<i>puni</i>	‘hide’
Pn:	Māori	<i>(faka)pu-puni</i>	‘crouch, lurk, hide oneself’ (<i>faka</i> < <i>*paka</i> - CAUS)

8 *Perception*

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8.1 Introduction¹

This chapter investigates verbs of perception in Proto Oceanic, based on a comparison of a sample of daughter languages. A full comparative study of the morphology, syntax and semantics of this set of verbs in Oceanic languages would require a book. Here we offer an introductory account, focusing mainly on certain basic semantic and grammatical features of perception verbs, and building on the work of Bethwyn Evans (2003), whose study of verb classes and valency-changing devices in Proto Oceanic includes a section on several verbs of perception.

Since Aristotle, Western scholars have generally assumed that humans have five basic senses: sight, hearing, smell, taste and feeling by touch. In a basic sensing event there is an animate participant, the experiencer, who by means of a body part (eye, ear, nose, tongue, skin) becomes aware of a separate participant (the stimulus or source). Neurophysiological research shows that the five senses scheme is too simple. People have additional physiological systems for sensing pain, temperature, balance and awareness of how our body and limbs are moving (proprioception).

Languages of the world generally give these non-basic senses different grammatical treatment from the basic senses. There are a number of possible explanations for this. Firstly, no readily-recognised sense organs are participants in sensations that come through these other physiological systems. Secondly, sensations such as pain, dizziness, and feeling cold are involuntary, whereas in the case of seeing, hearing, smelling etc. the experiencer may initiate the process and at least has a measure of control over it. Third, whereas the stimulus or source of a basic sensory experience is typically an identifiable entity outside the experiencer's own body (the thing seen, heard etc.) the source of non-basic sensations like pain, cold or dizziness is not external and may not be identifiable. Because the sensations may be prolonged, they are often treated as states and the focus tends to be on their effect on the body. Thus in English we typically describe feeling pain, fear, cold, itchiness and dizziness in terms of the experiencer or a body-part being in a state or condition, which is expressed by a predicate adjective ('My hip is quite painful', 'Are you cold?', 'Mary is dizzy') whereas for the primary sensing events we tend to use active verbs/verbs with the experiencer as actor ('I saw/heard John'), rather than adjectival predicates with the experiencer as involuntary recipient of the stimulus ('John is visible/audible to me').

¹ This chapter is a slightly revised version of a chapter in Evans (2009). We are grateful to Malcolm Ross for helpful comments.

The present paper will deal mainly with the treatment of the five basic senses in Oceanic languages and with the question of whether the different senses receive similar grammatical and semantic treatment.

Basic perception verbs vary conceptually along a number of parameters. These are illustrated in English in the following paradigm, closely based on that proposed by Viberg (1984). We have labelled the variables as i) sensing, ii) attending and iii) stimulus-subject².

Table 19 English perception verbs
(based on Viberg's basic paradigm of verbs of perception)

Sense modality	Sensing	Attending	Stimulus-subject
sight	I see many people	I look at the film	The film is visible/looks blurry.
hearing	I hear bells	I listen to the tune	The tune is audible/sounds loud.
smell	I smell smoke	I smell the milk (to see if it is sour)	The milk is smelt?/smells sour
taste	I taste garlic	I taste the mixture (to check if enough salt)	The mixture is tasted/ tastes fine.
touch	I feel the wind in my hair.	I feel the fabric	The fabric is felt?/feels velvety.

Some languages distinguish lexically or grammatically between two kinds of perception events involving the basic senses: *sensing* and *attending*. A verb or verbal clause depicting a *sensing* event focuses on the animate participant's experiencing of the stimulus; it is neutral as to whether this experience was intentional or accidental. In the case of an *attending* event, by contrast, an experiencer is depicted as intentionally focusing on a target. Languages may express the difference lexically, as is done in the English verbs *see* vs *look* and *hear* vs *listen*, but not in the verbs *smell*, *taste* or *feel*, where the same term can be used for both sensing and attending. In either event the experiencer will be subject of the verb, and the verb will usually be transitive. A matter to be investigated is the way in which intent is signalled in the basic sensory verbs in Oceanic languages, and its corollary, whether, for each of the basic senses, a language will use the same verb for both sensing and attending events.

We may define a canonical perception verb (and clause) cross-linguistically as one that has the perceiver (experiencer) as the highest ranked argument (the subject in nominative-accusative languages). However, it is common to find other kinds of clauses used to represent perceptions. When the focus shifts from the performance of the act to some conclusion, the source of the perception, the stimulus, will be subject and the verb will be intransitive. Focus may then, at least for sight and hearing, be limited to acknowledgement of the perception 'it is seen/it is heard' or even acknowledgement of the ability to be perceived 'it is visible/audible'. More commonly, further information may be given by a qualifier in the case of all five senses 'it looks fine/it sounds awful/it smells sour etc.'. The degree to which languages use the same verb polysemously varies widely. In English, for example, *smell*, *taste* and *feel* can all be used

² Viberg uses the following labels: Experience (= sensing), Activity (= attending) and Copulative (= stimulus-subject).

with experiencer or stimulus as subject, while *see* and *hear* may use a related or different lexeme for stimulus-subject.

When dealing with an intransitive verb in many Oceanic languages, one must ask: Is this verb active or stative? Does it take as subject (or highest-ranked argument) an Actor or an Undergoer? The intransitive forms of many verbs of process or change of state, such as those that mean ‘open’, ‘close’, ‘break’, ‘cut’, ‘split’, ‘burn’ and ‘block’ are typically stative, taking as subject the thing that undergoes the process. Many intransitive verbs, both active and stative, can be transitivised by adding (a) a transitive suffix of the form *-i* or *-(C)i* (where C is a variable consonant) and (b) an object pronoun suffix or clitic; or simply by adding (b).

Sometimes a language will use a single perception verb form polysemously to represent two or three basic senses and sometimes also to represent cognitive processes like knowing, thinking, understanding and remembering, and cultural practices like obeying, paying attention and learning. Given that sensory verbs are often polysemous in these ways, the question arises whether there is a universal hierarchy within which senses are ordered, which will predict the direction of semantic extension. Viberg (1984) finds some evidence for the following hierarchy: sight > hearing > touch > smell, taste. This hierarchy implies that vision has primacy over the other senses, such that a verb of seeing may be extended to refer to at least certain senses lower on the scale, but not the reverse. Hearing in turn has primacy over touch, smell and taste.

With these issues in mind, let us turn to the Oceanic languages. Our project is hampered by the fact that dictionaries and grammars of Oceanic languages seldom provide careful and detailed descriptions of the grammar and semantics of verbs of perception. Dictionary entries often fail to state whether a particular verb is transitive or intransitive, and derived forms are often not given full glosses. In some cases these gaps in the data limit our ability to make secure reconstructions.

8.2 Seeing

All Oceanic languages have at least one transitive verb whose primary sense is ‘see s.t.’ (and which may also mean ‘look at s.t.’). The experiencer is the subject and the source/stimulus the direct object. Typically they also have a number of transitive verbs for intentional visual activities comparable, for example, to English ‘peer’, ‘peep’, ‘glance’, ‘gaze’ and ‘stare’. Verbs which we might call ‘verbs of directed looking’ (*look around, up, down, in, out, over, away, into* etc.) are likely to be expressed in Oceanic languages by a serial verb construction or by a combination of verb and directional marker (cf. Ross 2003:256; Ross 2004a).

Verbs of seeing and looking may also be used intransitively with the perceiver as subject. Examples are Motu *ita* (VI) ‘see, look’, *ita-i-* (VT) ‘look at s.t.’, Arosi *rio* (VI) ‘see’, *rios-i* (VT) ‘look at s.t.’, and Wayan Fijian *tola* ‘see, look’, *tolav-i-* ‘see s.t.’.

POc **kita* (VI) ‘see’, **kita-i-* (VT) ‘see s.t.’ is a well-supported reconstruction with reflexes in both Western Oceanic and Eastern Oceanic languages. It is also noteworthy that a number

of Eastern Oceanic languages have extended the meaning of their reflexes to include ‘know’ and ‘understand’.³

PMP **kita* ‘see’ (Dempwolff)

POc **kita* (VI) ‘see’, **kita-i-* (VT) ‘see s.t.’

NNG:	Tuam	(i)gita	‘see’
NNG:	Malai	(i)gita	‘see’
NNG:	Matukar	ita	‘see’
NNG:	Manam	ita	‘see, look at’
PT:	Gumawana	gita	(VI) ‘see’
		gite-	(VT) ‘see s.t.’ (*-a > e, assimilation)
PT:	Dobu	ʔita	(VT) ‘see, look’
PT:	Balawaia	yita	‘see’
PT:	Motu	ita	(VI) ‘see, look’
		ita-i-	(VT) ‘look at s.t.’
MM:	Meramera	ite	‘see’ (*-a > e, assimilation)
NCV:	Lo-Toga	itɛ	‘see’
NCV:	Raga	yita	‘see’
SV:	Kwamera	ata (alt. ati)	(VI, VT) ‘see, look, regard, understand’
SV:	Anejom	e-yet	‘see’

PPn **kite* ‘see, appear, know’ (*-a > e, assimilation)

Pn:	Tongan	kite	(VI) ‘(of distant objects) to appear, be or come in sight’
Pn:	Niuean	kite	(VT) ‘see, learn, understand, know’
Pn:	E Futunan	kite	(VI) ‘appear in distance, be seen’
Pn:	Rennellese	kite	‘look, see, find’
Pn:	Tikopia	kite	‘see, look at, catch sight of’
Pn:	Tahitian	ʔite	‘see, know, recognise’
Pn:	Marquesan	kite	‘recognize, see, know’
Pn:	Maori	kite-	‘see, find’

There are a number of competing reconstructions with some claim to be the general term for ‘see’. Reflexes of **kita* and **reki[-]* (with doublet **requi[-]*) occur almost in complementary distribution (with some overlap in North New Guinea), and a distinction in meaning between them cannot be clearly identified. Both **reki[-]* and **requi[-]* are reconstructable to POc with no clear difference in meaning. Only Bugotu and Gela reflect both members of this pair with the reflex of **reki[-]* referring to seeing and the reflex of **requi* to directed looking.

POc **reki[-]*, **requi[-]* ‘see, look, see s.t., look at s.t.’

NNG:	Mangap	re	(VT) ‘see, look, experience; consider, think, be aware’

³ Some Proto Central Pacific languages identify a “sixth sense”. PCP **ki[t,d]a-vi* (VT) ‘to sense without actually seeing, hearing, etc., have a premonition that s.t. will happen’, is reconstructable based on reflexes in Bauan and Wayan Fijian, Tongan, Samoan, Maori and Rarotongan. This is doubtless cognate with POc **kita* ‘to see’.

NNG:	Yabem	<i>li?</i>	‘see, look at s.t., know, have experience’
NNG:	Hote	<i>ye</i>	‘see’
NNG:	Amara	<i>rei</i>	‘see’
NNG:	Maleu	<i>lei</i>	‘see’
NNG:	Lamogai	<i>rik</i>	‘see, know’
MM:	Bilur	<i>re</i>	‘see’
MM:	Siar	<i>re</i>	‘see’
MM:	Banoni	<i>reye</i>	‘see’
MM:	Babatana	<i>ri</i>	‘see’
SES:	Bugotu	<i>reyi</i>	(VT) ‘see’
		<i>rei</i>	‘look’
SES:	Gela	<i>riyi</i>	(VT) ‘see’ (<i>rigi sondo</i> ‘to find’, <i>rigi puku</i> ‘see clearly’, <i>rigitaoni</i> ‘look after, take care of’)
		<i>rei</i>	‘see, look’ (in compounds meaning ‘look up/about/here/round, stare at, squint’ etc)
SES:	Lau	<i>riki-a</i>	‘see’
SES:	To’aba’ita	<i>riki-a</i>	(VT) ‘see, look at, watch’
SES:	Arosi	<i>rē-i</i>	‘see’
SES:	Fagani	<i>riyi-a</i>	‘see’
SES:	Bauro	<i>reyi-a</i>	‘see’
SES:	Kahlua	<i>reyi-a</i>	‘see’
Fij:	Rotuman	<i>rāe</i>	‘see, espy, catch sight of, find’
Fij:	Bauan	<i>rai-ōa</i>	(VT) ‘see s.t.’

Reflexes of **liqos* also suggest that its POc meaning referred to directed looking.

POc **liqos* (vi) ‘look, see’, **liqos-i-* (VT) ‘look at s.t., see s.t.’

MM:	Nakanai	<i>liho</i>	‘to see, look at’
SES:	Bugotu	<i>lioh-i-</i>	(VT) ‘look at s.t.’
SES:	’Are’are	<i>rio</i>	‘see, look, be awake’ (in many compounds: ‘look for, around’ etc)
SES:	To’aba’ita	<i>lio</i>	(vi) ‘look, look after’
		<i>lio(nūna)</i>	(VT) ‘look at oneself (as in a mirror)’
SES:	Kwaio	<i>lia</i>	(vi) ‘see, look’ (*o > a irregular)
		<i>lias-i-</i>	(VT) ‘see s.t.’
SES:	Sa’a	<i>lio, lio-lio</i>	(vi) ‘to look, see, be awake’
SES:	Ulawu	<i>lios-i-</i>	(VT) ‘see s.t.’
SES:	Arosi	<i>rio</i>	(vi) ‘look, see’
		<i>rios-i-</i>	(VT) ‘look at s.t.’

PNCV **leʔos-i* ‘see, look at’ (Clark 2009)

NCV:	Araki	<i>les-i</i>	‘see’
NCV:	Uripiv	<i>(e)les-i-</i>	(VT) ‘see, look at s.t.’
NCV:	Paamese	<i>les-i-</i>	(VT) ‘see, look at s.t.’

PSV **e-laqVs* ‘look at, look for’ (Lynch 2001c)

SV:	Anejom	<i>e-laθ</i>	‘look in certain direction’

SV:	Sye	<i>e-la(say)</i>	‘look up’
		<i>e-la(^mpya)</i>	‘look away’
PMic * <i>lō</i> , * <i>lō-Si</i> ‘see’ (Bender et al.)			
Mic:	Kiribati	<i>nō</i>	‘look on’
Mic:	Marshallese	<i>lew</i>	‘see’
		<i>lew-ey</i>	‘see s.t.’

Another putative POc reconstruction, **ta(d,dr)aq* has reflexes in a number of Meso-Melanesian languages that predominantly mean ‘see’. In other subgroups its reflexes more often mean ‘look at’, ‘observe’ (Micronesian) or to ‘look upwards’ (North New Guinea and South East Solomonian). If POc **ta(d,dr)aq* proves to be related to PMP **tiɣadaq* ‘look up, look skyward’, reconstructed by Dempwolff (1938), it would support the ‘look upwards’ gloss.

POc **ta(d,dr)aq* (VI) ‘look, look up’, **ta(d,dr)aq-i-* (VT) ‘see s.t., look up at s.t.’

Adm:	Mussau	<i>tara</i>	‘to look’
		<i>tara(kila)</i>	‘recognise’ (<i>kila</i> ‘know (people)’)
Adm:	Tenis	<i>tara-ie</i>	‘see’
NNG:	Manam	<i>tada</i>	(VI) ‘look up’
		<i>tada-li-</i>	(VT) ‘look up to s.o., s.t.’
MM:	Tigak	<i>tara-i-</i>	‘see’
MM:	Solos	<i>tara</i>	‘see’
MM:	Halia	<i>tara</i>	‘see, look’
MM:	Selau	<i>tara</i>	‘see’
MM:	Teop	<i>tara</i>	‘see’

PSES **tada*, **tadaq-i-* ‘look at s.t., look up to s.t.’

SES:	Bugotu	<i>tada</i>	‘look up’
SES:	Gela	<i>tada</i>	‘face up, upwards’ (<i>tada-tada</i> (VT) ‘look up’)
SES:	Lau	<i>ada</i>	(VI) ‘to open the eyes, use the eyes; see, look’
SES:	Kwai	<i>ada</i>	‘see’
SES:	Arosi	<i>āda</i>	(VI) ‘look up, raise the eyes’
		<i>ādaʔ-i</i>	(VT) ‘look up to’
SES:	Bauro	<i>ata</i>	‘look up’
Mic:	Carolinian	<i>sæʃēy</i>	(VT) ‘look for s.t or s.o., look at or observe s.t.’
			(respect)
Mic:	Woleaian	<i>saʃēy</i>	(VT) ‘look at s.t., observe s.t.’
cf. also:			
MM:	Vitu	<i>yada</i>	‘see’
MM:	Lavongai	<i>ara(i)</i>	‘see’

Proto Oceanic also had a number of lexemes of visual perception carrying additional information as to manner, duration, purpose etc. We have reconstructed POc **tirop*, **tirop-i* ‘look intently’, **kilop*, **kilop-i* ‘glance, glimpse’, **kilat* ‘see clearly, discern, recognise’, and *(*s,j*)*ila(k)* ‘look sideways, glance around’. Similarities of form between **tirop*, **kilop* and **kila(t)* may have led to some crossover of meaning in reflexes.

PMP **tin[d]ap* ‘look intently’ (Dempwolff)

POc **tirop* (VI), ‘look intently, as at reflection or searching for lice’; **tirop-i-* (VT) ‘look at s.t., look for s.t. intently’

NNG: Gitua	<i>tiro</i>	‘look for’
NNG: Medebur	<i>(i)tir(to)</i>	‘look for’
NNG: Wogeo	<i>(i-ti)tiri</i>	‘look for’
MM: Roviana	<i>ti-tiro</i>	‘search for’
	<i>tiro</i>	‘to read’
	<i>tiro(ana)</i>	‘a mirror’
SES: Bugotu	<i>tiro</i>	(V) ‘to look’; (N) ‘a pool, window glass, mirror’
SES: To’aba’ita	<i>iro</i>	(VI) ‘look for s.t., search’ (takes an oblique object)
	<i>iro-a</i>	(VT) ‘look or search for s.o., s.t.’
SES: Lau	<i>iro</i>	(VI) ‘look’
	<i>irof-i-</i>	(VT) ‘look at s.t. fixedly, look for s.t.’
SES: Kwaio	<i>ilo</i>	‘look at’
	<i>ilo(i falaina)</i>	‘search hair (i.e. for lice)’ (<i>falaina</i> ‘hair’)
	<i>ilo(nunu)</i>	‘a reflecting pool or mirror’ (<i>nunu</i> ‘shadow, image, picture’)
SES: ‘Are’are	<i>iro</i>	‘look for, collect’
	<i>iro-iro</i>	(N) ‘reflection, mirror’
SES: Sa’a	<i>iro, iro-iro</i>	(VT) ‘look for, collect s.t.’
	<i>iroh-i-</i>	(VT) ‘clear the head of lice’
	<i>iro-iro</i>	(N) ‘a pool among rocks used as a mirror’
SES: Arosi	<i>iro</i>	(VI) ‘look for, collect’
	<i>iroh-i-</i>	(VT) ‘look into, gaze into s.t., look at s.t.’
	<i>(ha)iroh-i-</i>	‘look for lice in the hair’ (<i>ha-</i> ‘verbal prefix’)
NCV: Mota	<i>tiro</i>	(VI) ‘be clear’
	<i>tiro(nin)</i>	(N) ‘a little pool of water used as a mirror’ (<i>nin</i> ‘shadow, reflection’)
NCV: Tamambo	<i>tiro</i>	‘look’
NCV: Raga	<i>siro-i</i>	(VT) ‘look steadfastly at s.t.’
NCV: N Efate	<i>ti-tiro</i>	(N) ‘mirror’
Mic: Woleaian	<i>suʒo</i>	(VI) ‘look, watch, glance’
Fij: Wayan	<i>tidro</i>	(VI) ‘look, peer, watch attentively’
	<i>tidrov-i-</i>	(VT) ‘take a close look at s.t.’

PPn **tiro* ‘look, observe’, **tirof-i* ‘gaze at s.t.’

Pn: Niuean	<i>tio</i>	‘glance’
Pn: Tongan	<i>sio</i>	(VI) ‘look, see’
	<i>siof-i</i>	(VT) ‘keep one’s eyes fixed on s.t.’
	<i>sio-ʔi</i>	‘peer at, look at in a critical or offensive way’
Pn: W Futunan	<i>jiro-a</i>	‘look carefully, search for’
Pn: Pukapukan	<i>tilo</i>	‘gaze upon’
Pn: Samoan	<i>tilo-tilo</i>	‘peep, peer, survey, look over’

		<i>tilof-i-a</i>	‘be looked at, gazed at’
Pn:	Tikopia	<i>tiro-tiro</i>	‘look in pool as a mirror’
Pn:	Maori	<i>tiro, ti-tiro</i>	(VI) ‘look, look into, examine’

POc **kilop*, **kilop-i-* is reconstructable on the basis of two Polynesian witnesses with support from external witnesses in western Malayo-Polynesian and Central Malayo-Polynesian.

PMP **kilep* ‘glance, glimpse’ (ACD)

POc **kilop* (VI) ‘glance’, **kilop-i-* (VT) ‘glimpse s.t.’

Pn:	Tongan	<i>kilo</i>	(VI) ‘glance to one side, look out of the corner of the eyes’
		<i>kilo-kilo</i>	(VI) ‘glance from side to side, keep a sharp lookout’
		<i>kilof-i</i>	(VT) ‘keep glancing at s.t.’
Pn:	Niuean	<i>kilo</i>	(VI) ‘turn the head, look around’
		<i>kilo-kilo</i>	(VI) ‘look around’

The following is the only reconstruction we have made for *seeing* verbs with both stative and active forms, based on evidence from Micronesian and Polynesian languages.

PMP **kilat* ‘open the eyes wide’ (ACD)

POc **kilat* (VI, U-verb) ‘be seen clearly, discerned, recognised’, (VT) ‘see clearly, discern, recognise’

NCV:	Araki	<i>kila</i>	‘look, watch in a certain direction’ (<i>k</i> usually reflects POc <i>*g</i>)
NCV:	Tolomako	<i>kile-</i>	‘see’,
NCV:	Atchin	<i>kila</i>	‘look round, down’
NCV:	Avava	<i>kil-kila</i>	‘look, open eyes’
Mic:	Ponapean	<i>kila(ŋ)</i>	‘see, discern, look at, observe, examine’
Mic:	Chuukese	<i>kira</i>	(VT) ‘see, behold, find s.t.’
		<i>kira-</i>	(VI) ‘be seen, found’ (in compounds only)
Mic:	Ponapean	<i>kila(ŋ)</i>	(VT) ‘see, discern, look at, observe, examine’
Mic:	Woleaian	<i>xa-xira</i>	(VT) ‘recognise it’ (<i>xa-</i> CAUS)
		<i>xira</i>	(Vst) ‘be clear, seen clearly, recognised’
Pn:	Tongan	<i>ki-kila</i>	(VI) ‘look with wide-open eyes’
Pn:	Rennellese	<i>kiga</i>	(Vst) ‘be clearly seen, in plain sight’

The Wayan verb *kilāti-* ‘know’ conflates a form reflecting **kilat* with the sense ‘know’, the result perhaps of a blending of a reflex of **kilat* with a reflex of **kila[la]* ‘know’ (§10.2).

Polynesian reflexes of POc **(s,j)ila(k)* ‘glance around’ sometimes refer to the mental attitudes attributed to someone glancing at something or somebody.

PMP **zilak* 'cross-eyed' (ACD)

POc *(j,s)*ila(k)* 'glance around'

SES: Bauro *sira-ia* 'see'

PCP **jila*, **ji-jila* 'look sideways'

Fij: Rotuman *cila* '(subj. eyes) squint, be crossed'

PPn **sila* 'glance, look sideways' (POLLEX)

Pn: Tongan *hila* (VI) 'turn eyes away, glance'

hila-ʔi (VT) 'glance at s.t., look at sideways'

hile-hila 'keep glancing'

Pn: Niuean *hela* (VI) 'to glance, look around furtively' (*i > e irreg.)

he-hela (VI) 'look, appear'

hela-hela (VI) 'glance around'

Pn: Rennellese *sigā* 'look at, glance'

Pn: Pukapukan *yi-yila* 'eyes opened wide'

Pn: Samoan *sila-sila* 'see, watch'

si-sila 'stare, look steadily at'

sila-fia 'know'

Pn: Maori *hi-hira* 'shy, suspicious'

Pn: Tahitian *hira* 'bashfulness'

Pn: Hawaiian *hila-hila* 'bashful, shameful, ashamed'

In a number of Oceanic languages patterns of polysemy indicate a close association between *seeing* and *knowing*. That vision is our primary source of objective data about the world is supported by child-language studies and by cross-linguistic studies of evidentials (Sweetser 1990:39). In Oceanic languages a *seeing* verb always refers to sight alone, never including other senses. The association between seeing and knowing is illustrated in reflexes of POc **kita* and **re(k,q)i* above and of POc **qilo* below. The latter has been tentatively reconstructed as 'be aware of, discern, see'. The most detailed evidence is from the Polynesian glosses, and this indicates that 'know, be aware, recognize, notice' is the core meaning, with 'see' as an extension.

POc **qilo* 'be aware of, discern, see'

MM: Nakanai *hilo* 'to see' (cf. *liho* 'to see, look at')

hilo(tavu) 'to think of, keep in mind' (*tavu* 'have contact with')

NCV: Mota *ilo* 'see'

NCV: Raga *ilo* 'know, perceive'

NCV: Tamambo (*h*)*ilo* (VI) 'look while facing' (*h* irregular)

Fij: Wayan *ilo-ilo* (VI) 'look, observe, watch'; (N) 'glass (generic); mirror, looking glass'

ilo-vi- (VT) 'notice, observe s.t.'

Fij: Bauan *ilo* 'look at, as a reflection in water or in a mirror'

PPn **qilo* 'perceive, be aware of' (POLLEX: 'to know')

Pn: Tongan *ʔilo* (VT) 'to see, espy, catch sight of, notice,

			perceive; find out, discover; be conscious or aware of; know, recognize'
		<i>ʔilo-ŋa</i>	(vst) 'show, show up, be seen, shown, recognised, known; conspicuous'
Pn:	Rennellese	<i>ʔigo-ŋa</i>	(N) 'symbol' (<i>igo-igo</i> 'look, esp. at a reflection')
Pn:	Samoaan	<i>ilo</i>	'perceive, be aware of'
Pn:	Tikopia	<i>iro</i>	'take care of self or others'

Gedaged (NNG) *il* (v) 'look at, behold, discern, perceive'; (N) 'sight, view' could reflect either **qilo* or **kita*, and we have no way of choosing between them.

We have considered the possibility that **qilo* derives from POc **liqos* (see above) by metathesis. Certainly the set of cognates supporting **qilo* is in near-complementary distribution (according to subgroups) with those supporting **liqos*. One could argue that Nakanai *hilo* is an independent development from the metathesis in Remote Oceanic languages. However, the semantic range of reflexes of **qilo*, especially in Polynesian, appears to differ from **liqos* reflexes.

A number of additional Polynesian forms are derived from POc **qilo*. These forms are cited because they throw further light on the semantic range of **qilo*.

PPn **qiloqilo* 'be wise, aware'

Pn:	Tongan	<i>ʔilo-ʔilo</i>	(ADJ) 'be discerning, perspicacious, shrewd', (VT) 'know to some extent, have an idea of'
Pn:	Niuean	<i>ilo-ilo</i>	(ADJ) 'wise, clever', (VI) 'be clever'
Pn:	Rennellese	<i>ʔigo-ʔigo</i>	'to know, understand, be aware of; be wise'
Pn:	Samoaan	<i>ilo-ilo</i>	(VT) 'investigate, examine s.t.'
Pn:	Tikopia	<i>iro-iro</i>	'watching out, alerted, warned'

PPn **faka-qiloqilo* 'make s.o. wise'

Pn:	Tongan	<i>faka-ʔiloʔilo</i>	'to teach, train, accustom'
Pn:	Niuean	<i>faka-iloilo</i>	(VT) 'to be wise'
Pn:	Tikopia	<i>faka-iroiro</i>	'to warn'

PPn **qilo-a* (VI) 'to know, be aware', (VT) 'know s.t.'

Pn:	Tongan	<i>ʔilo-a</i>	(VT, vst) 'be known, well-known, visible, within sight'
Pn:	Niuean	<i>ilo-a</i>	(VI) 'to know'
Pn:	Pukapukan	<i>ilo-a</i>	'know, understand'
Pn:	Samoaan	<i>ilo-a</i>	(VT) 'see, spot, notice, recognize, know, be aware of s.t.'
Pn:	Tikopia	<i>iro-a</i>	(V) 'to know', (VT) 'know s.t.'
Pn:	W Futunan	<i>iro-a</i>	'to know'

PPn **faka-qilo-a* (VT) 'make s.t. known'

Pn:	Tongan	<i>faka-ʔilo</i>	(VT) 'make s.t. known, report s.t.'
Pn:	Niuean	<i>faka-ilo-a</i>	(VT) 'inform, make s.t. known'

Pn:	Samoa	<i>faʔa-ilo</i>	(VI) 'signal to s.o.' (takes oblique object)
		<i>faʔa-ilo-a</i>	(VT) 'show, make s.t. known, advertise'
Pn:	Tikopia	<i>faka-iro</i>	'inform beforehand'

PPn **faka-qilo-ŋa* (N) 'mark, sign, signal'

Pn:	Tongan	<i>faka-ʔilo-ŋa</i>	(VI) 'make signs, signal', (VT) mark s.t., make a mark', (N) 'sign, signal, mark'
Pn:	Samoa	<i>faʔa-ilo-ŋa</i>	(N) 'mark'

The following cognate sets support reconstruction of another 'see' verb to PWOC level.

PWOC **nasi* (VI) 'look', **nasi-* (VT) 'look at, see'

NNG:	Gedaged	<i>nasi</i>	(VT) 'see, look at, behold, perceive; to experience, undergo'
MM:	Ramoaina	<i>nai</i>	(VI) 'look', (VT) 'look at, see'
MM:	Patpatar	<i>nas</i>	(VT) 'see, look at'
		<i>na-nās</i>	'open eyes, look for, search, gaze about'
MM:	Tabar	<i>nasi</i>	'look for'
MM:	Siar	<i>nos</i>	'look for'

Although POC verbs like **kita* 'see', **kita-i-* 'see s.t.' and POC **liqo(s)* (VI) 'see, look', **liqos-i-* (VT) 'see s.t., look at s.t.' have both a transitive and intransitive form, their reflexes tend to occur in utterances with a specific object. **liqos-i-* or one of the other reconstructed 'look' forms can be used to signal that the act is intentional or more tightly focused.

It is rare for a *seeing* verb to be able to take either experiencer or stimulus as subject. We have reconstructed a single verb, POC **kila(t)* (U-verb) 'be seen clearly, discerned, recognised', (A-verb) 'see clearly, discern, recognise', where reflexes in Micronesia and Polynesia show that the same verb may carry either interpretation. Elsewhere, we have located examples where a *seeing* verb is used intransitively as a stative verb with source as subject only in the Tongan and E Futunan reflexes of **kita* with meaning 'appear, come into view'. Evans (2003:68) concurs with respect to their rarity, but remains open as to whether intransitive **kita* was (in Evans' terms) Actor or Undergoer subject, or perhaps either. The balance of the evidence favours Actor subject only.

8.3 Hearing

All languages in our sample have a transitive verb with 'hear s.t.' as one of its senses or its only sense, though in a number of Eastern Oceanic languages this verb may be extended to perceiving by non-visual senses. POC **roŋoR-* 'hear s.t.' is generally reconstructed. However, there are certain problems associated with the formal reconstruction, to be discussed below.

A substantial number of reflexes of **roŋoR-*, distributed across different high-order subgroups, carry the meaning 'listen (to s.t. or s.o.)', and it is likely that this sense was part of its semantic range in POC. An intransitive form, POC **roŋoR* 'hear', is also reconstructable. In just a few languages this form is reflected as a stative verb, 'be heard', with the sound or its source as subject. We have located reflexes with the meaning '[be] heard' only in Gela, the

Fijian languages and Tongan. This limited distribution suggests that the stative use has been developed independently in Gela and the Central Pacific languages. (Evans 2003 points out that in Philippine languages cognates show a similar uneven pattern of polysemy.)

It is likely that when Proto Oceanic speakers wished to comment on the nature of a sound they used the source as subject of a sound-specific verb, as *the drum is sounding, the leaves are rustling, their voices were audible* etc. Perception is implied, but the lexemes are not derived from verbs of perception. Oceanic speakers have a considerable vocabulary for the names of particular sounds, typically using them as both noun and verb. One of the more common ones is a reflex of POC **taŋis*, an intransitive verb usually translated by ‘cry’, used to describe any sound characteristic of its source, as a cock crowing, dog howling, drum beating etc. In To’aba’ita, for instance, one could say *suʔari e aŋi ka falufalu* ‘the drum is loud’ (*suʔari* ‘drum’, *aŋi* ‘to cry’, *falufalu* ‘sound loudly, of a drum’ (lit. ‘The drum is making a sound and it is loud’). Samoan uses a term for ‘voice’, *leo* with verbal meaning ‘sound’ as in *e leo taʔe* ‘it sounds cracked’ (*taʔe* ‘cracked’). The following is a random sample of sound terms: Tolai *tin* ‘sound, as a coconut falling to the ground’, *del* ‘sound as the beating of a drum’, *luluga* (N,VI) ‘sound, as wind or rain’; To’aba’ita *ākwaʔa* ‘make a slapping sound, as of a flat object’, *ŋalu* ‘of the sound of talking, be audible’, *kutakuta* ‘make a relatively loud, vibrating, pulsating sound’; Niuean *pakō* ‘make a knocking sound’, *kalī* ‘make a rustling sound’, *pakē* ‘make a light crackling sound’.

Listening to something is sometimes given an extended cognitive meaning. In a number of languages (Gedaged, Nakanai, Nehan, Sursurunga, Sa’a), ‘hear/listen’ has been extended to ‘understand’.⁴ A different extension of meaning is noted in many Southeast Solomonian and Central Pacific witnesses, where the meaning ‘obey, take notice of s.o.’ is present alongside ‘hear, listen’. In Lakon (NCV) *ruŋ* means ‘hear, feel’, but also ‘obey’ and ‘know’ (Alexandre François, pers. comm.). In Central Pacific languages this sense is usually associated with reflexes of **paka-roŋoR*, which contains the intensifying prefix **paka-*.

Certain difficulties arise in the reconstruction of the POC form(s) for ‘hear’. We concur with Blust (ACD) who proposes POC **roŋoR*, with initial **r*, as the regular continuation of PMP **deŋeR*. This is supported by non-Oceanic, Eastern Oceanic and Schouten evidence. **loŋoR* was a Western Oceanic variant, reflected in all WOC languages in which reflexes occur, except in the Schouten languages (Wogeo, Kaiep, Kairuru, Ali, Sissano and Sera).

POC **roŋoR*- ‘hear s.t., listen to s.t.’

Adm: Lou	<i>roŋ</i>	‘hear’
Adm: Titan	<i>roŋ</i>	‘hear’
Adm: Seimat	<i>hoŋ</i>	(VT) ‘hear, notice, become aware of, perceive’
NNG: Kaiep	(a) <i>roŋ</i>	‘hear’
SES: Bugotu	<i>roŋo</i>	(VI) ‘hear’
	<i>va-roŋo</i>	(VI) ‘hear, listen to, obey’
	<i>roŋov-i</i>	(VT) ‘hear s.t., listen to s.t.’
SES: Gela	<i>roŋo</i>	(VI) ‘hear or be heard; listen, feel, obey; enquire about’

⁴ There are examples in Oceanic languages where ‘understand’ is also an extension of ‘see’, e.g. Kwamera *ata* ‘see, look, regard, understand’ and Niuean *kite* ‘see, learn, understand, know’, both reflexes of POC **kita* ‘see’.

		<i>roŋo-i</i>	(VT) 'hear s.t., listen to s.t.'
SES:	Lau	<i>roŋo-a</i>	'hear, listen to; perceive, smell'
SES:	Kwaio	<i>loŋo-a</i>	'listen, hear'
SES:	Sa'a	<i>roŋo</i>	'hear, listen, hear tidings of, understand'
SES:	Arosi	<i>roŋo</i>	(VT) 'hear, listen, obey'
SES:	Bauro	<i>roŋo-a</i>	'hear'
TM:	Teanu	<i>leŋi</i>	'hear'
TM:	Vano	<i>laŋe</i>	'hear'
Mic:	Woleaian	<i>ʒoŋo-ʒoŋo</i>	'hear, listen to'
Mic:	Carolinian	<i>roŋ</i>	'to hear, listen, obey'
NCV:	Mota	<i>roŋo</i>	'apprehend by senses, hear, smell, taste, feel by touch'
NCV:	Lakon	<i>ruŋ</i>	'hear, feel; obey, know'
NCV:	Raga	<i>roŋo</i>	'hear, feel, apprehend by senses'
NCV:	Tamambo	<i>roŋo</i>	'hear, feel s.t.'
NCV:	Paamese	<i>loŋe</i>	(VT) 'hear, listen to; feel; pay attention to'
SV:	Kwamera	<i>reŋi-</i>	'feel, hear, smell, taste, perceive'
NCal:	Iaai	<i>ləŋ</i>	'hear feel, experience'
NCal:	Nengone	<i>-deŋi</i>	'hear'
PCP * <i>roŋo</i> 'hear, be heard', * <i>vaka-roŋo</i> 'listen, heed, obey'			
Fij:	Wayan	<i>roŋo</i>	(vst) 'be heard, sound, be audible'
		<i>roŋo-</i>	(VT) 'hear s.t., listen to s.t.'
		<i>vā-roŋo</i>	(VI) 'listen, obey, heed'
Fij:	Bauan	<i>roŋo</i>	(VI) 'hear, be heard'
		<i>vaka-roroŋo</i>	(VI) 'listen, hear, obey'
		<i>roŋo-ō-a</i>	(VT) 'hear s.t.'
Pn:	Tongan	<i>oŋo</i>	(vst) 'sound, be heard, be perceived'
		<i>oŋo-ʔi</i>	(VT) 'hear s.t.; perceive, feel – pain, pleasure, taste, smell etc.'
Pn:	Samoa	<i>loŋo</i>	(VI) 'perceive, by hearing or some other sense not sight'
		<i>faʔa-loŋo</i>	'hear, listen; pay attention; obey'
Pn:	Rennellese	<i>goŋo</i>	(VI) 'hear, listen, feel, taste'
		<i>haka-goŋo</i>	(VI) 'hear, listen, obey, feel, taste'
Pn:	Maori	<i>roŋo</i>	(VT) 'apprehend by the senses except sight; obey'

Variants with final *-*n* occur both with *-*r*- initial and *-*l*- initial forms, as in the following cognate set. Kove and Malalamai forms reflect either **roŋoR* or **loŋoR*, but given that all surrounding languages reflect *-*l*- it would be odd if they did not.

POc *(*r,l*)oŋon 'hear'

NNG:	Kove	(<i>i</i>)loŋon- <i>i</i>	'hear'
NNG:	Malalamai	(<i>i</i>)loŋon	'hear'
SES:	Talise	<i>roŋon-i-a</i>	'hear'
SES:	Longgu	<i>roŋon-i-a</i>	'hear (it)'

NCV:	Banam Bay	<i>roŋon-i</i>	‘hear’ (Tryon 1976:456-8)
Fij:	Wayan	<i>vaka-roŋon-i-</i>	(VT) ‘make s.t. known, cause s.t. to be heard’
Pn:	Tongan	<i>oŋon-a</i>	(VT) ‘hear, perceive, feel, be aware of (pain, pleasure, taste, smell), be aware or conscious of s.t., feel for, sympathise with’
Pn:	Niuean	<i>loŋon-a</i>	(Vst) ‘be heard’
		<i>(fe)loŋon-āki</i>	(VI) ‘hear each other’
Pn:	Samoaan	<i>laŋon-a</i> ⁵	(Vst) ‘be heard’
		<i>faʔa-loŋo</i>	(VT) ‘listen to s.t., hear s.t.’
Pn:	Tikopia	<i>roŋo</i>	(VI) ‘have bodily sensation, esp. hear, listen, feel’
		<i>raŋon-a</i>	(Vst) ‘be heard, felt’
Pn:	Maori	<i>roŋo</i>	(VT) ‘apprehend by the senses except sight’
		<i>raŋon-a</i>	(Vst) ‘be heard’
		<i>whaka-roŋo</i>	‘cause to hear, listen, attend to, obey’

Ross has hypothesised that the change in the final **-R* to **-n* and in the initial **r-* to **l-* was dissimilatory: to avoid two different trills (**R* and **r*) in the same very common word (Malcolm Ross, pers. comm.).

The following cognate set brings together some of the languages that reflect initial **l-*:

POc **loŋoR* (VI) ‘hear’, **loŋoR-i-* (VT) ‘hear/listen to s.t.’

NNG:	Manam	<i>loŋor-</i>	‘hear s.o./s.t.’
		<i>loŋor-i</i>	‘obey, listen’
NNG:	Gedaged	<i>(i)loŋ</i>	‘know, have knowledge of, be aware of, hear, learn, perceive, understand’
PT:	Bwaidoga	<i>nogala</i>	‘hear, listen to’
PT:	Gumawana	<i>nowo</i>	‘perceive s.t.; hear, listen, smell, sense s.t.’
PT:	Tawala	<i>nonola</i>	‘hear, smell’ (for † <i>nogola</i>)
PT:	Kilivila	<i>lagi</i>	‘hear, listen’
PT:	Sudest	<i>loŋ^we</i>	‘hear’
MM:	Bali	<i>loŋor-i</i>	‘hear’
MM:	Nakanai	<i>lolo</i>	‘hear, understand, know’
MM:	Meramera	<i>loŋ(e)</i>	‘hear’
MM:	Tiang	<i>loŋo-i</i>	‘hear’
MM:	Nalik	<i>laŋar</i>	‘hear’
MM:	Sursurunga	<i>a-loŋr-a</i>	‘hear; listen and understand’
MM:	Konomala	<i>luŋu-i</i>	‘hear’
MM:	Tolai	<i>va-loŋor</i>	‘hear’
MM:	Label	<i>loŋor</i>	‘hear’
MM:	Ramoaaina	<i>loŋoro-i</i>	(VI,VT) ‘hear, listen, heed, obey’
MM:	Siar	<i>loŋra-i</i>	‘hear’
MM:	Nehan	<i>loŋoro</i>	‘hear, understand’

⁵ In Samoan and other Nuclear Polynesian languages PPn **roŋo-na* ‘be heard’ shows an irregular change **o > a* in the first vowel.

The next set, although theoretically supporting a putative POc **noŋo(-noŋo)*, may simply reflect a number of parallel changes to **loŋoR* or **roŋoR* in which different languages independently assimilated initial **l-* or **r-* to the medial nasal.

Adm:	Mussau	<i>noŋo-noŋo</i>	‘hear’
NNG:	Matukar	<i>noŋ</i>	‘hear’
SJ:	Kayupulau	<i>nono</i>	‘hear’
SJ:	Ormua	<i>nono</i>	‘hear’
MM:	Banoni	<i>noŋono</i>	‘hear’
Pn:	Niuean	<i>fa-noŋo-noŋo</i>	(VI) ‘to listen’
Pn:	Tongan	<i>fa-noŋo-a</i>	(VI,VT) ‘to listen, hear, hear about’

8.4 Smelling

Verbs of smelling in Oceanic languages typically have an intransitive use, in which the source of the smell is the subject, and a transitive use in which the perceiver is subject and the source is direct object. Some examples follow.

Table 20 Some verbs of smelling that take both actor and source as subject

	Intransitive		transitive	
PT: Saliba	<i>pane</i>	‘emit a smell’	<i>pane-</i>	‘smell s.t.’
MM: Minigir	<i>saŋina</i>	‘to stink’	<i>saŋine-</i>	‘smell s.t.’
MM: Tolai	<i>aŋina</i>	‘s.t. smell (sweet etc.)’	<i>aŋine</i>	‘smell s.t.’
SES: Gela	<i>aŋi</i>	‘emit strong smell’	<i>aŋi-hi</i>	‘smell s.t.’
SES: Kwaio	<i>moko</i>	‘to smell, stink’	<i>moko-fi</i>	‘smell s.t.’
Fij: Wayan	<i>garu</i> + modif.	‘to smell of s.t.’	<i>garu-ti</i>	‘smell s.t.’
Pn: Tongan	<i>namu</i>	‘emit smell’	<i>nāmu-ʔi</i>	‘smell s.t.’

The reconstruction of POc **s[a,o]ŋin* (vst) ‘emit a smell’, **s[a,o]ŋin-* (vt) ‘smell s.t.’ is well supported if we accept that this form underwent sporadic changes in both the initial and final vowel. From the range of glosses exhibited by reflexes, it seems likely that **s[a,o]ŋin* had both actor subject and source subject interpretations.

POc **s[a,o]ŋin* (vst) ‘emit a smell’, **s[a,o]ŋin-* (vt) ‘smell s.t.’,

MM:	Bola	<i>(bu)roŋi</i>	‘(s.o.) smell s.t.’
MM:	Bola-Harua	<i>(bo)roŋi</i>	‘(s.o.) smell s.t.’
MM:	Sursurunga	<i>saŋin</i>	(vst) ‘stink’
MM:	Patpatar	<i>saŋin</i>	(vst) ‘produce an odour’
MM:	Minigir	<i>saŋine</i>	(vt) ‘smell s.t.’
		<i>saŋina</i>	(vst) ‘stink’
MM:	Tolai	<i>aŋine</i>	(vt) ‘smell s.t., sniff at s.t.’; (ADJ) ‘stinking, smelly’
		<i>aŋina</i>	(N) ‘smell, odour’; (vst) ‘to smell... (putrid, sweet etc.)’ (In compounds usually <i>aŋ</i> only, e.g

			<i>aj na boroi</i> ‘to smell of pigs’)
MM:	Ramoaina	<i>ajina</i>	‘stink’
NCV:	Avava	<i>sujsuŋ, suŋ</i>	(VI, VT) ‘smell’
NCV:	Naman	<i>nsoŋ</i>	(VI) ‘sniff’
PMic * <i>saŋu</i> ‘smell s.t.’ (Bender et al. 2003) (*i > *u irreg.)			
Mic:	Kosraean	<i>(mi)saŋsaŋ</i>	‘smelly, stinking of urine’ (<i>mi</i> - ‘urine’)
Mic:	Marshallese	<i>(ya)teŋ^w</i>	‘smell s.t.’
Mic:	Puluwatese	<i>təŋi-i(w)</i>	‘smell, sniff s.t.’
Mic:	Satawalese	<i>ttēŋ</i>	‘smell’
PPn * <i>soŋi</i> (VT) ‘smell s.t., sniff s.t., greet s.o. by pressing nose to face or limb and sniffing’			
Pn:	Tongan	<i>hoŋi</i>	(VT) ‘sniff s.t. up, as in smelling salts’
Pn:	Niuean	<i>hoŋi</i>	(VT) ‘smell s.t., sniff s.t.’
Pn:	E Futunan	<i>soŋi</i>	‘touch noses’
Pn:	Rennellese	<i>soŋi</i>	‘press noses, kiss’
Pn:	Samoaan	<i>soŋi</i>	(VT) ‘smell, scent s.t., smell s.o.’s cheek or hand, a method of kissing’
Pn:	Tahitian	<i>hoʔi</i>	‘smell; touch noses’
Pn:	Maori	<i>hoŋi</i>	(VT) ‘smell s.t., sniff s.t., touch noses in greeting’
Pn:	Hawaiian	<i>honi</i>	(VT) ‘smell s.t., sniff s.t., touch noses in greeting’
cf. also:			
Adm:	Drehet	<i>hunu-huŋ</i>	‘smell’
MM:	Lavongai	<i>sain</i>	‘smell s.t.’

POc **quruŋ* reflexes support its reconstruction as both a stative verb ‘have an odour, smell’, and a transitive verb **quruŋ-i* (VT) ‘to smell s.t.’.

POc * <i>quruŋ</i> (Vst) ‘emit a smell’, * <i>quruŋ-i</i> (VT) ‘to smell s.t.’			
NNG:	Bilbil	<i>ruŋ(ade)</i>	‘smell (s.t.)’
NNG:	Gedaged	<i>i-luŋ(an)</i>	‘smell (s.t.)’
PT:	Molima	<i>ulu(ma)</i>	(Vst) ‘to stink’
SES:	Gela	<i>uru</i>	(N) ‘a smell, good or bad’; (Vst) ‘to emit a smell’
		<i>uru(mi)</i>	(VT) ‘smell s.t.’
		<i>uru(dika)</i>	(Vst) ‘to stink’ (<i>dika</i> ‘bad’)
SES:	Lengo	<i>ur-uru</i>	(Vst) ‘emit a smell’
		<i>uruŋ-i-a</i>	(VT) ‘smell s.t.’

cf. also:

MM:	Ramoaina	<i>luŋi</i>	‘smell s.t.’

A separate term for the action of deliberately sniffing at something, POc **asok*⁶ ‘to sniff, kiss’ **asok-i* ‘sniff or kiss s.t.’, is reconstructable. This term continues a PAn etymon, **Sajek*.

⁶ Note the contrast of meaning with POc **pVŋu* (VI) ‘blow nose, sniff, snort’.

In a number of SES languages this action is represented by a compound, e.g. Kwaio *moko-toʔona* (*moko* ‘smell’, *toʔona* ‘put to the test, try’), To’aba’ita *mak^{wa}-toʔona* (VT) ‘check the smell of s.t.’.

PAn **Sajek* (N) ‘smell’; (VT) ‘to smell (s.t.)’ (ACD)

PMP **hajek* ‘smell, sniff, kiss’⁷

POc **asok* (VI) ‘to sniff, kiss’ **asok-i-* (VT) ‘sniff or kiss s.t.’ (ACD)

Adm:	Wuvulu	<i>ato</i>	‘to sniff, smell’
Adm:	Seimat	<i>aso-i</i>	‘to sniff, smell’
PT:	Molima	<i>yaso</i>	‘to smell s.t.’
MM:	Nakanai	<i>aso-</i>	(VT) ‘to sniff, smell s.t.’
MM:	Lamasong	<i>so</i>	‘smell s.t.’
MM:	Selau	<i>soka</i>	‘smell s.t.’ (metathesis)
MM:	Roviana	<i>aho-</i>	‘to kiss’
Mic:	Kiribati	<i>aro(boi)</i>	(N) ‘smell, scent, the sense of smell’
		<i>arok-i</i>	(VT) ‘to smell or scent an odour’
Fij:	Rotuman	<i>aso</i>	‘to kiss by sniffing the face’

cf. also:

SES:	Lau	<i>gasu</i>	(Vst) ‘to smell bad, stink’
Mic:	Carolinian	<i>uas</i>	(N) ‘aroma or smell in the air, good or bad’

The forms listed below point to a POc verb **bona(s)* (VI) ‘to smell, stink’, **bonas-i-* (VT), either ‘(s.o.) smell (s.t.)’ or ‘(s.t.) smell of (s.t.)’. This appears to be related to POc **bo[-]*, **boe-* (N) ‘odour, scent’, **baw-an*, **bo-an* (N) ‘odour, scent’ discussed below, but it is not derived by any known derivational process and may simply be a matter of chance resemblance.

POc **bona(s)* (VI) ‘to smell, stink’; **bonas-i-* (VT) either ‘smell (s.t.)’ or ‘(s.t.) smell of (s.t.)’

NNG:	Maenge	<i>bona</i>	(N) ‘unpleasant smells’
PT:	Motu	<i>bona</i>	(N) ‘smell, scent’
		<i>bona-ia</i>	(VT) ‘to smell’
PT:	Balawaia	<i>bona</i>	(N) ‘smell, odour’
		<i>bona-ia</i>	(VT) ‘to smell’
NCV:	Mota	<i>puna</i>	(VI) ‘to smell, stink’ (<i>punai</i> (N) ‘smell, scent’)
		<i>pun-pun</i>	‘to snuff in the native way of kissing’
NCV:	Kiai	<i>pona-ponasia</i>	(VT) ‘smell s.t.’
NCal:	Nêlêmwa	<i>bo</i>	(Vst) (s.t.) ‘smell’
Mic:	Woleaian	$\phi^{w\bar{o}}$	(N, Vst) ‘smell, stink’
		$\phi^{w\bar{o}}$ (<i>maş</i>)	‘to stink, smell bad’ (<i>maş</i> ‘be rotten, spoiled’)

⁷ Numfor, a South Halmahera-West New Guinea language, has a reflex of PMP **hajek*: *yas* ‘native manner of kissing by smelling the face’. This meaning is mirrored in an Oceanic cognate of **hajek* only in Rotuman, but illustrated also in Motu *harahu-a* ‘to smell, kiss’, in the ‘Are’are and Sa’a term *nono* ‘to kiss, place the face against, sniff’, in Mota *pupupun* or *punpun* ‘to snuff [sic] in the native way of kissing’ and in a number of reflexes of PPn **soji* ‘smell s.t., sniff s.t., greet s.o. by pressing nose to face or limb and sniffing’.

		$\phi^w\bar{o}$ (<i>ŋas</i>)	‘be fragrant, sweet-smelling’ (<i>ŋas</i> ‘good, nice’)
		$\phi^w\bar{o}$ (<i>lap</i>)	‘to stink of armpit smell’ (<i>lap</i> ‘be big, huge’)
Mic:	Carolinian	$b^w\bar{o}$	(N) ‘smell, odour, aroma’
		$b^w\bar{o}$ (<i>maʒ</i>)	‘stink, smell rotten’
		$b^w\bar{o}$ (<i>ŋas</i>)	‘be fragrant, sweet-smelling’
		$b^w\bar{o}$ (<i>pa</i>)	‘smell of shit etc.’ (<i>pā</i> ‘faeces’)
Fij:	Bauan	<i>bona</i>	(VI) ‘stink because rotten; (N) stinking rottenness; a stench’
		<i>bonaδ-a</i>	(VI) ‘to stink of s.t.’

Lynch (2001c) reconstructs the set below. It resembles POc **bona(s)* but this may well be a chance resemblance, as PSV **-e-* does not regularly reflect POc **-o-*.

PSV **a-b(i)eni* (VI) ‘emit an odour’ (Lynch 2001c)

SV:	Sie	<i>e-mpen</i>	(VI) ‘emit an odour’
SV:	Lenakel	<i>ə-pien</i>	(VI) ‘emit an odour’
SV:	Kwamera	<i>a-pein</i>	(VI) ‘emit an odour’
SV:	Anejom	<i>e-peñ</i>	(VI) ‘emit an odour’
		<i>ne-pñ(ami)</i>	(VI) ‘smell of urine’
		<i>e-peñ(wañ)</i>	(VI) ‘have musty smell’

Tryon (1976) lists a number of NCV languages which denote ‘smell s.t.’ by compounding reflexes of **roŋoR* ‘hear’ with reflexes of **bona(s)*, to reflect PNCV **roŋo-bona*, e.g. Raga *roŋ-bunina*, Lametin *roŋ-bonai*.

Our starting point for the cognate set below is a pair of PMP forms, **bahu* (V) ‘smell bad’, reconstructed by Dempwolff, and **bahu-an* (N) ‘odour, stench’, reconstructed by Blust (ACD) as a suffixed form of Dempwolff’s **bahu*. Dempwolff glossed **bahu* as a noun, but it seems likely that it was used as a verb, since **bahu-an* includes the nominaliser **-an*. Blust reconstructs **bahu-an* as Proto Western Malayo-Polynesian, but the Oceanic forms listed below show that it occurred in PMP.⁸

Most Malayo-Polynesian languages have lost **h*, with the result that **bahu* and **bahu-an* respectively became **baw* and **baw-an*. By regular sound change **baw* probably became POc **bo*, but **baw-an* may have survived in this form in POc alongside **bo-an* (see discussion of Manam *b^wau* below). POc **bo* is a phonotactically rare phenomenon, a monosyllabic lexical root. There has long been a tendency in Austronesian languages to make lexical forms disyllabic, and so **bo* occurs with a number of extensions, some of which we cannot fully explain. Some of these extensions are disyllabic roots in their own right: see Bola *bu-roŋi*, Bola (Harua) *bo-roŋi*, both ‘(s.o.) smell s.t.’ under POc **s[a,o]ŋin* ‘emit a smell’ above, and the Woleaian and Carolinian examples below. In Central Pacific and Micronesian languages a monosyllabic lexical root becomes bimoraic, i.e. its vowel is long.

The POc noun **bo[-]* is shown below with a bracketed hyphen, as a number of its reflexes are monovalent nouns. Monovalent reflexes in Ponapean and Puluwatense suggest that the POc monovalent form was sometimes **boe-*, and it is perhaps this form that is also reflected by Kiribati *p^woi* (zero-valency noun) and Bauan *boi* (intransitive verb).

⁸ Thanks are particularly due to Malcolm Ross for making a detailed analysis of these two forms. The following paragraphs are based substantially on his comments.

PMP **bahu* (VI) ‘smell bad’ (Dempwolff, cited by Blust, ACD)

POc **bo[-]*, **boe-* (N) ‘odour, scent’; **bo* (VI) ‘have an odour, be smelly’

PNCV **b[o,u][-]* (N) ‘odour, scent’; **b[o,u]* (VI) ‘have an odour, be smelly’

NCV: Port Sandwich	<i>mbo</i>	‘to stink, rotten’
	<i>na-mbo-</i>	‘smell, odour’
NCV: Uripiv	<i>o-po</i>	‘rotten’,
NCV: Big Nambas	<i>-pu</i>	‘it is rotten’
NCV: Neve’ei	<i>bo</i>	‘rotten, stink’
NCV: Nati	<i>mpu</i>	‘rotten, stinking’
NCV: Ninde	<i>pu-o</i>	‘to stink’
	<i>nu-^mbu-</i>	(N) ‘smell’
NCV: Naman	<i>-bu</i>	‘stink; rotten’
NCV: Sa	<i>bo-</i>	(N) ‘smell’
NCV: Lonwolwol	<i>bo</i>	(VI) ‘(s.t.) smell’
NCV: Paamese	<i>vō</i>	(VI) ‘(s.t.) smell’
NCV: Nguna	<i>p^wo</i>	(VI) ‘stink, smell bad’
SV: Sye	<i>e-^mpu</i>	(VI) ‘(s.t.) smell’
SV: Ura	<i>i-bu</i>	(VI) ‘(s.t.) smell’
NCal: Nêlêmwa	<i>bo</i>	(VI) ‘(s.t.) smell’
Mic: Kiribati	<i>p^wo-i</i>	(N) ‘smell, odour’
Mic: Ponapean	<i>p^wō, p^wowε-</i>	(N) ‘smell, odour’
Mic: Chuukese	<i>p^wō</i>	(N) ‘smell, odour’
Mic: Woleaian	<i>φ^wō</i>	(N, VI) ‘smell, stink’
	<i>φ^wō(mas)</i>	‘to stink, smell bad’ (<i>mas</i> ‘be rotten, spoiled’)
	<i>f^wō(ŋas)</i>	‘be fragrant, sweet-smelling’ (<i>ŋas</i> ‘good, nice’)
	<i>f^wō(lap)</i>	‘to stink of armpit smell’ (<i>lap</i> ‘be big, huge’)
Mic: Carolinian	<i>b^wō</i>	(N) ‘smell, odour, aroma’
	<i>b^wō(mas)</i>	‘stink, smell rotten’
	<i>b^wō(ŋas)</i>	‘be fragrant, sweet-smelling’
	<i>b^wō(pa)</i>	‘smell of shit etc.’ (<i>pā</i> ‘faeces’)
Mic: Puluwatese	<i>p^wo, p^woi-</i>	(N) ‘smell, odour’
Fij: Bauan	<i>bo-i</i>	(VI) ‘have an odour’
	<i>bo-iō-a</i>	(VI) ‘(s.t.) smell of’

Among the reflexes of POc **bo-an* below Manam *b^wau* requires particular comment. At first sight it looks as if it reflects a POc **baw*, i.e. a form in which earlier **-aw* has not become POc **-o*. It is rather more likely, however, that it reflects POc **baw-an*, with regular loss of final **-n* and consequent irregular loss of **-a*, since earlier word-internal **-aw-* did not always become POc **-o-*. Gumawana *bowana* is the only form below which attests to the presence of POc final **-n*. Note that the Gumawana and Gapapaiwa forms both serve as verbs as well as nouns.

PMP **bahu-an* (N) ‘odour, stench’ (ACD: PWMP)

POc **baw-an*, **bo-an* (N) ‘odour, scent’

NNG: Manam *b^wau* (N) ‘smell, odour’

PT:	Gumawana	<i>bowana</i>	(vi) 'stink, smell bad'; (N) 'bad odour'
PT:	Gapapaiwa	<i>boa</i>	(vi) 'rot, smell bad'
PNCV <i>*boa</i> (N) 'odour, scent'			
NCV:	Tambotalo	<i>poa</i>	'smell'
NCV:	Nguna	<i>na-p^woa</i>	'smell'
SV:	Anejom	<i>e-pev</i>	'stink, smell badly' (John Lynch, pers. comm.)
PPn <i>*poa</i> (N) 'fish odour'			
Pn:	Tongan	<i>poa</i> (<i>namu</i>) <i>poa</i>	'yam with fishy smell' 'fish odour'
Pn:	Niuean	<i>poa</i>	'fish odour'
Pn:	Anuta	<i>po-poa</i>	'fishy smell'
Pn:	E Futuna	<i>po-poa</i>	'fish odour'
Pn:	Samoa	<i>poa-poā</i>	'fish odour'
Pn:	Sikaiana	<i>poa</i>	'fish odour'
Pn:	Tokelauan	<i>poa-poā</i>	'smelling of fish'
Pn:	Marquesan	<i>poa (ika)</i>	'chum, bait'
Pn:	Rarotongan	<i>poa</i>	'fishy (smell or taste); scales, rust'
Pn:	Maori	<i>poa</i>	'bait; allure by bait, entice'

Blust (1988) has reconstructed a family of PAN 'stench' words which all contain the phonemic sequence **qaje-* (**qajeSit* 'stench, musky odor of an animal', **qajeliC* 'stench of burning substances', **qajeRiS* 'stench of fish', **qajeRu* 'stench of spoiled or souring organic matter' and **qajeseR* 'stench of urine'). The only clear trace of these in Oceanic languages is in the Gela term: *aŋo* 'emit a sour smell, as of urine'.

PAN **qajeSeR* 'stench of urine' (Blust 1988, ACD)

POc **(q)aŋo(R)* (vst) 'smell, as of urine'

SES: Gela *aŋo* (vst) 'emit a sour smell, as of urine'

cf. also:

SES: Arosi *waŋo* (vi) 'smell (sweet or otherwise)'
waŋor-a 'to smell of blood'

Oceanic languages often have terms for the smell of urine and other body secretions, and terms for various other odours, good and bad. Milner's Samoan dictionary, for instance, lists *soŋo* (v) 'smell of urine etc.', *lalaŋoa* (v) 'smell of fish', *saŋa* (N,v) 'smell of stale food etc.', *ŋalalā* (N,v) 'smell of meat or fish when cooked', *elo* (v, ADJ) 'give an offensive smell of decomposing flesh'. However, few terms for specific odours have been collected from other languages and we have been unable to make reconstructions other than the one above and the following:

PMP **seŋet* 'acrid, pungent, of odor' (ACD)

POc **soŋo* '[be] acrid, pungent, as smell of urine'

NNG: Lukep Pono *-yoŋo* 'smell s.t.'
MM: Label *soŋ* 'smell (s.t.)'

MM:	Tiang	(<i>mo</i>) <i>soŋ</i>	‘smell (s.t.)’
MM:	Notsi	<i>coŋo</i>	‘stink’
Mic:	Carolinian	(<i>b^wō</i>) <i>ttoŋo-toŋ</i>	‘smell sweaty, unclean, unwashed’ (<i>b^wō</i> ‘odour’)

PPn **soŋo* ‘smell of urine’ (POLLEX)

Pn:	Niuean	<i>ho-hoŋo</i>	‘perceive an odour, smell s.t. (as from a distance)’
Pn:	Tongan	<i>ho-hoŋo</i>	‘smell of urine’
Pn:	E Uvean	<i>ho-hoŋo</i>	‘smell of urine’
Pn:	Pukapukan	<i>yo-yoŋo</i>	‘smell of urine’
Pn:	Rennellese	<i>soŋo(aŋa)</i>	‘sex organs’
Pn:	Samoan	<i>soŋo</i>	‘(of urine, etc.) smell, stink’
Pn:	Nukuoro	<i>soŋo-soŋo</i>	‘genitals (male or female)’
Pn:	Tikopia	<i>soŋo</i>	‘female genitalia’
Pn:	Tokelauan	<i>so-soŋo</i>	‘smell of urine’
Pn:	Hawaiian	<i>ho-hono</i>	‘odour of perspiration’

PMP **maŋsit* ‘vile smell’ (ACD)POc **masi(t)* ‘smell bad; [be] sour, acid, fermented’ (N) ‘bad smell’

NNG:	Manam	<i>masi</i>	‘smell of fish’
		<i>masi-masi</i>	(VI) ‘smell bad’
PT:	Ubir	<i>mas</i>	‘to smell’
SES:	Gela	<i>mahi</i>	‘body smell’
SES:	Arosi	<i>masi</i>	(N,V) ‘smell of stale fish or urine’
		<i>masi(ŋaʔi)</i>	(Vst) ‘smell stale, sour’ (<i>ŋaʔi</i> ‘verb suffix’)
Mic:	Carolinian	<i>m^was</i>	(VI) ‘stink’
Pn:	Tongan	<i>mahi</i>	‘sour to the taste’
Pn:	E Futunan	<i>masi</i>	‘acid, fermented, preserved by fermenting’
Pn:	Samoan	<i>masi</i>	‘fermented breadfruit’
Pn:	Tikopia	<i>masi</i>	‘pungent, provoking strong sensation’
Pn:	Maori	<i>mahi-mahi</i>	‘rotten, putrid’

Familiar smells may be lexicalised, either as a stative verb or noun, e.g. *(*q*)*aŋo(R)* ‘smell, as of urine’ (from PAn **qajeSeR* ‘stench of urine’), **soŋo* ‘[be] acrid, pungent, as smell of urine’ (from PMP **seŋet* ‘acrid, pungent, of odor’), and **masi(t)* ‘smell bad; [be] sour, acid, fermented’ (from PMP **maŋsit* ‘vile smell’). Although these three POc reconstructions have here been given a verbal form, it is evident that in two cases the PAn or PMP antecedents are nouns and in the third, many of the lower level reflexes are also nouns. It is noteworthy that in all the cognate sets supporting verbal ‘smell’ reconstructions there are examples of the verb functioning also as a noun. This tendency has not been noted in any of the other sense-related verbs other than in the terms given to specific sounds. We have reconstructed one generic noun, POc **bo[-]* ‘odour, scent’ which can also be used as a stative verb, meaning ‘have an odour’.

8.5 Tasting

Taste is the sense that informs us about what we are eating or drinking. Perception of taste is usually the outcome of an intentional act. POc **ñami-* (VT) ‘taste s.t., test the flavour of food’ is well attested, with reflexes scattered across diverse subgroups. Reflexes of a partially reduplicated form, **ña-ñami*, also occur in some languages as a stative verb, meaning ‘be tasty, taste good’. The attribution of this sense to POc is somewhat strengthened by extra-Oceanic cognates. A fully reduplicated form, **ñami-ñami* is also reflected in Ramoaaina (MM), Gela and Longgu (SES), Marshallese (Mic) and Rennellese (Pn), and this may have been an intransitive verb meaning ‘to taste, do tasting’.

**ña-ñami* has a PMP antecedent in the form of PMP **ñamñam* ‘taste, tasty’ which Blust (1989) reconstructs on the basis of Tagalog *namnam* ‘savor, taste; palatal sensation’ and Selaru *nanam* ‘sweet’ together with Oceanic reflexes. POc **ñami* appears to continue the PMP root **ñam* with the addition of the transitive suffix **-i*.⁹

Except for Tikopia, which has doublets *nami* ‘taste’ and *namu* ‘odour, bad smell’, the Central Pacific reflexes of **ñami* show a vowel change **i > u*. Polynesian reflexes tend to blur the distinction between taste and smell, both senses contributing to the assessment of quality of food. The shift from flavour to odour is complete in Pukapukan, Rennellese and Samoan.

PMP **ñamñam* ‘taste, tasty’ (Blust 1989)

POc **ña-ñami* (VI) ‘[be] tasty, taste good’, **ñami-* (VT) ‘to taste s.t.’

Adm:	Nyindrou	<i>ñimi-ñem</i>	(VT) ‘taste, test flavour of’
MM:	Patpatar	<i>nam-nami-en</i>	‘be tasty, sweet’
		<i>nami-en</i>	(VT) ‘taste s.t.’
MM:	Tolai	<i>namene</i>	(VI,VT) ‘to taste’
MM:	Ramoaaina	<i>nam-nami-an</i>	‘sweet’
SES:	Gela	<i>nami</i>	(VT) ‘to taste s.t.; tasting’
		<i>nai-nami</i>	‘to taste, tasting’
SES:	Bugotu	<i>ñami</i>	(VT) ‘to nibble, bite, taste s.t.’
SES:	Ulawa	<i>name</i>	(VI) ‘to taste’
		<i>name-li</i>	(VT) ‘to taste s.t.’
SES:	Arosi	<i>nami</i>	(VI) ‘to taste’
		<i>nami-ri</i>	(VT) ‘taste, lick s.t.’
SES:	Longgu	<i>nami-</i>	(VT) ‘taste s.t.’
		<i>nami-nami</i>	(VI) ‘taste’
NCV:	Mota	<i>nam, nami-s</i>	‘to taste, touch with the tongue’
NCV:	Mwotlap	<i>nem</i>	‘taste s.t. with tongue, lick’
NCal	Nêlêmwa	<i>nām</i>	‘sweet’

PMic **ñama* ‘taste’ (also **ñaña* ‘taste, flavour’) (Bender et al. 2003)

Mic:	Kiribati	<i>na-nama</i>	‘to taste or test the flavour of s.t.’
Mic:	Woleaian	<i>nana</i>	‘taste, try the taste of’
		<i>na-zi</i>	(VT) ‘taste, try s.t.’
Mic:	Carolinian	<i>nanna</i>	(VI) ‘to have a certain flavour or taste’

⁹ There are many parallel cases of PMP disyllables of the form R-R (where R is a monosyllabic root) being continued in Oceanic as R-i (Blust 1977, Ross 1998:24-25).

Mic:	Marshalllese	<i>nam-nam</i>	‘taste, smell, flavour’
Fij:	Bauan	<i>namu</i>	‘chew and swallow’
PPn <i>*namu</i> (v) ‘taste’, (N) ‘odour, flavour’; <i>*namu-aqa</i> (vst) ‘have a strong smell or flavour’			
Pn:	Tongan	<i>namu</i>	(vst) ‘emit a smell’ (only in compounds, e.g. <i>namu-hohorjo</i> ‘to smell of urine’, <i>namu-kakala</i> ‘be fragrant’, <i>namu-kuu</i> ‘to stink’, <i>namu-toto</i> ‘smell of blood’ etc.)
		<i>na-namu</i>	(vst) ‘emit an odour, to smell’; (N) ‘odour, smell’
		<i>nāmu-ʔi</i>	(VT) ‘perceive the smell/taste of’
		<i>namu-aʔa</i>	(vst) ‘have a strong or pungent smell’
Pn:	Niuean	<i>namu</i>	(N) ‘odour, flavour’
		<i>namu-ā</i>	(vst) ‘smell of fish or the sea’
Pn:	Pukapukan	<i>namu</i>	(vst, N) ‘smell s.t., emit an odour typical of s.t. (e.g. <i>namu ika</i> ‘smell of fish, fishy smell’, <i>namu ānani</i> ‘sweet smell’)
		<i>na-namu</i>	(vst) ‘very smelly, putrid’
Pn:	Rennellese	<i>namu-aʔa</i>	(vst) ‘to stink’
		<i>na-namu</i>	(vst) ‘to smell good or bad’
		<i>namu-namu</i>	‘to inhale, sniff, as at a distance’
Pn:	E Futunan	<i>namu-kū</i>	‘bad odour, flavour’
Pn:	Samoaan	<i>nāmu</i>	(vst) ‘to smell of, have the odour of’
Pn:	Tikopia	<i>namu</i>	(N) ‘odour, smell (used of strong or unpleasant smells)’
		<i>nam-i</i>	‘taste in experimental way’
Pn:	Maori	<i>namu-namu-ā</i>	‘flavour imparted to food by contact with s.t.’
Pn:	Rapanui	<i>namu-namu</i>	‘to taste, chew’

There is a formal similarity between **ñami* and the next two reconstructions, **tami* and **mamis*, together with **(d,dr)am^wi* ‘lick’ (§4.3.5.2). They may ultimately share descent from a PAn monosyllabic root, **mis* (Blust 1988).

PMP **tamiq*, **tamis* ‘taste, try’ (ACD)

POc **tami* ‘taste, try’

MM:	Tolai	(<i>an</i>) <i>tamai</i>	(VT) ‘to taste, of food’ (<i>an</i> ‘to eat’) (problematic vowels)
NCV:	Anejom	<i>a-temtem</i>	‘taste s.t. to see if it’s OK’ (John Lynch pers. comm.)
Pn:	Rennellese	<i>tami</i>	‘taste’
		<i>tami-tami</i>	‘taste a little, as to try’

It is possible that POc **mamis* ‘sweet’ has evolved by a different route from POc **mamis* ‘try by tasting’. Whereas the former is derived directly from PAn and PMP etyma, the latter may be the product of contamination between POc **mamis* ‘sweet’ and POc **ñami* ‘to taste s.t.’.

PAn **ma-amis* ‘sweet’ (Tsuchida 1976)

PMP **mamis* ‘sweet’ (Dempwolff); **emis* ‘sweet taste’ (ACD)

POc **mamis* ‘to try by tasting; sweet’

PT:	Motu	<i>mami-a</i>	(VT) ‘to feel, test’
PT:	Balawaia	<i>mami-</i>	(N) ‘taste’
MM:	Meramera	<i>mamis-i</i>	‘sweet’
SES:	Gela	<i>mami-a</i>	‘tasting good’
SES:	Sa’a	<i>mami</i>	(VI) ‘to taste’
SES:	Kwaio	<i>mami</i>	‘normal tasting, neither sweet nor sour’
		<i>mami toʔona</i>	‘try food, taste’ (<i>toʔo</i> ‘receive, catch’)
SV:	Anejom	<i>a-mθa</i>	‘extremely sweet’
Mic:	Puluwatese	<i>mæm</i>	‘sweet’
Mic:	Carolinian	<i>mam</i>	‘be sweet-tasting’
Mic:	Woleaian	<i>mami</i>	‘sweet’
Fij:	Wayan	<i>mami</i>	‘cooking banana, sweet-tasting’

POc **ñapi-* (VT) ‘taste s.t.’ may have evolved from **ñami* by the strengthening of medial *-*m-* to a prenasalised stop **b*, with subsequent devoicing.

POc **ñapi-* (VT) ‘taste s.t.’ (Blust 1998a)

Adm:	Lou	<i>nap</i>	‘taste’
SES:	Gela	<i>na-napi</i>	(VT) ‘taste, lick s.t.’
SES:	Bugotu	<i>ñapi</i>	(VT) ‘to bite, taste s.t.’
SV:	Sye	(<i>at</i>) <i>ŋap</i>	‘taste’
SV:	Ura	(<i>ar</i>) <i>ŋap</i>	‘taste’

Some Oceanic languages lack a verb dedicated to the meaning of intentional tasting. Instead, they use a verb whose basic meaning is more general, such as reflexes of POc **topoŋ-i* ‘try/attempt s.t.’ or ‘sample s.t.’, or terms for ‘nibble’ or ‘lick’. To limit such a verb to the tasting of food or drink a qualifier is added. Thus in Seimat one says *ŋa ani tohoŋi-wa* ‘I taste the food’ (*ani* ‘eat’, *tohoŋi* (VT) ‘try, attempt s.t.’) and in Tolai *an-tamai* (VT) ‘to taste, of food’ (*an* ‘eat’, *tamai* ‘taste, try’). Kwaio has *ʔana toʔona* (*ʔani* ‘eat’, *toʔona* ‘put to the test’) and *mea toʔona* (*mea* ‘tongue’, *toʔona* ‘put to the test’), both meaning ‘taste (food)’, while To’aba’ita has *qani-toʔona* ‘taste s.t. by eating it, try the taste of s.t.’ (*qania* ‘eat’, *toʔona* ‘test, check’) and *kuqu-toʔona* ‘drink s.t. to see what it is like’ (*kuqu* ‘drink’).

PMP **tepeŋ* ‘try, test, experiment’ (Blust, pers. comm.)

POc **topoŋ* (VI) ‘try’, **topoŋ-i-* (VT) ‘try, test, sample s.t.’

Adm:	Seimat	<i>tohoŋ-i</i>	(VT) ‘try, attempt’ (<i>ŋa ani tohoŋi-wa</i> ‘I taste the food’)
Adm:	Mussau	<i>tōtoŋa</i>	(VT) ‘taste’
NNG:	Gitua	<i>tovo</i>	‘try’
PT:	Gapapaiwa	<i>tovon</i>	‘feel, squeeze’

PT:	Motu	(<i>mami-a</i>) <i>toho</i> ¹⁰	(VT) ‘to test and try’ (<i>mami-a</i> ‘to feel, test’)
MM:	Nakanai	<i>tovo</i>	‘measure, try out’
SES:	Gela	<i>tavoŋo</i>	‘grope, feel in the dark’
SES:	Sa’a	<i>ohoŋ-i</i>	‘to attempt, make trial of’
SES:	Arosi	<i>oho</i>	‘to contend’
		<i>ohoŋ-i</i>	‘try, test, tempt’
NCV:	Mota	<i>to-towo</i>	‘do for the first time’
NCV:	Neve’ei	<i>totovuŋ</i>	‘try’ (John Lynch, pers. comm.)
NCV:	Neverver	<i>dvuŋ</i>	‘try’ (John Lynch, pers. comm.)
Mic:	Ponapean	<i>soŋ</i>	‘taste s.t., attempt’
Fij:	Bauan	<i>tovo(le)</i>	(VI) ‘try, attempt, test’
		<i>tovo(le)-a</i>	(VT) ‘try s.t.’
Pn:	Samoa	<i>tofo</i>	‘test, sample; to taste’ (Milner 1966); ‘try, tempt’ (Pratt 1862)

cf. also:

SES:	Gela	<i>tovo</i>	‘to ask for a wife’

A speaker of POc could pass judgement on the taste of something in the mouth by using an adjectival verb, with the source of the flavour as subject. The following verbs are specifically taste descriptors: **mamis* ‘[be] sweet’, **ña-ñami* ‘[be] tasty, taste good’ and **maqasin* ‘[be] salty’ (Ross et al., 2003:68). A PPn verb **suqa* (VI) ‘have a certain taste or flavour’ is reconstructable, occurring in the compound **suqa-malie* ‘taste good; sweet, delicious’. Another strategy is to use a compound of the form V + modifier, where V is a verb meaning ‘eat’ or ‘drink’, e.g. Wayan Fijian *kani vinā* ‘be tasty (lit. ‘eat well’), *kani ðakaðā* ‘taste bad’ (‘eat bad’).

While smelling terms are frequently nouns, taste terms are predominantly verbs. The only examples in our cognate sets where reflexes of a reconstructed verb are used as a noun are in Niuean and Tikopia reflexes of POc **ñami*- (VT) ‘to taste s.t.’, and in each case the term has changed its meaning from taste to smell.

8.5 Perceiving by touch

The sense often labelled ‘touch’ has to do with perceiving pressure on the skin. Awareness of such pressure is expressed in English by the verb ‘feel’, e.g. ‘I can feel the wind in my face’. More commonly the reference is to contact between skin, usually hand, and a solid object, resulting in awareness of some property of the latter’s surface. ‘Feel’ is also used in English to denote awareness of a physiological or emotional condition, e.g. ‘feel sick or frightened or responsible’. We will not be concerned here with the latter sense of ‘feel’.

POc **si(g,k)il* ‘touch with the fingers’ is our strongest candidate for a verb meaning ‘perceive by touch’. Reflexes of POc **taŋo(p)* ‘take hold of, grasp, touch with the hand’ tend to carry the additional meaning of deliberately taking hold or grasping. In some languages reflexes of a PWOC term **sau* ‘reach out with hand, touch’ may be combined with a verb meaning ‘try’ to express that meaning, as in the Motu and Nakanai examples below, but we cannot reconstruct a specific compound verb for PWOC meaning ‘perceive by touch’. Other

¹⁰ Compare Motu *daua-toho* ‘to feel a thing’ (*dau-* ‘stretch out the arm’, *toho* ‘try’)

Oceanic languages use verbs that are either primarily verbs of manipulation (do s.t. by hand, grope, grasp, poke, stroke etc.) or of making contact in a physical sense, without involving awareness (be in contact, reach), although some may have had ‘perceive by touch’ as a secondary sense.

POc **si(g,k)il*, **si(g,k)il-i-* ‘touch with the fingers’

MM:	Patpatar	<i>sigire</i>	(VT) ‘touch, lay hands on to abuse’
MM:	Sursurunga	<i>sigil, siŋl-i-</i>	(VT) ‘touch’
SES:	Bugotu	<i>higil-i</i>	‘touch s.t.’
SES:	Gela	<i>higil-i</i>	‘touch s.t.’
		<i>kisi, gisi</i>	(VT) ‘touch with finger, poke’ (metathesis)
SES:	Sa’a	<i>siki</i>	‘tap, touch with fingers’
		<i>siki-hi</i>	(VT) ‘infect, carry infection (to s.o.)’
		<i>sikil-i</i>	(VT) ‘twang with the fingers’
SES:	Arosi	<i>sigi</i>	‘tap with the finger’
		<i>sigi-hi</i>	(VT) ‘infect with’
NCV:	Mwotlap	<i>hiy</i>	‘poke, esp. with finger; point at’
NCV:	NE Ambae	<i>sikel-i</i>	(VT) ‘touch’
NCV:	Tamambo	<i>hisi</i>	(V) ‘reach, touch s.t.’ (metathesis)
NCV:	Namakir	<i>qih</i>	‘touch, stroke’ (metathesis)
NCV:	Nguna	<i>kisi</i>	‘touch with fingers’ (metathesis)
Mic:	Kiribati	<i>rī(ŋa)</i>	‘feel (s.t.), handle, touch’

POc **taŋo(p)* ‘take hold of, grasp, touch with the hand’

NNG:	Sio	<i>taŋo</i>	‘touch, place hand or fingers on’
SES:	Gela	<i>taŋo</i>	(VI) ‘do, touch, be in contact’ (rarely used except in compounds)
		<i>taŋo(li)</i>	(VT) ‘hold, touch’
SES:	Bugotu	<i>taŋo(li)</i>	(VT) ‘to take, hold, handle, receive’
		<i>taŋoli hadi</i>	‘feel for a thing’ (<i>hadi</i> ‘go up’)

PNCV **taŋo-vi* ‘touch, feel, grope’ (Clark 2009)

NCV:	Mota	<i>taŋo</i>	‘touch, feel with the hand’
NCV:	Paamese	<i>taŋo-taŋo</i>	‘place hands on s.t.’
NCV:	Sakao	<i>daŋ</i>	(VI) ‘to grope’
NCV:	Lonwolwol	<i>toŋve</i>	‘to touch’
Pn:	Pukapukan	<i>taŋo</i>	‘take hold of, grasp’
Pn:	Samoa	<i>taŋo</i>	(VT) ‘take hold of s.t., touch (and feel) with the hand, feel’
		<i>taŋof-i-a</i>	‘be touched’
		<i>taŋo-taŋo</i>	‘lay hold of, touch and feel’
Pn:	Tikopia	<i>taŋo</i>	‘grab’
		<i>taŋof-i-a</i>	‘have hands laid upon’
Pn:	W Futunan	<i>taŋo</i>	‘grobe, feel for’

PWOc *sau ‘reach out with hand, touch’

PT:	Motu	<i>dau</i>	(VI) ‘stretch out the arm’, (VT) ‘touch, feel’ (<i>dau-kunu</i> ‘to touch, when fingers touch an object’ (<i>kunu</i> ‘fill, be satisfied’), <i>dau-dae</i> ‘to stretch the arm up’, <i>dau-lata</i> ‘stretch out the arm for s.t. in front’ etc.)
		<i>daua(toho)</i>	‘feel a thing’ (<i>toho</i> ‘try’)
MM:	Nakanai	<i>sau</i>	‘place the hand’
		<i>sau(lalai)</i>	‘to feel tentatively (with hand)’ (<i>lalai</i> ‘to try’)

PNCV *tiqel-i ‘touch, reach’ (Clark 2009)

NCV:	Paamese	<i>tokol-i</i>	‘touch, feel with hands, reach, go as far as’
NCV:	Kiai	<i>tikel-i-</i>	‘touch’
NCV:	Lewo	<i>tol-i</i>	‘reach, arrive at, touch’
NCV:	NE Ambae	<i>sikel-i</i>	‘touch, reach, arrive at’
SV:	Anejom	<i>etcai</i>	‘feel, touch’

cf. also:

PT:	Kiriwina	<i>(mom)kol-i</i>	‘taste, sip’
MM:	Tolai	<i>tuk</i>	‘touch with hand or pointer’

8.6 Conclusions

For the five ‘basic’ senses we can reconstruct at least one POc transitive verb dedicated to a particular sense, namely: *kita- ‘see s.t.’, *roŋo- ‘hear s.t.’, *sa[a,o]ŋin- ‘smell s.t.’, *ñami- ‘taste s.t.’ and *si(g,k)il-i- ‘touch with the fingers’. Certain of these verbs were polysemous but each had a canonical use in which the grammatical subject is the experiencer of an act of perception and the direct object is the stimulus.

Three of the above reconstructions, *roŋo-, *sa[a,o]ŋin- and *ñami- are reconstructable with both ‘sensing’ and ‘attending’ senses, that is both with and without intention. Reflexes of *si(g,k)il-i are apparently typically used with an intentional force. In order to express the meaning ‘listen’ a number of languages (Southeast Solomonic, Fijian, Polynesian) add an intensifying prefix to *roŋo, providing some evidence for PEOc *paka-roŋo(R,n)- ‘listen to s.t.’. This kind of semantic extension was probably not characteristic of *kita- ‘see s.t.’. To denote intentional acts of visual perception POc speakers, like English speakers, could choose from a range of different transitive and intransitive verbs meaning, e.g. ‘look (at s.t.)’, ‘glance’, ‘look intently or closely’, ‘peer (at s.t.)’ and ‘look for s.t.’. There are many more verbs denoting kinds of visual activities than there are verbs denoting kinds of hearing, smelling, tasting and sensing by touch, and many of the former involve intent.

With regard to meanings where the stimulus or source is subject, POc perception verbs vary in their ability to occur as stative verbs. With verbs of *seeing* and *hearing*, stimulus-subject verbs are very rare in daughter languages. A single reconstruction, POc *kilat (U-verb) ‘be seen clearly, discerned, recognised’, (A-verb) ‘see clearly, discern, recognise’, has been made. Languages tend instead to use verbs unrelated to the transitive forms to represent meanings like ‘be visible/be seen/appear, be audible/be heard/sound’. When the focus is on the

outcome of hearing, languages generally have a range of stative verbs comparable to ‘be noisy, be loud’. We have collected a number of such terms but have made no reconstructions. Languages tend also to have many terms for specific sounds which can be used as stative verbs with source as subject. In such cases the act of perception is implied. A number of these verbs also act as nouns, a feature shared with those *smell* verbs that refer to specific odours.

In the case of *smelling* and *tasting*, however, stative verbs derived from actor-subject verbs are common in Oceanic languages and several such pairs have been reconstructed for POc, e.g. **s[a,o]ŋin* (vst) ‘emit a smell’ (alongside **s[a,o]ŋin-* (vt) ‘smell s.t.’), POc **quruŋ* (vst) ‘emit a smell’ (alongside **quruŋ-i* (vt) ‘to smell s.t.’) and POc **ña-ñami* (vi) ‘[be] tasty, taste good’ (alongside **ñami-* (vt) ‘to taste s.t.’). For verbs of *smelling* and *tasting* it is also possible to reconstruct stative verbs that refer to qualities specific to one sense, as POc **soŋo* ‘be acrid, pungent’, POc **masi(t)* ‘smell bad; [be] sour, acid, fermented’ **mamis* ‘[be] sweet’, **ña-ñami* ‘[be] tasty, taste good’ and **maqasin* ‘[be] salty’, although only **ña-ñami* is derived from an experiencer-subject verb. The others can be attached to appropriate nouns without the need for a verb of sensing.

The variations in the linguistic expression of the different senses that we find in Oceanic languages are grounded, at least in part, in the nature of the senses themselves. Each human sense operates under certain conditions that influence the way it is expressed. *See* and *hear* have a degree of commonality in that the experiencer must channel his or her focus on one aspect singled out from the many possible sights or sounds present. For Proto Oceanic, this focus is represented by the object of a transitive verb. In contrast, for *smell* and *taste* the sensation is likely to be the only one of that kind available to the experiencer at that moment. As with *feel*, it is likely that we know already what we are focusing on, particularly if we are in contact with the object perceived. So in Proto Oceanic it is more usual with *smell* and *taste* for the source to be the subject of an intransitive verb, if necessary with a qualifier.

Mention was made earlier of the possibility of a universal hierarchy within which the senses are ordered, which will predict the direction of semantic change. Viberg (1984) finds some evidence for the hierarchy sight > hearing > touch > smell, taste. Comparison of a large sample of Oceanic languages shows that most verbs of sensing have remained dedicated to a single sense. For most people, sight is the primary source of objective data about the world, and evidently was treated as such by Proto Oceanic speakers. We have no examples from a sample of many dozens of languages where a verb meaning ‘see’ has extended its meaning to other senses, although it can carry a cognitive meaning like ‘know’ or ‘recognise’.

In contrast, **roŋoR* ‘hear’ is the most semantically elastic of the sense terms. In some languages of the Solomons, Vanuatu and Polynesia, reflexes, still with the primary meaning ‘hear’, can be extended to ‘smell’, ‘taste’ and ‘feel’, although never to ‘see’. In the (admittedly very small) sample of eight languages in Table 21 (two from Southeast Solomonian, two from North Central Vanuatu and four from Polynesia) it can be seen that, besides *hearing*, the bundles of senses included are *hearing, smell and taste* (4), *hearing and touch* (2) and *hearing and taste* (1). There are no cases where *touch* is grouped together with *smell* and *taste* while excluding *hearing*. Thus, if the descriptions are accurate, it is noteworthy that the pattern of semantic extensions does not correspond exactly to Viberg’s hierarchy in that *see* remains outside the hierarchy, while in several languages *smell* and *taste* outrank *touch*.

Reflexes of POc **ñami-*, PPn **namu* ‘to taste s.t.’, have evidently undergone a shift in meaning in a number of Polynesian languages. Some reflexes now refer to odour as well as flavour, and the shift is complete in Pukapukan, Rennellese, Samoan and Tikopia, where

reflexes refer to odour alone. In view of this example it is possible that *taste* should precede *smell* in the hierarchy, although Viberg brackets the two together.

Table 21 Sense extensions of reflexes of POc **royoR* ‘hear’ in some Oceanic languages

	see	hear	smell	taste	touch
Lau	–	y	y	–	–
Gela	–	y	–	–	y
Mota	–	y	y	y	y
Raga	–	y	–	–	y
Samoan	–	y	y	y	–
Tikopia	–	y	y	y	y
Rennellese	–	y	–	y	–
Maori	–	y	y	y	y

A number of commentators have proposed that, when it comes to extending sensory verbs to refer to cognitive processes, humans are visual-centric. That is, verbs of cognition, like ‘know’, ‘think’ and ‘understand’, tend to be recruited from verbs of seeing. However, Evans and Wilkins (2000:549) write that

in Australian languages it is hearing, not vision, that regularly extends into the cognitive domain, going beyond the expected extension of ‘hear’ to ‘understand’ and on to ‘know’ ... and other cognitive verbs.

This contrasts with the Indo-European based pattern described by Sweetser (1990) in which vision is the precursor of knowing. Reflexes of POc verbs **kita* and **re(k,q)i* ‘see’ and **qilo* ‘be aware of, discern, see’, indicate that, as in the Indo-European pattern, ‘know’ is more closely affiliated with ‘see’ than ‘hear’. On the other hand, we have examples where ‘understand’ is an extension of both ‘see’ and ‘hear’. We do not have a large enough sample to draw a conclusion. It may be that context permits either.

Evans and Wilkins (2000:567) also describe the extension of meaning from ‘hear’ to ‘obey’ as common in Australian languages. We have examples of the same link from ‘hear’ to ‘listen’ to ‘obey’ across a number of subgroups (Southeast Solomonian, Micronesian, North and Central Vanuatu, Fijian, Polynesian). Sweetser (1990:42) writes that it is widely attested in Indo-European languages and suggests that the link may well be universal.

9 *Body part metaphors*

MEREDITH OSMOND

9.1 Introduction¹

It is part of the human condition that people speak of what is happening in their minds by equating it with something familiar in the physical world. Although emotions are cognitive appraisals they are felt physically, and languages the world over tend to express them through body part metaphors. Body part metaphors (BPMs) can also serve as a useful way of expressing non-emotional cognitive states or processes such as believing, remembering, agreeing, etc. and of referring to temperamental qualities such as timid or lazy. They are widely used in the Oceanic-speaking world, as chapters 10 and 11 show.

The following are examples from a range of Oceanic languages.²

Adm:	Seimat	<i>patu ailan</i>	[head hard/strong] ‘he is obstinate’
NNG:	Bukawa	<i>titaʔ gi-wing ai</i>	[belly.his it-accompany me] ‘he loves me’
PT:	Kiriwina	<i>i-tutu vovo-gu</i>	[it-hammer body-my] ‘I am excited’
MM:	Nakanai	<i>la hate-la mamasi</i>	[the liver-his salty] ‘he is angry’
SES:	’Are’are	<i>rae hitari-a</i>	[liver strikes-it] ‘understand’
NCV:	Mota	<i>lolo-bʷoŋ</i>	[insides-darkness] ‘be ignorant, forget’
Mic:	Ifaluk ³	<i>ye tewasi sexa-i</i>	[this be.torn belly-my] ‘I am grief-stricken’

Particular feelings are expressed as a body part + a predicate, either verb, adjective or noun, specifying the nature of the feeling. The body part is inalienably possessed (§3.1.1). The BPM usually takes one of two syntactic shapes. In the first construction, the body part is subject of the clause and the modifying expression is the predicate. In the second, a compound is formed (e.g. Mota *lolo-bʷoŋ* above) which is then used as a predicate, and the affected person is typically the subject. Klammer (2001) finds both constructions in Central Malayo-Polynesian languages of eastern Indonesia, and it is reasonable to infer that they both occurred in Proto Central/Eastern Malayo-Polynesian, the shared ancestor of these languages and Oceanic, and were continued into POC.

Less often, the body part is object of a verb (e.g. ’Are’are *rae hitari-a* above). For purposes of comparison these expressions are generally given here in the way in which they are often included in wordlists, i.e. without grammatical elements.

¹ Particular thanks are due to Malcolm Ross for advice during preparation of this chapter. I have also benefitted from discussions with Paul Geraghty, Alan Jones and Ralph Lawton.

² Glosses given in square brackets are morpheme-by-morpheme glosses.

³ Ifaluk is a Micronesian atoll whose speakers are closely related to those of Woleai. Its emotional domain has been described in detail by Lutz (1988).

In the examples of complex lexemes in this chapter and the following chapters, the same conventions are used as elsewhere. A monovalent (directly possessed) noun is shown with a final hyphen. Thus Takia *ilo-* ‘insides’ represents *ilo-g* ‘my insides’, *ilo-n* ‘her/his/its insides’ etc. In a few languages, e.g. Wayan Fijian, the possessor is marked by a prefix rather than a suffix, and the hyphen is thus initial rather than final. A transitive verb is also often shown with a final hyphen, indicating an object suffix, and verbs generally are sometimes shown with an initial hyphen, indicating a subject prefix. As a result, in a BPM a space between words is sometimes crucial. Thus in To’aba’ita *manata- ruarua* ‘be undecided, of two minds’ is a BPM in which *manata-* ‘mind’ + possessor suffix is the subject and *ruarua* ‘be two’ is the predicate, while *manata-ruarua* with the same meaning is a compound predicate.

The question to be explored here is whether expressions of this kind can be reconstructed for POc, and, if they can, what body-part nouns are implicated in these reconstructions. Reconstructions for specific terms for cognitive states, emotions and character attributes are found in chapters 10 and 11.

BPMs are one pattern for forming complex (polymorphemic) lexemes in Oceanic languages. Another widespread pattern is the serial verb construction.

9.2 Implicated body parts: POc **qate-* and **lalom*

Speakers of Oceanic languages typically identify emotions, temperamental qualities and some cognitive processes as emanating from either their liver, POc **qate-* (§3.7.6), or a quasi-body part, POc **lalo-/lalom* (vol.2:237), here translated as ‘insides’ or ‘mind’, although other body parts may be represented. Both are reconstructable at least as far back as PMP with both a literal and a metaphorical meaning.

9.2.1 POc **qate-*

A reading of the glosses in the following cognate set gives some idea of the breadth of the concept of POc **qate-* ‘liver’ in various Oceanic languages.

PAn **qaCay* ‘liver’ (ACD)

PMP **qatay* ‘liver; seat of the emotions, inner self: core, mind, will, desire, feeling, intelligence, understanding; to want or wish; hollow of the palm of the hand or sole of the foot’ (ACD)

POc **qate-* ‘liver; seat of emotions and thoughts’

NNG: Mbula	<i>kete-</i>	‘liver; chest; place of (often uncontrolled) feelings, used in many BPMs describing emotional states’
NNG: Gedaged	<i>ate-</i>	‘heart (as will), the centre of one’s being; loyalty’
NNG: Bukawa	<i>ata?</i>	‘belly, stomach (internal); seat of emotions’
PT: Bwaidoga	<i>ase-</i>	‘liver; seat of emotions’
PT: Dobu	<i>ʔate-</i>	‘liver, seat of emotion’
PT: Motu	<i>ase</i>	‘liver’, used also in set phrase <i>ase kuro tauna</i> ‘a white liver of a [= brave] man’
MM: Nakanai	<i>hate-</i>	‘liver, seat of emotion; solar plexus’
MM: Tangga	<i>ete-</i>	‘liver or solar plexus, the seat of the emotions’

SES:	Kwaio	<i>sae- ~ lae-</i>	'liver'
SES:	Sa'a	<i>sae-</i>	'heart, mind, liver, lungs, chest'
SES:	'Are'are	<i>rae-</i>	'stomach, heart, liver, lungs, womb, mind, seat of affections, intention, will'
Mic:	Marshallese	<i>ac</i>	'liver, spleen; seat of bravery'
Fij:	Bauan	<i>yate-</i>	'the liver, considered as the seat of cowardice and courage'
Fij:	Wayan	<i>ate</i>	'the liver, traditionally considered the locus of courage and fear'
Pn:	Rennellese	<i>ʔate</i>	'liver'
Pn:	Tikopia	<i>ate</i>	'liver; in man a seat of emotions in traditional belief'
Pn:	Maori	<i>ate</i>	'liver; the seat of the affections; heart; emotion; spirit, high feeling'
Pn:	Hawaiian	<i>ake</i>	'liver; to desire, yearn (the emotions and intelligence were thought to be centred in the body)'

Expressions based on **qate-* are numerous and include:

NNG:	Gitua	<i>ate mutu</i>	[liver broken] 'surprised'
NNG:	Mutu	<i>ate i mot</i>	[liver it-broken] 'surprised, shocked, heart-broken, taken aback'
		<i>ate i zi</i>	[liver it decreased] 'rest, calm down'
		<i>ate yabyab</i>	[liver hurt] 'longing for s.t. one cannot have'
NNG:	Bukawa	<i>ataʔ ʔade</i>	[liver -his hot] 'angry'
PT:	Dobu	<i>ʔate-ʔeidaida</i>	[liver-crushed] 'afraid; fear'
		<i>ʔate-gu i pisali</i>	[liver-my it-explode] 'very angry'
PT:	Bwaidoga	<i>ase-bou</i>	[liver-dry] 'courage, boldness'
		<i>ase-ʔaulolo</i>	[liver-in.pain] 'be greatly affrighted/grieved/in anguish'
		<i>ase-kolukolu</i>	[liver-plucked] 'alarm, terror'
PT:	Motu	<i>ase kuro</i>	[liver white] 'brave'
MM:	Nakanai	<i>la-hate-la raga</i>	[the-liver-his leap] 'he is startled'
		<i>la hate-la mamasi</i>	[the-liver-his salty] 'he is angry'
SES:	Sa'a	<i>sae hiruʔa</i>	[liver busy/engaged] 'preoccupied'
		<i>sae asi</i>	[liver throw.away] 'forgive, neglect'
		<i>sae tataʔala</i>	[liver bad] 'hate'
		<i>sae rukerʔa</i>	[liver joyful] 'joy'
		<i>sae ʔaelaʔa</i>	[liver evil] 'be evil-minded, greedy'
		<i>sae maʔo</i>	[liver finished] 'mental satisfaction'
		<i>sae huu</i>	[liver sad] 'grieve'
SES:	Kwaio	<i>lae-fou</i>	[liver-revealed] 'brave, unashamed'
SES:	'Are'are	<i>rae riki</i>	[liver-sad] 'be sad, sorry'
		<i>rae hitari-a</i>	[liver strikes-it] 'understand'
Mic:	Marshallese	<i>eccelok acin</i>	[without liver] 'he is not brave'
Fij:	Bauan	<i>yate dei</i>	[liver firm] 'courageous'
		<i>yate levu</i>	[liver large] 'cowardly'

Fij:	Wayan	<i>ate levu</i>	[liver large] ‘cowardly’
Pn:	Rennellese	<i>kai ʔate</i>	[eat liver] ‘talk badly about others, gossip’

It is worth noting here that while **qate-* emotion BPMs are numerous in Western Oceanic languages and Sa’a, and to a lesser degree in ’Are’are and Kwaio, they are scarce elsewhere. Motu, Marshallese and Bauan and Wayan Fijian reserve ‘liver’ for use in expressions of bravery and cowardice. François (2013:204) notes that reflexes of Proto Torres-Banks **vara* ‘liver’ are only used in daughter languages in expressions of awe and fear.⁴ Although the liver is recorded as linked to emotion in four Polynesian languages, Rennellese, Tikopia, Maori and Hawaiian, compound terms containing a reflex of **qate-* have been found only in Rennellese (*kai ʔate* [eat liver] ‘talk badly about others, gossip’ and *hekaiʔki oku ʔate* [eat of one’s own liver] ‘be very angry’). Firth (1985) records that in Tikopia *ate* occurred only in ancient speech involving traumatic situations.

A number of languages have replaced their term for ‘liver’ in emotion and cognition BPMs with one for ‘belly’ or ‘heart’, terms that for our purposes here are regarded as equivalent. A Huon Gulf language, Yabem, uses *ttaʔ* ‘belly, bowels, stomach’ from *ti* ‘liver, lung’+ *taʔ* ‘excrement’, in its body part metaphors. While the Arosi dictionary glosses *sae* (from **qate-*) as ‘mind, heart, thought; only in phrases’, many relevant terms are instead compounded with *ahu* ‘belly, heart, mind, feelings’. Although Kwaio uses *lae* ~ *sae* for some emotions (*lae-fou* ‘brave, unashamed’, *lae-nia* ‘desire, like, love’), it uses *oga* ‘belly, mind’ for angry-type terms (*oga-lia* ‘be angry, sorry’). To’aba’ita uses *rake* ‘belly’ for expressions of anger, courage and fear. Lau also uses *rake* ‘stomach; heart, mind, seat of affections’ for expressions of anger: *rake ayoaŋo* [belly hot] ‘be angry’, *rake ʔiri* [belly cut] ‘be violent, angry’, but extends it to other feelings: *rake diana* [belly good] ‘to be kind and generous’, *rake moumoula* [belly afraid] ‘timid, afraid’, *rake sasū* [belly smoking] ‘sulky’, *rake fanefane* [belly excited] ‘impetuous, in a hurry’. Other languages may equate ‘heart’ in this sense with ‘liver’ in some contexts. Two closely related North Coast languages Gedaged and Takia, apparently extend the meaning of *bube-*, a term for liver, to refer also to the heart as the seat of emotion.

9.2.2 POc **lalom*

The second term, POc **lalo-*, **lalom*, glossed ‘inside’ in volume 2 (p237), also occurs widely with the additional meaning ‘mind, seat of thoughts and emotions’. The form **lalo-* is the directly possessed (monovalent; §§3.1.1–2) form of the zero-valency noun **lalom*, and the latter is henceforth used in the text as a proxy for both forms. Dictionary glosses of reflexes of **lalom* refer to ‘mind’ in languages of North New Guinea, Papuan Tip, Southeast Solomonic, both North/Central and South Vanuatu, Micronesia and Fijian, and there are frequent examples of both emotional and non-emotional cognitive states in the metaphors collected.

⁴ The Codrington-Palmer *Dictionary of Mota* notes that men ate the *varai* ‘liver’ of a corpse in order to get *mana* for courage and strength.

PMP **dalem* ‘inside, interior; seat of emotions’ (Blust 1993a: ‘inside, interior’)

PCEMP **daləm* ‘inside; mind, feelings’ (Blust 2009b:66)⁵

POc **(N, N Loc) *lalo-, *lalom* ‘inside; seat of thoughts and emotions’

NNG: Mutu	<i>lolo-</i>	‘inside; metaphor for one’s feelings, emotions, intentions’
NNG: Gedaged	<i>ilon-</i>	‘inside; seat of thought, will and emotions and therefore heart; mind, self, soul, contents of memory’
NNG: Yabem	<i>(ŋa)liləm</i>	‘inside; seat of emotions’
NNG: Mbula	<i>lele-</i>	‘insides; will; seat of emotions (mostly controlled)’
PT: Motu	<i>lalo-</i>	‘the inside; the mind’
	<i>lalo-a</i>	(VT) ‘to think, remember’
PT: Lala	<i>lalo-</i>	‘the mind’
PT: Muyuw	<i>nanon</i>	‘mind, thoughts’
PT: Kiriwina	<i>nano-</i>	‘mind, intelligence’
MM: Nakanai	<i>ilo-</i>	‘inside’
SES: Arosi	<i>raro-</i>	‘the inside, inner part; the feelings, heart, mind, disposition’

PNCV **lolo-* ‘inside; heart, seat of feelings and thoughts’

NCV: Mota	<i>lolo-i</i>	‘the inner part; the inward part of man, heart, affections’
NCV: Nokuku	<i>lolo-n</i>	‘in his heart’
NCV: Lonwolwol	<i>lol</i>	‘the seat of affections or feelings; the heart’
NCV: Paamese	<i>ēn</i>	‘inside, interior, middle; seat of some emotions, cognitive processes and body states’

PSV **leli-* ‘heart, seat of feelings, insides’

SV: Kwamera	<i>rer-</i>	‘internal portion, insides, heart, mind, feeling, emotion’
SV: Anejom	<i>lele-</i>	‘heart, seat of emotions’

PMic **lalo-* ‘seat of emotions, mind’

Mic: Kiribati	<i>nano-</i>	‘soul, conscience, hearts, will, desire, sentiment, opinion, conviction, disposition, inclination etc.’
Mic: Mokilese	<i>lolo</i>	‘inside’
Mic: Woleaian	<i>raro</i>	‘inside, mind, heart’

cf. also:

Fij: Bauan	<i>loma-</i>	‘inside: used in many compounds denoting temperamental qualities’

The following is a selection of terms containing reflexes of **lalo-* :

NNG: Mutu	<i>lolo i taŋ</i>	[insides it weep] ‘yearn for s.t.’
	<i>lolo i sami</i>	[insides it dirtied/ruined] ‘be sad, lonely, down-hearted, have pity’
	<i>lolo i gur</i>	[insides it placed] ‘think about, concentrate on’

⁵ Blust (2009:66) suggests that inclusion of ‘mind’ in reflexes of PMP **dalem* is an innovation of CEMP languages.

NNG: Gedaged	<i>ilo-n gage</i>	[insides-his bare/enlarged] ‘rational, logical, intelligent, shrewd, astute’
	<i>ilo-n dajan</i>	[insides-his entire] ‘wise, considerate, determined, energetic, forceful’
	<i>ilo-n kebaze</i>	[insides-his crosswise] ‘thwarted; astonished, at a loss, wondering’
NNG: Yabem	<i>(ŋa) wapa?</i>	[(its)insides heavy] ‘grief-stricken’
NNG: Mbula	<i>lele isāna</i>	[insides deteriorate] ‘feel sorry for s.o., compassionate’
	<i>lele a^mbai</i>	[insides good] ‘happy, contented, at peace; grateful; free from worry, care, anger or sorrow’
		[insides-quick/easy] ‘eager’
PT: Motu	<i>lalo-haraga</i>	[insides-hot] ‘angry’
	<i>lalo-siahu</i>	[insides-unwilling] ‘disheartened, fed up, weary of’
	<i>lalo-hesiku</i>	[insides-firm] ‘self-restrained, fearless’
	<i>lalo-auka</i>	[insides-thinking.about] ‘anxious; consider’
	<i>lalo-haguhi</i>	[insides-heavy] ‘unwilling’
	<i>lalo-metau</i>	[insides-in.unity] ‘agree’
	<i>lalo-tamona</i>	[insides fat] ‘happy’
PT: Lala	<i>lalo nama</i>	[inside-sad] ‘mournful, sad, disturbed’
MM: Nakanai	<i>ilo-buruko</i>	[insides-greedy] ‘greedy’
	<i>ilo-vilovi</i>	[insides-summon/grasp] ‘mindful’
	<i>ilo-tavu</i>	[insides-irritated/annoyed] ‘ill-feeling’
NCV: Mota	<i>lolo-anu</i>	[insides-pity] ‘merciful’
	<i>lolo-magarosa</i>	[insides-good] ‘good-hearted, kindly’
	<i>lolo-wia</i>	[insides-gentle] ‘soft-hearted, of easy temper’
	<i>lolo-malumlum</i>	[insides-in.two.directions] ‘doubtful, hesitating’
	<i>lolo-varuarua</i>	[insides-bite/itchy] ‘angry, irritated’
	<i>lolo-gagara</i>	[insides-daylight] ‘enlightened, intelligent; remember’
	<i>lolo-maran</i>	[insides-darkness] ‘ignorant; forget’
	<i>lolo-b^woŋ</i>	[insides-blocked] ‘sad, sorrowful, melancholic’
	<i>lolo-wono</i>	[insides clear] ‘remember’
	<i>ēn mese</i>	[insides in darkness] ‘ignorant; forget’
NCV: Paamese	<i>ēn voboŋ</i>	[insides-blocked] ‘surprised, fall unconscious’
	<i>ēn-von</i>	[insides pity] ‘feel sorry for’
	<i>ēn māhisi</i>	[insides sweet] ‘happy’
	<i>ēn kās</i>	[insides-dry/desiccated/burnt] ‘angry’
	<i>lolo-koru</i>	[insides-drying.out/dying] ‘cross, angry’
NCV: Araki	<i>lolo-korukoru</i>	[insides-go.down] ‘patient’
NCV: Tamambo	<i>lolo-jivo</i>	[insides-its dark] ‘forget’
NCV: Nokuku	<i>lolo-n oora</i>	[insides-??] ‘happy’
SV: Kwamera	<i>reri-ragien</i>	[insides-??] ‘remember, recall’
	<i>reri-rarhi</i>	[insides-warm] ‘compassion, pity, sympathy
Mic: Kiribati	<i>nano-aŋa</i>	(aŋa ‘to warm oneself at fire’)

		<i>nano-puaka</i>	[insides-bad] ‘resentment, bitterness, rancour, spite, ill-feeling’
		<i>nano-ata</i>	[insides-skull.of.dead] ‘to have foreboding, suspicion’
		<i>nano-matoa</i>	[insides-firm] ‘strong-willed, strong, constant, energetic’
		<i>nano-kawa</i>	[insides-miserable/pitied] ‘unhappy, sad, desolate, broken-hearted’
		<i>nano-paraki</i>	[insides-capsized/turned over] ‘dejected, discouraged, cast down’
		<i>nano-mano</i>	[insides-impervious, water-tight] ‘discreet, deep, sly, sullen’
		<i>nano-mara</i>	[insides-decomposing.fish] ‘disgusted, sick, discouraged’
Mic:	Woleaian	<i>raro-ilaji</i>	[insides-typhoon] ‘be worried, frightened, insecure’
		<i>raro-m^wei</i>	[insides-period.of.time] ‘feel sad, lonely’
Mic:	Mokilese	<i>lo-leid</i>	‘lonely, homesick’
		<i>lo-m^w</i>	‘afraid, wary’
Mic:	Chuukese	<i>ɽɽɽɽɽ (ɽɽru-irer)</i>	‘sorrow, concern, regret, unease, worry’
		<i>ɽɽɽɽɽ (ɽɽru-wɽ)</i>	[insides-face] ‘feel spiteful, envious’
Fij:	Bauan	<i>loma-ðā</i>	[insides-bad] ‘evil-minded, malicious’
		<i>lomaloma-rua</i>	[insides-double] ‘be in two minds’
		<i>loma qā</i>	[insides shell-hard] ‘hard-minded, headstrong’
		<i>loma kasa</i>	[insides immobile] ‘have retentive memory’

It is worth noting from the above that few BPMs have been located from Meso-Melanesian languages and none from the Southeast Solomons. Gaps in the former may be due simply to lack of data, while in the latter, terms other than **lalom* reflexes are now used. Although Arosi has a reflex of **lalom*, its role in BPMs of emotion is filled by *ahu* or *hau* both forms glossed ‘belly, mind, feelings, particularly in compounds’.

9.3 Terms implicating other body parts

As well as varying their term for ‘liver’ by employing a broadly equivalent term such as ‘belly’ or ‘heart’, as in Yabem, Gedaged, Takia, Kwaio, Lau, Arosi and To’aba’ita and no doubt others, languages may also use other body part terms, particularly those for ‘mouth/voice’ and ‘face’, as these body parts play a significant role in expressing feeling. Takia (NNG) speakers, for instance, use *awa-* ‘mouth, voice’ (from POc **qawa* ‘mouth, opening’; §3.4.12.3) in BPMs meaning ‘agree’, ‘obey’ (follow s.o.’s mouth), ‘believe’, ‘accuse’, ‘promise’ and ‘answer’.

In Takia (Ross, pers. comm.) although the majority of terms to do with the emotions and the mind come from *ilo-* (from POc **lalo-*), smaller roles are played by *bube-* ‘liver’ (replacing *ate-*), *awa-* ‘mouth, voice’ and *nao-* ‘face’ (from POc **nako-*; §3.4.7).

NNG:	Takia	<i>ilo- wei</i>	[insides- many] ‘be in doubt’
		<i>ilo- murua-</i>	[insides- heavy-it] ‘be sad’
		<i>bube- yai i-nani</i>	[liver fire it-cook] ‘very angry’
		<i>bube- sakar</i>	[liver hard/firm/strong] ‘hard-hearted, stubborn’

<i>awa- i-loŋ</i>	[mouth it-follow] ‘obey, believe’
<i>awa-uraru</i>	[mouth-two] ‘two-faced, hypocritical’
<i>nao- i-didi</i>	[face- it-swell] ‘be stony-faced, impassive’

In Kiriwina (PT; Lawton n.d.), BPMs that refer to a person’s feelings and inner states may come from the body (*vovo-*, from PWOc **popo-* ‘the complete skin’; §3.2.1), mind (*nano*⁶), belly (*lopo-*), head (*daba-*) and eye (*mata-*, from POc **mata-*; §3.4.9.1). Thus:

PT:	Kiriwina	<i>i-tutu vovo-gu</i>	[it-hammers body-my] ‘I am excited’
		<i>i-kubukubu nano-gu</i>	[it-quivers mind-my] ‘I am astonished’
		<i>i-yowa lopo-la</i>	[it-flew belly-his] ‘He leapt in surprise’
		<i>i-kapisi lopo-la</i>	[it-feels pity belly-her] ‘She is sorry/mourns/ feels pity’
		<i>i-minimani daba-la</i>	[it-tough/strong head-his] ‘he is stubborn’
		<i>i-gibu mati-la</i>	[it-passive eye-his] ‘he sulks, is sullen’

Lawton lists numerous examples of near synonyms where only the body part is varied (e.g. *i-mama mati-la* [it-weary eye-his] vs *i-mama nona* [it-weary mind] and others where different contexts are appropriate (*iluva nona* [body happy through shared food] vs *i-b^waina nona* [it-good mind] vs *i-m^wasila nona* [it-shy mind], all three loosely translated by ‘happy’). Many such metaphors are capable of varying interpretations and may require context of situation to be fully understood. By such means, Kiriwina speakers have hundreds of ways in which they can express mental states.

The adoption of other body part terms has evolved in various ways in daughter languages, muddying further a straightforward division between **qate-* and **lalom* BPMs. In Papuan Tip and Southeast Solomonian languages, specific terms for ‘mind’ serve as the base term for mental states. A number of Papuan Tip languages have largely replaced **lalo-* reflexes with reflexes of PPT **nua-*, reflecting POc **nuka-* ‘mind, thought’ (§10.3), in labelling their mental states while retaining their **qate-* reflexes.

PT:	Dobu	<i>nua-yai</i>	[mind/insides-hold.firmly] ‘remember’
		<i>ʔate pisali</i>	[liver explode] ‘very angry’
PT:	Kukuya	<i>nua vi-avini</i>	[mind/insides it-hold] ‘remember s.o., s.t.’
		<i>nua-pania</i>	[mind/insides-harden] ‘forget s.t.’
PT:	Bwaidoga	<i>nuwa aboda-na</i>	[mind/insides untidy/uncleared-it] ‘closed mind’
		<i>ase kolukolu</i>	[liver plucked] ‘alarm, terror’
		<i>ate-vatu</i>	[liver-strong] ‘being unmoved, bold, brave’

The two reflexes in combination may have originally meant feeling something ‘inside the liver’:

PT:	Dobu	<i>ʔate-nua-ʔoleʔole</i>	[liver-inside-pity] ‘compassion’
PT:	Kukuya	<i>ate-nuanuai</i>	[liver-inside-at] ‘have compassion, sympathy’

Some Malaitan languages of the southeast Solomons, (Lau, Kwaio and To’aba’ita) use reflexes of POc **manaca(m)* ‘think, understand, think about...’ (§10.3), glossed below as ‘mind’ as a base term for temperamental qualities and cognitive states. (Gela has *manaha* ‘to

⁶ Although Kiriwina *nano-* ‘mind’ is not the expected reflex of POc **lalo-* ‘inside’, it may have been borrowed from a regular reflex of **lalo-* in another PT language in which *l > n.

know, understand, appreciate’, but no compounds are listed.) ’Are’are speakers use it rather to describe behaviour.

SES: Lau	<i>manata buro</i>	[mind rust] ‘forget’
	<i>manata ofu</i>	[mind together/whole] ‘have common sense’
	<i>manata mamana</i>	[mind true] ‘believe’
SES: Kwaio	<i>manata fana</i>	[mind hunt] ‘think about, remember’
	<i>manata dalia</i>	[mind find] ‘remember, recall’
	<i>manata ʔafu</i>	[mind complete] ‘know all about’
	<i>manata oli</i>	[mind return] ‘have second thoughts about’
SES: To’aba’ita	<i>manata dora</i>	[mind not.know] ‘forget s.t.’
	<i>manata leqalā</i>	[mind goodness] ‘good thinking, wisdom’
	<i>manata kuluqalā</i>	[mind heavy] ‘sadness’
SES: ’Are’are	<i>manata siani</i>	[behaviour good] ‘behave correctly’
	<i>manata ori</i>	[behaviour returned/changed] ‘correct oneself’

The term for mouth/voice seems to have evolved into voice/throat independently in different places, occurring in non-cognate form as a base term in Mapos Buang (NNG), some southeast Solomonic languages (Gela, Bugotu, Lau and To’aba’ita), the Vanikoro languages of Temotu, and Marshallese. This may have evolved from the belief that the mind resides in the throat or larynx, as described by Malinowski for Kiriwina.

Malinowski, describing Trobriand Island magic, writes:

The mind, *nanola*, by which term intelligence, power of discrimination, capacity for learning magical formulae and all forms of non-manual skill are described, as well as moral qualities, resides somewhere in the larynx. The natives will always point to the organs of speech, where the *nanola* resides. ... The memory, however, the store of formulae and traditions, learned by heart, resides deeper, in the belly. A man will be said to have a good *nanola* when he can acquire many formulae, but though they enter through the larynx, naturally, as he learns them, repeating word for word, he has to stow them away in a bigger and more commodious receptacle; they sink right down to the bottom of his abdomen. (1922:408-409)

Senft, whose Trobriand fieldwork was carried out some seventy years after Malinowski, records a similar belief. His informant explained what happens when he whispers his magic formulae. As Senft translates it, “If I whisper magic, the magic(al formula) will go from the belly to my larynx and then I whisper magic. I speak (the) magic(al formula).” (1998:89). The larynx is thus recognised as the active agent or vehicle of the brain and mind.

That this belief is widespread is demonstrated by the following phrases recorded by Firth (1985) in his Tikopia dictionary:

te maanatu e fai i te manava, ki te atami ‘memory is produced in the belly by the mind’

te atami te tanjata ena i na manava, fenatu ki na ʔutu, muna rei ‘the thoughts of a person are there in his belly, come up to his mouth, and he speaks’

while a Woleaian term from Sohn & Tawerilmang’s (1976) dictionary reinforces the same idea:

segali (VT) ‘remember it (in his stomach instead of his mind)’.⁷

Mapos Buang (NNG) has a term *kʷa-*, defined by Rambok & Hooley (2010) as ‘neck, throat; mind, will; idea, thought’, and reflecting POc **kʷa* ‘say’. which occurs as a base in

⁷ In our orthography *sexari*.

BPMs for emotions, including *kʷa-paya* ‘miserable, unhappy, sad’, *kʷa-pesivin* ‘sorry for/compassionate’ and *kʷa-ketuin* ‘sorry, sad, depressed, miserable’ as well as for a number of temperamental qualities—*kʷa-srɛsk* ‘cunning’, *kʷa-veroq* ‘carefree’, *kʷa-tupin* ‘quick-witted’—and cognitive states (*kʷa luu* ‘doubtful’, *kʷa-seyohek* ‘confused’, *kʷa-virek(in)* ‘forget’).

The term for ‘throat’, found as a basis for emotion and cognition BPMs in Gela, Bugotu, Lau and To’aba’ita, reflects POC **liqoR* ‘neck, voice’. In Gela it appears to have become the generic base for all emotions while in Lau and To’aba’ita it may have referred to actual voice quality. It may also be simply a literal description of a physical state as in the Lau expression for ‘thirsty’, literally ‘dry throat’.

SES: Gela	<i>lio padi</i>	[voice lacking] ‘confused, puzzled; ashamed’
	<i>lio dika</i>	[voice bad] ‘sad, sorry’
	<i>lio papara</i>	[hot voice] ‘keen, zealous’
	<i>lio patu</i>	[voice hard] ‘daring, brave’
	<i>lio sakai</i>	[voice one] ‘single-minded; faithful, loyal’
SES: Bugotu	<i>lio sikei</i>	[voice one] ‘determined/resolute’
SES: Lau	<i>lio rodoa</i>	[voice dark] ‘sad’
	<i>lio sasu</i>	[voice smoking/burning] ‘angry’
	<i>lio mābe</i>	[voice soft] ‘peaceable, quiet, meek’
	<i>lio lalaŋa</i>	[voice dry] ‘thirsty’
	<i>ro si lio</i>	[two of voice] ‘in two voices’
SES: To’aba’ita	<i>lio dila</i>	[voice sliding] ‘be very sad, dejected, heartbroken’
	<i>lio dora</i>	[voice not.know] ‘forget s.t., forget to do s.t.’
	<i>lio toqo</i>	[voice learned/informed] ‘be knowledgeable, talented, gifted, wise’

The Vanikoro languages in the Temotu group also treat the neck or throat as the seat of emotions and feelings. Although terms for ‘throat’ are not cognate in the three languages quoted, semantic collocations are identical and morphosyntactic constructions largely correspond:

TM: Vano	<i>warene gamitu i-tu</i>	[throat we it-blocked] ‘we are sorry/sad’
TM: Tanema	<i>vasare gamuto i-to</i>	[throat we it-blocked] ‘we are sorry/sad’
TM: Teanu	<i>awa kupa i-su</i>	[throat we it-blocked]] ‘we are sorry/sad’
	<i>awa ene i-aka</i>	[throat I it-blow] ‘I am angry’ (François 2009:120)

Marshallese, apparently alone among Micronesian languages, also uses ‘throat’ (*bōro*) as a base for temperamental qualities:

Mic: Marshallese	<i>bōro jepel</i>	[throat diverging/separate] ‘disagree, non-co-operative’
	<i>bōro kadu</i>	[throat short] ‘short-tempered’
	<i>bōro pejpej</i>	[throat shallow] ‘fickle, unstable’
	<i>bōro lap</i>	[throat big] ‘wasteful, spendthrift’

François (2013:204) notes that Torres-Banks languages occasionally describe certain feelings using other body parts – such as the diaphragm (Proto Torres-Banks **mʷala*) for

surprise; the belly (**to^mb^wa*, from POc **tob^wa-* ‘belly, stomach’; §3.7.4) for desire; the liver (**vara*) for awe and fear, while the head (**b^watu*, from POc **b^watu(k)* ‘head’; §3.4.2.2) refers to mind, intelligence: Mwotlap *ni-b^wti na-wak* ‘your head is open’, i.e. ‘you’re open-minded, you have a curious mind’.

In Proto Polynesian, POc **lalom* shifted its primary sense to ‘under’. Its place was taken by PPn **loto*, both in the sense of ‘inside’ and, used with a modifying element, ‘a particular kind of feeling, desire or disposition’.

Pn:	Tongan	<i>loto kovi</i>	‘ill-disposed, disagreeable, malicious’ (<i>kovi</i> ‘bad, harmful, evil, wrong’)
Pn:	Niuean	<i>loto kai</i>	‘be greedy, selfish’ (<i>kai</i> ‘eat’)
Pn:	Pukapukan	<i>loto kino</i>	‘high-tempered, hard to calm down’ (<i>kino</i> ‘bad, awful’)
Pn:	Samoan	<i>loto leaŋa</i>	‘jealous, envious’ (<i>leaŋa</i> ‘bad, evil’)
Pn:	Tokelauan	<i>loto-tele</i>	‘brave, confident’ (<i>tele</i> ‘travel under sail’)
Pn:	Hawaiian	<i>loko ʻino</i>	‘merciless, cruel’ (<i>ʻino</i> ‘wicked, immoral, sinful’)

As Gerber explains it in her exploration of Samoan emotion,

The *loto* can perhaps best be described as a quasi-organ. When asked where their *loto* is, Samoans nearly always indicate their chests; in fact they are inclined to translate the word in English as ‘heart’. They nevertheless recognise that the *loto* is not the same as the physical heart, *fatu*. In its function, the *loto* apparently serves as the origin of a number of feelings, desires and thoughts which arise inside a person. Some external circumstance will cause “something to happen” or “something to arise” in the *loto*. But Samoans believe that some things can simply grow in the *loto* for no apparent reason. (Gerber 1985:187).

For example,

Pn:	Samoan	<i>loto vāivai</i>	[<i>loto</i> weak/tired] ‘timid’
		<i>loto tele</i>	[<i>loto</i> much] ‘brave’
		<i>loto malie</i>	[<i>loto</i> sweet] ‘cooperative, compliant’

Although Samoan has a nominalised verb, *laŋona* (from the verb ‘to feel, perceive with the senses’), that groups together what we would refer to as feelings (anger, love) and sensations (pain), the more emotional *laŋona* can be distinguished by the fact that they are thought to occur in the *loto*, while physical sensations stem from the body (Gerber:187).

Polynesian languages have a way of identifying that a feeling is an enduring disposition rather than a transient emotion by substituting reflexes of PPn **aŋa* ‘habit, custom, way of acting’ for **loto*. Thus:

Pn:	Tongan	<i>loto fīemālie</i>	‘contented, satisfied’
		<i>aŋa fīemālie</i>	‘of a contented and easy-going disposition’.

This may lead to distinctions in meaning, as in

Pn:	Samoan	<i>loto leaŋa</i>	‘jealous of, be envious of’
		<i>aŋa leaŋa</i>	‘unkind, cruel’
		<i>loto vāivai</i>	‘timid, afraid’
		<i>aŋa vāivai</i>	‘gentle, mild-tempered’

9.4 The emotion/cognition continuum: **qate-* vs **lalom*

POc speakers wishing to express their feelings evidently had a choice between **qate-* and **lalom*, both reconstructed here with similar meanings. In this situation it is likely that they were used in subtly different ways. The two may be represented as lying at opposite ends of a continuum that spans emotions, temperamental qualities and non-emotional cognitive states, all involving some kind of mental processing but not all involving strong physical expression. For instance, there are feelings such as boredom and compassion and perplexity that may be described as both an emotion and a mental state, and if the continuum serves as a measure of physical expression these will be placed somewhere in the middle. It is apparent from the glosses given to the **qate-* reflexes above that **emotion** is emphasised rather than **mind** (mind is mentioned in the definition of the term only in SES languages). In contrast, the **lalom* reflexes refer to **mind** in all subgroups. Those Papuan Tip languages that use **nua-* ‘mind/insides’ as a base for their cognitive states have used it to replace **lalom* reflexes while retaining their **qate-* reflexes. Closer examination of languages where we have reasonable amounts of data and where the relevant data is largely limited to BPMs using either ‘liver/belly/heart’ or ‘insides’ may throw further light.

In his Gedaged (NNG) dictionary, Mager gives roughly equal space, numbering several dozen BPMs, to both those with *bube-* ‘liver; heart as the seat of emotions, feelings, character’, and those with *ilon-* (reflecting **lalom*) ‘insides; seat of thought, will and emotions, and therefore in this sense the heart; mind, self, contents of memory’. Overwhelmingly, emotions accompanied by strong physical feeling (gleeful, distraught, discouraged, in turmoil etc.) and temperamental qualities (cowardly, proud, meek) are linked with *bube-*, while mental states and processes (comprehend, determine, reflect, decide etc.) occur with *ilon-*.

Takia, closely related to Gedaged, also divides the field between *bube-* ‘liver; heart as the seat of emotions, feelings, character’ and *ilo-* ‘insides; seat of thought, will and emotions’ (Bruce Waters, unpublished vocabulary). Although in broad terms *bube-* is used for emotions such as ‘amazed, ‘very angry, ‘heart-felt satisfaction, and ‘hard-hearted, it is found in fewer than 20 BPMs; *ilo-* with over 200 examples, has a far wider range, including ‘desire’, ‘forget’, ‘forgive’, ‘tempt’, ‘worry’, ‘dislike’, ‘believe’, ‘agree’, ‘delight’, ‘be happy’, ‘afraid’, ‘confused’, ‘sad’, ‘relieved’, ‘confident’ and so on, feelings that might be thought of mainly as states of mind rather than emotional states.

Bugenhagen (2001) has endeavoured to summarise the situation in another NNG language. In a comparison between the various body part terms employed in Mangap-Mbula, Bugenhagen (p95) writes that body image expressions containing *kete* ‘liver, chest’ (from **qate-*) never express pure cognition. He adds (p96) that “the preeminent emotional function of *kete-* is to express rash, impetuous responses which are not well thought through, and strong emotions like anger”. In contrast, *lele* (from **lalom*) is rarely used to express any sort of physical sensation or experience. The examples he gives with *lele* (pp87–94) include more controlled emotions like feeling contented, sorry for someone, troubled about something, anxious, relieved, and a variety of cognitive functions like choosing, doubting, approving.

NNG: Mangap	<i>kete imap</i>	[liver end] ‘be astonished, have one’s breath taken away’
	<i>lele iurur</i>	[insides be.putting] ‘perplexed, not knowing what one wants to do’

lele i^mbol [insides strong/firm] ‘not easily persuaded to do things’.

Very few Nakanai BPMs are found in Chowning’s (2014) data, but those few support the theory that in general **qate-* is favoured for impetuous, strong emotions while **lalom* is preferred for non-emotional cognitive concepts:

MM: Nakanai	<i>la hate-la raga</i>	[the liver -his leap] ‘he is startled’
	<i>la hate-la mamasi</i>	[the liver -his stinging/burning/salty] ‘he is angry’
	<i>ilo-buruko</i>	[insides-sad] ‘mournful, sad, disturbed’
	<i>ilo-vilovi</i>	[insides-greedy] ‘greedy’
	<i>ilo-tavu</i>	[insides-summon/grasp] ‘mindful’

However, there are examples from Yabem that indicate that the choice between ‘belly, bowels, stomach’ or ‘insides’ is made on grounds that are more difficult to discern. Zahn & Streicher’s Yabem dictionary lists about two dozen BPMs based on *ηalilom* ‘inside; heart, as seat of emotions’ (from **lalom*) and over a hundred based on *teta?* ‘belly, bowels, stomach’ whose meaning is perhaps better captured by ‘guts’. A striking property of these is that a dozen or so entries can be used with either base term, with little or no apparent change in meaning:

NNG: Yabem	<i>teta? lulu</i>	[guts.his twofold] ‘he is in doubt’
	<i>ηalilom lulu</i>	[his.insides-twofold] ‘he is in doubt’
	<i>teta? keka? ar</i>	[guts.his pulls me] ‘I feel compelled’
	<i>ηalilom keka? ar</i>	[insides pull me] ‘I feel compelled’
	<i>teta? ηawapa?</i>	[guts.his heavy] ‘anxious, depressed, grieves, mourns’
	<i>ηalilom ηawapa?</i>	[his.insides heavy] ‘heavy-hearted, full of sorrow, dispirited’
	<i>teta? ηadani</i>	[guts.his thicket] ‘disinclined, is uneasy, anxious, has misgivings, unwilling, uncooperative, ungrateful’
	<i>ηalilom ηadani</i>	[his.insides thicket] ‘hard-hearted, inaccessible, reserved, taciturn’
	<i>teta? kitu malō</i>	[guts.his it.stand peaceful] ‘contented, happy’
	<i>ηalilom kitu malō</i>	[his.insides it.stand peaceful] ‘appeased’.

Choice of term here evidently depends on finer points of personal interpretation of circumstances, unknown to those outside the situation. Perhaps for some emotions the speaker can choose whether to emphasise the physical nature of the feeling by using *teta?* (e.g. ‘happy’) or indicate that other circumstances are involved by using *ηalilom* (e.g. ‘appeased’).

Further insight is raised by McElhanon (1977) regarding the relative uses of ‘belly’ vs ‘insides’ in Selepet, a non-Austronesian language of the Huon Gulf whose expressions closely parallel those in this chapter. McElhanon writes:

A working assumption is that the cognitive space allotted to the psychological function of any given body part is discrete. Therefore, if a lexicographer cites two or more body parts as

constituting, for example, the ‘seat of the emotions’, it is possible that some basic and distinctive feature of the system has been overlooked. In the early stages of Selepet lexicography the analysts listed both the ‘belly’ and the ‘inside’ as representing the seat of the emotions. This was only superficially true because further investigation revealed that the former represents one’s emotions in a sociological context and expresses such feelings as generosity, approval, desire, lust, jealousy, loneliness, pity, selfishness, and reconciliation. The latter reflects one’s personal attitude or frame of mind and expresses feeling and attitudes such as diligence, faithfulness, tenacity, eagerness, anticipation, excitement, satisfaction, despair, anxiety and regret. Furthermore, it is used of one’s emotions and attitudes about others only if they are members of one’s immediate family. (McElhanon 1977:10)

The insights of Bugenhagen and McElhanon indicate that the distinction in meaning between ‘belly/liver’ and ‘insides’ may be very subtle, possibly varying from language to language, and difficult to identify even by those with a close familiarity with the language. Dictionary definitions do not provide enough scope for a researcher to identify such subtleties. Perhaps the best that can be claimed is that, in POc daughter languages, emotions accompanied by a strong physical sensation are more likely to be linked with **qate-* reflexes while non-emotional mental states tend to use reflexes of **lalom*. However, choice of term may be influenced by finer points of personal interpretation or other circumstances, unknown to those outside the situation. The question of POc usage can probably not be more clearly defined without detailed semantic analysis of a range of languages across the Oceanic region, far beyond the scope of the present study.

However, notwithstanding the above, **qate-* remains preeminently the source of bravery in its reflexes. The only qualities expressed by **qate*-based metaphors in Motu, Marshallese, and Bauan and Wayan Fijian, are those to do with bravery or its lack:

PT:	Motu	<i>ase kuro</i>	[liver white] ‘brave’
Mic:	Marshallese	<i>eccelok acin</i>	[liver without] ‘he is not brave’
Fij:	Bauan	<i>yate levu</i>	[liver big] ‘coward’
		<i>yate lialia</i>	[liver foolish] ‘courageous’
Fij:	Wayan	<i>ate levu</i>	[liver big] ‘coward’.

9.5 The modifying terms

When used as a general expression of emotion, i.e. without additional contextual information, the modifying terms tend to cluster around a limited number of physical attributes, e.g. (be) ‘good’, ‘bad’, ‘heavy’, ‘big’, ‘hot’, ‘hard’ and so on, terms that metaphorically evoke the physical state of the experiencer when feeling happy, sad, angry and so on. Reflexes of POc **p^(w)atu* ‘outer shell, skull’ (§3.4.2.1), by extension, ‘firm, strong, unyielding’, are readily applied to qualities like ‘stubborn’ or ‘brave’. More extreme emotions can be expressed more vividly—a Lau BPM meaning ‘angry/violent’ is *rake ʔiri* (*rake* ‘heart, mind, seat of affections’; *ʔiri* ‘to chop up; impale’), while Samoan *loto-momomo* ‘grief-stricken’ includes *momomo* ‘smashed in pieces’. Others like Lau *lio rodoa* [voice dark] ‘sad’ and *lio mābe* [voice soft] ‘peaceable, quiet, meek’ literally describe voice quality. Expressions of sadness may include a verb meaning ‘hang the head’, e.g. Gela *lio ligi* (*lio* ‘seat of emotions’; *ligi* ‘descend’). The Lau BPM for ‘envy/jealousy’ is *ʔunu-ʔunu*, from *ʔunu* ‘to murmur, whisper’. The Mota expression *lolo suwa-suwa* ‘loathing, feeling of repulsion’ includes *suwa* ‘bow down and draw back’.

However, the biggest difficulty in capturing adequate translations of these metaphors is that modifying words with the same basic meaning are capable of varying English interpretations. Reflexes of POc **wai-waiR* ‘watery’ are found in Samoan *loto vāivai* ‘timid, faint-hearted’, while its Tokelauan cognate, *loto vāivai* is glossed ‘discouraged, unhappy’. Mota *vara lava* and Bauan Fijian *yate levu* both have the literal meaning ‘liver big’ translatable as ‘coward, cowardly’ while Tongan *loto lahi* (*loto* big) is given the opposite interpretation, ‘brave/bold/determined’. Bauan Fijian has two expressions that may be roughly translated as ‘courageous’: *yate dei* (‘firm, unwavering liver’) and *yate lialia* (‘mad, foolish liver’), thus including additional components of meaning not present in the English term. Conversely, Yabem (NNG), Kiriwina (PT) and Mota (NCV) all use a verb translated as ‘quiver’ to express an emotion, but in Yabem the emotion is nervousness, anxiety (*ɲalilɔm ɲagogo* ‘my inside quivers’), in Kiriwina the emotion is astonishment, (*i-kubukubu nano-gu* [it-quiver mind-my] ‘my mind quivers’), and in Mota the emotion is shame, shyness (*ape-maragai* ‘my heart quivers’).

9.6 Conclusion

Although a mere two POc reconstructions are identified in the following chapters—**lalo-rua* ‘be of two minds, undecided, have doubt’ (§10.8) and **qate- p^(w)atu* ‘brave’ (§11.3.2.1)—there is ample evidence across subgroups of particular feelings or thoughts being expressed by BPMs that share the same underlying metaphor. Expression of such concepts in this way is a well-established feature of Austronesian languages, apparently as far back as Proto Austronesian, as BPMs encoding emotions are found in Tsou (Huang 2000), which scholars agree is either part of a three-language first-order Austronesian subgroup or a first-order subgroup in its own right. Blust (ACD) has partially reconstructed several PMP terms **X qatay*, where the BPMs are consistently translatable as ‘afraid’ (literally ‘small liver’), ‘brave, courageous, proud, arrogant’ (‘big liver’), ‘angry, furious’ (‘burning liver’), ‘full of malice’ (‘rotten liver’), ‘resentful, offended’ (‘sick, hurt liver’) and ‘pure-hearted’ (‘white liver’). The modifying terms are not all cognate, but they share the same meaning. Klammer (2001) suggests that *eti* ‘liver’ (from PMP **qatay*) was the Kambara (CMP) term for ‘seat of emotions’, whilst the corresponding term in Buru (CMP) was *lale-* ‘inside’, cognate with POc **lalom*. It is thus reasonably certain that BPMs with both **qate-* and **lalom* were inherited into POc from an earlier Austronesian interstage.

Our inability to reconstruct more BPMs than are presented here can be attributed to several factors.

- the tendency inherent in us all, but perhaps particularly so among people with a strong rhetorical tradition, to continually rework the images contained in metaphors so that they remain vivid. Perhaps this is the reason that base terms other than **qate-* and **lalom* are often replaced by, for example, terms meaning ‘mind’, ‘voice’ or ‘throat’.
- the tendency of daughter languages to divide up the **qate-/lalom* continuum in idiosyncratic ways.
- the fact that we are seeking to reconstruct ways in which POc speakers lexified their emotional spectrum by dictionary searches – that is, by looking first for equivalent terms for English words.

Expanding on the third point, qualifying words are capable of varying interpretations, as illustrated in §9.5 above. A Tokelauan speaker's expression *loto vāivai* may be translated in one place by 'weary', in another by 'discouraged, unhappy'. In other words, there is no precisely defined relationship that holds between a metaphor and its physical attribute. English translations may seize on one aspect of a word's meaning, but ignore other equally valid interpretations. The only instances where a one-to-one relationship may hold across languages is where a numerical modifier is used, as in the cognitive concepts 'to doubt' and 'to agree'. Here 'to doubt' is expressed literally as 'to be of two minds', and 'to agree' is 'to be of one mind' (§§10.8–9). Terms collected across the Oceanic-speaking world for these two expressions show remarkable uniformity of gloss: the English translation is semantically an exact fit.

Compound expressions for emotions, temperamental qualities and some cognitive states have only been recorded in a small number of the available dictionaries, and those listed are undoubtedly only a fraction of those in use. But dictionary translations are rarely adequate for the purposes of this chapter and chapters 10 and 11. Oceanic speakers may lexify the emotional spectrum in ways that differ significantly from an English speaker. For instance, a Kiribati term is *nano-mano*, defined by Sabatier (1971) as 'discreet, deep, sly, sullen' (*nano* 'inside, disposition etc.', *mano* 'impervious, water-tight'). To an English speaker these character traits are quite distinct in meaning, and although some shared element of meaning can be identified, there is no English term that encompasses them all. Consequently, it must be recognised that any comparison of dictionary terms with similar English glosses is a poor substitute for comprehensive discussion of such terms on a language-by-language basis.

White (1985:329) argues that "with a topic as complex, affectively charged, and socially significant as this (the linguistic expressions for personal characteristics or emotions), analysis of language quickly moves from the study of referential semantics to questions of inference and pragmatics".

And such matters are beyond dictionary definitions.

10 *Cognition*

MALCOLM ROSS AND MEREDITH OSMOND

10.1 Introduction

A cognition verb like ‘know’, ‘think’, ‘understand’ or ‘remember’ denotes a concept that speakers are aware of because it denotes an event within their own minds, but often has only indirect correlates in the perceived world. As a result, speakers of different languages classify cognitive events in rather different ways, requiring us first to gain some insight into how speakers of present-day Oceanic languages classify these events.

English cognition verbs tend to cover a range of events. The verb *think* has a considerable range of meanings:

1. *Don’t talk to me—I’m thinking.* (cogitation)
2. *I think John stole the key.* (belief, opinion)
3. *I didn’t think of it* (‘I forgot it.’)
4. *I thought I would go shopping* (intention)
5. *I keep thinking about poor Mary* (‘I’m worried because she is ill’ OR ‘I’m saddened by her death’ OR ‘I would like to be with her’)

To be sure, a native speaker disambiguates each meaning in context. The progressive aspect in the present tense (... *am thinking*) in (1) indicates that this is thinking in the sense of cogitation. The complement clause (... *I would go shopping*) in (4) points to intention.

There is probably no other language in the world with a verb whose range of meanings exactly corresponds to those of English *think* (not even close neighbours like French or German do), but many of our sources give English glosses consisting of a single cognition verb like ‘think’, leaving us ignorant of how the verb thus glossed is used.

To gain insight into how speakers of present-day Oceanic languages classify cognitive events, we have first tried to ensure that we compare like with like semantically. A list of semantic frames for cognition terms was drawn up. A semantic frame is a description of an event, relation, or entity and the participants involved in it.¹ Making the list was a two-step procedure. First, the FrameNet website² was consulted. It provides semantic frames for a very large number of English lexemes and, for example, distinguishes the various senses of English

¹ Semantic frames are part of Frame Semantics, a theory of meaning deriving from the work of Charles J. Fillmore (see especially Fillmore 1982, 1985, Croft & Cruse 2004:8–22 and *passim*.).

² <https://framenet.icsi.berkeley.edu/fndrupal/>.

think. Second, frames were defined that reflect meanings found in dictionaries of Oceanic languages for cognitive states and activities. Semantic frame labels appear below in small capitals. Terms for each frame were found in dictionaries of four Oceanic languages: Nakanai (MM; Chowning 2014), To'aba'ita (SES; Lichtenberk 2008), Mwotlap (NCV; François 2012) and Wayan Fijian (Pawley & Sayaba 2003) and are tabulated in the sections on knowing (§10.2), thinking (§10.3) and remembering (§10.5). This constituted a check of the appropriateness of the list of frames and of their possible representation in POC. In the event, several cognition frames that were supported by dictionary glosses did not lead to the reconstruction either of forms or of metaphorical structures, and they are omitted here. These include 'not know, be ignorant' (often a simple verb), 'think about, long for', 'be on one's mind, have s.t. on one's mind', 'remember to do s.t.', 'forget to do s.t.', 'hope' and 'expect'.

A larger language sample would have been ideal, but identifying semantic frames requires sentence examples. These are absent from Chowning (2014), but the latter is the best available dictionary of a MM language. Because semantic frames are subject to borrowing by bilingual speakers, and NNG and PT languages have all been in contact with Papuan languages at various points in their histories, they are probably poor indicators of POC's frames and were therefore excluded from the sample, meaning that WOC could be appropriately represented only by a MM language.

There is a tendency for terms denoting abstractions to be metaphors that refer to less abstract concepts. Metaphors in turn are often encoded by complex lexemes; that is, lexemes made up of two or more simple lexemes. Complex lexemes include body-part metaphors (BPMs; ch.9), serial verb constructions (SVCs),³ and compounds derived from either of these, and apparently these have long been productive lexeme-creating devices, as they are also present in Central Malayo-Polynesian and South Halmahera/West New Guinea languages and were apparently constructions of Proto Central/Eastern Malayo-Polynesian. We can be sure that complex lexemes with these structures occurred in POC.

Each section below discusses a single cognition frame or a set of related frames. Sections discussing further frames could be added, but these would not contain reconstructed forms. They would at best list the meanings of complex lexemes together with supporting data, and these are already well enough represented in the chapter.

10.2 Knowing

Verbs encoding three semantic frames denote knowledge in Oceanic languages:

- AWARE, e. g. 'I know that he is coming.'
- ACQUAINTED, e. g. 'I know him well.'
- EXPERT, e. g. 'I know how to plant yams.'

³ Oceanic SVCs are described by Crowley (2002) and in the contributions to Brill & Ozanne-Rivierre (2004).

Their distribution across verbs in the four witness languages is shown in Table 22.⁴ In Mwotlap, Wayan and To'aba'ita one verb is used for all three frames, but To'aba'ita also has dedicated EXPERT verbs. Nakanai has distinct verbs in each frame, but the AWARE verb *rovi* also occurs in the ACQUAINTED compound *rovi-lala*. The morpheme *-lala* is perhaps related (diachronically, at least) to *lalai* 'to try (to do s.t.)'. If so, it has a similar meaning to To'aba'ita *toʔo*, which means 'to try, test' in a number of compound verbs (§8.5) including apparently *θaitoʔoma-* 'know', but does not occur independently.

Table 22 Verbs of knowing in the four witness languages

	AWARE	ACQUAINTED	EXPERT
	'know (s.t. /that ...)'	'know/recognise (s.o.)'	'know/learn (how to ...)'
Nakanai	<i>rovi</i>	<i>mata-kilala</i> [look-(know)] <i>rovi-lala</i> [know-?]	<i>tahai, mari</i>
To'aba'ita	<i>θai-toʔoma-</i> [(know)-?]		<i>θaitoʔoma-</i> , <i>filo-</i> , <i>filorani-</i> , <i>maʔalutani-</i> [eye-?], <i>dau-fifirisi-</i> [? -thoroughly]
Mwotlap	<i>eylal</i>		
Wayan	<i>kilāti-</i>		

The glosses on the second line of Table 22 are intended to capture the fact that in certain contexts (e. g. in the presence of a perfective marker) ACQUAINTED and EXPERT verbs often have dynamic punctual senses, respectively 'recognise (s.o.)' and 'learn (how to ...)'.⁴

The POc 'know' verb with the most widely distributed reflexes is **kilala*. It appears to have had AWARE, ACQUAINTED and EXPERT senses, to judge from the more specific glosses in the cognate set below, but it is difficult to be certain. WOc glosses match the PMP gloss, ACQUAINTED. The trisyllabic form is unusual, and there is reasonable evidence for a transitive alternant **kila-i-* from which the third root syllable was deleted.

PMP **kilala*, 'know (a person), recognise, be acquainted with; feel, perceive' (ACD)

POc (vi) **kilala*, (vt) **kilala-i-*, **kila-i-* 'know'

Adm: Mussau	<i>kile</i>	'know'
NNG: Lukep (Pono)	<i>-kil-</i>	'recognise'
NNG: Mangap	<i>-kilaala</i>	(VT) 'know well, recognise, be aware, understand'
NNG: Manam	<i>-kilala</i>	'recognise'
NNG: Bariai	<i>kilala</i>	(N) 'memorial, monument, mnemonic'
NNG: Amara	<i>klele</i>	(VT) 'know'
NNG: Aria	<i>-ile</i>	(VT) 'know (s.o.)'
MM: Nakanai	<i>(mata)kilala</i>	'know, recognise (s.o.)'
MM: Madak	<i>kilem</i>	'know'

⁴ Bolded verbs are identical across frames. Glosses in square brackets give senses of compound elements. Parentheses indicate that an element does not occur independently with this meaning, which is inferred either from occurrence in several compounds or from cognates in closely related languages.

MM:	Kubokota	<i>yila-yila</i>	‘know’
MM:	Lungga	<i>yi-yila-i</i>	‘know’
MM:	Nduke	<i>yi-yile-</i>	‘know’
MM:	Roviana	<i>yilani-</i>	‘know’ (- <i>n-</i> for †- <i>l-</i>)
MM:	Hoava	<i>yilali-</i>	‘know’
SES:	Birao	<i>hila-hila</i>	‘know’
SES:	Lengo	<i>yila-yila-</i>	‘know’
SES:	To’aba’ita	<i>ʔilala</i>	‘perform divination’
SES:	Arosi	<i>ʔirara</i>	‘know, understand, perceive’
SES:	Owa	<i>ʔirara</i>	‘know’
TM:	Natügu	<i>klɔ</i>	‘know’
NCV:	N Ambrym	<i>kela</i>	‘know’
NCV:	Paamese	<i>kilea</i>	‘know, know how to, be able to’
NCV:	Lewo	<i>kilia</i>	(VT) ‘know, understand’
NCV:	Mota	<i>yilala</i>	‘know, understand’
NCV:	Mwotlap	<i>eylal</i>	‘know’
NCV:	Sakao	<i>köl</i>	‘look for, find’
SV:	Sye	<i>okili</i>	‘know’
NCal:	Nemi	<i>hina</i>	‘know’
NCal:	Iaai	<i>xanā</i>	‘know’
PMic <i>*kila, kila-a, kila-i-</i> ‘know’			
Mic:	Kosraean	<i>(a)kile(n)</i>	(VT) ‘notice’
Mic:	Kiribati	<i>kinā</i>	‘recognise, know’
		<i>kina-i</i>	(VT) ‘recognise, know’
Mic:	Marshallese	<i>kile-y</i>	‘recognise, realise, distinguish, be familiar with, identify, notice, perceive’;
Mic:	Chuukese	<i>sire</i>	‘know how (to do s.t.), be skilled’,
		<i>sire-e-</i>	(VT) ‘know s.o.’
Fij:	Bauan	<i>kila[-]</i>	‘know, understand’

A number of languages have verbs that are formally similar to the reflexes above but have meanings that indicate that they more probably reflect POc **kilat* (VI) ‘be seen clearly, discerned, recognised’, (VT) ‘see clearly, discern, recognise’ (§8.2).

NCV:	Tolomako	<i>kile-</i>	‘see’,
NCV:	Araki	<i>kila</i>	‘watch, look (in a certain direction)’
NCV:	Atchin	<i>kila</i>	‘look round, down’
NCV:	Avava	<i>kil-kila</i>	‘look, open eyes’
Mic:	Ponapean	<i>kila(ŋ)</i>	‘see, discern, look at, observe, examine’
Mic:	Woleaian	<i>xle</i>	‘be clear, seen clearly, recognised’
Pn:	Rennellese	<i>kiga</i>	(VSt) ‘be clearly seen, in plain sight’

The Wayan verb *kilāti-* ‘know’, on the other hand, conflates a form reflecting **kilat* with the sense ‘know’.

From the glosses of the data below, POc **qataq, *qataq-i-* evidently meant ‘know, understand, realise (that)’, encoding AWARE. In a few languages the verb has the same form as the reflex of **qate-* ‘liver’ (§3.7.6). Despite the role played by **qate-* in bodypart metaphors,

particularly those expressing emotions (§9.2.1), however, the resemblance seems to have emerged by chance. Final **-q* is attested in Mutu and Namakir.

POc (vi) **qataq*, (vt) **qataq-i*- ‘know, understand, realise (that)’

Adm:	Nyindrou	<i>ata(na)</i>	‘come to know, realise, understand’ (syntactically a verb, but the subject is encoded as a possessor suffix, e. g. <i>atana-k</i> ‘I realise’)
NNG:	Kilenge	<i>ota-i</i>	‘know’
NNG:	Mutu	<i>watay-i</i>	‘know’
NNG:	Gitua	<i>wata</i>	‘know’
NNG:	Bariai	<i>oata-i</i>	‘know, learn’
NNG:	Kove	<i>ata-i</i>	‘know’
NNG:	Mangseng	<i>ate</i>	‘recognise, see that’
PT:	Iamalele	<i>ʔase(ta-i)</i>	‘know, understand’
PT:	Dawawa	<i>kata-i</i>	‘learn’
PT:	Tubetube	<i>kata-i</i>	‘know’
PT:	Saliba	<i>kata-i</i>	‘know’
PT:	Suau	<i>ʔata</i>	‘know’
PT:	Misima	<i>ate(na)</i>	‘know, understand’
PT:	Sudest	<i>yarei-yarei</i>	‘know, understand’
MM:	Notsi	<i>ati</i>	‘know’
MM:	Nehan	<i>ate, iate</i>	‘know’
MM:	Halia	<i>atei</i>	‘know’
MM:	Mono-Alu	<i>atae</i>	‘know s.o.’
SES:	Longgu	<i>ɔai-</i>	‘know, understand, be accustomed (to doing); be able (to do)’
SES:	Marau Sound	<i>rae-</i>	‘know’
SES:	Lau	<i>sai(toma), sai(tama)</i>	‘know (s.t., s.o.)’
SES:	To’aba’ita	<i>θai(toʔoma-)</i>	‘know’
SES:	’Are’are	<i>rai-</i>	‘know, understand’
		<i>rai hitari-</i>	‘know well’ (<i>hitari-</i> (vt) ‘split’)
TM:	Asumboa	<i>kata</i>	‘know’
NCV:	Namakir	<i>ʔataʔ</i>	‘know’
NCV:	Nguna	<i>atae</i>	‘know’
NCV:	Lelepa	<i>tae-</i>	‘know’
NCV:	S Efate	<i>tae</i>	‘know’
		<i>(nroŋ)tae</i>	‘recognise by hearing’
		<i>(mro)tae</i>	‘understand’ (<i>mro</i> ‘think’)
		<i>(le)tae</i>	‘realise, recognise, identify’ (<i>le</i> ‘look, see’)

PMic **ata*, **ata-i*- ‘know, understand’

Mic:	Ponapean	<i>εεε</i>	‘know, understand (s.t.)’
Mic:	Kiribati	<i>ata-i</i>	(vi) ‘know, have knowledge’,
		<i>ata-a</i>	(vt) ‘know (s.t.)’;
Mic:	Kosraean	<i>etɿ</i>	‘know, understand (s.t.)’

The first morpheme of PPn **qata-mai* ‘intelligent, expert, clever’ evidently reflected POc **qataq*.

PPn **qata-mai* ‘intelligent, expert, clever’ (POLLEX)

Pn:	Tongan	<i>ʔatamai</i>	‘intelligent, intelligence’
Pn:	Samoa	<i>atamai</i>	‘intelligent, clever’
Pn:	Anutan	<i>atamai</i>	‘mind, meaning’
Pn:	Tuvalu	<i>atamai</i>	‘skilful, able; skill, ability’
Pn:	Emae	<i>atamai</i>	‘wise, wisdom’
Pn:	Nukuoro	<i>adamai</i>	‘recollect/recall past events/persons’
Pn:	Pukapukan	<i>atamai</i>	‘wish, desire; intelligent, having common sense’
Pn:	W Futunan	<i>atamai</i>	‘right-minded, sane, clever’
Pn:	Tahitian	<i>atama</i>	‘wisdom, intelligence, wise, intelligent’
Pn:	Hawaiian	<i>akamai</i>	‘clever, expert’
Pn:	Māori	<i>atamai</i>	‘knowing, quick-witted; malicious’

POc evidently had another term with an EXPERT meaning, **taqu*, but it is reflected with reasonable certainty only in Anejom (SV) and in Polynesian languages, and two PPn terms are reconstructable: **tau* ‘skilful at, familiar with’ and **mātau* ‘know, understand, be experienced’. The latter has an apparent Banoni (MM) cognate, allowing the reconstruction of POc **ma-taqu* (**ma-* was a stative formative; §1.3.5.4).

PAn **Caqu* ‘know how, be able to, be skilled at’ (ACD)

PMP **taqu* ‘know how, be able to, be skilled at’ (ACD)

POc **taqu* ‘know how, be able to, be skilled at’

SV:	Anejom	<i>a-tou</i>	‘know, know how to, be able, understand, be certain, be sure’ (John Lynch, pers. comm.)

PPn **tau* ‘skilful at, familiar with’ (POLLEX)

Pn:	Tongan	<i>tau</i>	‘skill that one is accustomed to do’
Pn:	Tuvalu	<i>tau</i>	‘proper, necessary, possible, compulsory’
Pn:	Pukapukan	<i>tau</i>	‘to fit, look nice’
Pn:	Rarotongan	<i>tau</i>	‘be suitable, befit, able, to be possible’
Pn:	Sikaiana	<i>tau</i>	‘be fit or suitable’
Pn:	Takuu	<i>tau</i>	‘equal to a task’
Pn:	Tikopia	<i>tau</i>	‘be accustomed, used to, adapt, fit’
Pn:	W Futunan	<i>tau</i>	‘follow in the ways of, take after, learn from’
Pn:	Māori	<i>tau</i>	‘be able, be suitable’

cf. also:

NNG:	Manam	<i>to</i>	‘learn’

POc **ma-taqu* ‘know, understand, be experienced’ (also ‘right-hand’: §3.6.3)

MM:	Banoni	<i>matō</i>	‘know, be smart’
Fij:	Wayan	<i>mātau</i>	(vst) ‘be familiar to s.o’. (subject the thing that is familiar), ‘accustomed to, used to’ (experi-

			encer marked by oblique case)
		<i>matau</i>	‘right-hand side’
Fij:	Bauan	<i>matau</i>	‘be right-handed’
PPn <i>*mātau</i> ‘know, understand, be experienced’ (POLLEX)			
Pn:	Tuvalu	<i>matau</i>	‘clever, experienced, right hand’
Pn:	Tongarevan	<i>mātau</i>	‘accustomed to, usual’
Pn:	Rarotongan	<i>mātau</i>	‘have knowledge of, be accustomed to, be in the habit of’
Pn:	Tuamotuan	<i>mātau</i>	‘understand’
Pn:	Māori	<i>mātau</i>	‘know, understand’
cf. also:			
Fij:	Rotuman	<i>macau</i>	‘be expert, skilful’ (-j- for †-t- or †-f-)

It is well known that in many languages a perception verb may also mean ‘know, understand (s.t.)’ (Aikhenvald & Storch 2013, Evans & Wilkins 2000, Viberg 1984). English uses ‘I see’ to mean ‘I understand’, i.e. an AWARE sense. This semantic extension occurs occasionally in Oceanic languages. A few NNG languages use a reflex of POc **reki[-]*, **requi[-]* ‘see, look, see s.t., look at s.t.’ (§8.2) also in the sense ‘know’:

NNG:	Mangap	<i>re</i>	‘see, look, experience; consider, think, be aware’
NNG:	Yabem	<i>li?</i>	‘see, look at s.t., know, have experience’
NNG:	Lamogai	<i>rik</i>	‘see, know’

A similar extension of meaning occurs with PPn **kite* ‘see, appear, know’ from POc *kita-i-* ‘see s.t.’, and Raga (NCV) *ilo* ‘know, perceive’ from POc **qilo* ‘be aware of, discern, see’ (§8.2). The transitive reflex of POc **qilo*, namely PPn **qilo-* (vi) ‘to know, be aware’, (vt) ‘know s.t.’, had been fully repurposed as a verb of knowing.

Reflexes of POc **roŋoR-* ‘hear s.t., listen to s.t.’⁵ with the additional sense ‘know’ are sufficiently widespread to raise the possibility that this sense was already present in POc.

NNG:	Mutu	<i>-lōŋ</i>	‘know how to’
NNG:	Bing	<i>-luoŋ</i>	‘know’
NNG:	Takia	<i>-loŋ</i>	‘hear, listen, perceive, know’
NNG:	Gedaged	<i>-loŋ</i>	‘know, have knowledge of, be aware of, hear, learn, perceive, understand’
PT:	Wedau	<i>-nonori</i>	‘know’
PT:	E Mekeo	<i>loŋo</i>	‘know’
PT:	NW Mekeo	<i>oŋo</i>	‘know’
MM:	Nakanai	<i>lolo</i>	‘hear, understand, know’
MM:	Sursurunga	<i>a-loŋr-a</i>	‘hear; listen and understand’
MM:	Nehan	<i>loŋoro</i>	‘hear, understand’
SES:	Sa’a	<i>roŋo</i>	‘hear, listen, hear tidings of, understand’
NCV:	Lakon	<i>ruŋ</i>	‘hear, feel; obey, know’

⁵ Reflexes of POc **roŋoR-* raise a number of formal challenges. These are discussed in §8.3.

Lexical replacement has evidently been frequent among verbs of knowing, and many reconstructions can be made of verbs that are reflected in just one subgroup. Some are listed here in the hope that their origins may eventually be identified.

Proto Willaumez **maci* ‘know’ (Goodenough 1997)

MM:	Bola	<i>mari</i>	‘know’
MM:	Nakanai (Bileki)	<i>mari</i>	‘know’
MM:	Nakanai (Maututu)	<i>masi</i>	‘know’

Proto Papuan Tip **siba* ‘know’

PT:	Bohutu	<i>siba</i>	‘know’
PT:	Hula	<i>riba</i>	‘know’
PT:	Balawaia	<i>riba</i>	‘know’
PT:	Motu	<i>diba</i>	‘know’

The verbs below reflect **sagova*, **sagov-i-* ‘know’, reconstructable to a lower-order interstage within the Papuan Tip cluster.

PT:	Gumawana	<i>-yagoi-</i>	‘understand s.t., know s.t. /s.o.’
PT:	Iduna	<i>-yakovi-</i>	‘recognise s.o.’
PT:	Gapapaiwa	<i>-akova</i>	(VI) ‘know, understand’
PT:	Anuki	<i>-akovi-</i>	‘know’
PT:	Ubir	<i>-sagob</i>	‘know’

All languages below reflect **b<in>isi*, but Nokuku also reflects **bisi*, implying that **bisi* is the root and that **<in>* reflects the POC nominalising infix, the resulting nominalisation having been reanalysed as a verb in these languages.

PNCV **bisi*, **b<in>isi* ‘know’

NCV:	Raga	<i>binihi</i>	‘think, consider’
NCV:	Nokuku	<i>pi-pinis</i>	‘know’
		<i>pisi-</i>	‘know, understand, be able’,
NCV:	Tolomako	<i>pinisi-</i>	‘know’
NCV:	Kiai	<i>pinisi</i>	(VI) ‘be able to, know’
		<i>pinisi-</i>	(VT) ‘know’

Interestingly, many Oceanic languages have distinct verbs for ‘not know (s.t.), be ignorant of (s.t.)’ and for ‘not recognise (s.o.)’, but none of the terms found is cognate with any of the others. Some terms are evidently monomorphemic, like Lou *tən* ‘not know’, Mangap *-kus* ‘not recognise’, Takia *-ŋaon* ‘not know’, whilst others, like Balawaia *yita-lea* ‘not recognise’ (*yita* ‘see’ + *lea* ‘miss’) and Wayan *kila sēti-* ‘not recognise’ (*kila* ‘know (s.t., s.o.)’ + *sēti-* ‘do s.t. wrongly’) are clearly serial verb constructions.

10.3 Thinking

Across languages verbs of thinking fall into two broad semantic frames:

- OPINE, e. g. ‘I think/believe that he is coming.’
- COGITATE, e. g. ‘I think of/about him/this a lot.’

Table 23 shows that in all four witness languages there is a verb (in bold) that embraces both frames, but in Nakanai, To’aba’ita and Wayan there are other verbs with somewhat more specialised meanings. None of this is surprising. English has *believe*, *surmise*, *guess*, *suspect* and *suppose* as OPINE verbs, and a number of COGITATE verbs: *cogitate on*, *consider*, *ponder*, *reflect on*, *contemplate* and others, each with a different shade of meaning. Dictionaries often do not encapsulate these shades of meaning well.

Table 23 Verbs of thinking in the four witness languages

	OPINE	COGITATE
	‘think/believe (s.t. /that ...)’	‘think about/consider (s.t.)’
Nakanai	<i>gabū</i> , <i>ule</i> , <i>vei</i> , <i>kau</i>	<i>gabū</i> , <i>aliale</i> , <i>loho-tavu</i> [cogitate-towards], <i>ilo-tavu</i> [inside-towards], <i>hilo-tavu</i> [see-towards]
To’aba’ita	<i>manata</i> , <i>sore-</i>	<i>manata-i-</i> , <i>loloma</i> , <i>ono-toʔo-</i> [belly-(test)]
Mwotlap	<i>dem</i>	
Wayan	<i>nūmi-</i>	<i>nūmi-</i> , <i>lēŋa-i-</i>

OPINE verbs seem to occur less frequently in Oceanic discourse than they do in European languages, and there are at least two reasons for this.

First, OPINE verbs differ from AWARE verbs (§10.2) in that a complement clause of the latter is taken to be a fact, whereas the complement clause of an OPINE is not. *I know John is a teacher* entails the proposition *John is a teacher* as a fact, but *I think John is a teacher* doesn’t guarantee the truth of the proposition. One result of this is that in English *I think* is often little more than a marker of possibility, i.e. ‘perhaps’. The Tok Pisin term for ‘perhaps’ is *ating*, transparently reflecting English *I think*, and many Oceanic languages have a corresponding sentence adverb that is glossed in dictionaries ‘perhaps, I think’; e. g., Mangseng (NNG) *ava*, Misima (PT) *tabam*, Muyuw (PT) *adók*, Tawala (PT) *nugote*, Ramoaina (MM) *bi-garj*, Sursurunga (MM) *gut*, Teop (MM) *aekas*, Kwaio (SES) *baleʔe*, Mwotlap (NCV) *so*. Of these, however, only the Tawala adverb has a derivational relationship to an OPINE verb (see below), and it seems that in Oceanic languages OPINE verbs typically do not have this bleached ‘perhaps’ function.

Second, OPINE is quite often expressed by a language’s default verb of saying, so that in Baluan (Adm), for example, it is sometimes difficult to tell whether the speaker intends the complement of *p^wa* to be spoken or simply thought (Dineke Schokkin, pers. comm.). Bugenhagen & Bugenhagen (2007) gloss the Mangap sentence

Nio aŋ-so ina a^mbai som
I I-say that (DEM) good not

as both *I say that is not good* and *I think that is not good*. Thus the meaning of the example ‘say/think’ verbs listed below is something like ‘formulate in words, either spoken or unspoken’.

Adm: Baluan	<i>p^{wa}</i>	(VT) ‘say, express, think’
Adm: Nyindrou	<i>aña</i>	‘think, say’
NNG: Bariai	<i>oanga</i>	‘think, say’
NNG: Kaulong	<i>vo</i>	‘talk, say, speak; suppose, intend’
NNG: Mangap	<i>-so</i>	‘say, speak, communicate, talk, tell; think’
NNG: Takia	<i>-bol</i>	‘say, talk, speak,’
PT: Iamalele	<i>vo</i>	‘say, think’; quotative marker
MM: Nakanai	<i>vei</i>	‘think, opine, talk, tell say’
MM: Teop	<i>boha</i>	‘think, say’
SES: Gela	<i>ne</i>	‘say, think’
SES: To’aba’ita	<i>sore-</i>	‘say, think’
SES: Kwaio	<i>ilia</i>	‘say, tell, think’

Hence OPINE verbs in Oceanic languages are centrally about mental activity, and it is not surprising that Table 23 shows them overlapping with COGITATE verbs. Indeed, no dedicated POC OPINE verb that is not also a speech verb is reconstructable.

Glosses of reflexes of POC **nonom* ‘think, remember; mind, thought’ point quite strongly to it being a COGITATE verb with a semantic focus on thinking about or remembering something. Its reconstruction, though, involves some *ad hoc* assumptions about the history of the apparent reflexes listed below. These display a somewhat abstract formal template *nVNV[N]*, where *N* is *n* or *m*, but *m* occurs no more than once in a reflex. The shape is that of POC **nonom* (v) ‘think’, (N) ‘mind, thought’, the expected reflex of PAn **nemnem* ‘think’ (ACD). However, Blust (ACD) notes Fordata (CMP) *nanan* ‘remember, remember sadly’, with *-a-* twice for expected *-e-* (< PAn **-e-*). This suggests that there was an alternant of the form **nanam* as far back as PCEMP, perhaps ancestral to some of the forms listed below. Treating the forms below as a cognate set also assumes that the presence of three nasals led to metathesis in Seimat and Nehan (**nVnVm* > **nVmVn*), and to assimilation of point of articulation in Bariai, Babatana and Ririo (**nVnVm* > **nVnVn*).

The Wayan transitive verb *num-i-* (VT) ‘think of s.t.’ requires special mention. As Blust (1977a) shows, a POC intransitive verb of the form *C₁V₁-C₁V₁C₂* often had a corresponding transitive of the form *C₁V₁C₂-i*. Thus POC **nonom* may have been paired with transitive **nom-i-*, of which Wayan *num-i-* is the only reflex known to us. Alternatively, it may be a back-formation from intransitive **nanum*, reflected in Bauan *nanu*.

PAn **nemnem* ‘think’ (ACD)

POC **nonom*, **nanam* ‘think about s.t., remember s.t.’, (N) ‘mind, thought’

Adm: Seimat	<i>namena</i>	(vi) ‘remember’ (metathesis of nasals)
NNG: Bariai	<i>nanan</i>	‘think, remember’
PT: Kiriwinan	<i>nano</i>	‘mind’
MM: Nehan	<i>namana</i>	‘think; think about s.t.’ (metathesis of nasals)
MM: Babatana	<i>nanana</i>	(v) ‘think’; (N) ‘thought, mind’
MM: Ririo	<i>(no)nono</i>	‘think’
MM: Roviana	<i>nonoŋa</i>	‘remember, know’
NCV: Mwotlap	<i>nonom</i>	‘opinion’
NCV: SE Ambrym	<i>nenem-i-</i>	‘think, remember’
NCal: Nêlêmwa	<i>nanam</i>	‘thought, think, reflect, believe’

Fij:	Wayan	<i>num-i-</i>	(VT) ‘think of s.t.’
Fij:	Bauan	<i>nanu</i>	(VI) ‘think, meditate, remember’
		<i>nanum-a</i>	(VT) ‘think of, meditate on, remember s.t.’

cf. also:

NNG:	Lukep-Pono	<i>nan(tut)</i>	‘remind’
NNG:	Poeng	<i>nan(guni)</i>	‘think, surmise’
MM:	Babatana	<i>nüni</i>	‘think’
MM:	Vaghua	<i>nanavu</i>	‘think’
MM:	Varisi	<i>nanao</i>	(V) ‘think, consider’, (N) ‘idea’

The two verbs discussed below, POc **drodrom* ‘think, worry; love, be sorry for, long for’ and POc **nuka* ‘think, feel’, are both COGITATE verbs, but both also have emotional overtones. Indeed, glosses in Oceanic dictionaries suggest that cogitation and worry or longing frequently go together.

Although its reflex is the Mwotlap default verb for thinking (Table 23), the NCV evidence, presented in some detail below, suggests that the POc verb was a COGITATE verb with an emotional overtone of ‘love, be sorry for, long for’, i.e. the SORRY semantic frame recognised in §11.4.3. Indeed, the emotion-related meanings are the only ones recorded for the Nakanai, Nokuku, Namakir, Nguna and S Efate reflexes, and they also figure in the Tamambo and Uripiv glosses. The expected POc reflex of PAn **demdem* is POc †**rodrom* (**-md-* > **-nd-* > *-dr-*), but maintaining the consistency of reduplication is perhaps responsible for **drodrom*. Transitive **drom-i* arose via the template recognised by Blust (1977a).

PAn **demdem* ‘brood, hold a grudge, remember, keep still’ (ACD)

POc (VI) **drodrom*, (VT) **drom-i* ‘think, worry; love, be sorry for, long for’

NNG:	Mangseng	<i>(lemi-) rum</i>	‘think’ (<i>lemi-</i> ‘insides’)
		<i>rum(oŋ)</i>	(N) ‘thought’ (<i>-oŋ</i> NOMINALISER)
NNG:	Poeng	<i>roma</i>	‘think about’
MM:	Nakanai	<i>gogo</i>	‘be sorry for, be fond of, treat gently; be generous to’
MM:	Madak	<i>doma</i>	(V) ‘think’

PNCV **dodomi* ‘think about, love’ (Clark 2009)

Proto Torres-Banks **do-domi* ‘think, worry’ (François 2005)

NCV:	Dorig	<i>dum</i>	‘think, worry’
NCV:	Nume	<i>dudum</i>	‘think, worry’
NCV:	Mosina	<i>nunum</i>	‘think, worry’
NCV:	Mota	<i>nom</i>	‘think, have in mind’
		<i>no-nom</i>	‘think’
NCV:	Mwotlap	<i>dem</i>	‘think’
NCV:	Nokuku	<i>ʔomi</i>	‘love, have mercy on’
NCV:	Kiai	<i>komi-a</i>	(VT) ‘think of’
		<i>komi-komi</i>	‘thinking, thought’,
NCV:	Tamambo	<i>domi</i>	‘feel sad about, sorry’
		<i>domi-domi</i>	‘think’

NCV: Sakao	<i>rem</i>	(vi) ‘think’
	<i>röm</i>	(vt) ‘think’
NCV: NE Ambae	<i>domi</i>	‘think’
NCV: Uripiv	<i>(o)r̃m-i</i>	‘think, worry, regret, have pity, show mercy’
NCV: Ninde	<i>rur(uox)</i>	‘think’ (<i>uox</i> ‘follow’)
NCV: Lonwolwol	<i>deme</i>	‘think’
NCV: Paamese	<i>demi</i>	‘think, believe; think about’
NCV: Namakir	<i>do-dom</i>	‘love, feel emotion’
	<i>do-do-</i>	‘mind’
NCV: Nguna	<i>do-domi-a</i>	‘love, be sorry for, feel for, miss’
NCV: S Efate	<i>rom</i>	(v) ‘love’

Blust (ACD) reconstructs PAn **ajem* ‘heart, mind’. Reflexes are found in SE Solomonic languages, some of which reflect an unexpected initial **q-*.

PAn **ajem* ‘heart, mind’ (ACD)

POc (vi) **(q)ajom*, (vt) **(q)ajom-akin-i-* ‘think, understand’

SES: Gela	<i>ado-ado</i>	‘think, understand’
SES: Sa’a	<i>adom-aʔini</i>	‘think’
SES: Arosi	<i>ʔado-ʔado</i>	‘think’
	<i>ʔadom-aʔi</i>	‘think’
SES: Faghani	<i>kato-katom-ayi</i>	‘think’

POc **nuka* ‘think, feel’ was also evidently a COGITATE verb, but with a sense of associated emotion—desire for its object. In some daughter languages the reflex of **nuka* is a verb, in others a monovalent body-part noun meaning ‘mind’, ‘thought’, ‘feeling’, or ‘desire’, and in yet others both a nominal and a verbal reflex occurs. When it occurs in complex lexemes, it is sometimes difficult to tell whether it is a verb or a noun, and a rule of thumb is adopted such that it is glossed as a verb ‘think’ unless there is clear evidence that it is a monovalent noun.

The reconstruction of **nuka* is a little problematic with regard to its medial **-k-*, and it is tempting to avoid irregularity by splitting the data into two formally similar cognate sets. However, the glosses imply quite strongly that this is a single set. The irregularity occurs in the Micronesian reflexes. Woleaian *nu-nuwa-n* and Ifaluk *nu-nuwa-n* reflect either **nua* or **nuqa*, whereas Carolinian *lixi-lix* reflects **nuka*. The Adzera medial *-g-* and Tolai and Ramoaaina final *-k* reduce the choice to **nuqa* or **nuka*, but could reflect either (final **-q* is occasionally retained in New Ireland languages). Since **q* is lost in Micronesian languages and the reflexes of **-k-* in Chuukic languages like Woleaian and Ifaluk are known to be complex and not always regular (Jackson 1983:175–185), it makes sense to treat the Carolinian reflex as criterial and to reconstruct **nuka*. The MM and PT reflexes in which **-k-* is thus deemed to be lost are all regular.

POc **nuka* (v) ‘think, feel’, **nuka-* (n) ‘mind, thought’

NNG: Adzera	<i>nugu-</i>	‘insides, heart, seat of emotions’
PT: Gumawana	<i>nue</i>	(vt) ‘think of s.t.’ (<i>-nue</i> < <i>*nuka-i-</i>)
	<i>nuo-nuo-</i>	(n) ‘thinking, thoughts about s.t.’
PT: Iduna	<i>-nua-nua</i>	(vi) ‘think’

		<i>-nua-nue-</i>	(VT) ‘think (about s.t.)’ (<i>-nue</i> < <i>*nuka-i-</i>)
		<i>nua-nua</i>	(N) ‘thought, desire, idea’
PT:	Bwaidoga	<i>nua-</i>	‘mind, insides’
PT:	Gapapaiwa	<i>nua</i>	‘feel, think’
		<i>nua-nua</i>	‘feelings, thoughts’
PT:	Kukuya	<i>nua-</i>	‘feelings, desire, thought’
		<i>nua-nua-</i>	‘knowledge, memory, desire’
PT:	Dobu	<i>nua-</i>	‘mind, desire, thought, will’
PT:	Molima	<i>nua-nua</i>	‘think’
PT:	Wedau	<i>nua-nua-</i>	(N) ‘chest; seat of the emotions’
PT:	Tawala	<i>nugo</i>	‘mind’
PT:	Bunama	<i>nua-nua</i>	(V) ‘think, want’; (N) ‘mind’
PT:	Saliba	<i>nua</i>	‘mind’
PT:	Muyuw	<i>nua-</i>	‘abdomen, belly; insides’
PT:	Sudest	<i>(re)nua(ŋa)</i>	(N) ‘thought, mind’
MM:	Kara	<i>nə-</i>	(N) ‘thought, idea’
MM:	Madak	<i>nua</i>	‘think’
MM:	Tolai	<i>nuk[-nuki]</i>	‘mind, heart, soul, seat of thoughts or ideas’
MM:	Ramoaina	<i>nuk</i>	(VT) ‘think, remember’
		<i>nu-nuk</i>	(VI) ‘think’
Mic:	Carolinian	<i>lixi-lix</i>	‘believe, think’
Mic:	Woleaian	<i>nu-nua-n</i>	(VI) ‘to think, remember’
		<i>nu-nua-n-</i>	(VT) ‘remember s.t.’
Mic:	Ifaluk	<i>nu-nua-n</i>	(N) ‘thought, emotion’ (Lutz 1988)

The inherited core meaning of POc **manaca(m)* was evidently ‘tame (of animals), familiar to’ (of people). Its form—**ma-* + disyllabic root—indicates that it was originally a stative verb, but the glosses of the forms below suggest that it came also to be used of people in the senses ‘quiet, thoughtful, learned’, and then developed the meanings ‘know, understand, think about’ and was also used as an abstract noun. In a number of languages it became the base for a transitive verb. In some languages the original meaning has been lost, but the retention of ‘tame’ as one of its senses in Lau, ‘Are’are, Sa’a, Arosi and Owa attests to something like this series of semantic developments. Reflexes vary in meaning between AWARE and COGITATE.

PAn **ma-Lajam* ‘tame, accustomed to’ (ACD)

PMP **ma-najam* ‘tame, accustomed to’

POc **ma-nacam* (VI) ‘tame, quiet, thoughtful, learned; know, understand, think about’; (N) ‘knowledge, understanding, thought, wisdom’

NNG:	Gedaged	<i>mana-n</i>	‘tame, docile (mostly of animals), peaceful, obedient, trained’ (for † <i>manaya-n</i>)
PT:	Motu	<i>manada</i>	‘even, smooth, gentle’
MM:	Ramoaina	<i>manā(na)</i>	(VI) ‘know, understand’; (N) ‘knowledge, understanding, wisdom’
MM:	Nehan	<i>mahanama</i>	‘tame, unafraid’ (metathesis)
SES:	Gela	<i>manaha</i>	(VT) ‘know, understand, appreciate; wise, clever’

SES:	Lengo	<i>manaθa</i>	(N) ‘knowledge’
SES:	To’aba’ita	<i>manata</i>	(VI) ‘think’; (N) ‘thought, mind’
		<i>manata-i-</i>	(VT) ‘think of, about s.t., think (that...)’
		<i>manatā</i>	‘thought, idea’
SES:	Lau	<i>manata</i>	(V) ‘tame, quiet, civilised, sensible, understanding, think, thoughtful, careful’
		<i>manata-</i>	(N) ‘mind, will, understanding’
		<i>manata-ŋa, manatā</i>	(N) ‘thought’
SES:	Kwaio	<i>manata</i>	‘think, reason, know’
		<i>manate-ŋe wane</i>	‘a man’s mind’
SES:	‘Are’are	<i>manata</i>	‘be tame (of birds and animals), behave oneself, wise, sensible, learned’
		<i>manata-na</i>	(N) ‘disposition, character, nature, custom, behaviour, conduct, knowledge, wisdom’
		<i>manata-ŋini-</i>	(VT) ‘know, be aware of, notice’
SES:	Sa’a	<i>manata</i>	(VI) ‘tamed, quiet, taught’
		<i>manata-ŋa</i>	(N) ‘wisdom, nature, knowledge’
SES:	Arosi	<i>manata</i>	‘tame, trained, gentle (of man or animal)’
		<i>manata-si-</i>	‘be tame towards’
		<i>manata-na</i>	(N) ‘custom, use’
SES:	Owa	<i>manata</i>	‘be tame; be familiar to’
		<i>manata-si-</i>	(VT) ‘know (s.o.)’
cf. also:			
MM:	Nehan	<i>manate</i>	‘know’ (-t- for †-h-)

10.4 True and believing to be true

In those Oceanic languages for which there are relevant data⁶ believing something to be true usually differs lexically from OPINE (§10.3) and thus forms a separate semantic frame, here labelled BELIEVE. In most of these languages, the basic BELIEVE predicate is a complex form, either a derived verb or, less commonly, a BPM, involving a stative verb root meaning ‘true, real, genuine, correct, right’, a frame here labelled TRUE. The most widespread derivation is a TRUE verb preceded by the prefix that forms causative verbs, reflecting POc **pa[ka]-*. Verbs with this form are listed in Table 24.

From the examples in Table 24 it seems likely that there was a POc believe verb of the form **pa[ka]-* + true verb, but its form is uncertain. The glosses of **pa[ka]-* + true verbs in the table point to the likelihood that the basic meaning of POc **pa[ka]-* + true was ‘verify as true’, and that ‘believe (s.t.) to be true’ was a secondary meaning. Other derivations with a true root are listed in Table 25. The Takia lexeme is a BPM, and the Owa lexeme is a compound derived from a BPM. The Gela, Longgu, Sa’a and Pn forms are evidently compounds derived from SVCs.

⁶ In a number of languages for which there are otherwise good data, including Nakanai and Mwothlap, two of our witness languages, BELIEVE terms are not recorded.

It follows from the material in Tables 21 and 22 that the term to be reconstructed is the stative verb for the true frame rather than a believe verb. In other words, this is an instance where the basic lexeme was a stative verb with the stimulus as subject: ‘X is true’ rather than ‘I believe X’.

Table 24 BELIEVE verbs formed from the causative prefix + a TRUE verb

		BELIEVE	TRUE
		‘believe (s.t.) to be true’	‘true, real, genuine, correct, right’
PT:	Balawaia	<i>vaya-moyoni</i> ‘believe, agree, confirm’	<i>moyoni</i>
MM:	Teop	<i>va-mana-mana</i> ‘believe’	<i>mana</i>
MM:	Banoni	<i>va-cū</i> ‘believe’	<i>cu</i>
MM:	Babatana	<i>va-tuna</i> ‘believe’	<i>tuna</i>
MM:	Roviana	<i>va-hinokar-i-</i> ‘believe; prove’	<i>hinokara-</i>
MM:	Maringe	<i>fa-tu-tuani</i> ‘believe’	<i>tuani</i>
SES:	Bugotu	<i>va-utu-utuni</i> ‘believe’	<i>utuni</i>
SES:	To’aba’ita	<i>faʔa-mamana</i> (VI) ‘be truthful, reveal the truth’ <i>faʔa-mamane-</i> (VT) ‘believe, give credence to’	<i>mamana</i>
SES:	Arosi	<i>haʔa-momori</i> ‘believe’	<i>momori</i>
Fij:	Bauan	<i>vaka-dina-dina</i> ‘confirm, witness’ <i>vaka-dina-t-</i> ‘believe’	<i>dina</i>
Fij:	Wayan	<i>vaka-dū-ni-</i> ‘believe; confirm truth or accuracy of s.t.’	<i>dū</i>
Pn:	Tongan	<i>faka-moʔoni</i> ‘bear witness, prove, verify’	<i>moʔoni</i>
Pn:	Niuean	<i>faka-mooli</i> ‘witness, tell truth, prove’	<i>mooli</i>
Pn:	Rennellese	<i>haka-māʔogi</i> ‘verify as true’	<i>māʔogi</i>
Pn:	Maori	<i>ʔaka-pono</i> ‘believe’	<i>pono</i> ‘true; bountiful, abundant’

Table 25 Other BELIEVE lexemes formed with a TRUE verb

		BELIEVE	TRUE
		‘believe (s.t.) to be true’	‘true, real, genuine, correct, right’
NNG:	Takia	<i>ilo- rumok</i> (<i>ilo-</i> ‘insides’)	<i>rumok</i> ‘truth’
SES:	Gela	<i>talū-utuni</i> (<i>talū</i> ‘put’)	<i>utuni</i>
SES:	Tolo	<i>t-utuni-</i>	<i>utuni</i>
SES:	Longgu	<i>naʔi-utuni</i> (<i>naʔi</i> ‘put’)	<i>utuni</i> (borrowed from a Guadalcanal language)
SES:	Sa’a	<i>hī-walaʔimoli</i> (<i>hī</i> ‘perceive’)	<i>walaʔimoli</i>

SES:	Owa	<i>raro-ni-m^wora</i> (<i>raro</i> ‘insides’)	<i>m^wora</i>
Pn:	Samoan	<i>tali-tonu</i> (<i>tali</i> ‘accept’)	<i>tonu</i> ‘correct’
Pn:	Tokelauan	<i>tali-tonu</i> (<i>tali</i> ‘accept’)	<i>tonu</i> ‘correct’

The most widely reflected TRUE verb is POc **tuna* (sometimes **tutuna*) ‘true, genuine, correct’.

POc **[tu]tuna* ‘true, able to be believed, correct’

NNG:	Lukep (Pono)	<i>tun</i>	‘correct’
PT:	Misima	<i>tuna(hot)</i>	‘that’s true; yes’ (<i>hot</i> emphatic)
MM:	Patpatar	<i>tun</i>	‘correct’
		<i>tu-tun</i>	‘true, faithful, responsible, real in form or appearance’
MM:	Ramoaaaina	<i>(liŋ)ta-tuna</i>	‘true; truth’
MM:	Tolai	<i>tuna</i>	‘real, true, proper, correct’
MM:	Babatana	<i>tuna</i>	‘true, real’
		<i>tu-tuna</i>	‘true, just; truth’
		<i>(va)tuna</i>	‘believe’
SES:	Arosi	<i>(hu)una</i>	‘real, true, original’

cf. also:

Adm:	Lou	<i>tuena-</i>	‘true’ (origin of <i>-e-</i> is unknown)
Fij:	Bauan	<i>dina</i>	‘true; very’ (<i>-i-</i> for † <i>-u-</i>)
		<i>(vaka)dina-t-</i>	‘believe’

It is tempting to combine the set below with the set above. All the forms above could reflect putative **tuquna*, with regular loss of **-q-* and shortening of resulting **-uu-*. However, none of the forms below would be regular reflexes, as they fail to reflect either **-a* or **-na* as predicted by regular sound change. Either the formal similarity between **tuna* and **(t,d)uqu* is accidental, or they were associated at some point in their history by an unknown derivational process.

POc **(t,d)uqu* ‘true, able to be believed’

Adm:	Nyindrou	<i>(ha)dru</i>	‘true; very, really’ (reflects <i>*d-</i>)
NNG:	Dami	<i>tu-tuk</i>	‘correct, innocent’
MM:	Banoni	<i>cu</i>	‘true’
		<i>(va)cū</i>	‘believe’
NCal:	Cèmuhi	<i>ju, jū</i>	‘true’ (reflects <i>*d-</i>)
Fij:	Wayan	<i>dū</i>	‘right, correct, genuine, real, true’ (reflects <i>*d-</i>)
		<i>(vaka)dū-ni-</i>	‘believe’

Overlapping semantically with the TRUE frame is the STRAIGHT frame, as Oceanic verbs meaning ‘straight’ tend strongly also to have the metaphorical sense ‘correct’, a component of the TRUE frame. Some reflexes of POc **tonuq* ‘straight, correct’ have the additional sense ‘true’, and it seems possible that contamination by reflexes of **tuna* has occurred, resulting in forms that appear to reflect †**tunuq* rather than **tonuq*. On the strength of Nokuku *ta-tino* ‘true’ and Kiai *tu-*

tunu ‘good, straight, sweet’ below, all the NCV forms have been attributed to **tunuq*, but some may either reflect **tuna* above or a contamination of one form by the other.

POc **tonuq* ‘straight, correct’⁷

NNG:	Bam	<i>tun-tunu</i>	‘straight’
NNG:	Numbami	<i>tonowa</i>	‘straight’
PT:	Kukuya	<i>tunuya</i>	‘straight’
		<i>tunu-tunuya</i>	‘do right, be righteous’
PT:	Iduna	<i>tunu-tunuy(ina)</i>	‘straight (of objects, path), upright, honest’
PT:	Molima	<i>tunu-tunv(ina)</i>	‘straight, flat’
MM:	Laghu	<i>to-tonu</i>	‘straight’
NCV:	Nokuku	<i>ta-tino</i>	‘true’
NCV:	Kiai	<i>tu-tunu</i>	‘good, straight, sweet’
NCV:	Uripiv	<i>(were)tun</i>	‘tell truth’
NCV:	W Ambrym	<i>ten</i>	‘real’
NCV:	SE Ambrym	<i>(rei)tin</i>	‘true’
NCV:	Lonwolwol	<i>ten</i>	‘real’
		<i>(fi)ten</i>	‘true; truly’
NCV:	N Ambrym	<i>(fe)tm</i>	‘true; truly’
NCV:	Paamese	<i>tine</i>	‘true’
NCV:	Avava	<i>(ba)rīn</i>	‘true’

PPn **tonu* ‘straight, correct’ (POLLEX)

Pn:	Tongan	<i>tonu</i>	‘exact, correct, be right’
Pn:	Niuean	<i>tonu</i>	‘proper, right’
Pn:	Samoan	<i>tonu</i>	‘exact, correct, just’
Pn:	Tuvaluan	<i>tonu</i>	‘straight, correct’
Pn:	Mele-Fila	<i>tō-tonu</i>	‘right, correct’
Pn:	Tikopia	<i>tonu</i>	‘right, correct, true, exact’

cf. also:

NNG:	Mangap	<i>du-dūŋ</i>	‘real, correct, straight’
NNG:	Malai	<i>dunu(ŋa)</i>	‘straight’
SES:	Bugotu	<i>jino</i>	‘straight, right, righteous’ (-i- for †-u-)
NCV:	Mota	<i>nun</i>	‘true, truth’
SV:	Kwamera	<i>a-tuən</i>	verbal adjunct: implies straightening
Fij:	Bauan	<i>donu</i>	‘straight, correct, true’
Fij:	Wayan	<i>donu</i>	‘right, correct, true’

Several forms with initial **m-* meaning ‘true’ can be reconstructed. The reason is perhaps that each has its origins in a form with the PMP anticausative/stative prefix **ma-*. This is certainly true of reflexes of POc **ma-qoli* and **ma-qoni*, both ‘true, real’. Despite their formal

⁷ In vol.2:212, **[t,d]onu(p)* ‘straight’ was reconstructed. The PT reflexes now show that the final consonant was **-q*. Reflexes of initial **t-* and **d-* both occur, and the latter are listed under ‘cf. also’. They give grounds for reconstructing a POc doublet **donuq* ‘straight, correct’. How it arose is unknown, but **d* was the least frequently occurring of all the POc obstruents, reflecting an earlier **nt* sequence.

and semantic similarity, they appear to have been separate POc terms. Their similarity has almost certainly led to crossovers in meaning and to conflation of the two terms, as apparently no language other than Anutan reflects both—and the gloss of Anutan *maori* ‘indigenous, true, close of kin’ suggests it is borrowed from an EPn language. No EPn language has a reflex of **ma-qoni*. PEPn **ma-qoni* acquired the additional sense ‘native, indigenous’, giving rise to the terms *Māori* and *Mōriori* for the Polynesian inhabitants of New Zealand and New Zealand’s Chatham Islands respectively.

Perhaps the clearest indicator that the terms originally had slightly different meanings is the contrast in meaning between the PPn causatives PPn **faka-moqoli* ‘assent (v)’ and PPn **faka-maqoni* ‘tell the truth, be honest’.

There is evidence that Gela, Lau and S Efate reflexes (shown under ‘cf. also’ below) of POc **ma-qoli* ‘true, real’ have been conflated with those of POc **maqurip* ‘be alive, live, flourish’ (§4.2.1.1). All three reflect POc *-r- rather than *-l-, and the Gela and Lau reflexes mean ‘alive’ as well as ‘real’.

POc **ma-qoli* ‘true, able to be believed’

MM:	Bola	<i>muyoli</i>	‘true’
SES:	‘Are’are	(<i>wara-ʔi</i>) <i>mori</i>	‘true’ (<i>wara</i> ‘speech’)
SES:	Arosi	<i>mori</i> , <i>mo-mori</i>	‘true’
		<i>haʔa-momori</i>	‘believe’

PPn **maqoli* ‘true, real’ (POLLEX)

Pn:	Niuean	<i>mooli</i>	‘true, sure’
Pn:	Anutan	<i>maori</i>	‘indigenous, true, close of kin’ (EPn loan?)
Pn:	Emae	<i>māri</i>	‘true, indeed, truth’
Pn:	Ifira-Mele	<i>māori</i>	‘true, real’
Pn:	Pileni	<i>maoli</i>	‘true; tell the truth’
Pn:	Rennellese	<i>māʔogi</i>	‘right, true, real; exist’
Pn:	Tikopia	<i>maori</i>	‘true, truth; feel sure of’
Pn:	W Futunan	<i>mari</i>	‘true, truth, indeed’

PEPn **maoli* ‘true, genuine; native, indigenous’

Pn:	Rapanui	<i>maʔori</i>	‘skilled, old’
Pn:	Hawaiian	<i>maoli</i>	‘true, real, native, indigenous’
Pn:	Marquesan	<i>maoʔi</i>	‘indigenous’
Pn:	Tahitian	<i>māohi</i>	‘native, indigenous’ (-h- unexpected)
Pn:	Tongarevan	<i>māori</i>	‘local, aboriginal, traditional’
Pn:	Tuamotuan	<i>maori</i>	‘indigenous’
Pn:	Rarotongan	<i>māori</i>	‘of native origin, indigenous’
Pn:	Māori	<i>māori</i>	‘indigenous, natural; mortal man as opposed to supernatural beings; fresh (of water)’
Pn:	Moriori	<i>mōri-ori</i>	‘indigenous people of the Chatham Islands’

cf. also:

SES:	Gela	<i>mauri</i>	‘living, real’
SES:	Lau	<i>mori</i>	‘alive, real’
NCV:	S Efate	<i>mori</i>	‘true’

POc **ma-qoni* ‘true, real’

MM: Balawaia *moyoni* ‘true’

PPn **maqoni* ‘true, real’ (POLLEX)

Pn: Tongan *moʔoni* ‘true, genuine, real, intrinsic’

Pn: Samoan *moni* ‘true, speak truth’

(faʔa)maoni ‘true, faithful’

Pn: Anutan *mooni* ‘true, as opposed to a lie’

Pn: E Uvean *moʔoni* ‘true, certain’

Pn: Sikaiana *māoni* ‘true, genuine’

Pn: Takuu *maoni* ‘true, real’

Pn: Tokelauan *moni* ‘true, sincere, honest’

PEMP **molaŋ* ‘true, real, genuine’ has just one known non-Oceanic reflex, Buli *molaŋ* ‘correct, real, genuine, true’ (ACD).

PEMP **molaŋ* ‘true, real, genuine’ (ACD)

POc **mola(ŋ)* ‘true, real, genuine’

NNG: Lukep (Pono) *mōl-mōl* ‘true’

MM: Nakanai *imo-imola* ‘talk that is true; the truth’ (*i-* unexplained)

SES: Lau *mola* ‘true, real, abundant’

SES: Arosi *mora* ‘original, true, real; customary’

SES: Owa *m^wora* ‘true, real’

Mic: Marshallese *m^wōl* ‘true’

The question mark against POc **moqi* below refers to its form. If Takia *mok* is indeed a reflex, then medial **-q-* should be reconstructed.

POc **moqi* ? ‘true’

NNG: Takia *mok* ‘true, real; very, truly’

NNG: Dami *mo-moi* ‘true’

NNG: Manam *moi-moi* ‘true’

PT: Tawala *moi-* ‘true’

SS: Arosi *moi* ‘true’⁸

A small number of forms meaning ‘true’, all Northwest or Southeast Solomonian, reflect a root **mana*. It is tempting to associate these with POc **m^wane* ‘straight, direct; flat, level’ (Vol. 2:213),⁹ and this is probably the origin of Gela *mae-mane* ‘correct’ below. However, neither forms nor meaning otherwise support this association. It is possible that these forms are cognate with PPn **mana* ‘supernatural power’ (POLLEX) and reflect the term that Blust (ACD) reconstructs as POc **mana* ‘power in natural phenomena; thunder, storm wind’. However, the glosses below suggest (i) that **mana/*ma-mana* was a homophone of Blust’s reconstruction, and (ii) that the Simbo and Lau reflexes below reflect a conflation of Blust’s POc **mana*

⁸ In his dictionary of Arosi Fox (1978) takes *moi* ‘true’ to be an ‘abbreviated’ form of *mori* ‘true’ (under **maqurip* above), but this is not a regular phonological process in the language.

⁹ In vol.2 this form was reconstructed as **m^wane-m^wane*, but the reduplication is not justified by the data.

‘power...’ and **mana* ‘true’. Since all reflexes of the latter are located in the Solomons archipelago, it is difficult to know which interstage it should be attributed to.

MM:	Nehan	<i>mana</i>	‘true’
MM:	Halia	<i>mana</i>	‘true’
MM:	Teop	<i>mana</i>	‘truth, meaning’
		<i>(va)mana-mana</i>	‘believe’
MM:	Simbo	<i>mana</i>	‘true; powerful, potent, effective; gracious; to grant, be favourable; power’
SES:	Ghari	<i>mana</i>	‘truth, true, correct’
SES:	To’aba’ita	<i>ma-mana</i>	‘true, real’
		<i>faʔa-mamane-</i>	‘believe’
SES:	Lau	<i>ma-mana</i>	‘efficacious; be true, come true, be fulfilled’

cf. also:

SES:	Gela	<i>mae-mane</i>	‘correct’

The set below deserves mention because of its frequent occurrence in Table 25. It is restricted to SES languages, and there seems to be no consistent semantic difference between forms with and without **-ni*.

PSES **utu*, **utuni* ‘true’

SES:	Bugotu	<i>[t]utuni</i>	‘true’
		<i>(va)utu-utuni</i>	‘believe’
SES:	Gela	<i>utu</i>	‘true’
		<i>utuni</i>	‘certainly, truly, right’
		<i>(tal)utuni</i>	‘believe’ (<i>tal</i> ‘put’)
SES:	Tolo	<i>utuni</i>	‘true, correct’
		<i>(t)utuni</i>	‘believe’
SES:	Longgu	<i>utuni</i>	‘true’ (borrowing)
		<i>(naʔi)utuni</i>	‘believe’ (<i>naʔi</i> ‘put’)
SES:	Arosi	<i>ū</i>	‘true, real’

cf. also:

SES:	Longgu	<i>uɔua</i>	‘true’

Finally, the small set below has a curious distribution. Reflexes of PMP **bener* occur in Western MP languages, but none are known in Oceanic outside Eastern Polynesian.

PMP **bener* ‘true, righteous, honest’ (ACD)

POc **bono(r)* ‘true, correct’

PPn **pono* ‘true, correct’ (POLLEX)

Pn:	Maori	<i>pono</i>	‘true; hospitable, bountiful; abundant; means, chattels, abundance’
		<i>ɸaka-pono</i>	‘believe, admit as true’
Pn:	Marquesan	<i>pono</i>	‘correct, proper, well done’
Pn:	Hawaiian	<i>pono</i>	‘correct procedure, correctness’

10.5 Remembering

Probably all Oceanic languages have terms for MEMORISE (‘commit s.t. to memory’) and for RECALL (‘remember s.t. /that...’), but these terms are usually complex lexemes, (§10.1). The glosses of their components are given henceforth in square brackets. Table 26 sets out terms for the two semantic frames in the four witness languages.

Table 26 Verbs of remembering in the four witness languages

	MEMORISE	RECALL
	‘commit (s.t.) to memory’	‘remember (s.t. /that ...)’
Nakanai	<i>mata-toro</i> [look-strong]	<i>hilo-tavu</i> [see-towards]
To’aba’ita		<i>manata oli uri-</i> [think back about]
Mwotlap		<i>dem sas</i> [think find]
Wayan	<i>katoni-</i> ‘put in box’, <i>bolani-</i> ‘put in basket’	<i>numi-lesu-ni-</i> [think-back-TR], <i>divi-</i> ‘daydream, remember longingly’

The absence of MEMORISE lexemes in Mwotlap and To’aba’ita typifies their absence from many dictionaries. The data are so sparse that they will not be further considered here. The Wayan verbs are simple metaphors: *katoni-* is derived from *kato* ‘container with lid’ and *bolani-* from *bola* ‘coconut leaf basket, container with lid’.

The default POC RECALL verb was apparently **nonom*, **nanam* ‘think about s.t., remember s.t.’, reconstructed in §10.3. It encoded both RECALL and COGITATE frames. The only simple RECALL verb in Table 26 is the Wayan verb *divi-* ‘daydream, remember longingly’, but this includes the additional sense of longing, quite common in RECALL verbs in Oceanic languages.

The remaining RECALL terms in Table 26 are complex lexemes, and three of them begin with the language’s default COGITATE verb. In this they are typical of Oceanic RECALL terms outside Polynesia. It is possible that, for example, the ‘think + find’ sequence immediately below is of POC antiquity, but the data do not allow us to reconstruct the forms that occurred in this and other complex lexemes.

An effect of employing complex lexemes is that they may encode more specific meanings than English usually encodes with *remember*. Thus one sense of *remember*, as in ‘He managed to remember the address’, views remembering as finding a piece of information in one’s memory after a search, encoded by a SVC ‘think + find’:

PT:	Dobu	<i>nua loba</i>	[think find] ‘think and finally remember’
SES:	Kwaio	<i>manata dalia</i>	[think find] ‘remember, recall’
NCV:	Mota	<i>nom suar</i>	[think find] ‘think and find, recollect’
NCV:	Mwotlap	<i>dem sas</i>	[think find] ‘remember’
NCV:	Paamese	<i>mudem sāli</i>	[think find. out] ‘remember, discover’

These data imply the existence of a compound lexeme meaning ‘search one’s memory for s.t.’, and examples occur, but sometimes with rather vague glosses. Here and below, languages around the Vitiaz Strait replace ‘think’ or ‘mind’ with ‘eye’, giving a BPM.

NNG:	Bariai	<i>i-mata nanan</i>	[s:3SG-eye pursue] ‘remember’
NNG:	Kove	<i>mata-yu i-nana</i>	[eye-my s:3SG-pursue] ‘remember’
SES:	Kwaio	<i>manata fana</i>	[think hunt] ‘think about, remember’
		<i>lada ʔōfia</i>	[dig. up look. for] ‘wander about, search for, try to remember’
NCV:	Mwotlap	<i>dem sɔsɔk</i>	[think look. for] ‘think hard in order to remember s.t.’
NCV:	Paamese	<i>mudem lēkati</i>	[think look. for] (VT) ‘try to remember’ (<i>lē-kati</i> [see-really] ‘look for’)

Remembering in the sense of casting one’s mind back, recalling and recollecting is often expressed by the sequence ‘think + go back’ or sometimes ‘think again’. Note below that Iduna has two syntactically different variants of the same expression. In one, *nua-* ‘mind’, a monovalent noun, is subject of the verb *-nauye-* ‘go back’. The other is a compound verb made up of the same morphemes.

NNG:	Mangap	<i>mata- i-miili</i>	[eye- s:3SG-go. back] ‘remember again’
PT:	Dobu	<i>nua-ila</i>	[mind go. back] ‘think of the past, reminisce’
PT:	Iduna	<i>nua- gi-nu-nauye-</i>	[mind- s:3SG-REDUP-go. back-] ‘remember, call to mind, think about’
		<i>-nua-nua-nauye-</i>	[think-think-go. back-] ‘remember, think about, consider, recall s.t.’
PT:	Tawala	<i>nugo-gae</i>	[think-go. up] ‘remember, recall’
MM:	Patpatar	<i>lik leh</i>	[think go. towards] ‘remember’
MM:	Tolai	<i>nuk-mule</i>	[mind again] ‘remember, recall to mind’
MM:	Nehan	<i>namana poluku</i>	[think again] ‘remember again, recall to mind’
MM:	Tinputz	<i>nat hah</i>	[know again] ‘remember’
SES:	Gela	<i>ganagana oli</i>	[think-go. back] ‘remember’
SES:	Tolo	<i>pada-visu-</i>	[think-go. back-] ‘remember’
SES:	To’aba’ita	<i>manata oli uri-</i>	[think go. back toward-] ‘think back to’
NCV:	Mota	<i>nom-kel</i>	[think back] ‘call to mind, remember’
NCV:	Mwotlap	<i>dēm lok</i>	[think again] ‘remember’
Fij:	Wayan	<i>numi-lesu-ni-</i>	[think-back-TR] ‘recall or think back on s.t.’

Remembering in the MEMORISE sense of holding something in one’s memory is expressed in a number of WOC languages by the sequence ‘think + hold’, or in Nehan by a simple ‘hold’ metaphor.

NNG:	Kove	<i>mata-xu vara</i>	[eye-my hold. tight] ‘I think of s.t., remember s.t.’
PT:	Gumawana	<i>nuo-kavata</i>	[think hold] (VI) ‘remember’
		<i>nuo-kavate</i>	[think hold] (VT) ‘remember s.t., memorise s.t.’
PT:	Dobu	<i>nua-yai</i>	[think-hold. firmly] ‘remember’
PT:	Kukuya	<i>nua vi-avini</i>	[think s:3SG-hold] ‘remember s.o., s.t.’
MM:	Nehan	<i>saŋa dede</i>	[hold continually] ‘remember well’

Much the same concept is occasionally expressed by a ‘think + stay’ sequence:

PT:	Balawaia	<i>tuyamayi-tayo</i>	[think-sit.quietly] ‘remember, think of’
MM:	Patpatar	<i>lik kawase</i>	[think wait] ‘remember’

SES: Lau *manata tō* [think stay] ‘remember’

In many Oceanic languages, serialisation and compounding have remained productive, and there are complex lexemes that appear to be quite localised:

NNG:	Mangap	<i>mata- i-ʷgal</i>	[eye- s:3SG-pierce] ‘think of, remember’
NNG:	Tuam	<i>mata i-ʷgal</i>	[eye s:3SG-pierce] ‘remember’
PT:	Gumawana	<i>nua-isi</i>	[think-break] ‘remember s.t.’
PT:	Iduna	<i>nua- -afole-ua- -ʔakakili-</i>	[mind- -pierce] ‘remember, recall’
			[mind- -overbalance] ‘suddenly remember s.t.’
PT:	Tawala	<i>nugo-momota</i>	[think-pull. tight] ‘remember, hold in the heart’
MM:	Nakanai	<i>hilo-tavu</i>	[see-towards] ‘remember’
NCV:	Paamese	<i>mudem silati</i>	[think come. across. by. chance] ‘suddenly recall’

10.6 Forgetting

Like terms for RECALL, many terms for forgetting are complex lexemes, the first component of which is either the default COGITATE verb or the body-part noun that the language uses for ‘mind’. The second component is a verb, the meanings of which are in several instances quite widespread. There are dozens of combinations in the data. A geographically well distributed combination is ‘think/mind’ + ‘lose’.

Adm:	Nyindrou	<i>bale- mani</i>	[neck lose] ‘forget, lose’
NNG:	Bariai	<i>mata- sapian</i>	[eye lose] ‘forget’
PT:	Balawaia	<i>tuya-rekwa</i>	[think-lose] (VT) ‘forget’
MM:	Patpatar	<i>lik luben se</i>	[think lose] ‘forget’
NCV:	Lonwolwol	<i>nō helale</i>	[think lose] ‘forget’

Another is ‘think/mind’ + ‘short’, where ‘short’ is apparently used metaphorically for ‘lacking’. The two terms below are from the opposite geographic extremes of MM.

MM:	Poeng	<i>lau pogo</i>	[liver.my be.short] ‘forget’
MM:	Maringe	<i>yaðo kmoʔe</i>	[think be.short] ‘forget’

The existence of a verb meaning ‘not know’ in many Oceanic languages was noted in §10.2. It figures as the second component of the following lexemes.

NNG:	Takia	<i>ilo- -ʎaon</i>	[inside- -not know] ‘forget’
PT:	Iamalele	<i>nua-fani</i>	[think-not.know] ‘forget’
		<i>nua- -fani</i>	[mind- -not.know] ‘forget’
MM:	Maringe	<i>yaðo iho</i>	[think not.know] ‘forget’
SES:	To’aba’ita	<i>lio-dorā</i>	[look-not.know] ‘forget (about)’.
SES:	Kwaio	<i>maa-bolosia</i>	[eye-not.know] ‘forget’

A number of complex lexemes glossed ‘forget’ have a verb meaning ‘leave, go away’ as one of their components, usually the second. However, some of these have glosses—‘abandon’, ‘leave behind’—that imply a conscious choice to forget.

Adm:	Baluan	<i>wot lilisek</i>	[go. away forget] ‘forget’
MM:	Nakanai	<i>tapa-taro</i>	[? -away] (VT) ‘forget, leave, behind, abandon’ (<i>tapa</i> apparently does not occur as a verb alone)
MM:	Maringe	<i>yaðo yosu</i>	[think leave. behind] ‘forget, leave behind; ignore; be unaware of’
NCV:	Mwotlap	<i>dem vetey</i>	[think leave] ‘forget, pardon, abandon, drop’
Fij:	Wayan	<i>numi-deini-</i>	[think-leave] ‘forget s.t., have s.t. slip one’s mind, be unable to remember s.t.’

Clark (2009:130) reconstructs a PNCV BPM **lolo- boŋi* [mind night] ‘forget’, and infers that one component or the other has been replaced in various languages. He may well be right, but a more conservative inference is that a complex lexeme ‘mind’ + ‘night’ was present in early EOC. The terms for ‘night’ reflect either POc **rodrom* ‘be dark, be night’ or POc **boŋi* ‘night’ (vol.2:295–298). In some languages this BPM also has the sense ‘be ignorant’ (§11.3.4.1).

SES:	Sa’a	<i>maa rodo</i>	[eye night] ‘be blind, forget’
SES:	Ulawa	<i>sae rorodo</i>	[liver night] ‘forget’
NCV:	Mota	<i>lolo-p^woŋ</i>	[inside-night] ‘ignorant, stupid, unenlightened; forget’,
NCV:	Mwotlap	<i>lɔl-p^woŋ</i>	[inside-night] (VT) ‘forget, ignorant’
NCV:	Nokuku	<i>lolo- ðara</i>	[inside- night] ‘forget, ignorant’
NCV:	SE Ambrym	<i>e- bovoŋ</i>	[? -night] ‘forget’ ¹⁰
NCV:	Port Sandwich	<i>na-lö- e-boŋ-boŋ-ini</i>	[ART-inside- it-REDUP-night-TR] ‘forget’
NCV:	Paamese	<i>ē- vo-boŋo</i>	[inside- night] ‘forget’
NCV:	Lewo	<i>sine- poni</i>	[guts- night] ‘forget’
NCV:	Lonwolwol	<i>lɔ- mɔ buŋ-buŋ</i>	[inside-? night] ‘forget’

PPn **nimo* ‘vanish, forget’ perhaps reflects a metaphorical use of ‘vanish’ for ‘forget’.

PPn **nimo* ‘vanish, forget’ (POLLEX)

Pn:	Tongan	<i>(ma)nimo</i>	‘secret, underhand, surreptitious’
Pn:	Niuean	<i>nimo</i>	‘forget’
		<i>nimo(pō)</i>	‘forget completely’ (<i>pō</i> ‘dark’)
Pn:	Samoa	<i>ni-nimo</i>	‘completely forgotten’ (<i>nimo</i> ‘vanish, disappear’)
Pn:	Rennellese	<i>nimo</i>	‘forget, vanish’

PPn **ŋalo* uses the metaphor of a submerged (i. e. hidden) rock for ‘forgotten’.

POc **m^waloq* ‘submerged rock or coral reef, coral head’ (vol.2:108)

PPn **ŋalo* ‘out of sight, disappeared, forgotten, lost’ (POLLEX)

Pn:	Tongan	<i>ŋalo</i>	(vst) ‘be forgotten, sink, disappear from sight or memory’
Pn:	Niuean	<i>ŋalo</i>	‘be lost, absent’ (<i>faka-ŋalo-ŋalo</i> ‘try to forget’)
Pn:	E Futunan	<i>ŋalo</i>	‘forgotten’

¹⁰ SE Ambrym *e-* is a monovalent noun used in a few complex lexemes and has no independent meaning.

Pn:	Samoa	<i>ŋalo</i>	(vst) ‘forgotten’
Pn:	Tikopia	<i>ŋaro</i>	(vst) ‘be lost (from sight or mind)’
		<i>ma-ŋaro-ŋaro</i>	‘lost, gone out of sight’
Pn:	Maori	<i>ŋaro</i>	‘disappeared, forgotten; be out of sight, invisible’
Pn:	Hawaiian	<i>nalo</i>	‘disappeared, forgotten, lost’

10.7 Deciding

The gloss ‘decide’ is rare in dictionaries of Oceanic languages, implying that deciding is not an Oceanic concept. One reason for this is that major decisions are traditionally made by consensus, for which—if one digs far enough—a term can be found. Its meaning, though, often includes the foregoing discussion as well as the decision.

NNG:	Takia	<i>awa- -tumani</i>	[mouth confer] ‘agree, decide together, come to consensus, take counsel (with each other)’
NNG:	Mapos Buang	<i>jō gagek</i>	[tie.knot speech] ‘decide, agree, to finish a discussion and come to a conclusion’
MM:	Nehan	<i>uel-halata</i>	[RECIP-discuss] ‘decide; discuss, decide together’
Fij:	Wayan	<i>boseti-</i>	‘confer about s.t., meet to discuss or decide on s.t.’

No reconstruction can be made, and no consistent BPM pattern has been found.

On the rather rare occasions that one finds a term that appears to denote individual decision-making, it typically also includes either a reference to planning or to choosing. Indeed, the gloss ‘plan’ occurs rather more frequently than ‘decide’, but again no reconstruction is possible. ‘Choosing’, on the other hand, is clearly an Oceanic concept, and a verb can be reconstructed (§10.10).

When one searches a dictionary for ‘decide’, the gloss ‘undecided’ frequently turns up, and this is the topic of the next section.

10.8 Being undecided, of two minds

The English idioms ‘be of two minds’ (this section) and ‘be of one mind’ (§10.9) translate as semantically similar BPMs in Oceanic languages.

Numerous expressions in Oceanic languages for ‘be undecided’ translate roughly as ‘be of two minds’. Expressions for ‘be undecided’ have been found in three of the four witness languages, and examples are given in Table 27.

The Nakanai example and the first To’aba’ita example are BPMs, with a body-part as subject and ‘two’ as predicate. The second To’aba’ita example is a compound verb, ‘mind’ + ‘two’, presumably derived from a BPM. The Wayan example also appears to be a BPM-derived compound, but here ‘two’ is replaced by ‘entangled (with weeds)’.

Table 27 Predicates of indecision in three witness languages

Nakanai	<i>la-gabutatala</i> ART-thoughts	<i>ilua</i> two	‘Thoughts are two.’
To’aba’ita	<i>manata-ku</i> mind-my	<i>e=ruarua</i> it=two	‘My mind is two.’
	<i>nau</i> I	<i>ku=manata-ruarua</i> , I=mind-two	‘I (am) two minds.’
Wayan	<i>Sā</i> s/he	<i>leḡaleḡā-rau</i> thinking-entangled	‘S/he (has) entangled thoughts.’

BPMs that are semantically similar to the top three examples in Table 27 are widespread in Oceanic languages (but seemingly infrequent in Vanuatu), and such a metaphor almost certainly occurred in POc.

NNG:	Lukep	<i>lo- ru</i>	[insides two] ‘be undecided’
NNG:	Takia	<i>ilo- ulalu</i>	[insides two] ‘doubt, uncertain, unsure’
NNG:	Yabem	<i>ttaʔ lulu</i>	[belly.his twofold] ‘be in doubt’
NNG:	Numbami	<i>tae-lualua</i>	[guts-two] ‘doubt, be of two minds’
NNG:	Buang	<i>kʷa lū</i>	[throats two] ‘undecided, doubtful’
		<i>ayo lū lū</i>	[feelings two two] ‘undecided, doubtful’
NNG:	Manam	<i>ilo- i-rua-rua</i>	[insides- 3SG-two-two] ‘doubtful, undecided, hesitating’
PT:	Dobu	<i>(e)nuana-lua</i>	[two-minds] ‘doubt’
PT:	Iamalele	<i>-nuana-luya</i>	[-mind-two] (VI) ‘undecided’
PT:	Iduna	<i>-nuanua-luya</i>	[-mind-two] (VI) ‘doubleminded, undecided’
PT:	Tawala	<i>nugo-lualuaga</i>	[mind-twofold] (VI) ‘confused, hesitant, undecided between two courses of action’
PT:	Misima	<i>nua-elelua</i>	[mind-twofold] ‘undecided’
		<i>nua-lalabui</i>	[mind-twofold] ‘undecided, be of two minds’
MM:	Nakanai	<i>la-gabutatala ilua</i>	[ART-thoughts two] ‘of two minds, undecided’
MM:	Patpatar	<i>i-riruo lilik</i>	[be.two thought] ‘doubt’
MM:	Sursurunga	<i>ru i kən hol</i>	[two in her/his thought] ‘doubt’
SES:	Bugotu	<i>ḡāḡana ruarua</i>	[thought two] ‘doubt, be undecided’
SES:	Sa’a	<i>sae rueraʔa</i>	[liver twofold] ‘doubt’
SES:	Lau	<i>ro si lio</i>	[two of voice] ‘undecided, double-minded’
		<i>manata rurua</i>	[mind two] ‘doubt’
SES:	’Are’are	<i>manata-rua</i>	[mind-two] ‘divided in mind’
SES:	To’aba’ita	<i>manata- ruarua</i>	[mind- two] ‘be undecided, of two minds’
		<i>manata-ruarua</i>	[mind-two] ‘be undecided, of two minds’
SES:	Arosi	<i>ahu-ruaruā</i>	[mind-two] ‘be in two minds’
SES:	Owa	<i>tako ruarua</i>	[mind two] ‘doubt’
NCV:	Mota	<i>nom-ruarua</i>	[mind-two] ‘be in two minds, hesitate, doubt’
Mic:	Kiribati	<i>nano-uoua</i>	[mind-two] (N) ‘doubt, perplexity’

Fij:	Bauan	<i>lomaloma-rua</i>	[insides-two] (N) ‘hesitation’
		<i>lomaloma-rua-taka</i>	[insides-two-APPLICATIVE] ‘be in doubt about’
Pn:	Tongan	<i>loto-loto-ua</i>	[inside-inside-two] ‘of two minds, undecided’
Pn:	Samoan	<i>faʔa-lotu-lotu-lua</i>	[CAUS-inside-inside-two] ‘indecisive’
Pn:	E Uvean	<i>faka-loto-loto-lua</i>	[CAUS-inside-inside-two] ‘hesitant’
Pn:	Rarotongan	<i>ŋākau rua</i>	[guts two] ‘of two minds’

If by inference the POc body part in this context was **lalom* ‘insides’ (§9.4), then the POc BPM **lalo- rua-rua* is a plausible reconstruction.

In a few languages a reduplicated reflex of POc **rua* ‘two’ with the sense ‘twofold’ serves alone as ‘of two minds’.

Mic:	Carolinian	<i>riari</i>	[twofold] ‘be undecided, in doubt, of two minds’
Fij:	Rotuman	<i>ararua</i>	[twofold] ‘(habitually) indecisive’

Occasionally the BPM turns up with ‘many’ instead of ‘two’, indicating that in some languages at least the metaphor remained productive.

NNG:	Takia	<i>ilo- wei</i>	[insides- many] ‘be in doubt’
PT:	Dobu	<i>(e)nuana-yauna</i>	[mind many] ‘be undecided’
Mic:	Kiribati	<i>nano koraki</i>	[insides crowd] ‘indecision’
		<i>nano maiti</i>	[insides many] ‘perplexed’

10.9 Agreeing, being of one mind

Metaphors for ‘agree, reach consensus, be unanimous’ fall into two patterns. The first roughly translates ‘be of one mind’. Its POc form may well have been parallel to that of POc **lalo- rua-rua* ‘be of two minds’ (§10.8), but its reconstruction is obstructed by the fact that several POc forms for ‘one’ can be reconstructed (Lynch, Ross & Crowley 2002:72), and their distribution is not yet well enough understood to infer which form probably occurred in this BPM.

NNG:	Takia	<i>ilo- kisaek</i>	[insides one] ‘be of one mind, agree’
PT:	Iduna	<i>veʔa-nuwanuwa-saeʔya-</i>	[RECIP-mind-one-] ‘be of one mind with (s.o.)’
PT:	Kiriwina	<i>nina-tala</i>	[mind-one] ‘be of one mind’
PT:	Motu	<i>lalo- tamona</i>	[insides one] ‘agree’
SES:	Bugotu	<i>lio- sikei</i>	[mind one] ‘of one mind, decided; resolute’
Mic:	Carolinian	<i>tipi-yew</i>	(VI) [one neck] ‘be of one mind, agree’
Pn:	Tongan	<i>loto-taha</i>	[insides-one] ‘unanimous, of one mind’
Pn:	Rennellese	<i>goto tasi</i>	[insides one] ‘agree’

Other languages employ a variety of complex lexemes meaning ‘mind together’ or ‘speak together’.

Adm:	Nyindrou	<i>sahou radra le</i>	[talk one only] ‘agreement, covenant’
NNG:	Takia	<i>awa- -tumani</i>	[mouth- -meet] ‘reach consensus, make collective decision’
PT:	Motu	<i>gwau-bou</i>	(VI) [speak-together] ‘agree’
SES:	Gela	<i>lio kolu</i>	[mind together] ‘agree’
SES:	Bugotu	<i>fari hagore</i>	[share speech] ‘agree’
SES:	Sa'a	<i>ruru wala</i>	[gather.together speech] ‘agree’
SES:	Owa	<i>tamasi faga-etagai</i>	[speak CAUS-one] ‘agree’
NCV:	Mota	<i>sara-tuwale</i>	[gather.together-one] ‘agree, meeting together’
Fij:	Bauan	<i>loma-vata</i>	[insides-together] ‘agree’
Fij:	Wayan	<i>lia vata</i>	[one together] ‘be unified, unanimous’

10.10 Choosing

Choosing is a cognitive act, but it is one that has visible physical consequences, and it is perhaps for this reason that a POC etymon, **piliq* (VI), **piliq-i-* (VT) ‘choose, select, pick out’, has enjoyed considerable continuity and relatively little replacement..

PAN **piliq* ‘choose, select, pick out’ (ACD)

POC **piliq* (VI), **piliq-i-* (VT) ‘choose, select, pick out’

NNG:	Takia	<i>-pili-an-</i>	‘mark out, select, choose, pick up, deal out’
PT:	Gapapaiwa	<i>vine</i>	‘choose’
PT:	Tawala	<i>win(agana)</i>	‘choose, select’
PT:	Dawawa	<i>vine</i>	‘choose’
PT:	Misima	<i>hili</i>	‘choose (piece of material)’
PT:	Balawaia	<i>viriy-i</i>	‘choose’
MM:	Sursurunga	<i>pilək</i>	‘choose’
MM:	Ramoaaina	<i>pilak</i>	‘choose, select’
SES:	Bugotu	<i>vili</i>	‘choose’
SES:	Gela	<i>vili</i>	‘choose, select; give a judgment’
SES:	Longgu	<i>vili-</i>	‘choose, select, appoint’
SES:	Lau	<i>fili</i>	‘choose, prefer’
		<i>fili-s-ia</i>	‘be chosen’
SES:	Sa'a	<i>hili</i>	‘choose for one’s own, desire and take
		<i>hili-si</i>	‘pick, choose’
SES:	’Are’are	<i>hiri-si-</i>	‘choose, pick out, select’
SES:	Arosi	<i>hiri</i>	‘choose’
NCV:	Lonwolwol	<i>wel</i>	‘choose’

PMic **fili* ‘choose’ (Bender et al. 2003)

Mic:	Chuukese	<i>firi-</i>	‘choose, select; appoint’
Mic:	Puluwatese	<i>fili-</i>	‘choose, select’
Mic:	Woleaian	<i>f-firi</i>	‘choose, pick up, decide, select’
Mic:	Ponapean	<i>pil</i>	‘choose, pick out, select’
Mic:	Mokilese	<i>pil</i>	‘choose, select’

Fij:	Rotuman	<i>hili</i>	‘pick out, choose, select’
Fij:	Wayan	<i>vili-</i>	‘pick up (s.t.)’
Fij:	Fijian	<i>vili</i>	‘pick up scattered things, as fallen leaves or fruits’
PMic <i>*fili</i> ‘choose’ (POLLEX)			
Pn:	Tongan	<i>fili</i>	‘choose, pick out, cull, select’
Pn:	Niue	<i>fi-fili</i>	‘choose, select’
Pn:	Futunan	<i>fili</i>	‘choose’
Pn:	Samoan	<i>fili</i>	‘choose’
Pn:	K’marangi	<i>hili</i>	‘choose, select; choice’
Pn:	Nukuoro	<i>hili</i>	‘pick from among several, choose; be choosy’
Pn:	Rennellese	<i>higi</i>	‘choose, select; be choosy, selective’
Pn:	Rarotongan	<i>iri</i>	‘select, choose, pick out, name’
Pn:	Maori	<i>φiri</i>	‘select, choose’

10.11 Learning and teaching

To teach someone something is to cause them to learn it, and the learner then either knows what has been taught or knows how to do something. This causative relationship is explicit in many Oceanic languages. Occasionally it is expressed simply by using the same transitive verb for learning something and teaching something, as in the instances below:

SES:	Tolo	<i>sasani-</i>	‘learn, educate, instruct’ (cf. <i>sasani</i> (VI) ‘learn, go to school’)
SES:	To’aba’ita	<i>toʔo-</i>	‘learn s.t.; teach s.o. s.t.’
Fij:	Wayan	<i>vuli-ōi-</i>	‘study, learn s.t., teach s.o.’ (<i>vuli</i> (VI) ‘study, learn’)
Pn:	Samoan	<i>aʔo</i>	‘learn, teach, train’

More often (Table 28) it is expressed by attaching a causative prefix, usually a reflex of POC **pa[ka]-* CAUSATIVE, to a root meaning ‘know’ (§10.2) or ‘learn’. Since to learn is often synonymous with ‘come to know’, the English distinction between ‘know’ and ‘learn’ is not relevant in this context.

The Bariai (NNG), Misima (PT) and Halia (MM) items above, along with Dawawa (PT) *wai-kata-i* ‘show’, suggest that there was a PWOC causative **paka-qataq-i-* ‘teach, cause to know, show’, formed from **qataq-i-* ‘know, understand, realise (that)’ (§10.2).

Another semantic dimension of verbs of learning and teaching arises out of teaching styles in traditional Oceanic communities. A young person learned how to do something by watching an older person and imitating them, and this is reflected in the fact that POC **towa* ‘imitate, learn by imitation’ and POC **usuri/*usawiri* ‘imitate’ below both have ‘imitate’ as their primary sense. The causatives formed from them, however, mean ‘teach, instruct’, presumably by demonstration.

Lou, Baluan and Manam reflexes of intransitive POC **towa* ‘imitate, learn by imitation’ reflect a transitive **towa-(a)kini-* ‘learn (s.t.) by imitation’ formed with the suffix **(a)kini* (§1.3.5.2). Curiously, PT reflexes of **towa* are formed with a causative prefix, but mean ‘imitate’ rather than ‘teach’.

Table 28 Verbs of teaching formed with a causative prefix

NNG:	Bariai	<i>pa-oatai</i>	‘teach’	<i>oatai</i>	‘know, possess knowledge’
NNG:	Bariai	<i>pa-nanale</i>	‘teach’	<i>nanale</i>	‘learn; be accustomed to, get used to’
NNG:	Mangap	<i>-pa-kilaala</i>	‘teach, help to understand’	<i>kilaala</i>	‘know well, be aware, understand’
NNG:	Mangap	<i>pa-ute</i>	‘teach’	<i>-ute</i>	‘know, know how to’
PT:	Dobu	<i>e-ʔita</i>	‘teach, show, train’	<i>ʔita</i>	‘see, look’
PT:	Misima	<i>a-atena</i>	‘teach’	<i>ate(na)</i>	‘know, understand’
PT:	Balawaia	<i>vaya-riba</i>	‘teach, inform’	<i>riba</i>	‘know’
PT:	Motu	<i>ha-diba-ia</i>	‘teach, learn’	<i>diba</i>	‘know, understand’
MM:	Ramoaaina	<i>wer</i>	‘teach’	<i>wa-wer</i>	‘learn; teach’
MM:	Halia	<i>h-atatei</i>	‘learn, begin to know’	<i>atei</i>	‘know’
SES:	‘Are’are	<i>haʔa-usuri-</i>	‘teach, instruct’	<i>usuri-</i>	‘follow, copy, imitate’
SES:	Kwaio	<i>faʔamanatā</i>	‘teach, advise’	<i>manata</i>	‘think, reason, know’
SES:	Owa	<i>faga-usuri</i>	‘teach s.o.’	<i>usuri-</i>	‘imitate s.o.’
Mic:	Carolinian	<i>a-xulē-y</i>	‘teach (s.o.)’	<i>xule</i>	‘learn, know’
Fij:	Bauan	<i>vaka-vuli-ōi-</i>	‘teach a person s.t., make s.o. learn s.t.’	<i>vuli-ōi-</i>	‘study, learn s.t., teach s.o.’

POc **towa* (VI) ‘imitate, learn by imitation’, **towa-(a)kini-* (VT) ‘learn (s.t.) by imitation’

Adm:	Lou	<i>to-ek</i>	‘show’
		<i>to-to-ek</i>	‘show how’
Adm:	Baluan	<i>tou-ek</i>	‘show; teach’
NNG:	Manam	<i>to</i>	‘learn’
		<i>to-aka</i>	‘imitate, copy, mimic, mock’
NNG:	Sio	<i>towo</i>	‘demonstrate; show how’
PT:	Gumawana	<i>va-to-towa-na</i>	‘imitate’
PT:	Bunama	<i>he-to-towa-ne</i>	‘copy, imitate’
PT:	Dobu	<i>e-to-towa-na</i>	‘copy, mimic, imitate’
MM:	Bola	<i>tovo</i>	‘learn’
NCV:	Paamese	<i>te-toho-ni</i>	‘imitate, copy’
NCV:	Lewo	<i>tou-towo</i>	(VI) ‘measure, imitate’
		<i>tou-tou-ni</i>	(VT) ‘measure, imitate’

At first sight, the set below appears to reflect the POc root **usuri*, but the Ramoaaina and Nehan reflexes suggest that formal reconstruction is more complicated. The Nehan root *sairi* contains no internal *-u-*. The fact that NW Solomonian languages lose *-w-*, but not *-u-*, suggests that *sairi* reflects *usawiri* (with unpredicted loss of initial *u-*). Ramoaaina loses *-s-*, and its

expected reflex of **usuri* would be *†ūr*, rather than actual *wer*, which also attests to the presence of **-w-* followed by an unrounded vowel.

POc **usuri* or **usawiri* ‘imitate’; **pa[ka]-usuri* or **pa[ka]-usawiri* ‘teach, pass on’

MM:	Patpatar	<i>ha-usur</i>	(VT) ‘teach’
		<i>hara-usur</i>	(VI) ‘learn’
MM:	Ramoaaaina	<i>wer</i>	‘teach’
		<i>wa-wer</i>	‘learn; teach’
MM:	Nehan	<i>ua-sairi</i>	‘copy’
		<i>uala-siri</i>	‘teach; understand, train, skill’
SES:	Longgu	<i>(gere)usuli-</i>	‘copy writing’
SES:	Lau	<i>usuli-</i>	‘copy; take after, resemble’
SES:	’Are’are	<i>usuri-</i>	(VT) ‘follow, copy, imitate’
		<i>haʔa-usuri-</i>	‘teach, instruct’
SES:	Arosi	<i>usuri</i>	(VT) ‘hand on a tale’
		<i>haʔa-usuri</i>	‘teach, instruct; teacher’
SES:	Owa	<i>usuri-</i>	(VT) ‘imitate s.o.’
		<i>faga-usuri</i>	(VT) ‘teach s.o.’
NCV:	Mota	<i>usur</i>	‘pass on, relate’

cf. also:

MM:	Siar	<i>ariri</i>	learn (first <i>-r-</i> for <i>†-s-</i>)

Reflexes of another term for ‘learn’ are known only from Gapapaiwa and from Polynesian languages.

POc **akop* ‘learn’

PT:	Gapapaiwa	<i>akova</i>	‘learn, know, understand’

Ppn **ako* ‘acquire mentally, learn, teach’ (POLLEX)

Pn:	Tongan	<i>ako</i>	(VI) ‘learn, study; teach, train in’
		<i>ako-naki</i>	(VI) ‘teach, give instruction’
Pn:	Niuean	<i>ako</i>	(VI) ‘learn’
		<i>faka-ako</i>	(VT) ‘teach, learn, teach yourself’
Pn:	Samoan	<i>aʔo</i>	‘learn, teach, train’
Pn:	Tikopia	<i>ako</i>	‘learn’
Pn:	W Futunan	<i>ako</i>	‘learn, try, attempt’
Pn:	Mangareva	<i>ako</i>	‘prove, try, exercise, practise’
Pn:	Hawaiian	<i>aʔo</i>	‘learn, teach’
Pn:	Maori	<i>ako</i>	‘learn, teach’

The primary meaning of POc **[ñā]ñau* appears to have been ‘teach’, perhaps centring on parents or seniors instructing children orally about their responsibilities (cf Lukep, Sursurunga and Kwaio glosses) and/or showing them how to perform traditional practices (cf Gela and Lau glosses).

The form of **[ñ̃a]ñ̃au* is open to question. If the Nyindrou term is indeed a reflex, then the POC consonant was **ñ̃*. But if the Nyindrou term is not a reflex, and the Titan term listed under ‘cf. also’ is a proper reflex, then the form was **[na]nau*.

POC **[ñ̃a]ñ̃au* ‘teach, learn’; **pa[ka]-[ñ̃a]ñ̃au* ‘teach’

Adm: Nyindrou	<i>ñ̃owoñ̃a</i>	‘reveal, point out’
NNG: Kairiru	<i>-nanou-i</i>	‘teach’
NNG: Lukep (Pono)	<i>-nōnō</i>	‘teach about traditional responsibilities’
NNG: Sio	<i>(pa)nana</i>	‘teach’
MM: Sursurunga	<i>(i)nau</i>	‘instruct, charge (as parent to child)’
SES: Gela	<i>naunau</i>	‘teach a craft, teach a dance; try, practise; imitate’
SES: Longgu	<i>nau-a</i>	‘show s.o., teach s.o.’
SES: Lau	<i>(fā)nanau</i>	‘train, teach by practice’ [<i>†nanau</i> not recorded]
SES: ‘Are’are	<i>nao</i>	‘turn, point, aim towards’
	<i>naohi-</i>	‘point at, to aim at’
SES: Kwaio	<i>nanau</i>	‘learn about, learn’
	<i>(faʔa)nanau-a</i>	‘teach, lecture’
SES: Sa’a	<i>(sae)nanau</i>	‘be taught, be wise’ (<i>sae</i> ‘liver’)
NCV: Mota	<i>(vata)nau</i>	‘learn, teach, by practice’

cf. also:

Adm: Titan	<i>ananowe, anano-ani</i>	‘show, teach’

10.12 Conclusion

For many cognition frames no POC term be reconstructed. Apparently because their meanings are abstract, their lexical replacement rate is considerably higher than for items with less abstract meanings (§9.6). As we have noted, abstract states and activities tend to be encoded metaphorically as complex lexemes.

At the same time, it is reasonable to infer that, for example, the ‘think + find’ SVC pattern for ‘remember’ in §10.5 is quite probably of POC antiquity, as it occurs in widely distributed languages. However, the data do not allow us to reconstruct the forms that occurred in this and other complex lexemes, and so the possibility of independent parallel innovation cannot be excluded. Thus for remembering (§10.5), forgetting (§10.6) and being of one mind (§10.9) no forms are reconstructed, but complex lexemes are described, as they give us some insight into how POC speakers conceived these cognitive activities. For deciding (§10.7) not even a consistent pattern of complex lexemes is found, and the same is true of hoping and expecting, which are omitted here.

11 *Describing people: stature, temperament, emotion and evaluation*

MALCOLM ROSS AND MEREDITH OSMOND

11.1 Introduction

This chapter collects together terms that people use to describe each other and to express their own feelings. It includes terms used to describe

- a person's physical qualities (§11.2): tall vs short, big vs small, fat vs thin and strong vs weak ;
- a person's temperament (§11.3): tame vs untamed, brave vs cowardly, obstinate, ignorant vs wise and stupid vs intelligent;
- a person's emotions (§11.4): afraid, ashamed, compassionate, happy, sad, angry, confused, surprised;
- wanting (§11.5);
- one's evaluation of someone or something as good or bad (§11.6).

This is quite a mixed bag, both semantically and formally. Terms of temperament, emotion and wanting normally describe only human beings and sometimes higher animals, but terms used to describe physical qualities or to express an evaluation are applied to a wider range of referents that includes inanimates. Terms of temperament, emotion and wanting are quite often BPMs, as they denote human affective states. The range of meanings found in the headings in this chapter is somewhat restricted. For example, we tried to reconstruct terms for 'lazy' vs 'hard-working' and 'generous' vs 'mean', but could not do so because cognate sets are at best very local. One reason for this is certainly that speakers are creative in their use of metaphor, and so one term or metaphor is easily replaced by another. An associated reason is that many of our sources do not record the complex lexemes that result from metaphorical usage. Although BPMs occur for various aspects of wanting and desire, none are recorded in §11.5 because there is little conceptual similarity among languages.

Among the semantic fields in which BPMs are used, fewer are found in the description of temperament than in the labelling of emotions. The reason for this is almost certainly that temperament, like body shape (§11.2), is fairly stable through adulthood, and stable qualities tend to be labelled by single words. Emotions and desires, on the other hand, are essentially changeable, and are often described metaphorically. The boundary between temperament terms and emotion terms, however, is fuzzy. Saying that someone is brave may refer to someone's temperament or to their current behaviour. In the latter case a BPM is expected, so that a BPM like POC **qate- p^(w)atu(k)* [liver- strong/firm] 'brave' (§11.3.2.1) was basically an

expression used of someone's immediate behaviour that was also extended to a stable propensity of temperament.

11.2 Properties of the human body

11.2.1 Stature: tall vs short

Languages vary as to whether or not they lexicalise a distinction between horizontal and vertical length. English does so by distinguishing between horizontal *long* and vertical *tall*, but the antonym of both terms is *short*. German and French equate vertical length, at least in its application to human beings, with size: German *groß*, French *grand* 'big, tall' vs German *klein*, French *petit* 'small, short in stature'.

Oceanic languages mostly agree in making no distinction between horizontal and vertical length. The term for 'long' also means 'tall' and the term for 'short' has both horizontal and vertical application. Both apply to the stature of human beings. The relevant terms are reconstructed in vol.2 (pp197–199). In no Oceanic language for which data are available is human stature equated with size (§11.2.2).

11.2.2 Size: big vs small

It follows from the last statement that terms with the general meaning 'big' (POc **lapuat*) and 'small' (POc **qitik*, **riki(t,q)*), reconstructed in vol.2 (pp191–196), do not denote stature when they refer to human beings. To assert that someone is 'big' is typically to say that this person has social prestige, and this was probably also true in POc. The nature of that prestige depends on community structure. In chiefly societies, a 'big' man is a chieftain.

POc **lapuat* 'big, large; chief'

Adm:	Mussau	<i>lapa-n</i>	'important person, chief'
Adm:	Baluan	<i>lapa-n</i>	'chief; excellent' (Schokkin 2014)
Adm:	Titan	<i>lápa-n</i>	'leader, chief'
Adm:	Nyindrou	<i>laba-n</i>	'leader, chief'
Adm:	Koro	<i>laba-n</i>	'chief'
MM:	Mono-Alu	<i>la-lafa</i>	'chief'

PEOc **qa-lap^wa* 'chief'

SES:	Lau	<i>alafa</i>	'chief'
SES:	'Are'are	<i>a-raha</i>	'chief'
SES:	Arosi	<i>a-raha</i>	'chief'

cf. also:

MM:	Tinputz	<i>abuh</i>	'big, huge; chief'

In non-chiefly societies a 'big' man is an important person, perhaps by virtue of leadership qualities, perhaps by virtue of accrued wealth.

Adm:	Titan	<i>man[~]rean</i>	'big; important'
NNG:	Takia	<i>tubun</i>	'big; important'

NNG:	Mangseng	<i>pom</i>	‘big; important, prestigious’
NNG:	Numbami	<i>bamo</i>	‘big, large; elder’
NNG:	Hote	<i>beŋ</i>	‘big; deep; thick; wide; important’
NNG:	Mumeng (Patep)	<i>leʋaʔ</i>	‘big; important’
PT:	Dobu	<i>sinab^wa-na</i>	‘big, large; important’
PT:	Iduna	<i>lakahi-na</i>	‘big; “big” man’
PT:	Sinaugoro	<i>barego</i>	‘big; important’
MM:	Nakanai	<i>uru</i>	‘big; senior; important’
MM:	Nehan	<i>uleiki</i>	‘big, large; important’
MM:	Roviana	<i>ululu-na</i>	‘big; important man’
SES:	To’aba’ita	<i>baʔita</i>	‘big; important’
SES:	’Are’are	<i>paina</i>	‘big, large, great, loud; (man) in authority’
NCV:	Paamese	<i>marīte</i>	‘big; important’
		<i>heitamen</i>	‘big; important’
NCV:	Lewo	<i>keviu</i>	‘big; important’

A secondary but much less frequent association of ‘big’ is with age: ‘big’ equates with ‘older’.

‘Small’ in Oceanic languages is the antonym of ‘big’ with regard to size, but not in its extended meanings. The expected antonym of ‘chiefly, important’ would be ‘socially inferior’, but this usage appears to be very rare. Instead, ‘small’ seems far more frequently used of a child, that is, with regard to age. However, it is difficult to be sure about this, because a gloss like ‘young, small’ does not tell us that the word is used for small objects in general, as the translator may simply have ‘young child, small child’ in mind.

11.2.3 Girth: fat vs thin

Oceanic languages typically distinguish between (a) the girth (circumferential thickness) of both human beings (English *fat* or *stout*) and non-human objects (e.g. *a thick stem*) and (b) the thickness of something with a flat surface, like paper, or the depth of a large body of water.

Two terms reconstructed for ‘thick’ in vol.2 (pp201–202) concern us here, POc **ma-tolu* and POc **[tubu]tubu[ka]*. Glosses that disambiguate the meaning of **ma-tolu* point in just one instance (Manam) to girth and in a majority of cases to the thickness of something flat, and it is reasonable to infer that this was its central POc sense.

POc **ma-tolu* ‘thick (of flat objects)’ (vol.2:201–203)

NNG:	Manam	<i>ma-toli</i>	‘fat’
NCV:	Mota	<i>ma-tol-tol</i>	‘thick, thick-skinned, callous; broad, thick (of speech)’
NCV:	Paamese	<i>ma-te-tel</i>	‘thick; deep’
SV:	Anejom	<i>a-m-esej</i>	‘thick (of flat object)’
Mic:	Kosraean	<i>mæ-tol</i>	‘thick, dense’
Mic:	Chuukese	<i>ma-arīr</i>	‘be thick (of flat objects)’
Mic:	Puluwatese	<i>ma-alīyāl</i>	‘be thick (as paper), thickness’
Mic:	Woleaian	<i>ma-aluyelū</i>	‘be thick, close packed, dense’
Pn:	Ifira-Mele	<i>mā-toru</i>	‘thick (of board etc.)’

Pn:	Rarotongan	<i>mā-toru</i>	‘thick through, stout and solid’
Pn:	Rennellese	<i>mā-togu</i>	‘thick, as a knife or a mat, crowded’

The POc term for a large girth was **[tubu]tubu[ka]*, reconstructed in vol.2:202.¹ Additional reflexes have been found, and we give the cognate set as it now stands.

POc **[tubu]tubu[ka]* ‘thick (in dimension); fat (of vegetable, fruit, human being)’ (vol.2:202)

NNG:	Yabem	<i>tɔp</i>	‘grow fat’
NNG:	Sio	<i>tu^mbu</i>	‘fat; gain weight’
NNG:	Numbami	<i>-tu^mbu</i>	‘grow, get fatter’
MM:	Patpatar	<i>tubu</i>	‘fat’
MM:	Ramoaaina	<i>tubu</i>	‘fat ; wide ; thick’
		<i>tubu-tubu</i>	‘very fat’
MM:	Tolai	<i>tubu</i>	‘thick (in dimension)’
SES:	Lau	<i>ūbu-ūbu-a</i>	‘thick, fleshy, in good condition’
SES:	Kwaio	<i>ubu-ubu</i>	‘thick’
SES:	Arosi	<i>ubu-ubu-ʔa</i>	‘thick’
SES:	Santa Ana	<i>upu-pu-ya</i>	‘thick’
Fij:	Bauan	<i>tubu</i>	‘grow or increase in size’

cf. also:

PT:	Misima	<i>tab^wa</i>	‘grow well; (be) fat’

The term reconstructed for ‘thin’ in vol.2 (pp202–203) is POc **manipis*. Below are listed reflexes with disambiguating glosses, and it is clear that **manipis* is the antonym of **matolu* ‘thick (of flat objects)’ and thus not a term applied to human beings.

PAn **[ma]Lipis* ‘thin’ (vol.2:202–203)

POc **manipis* ‘thin (of flat objects), flimsy’

SES:	Owa	<i>manifi</i>	‘thin and transparent’
NCV:	Mota	<i>mavin-vin</i>	‘thin; of speech, sharp (antonym of <i>matoltol</i>)’ (metathesis)
NCV:	NE Ambae	<i>manivi-nivi</i>	‘thin, shallow, low tide’
NCV:	Lewo	<i>mani-nivi</i>	‘thin; shallow’
NCV:	Nguna	<i>manive-nive</i>	‘thin (of an object, e.g. cloth, paper, sides of canoe etc)’
Mic:	Marshallese	<i>maniy</i>	‘thin, flimsy’
Mic:	Ponapean	<i>mɛnipi-nip</i>	‘thin (of flat objects such as paper)’;

The data make it clear that Oceanic languages have a distinct term or terms for people who are thin/scawny/skinny, but no cognate set reflecting a POc term with this meaning has been reconstructed. Clark (2009) reconstructs a PNCV term that evidently had this sense.

PNCV **magura* ‘thin, lean’ (Clark 2009)

NCV:	Raga	<i>magura</i>	‘thin’

¹ POc **-ka* was an adjectival formative.

NCV: Uripiv	- <i>mak-mak</i>	‘be thin’
NCV: Port Sandwich	<i>ma^ugü</i>	‘thin’
NCV: Lewo	<i>maula</i>	‘thin, bony’
NCV: Namakir	<i>m^wagir</i>	‘thin’
NCV: Nguna	<i>m^wagura</i>	‘thin, lean, slim (person), lean (meat)’

11.2.4 Strength: strong vs weak

Oceanic terms for ‘strong’ tend also to mean ‘hard’. One POc term for ‘strong, hard’ was **toRas*, reconstructed in vol.3 (pp200–201) with the sense ‘a taxon of hardwood trees including *Intsia bijuga*’, where it is also noted that the POc term meant ‘hard, durable’. There is no evidence, though, that this term denoted human strength.

The three terms below, POc **kayu-kayu*, PROc **[kayu]kayu-a* and PEOc **kaila* ‘strong, firm’ appear to be derived from the generic term for tree, POc **kayu* (vol.3:71–73), used metaphorically for strength and hardness. However, this seemingly obvious derivation is a little problematic. If the reflexes of these three terms are compared with the terms for tree in the same languages, differences emerge. The **kayu*-like terms for ‘strong, firm’ have a fortis initial *k-*, whilst in languages that have a fortis/lenis distinction² the term for ‘tree’ has a lenis initial *γ-* (Bugotu, W Guadalcanal, Woleaian) or zero (Labu, Paamese). This appears to be evidence against the hypothesis that these terms are derived from **kayu*. However, the history of the fortis/lenis distinction is not well understood, and in favour of the hypothesis is that POc **kayu-kayu* and **[kayu]kayu-a* were both formed from **kayu* by two early Oceanic adjective-forming strategies. The first was CVCV- reduplication, giving POc **kayu-kayu* ‘strong, tough, inflexible’ (vol.2:206–220). The second was the addition of **-[k]a* to a noun (Ross 2000), giving **[kayu]kayu-a*. The fortis/lenis and other formal discrepancies can perhaps be explained by assuming that speakers’ association of ‘strong, firm’ with ‘tree’ was lost in some languages, and as a result the root of the ‘strong’ term and the reflex of **kayu* have undergone different phonological developments.

PEOc **kaila* ‘strong, firm’ has a similar set of meanings, and was presumably also derived from **kayu*, but the derivational mechanism has not been recorded in other terms.

POc **kayu-kayu* ‘strong, tough, inflexible’

NNG: Manam	<i>kaikai</i>	‘strong’ (<i>kai</i> ‘tree; strong’)
NNG: Mangap	- <i>keke</i>	‘stiff, strong, inflexible, proud, unwilling to serve’ (<i>ke</i> ‘tree’)
NNG: Sio	<i>kaika</i>	‘strong’ (<i>kœ</i> ‘tree’)
NNG: Labu	<i>ka-ka</i>	‘hard’ (<i>a</i> ‘tree’)
PT: Muyuw	<i>kei-kay</i>	‘hard, difficult’ (<i>kay</i> ‘tree’)
SES: Bugotu	<i>ka-kai</i>	‘firm, steady, faithful’ (<i>yai</i> ‘tree’)
SES: W Guadalcanal	<i>ka-kai</i>	‘strong’ (<i>yai</i> ‘tree’)
Fij: Wayan	<i>kai</i>	‘wood, tree; strong, tough, powerful’
	<i>kai-kai</i>	‘hard, firm, rigid, stiff’

² Languages represented here that lack a fortis/lenis distinction are NNG, northern NCV, Fijian and Polynesian languages.

PROc *[*kayu*]*kayu-a* ‘strong’ (Clark 2009: PNCV)

NCV:	Nokuku	(<i>mel</i>) <i>kɔu</i>	‘strong’ (<i>kɔu</i> ‘tree’)
NCV:	Tolomako	<i>yau-yau-a</i>	‘strong’
NCV:	Unua	- <i>xaiv</i>	‘hard, difficult, solid, strong, firm’
NCV:	Maskelynes	<i>xai-xai</i>	‘strong’
NCV:	Paamese	<i>keiho</i>	‘strong’ (<i>a-ai</i> ‘tree’)
NCV:	Lewo	<i>kawa</i>	‘strong; adult’ (<i>la-ki</i> ‘tree. stick, wood’)
NCV:	Nguna	<i>kasua</i>	‘strong, hard, difficult, loud’ (<i>na-kau</i> ‘tree’)
Fij:	Bauan	<i>kau-kau-a</i>	‘strong, hard’ (<i>kau</i> ‘tree’)
Pn:	Tongan	<i>kau-kau-a</i>	‘strong, sturdy, burly’ (<i>kau</i> ‘stalk, stem’)

It is possible that Seimat [Adm] *aila-n* in the BPM *patu ailan* ‘he is obstinate’ means ‘hard, strong’. If so, then PEOc **kaila* is elevated to POc status.

PEOc **kaila* ‘strong, firm’

SES:	Sa’a	<i>aʔaila-ʔa</i>	‘firm, strong’ (<i>ʔai</i> ‘tree’)
SES:	Arosi	<i>ʔaʔaira[ʔa]</i>	‘strong, firm’ (<i>ʔai</i> ‘tree’)

PMic **kaila* ‘strong’

Mic:	Kiribati	<i>kaina(matoa)</i>	‘implacable’ (<i>te-kaina</i> ‘pandanus tree’)
Mic:	Woleaian	<i>kkaile</i>	‘strong, healthy’ (<i>xaai</i> ‘tree’)
Mic:	Ponapean	<i>kēl</i>	‘strength’
		<i>kēlayl</i>	‘strong, healthy, powerful’ (< PMic <i>*kailaila</i>)
Mic:	Pingelapese	<i>kēl</i>	‘strength’ (<i>suhkae</i> ‘tree’)
Mic:	Puluwatese	<i>kkel</i>	‘strong’ (<i>yéé</i> ‘house beam < POc <i>*kayu</i> ‘tree’)

cf also:

NCV:	Araki	<i>yau-ra</i>	‘hard, solid; difficult, arduous, tough’ (< <i>*kayu-ta</i> ; cf. <i>ya</i> ‘tree’)

A further term for ‘hard, strong, firm’ is POc **[p^(w)atu]p^(w)atu* ‘hard, strong, firm’, again an adjective formed by reduplication of a noun. The noun was **p^(w)atu* ‘outer shell, skull’ (Ch:-bodyparts, §4.2.1).

POc **[p^(w)atu]p^(w)atu* ‘hard, strong, firm’

NNG:	Takia	<i>pat-pat</i>	‘strong, hard’
PT:	Dobu	<i>patu-patu</i>	‘hard, of fat, sago’
PT:	Kukuya	<i>vatu-</i>	‘strong, hard ??’ ³
SES:	Bugotu	<i>patu</i>	‘hard, firm, taut’
SES:	Gela	<i>patu</i>	‘hard, to make firm’
SES:	’Are’are	<i>pau-pau</i>	‘hard’

Two terms with an implication of human strength, both reconstructed by Blust (ACD), are recorded in vol.2 (p214): POc **paka(s)* ‘have energy, strength’ and POc **laga(s)* ‘spirited, energetic’.

³ Only found in BPMs in our data.

Weak has at least two related senses in English when it is applied to human beings: ‘temporarily weak as a result of tiredness, sickness or hunger’ and ‘constitutionally weak’. It is the latter which is relevant here. Just as ‘strong’ is associated with ‘hard’ in Oceanic languages, so ‘weak’ is associated with ‘soft’. POC *[*ma*]lumu ‘soft, gentle, easy’ is reconstructed in vol.2 (p215). In its application to people, this term seems to have had two senses: with reference to the body, ‘constitutionally weak’, and with reference to temperament ‘gentle, easygoing’ (§11.3.1.1). In the listing below ‘weak’ is shown in bold when it occurs in a gloss.

PMP *[*ma*]lumu ‘soft, tender, gentle’ (ACD)

POC *[*ma*]lumu ‘soft (of objects); gentle, easygoing; (constitutionally) weak’ (vol.2:215)

NNG: Bariai	<i>marum</i>	‘soft, weak ’
NNG: Bukawa	<i>malɔ</i>	‘peaceful’
NNG: Yabem	<i>malɔ</i>	‘calm, peaceful, good-natured’
PT: Muyuw	<i>manum</i>	‘gently’
MM: Tinputz	<i>mamarum</i>	‘ weak (in body) ’
SES: Sa’a	<i>malumu</i>	‘soft, gentle’

PNCV **ma-lumu* ‘soft, gentle, **weak**’ (Clark 2009)

NCV: Mota	<i>malum-lum</i>	‘soft, gentle’
NCV: Nokuku	<i>melum</i>	‘soft, slow, weak ’
NCV: Araki	<i>malum</i>	‘quiet, slow, weak ’
NCV: S Efate	<i>mailum-lum</i>	‘quiet, slow; soft, weak ’
Fij: Bauan	<i>malumu</i>	‘ weak , faint, sick, soft’
Fij: Wayan	<i>malum</i>	‘ weak , feeble (of a living thing)’
Pn: Niuean	<i>molū</i>	‘soft, humble, weak ,’
Pn: Samoan	<i>malū</i>	‘soft, calm of sea, gentle’
Pn: Tahitian	<i>marū</i>	‘soft, gentle, easy’

11.3 Properties of the human temperament

Whilst Oceanic languages certainly have terms, some of them BPMs, for human propensities, many of these terms may refer to both temporary and permanent states. It is the permanent states that are properties of temperament, and some languages have a construction that encodes these. There is, however, no POC construction that can be reconstructed with this function.

Iduna, like a number of other Papuan Tip languages, makes copious use of *to-* ‘person who...’ (from POC **tau-*; §2.2.1.2) in expressions like the following, where the item compounded with *to-*, typically a verb, encodes a quality construed as permanent.

<i>to-selakalaka</i>	‘boaster, arrogant person’ (- <i>selakalaka</i> ‘boast, brag, be proud’)
<i>to-siveyawa</i>	‘healer’ (<i>siveyawa</i> ‘healing’)
<i>to-taya-k^weu</i>	‘deaf person’ (<i>taya</i> ‘ear’; - <i>k^weu</i> ??)
<i>to-talahayi</i>	‘person at enmity with s.o., not speaking to, eating with or visiting them’ (- <i>talahayi</i> ‘repudiate, hate, have nothing to do with s.o.’)
<i>to-tubukoyo</i>	‘cripple’ (- <i>tubukoyo</i> ‘develop badly, not grow well’)
<i>to-tunutunuyina</i>	‘upright, honest person’ (<i>tunutunuyina</i> ‘straight, upright, righteous, honest’)

to-nu-beʔu-beʔu ‘lame person’ (*beʔu* ‘fall down’)

In a number of these compounds the stem is itself a BPM formed with *nua* ‘think; mind’.

<i>to-nua-doya</i>	‘kind, generous person’ (<i>nuanua-wadoya-na</i> ‘gracious, generous’)
<i>to-nua-hobu</i>	‘humble person’ (<i>-nua-hobu</i> ‘be humble’; <i>-hobu</i> go down’)
<i>to-nua-huya</i>	‘intelligent person, educated, wise, literate’ (<i>nua-huya</i> ‘wisdom, skill, knowledge’)
<i>to-nua-kabubu</i>	‘kind, loving person’ (<i>nua-kabubu</i> ‘love, blessing, favour’)
<i>to-nua-lolona</i>	‘miser, ungenerous person’ (<i>-nua-lolona</i> ‘withhold (food, possessions)’)
<i>to-nua-luya</i>	‘double-minded person’ (<i>-nua-luya</i> ‘indecisive’; §10.8)
<i>to-nua-sivebala</i>	‘agitator’ (<i>-sivebalana</i> ‘deter, prevent from going or doing, hold back’)
<i>to-nua-vita</i>	‘downcast, depressed person’ (<i>-vita</i> ‘heavy’)

Motu (PT) forms compound lexemes in a semantically parallel manner, but the attribute precedes *tau-na*, composed of *tau* ‘person’ and *-na* ‘its’. The attribute takes the prefix *he-*, indicating a state, condition or habit. *he-abidae tau-na* ‘a hospitable man’ (*he-abidae* ‘show hospitality’)

<i>he-ayi tau-na</i>	‘a braggart, conceited man’ (<i>he-ayi</i> ‘boast’)
<i>he-ani tau-na</i>	‘a cannibal’ (<i>ani</i> ‘eat’)
<i>he-atotau tau-na</i>	‘one who pays another to betray, kill or save another’ (<i>he-atotau</i> ‘be held down by s.t. placed on top’)
<i>he-boyahisi tau-na</i>	‘a compassionate, merciful person’ (<i>he-boya-hisi</i> [he-belly-pain] ‘pity, compassion’)
<i>he-yame tau-na</i>	‘beggar’ (<i>heyame</i> ‘beg’)

Although constructions reflecting POc **tau-* ‘person who’ are widespread among Papuan Tip languages, there is little evidence that the construction was used for properties of temperament in POc. Instead, as noted in §2.2.1.2, the POc construction was used to denote people with skill in a particular occupation and sometimes people of a certain place or clan. A check of reflexes in Mussau (Adm), Nakanai and Teop (MM), Woleaian and Carolinian (Mic) and various Polynesian languages suggests that the extension of the construction to denote temperamental qualities was restricted to PT.

Several languages have a noun that is used with the sense ‘disposition, way of acting, habit’ and is modified by an adjective or stative verb to form a complex lexeme denoting a property of temperament.

Seimat (Adm) has such a term, *oŋa* ‘temperament or disposition’.

<i>oŋa- solia-n</i>	[disposition good] ‘amiable’
<i>oŋa- kalimen</i>	[disposition bad, terrible, dreadful] ‘greedy, self-centred, miserly, infamous, inhospitable’
<i>oŋa- ewii</i>	[disposition nice, calm] ‘benevolent, generous, hospitable’
<i>oŋa- lialun</i>	[disposition bad] ‘inhospitable’

Tongan *aŋa* reflects the PPn term **aŋa* with widespread reflexes outside eastern Polynesia that are used in this way. Its resemblance to Seimat *oŋa* may be a matter of chance. Tongan in particular has hundreds of complex lexemes formed with *aŋa* ‘character, habit, nature’. A brief selection is given:

Pn:	Tongan	<i>aŋa malū</i>	‘gentle, amiable’ (<i>malū</i> ‘calm of sea’)
		<i>aŋa sauni</i>	‘vindictive’ (<i>sauni</i> ‘to avenge’)
		<i>aŋa maka</i>	‘stubborn, obstinate’ (<i>maka</i> ‘stone’)
		<i>aŋa hiki</i>	‘proud, overbearing’ (<i>hiki</i> ‘to lift, raise’)
		<i>aŋa foaki</i>	‘generous’ (<i>foaki</i> ‘donate, bestow’)

PPn **aŋa* ‘habit, custom, way of acting’ (POLLEX)

Pn:	Tongan	<i>aŋa</i>	‘character, habit, nature’
Pn:	Niuean	<i>aŋa</i>	‘habit, custom, behaviour’
Pn:	Samoan	<i>aŋa</i>	‘conduct, way of acting’
Pn:	Tokelauan	<i>aŋa</i>	‘habit, custom’
Pn:	Tuvalu	<i>aŋa</i>	‘custom, way of acting’
Pn:	E Futunan	<i>aŋa</i>	‘conduct, custom, usage, habit’
Pn:	E Uvean	<i>aŋa</i>	‘nature, custom, usage’
Pn:	Tikopia	<i>aŋa</i>	‘incline towards; inclination, orientation’

cf. also:

Fij:	Rotuman	<i>aŋa</i>	‘usage, custom’ (Pn borrowing)

In Tongan *aŋa* stands in contrast with *loto* ‘insides’ (< PPn **loto*; vol.2:239). Where *aŋa* denotes a permanent feature of temperament, e.g. *aŋa fīemālie* ‘of contented and easy-going disposition’, *loto* denotes a transient emotion, e.g. *loto fīemālie* ‘contented, satisfied’.

In Wayan Fijian *alo-* ‘soul’ is similarly used for temperamental features as shown in the following examples, whilst the corresponding transient emotions are denoted by simple adjectives.

<i>alo-kasa</i>	‘quick to learn, intelligent, having an absorbent mind’ (<i>kasa</i> ‘learned’)
<i>alo-kaikai, alo-qwāqwā</i>	‘determined, strong-willed, brave, stubborn, aggressive’ (<i>kaikai, qwāqwā</i> ‘strong’)
<i>alo-malumalum</i>	‘gentle, good-tempered, of quiet disposition’ (<i>malumalum</i> ‘soft, ripe’)
<i>alo-sewasewa</i>	‘frightened, intimidated, lacking courage’ (<i>sewasewa</i> ‘tiny’)
<i>alo-vinā</i>	‘kind, kind-hearted’ (<i>vinā</i> ‘good’)
<i>alo-vou</i>	‘young in spirit, young at heart’ (<i>vou</i> ‘new, fresh’)
<i>alo-wai</i>	‘moody, subject to changes in mood’ (<i>wai</i> ‘water’)
<i>alo-vaka-tāŋʷane</i>	‘manly, courageous’ (<i>vaka-tāŋʷane</i> ‘like a man’)

Similar expressions occur in Bauan Fijian with the cognate term *yalo-* ‘soul, spirit, disposition’, e.g. *yalo mālua* ‘meek, lowly’ (*mālua* ‘quiet, gentle’), *yalo vinaka* ‘kind-hearted’ (*vinaka* ‘good’).

The examples collected from Iduna, Motu, Seimat, Fijian and Tongan show how each of these languages has devised a way to describe temperamental qualities, using a modifier with either a term like Tongan *aŋa* ‘character, habit, nature’ or a reflex of the POC construction with **tau...* ‘person who’.

Modifiers that describe features of temperament are reconstructed in the sections below, but this appears to be an unstable semantic field, presumably because of the tendency to invent new metaphors to describe behaviour and temperament. As a result, few terms are reconstructable.

11.3.1 Tame vs untamed

11.3.1.1 Tame, accustomed to

POc evidently inherited a pair of terms meaning ‘tame, docile, trained, well behaved’ that were applied both to animals and human beings. The pair were **laca(m)* and **ma-naca(m)*. Pairs of property terms with the same root were apparently quite common in POc, one unprefix, the other with either **ka-* or **ma-*, prefixes that often occur on stative verbs, both originating in the stative prefix **ka-* (Zeitoun & Huang 2000:298). The seeming oddity about this pair is that the POc bare root had initial **l-*, the prefixed root initial **n-*. However, this is readily accounted for if the PAn root had initial **L-*,⁴ which regularly became PMP **l-* initially but **n-* medially. Thus PAn **Lajam* became PMP **lajam* and POc **laca(m)*, whilst PAn **ma-Lajam* regularly became PMP **ma-najam* and POc **ma-naca(m)*.

PAn **Lajam* ‘accustomed to, tame’ (ACD)

PMP **lajam* ‘accustomed to, tame’

POc **laca(m)* ‘tame, docile, trained, well behaved’

MM:	Sursurunga	<i>las</i>	‘tame, used to, get used to’
MM:	Tolai	<i>lā</i>	‘tame, domesticated (of animals), accustomed, acclimatised’

PCP **laca* ‘tame’ (Geraghty 1983)

Fij:	Bauan	<i>lasa</i>	‘easy, contented, tame, accustomed’
Pn:	Tongan	<i>lata</i>	‘feel at home or at ease, be comfortable, happy, contented’
Pn:	Tikopia	<i>rata</i>	‘fix affections on; tame’
Pn:	Hawaiian	<i>laka</i>	‘tame, domesticated, gentle;’ (VT) ‘tame, domesticate’

POc **ma-naca(m)* underwent an extension in meaning whereby ‘trained’ became ‘knowledgeable’ and then ‘know, understand, think about’, and as a nominal ‘knowledge, understanding, mind’. This extension is discussed in §10.3. Reflexes below are restricted to the ‘tame’ etc senses.

PAn **ma-Lajam* ‘tame, accustomed to’ (ACD)

PMP **ma-najam* ‘tame, accustomed to’

POc **ma-nacam* ‘(vI) ‘tame, docile, trained, well behaved; know, understand, think about’; (N) ‘knowledge, understanding, thought, wisdom’

NNG:	Gedaged	<i>mana-n</i>	‘tame, docile (mostly of animals), peaceful, obedient, trained’
PT:	Tawala	<i>malagama</i>	‘tame’; (N) ‘experience’ (-l- for †-n-)

⁴ The root was reconstructed **Lajam* in an earlier version of the ACD. It now appears as **najam*, but the Oceanic evidence points to **Lajam*, which is favoured by most Formosan reflexes (Tsou, Saaroa, Favorlang, Bunun, Kavalan) but not by Puyuma *ma-nadam* (-n- for †-l-) or Amis *ma-nanam* (-n- for †-d-). Assimilation is a possible factor in the latter case. Philippine reflexes of the bare root have *n-* for †-l-. These may reflect a mack-formation from PMP **ma-najam*.

PT:	Sinaugoro	<i>marana</i>	‘tame, gentle’ (metathesis of *-c- and *-n-)
PT:	Motu	<i>manada</i>	‘even, smooth, gentle’
MM:	Nehan	<i>mahanama</i>	‘tame, unafraid’ (metathesis of *-c- and *-n-)
PSES * <i>manasa</i> ‘tame’			
SES:	Gela	<i>manaha</i>	(VT) ‘tame’
SES:	Arosi	<i>manata</i>	‘tame, trained, gentle, of man or animal’
SES:	Sa’a	<i>manata</i>	(VI) ‘be taught; quiet of animals, tame’
SES:	Lau	<i>manata</i>	‘quiet, tame’
SES:	’Are’are	<i>manata</i>	‘behave oneself; tame of birds and animals’
SES:	Owa	<i>manata</i>	‘tame’

It is tempting to try to relate the items below to **ma-nacam* above, but they evidently reflect a different (PWOC) etymon.

PWOC **ma-napas* ‘tame (of animals); quiet, domesticated (of people)’

PT:	Iduna	<i>manava</i>	‘become tame (of wild animals); soft, pliable’
		(<i>ve</i>) <i>manav(ina)</i>	(VT) ‘tame, of wild animals’ (<i>ve</i> - ‘cause, make’, <i>manavina</i> ‘soft, pliable’)
MM:	Nduke	<i>manavasa</i>	‘tame’
MM:	Roviana	<i>manavasa</i>	‘tame, subdued, at home, be used to’

It is reasonably clear from the glosses of the sets above that these terms referred to a temperamental quality for which there is no single English term. It describes a person who is domesticated, gentle and quietly spoken, and content with their lot. This quality was apparently positively valued. If it were otherwise, the glosses would almost certainly register the negativity.

POC *[*ma*]*lumu* ‘soft (of objects); gentle, easygoing; (constitutionally) weak’, reconstructed in vol.2 (p215) as a property of inanimate objects, is applied in various Oceanic languages to the human temperament with a sense resembling that of the items above, and this extension may well have occurred in POC. It was evidently also applied to the body in the sense of ‘constitutionally weak’, and the cognate set is listed in §11.2.4.

There is also evidence of a BPM containing this term.

SES:	Arosi	(<i>ahu</i>) <i>marumu</i> (? <i>a</i>)	[belly gentle] ‘be sweet, gracious, gentle’
NCV:	Mota	<i>lolo-malumum</i>	[insides gentle] ‘sort-hearted, of an easy mild temper; gently’
NCV:	Nokuku	<i>lol-melum</i>	[insides gentle] ‘meek’
Fij:	Bauan	(<i>yalo</i>) <i>mālua</i>	[soul gentle] ‘meek, lowly’
Fij:	Wayan	(<i>alo</i>) <i>malu-malum</i>	‘gentle, good-tempered, of quiet disposition’
Pn:	Pukapukan	(<i>yau</i>) <i>mālū</i>	[temperament gentle] ‘meek’

In NCV, at least, the POC weather term **ma-drapu* ‘still, calm, windless’ (vol.2:136) also has human application.

PNCV **madau* ‘quiet, gentle’ (Clark 2009)

NCV:	Raga	<i>marou</i>	‘quiet, listless’
NCV:	SE Ambrym	<i>merou</i>	‘calm, quiet, peaceful, sober’
NCV:	Port Sandwich	<i>maⁿdrao</i>	‘be quiet, do gently’

NCV: Paamese	<i>merau</i>	‘weak; soft; do softly; do gently’
NCV: Valpei	<i>marav</i>	‘weak’

11.3.1.2 Untamed, wild

As POc reconstructions for ‘tame, accustomed to’ refer to a kind of domesticated amiability, so terms glossed ‘wild’ similarly refer to the behaviour often associated with undomesticated animals, i.e. ‘savage’, ‘fierce’. In places, terms may also be applied to the rainforest and to normally cultivated plants that have self-sown outside the gardens. While terms for ‘tame’ are also used to denote a human temperamental quality, it is less clear that this is true of POc **wasi*.

POc **wasi* ‘wild, untamed’

PT:	Gumasi	<i>woiwoi</i>	‘wild’ (animals)
PT:	Tawala	<i>yahi-yahi</i>	‘untamed, wild, dangerous’ (y- for †w-)
PT:	Kuni	<i>aci</i>	‘wild’ (Ø- for †w-)
PT:	N Mekeo	<i>aki</i>	‘wild’ (Ø- for †w-)
PT:	W Mekeo	<i>aji</i>	‘wild’ (Ø- for †w-)
MM:	Maringe	<i>asi</i>	(vi) ‘run wild, go astray’
SES:	Bugotu	<i>asi</i>	‘wild (of animals), fierce’
SES:	Gela	<i>asi</i>	‘wild (of animals or forest)’
SES:	Longgu	<i>wasi</i>	‘wild, undomesticated’
SES:	To’aba’ita	<i>k^{wasi}</i>	(vi) ‘(of animals), be wild, not domestic, (of plants) grow wild’
SES:	Lau	<i>k^{wasi}</i>	‘wild, of animals or plants’
SES:	Kwaio	<i>k^{wasi}</i>	‘wild, untamed’
SES:	Arosi	<i>wasi-wasi</i>	‘wild, of any animal’
SES:	Sa’a	<i>wasi</i>	(vi) ‘wild, not tame’
SES:	’Are’are	<i>wasi</i>	‘wild, untamed’
SES:	Owa	<i>wasi</i>	‘wild, untamed’

cf. also:

NNG:	Takia	<i>kasik</i>	‘wild’
PT:	Kilivila	<i>gasisi</i>	‘wild, savage’

11.3.2 Brave vs cowardly

11.3.2.1 Brave, courageous

Bravery is commonly expressed as a body-part metaphor (BPM) based on the liver or belly, with a modifying term apparently reflecting POc **[p^(w)atu]p^(w)atu* ‘hard, strong, firm’, the latter derived from **p^(w)atu(k)* ‘outer shell, skull’ (§3.4.2). Hence we can tentatively reconstruct a POc BPM **qate- p^(w)atu* [liver- hard/strong] ‘brave’. In the languages of the set below, reflexes of **p^(w)atu* also function as a stative verb ‘firm, strong’. Reflexes of *p^(w)atu* are formally and semantically similar to **patu* ‘stone’ (vol.2:62), but in POc were distinct from it (§3.4.2.1). In Kwaio, however, which does not have a reflex of **p^(w)atu*, the *fou* of *lae-fou* ‘brave’ is the term for ‘stone’. One may infer that the Kwaio term is a reflex of **qate- p^(w)atu* which with the loss

of a reflex of **p^(w)atu* has been reinterpreted as if it reflected **qate- patu* [liver- stone]. Something similar has occurred in Gumawana and Iduna, where the modifying term taken alone has a meaning other than ‘firm, strong’.

Why not infer that **patu* ‘stone’ occurred in the POc term and that all BPMs below reflect **qate- patu*? Because POc **patu* ‘stone’ would be reflected as Gumawana †*vatu*, Dobu †*atu*, Bunama †*hatu*, but these terms do not occur at all (Gela *vatu* ‘stone’ does occur). The morpheme *patu* in their BPMs thus probably reflects *p^(w)atu* (cf. Dobu *patu* (vi) ‘harden, set’).

POc **qate- p^(w)atu* [liver- strong/firm] ‘brave’

PT:	Dobu	<i>ʔate-patu</i>	[liver hard] ‘brave, bold’
PT:	Bunama	<i>ʔate-patu</i>	[liver strong/firm] ‘courage, brave, confidence’
PT:	Minaveha	<i>ate vatu</i>	[liver strong/firm] ‘brave’
SES:	Gela	<i>lio-patu</i>	[heart-hard] ‘daring, brave’

cf also:

PT:	Gumawana	<i>ate- i-patu</i>	[liver- it-enclosed] ‘brave’
PT:	Iduna	<i>ase-vatu</i>	[liver-be.at.rest] ‘courage, boldness’
		<i>ase-ʔase-vatu-</i>	‘brave, courageous, ungenerous.’
SES:	Kwaio	<i>lae-fou</i>	[liver-stone] ‘brave, unashamed’

A construal of bravery as strength or hardness—the two are typically encoded by a single lexical item in languages of Melanesia—of the seat of the emotions is widespread.

NNG:	Takia	<i>ilo- dabai</i>	[insides- strong] ‘confident, courageous, strong in character’
		<i>tini- dabai</i>	[body- strong] ‘confident, courageous, strong in character’
PT:	Motu	<i>boga auka</i>	[belly/liver hard] ‘brave’
NCV:	Lonwolwol	<i>be-k mā-tāte</i>	[insides-my it-strong] ‘I feel strong, energetic, courageous’
		<i>ja tāte</i>	[body strong] ‘courageous’
NCV:	S Efate	<i>kerkerai</i>	‘strong, hard, brave’
Mic:	Marshallese	<i>pen puruo-</i>	[firm/strong/hard heart-] ‘brave’
Fij:	Bauan	<i>yate dei</i>	[liver firm/unwavering] ‘brave’
Fij:	Wayan	<i>ate dei</i>	[liver firm] ‘brave’
		<i>alo kaikai</i>	[soul strong/hard] ‘determined, strong-willed, brave, stubborn, aggressive’

11.3.2.2 Cowardly, timid

Relatively few Oceanic dictionaries have an entry for ‘cowardly’. Terms found tend to reflect **matakut* ‘fear’ (§11.4.1), as the examples below suggest.

PT:	Dobu	<i>mata-matauta</i>	‘cowardly’
SES:	Gela	<i>matagu-pou</i>	‘coward’
NCV:	SE Ambrym	<i>metau</i>	‘cowardly, timid’
NCV:	Paamese	<i>tā-metau</i>	‘coward’

SV:	Anejom	<i>e-mtac</i>	‘fear; be afraid, fearful, cowardly’
Fij:	Bauan	<i>mata-mataku</i>	be always afraid, timid, cowardly.

We have three reflexes of the BPM **qate-* *lapuat* [liver big]. Oddly, this metaphor has the reverse meaning of that proposed by Blust for PMP where [big liver] stands for ‘brave, proud, arrogant’ (see §9.6).

NCV:	Mota	<i>vara-lava</i>	[liver large] ‘one who is easily frightened, makes much of nothing’
Fij:	Bauan	<i>yate levu</i>	[liver large] ‘cowardly’
Fij:	Wayan	<i>ate levu</i>	[liver large] ‘cowardly’

Marshallese has *eccelok acin* [without liver] ‘he is not brave’.

11.3.3 Obstinate, stubborn

A rather widespread BPM for ‘obstinate, stubborn’ has a modifier of the same meaning as the BPM for ‘brave, courageous’ (§11.3.2.1) namely ‘strong/firm’, but a different body-part. POC **qate-* ‘liver’ was evidently used in the BPM for ‘brave’. The evidence of Admiralties and NCV languages below suggests that **qate-* was replaced by **b^watu(k)* ‘head’ (§3.4.2) in the BPM for ‘obstinate’. This may be a further illustration of the hypothesis that more physically expressed qualities such as ‘brave’ form a BPM with **qate-*, while mental states do not (§9.4). Instead of **lalo-*, however, in this case the more specific **b^watu(k)* occurs. Clark (2009) reconstructs a BPM here, PNCV **b^watu kayua* [head strong] ‘wilful, stubborn’, reflected by the Big Nambas and Paamese terms below.

Adm:	Seimat	<i>patu ailan</i>	[head hard/strong] ‘he is obstinate’
Adm:	Nyindrou	<i>batun boto-on</i>	[head hard/strong] ‘stubborn’
NNG:	Takia	<i>ilo patpat</i>	[insides hard/strong] ‘hard-headed, strong-minded, wilful’
		<i>bube- sakar</i>	[liver- hard] ‘hard hearted, stubborn, uncompassionate’
NNG:	Mapos Buang	<i>yu niggɔχ</i>	[head strong] ‘stubborn’
PT:	Kiriwina	<i>i-minimani daba-la</i>	[it-tough/strong head-his] ‘he is stubborn’
SES:	Gela	<i>lio watu</i>	[insides stone] ‘obstinacy; stubbornness’
NCV:	Mwotlap	<i>p^wet-maymay</i>	[head hard] ‘stubborn’
NCV:	Big Nambas	<i>pt-hua</i>	‘stubborn’
NCV:	Paamese	<i>vati-keiho</i>	‘person who is determined and inconsiderate of the feelings of others’
SV:	Sye	<i>-onkoŋko</i>	‘hard, strong, stubborn’
SV:	Lenakel	<i>nikii- r-ausik-ausik</i>	[heart- it-REDUP-strong/hard] ‘stubborn’

Another BPM with scattered WOC occurrences is ‘ear blocked’.

NNG:	Mutu	<i>taliŋa- zizi</i>	[ear- blocked] ‘stubborn’
NNG:	Mangap	<i>talŋa- ŋuŋun</i>	‘stubborn’
NNG:	Bariai	<i>taŋa- balbal</i>	[ear ??] ‘obstinate, stubborn’

PT:	Iduna	<i>taya- -kulu</i>	[ear blocked] ‘(X is) obstinate, deaf to instruction’
		<i>taya-kulu</i>	‘obstinacy’
		<i>taya-taya-kulu-na</i>	‘obstinate’

11.3.4 Ignorant vs wise and stupid vs intelligent

11.3.4.1 Ignorant, stupid

In Eastern Oceanic languages ignorance is sometimes expressed by a BPM [mind dark], a complex lexeme that also means ‘forget’ in some EOC languages (§10.6). In some languages this BPM has both senses. Again, the terms for ‘night’ reflect either POc **rodrom* ‘be dark, be night’ or POc **boŋi* ‘night’ (vol.2:295–298).

SES:	Lau	<i>lio ro-rodoo</i>	[mind dark] ‘ignorant, puzzled’
NCV:	Mota	<i>lolo-p^woŋ</i>	[inside-night] ‘ignorant, stupid, unenlightened; forget’
NCV:	Mwotlap	<i>lɔl-p^woŋ</i>	[inside-night] (VT) ‘forget, ignorant’
NCV:	Nokuku	<i>lolo-ōra</i>	[inside- night] ‘forget, ignorant’
Mic:	Kiribati	<i>nano-ro</i>	[insides dark] ‘ignorant, uncultured’

Sometimes a verb ‘be dark’ is used alone as a metaphor for ‘ignorant’.

SES:	To’aba’ita	<i>rō-rodooʔa</i>	‘be dark (of a place); be ignorant about (of a person)’ (<i>rodo</i> ‘night, be dark’)
Fij:	Wayan	<i>ŋŋīlō</i>	‘dull, poor in light; get dark; be dusk, nightfall; ignorant, lacking in knowledge or wisdom’

Oceanic languages tend to have a term which means ‘mentally impaired’ and translates, depending on context, as ‘ignorant’, ‘stupid’, ‘foolish, silly’ or ‘mad, crazy, insane’. They reflect a number of POc terms which must have different shades of meaning that are now lost to us.

POc **kila* has only one Oceanic reflex, and it is a reasonable inference that it disappeared early across much of Oceanic because the merger of PMP **g* and **k* rendered Oceanic reflexes similar to those of POc (vi) **kilala* ‘know’, from PMP **kilala*, with the opposite meaning.

PMP **gila* ‘wild; insane’ (ACD)

POc **kila* ‘ignorant’ ??

NNG:	Kaulong	<i>kila</i>	‘ignorant of, unfamiliar with (s.o., s.t.)’

The presence of reflexes of POc **[ŋa(q)u]ŋa(q)uŋ* ‘stupid, ignorant’ in an Admiralties language and a few NNG languages warrants its reconstruction. Possible medial **-q-* is shown, as it allows the reconstructed form to accord with POc canonic structure, and would have been lost in each of these reflexes.

POc **[ŋa(q)u]ŋa(q)u* ‘stupid, ignorant’

Adm:	Titan	<i>ŋow</i>	‘crazy, silly’

NNG:	Manam	<i>-ŋao</i>	‘dull, stupid’
NNG:	Takia	<i>-ŋao-ŋ</i>	‘ignorant, unconscious, stupid, confused’
MM:	Patpatar	<i>ŋa-ŋawa</i>	‘ignorant, confused’

The presence of medial **-p-* in POc **b^wa(p)u* below is unambiguously supported only by Iamalele *-v-*, and is contradicted by the absence of *-v-* in Longgu. In the other witnesses **-p-* becomes zero in this context.

POc **b^wa(p)u* ‘ignorant, stupid’

NNG:	Kairiru	<i>-p^wau</i>	‘ignore’
PT:	Iamalele	<i>bavu-bavu-</i>	‘ignorant’ (<i>-v-</i> for †-Ø-)
MM:	Sursurunga	<i>bau</i>	‘stupid, restless, uncontrollable, self-willed’
SES:	Longgu	<i>b^weu</i>	‘naughty, silly, stupid, crazy’
SV:	Anejom	<i>a-p^wa-p^wau</i>	‘slow-moving, unable to avoid injury, stupid, unintelligent’

PMic **p^wau-p^wau* ‘silly, stupid’ (Bender et al. 2003: Proto W Micronesian **p^wai-p^wai*)

Mic:	Marshallese	<i>p^wəyp^wəy</i>	‘crazy, silly, foolish’
Mic:	Ponapean	<i>p^weyp^wey</i>	‘stupid, silly, idiotic, simple, dumb’
Mic:	Mokilese	<i>p^weyp^wey</i>	‘stupid’
Mic:	Satawalese	<i>p^wayip^way</i>	‘silly, disrespectful’

POc **[b^wa]b^waŋ* ‘a fool; foolish, stupid, insane’ (ACD: **bobo* ‘foolish; a fool’)

NNG:	Manam	<i>boaŋ</i>	(VI) ‘be insane’
		<i>boaŋ-boaŋ</i>	(ADJ) ‘insane’
NNG:	Bariai	<i>buo-buo</i>	‘be confused about s.t.’
NNG:	Kaulong	<i>poŋ</i>	(VT) ‘be ignorant of, not know’
PT:	Tawala	<i>būa</i>	‘fool; mad, silly’
		<i>bū-bua</i>	‘foolish’
PT:	Dawawa	<i>bua</i>	‘stupid, mad’
PT:	Sinaugoro	<i>babo</i>	‘stupid, foolish, ignorant’
PT:	Motu	<i>bōbo</i>	‘a fool’
MM:	Tolai	<i>bobo</i>	‘a fool; foolish, stupid, ignorant’
MM:	Patpatar	<i>ba</i>	‘crazy, retarded, foolish, worthless; good-for-nothing’
MM:	Tinputz	<i>babon</i>	‘crazy, stupid’
SES:	Lau	<i>bue</i>	‘ignorant, uncivilised, pagan, heathen’

PCP **wale* ‘ignorant, unskilled, stupid, mad’

Fij:	Bauan	<i>wale</i>	‘not worthwhile, very ordinary’

PPn **wale* ‘mad, ignorant, unskilled’ (POLLEX)

Pn:	Tongan	<i>vale</i>	‘foolish, silly, ignorant, unskilled’
		<i>loto-vale</i>	‘ignorant’ (<i>vale</i> ‘foolish, silly’)
		<i>vale faha</i>	‘stupid’ (<i>faha</i> ‘mad, insane’)
Pn:	Niuean	<i>vale</i>	‘mad, ignorant, unskilled’
Pn:	E Futunan	<i>vale</i>	‘mad, ignorant, unskilled’

Pn:	Pukapukan	<i>vale</i>	‘be senile, lose one’s memory’
Pn:	Samoan	<i>vale</i>	‘idiot; worthless’
Pn:	Tokelauan	<i>vale</i>	‘idiot, fool, lunatic; mentally ill person’
Pn:	Tikopia	<i>vare</i>	‘stupid, foolish, silly; trivial’
Pn:	Maori	<i>ware</i>	‘ignorant, lowly, careless’

11.3.4.2 Wise, intelligent

Despite the fact that Oceanic languages typically have a term meaning ‘intelligent, clever, wise, understanding’, it has proven impossible to reconstruct a corresponding POc term.

Occasionally a BPM [mind daylight] occurs, the antonym of [mind night] ‘ignorant’ (§11.3.4), and it is possible that there was a PNCV BPM of the form **lolo-marani* [insides daylight] ‘clever, intelligent’ (reflecting POc **ma-raqani* ‘be(come) light’, vol.2:318–219).

NNG:	Poeng	<i>lo-matana</i>	[inside- light] ‘knowledge, understanding’
SES:	‘Are’are	<i>pau-makata</i>	[head- bright] ‘intelligent, wise’
NCV:	Mota	<i>lolo-marani</i>	[mind-daylight] ‘be intelligent; remember, understand, know’
NCV:	Lonwolwol	<i>lo-meren</i>	[mind- daylight] ‘clever’

The term for ‘wise, knowledgeable’ is often derived from the verb ‘know’ (§10.2).

PT:	Dobu	<i>sina-sinapu-</i>	‘wise’ (<i>sinapu</i> ‘understand, know’)
MM:	Roviana	<i>tuma-tumai</i>	‘wise’ (<i>tuma</i> ‘know, understand’)
NCV:	Paamese	<i>kile-ile</i>	‘educated; knowledgeable’ (<i>kilea</i> ‘know’)

Only for PPn has a form been reconstructed.

PPn **poto* ‘wise, clever’ (POLLEX)

Pn:	Tongan	<i>poto</i>	‘clever, skilled’
Pn:	Samoan	<i>poto</i>	‘clever, smart, intelligent’
Pn:	E Futunan	<i>poto</i>	‘clever, knowledgeable’
Pn:	Anutan	<i>poto</i>	‘wise, expert’
Pn:	Tikopia	<i>poto</i>	‘skilled, adept, knowledgeable’

11.4 Emotion expressions

As discussed in chapter 9, emotions are typically described as emanating either from the liver (POc **qate*), as seat of emotions and thoughts, or from a quasi-body part, POc **lalo-*, **lalom* ‘inside; seat of thoughts and emotions’, but other body parts sometimes occur in their place. Particular feelings are expressed as a BPM that specifies the nature of the feeling.

Although a degree of common conceptual patterns can be identified in BPMs for broadly identified emotions like happiness, sadness and anger, no reconstructions are made.

Languages closer to New Guinea seem to make the greatest use of BPMs for emotions, and languages further east use them less, petering out almost entirely in Polynesia, where the

body-part component of the BPM tends to be lost and the modifying component tends to become an adjective in its own right (§3.4, §3.5, §3.8).

A small number of broadly identified emotion terms have been reconstructed as single lexemes, and we turn to these first.

11.4.1 Afraid

Although a language will typically use numerous metaphors to describe different degrees or kinds of fear, languages from all major subgroups have reflexes of POc **matakut*, probably indicating that it was the term most general in meaning. Both an intransitive and a transitive form are reconstructable. The intransitive form, **matakut*, is widely reflected. The transitive form, **matakut-i-*, has fewer reflexes, and it is possible that it reflects parallel innovations in various Oceanic languages. The reason for this inference is that the prefix **ma-* is a stative formative that was originally incompatible with the transitive marker **-i-*.

POc **matakut* (vi) ‘be afraid’, (vt?) **matakut-i-* ‘to fear (s.t.)’

Adm:	Seimat	<i>ma-matau</i>	(vt) ‘fear, be afraid of’
		<i>ma-mata</i>	(vi) ‘be afraid, timid’
NNG:	Kove	<i>mataur-i-</i>	‘afraid’ (r reflects *R)
NNG:	Poeng	<i>matau, matau-e</i>	(vi, vt) ‘fear’
NNG:	Manam	<i>mataʔu</i>	‘be afraid’
PT:	Lala	<i>makau</i>	‘afraid, fear’
PT:	Molima	<i>matauta</i>	‘afraid’ (expect <i>mataʔuta</i>)
PT:	Dobu	<i>matauta</i>	‘afraid’
PT:	Saliba	<i>mataus-i-</i>	‘be afraid’
MM:	Roviana	<i>matayutu</i>	‘afraid, fearful’
SES:	Bugotu	<i>matayu</i>	‘to fear, be afraid’
SES:	Gela	<i>matayu</i>	‘to fear, be afraid’
SES:	Kwaio	<i>maʔu</i>	‘afraid, shy’
SES:	To’aba’ita	<i>maqu</i>	(vi) ‘be afraid, fear’
		<i>maqulā</i>	(n) ‘fear’
SES:	Ulawa	<i>māu</i>	‘to fear, be afraid’
SES:	Arosi	<i>ma-māʔu</i>	(vi) ‘to fear’
		<i>māʔus-i-</i>	(vt) ‘to fear’
NCV:	Mota	<i>matay-tay</i>	‘to fear’
NCV:	Tamambo	<i>matahu</i>	‘be frightened’
NCV:	Tirax	<i>mtaxit</i>	‘be frightened’
NCV:	Nguna	<i>mataku</i>	‘afraid’

PSV **a-metay[vt]* (vi) ‘be afraid, fear’ (Lynch 2001c)

SV:	Sie	<i>emetet</i>	(vi) ‘be afraid, fear’
Mic:	Carolinian	<i>mesaxu, -a</i>	(vi, vt) ‘have fear, be afraid’
Mic:	Ifaluk	<i>metagu</i>	‘be afraid, anxious’
Fij:	Rennellese	<i>mataku</i>	‘be afraid, cowardly, fear’
Fij:	Wayan	<i>mataku</i>	(vi) ‘be afraid’
		<i>matakuōi-</i>	(vt) ‘be afraid of’

Pn:	Niuean	<i>mataku-taku</i>	‘to fear, be afraid’
Pn:	Samoan	<i>mataʔu</i>	‘fear, hold in awe’
Pn:	Pukapukan	<i>mataku</i>	(vi) ‘fear, be afraid, frightened’
Pn:	Tikopia	<i>mataku</i>	‘afraid, frightened, fearful’
Pn:	Tokelauan	<i>mataku</i>	‘be afraid, frightened’
Pn:	Tahitian	<i>mataʔu</i>	‘apprehension’ (s.t. bad might happen)

A number of NNG and PT languages have BPMs to express fear, but their components differ from one language to the next. For example:

NNG:	Mangap	<i>kuli- i-mozōro</i>	[skin- it-scatter] ‘really frightened’
		<i>mata- koikoi</i>	[eye- evasive] ‘fearful’
NNG:	Takia	<i>ilo- i-rer</i>	[insides- it-tremble] ‘afraid, frightened, fearful’
PT:	Tawala	<i>nugo-helele</i>	[mind-fearful] ‘nervous, anxious, afraid, shaking with fear, surprised, have pounding heart’

11.4.2 Ashamed, embarrassed, shy

The next term is remarkable among emotion terms in being reconstructable right back to PAn with very high consistency of meaning. The emotion, for which there is no single equivalent English term, is valued as an instrument of social control, most effective in small communities. As described by Charles Valentine with reference to Nakanai speakers,

The feeling is described as a kind of acute embarrassment which is occasioned by public exposure, violation of modesty, recognition of deception, social exclusion, and certain other forms of interaction in which the subject feels threatened by the inappropriateness of his relations with others. (Valentine 1963:445)

PAn **ma-Seyaq* ‘shy, embarrassed; ashamed’ (ACD) (PAn **Seyaq* ‘shyness, embarrassment; shame’)

PMP **ma-heyaq* ‘shy, embarrassed; ashamed’

POc **maya(q)* ‘shy, ashamed’

NNG:	Manam	<i>maia, maya, maya-maya</i>	‘ashamed’
NNG:	Gedaged	<i>ma-mai</i>	‘shame; embarrassment, confoundedness, abashment’
NNG:	Numbami	<i>me-meya</i>	‘shy, ashamed’
NNG:	Yabem	<i>maya</i>	‘shame, feeling of honour, self-esteem’
NNG:	Bukawa	<i>maya</i>	‘shame, embarrassment’ (experienced by people who have been found out) (Hogbin 1947)
			(village of Busama)
NNG:	Kove	<i>ma-maia</i>	‘ashamed’
PT:	Ubir	<i>ma-mai</i>	‘shy, ashamed’
PT:	Dobu	<i>(o)maia-maia</i>	‘shame, shyness, be ashamed, shy’
PT:	Molima	<i>(wo)maya-maya</i>	‘shame’
MM:	Ramoaaina	<i>mai-mai</i>	‘shame; ashamed’

MM:	Maringe	<i>ma-maja</i>	‘ashamed’
SES:	Gela	<i>mā</i>	‘ashamed; feel reverence’
SES:	Lau	<i>māsia</i>	‘shame’
SES:	Sa’a	<i>masa, masa-masa</i>	‘shy, ashamed, respectful’
		<i>masa-ŋa</i>	‘shame, confusion, shyness’
SES:	Arosi	<i>[ma]masa</i>	‘ashamed’
NCal:	Iaai	<i>m̥e-m̥æ</i>	‘ashamed’
Mic:	Kiribati	<i>mā-ma</i>	‘shame, timidity, shyness, bashfulness’
		<i>ma-mā-ma</i>	‘be ashamed, shy, confused’
Mic:	Ifaluk	<i>ma</i>	‘shame, embarrassment’
Mic:	Woleaian	<i>mā, ma</i>	‘ashamed; disgraceful; feel shameful’
Fij:	Bauan	<i>mā(duā)</i>	‘ashamed, bashful’
Pn:	Tongan	<i>mā</i>	(vi) ‘feel shame, be ashamed’
Pn:	Pukapukan	<i>(aka)mā</i>	‘be ashamed, embarrassed, shy, timid’ (<i>aka</i> ‘cause, become’)
Pn:	Samoa	<i>mā</i>	‘be ashamed, embarrassed’
Pn:	Tahitian	<i>(haʔa)mā</i>	‘embarrassment or shame’ (opposite of <i>mātau</i> ‘comfortable with a situation’)
Pn:	Maori	<i>mā</i>	‘shame, abasement; shy, ashamed’
cf. also:			
NNG:	Takia	<i>miai</i>	‘shame, ashamed’
PT:	Kalauna	<i>(veu)maiyi</i>	‘a mixture of anger, shame, self-pity and resentment’ (exorcising one’s own shame by casting the shame back at the one who shamed by forcing him to accept a gift etc.) (Michael Young, pers. comm.)

11.4.3 Love, be compassionate, be sorry for, have pity, sympathise

The English term *love* is polysemous, with one meaning, ‘romantic love’, given an importance in Western societies that is not generally paralleled elsewhere. In Tahitian *maʔa-maʔa* is translated by Levy as

to be crazy, bizarre (incl. being romantically in love). This is considered somewhat bad and abnormal. (1973:305)

Across Oceanic languages, terms for ‘to be lovers’⁵ are distinct from terms that denote caring about someone, and terms used to refer to the latter include an emotion akin to compassion. This semantic frame is labelled SORRY here, in recognition of the fact that the word *sore* encodes this frame in both Papua New Guinea Tok Pisin and Vanuatu Bislama. Motu *hebogahisi* ‘pity, compassion’ is instructive, combining *boga* ‘belly, seat of desire and affection’ with *hisi* ‘pain’. Other glosses combining what in English are distinct emotions include Gedaged *ilo- pani* [inside- give] ‘sympathise with, love, pity, yearn for, feel for, commiserate with, mourn for, be homesick for s.o., s.t.’; Tolai *māri* ‘to love, pity, have compassion for’, Roviana *tataru* ‘to pity, love’, To’aba’ita *tatakomia* ‘have a feeling of deep affection for s.o., s.t., such as sorrow, pity, compassion, mercy, love or admiration’, Arosi *tabai* ‘to love, pity’,

⁵ These terms are typically associated with a set of terms to do with love magic.

Rotuman *ruu* ‘to love, value, care greatly for, feel solicitude’. English speakers, on the other hand, are more likely to include ‘love’ as an extension of ‘like’, ‘admire’ and a range of terms for ‘desire’.

As noted in §10.3, the SORRY frame is one of the meanings of widely distributed reflexes of POc (VI) **drodrom*, (VT) **drom-i* ‘think, worry; love, be sorry for, long for’. A dedicated SORRY verb, POc **qarop*, **qarop-i* ‘feel pity, empathy, be sorry for’,⁶ was inherited from PMP but is reflected only in SES and Pn languages. The Arosi reflex and all Pn reflexes reflect an apparent PEOc **qarop-a*. The suffix **-a* probably reflects the POc nominaliser **an*.

PMP **qarep* ‘like, be fond of’ (Dempwolff 1938: **ha/əp*)

POc **qarop*, **qarop-i* ‘feel pity, empathy, be sorry for’

SES:	Bugotu	(<i>r</i>) <i>arov-i</i>	(VT) ‘to pity’
SES:	Gela	<i>arov-i</i>	(VT) ‘to pity’
SES:	Longgu	<i>arov-i</i>	‘feel sorry for and sad for s.o., how you feel for s.o. else who has some trouble’
SES:	Arosi	<i>ʔaroʔa</i>	‘love, pity’

PPn **qaroʔa* ‘love, pity, compassion’ (POLLEX)

Pn:	Tongan	<i>ʔoʔa</i>	‘love, be kind to’
Pn:	Niuean	<i>oʔa</i>	‘to love (obsolete)’
Pn:	Rennellese	<i>ʔagoha</i>	‘pity, feeling of love’
Pn:	Samoan	<i>aloʔa</i>	‘love, affection, mercy, pity’ (stresses social bonding and obligation)
Pn:	Tokelauan	<i>aloʔa</i> <i>loto-aloʔa</i>	‘love, affection, kindness’ ‘kindhearted, friendly; kindness, friendliness, hospitality’
Pn:	Tikopia	<i>aroʔa</i>	‘sympathy, affection, love’
Pn:	Tahitian	<i>aroʔa</i>	‘compassion, pity, empathy; feeling when separated from s.o. dear’
Pn:	Hawaiian	<i>aloʔa</i>	‘love, affection, compassion, mercy, pity, kindness; greeting’

cf. also:

SES:	Gela	<i>aroʔa</i>	‘sit sad, lonely, pitiable’ (<i>-h-</i> for <i>†-v-</i>)
Pn:	Pukapukan	<i>aloa</i>	‘love, kindness, charity’

Two further cognate sets, each with few reflexes, permit the reconstruction of SORRY morphemes. The first, POc **dolom*, is restricted to NWS and SES languages and may represent local innovations, but Nehan is the northernmost NWS language, so it is unlikely that the set is due to borrowing. It is likely that **dolom* was a noun, as the Gela and Longgu transitives in *-vi* (for *†dolom-i-*) appear to reflect a PSES formation.

POc **dolom* (N?) ‘love, pity, sorrow, compassion’

MM:	Nehan	<i>dolomo</i>	(N) ‘sorrow’

⁶ Homophony with POc **qarop* ‘face’ (N LOC) ‘front, the side usually seen’ (vol.2:247) is due to chance, as **qarop* ‘face’ reflects PMP **qadeʔ* ‘facade, front’, but **qarop* ‘feel pity ...’ reflects PMP **qarep*.

	<i>(uel)dolomo</i>	(v) 'be sorry; show compassion'
SES: Gela	<i>dolo</i>	(N) 'pity'
	<i>dolo-vi</i>	(VT) 'love, pity'
SES: Longgu	<i>dolo</i>	(VI) 'love'
	<i>dolo-vi</i>	(VT) 'love someone'

The set below is restricted to WOC. If the Iduna items reflect the same etymon, then its PWOc form was **(q)uduqu*, but there is no three-syllable reflex to confirm this.

PWOc **(q)udu*, **(q)udu-an* 'be sorry for, pity, be merciful'

NNG: Bariai	<i>udu-an</i>	'feel sorrow or pity for s.o. you care about; miss s.o.'
MM: Bola	<i>du</i>	'care for' (loss of initial <i>u</i> - unexpected)
MM: Tinputz	<i>rūru-an</i>	'pity, have mercy'
	<i>ur-uru-an</i>	'forgive, pity'
MM: Teop	<i>uru</i>	(N) 'pity'
	<i>ur-uru</i>	(V) 'have mercy, love'
cf also:		
PT: Iduna	<i>duʔu</i>	(N) 'love, affection, love-gift, share (of food, property)'
	<i>-duʔu</i>	(V) 'feel affection; long for (person of opposite sex)'

A number of languages have BPMs for the SORRY meaning, but their components usually differ from language to language. Examples include:

Adm: Nyindrou	<i>ade- hadru in ta-</i>	[liver- true in OBL-] 'love, cherish, adore'
NNG: Gedaged	<i>ilo- i-pani-</i>	[insides- it-give-] 'sympathise with, love, pity, commiserate with, mourn for, long for'
NNG: Takia	<i>bube- i-pani-</i>	[liver- it-give-] 'love'
PT: Bunama	<i>ʔate-muya-muya</i>	[liver-pain-pain] 'pity, compassion'

In many of these BPMs, however, the modifying component has no meaning independent of the BPM in which it occurs.

11.4.4 Happy

BPMs for 'happy', 'cheerful', 'joyful', 'glad', 'carefree' often have 'good' as their modifying component. This is sometimes a reflex of POC **puia* 'good' or PEOc **leka* 'good, pleasant' (§11.6.1).

NNG: Takia	<i>ilo- uyan</i>	[insides- good] 'happy, pleased, thanks, greeting'
NNG: Yabem	<i>utaʔ ŋayam</i>	[belly good] 'contented, happy'
NNG: Numbami	<i>tae-wia</i>	[guts-good] 'happy'
NNG: Poeng	<i>la-u-pe</i>	[insides-my-good] 'I am happy'
NNG: Mapos Buang	<i>ake- nivəca</i>	[insides- good] 'happy'
PT: Kilivila	<i>ibwaina lula</i>	[belly good] 'he is happy, at peace, relaxed'

PT:	Dawawa	<i>nua-verē</i>	[insides-good] 'happy'
PT:	Lala	<i>lalo nama</i>	[insides good] 'happy'
PT:	Motu	<i>lalo namo</i>	[insides good] 'happy'
SES:	Kwaio	<i>noni leʔa</i>	[body good] 'grateful, happy, proud'
Pn:	Tokelauan	<i>loto-fiafia</i>	[inside-happy] 'be humorous, happy'

While some Pn languages use a BPM with *fiafia* 'happy' as its modifying element, many of them use *fiafia* alone, as in the set below.

PPn **fia-fia* 'happy' (POLLEX)

Pn:	Tongan	<i>fiefia</i>	'happy'
Pn:	Niuean	<i>fiafia</i>	'joy, delight, pleasure, be happy, joyful'
Pn:	Samoan	<i>fiafia</i>	(v) 'enjoy'; (N) 'gladness, enjoyment'; (ADJ) 'happy'
Pn:	E Uvean	<i>fiafia</i>	'happy, joyful'
Pn:	Tuvaluan	<i>fiafia</i>	'happy'
Pn:	Tikopia	<i>fiafia</i>	'glad'

It is just possible that POc had a single word, **puiawa-*, for 'happiness' (or 'happy'), apparently derived from **puiā* 'good' (§11.6.1). However, this derivation involves positing an otherwise unknown morpheme *-*wa-*, and possible reflexes are few.

POc **puiā-wa* ?? 'happiness' (or 'happy'?)

PT:	Gumawana	<i>uyawa-</i>	'happy, pleased'
PT:	Dobu	<i>uyawa-</i>	'joy, gladness; rejoice'
SES:	Owa	<i>piawa</i>	'happy; calm (of ocean)'

11.4.5 Sad

No simple lexeme can be reconstructed for 'sad'. Instead, many Oceanic languages use a BPM for 'sad', and related meanings like 'depressed', 'miserable' and 'unhappy', and here there are some consistent patterns. One pattern combines 'insides' or 'mind' with a term meaning 'heavy'. The fact that no **qate-* terms have been collected for 'sad'-like emotions is possibly because these are seen as passive, non-violent. As Bugenhagen (2001:96) has argued for Mangap, **qate-* terms occur most often with rash, impetuous emotions.

NNG:	Yabem	<i>ɲalilom wapaʔ</i>	[insides heavy] 'his heart is heavy, full of sorrow, dispirited'
NNG:	Mangap	<i>lele- i-pata</i>	[insides- it-heavy] 'worried, concerned, troubled, sad'
NNG:	Mapos Buang	<i>ayo mayin</i>	[insides heavy] 'sad, unhappy'
NNG:	Takia	<i>ilo-mulua-n</i>	[insides-heavy-3SG] 'worried, feel badly, sad'
PT:	Motu	<i>lalo-metau</i>	[insides-heavy] 'unwilling'
PT:	Dobu	<i>nua- i-m^wau</i>	[mind- it-heavy] 'downhearted'
PT:	Kiriwina	<i>m^wau nano</i>	[mind heavy] 'sad'
PT:	Gumawana	<i>nuo- i-mou</i>	[mind- it-heavy] 'sad'
PT:	Iduna	<i>-nua-vita</i>	[-mind-heavy] (v1) 'heavy-hearted, sad'
SES:	To'aba'ita	<i>manata- e kuluʔa</i>	[mind- it heavy] 'unhappy'

Fij: Bauan *loma-bībī* [insides heavy, difficult, painful] ‘sad’

The Polynesian terms typically use a modifier reflecting POC **mapat* ‘heavy’ (vol.2:213), without body part.

Pn:	Tongan	<i>mafas-i-a</i>	‘be weighed down, burdened, literally or figuratively’
Pn:	Samoaan	<i>mafai-i-a</i>	‘be hurt, affected, physically and mentally tired’
Pn:	Tahitian	<i>fātaī</i>	‘to be depressed, yield to discouragement’

Terms for ‘sad’ often overlap with those for ‘angry’ (§3.6). A second pattern uses ‘insides’ + ‘bad’ for ‘sad’ and a range of ‘feeling bad’ emotions that includes sadness and anger. In some cases the ‘bad’ word is a reflex of POC **saqat* ‘bad’ (§11.6.2):

NNG:	Takia	<i>ilo-saian</i>	[insides bad] ‘sorrowful, angry, sad, feel badly’
NNG:	Mutu	<i>lolo i-sayat</i>	[insides it-bad] ‘sad, upset’
SES:	Longgu	<i>taʔa kutu</i>	[bad belly] ‘be sad, anxious, worried, feel sorry’
SES:	‘Are’are	<i>rae- e taʔa</i>	[liver- it bad] ‘angry’

In other cases another term for ‘bad’ is used:

NNG:	Takia	<i>tijae- saian</i>	[guts- bad] ‘angry, furious, very annoyed’
NNG:	Manam	<i>ilo i-goala</i>	[insides it-bad] ‘sad’
NNG:	Mapos Buang	<i>ake nipaya</i>	[insides bad] ‘sad, unhappy, irritated, angry’
PT:	Dawawa	<i>nua-gewa</i>	[mind bad] ‘extremely sad’
PT:	Misima	<i>nua-nak</i>	[mind-bad] ‘sad’
MM:	Nakanai	<i>ilo-ruru</i>	[insides-wrong] ‘mournful, sad, disturbed, upset’
MM:	Nehan	<i>bala uasa</i>	[stomach bad] ‘upset, sad, incorrect’
MM:	Maringe	<i>diʔa nañafa</i>	[bad heart] ‘sad, regretful, feel bad, sorry’
NCV:	Lewo	<i>sine- vioa</i>	[guts- bad] ‘sad, unhappy, disappointed, sorry, upset’
PT:	Iduna	<i>nua- gi-koyo</i>	[mind- it-bad] ‘upset, angry, annoyed’
NCV:	Paamese	<i>ti- tisa</i>	[guts- bad] ‘angry’

A less frequent but widely distributed BPM for 'sad' or 'angry' is 'insides' + 'sick/painful':

NNG:	Takia	<i>ilo- madai</i>	[insides- painful] ‘angry, bitter’
NNG:	Lukep (Pono)	<i>lo- matamata</i>	[insides- sick] ‘despondent, depressed’
PT:	Tawala	<i>nugo-totogo</i>	[mind- sick] ‘sad’
PT:	Misima	<i>ati-lom^{van}</i>	[liver-painful] ‘be sad; feel sorry for’
MM:	Patpatar	<i>bala nujut</i>	[stomach painful] ‘angry, sore at s.o., disgruntled’
NCV:	Lonwolwol	<i>lo- makenken</i>	[insides- painful] ‘sad’
		<i>lo- merā</i>	[insides- sore] ‘angry’

11.4.6 Angry

No reconstructions are proposed. Languages typically have a number of terms for various kinds of anger varying with the intensity of emotion and the construal of the triggering event. The following BPMs are from Yabem (NNG):

<i>ttaʔ giôʔ auʔ</i>	[belly.his grown.over PERF] ‘he is full of rage, cannot think clearly because of rage’
<i>ttaʔ kmʷatiŋ tau</i>	[belly.his knot itself] ‘he is burning with rage; is angry, irritated’
<i>ttaʔ kpʷa</i>	[belly.his explode] ‘his blood is up, swells with rage’
<i>ttaʔ kɪbuli auʔ</i>	[belly.his twisted PERF] ‘his heart is enraged, irritated, takes offence at s.t., feels scandalised by s.t.’
<i>ttaʔ ŋamakiʔ</i>	[belly.his bitter] ‘he is angry, bitter, irritated’
<i>ttaʔ ŋandan</i>	[belly.his hot] ‘he is furious’
<i>ttaʔ seʔ</i>	[belly.his bad] ‘he is discontented, displeased, angry, dismal, sad’

Anger often overlaps with sadness insofar as BPMs of the pattern ‘insides’ + ‘bad’ and ‘insides’ + ‘painful’ mean either ‘angry’ or ‘sad’ or both. Examples are given in §11.4.5.

The examples below, although ranging in meaning from ‘cross’ to ‘indignant’ to ‘furious’, all contain metaphors that relate to heat or fire or its consequences.

Adm: Nyindrou	<i>drine- i buku jih</i>	[stomach- it burn fire] ‘get hot with anger’
NNG: Takia	<i>bube- yai inani</i>	[liver- fire cook] ‘very angry’
	<i>ilo- wananan</i>	[insides- hot] ‘indignant, cross, angry’
NNG: Bukawa	<i>ataʔ ŋade</i>	[stomach hot] ‘angry’
PT: Motu	<i>lalo-siahu</i>	[insides-hot] ‘angry’
MM: Nakanai	<i>la hate-la mamasi</i>	[the liver-his salty] ‘he is angry’
MM: Patpatar	<i>bala mamahien</i>	[stomach hot] ‘very angry’
SES: Lau	<i>lio e sasū</i>	[voice it smoke] ‘angry’
SES: ‘Are’are	<i>rae- e kora</i>	[liver- it embers] ‘angry’
NCV: Araki	<i>lolo koru</i>	[insides burnt] ‘angry’
NCV: Lonwolwol	<i>lɔ- mafri</i>	[insides- flaming] ‘angry’
	<i>ləl-fanfan</i>	[insides-on.fire] ‘angry’

11.4.7 Confused

Terms from three languages support a PEOc reconstruction:

PEOc **lole* ‘be confused’

SES: ‘Are’are	<i>rore</i>	‘be confused, talk confusedly’
SES: Sa’a	<i>lole</i>	‘be confused, dazed’
Pn: Maori	<i>rore</i>	‘intoxicated; entangle’

Some languages, like Maori above, express mental confusion by describing the mind as tangled (as of vegetation), while two SES languages below describe the mind as closed or blocked:

NNG: Takia	<i>ilo- i-balkaluk</i>	[insides- it-tangled] ‘confused’
PT: Kukuya	<i>nua- vi-tupatupa</i>	[mind- it-dense] ‘confused’

MM:	Tolai	<i>puruai</i>	‘be tangled, confused, puzzled’
SES:	Longgu	<i>bono-bou</i>	[head-blocked (uncleared of bush)] ‘confused’
SES:	To’aba’ita	<i>qasifono</i>	(vi) ‘be very confused’ (<i>qasia</i> ‘particle intensifier’, <i>fono</i> ‘be closed’)
SES:	Kwaio	<i>filu</i>	‘tangled, confused, perplexed’

11.4.8 Surprised

Not unexpectedly a number of terms for ‘surprised’ are perceived as associated with fear and used also for ‘alarmed’ or ‘shocked’. In both the Pn and Mic cognate sets given below there is also an association with being woken suddenly.

A recurrent metaphor incorporates words for jumping or flying using reflexes of POc **Ropok* ‘to fly’ (§6.3.2.1). Micronesian and Polynesian terms occur without body part.

NNG:	Lukep	<i>kate rō</i>	[liver flew] ‘excited to the point of forgetting what one was doing’
PT:	Kiriwina	<i>i-yowa lopo-la</i>	[it-flew belly-his] ‘he leapt in surprise’
PT:	Kukuya	<i>viau novo</i>	‘frighten, ambush, surprise s.o.’ (<i>viau</i> ?)
PPn * <i>ofo</i> ‘wake up, be startled’ (POLLEX)			
Pn:	Tongan	<i>ofo</i>	(vi) ‘to be surprised, wake up’
Pn:	Niuean	<i>ofo</i>	‘to surprise, be surprised’
Pn:	E Futunan	<i>ofo</i>	‘wake up’
Pn:	Samoa	<i>ofo</i>	‘startled, surprised’
Pn:	Tokelauan	<i>ofo</i>	‘amazement, surprise’
Pn:	Maori	<i>oho</i>	‘start from fear, surprise; wake up’
Pn:	Hawaiian	<i>oho</i>	‘leap up, as startled birds’

Nakanai uses the same metaphor with a non-cognate term for the verb:

MM:	Nakanai	<i>la-hate-la raga</i>	[liver leaps] ‘he is startled’

POc *(*lalo-*) *-rutu* ‘surprised’

NNG:	Takia	<i>ilo i-rut</i>	‘surprised, fearful, trembling inside’

PMic **rut(i,u)* ‘become aware, wake up, be surprised’ (Bender et al. 2003)

Mic:	Kiribati	<i>uti</i>	‘to arise, awake’
Mic:	Marshallese	<i>ruc</i>	‘wake up, arouse’
Mic:	Kosraean	<i>lut</i>	‘be surprised, startled, amazed’
Mic:	Puluwatese	<i>ri</i>	‘to be startled, surprised, alarmed’
Mic:	Carolinian	<i>ri</i>	(vi) ‘to be surprised, shocked, startled’
Mic:	Satawalese	<i>rrī</i>	‘surprised’
Mic:	Woleaian	<i>rḥsh</i>	‘be frightened, scared’

11.5 Desiring and wanting

We have included desire and wanting in this chapter because in some contexts (being envious, homesick) it has a strong emotional basis.⁷ In others, of course—lacking food (§§4.3.3.1–2) or sleep (§4.6.2), sexual desire (§4.2.2.2)—it denotes a physical rather than emotional need.

The most striking result of our searches for ways in which POc speakers expressed ‘want’ and ‘desire’ is the absence of any consistency of expression in modern languages outside the Central Pacific (Fij + Pn) group. A major reason for this is that, as a result of the ubiquity and frequency of ‘want’ in the world’s languages, ‘want’ words tend strongly to undergo grammaticisation and to end up as particles in the slots otherwise reserved for tense, aspect and especially mood markers. The endpoint of this tendency is that the ‘want’ morpheme undergoes extension of function and becomes a future or irrealis morpheme, accompanied by the innovation of new ways of expressing ‘want’. Thus in Takia (NNG) the ‘want’ morpheme is the enclitic *=*[w]o*, which occupies the first of a series of postverbal enclitic slots (Ross 2008) that are otherwise occupied by aspect or mood morphemes:

ŋ-le=o [I-see=want] ‘I want to see’
ŋ-le=da [I-see=imperfect] ‘I am seeing’
ŋ-le=ya [I-see=realis] ‘I saw’
ŋ-le=wa [I-see=irrealis] ‘I shall see’

In Longgu (SES) the ‘want’ morpheme is preverbal *tali*, in the same structural position as certain aspectual morphemes and the negator (Hill 1992):

tali inu [want drink] ‘(I) want to drink’
tazani tate [just appear] ‘(I) have just appeared’
vusi aŋi [almost cry] ‘(I) am almost crying’
se lae [not go] ‘(I) am not going’.

A number of languages of the Southeast Solomons, Fiji and Polynesia are like Longgu: they have a pre-verbal particle or prefix meaning ‘want’, but the SES and Wayan Fijian forms show no relation to each other, nor to PCP **via* below.

‘Are’are *siri* ‘hanker after, long for, desire’ (*siri hana* ‘very hungry’, *siri koʔu* ‘thirsty’)
 Arosi *gasi-* ‘to desire, desiderative prefix to any verb’ (*gasi-gono* ‘thirsty’, *gasi-maura* ‘sleepy’, *gasi-ŋau* ‘hungry’)
 Kwaio *māli-* ‘prefix to *māli-faŋa* ‘hungry’ and *māli-goʔu* ‘thirsty’
 Wayan *mata* ‘preverbal particle, want, desire, feel need to do V’ (*mata kani* ‘hungry’, *mata som* ‘thirsty’, *mata moðe* ‘sleepy’)

Data supporting the reconstruction of PCP **via* ‘want to’ are given below.

PMP **pian* ‘want, desire, wish or long for’ (ACD)

POc **pia(n)* (auxiliary) ‘want to’

PCP **via* ‘desiderative particle or prefix’

Fij:	Bauan	<i>via</i>	‘auxiliary verb expressing desire’

⁷ Cf. discussion of COGITATE verbs in §10.3.

Fij:	Wayan	<i>via</i>	‘preverbal particle: marks an act as done for fun, pleasure rather than for serious purpose; want to do’
Pn:	Tongan	<i>fie</i>	‘preposed verb; want, desire, wish, be willing’
Pn:	Niuean	<i>fia</i>	‘desire, want’
Pn:	Samoaan	<i>fia</i>	‘pre-verbal particle: wish, like, aspire to’
Pn:	E Futunan	<i>fia-</i>	‘verbal prefix indicating wish, desire’
Pn:	Pukapukan	<i>wia</i>	‘want’
Pn:	Pileni	<i>fie</i>	‘preverbal adverb indicating a wish or need’
Pn:	Tokelauan	<i>fia-</i>	‘prefix indicating a wish, a liking’
Pn:	Tikopia	<i>fia, fifia</i>	‘want, desire, wish (normally followed by common verbs or nouns, giving unitary concepts)’
Pn:	Tahitian	<i>hia-ai</i>	‘desire food, drink’
Pn:	Maori	<i>hia</i>	‘desire, want’ (prefix on small group of words such as eat, drink etc.)
Pn:	Hawaiian	<i>hia</i>	‘desire, want, delight in’
Pn:	Marquesan	<i>hia moe</i>	‘sleepy’
cf also:			
SES:	To’aba’ita	<i>fia</i>	(VT) ‘expect, anticipate s.t.; have a feeling that s.t. will happen; expect s.o. to do s.t.’
NCV:	Lewo	<i>ve</i>	‘want’

As noted in §§4.3.3.1–2 and §4.6.2.1 Central Pacific languages express the concepts of being hungry, thirsty and sleepy as sequences of ‘want to’ + verb:

- PCP **via kani* ‘be hungry’ (lit. ‘want eat’)
 PCP **via inu* ‘be thirsty’ (lit. ‘want drink’)
 PCP **via moze* ‘be sleepy’ (lit. ‘want sleep’)

Since PCP **via* apparently reflects PMP **pian*, the reconstruction of POC **pia(n)* can be inferred. However, it seems to have been displaced in non-Central Pacific Oceanic languages by a variety of lexical strategies.

A range of languages use reflexes of POC **mate* ‘to die’ (§4.2.1.2) to express an intense need, particularly for such things as food, water, or betelnut, paralleling the English expressions ‘dying for a smoke’ etc.

NNG:	Takia	<i>you=o -mat</i>	[water=for -die] ‘thirsty’
NNG:	Gedaged	<i>-mat</i>	‘long, yearn, crave, desire, lust after’
NNG:	Poeng	<i>mate-ka-</i>	[die eat] ‘want food, be hungry’
NNG:	Kakuna	<i>mate-kana</i>	[die eat] ‘hungry’
NNG:	Uvol	<i>mete-ana</i>	[die eat] ‘hungry’
SES:	Lau	<i>mae-li gwou</i>	[die-TR water] ‘long for a drink, be thirsty’
SES:	Kwaio	<i>mā-li faja</i>	[die-TR food] ‘long for food, be hungry’

In a number of languages, desire is strongly identified with the reflex of POC **lalo-*, **lalom* ‘inside; seat of thoughts and emotions’ or whatever has replaced it as the term for ‘mind’ (§9.4). The following example from Bugenhagen’s Mangap-Mbula grammar (1995:223) illustrates how this works (or in some languages, once worked):

Nio lele-ŋ be aŋ-la pa ^{mber}⁸
 I insides-my NF I-go at night
 ‘I wanted to go at night.’

A more literal translation is ‘My inside/thought/desire (was) that I would go at night.’ This Kalokalo (PT) sentence has a similar structure (Guderian & Guderian 2002).

nuanua-gu ya-na-egim^w aneye-ya
 want-my I-will-sell-it
 ‘I wanted to sell it.’

In some languages the ‘mind’ noun has been (half-)transformed into a verb, as in Lewo (NCV), where the transitive verbal suffix *-ni* is attached to the ‘mind’ noun *sine-* ‘guts’ and its possessor suffix, in this instance *-la* ‘their’ (Early 1994).

sine-la-ni Ø-sape Palua Ø-va e wa
 guts-their-TR it-say Palua he-IRREALIS.go to ship
 ‘They want Palua to go out to the ship.’

Ivens (1937) shows that the Gela ‘mind’ term *lio-* is similarly used. It takes a possessor suffix like any inalienably possessed noun, but is accompanied by the verbal morphemes that one would expect with a verb like ‘want’.

Finally, another strategy for expressing ‘want’ is to use the verb ‘say’, a natural extension of internal speech and thought. In Bariai (NNG) *keo* serves as both ‘say’ and ‘want’, but its sense is disambiguated by the construction that follows it (Gallagher & Baehr 2005).

Ti-keo pa=gid taine ngan ti-la dadanga-i.
 they-say to=them female to they-go garden-at
 ‘They tell the women to go to the garden.’
 Na-keo ga sabale gaisala eao Ø-nam.
 I-say that tomorrow morning thou thou-come
 ‘I want you to come tomorrow morning.’

Bowern (2011:151) notes a similar development in Titan (Adm).

11.6 Evaluation: good vs bad

Because what is experienced may be animate, inanimate or abstract and because evaluation is in the mind of the experiencer, evaluative terms, particularly those for ‘good’ and ‘bad’, may be applied to both animates and inanimates. As value terms they stand alone, but they are also a component of BPMs (§9.5) or they follow terms used specifically to mark a quality as customary or habitual (§11.3).

11.6.1 Good

Terms for ‘good’ have been difficult to reconstruct. Two reconstructions are proposed: POc **puia* and PEOc **leka*.

⁸ NF denotes the non-factual complementiser: in other words, what follows it is a clause in irrealis mood.

With regard to **puia*, originally an alternant **uia* was reconstructed. The reflexes that require this are those from Takia and its neighbours and Hote, shown under ‘cf. also’. These appear to be instances of an idiosyncratic sound change in a frequently used item. However, the Loniū, Titan and Sio reflexes are those that would have occurred if **p* were between two vowels, and it is reasonable to infer that in these languages, at least, the reflex of **puia* once behaved as a stative verb and took subject prefixes (e.g. *i-* 3SG). The Gitua and Labu forms and the second Nehan form reflect **puaia*, and this was perhaps a POc alternant.

The form **puia* is unusual because it contains a sequence of three vowels, which is very unusual in POc (otherwise occurring, as far as is known, only in **kaiu* ‘tree’). Indeed, it is tempting to reconstruct either †**p^wia* or †**puya* in order to adhere to a POc canonic shape, but †**p^wia* is eliminated by Loniū, Kaiep, Manam and Nehan reflexes, since **-u-* is retained and **puya* is hard to justify in the light of so many reflexes of **-i-* rather than **-y-*.

The presence of **-u-* in **puia* is also unexpected, as non-Oceanic cognates reflect PMP **ma-pia*, i.e. the root is **pia*.

PMP **ma-pia* ‘good’

POc **puia* ‘good’

Adm: Loniū	<i>huya-n</i>	‘good’ (medial reflex of <i>*p-</i>)
Adm: Titan	<i>wia-n, uya-n</i>	‘good’ (medial reflex of <i>*p-</i>)
Adm: Lou	<i>pia-n</i>	‘good’
Adm: Baluan	<i>pia-n</i>	‘good, well, all right’
NNG: Ulau-Suain	<i>ya-ñ</i>	‘good’
NNG: Kaiep	<i>uya-n</i>	‘good’
NNG: Manam	<i>(ia)uia</i>	‘good’
NNG: Dami	<i>bia</i>	‘good, right, correct, righthand side’ (<i>b-</i> for † <i>p-</i>)
NNG: Mutu	<i>poia</i>	‘good’
NNG: Gitua	<i>p^waya</i>	‘good’ (for † <i>p^wia</i>)
NNG: Lusi	<i>poea</i>	‘good’
NNG: Poeng	<i>pe</i>	‘good; right hand’
NNG: Kilenge	<i>pa-pue</i>	‘good’
NNG: Mangap	<i>pe</i>	‘good, well’
NNG: Sio	<i>wia</i>	‘right hand’ (medial reflex of <i>*p-</i>)
NNG: Kaiwa	<i>vie</i>	‘good’
NNG: Numbami	<i>wia</i>	‘good’
NNG: Labu	<i>haya</i>	‘good’ (for † <i>hia</i>)
SJ: Sobei	<i>fia</i>	‘good’
PT: Gumawana	<i>uya(wana)</i>	‘happy, pleased’
MM: Nehan	<i>uia</i>	‘good’
	<i>uaia</i>	‘correct’
MM: Tinputz	<i>vi(h)</i>	‘good’

PNCV **vuia* ‘good’ (Clark 2009: **wia*)

NCV: Mota	<i>wia</i>	‘good, of the right sort, without anything unusual’
NCV: S Gaua	<i>we</i>	‘good’
NCV: Mwotlap	<i>wɪ</i>	‘good’

NCV: Marino	<i>wia</i>	‘good’
NCV: Lonwolwol	<i>wu</i>	‘good’ (realis: <i>bu</i>)
NCV: Port Sandwich	<i>voi</i>	‘good, well, pleasant’
NCV: Nakanamanga	<i>p^wia</i>	‘good’ (realis form?)
NCV: Nguna	<i>wia</i>	‘good’
NCV: Lelepa	<i>wia</i>	‘good’
NCV: S Efate	<i>wi</i>	‘good’

cf. also:

NNG: Takia	<i>uya-n</i>	‘good’
NNG: Bilbil	<i>uya-n</i>	‘good’
NNG: Matukar	<i>uya-n</i>	‘good’
NNG: Mindiri	<i>uya-n</i>	‘good’
NNG: Hote (Misim)	<i>(ma)ui</i>	‘good’

Reflexes of PEOc **leka* ‘good, pleasant’ may also refer to temperaments, as in Pukapukan *(yau)leka* [temperament good] ‘calm, gentle, mild, quiet’.

PEOc **leka* ‘good’

SES: Lau	<i>lea</i>	‘good’
SES: Kwaio	<i>leʔa</i>	‘good, well’
SES: Dorio	<i>leʔa</i>	‘good’
SES: Kwara’ae	<i>leaʔ</i>	‘good’

PPn **leka* ‘pleasant’ (POLLEX)

Pn: Pukapukan	<i>leka</i>	‘pleasant, sweet, good, delicious’
Pn: Tikopia	<i>(tau)reka-reka</i>	‘fine, splendid, handsome, beautiful’
Pn: Rarotongan	<i>reka</i>	‘pleasant’
Pn: Maori	<i>reka</i>	‘pleasant, sweet’
Pn: Hawaii	<i>leʔa</i>	‘pleasant’

11.6.2 Bad

The POc term for a negative evaluation of various kinds was **saqat* ‘bad’.

PMP **zaqat* ‘bad’ (ACD)

POc **saqat* ‘bad’

NNG: Takia	<i>saia-n</i>	‘bad’
NNG: Yabem	<i>seʔ</i>	‘bad, evil’
NNG: Tami	<i>sakat</i>	‘bad, spoilt’
MM: Bali	<i>zayata</i>	‘bad’
MM: E Kara	<i>(mo)sat</i>	‘bad’
MM: Notsi	<i>caka</i>	‘bad’
MM: Tabar	<i>caka</i>	‘bad’
MM: Label	<i>saka</i>	‘bad’
MM: Patpatar	<i>sakana</i>	‘bad; evil; ruined; worthless’
MM: Minigir	<i>saka(i)</i>	‘bad’

MM:	Tolai	<i>ka(i)</i>	‘bad’
MM:	Ramoaina	<i>akə</i>	‘badly’
MM:	Teop	<i>hata</i>	‘bad’
MM:	Torau	<i>saka(ala)</i>	‘bad’
MM:	Vaghua	<i>sata</i>	‘bad’
MM:	Varisi	<i>sakata</i>	‘bad’
SES:	Lengo	<i>ḍayata</i>	‘bad’
SES:	Longgu	<i>taʔa</i>	‘bad’
SES:	To’aba’ita	<i>taʔa</i>	(vi) ‘be bad, no good; feel bad, physically, mentally, emotionally’
SES:	Lau	<i>tā</i>	‘bad, evil’
SES:	‘Are’are	<i>taʔa</i>	‘wrong, bad, evil; be dying, be in a bad condition’
SES:	Arosi	<i>taʔa</i>	‘bad, poor, of poor quality’
NCV:	Hiw	<i>sa</i>	‘bad’
NCV:	Nese	<i>sat</i>	‘bad’
NCV:	Nakanamanga	<i>sa</i>	‘bad’
NCV:	Namakir	<i>(a)haʔ</i>	‘bad’
NCV:	Nguna	<i>sā</i>	‘bad’
SV:	Sye	<i>sat</i>	‘badly; problem, trouble’
NCal:	Xârâcùù	<i>xʷā</i>	‘bad’
Fij:	Bauan	<i>ḍā</i>	‘bad, evil’
Pn:	Samoa	<i>sā</i>	‘forbidden, sacred’
Pn:	Futuna-Aniwa	<i>sa</i>	‘bad’

A number of reflexes point to a final **-i*. Whilst the Arosi and Bauan reflexes under ‘cf. also’ self-evidently reflect **saqat* plus the transitive suffix **-i*, the gloss ‘bad’ indicates that this is not the source of **-i* in the items listed below and that they perhaps reflect an alternant **saqati*.⁹

POc **saqati* ‘bad’

NNG:	Malalamai	<i>sati</i>	‘bad’
NNG:	Mutu	<i>sayati</i>	‘bad’
NNG:	Gitua	<i>sayati</i>	‘bad’
NNG:	Kove	<i>sasi</i>	‘bad’
NNG:	Aria	<i>sasi</i>	‘bad’
NNG:	Atui	<i>ses</i>	‘bad’
NNG:	Avau	<i>ses</i>	‘bad’
PT:	Sudest	<i>ḍari</i>	‘bad’
MM:	Lihir	<i>caket</i>	‘bad’

PNCV **saqati* ‘bad’ (Clark 2009)

NCV:	Tamambo	<i>sati</i>	‘bad; dead (euphemism)’
NCV:	Tangoa	<i>sati</i>	‘bad’
NCV:	Nduindui	<i>hati</i>	‘bad’
SV:	Anejom	<i>has</i>	‘bad’

⁹ Another reconstruction to exhibit this variation is POc **pat/*pati* ‘four’.

cf. also:

SES:	Arosi	<i>taʔa-i</i>	(VT) 'to spoil'
Fij:	Bauan	<i>ḍāti-</i>	(VT) 'to hate s.o.; deem s.o. bad'

POc **jika* 'be soiled, weakened' appears to have been a stative verb used primarily of inanimates and meaning something like 'be unfit for use'. But some languages extend their reflexes of **jika* to describe negative emotions or behavioural qualities:

PT:	Motu	<i>kara dika</i>	[conduct bad] 'sin'
		<i>gaiho dika</i>	[character bad] 'inhospitable, mean'
		<i>lalo dika</i>	[insides bad] 'miserable'
MM:	Maringe	<i>dīʔa naʔaʔa</i>	[heart bad] 'sad, sadness'
SES:	Gela	<i>lio dika</i>	[disposition bad] 'sad, sorry; to hate'
SES:	Bugotu	<i>dika hehe</i>	[bad heart/mind/wish] 'grief, to grieve, be sad; bear ill will'

POc **jika* 'be soiled, weakened'

NNG:	Lukep	<i>sia(na)</i>	'bad'
NNG:	Maleu	<i>sia(ŋe)</i>	'bad'
NNG:	Manam	<i>ziʔa-zīʔa</i>	'dirty, soiled'
NNG:	Bam	<i>jik-jik</i>	'dirty'
NNG:	Wogeo	<i>-jika</i>	'(wood) rotten'
NNG:	Kairiru	<i>-jīeq</i>	'(wood) rotten'
PT:	Motu	<i>dika</i>	'bad, badness; calamity; guilt'
MM:	Marovo	<i>cie-na</i>	'bad'
MM:	Vangunu	<i>sie-na</i>	'bad'
MM:	Kokota	<i>dia</i>	'bad'
MM:	Maringe	<i>dīʔa</i>	'bad' (borrowed from Bugotu)
SES:	Bugotu	<i>dika</i>	'be bad, evil, wrong'
SES:	Gela	<i>dika</i>	'bad, inferior'
Fij:	Bauan	<i>ḍika(i)</i>	'be destroyed, be weakened'
		<i>ḍika(a), ḍika(va)</i>	'destroy s.t.'

Appendix A: Data sources

A.1 Introduction

Below are listed data sources consulted in the course of the research reported in this volume. These sources are divided into data collections which collate lexical material from a number of languages, published or publicly available dictionaries and vocabularies, and unpublished sources.

A.2 Data collections

We have made use of a number of published or publicly available data collections, each of which collates data across part or all of Oceanic:

Oceanic as a whole: Blust & Trussell (ongoing), Greenhill, Blust & Gray (2008)
Languages of the Rai Coast (northeast New Guinea): Lincoln 1976
Solomon Islands (including Temotu): Tryon & Hackman (1983)
Vanuatu: Tryon (1976)
North and Central Vanuatu: Clark (2009)
South Vanuatu: Lynch (2001c)
Micronesian: Bender et al. (2003)
Polynesian: Clark & Biggs (2006) (there is now an online version at <http://pollex.org.nz/about/>; see also Greenhill & Clark 2011)

A.3 Published or publicly available dictionaries and vocabularies

These sources are listed in the references at the end of the volume. They are listed here in alphabetical sequence by language name:

Amara	Thurston (1996a)
Anejom	Lynch & Tepahae (2001)
Anus	Grace (1971)
Araki	François (2002, 2008)
Aria	Thurston (1996b)
'Are'are	Geerts (1970)

Arosi	Fox (1978)
Bing	Simons & Simons (1977)
Bola	Goodenough (1997)
Bulu	Goodenough (1997)
Bugotu	Ivens (1940)
Bunama	Lithgow (2007)
Carolinian	Jackson & Marck (1991)
Cèmuhî	Rivierre (1994)
Chuukese (= Trukese)	Goodenough & Sugita (1980)
Bauan Fijian (= Standard Fijian)	Capell (1941)
Boumaa Fijian	R. M. W. Dixon (1988)
Dobu	J. W. Dixon (n. d.), Grant (1953), Lithgow & Lithgow (2006)
Fwâi	Haudricourt & Ozanne-Rivierre (1982)
Gapapaiwa	McGuckin & McGuckin (1992)
Gedaged	Mager (1952)
Gela (= Nggela)	Fox (1955)
Halia	Allen & Allen (2006)
Hawaiian	Pukui & Elbert (1971)
Iamalele	Beaumont & Beaumont (2007)
Jawe	Haudricourt & Ozanne-Rivierre (1982)
Kairiru	Wivell (1981)
Kayupulau	Grace (1971)
Kilivila	Senft (1986)
Kiribati (= Gilbertese)	Sabatier (1971), Thaman (1987)
Kokota	Palmer (2004)
Kosraean (= Kusaiean)	Lee (1976)
Kove	Chowning (2009)
Kwaio	Keesing (1975)
Kwamera	Lindstrom (1986)
Labu	Siegel (1984)
Lamogai	Thurston (1996b)
Lau	Fox (1974)
Lavongai	Fast & Dast (1989)
Lenakel	Lynch (1977)
Loniu	Hamel (1994)
Lonwolwol	Paton (1973)
Lou	Blust (1998a)
Manam	Böhm (1975)
Mangap	Bugenhagen & Bugenhagen (2007)
Maori	Williams (1971)
Mapos Buang	Rambok & Hooley (2010)
Maringe (= Cheke Holo = Hograno)	White et al. (1988)
Marovo	Hviding (1995)

Marshallese	Abo et al. (1976)
Mato	McHenry, Stober & Troolin (1996)
Matukar	Barth (2012)
Meramera	Goodenough (1997)
Minaveha	Nenegemo & Lovell (1995)
Misima	Callister (1987)
Mokilese	Harrison & Albert (1977)
Mota	Codrington & Palmer (1896)
Motu	Lister-Turner & Clark (1954)
Mouk	Thurston (1996b)
Mussau	Blust (1984)
Muyuw	Lithgow & Lithgow (1974)
Mwotlap	François (2012)
Nakanai	Chowning & Goodenough (2014)
Nehan	Glennon & Glennon (n.d.)
Nemi	Haudricourt & Ozanne-Rivierre (1982)
Niuean	Sperlich (1997)
Nyelâyu	Ozanne-Rivierre (1998)
Paamese	T. Crowley (1992)
Pije	Haudricourt & Ozanne-Rivierre (1982)
Pingelapese	Good & Welley (1989)
Ponapean	Rehg & Sohl (1979)
Puluwatese	Elbert (1972)
Rennell and Bellona	Elbert (1975)
Roinji	McHenry, Stober & Troolin (1996)
Rotuman	Churchward (1940)
Roviana	Waterhouse (1949)
Sa'a	Ivens (1918, 1929)
Samoan	Milner (1966)
Sengseng	Chowning (1996)
Southeast Ambrym	Parker (1970)
South Efate	Thieberger (2006b, 2011)
Southwest Tanna	Lynch (1982)
Sudest	Anderson (2007)
Sye (= Sie, Eromango)	T. Crowley (2000), Lynch (2001b)
Tamambo	Jauncey (2011)
Tanga	Bell (1977)
Tench (= Tennis)	Lithgow & Claassen (1968)
Teop	Schwartz et al. (2007)
Tigak	Beaumont (1979)
Titan	Bowern (2011)
Tikopia	Firth (1985)
To'aba'ta	Lichtenberk (2008)
Tolai (= Kuanua, Raluana)	Rickard (1964), Lanyon-Orgill (1962)
Tolo	S. S. Crowley (1986)

Tongan	Churchward (1959)
Ughele	Frostad (2012)
Ulawa	Ivens (1918)
Ura	Lynch 1983
Vurës	Malau (2011)
Wayan Fijian	Pawley & Sayaba (2003)
Wedau	Jennings (1956)
Woleaian	Sohn & Tawerilmang (1976)
Yabem (= Jabem)	Zahn (1982)

A.4 Unpublished sources

Unpublished sources consist mostly of electronic files from various sources. A few are mimeos or typescripts. Dates are given where they are known, but in most cases the materials are undated.

- Electronic files provided by various scholars, some of which are themselves based on a variety of primary sources. These include:
- Electronic files of lexical data collated during the research leading to the publication of Ross (1988), whose sources are listed in Appendices A and B of that work.
- Electronic files from the *Comparative Austronesian Dictionary* project which resulted in Tryon (1995), which lists its own sources.
- Electronic files of Biggs and Clark's *POLLEX: Proto Polynesian lexicon*. We refer to a June 2006 version, abbreviated POLLEX (there is now an online version at <http://pollex.org.nz>; see also Greenhill & Clark 2011)
- Electronic files of dictionaries in progress kindly made available by the Summer Institute of Linguistics (Papua New Guinea branch) and members thereof. Languages and those who compiled/supplied the dictionary are as follows:

Arop-Lokep	Jeffrey D'Jernes and Lucille D'Jernes
Bariai	Steve Gallagher
Bing [= Biliau]	Doug Bennett
Bola	Brent Wiebe
Mapos Buang	Bruce Hooley
Dami	George Elliott
Dawawa	Martin Knauber and Beate Knauber
Gapapaiwa	Ed McGuckin and Catherine McGuckin
Gumawana	Clif Olson
Hote	Marguerite Muzzey
East Kara	Perry Schlie and Virginia Schlie
Kaulong	Craig Throop
Drehet [= Khehek]	Stephan Beard

Lou	Robert Stutzman and Vema Stutzman
Madak	Bob Lee
Manam	Stephen Blewett and Kim Blewett
Mangseng	Lloyd Milligan
Mengen	Fred Madden
Misima	Bill Callister
Mumeng [Patep]	Linda Vissering and Karen Wilson
Mussau	John Brownie, 2015
Mutu	Robert Bugenhagen & Salme Bugenhagen, 2007
Nakanai [= Lakalai]	Ray Johnston
Nehan	John Glennon and Ariana Glennon
Nochi	Leland Erickson and Laurinda Erickson
Nyindrou [= Lindrou]	William H. Martin and others
Patpatar	Ed Condra
Ramoaina [= Duke of York]	Lisbeth Fritzell and Robyn Davies
Siar	Larry Erdman
Sinaugoro [Balawaia]	Gerhard Tauberschmidt
Sio	Stephen Clark and Dawn Clark
Sissano [Arop]	Stephen Whitacre
Sudest	Mike Anderson
Sursurunga	Don Hutchisson
Takia	Salme Bugenhagen, Judy Rehberg, Curtis Thomas, Bruce Waters
Tawala	Bryan Ezard
Teop	David Snyder
Tinputz	Roman Hostetler
Titan	Keith Lusk

- Electronic files and manuscripts of dictionaries, vocabularies and wordlists for single languages, as follows:

Adzera	Karl Holzknecht
Babatana	Will McClatchey, 2007
Baluan	Dineke Schokkin, 2015
Banoni	Peter Lincoln, 2005
Gao	Johanna Whiteley, 2012
Gitua	Peter Lincoln, 1976?
Kiriwina (= Kilivila)	Ralph Lawton
Kubokota	Debra McDougall, 2000
Lewo	Robert Early
Longgu	Deborah Hill
Molima	Ann Chowning
Mutu	Alice Pomponio
Nduke	Ian Scales
Northeast Ambae	Catriona Hyslop

Numbami	Joel Bradshaw
Piva	Peter Lincoln, 1973
Seimat (= Ninigo)	W. Smythe
Takia	Malcolm Ross
Teanu (= Buma)	Alexandre François
Varisi	Fr Stephen Farrant
Zabana (= Kia)	D. Ama and M. Fitzsimons

Appendix B: Languages

B.1 Introduction

In B.2 are listed by putative subgroup all the Oceanic languages and dialects (and occasionally larger isogloss-defined regions, e.g. Western Viti Levu) referred to in this volume. The higher-order subgroups are as described in §1.3.2. Lower-order groups are mainly from the classification in Lynch et al. (2002) supplemented from Ross (1988) for Western Oceanic, Ross & Næss (2007), for Temotu, Lynch (1999, 2000, 2006, 2007) for Southern Oceanic, Bender et al. (2003) for Micronesian, and Geraghty (1983) for Central Pacific. B.3 is an index to B.2, followed by maps showing the languages' approximate locations.

Square brackets enclose the subgroup abbreviations used in the data. Parentheses include dialect names or, where an equals sign is used, an alternative name or names for the language. The difficulty of deciding where the borderline between dialect and language lies, combined with the fact that these volumes contain work by a number of contributors, has resulted in some inconsistency in the naming of dialects in the cognate sets. Some occur in the form 'Halia (Haku)', i.e. the Haku dialect of the Halia language, whilst others are represented simply by the dialect name, e.g. Iduna, noted in the list below as 'Iduna (= dialect of Bwaidoga)'. Where a language has several dialects, these are shown below in the form 'Mumeng (Patep, Zenag, Kumaru)', where Patep, Zenag and Kumaru are dialects of Mumeng.

B.2 Languages by subgroups

1. Yapese (perhaps more closely related to Admiralties than elsewhere)
2. *St Matthias* [Adm] (perhaps more closely related to Admiralties than elsewhere)
 - Mussau
 - Tenis (= Tench)
3. *Admiralties* [Adm]
 - 3.1. *Western Admiralties*
 - Aua
 - Kaniet

Seimat (= Ninigo)

Wuvulu

3.2. *Eastern Admiralties*

3.2.1. *Manus*

Andra

Bipi

Drehet (= Ndrehet, Khehek, Levei-Tulu)

Ere

Hus

Kele

Koro

Kurti

Leipon (= Pitilu)

Lele

Likum

Loniu

Mondropolon

Nali

Nyindrou

Papitalai

Ponam

Sori-Harengan

Titan

3.2.2. *Southeast Admiralties*

Baluan

Lenkau

Lou

Nauna

Pak

Penchal

4. *Western Oceanic*

4.1. *New Guinea Oceanic*

4.1.1. *North New Guinea* [NNG]

4.1.1.1. *Schouten*

Ali

Bam

Kaiep

Kairiru

Kis

Manam

Medebur

Sera

Sissano (Arop)

- Terebu
- Tumleo
- Ulau-Suain
- Wogeo
- 4.1.1.2. *Huon Gulf*
 - Numbami
 - 4.1.1.2.1 *North Huon Gulf*
 - Bukawa
 - Kela
 - Yabem (= Jabêm)
 - 4.1.1.2. *Huon Gulf*
 - 4.1.1.2.2. *Markham*
 - Adzera
 - Aribwatsa
 - Dangal (dialect of S Watut)
 - Labu
 - Mari
 - Middle Watut (= Bubwaf, Silisili)
 - Musom
 - North Watut (= Unank, Onank)
 - Sirak (= Nafi)
 - Sirasira
 - South Watut (= Maralango)
 - Sukurum
 - Wampar
 - Wampur
 - Yalu
 - 4.1.1.2.3. *South Huon Gulf*
 - Buang
 - Hote
 - Kaiwa
 - Kapin
 - Mangga (= dialect of Buang)
 - Mapos Buang (= dialect of Buang)
 - Misim (= dialect of Hote)
 - Mumeng (Patep, Zenang, Kumaru)
 - Piu
 - Vehes
- 4.1.1.3. *Ngero/Vitiaz*
 - Amara
 - Mangap (= Mangap-Mbula, Kaimanga)
 - Sio
 - Tami
 - 4.1.1.3.1. *Korap*

- Barim
- Lukep (Pono) (= Arop-Lokep)
- Malasanga
- Singorakai (= dialect of Malasanga)
- 4.1.1.3.2. *Kilenge-Maleu*
 - Kilenge
 - Maleu
- 4.1.1.3.3. *Mato-Rondi*
 - Mato (= Nenaya, Nengaya)
 - Roinji (= Ronji, Rondi)
- 4.1.1.3.4. *Ngero*
 - Bariai (= Kabana)
 - Gitua
 - Kove
 - Lusi
 - Malai (= dialect of Mutu)
 - Malalamai
 - Mutu
 - Tuam (= dialect of Mutu)
- 4.1.1.3.5. *Bel*
 - Bilibil (= Bilbil)
 - Bing (= Biliau)
 - Dami (= Ham)
 - Gedaged (= Graged)
 - Matukar (= Matugar)
 - Megiar (= dialect of Takia)
 - Mindiri
 - Takia
 - Riwo (= Ziwo, dialect of Gedaged)
 - Wab
- 4.1.1.3.6. *Southwest New Britain*
 - 4.1.1.3.6.1. *Bibling (= Lamogai)*
 - Aria
 - Lamogai
 - Mouk (= Mok)
 - Rauto (dialect of Lamogai)
 - 4.1.1.3.6.2. *Arawe*
 - Akolet
 - Apalik (= Ambul)
 - Arawe
 - Atui (= Amio)
 - Avau
 - Bebeli
 - Mangseng

4.1.1.3.6.3. *Pasismanua*

Kaulong
Psohoh (= Bao)
Sengseng

4.1.1.3.7. *Mengen*

Kakuna (= dialect of Mamusi)
Longeinga (= Bush Mengen)
Mengen (Poeng, Maenge = Orford)
Mamusi
Uvol

4.1.2. *Sarmi/Jayapura* [SJ] (perhaps part of North New Guinea)

4.1.2.1. *Sarmi*

Anus
Bongo
Sobei
Tarpia (= Tarfia)

4.1.2.2. *Jayapura*

Kayupulau
Ormu
Tobati (= Yotafa)

4.1.3. *Papuan Tip* [PT]

4.1.3.1. *Suauc*

'Auhelawa (= Kurada)
Bohutu
Logea
Oya'oya
Saliba (= Sariba)
Suau (Daui, Kwato Suau)
Tubetube
Wagawaga

4.1.3.2. *North Mainland/D'Entrecasteaux*

Anuki
Gumawana (= Gumasi)

4.1.3.2.1. *Dobu/Duau*

Bunama
Dobu
Duau
Galea (= Galeya)
Gilagila (= dialect of Sewa Bay)
Sewa Bay

4.1.3.2.2. *Bwaidoga*

Bwaidoga
Diodio

- Iamalele (= Yamalele)
- Iduna (= dialect of Bwaidoga)
- Kalauna (= subdialect of Iduna)
- Kalokalo
- Molima
- 4.1.3.2.3. *Kakabai/Dawawa*
 - Dawawa
 - Kakabai (Igora)
- 4.1.3.2.4. *Are/Taupota*
 - Are
 - Arifama
 - Bartle Bay (= dialect of Wedau)
 - Boanaki (= Boianaki)
 - Doga
 - Gapapaiwa (= Paiwa)
 - Maisin
 - Minaveha (= Kukuya)
 - Taupota
 - Tawala
 - Ubir
 - Wedau
- 4.1.3.3. *Kilivila/Misima*
 - Budibud
 - Kilivila (= Kiriwina)
 - Misima
 - Muyuw
- 4.1.3.4. *Nimoo/Sudest*
 - Nimoo
 - Sudest (=Pamela), Sudest (Varavarae)
- 4.1.3.5. *Central Papuan*
 - Balawaia (= dialect of Sinaugoro)
 - Doura
 - Gabadi
 - Hula (= dialect of Keapara)
 - Keapara
 - Kuni
 - Lala (= Nara, 'Ala'ala, Pokau)
 - Magori
 - Maopa (= dialect of Keapara)
 - Mekeo (= East Mekeo)
 - Motu
 - Ouma
 - Roro
 - Sinaugoro

Taboro (= dialect of Sinaugoro)
West Mekeo
Yoba

4.2. *Meso-Melanesian* [MM]

4.2.1. *Bali-Vitu*

Bali
Vitu

4.2.2. *Willaumez*

Bola, Bola (Harua)
Bulu
Meramera
Nakanai (= Lakalai)

4.2.3. *New Ireland/Northwest Solomonian*

4.2.3.1. *Tungag/Nalik family*

Kara (East, West)
Lavongai (= Tungak, Tungag)
Nalik
Tiang
Tigak

4.2.3.2. *Tabar linkage*

Lihir
Notsi (= Nochi)
Tabar

4.2.3.3. *Madak linkage*

Barok
Lamasong
Madak

4.2.3.4. Tomoip

4.2.3.5. *St George linkage*

Bilur
Kandas
Konomala
Label
Minigir (= Vinitiri)
Patpatar
Ramoaina (= Duke of York)
Siar
Sursurunga
Tangga (= Tanga)
Tolai (= Kuanua, Raluana, Tuna), Tolai (Nodup)

4.2.3.5.1. *Northwest Solomonian linkage*

4.2.3.5.1.1. *Nehan/North Bougainville*

Hahon

- Halia (Haku, Selau)
- Nehan
- Papapana
- Petats
- Solos
- Taiof
- Teop
- Tinputz
- 4.2.3.5.1.2. *Piva/Banoni*
 - Banoni
 - Piva
- 4.2.3.5.1.3. *Mono-Alu/Torau*
 - Mono-Alu
 - Torau
 - Uruava
- 4.2.3.5.1.4. *Choiseul*
 - Avasö
 - Babatana
 - Ririo
 - Sisiqa (= Sisingga, Sengga)
 - Vaghua
 - Varisi
- 4.2.3.5.1.5. *New Georgia*
 - Hoava
 - Kubokota (= Ghanongga)
 - Kusaghe
 - Lungga
 - Marovo
 - Nduke
 - Roviana
 - Simbo
 - Ughele
 - Vangunu
- 4.2.3.5.1.6. *Ysabel*
 - Blablanga
 - Gao
 - Kia (= Zabana)
 - Kokota
 - Laghu
 - Maringe (= Cheke Holo, Hograno)

5. *Southeast Solomonian [SES]*

5.1. *Guadalcanal-Gelic*

Birao

Bugotu
Gae (= dialect of West Guadalcanal)
Gela
Lengo
Ghari (= dialect of West Guadalcanal)
Malango
Talise
Tolo (= dialect of Talise)
West Guadalcanal

5.2. *Makira-Malaita*

'Are'are
Arosi
Baelelea (= dialect of Lau)
Bauro
Baegu
Dori'o
Fagani
Fataleka
Kahua
Kwai
Kwaio
Kwara'ae
Langalanga (= Wala)
Lau
Longgu
Marau Sound (dialect of 'Are'are)
Oroha
Owa
Sa'a
Santa Ana (= dialect of Owa)
To'aba'ita (= Toqabaqita)
Uki ni Masi (= dialect of Sa'a)
Ulawa (= dialect of Sa'a)

6. *Temotu [TM]*

6.1. *Reefs and Santa Cruz*

Äiwoo (= Reefs)
Nagu
Natügu (= Malo, Lödäi, Nedö)

6.2. *Utupua/Vanikoro*

Asuboa
Buma (= Teanu)
Nebao (= Aba)
Tanema (= Tanima, Tetau)
Tanibili

Vano (= Vana)

7. *Southern Oceanic*

7.1. *North Vanuatu linkage* [part of NCV; see §1.3.2.2]

7.1.1. *Banks and Torres*

Dorig
Hiw
Lakon (= Lakona)
Lemerig (= Sasar)
Lehali
Loh (= dialect of Lo-Toga)
Lo-Toga
Löyöp
Merlav (= Mwerlap)
Mota
Mwesen (= Mosina)
Mwotlap (= Motlav)
Nume
Olrat
South Gaua
Vera'a (= Vatrata)
Volow (= dialect of Mwotlap)
Vurës

7.1.2. *Northwest Santo*

Cape Cumberland
Matantas
Nokuku (dialect of Cape Cumberland)
Tasmate
Tolomako
Valpei (dialect of Cape Cumberland)
Vunapu (dialect of Cape Cumberland)

7.1.3. *Southwest Santo*

Akei (dialect of Southwest Santo) (= Tasiriki)
Araki (dialect of Southwest Santo)
Aore
Kiai (= Fortsenal)
Mafea
Merei (= Lametin)
Morouas (dialect of South Central Santo)
Narango (dialect of South Central Santo)
South Central Santo
Southwest Santo
Tamambo (= Tamabo, Malo)
Tambotalo

Tangoa (dialect of Southwest Santo)

Tutuba

Wusi

7.1.4. Sakao (= Nekep), Sakao (Sara)

7.1.5. *East Santo*

Shark Bay

7.1.6. *Ambae/Maewo/North Pentecost*

Baetora

Maewo

Nduindui (= Ngwatua, Duidui)

Northeast Ambae (= NE Aoba)

Raga

Suñwadaga

7.2. *Nuclear Southern Oceanic*

7.2.1. *Central Vanuatu linkage* [part of NCV; see §1.3.2.2]

7.2.1.1. *Malakula*

7.2.1.1.1. *East Malakula linkage*

Atchin (=Northeast Malakula)

Aulua

Avava

Avok

Axamb

Banam Bay

Larëvat

Lendamboi (= Letemboi)

Malua Bay

Maskelynes

Nasvang

Nese

Nisvai

Port Sandwich

Rerep (dialect of Unua)

Unua

Uripiv

7.2.1.1.2. *West Malakula linkage*

Big Nambas (= V'ënen Taut)

Ninde

Naha'ai (= Malfaxal)

Naman

Nasarian

Nāti

Neve'ei

Neverver

Southwest Bay (= Nahavaq, Sinesip)

Tape

7.2.1.2. *Central and South Pentecost*

Apma (= Abma)

Sowa

Sa

7.2.1.3. *Ambrym/Paama*

Lonwolwol

N Ambrym

Paamese

SE Ambrym

7.2.1.4. *Epi/Efate*

Baki

Bieria

Lamen

Lelepa (dialect of Nakanamanga)

Lewo

Nakanamanga (= North Efate)

Namakir (= Namakura, Makura)

Nguna (= dialect of Nakanamanga)

Sesake (= dialect of Nakanamanga)

South Efate

7.2.2. *Southern Melanesian*

7.2.2.1. *South Vanuatu* [SV]

Anejom̃ (= Aneityum)

Kwamera

Lenakel

North Tanna

South-west Tanna

Sye (= Sie, Eromangan)

Ura

Whitesands

7.2.2.2. *New Caledonia* [NCal]

7.2.2.2.1. *North New Caledonia*

Caaàc

Cèmuhi

Fwâi

Jawe

Pije

Pwapwâ

Nemi

Nêlêmwa

Nixumwak (= Koumak, Koumac, Kumak)

Nyelâyu

- Paicî
- Pwaamei
- Voh-Koné
- Yuanga
- 7.2.2.2.2. *South New Caledonia*
 - Ajië
 - Drubea (= Païta)
 - Tîrî (= Tinrin, Grand Couli)
 - Xârâcùù (= Canala)
- 7.2.2.2.3. *Loyalties*
 - Dehu (= Drehu)
 - Iaai
 - Nengone

8. *Micronesian [Mic]*

- 8.1. Nauruan
- 8.2. *Nuclear Micronesian*
 - 8.2.1. Kosraean (= Kusaean)
 - 8.2.2. *Central Micronesian*
 - 8.2.2.1. Kiribati (= Kiribatese, Gilbertese)
 - 8.2.2.2. *Western Micronesian*
 - 8.2.2.2.1. *Marshallese*
 - 8.2.2.2.2. *Chuukic-Ponapeic*
 - Carolinian
 - Chuukese (= Trukese)
 - Mokilese
 - Mortlockese
 - Namoluk (= dialect of Mortlockese)
 - Pingelapese
 - Ponapean (= Pohnpeian)
 - Pulo Annian (dialect of Sonsorolese)
 - Puluwatese
 - Satawalese
 - Sonsorolese
 - Ulithian
 - Woleaian

9. *Central Pacific [Fij and Pn]¹*

- 9.1. Rotuman
- 9.2. Fijian

¹ We opt here for a division of Central Pacific into Rotuman, Fijian and Polynesian here in view of the complexities of its history described in §1.3.2.2.

9.2.1. *Western Fijian dialects*

Bā
Nadrogā
Wayan
West Viti Levu
Yasawa

9.2.2. *Eastern Fijian dialects*

Bauan (= Standard Fijian)
Boumā
Bua
Buca Bay
Kadavu
Lau
Lomaiviti
Nadrau
Namosi
Rakiraki
Verata
Vanua Levu

9.3. *Polynesian*

9.3.1. *Tongic*

Niuean
Niuatoputapu (= dialect of Tongan)
Tongan

9.3.2. *Nuclear Polynesian*

Anutan
East Uvean
East Futunan
Emae
Ifira-Mele (= Mele-Fila, Imere-Ifira)
Kapingamarangi
Luangiua (= Ontong Java)
Nukuoro
Nanumea (= dialect of Tuvalu)
Nukumanu
Nukuria
Pileni
Pukapukan
Rennellese, Rennellese (Bellona)
Samoan
Sikaiana
Takuu
Tikopia
Tokelauan
Tuvalu (= Ellicean)

West Futunan (= Futuna-Aniwa)

West Uvean

9.3.2.1. *Eastern Polynesian*

Hawaiian

Mangaia (= dialect of Rarotongan)

Mangarevan

Manihiki

Māori

Marquesan

Rapa

Rapanui (= Easter Island)

Rarotongan

Rurutu (= Inner Australs)

Tahitian

Tongarevan (= Penrhyn)

Tuamotuan

B.3 Language finderlist

Numbers refer to §B.2 above.

Aba (= Nebao) 6.2.

Abma (= Apma) 7.2.1.2.

Andra 3.2.1.

Adzera 4.1.1.2.2.

Äiwoo 6.1.

Ajië 7.2.2.2.2.

Akei (dialect of Southwest Santo) 7.1.3.

Akolet 4.1.1.3.6.2.

'Ala'ala 4.1.3.5.

Ali 4.1.1.1.

Amara 4.1.1.3.

Amio (= Atui) 4.1.1.3.6.2.

Ambrym, SE and N 7.2.1.3.

Aneityum (= Anejom) 7.2.2.1.

Anejom 7.2.2.1.

Anuki 4.1.3.2.

Anus 4.1.2.1.

Anutan 9.3.2.

Aore 7.1.3.

Apalik 4.1.1.3.6.2.

Apma 7.2.1.2.

Araki (dialect of Southwest Santo) 7.1.3.

Arawe 4.1.1.3.6.2.

Are 4.1.3.2.4.

'Are'are 5.2.

Aria 4.1.1.3.6.1.

Aribwatsa 4.1.1.2.2.

Arifama 4.1.3.2.4.

Arop (dialect of Sissano) 4.1.1.1.

Arop-Lokep (Lukep) 4.1.1.3.1.

Arosi 5.2.

Asuboa 6.2.

Atchin 7.2.1.1.1.

Atui 4.1.1.3.6.2.

Aua 3.1.

'Auhelawa 4.1.3.1.

Aulua 7.2.1.1.1.

Australs, Inner (= Rurutu) 9.3.2.1.

Avasö 4.2.3.5.1.4.

Avau 4.1.1.3.6.2.

Avava 7.2.1.1.1.

Avok 7.2.1.1.1.

Axamb 7.2.1.1.1.

Bā 9.2.1.

Babatana 4.2.3.5.1.4.

Baegu 5.1.

Baelelea 5.2.

Baetora 7.1.6.

- Baki 7.2.1.4.
 Balawaia 4.1.3.5.
 Bali 4.2.1.
 Baluan 3.2.2.
 Bam 4.1.1.1.
 Banam Bay 7.2.1.1.1.
 Banoni 4.2.3.5.1.2.
 Bao (= Psohoh) 4.1.1.3.6.3.
 Bariai 4.1.1.3.4.
 Barim 4.1.1.3.1.
 Bartle Bay (dialect of Wedau) 4.1.3.2.4.
 Barok 4.2.3.3.
 Bauan (= Standard Fijian) 9.2.2.
 Bauro 5.2.
 Bebeli 4.1.1.3.6.2.
 Bellona (dialect of Rennellese) 9.3.2.
 Bieria 7.2.1.4.
 Big Nambas 7.2.1.1.2.
 Biliau (= Bing) 4.1.1.3.5.
 Bilibil (= Bilbil) 4.1.1.3.5.
 Bilur 4.2.3.5.
 Bing 4.1.1.3.5.
 Bipi 3.2.1.
 Birao 5.1.
 Blablanga 4.2.3.5.1.6.
 Boanaki 4.1.3.2.4.
 Bohutu 4.1.3.1.
 Bola 4.2.2.
 Bongo 4.1.2.1.
 Boumā 9.2.2.
 Bua 9.2.2.
 Buang 4.1.1.2.3.
 Bubwaf (= Middle Watut) 4.1.1.2.2.
 Buca Bay 9.2.2.
 Budibud 4.1.3.3.
 Bugotu 5.1.
 Bukawa 4.1.1.2.1.
 Bulu 4.2.2.
 Buma 6.2.
 Bunama 4.1.3.2.1.
 Bwaidoga 4.1.3.2.2.
 Caaàc 7.2.2.2.1.
 Canala (= Xârâcùù) 7.2.2.2.2.
 Cape Cumberland 7.1.2.
 Carolinian 8.2.2.2.2.
 Cèmuhi 7.2.2.2.1.
 Chuukese 8.2.2.2.2.
 Dami (= Ham) 4.1.1.3.5.
 Dangal 4.1.1.2.2.
 Dau (dialect of Suau) 4.1.3.1.
 Dawawa 4.1.3.2.3.
 Dehu 7.2.2.2.3.
 Diodio 4.1.3.2.2.
 Dobu 4.1.3.2.1.
 Doga 4.1.3.2.4.
 Dori'o 5.2.
 Dorig 7.1.1.
 Doura 4.1.3.5.
 Drehet 3.2.1.
 Drehu (= Dehu) 7.2.2.2.3.
 Drubea 7.2.2.2.2.
 Duau 4.1.3.2.1.
 Duidui (= Nduindui) 7.1.6.
 East Futunan 9.3.2.
 East Uvean 9.3.2.
 Easter Island (= Rapanui) 9.3.2.1.
 Ellicean (= Tuvalu) 9.3.2.
 Emae 9.3.2.
 Ere 3.2.1.
 Eromangan (= Sye) 7.2.2.1.
 Fagani 5.2.
 Fataleka 5.2.
 Fijian (Eastern) 9.2.2.
 Fijian (Western) 9.2.1.
 Fortsenal (= Kiai) 7.1.3.
 Futuna-Aniwa (= West Futunan) 9.3.2.
 Fwâi 7.2.2.2.1.
 Gabadi 4.1.3.5.
 Galea 4.1.3.2.1.
 Galeya (= Galea) 4.1.3.2.1.
 Gae 5.1.
 Gao 4.2.3.5.1.6.
 Gapapaiwa 4.1.3.2.4.
 Gaua, South 7.1.1.
 Gedaged 4.1.1.3.5.
 Gela 5.1.
 Ghanongga (= Kubokota) 4.2.3.5.1.5.
 Ghari (dialect of W Guadalcanal) 5.1.
 GhoVe (= Blablanga) 4.2.3.5.1.6.
 Gilagila (= dialect of Sewa Bay) 4.1.3.2.1.
 Gilbertese (= Kiribati) 8.2.2.1.
 Gitua 4.1.1.3.4.

- Graged (= Gedaged) 4.1.1.3.5.
 Grand Couli (= Tîrî) 7.2.2.2.2.
 Gumasi (= Gumawana) 4.1.3.2.
 Gumawana 4.1.3.2.
 Hahon 4.2.3.5.1.1.
 Haku (dialect of Halia) 4.2.3.5.1.1.
 Halia 4.2.3.5.1.1.
 Ham 4.1.1.3.5.
 Hawaiian 9.3.2.1.
 Harua (dialect of Bola) 4.2.2.
 Hiw 7.1.1.
 Hoava 4.2.3.5.1.5.
 Hote 4.1.1.2.3.
 Hote 4.1.1.2.3.
 Hula 4.1.3.5.
 Hus 3.2.1.
 Iaaï 7.2.2.2.3.
 Iamalele 4.1.3.2.2.
 Iduna 4.1.3.2.2.
 Ifira-Mele 9.3.2.
 Imere-Ifira (= Ifira-Mele) 9.3.2.
 Inner Australs (= Rurutu) 9.3.2.1.
 Jabêm (= Yabem) 4.1.1.2.1.
 Jawe 7.2.2.2.1.
 Kabana (= Bariai) 4.1.1.3.4.
 Kadavu 9.2.2.
 Kahua 5.2.
 Kaiep 4.1.1.1.
 Kaimanga 4.1.1.3.
 Kairiru 4.1.1.1.
 Kaiwa 4.1.1.2.3.
 Kakabai 4.1.3.2.3.
 Kakuna 4.1.1.3.7.
 Kalauna (= subdialect of Iduna) 4.1.3.2.2.
 Kalokalo 4.1.3.2.2.
 Kandas 4.2.3.5.
 Kaniet 3.1.
 Kapin 4.1.1.2.3.
 Kapingamarangi 9.3.2.
 Kara (East, West) 4.2.3.1.
 Kaulong 4.1.1.3.6.3.
 Kayupulau 4.1.2.2.
 Keapara (Hula) 4.1.3.5.
 Kela 4.1.1.2.1.
 Kele 3.2.1.
 Khehek (= Drehet) 3.2.1.
 Kia 4.2.3.5.1.6.
 Kiai 7.1.3.
 Kilenge 4.1.1.3.2.
 Kilivila 4.1.3.3.
 Kiribatese (= Kiribati) 8.2.2.1.
 Kiribati 8.2.2.1.
 Kiriwina (= Kilivila) 4.1.3.3.
 Kis 4.1.1.1.
 Kokota 4.2.3.5.1.6.
 Konomala 4.2.3.5.
 Koro 3.2.1.
 Kosraean 8.2.1.
 Koumac (= Nixumwak) 7.2.2.2.1.
 Koumak (= Nixumwak) 7.2.2.2.1.
 Kove 4.1.1.3.4.
 Kuanua (= Tolai) 4.2.3.5.
 Kubokota 4.2.3.5.1.5.
 Kukuya (= Minaveha) 4.1.3.2.4.
 Kumak (= Nixumwak) 7.2.2.2.1.
 Kumaru (dialect of Mumeng) 4.1.1.2.3.
 Kuni 4.1.3.5.
 Kurada ('Auhelawa) 4.1.3.1.
 Kurti 3.2.1.
 Kusaeian (= Kosraean) 8.2.1.
 Kusaghe 4.2.3.5.1.5.
 Kwai 5.2.
 Kwaio 5.2.
 Kwamera 7.2.2.1.
 Kwara'ae 5.2.
 Kwato Suau 4.1.3.1.
 Label 4.2.3.5.
 Labu 4.1.1.2.2.
 Laghu 4.2.3.5.1.6.
 Lakalai (= Nakanai) 4.2.2.
 Lakon 7.1.1.
 Lakona (=Lakon) 7.1.1.
 Lala 4.1.3.5.
 Lamasong 4.2.3.3.
 Lamen 7.2.1.4.
 Lametin (= Merei) 7.1.3.
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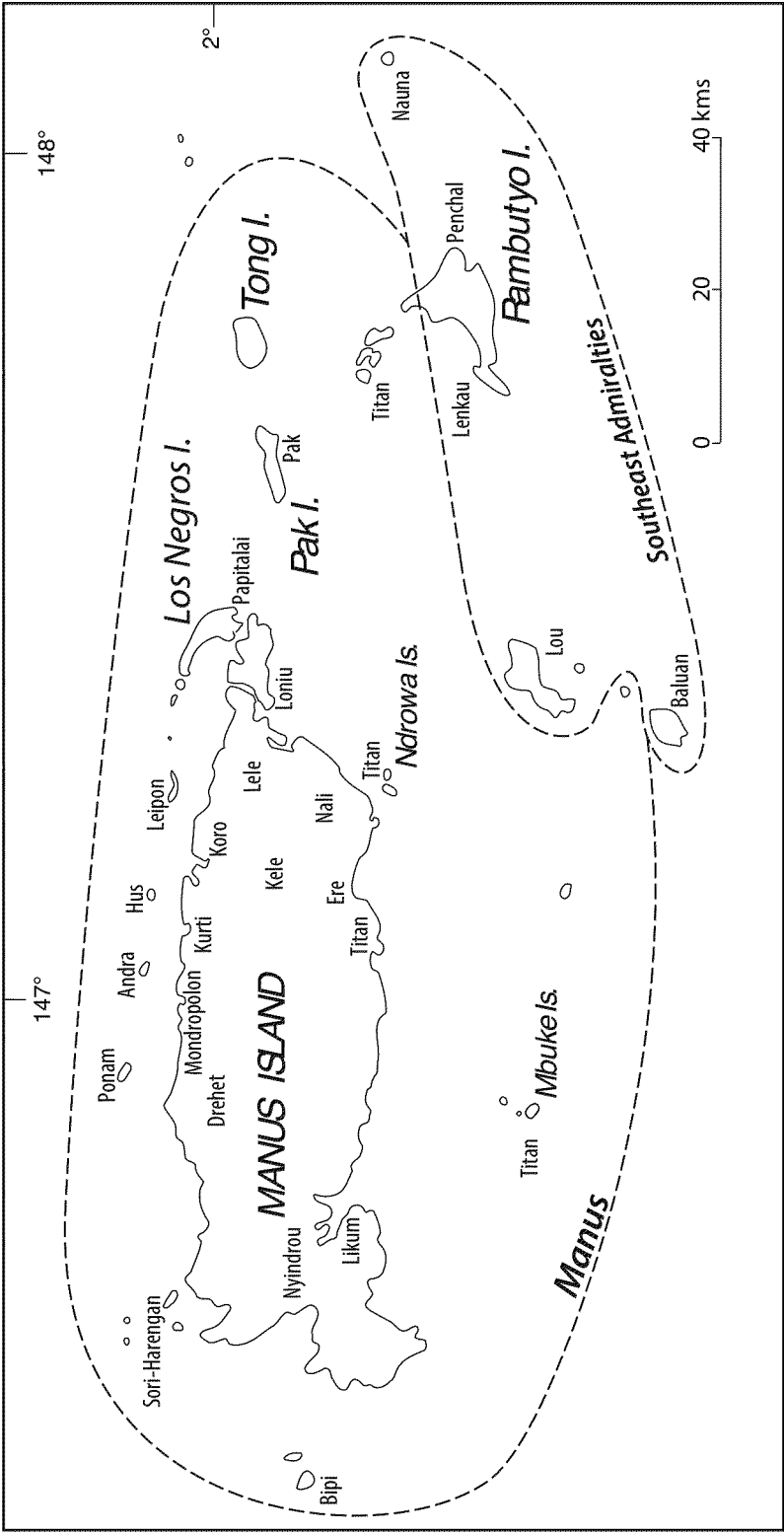
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 Letemboi (= Lendamboi) 7.2.1.1.1.
 Levei-Tulu (= Drehet) 3.2.1.
 Lewo 7.2.1.4.
 Lihir 4.2.3.2.
 Likum 3.2.1.
 Lindrou (= Nyindrou) 3.2.1.
 Lödäi (= Natügu) 6.1.
 Logea 4.1.3.1.
 Loh (dialect of Lo-Toga) 7.1.1.
 Lomaiviti 9.2.2.
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 Longgu 5.2.
 Loni 3.2.1.
 Lonwolwol 7.2.1.3.
 Lo-Toga 7.1.1.
 Lou 3.2.2.
 Löyöp 7.1.1.
 Luangiua 9.3.2.
 Lukep (Pono) 4.1.1.3.1.
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 Maewo 7.1.6.
 Mafea 7.1.3.
 Magori 4.1.3.5.
 Maisin 4.1.3.2.4.
 Makura (= Namakir) 7.2.1.4.
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 Malo (= Natügu) 6.1.
 Malo (= Tamambo) 7.1.3.
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 Manam 4.1.1.1.
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 Mangarevan 9.3.2.1.
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 Mari 4.1.1.2.2.
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 Marshallese 8.2.2.2.1.
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 Matukar 4.1.1.3.5.
 Medebur 4.1.1.1.
 Megiar 4.1.1.3.5.
 Mekeo 4.1.3.5.
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 Mengen, Bush (= Longeinga) 4.1.1.3.7.
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 Minigir 4.2.3.5.
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 Misima 4.1.3.3.
 Mok (= Mouk) 4.1.3.5.
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 Molima 4.1.3.2.2.
 Mondropolon 3.2.1.
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 Morouas (dialect of S C Santo) 7.1.3.
 Mortlockese 8.2.2.2.2.
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 Mota 7.1.1.

- Motlav (= Mwotlap) 7.1.1.
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 Mumeng 4.1.1.2.3.
 Musom 4.1.1.2.2.
 Mussau 2.
 Mutu 4.1.1.3.4.
 Muyuw 4.1.3.3.
 Mwerlap (= Merlav) 7.1.1.
 Mwesen 7.1.1.
 Mwotlap 7.1.1.
 Nadrau 9.2.2.
 Nadrogā 9.2.1.
 Nagu 6.1.
 Naha'ai 7.2.1.1.2.
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 Nakanamanga 7.2.1.4.
 Nali 3.2.1.
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 Namakir (= Namakura, Makura) 7.2.1.4.
 Namakura (= Namakir) 7.2.1.4.
 Naman 7.2.1.1.2.
 Namoluk (dialect of Mortlockese) 8.2.2.2.2.
 Namosi 9.2.2.
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 Narango (dialect of S C Santo) 7.1.3.
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 Nasvang 7.2.1.1.1.
 Nāti 7.2.1.1.2.
 Natügu 6.1.
 Nauna 3.2.2.
 Nauruan 8.1.
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 Nduke 4.2.3.5.1.5.
 Nebao 6.2.
 Nedö (= Natügu) 6.1.
 Nehan 4.2.3.5.1.1.
 Nekep (= Sakao) 7.1.4.
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 Nembao (= Nebao) 6.2.
 Nemi 7.2.2.2.1.
 Nenaya (= Mato) 4.1.1.3.3.
 Nengaya (= Mato) 4.1.1.3.3.
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 Nese 7.2.1.1.1.
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 Neverver 7.2.1.1.2.
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 Nggela (= Gela) 5.1.
 Nginia (= Ghari, dialect of W Guadalcanal) 5.1.
 Nguna 7.2.1.4.
 Ngwatua (= Nduindui) 7.1.6.
 Nimoa 4.1.3.4.
 Ninde 7.2.1.1.2.
 Ninigo (= Seimat) 3.1.
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 Nodup (dialect of Tolai) 4.2.3.5.
 Nokuku (dialect of Cape Cumberland) 7.1.2.
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 Nukuoro 9.3.2.
 Nukuria 9.3.2.
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 Nume 7.1.1.
 Nyelâyu 7.2.2.2.1.
 Nyindrou 3.2.1.
 Olrat 7.1.1.
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 Ontong Java (= Luangiua) 9.3.2.
 Orford (dialect of Mengen, = Maenge) 4.1.1.3.7.
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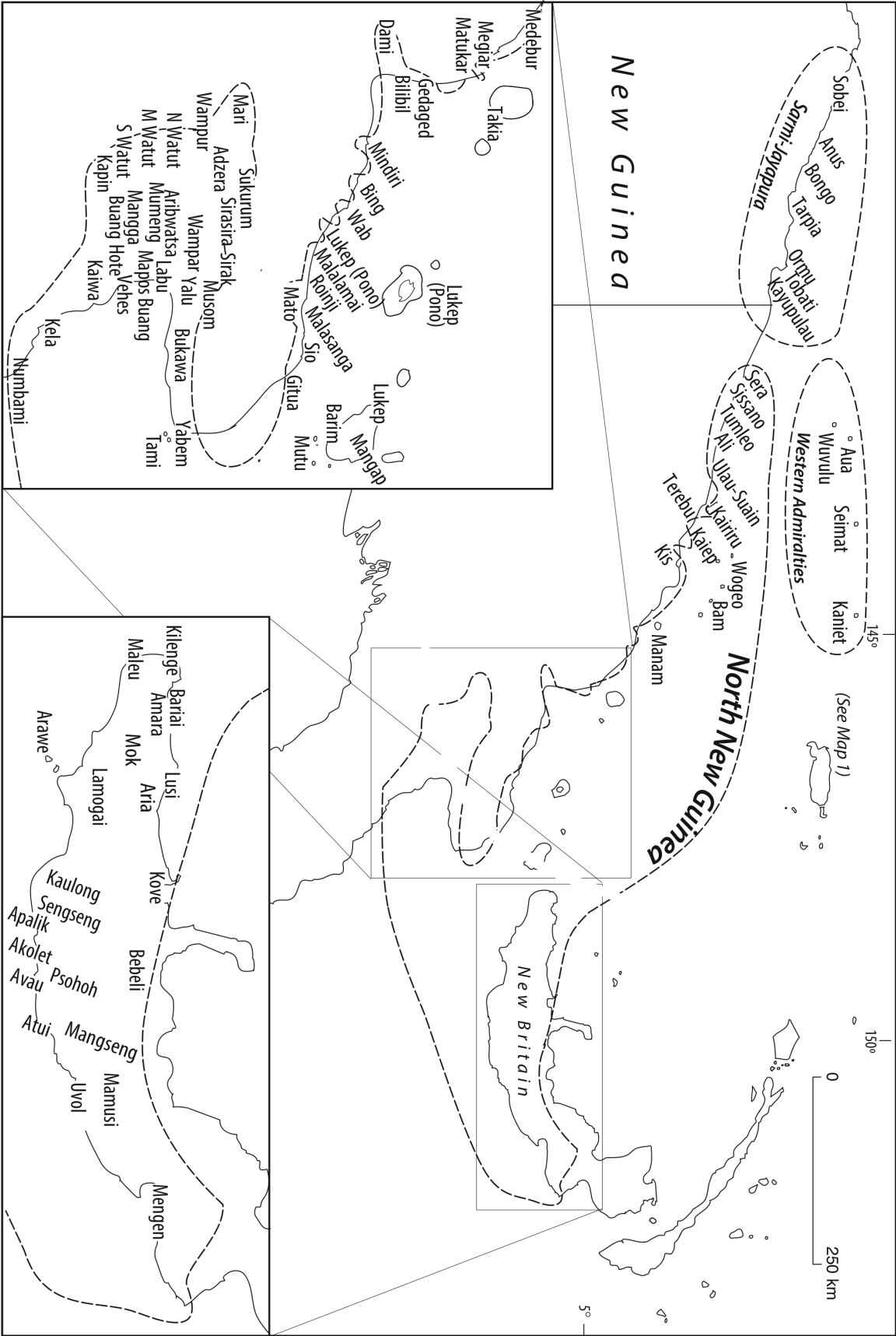
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 Pamela (= Sudest) 4.1.3.4.
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 Penchal 3.2.2.
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 Petats 4.2.3.5.1.1.
 Pije 7.2.2.2.1.
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 Psohoh 4.1.1.3.6.3.
 Pukapukan 9.3.2.
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 Samoan 9.3.2.
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 Sirasira 4.1.1.2.2.
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 South Efate 7.2.1.4.
 South Gaua 7.1.1.
 South Watut 4.1.1.2.2.
 Southwest Santo 7.1.3.

- Southwest Tanna 7.2.2.1.
 Southwest Bay (= Nahavaq) 7.2.1.1.2.
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 Tabar 4.2.3.2.
 Taboro 4.1.3.5.
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 Tangga 4.2.3.5.
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 Tanima (= Tanema) 6.2.
 Tanimbili (= Tanibili) 6.2.
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 Tarpia 4.1.2.1.
 Tasiriki (= Akei) 7.1.3.
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 Tennis 2.
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 Terebu 4.1.1.1.
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 Tolai 4.2.3.5.
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 Tolomako 7.1.2.
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 Tongan 9.3.1.
 Tongarevan 9.3.2.1.
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 Tumleo 4.1.1.1.
 Tuna (= Tolai) 4.2.3.5.
 Tungag (= Lavongai) 4.2.3.1.
 Tungak (= Lavongai) 4.2.3.1.
 Tutuba 7.1.3.
 Tuvalu 9.3.2.
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 Ughele 4.2.3.5.1.5.
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 Ulau-Suain 4.1.1.1.
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 Unank (=North Watut) 4.1.1.2.2.
 Unua 7.2.1.1.1.
 Ura 7.2.2.1.
 Uripiv 7.2.1.1.1.
 Uruava 4.2.3.5.1.3.
 Uvol 4.1.1.3.7.
 V'ënen Taut (= Big Nambas) 7.2.1.1.2.
 Vaghua 4.2.3.5.1.4.
 Valpei (dialect of Cape Cumberland) 7.1.2.
 Vana (= Vano) 6.2.
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 Vanua Levu 9.2.2.
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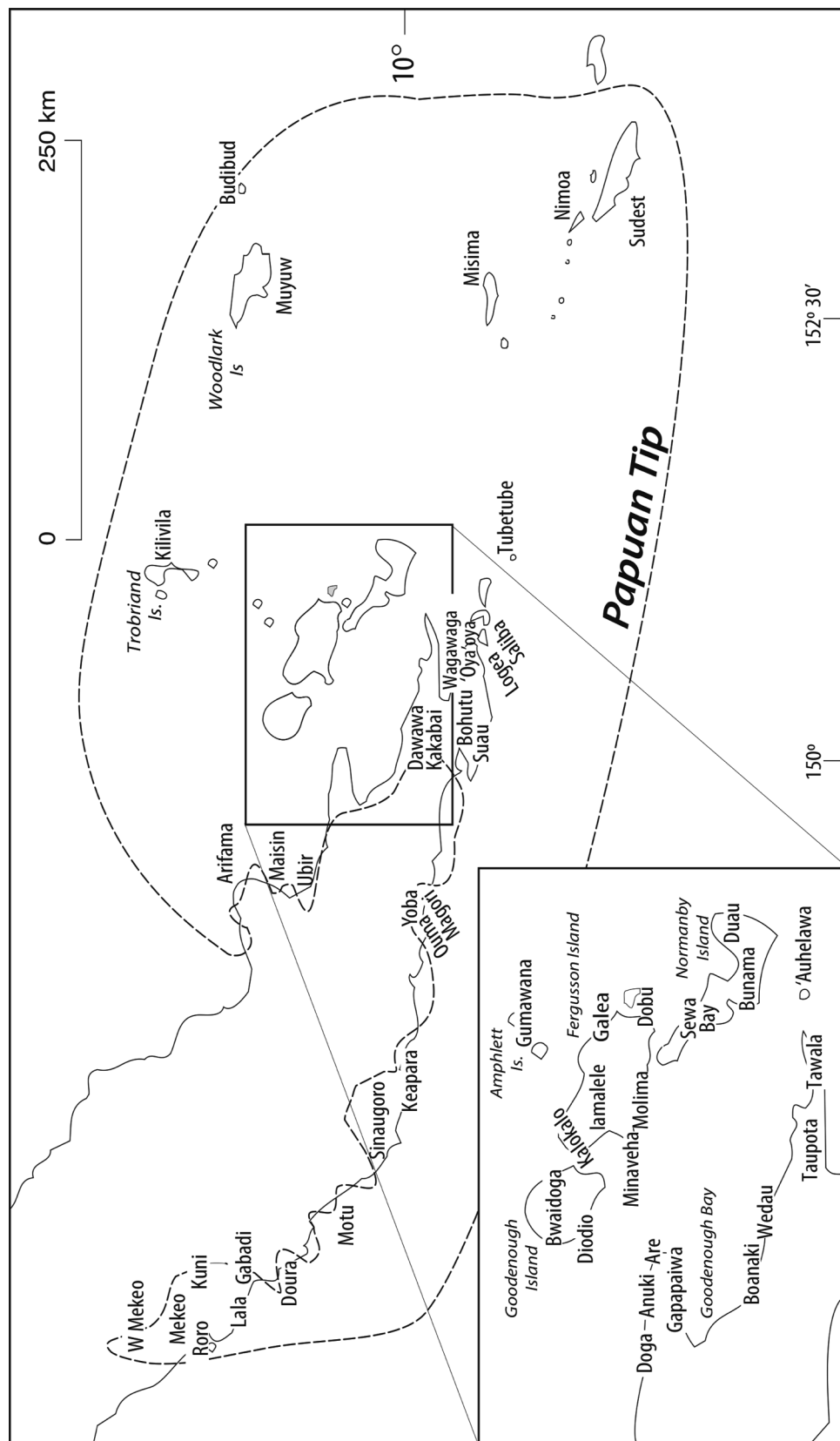
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 Wampur 4.1.1.2.2.
 Watut, North 4.1.1.2.2.
 Wayan 9.2.1.
 Wedau 4.1.3.2.4.
 West Futunan 9.3.2.
 West Guadalcanal 5.1.
 West Mekeo 4.1.3.5.
 West Uvean 9.3.2.
 West Viti Levu 9.2.1.
 Whitesands 7.2.2.1.
 Wogeo 4.1.1.1.
 Woleaian 8.2.2.2.2.
 Wusi 7.1.3.
 Wuvulu 3.1.
 Xârâcùù 7.2.2.2.2.
 Yabem 4.1.1.2.1.
 Yalu 4.1.1.2.2.
 Yamalele (= Iamalele) 4.1.3.2.2.
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 Yasawa 9.2.1.
 Yoba 4.1.3.5.
 Yotafa (= Tobati) 4.1.2.2.
 Yuanga 7.2.2.2.1.
 Zabana (= Kia) 4.2.3.5.1.6.
 Zenag (dialect of Mumeng) 4.1.1.2.3.
 Ziwo (= Riwo, dialect of Gedaged) 4.1.1.3.5



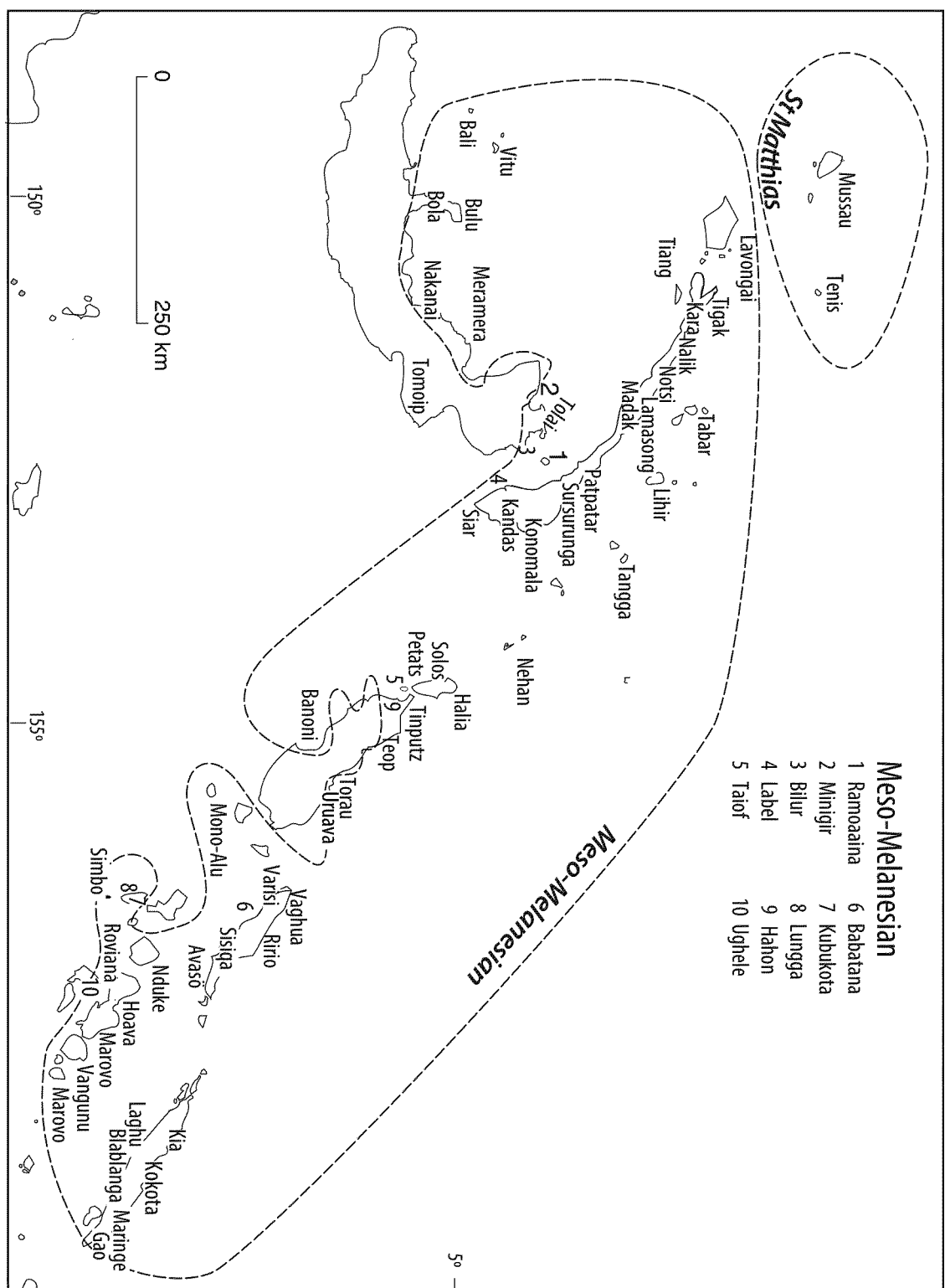
Map 5: Locations of Eastern Admiralties languages
(for Wuvulu, Aua and Seimat, see Map 6; for Mussau and Tench, Map 8)

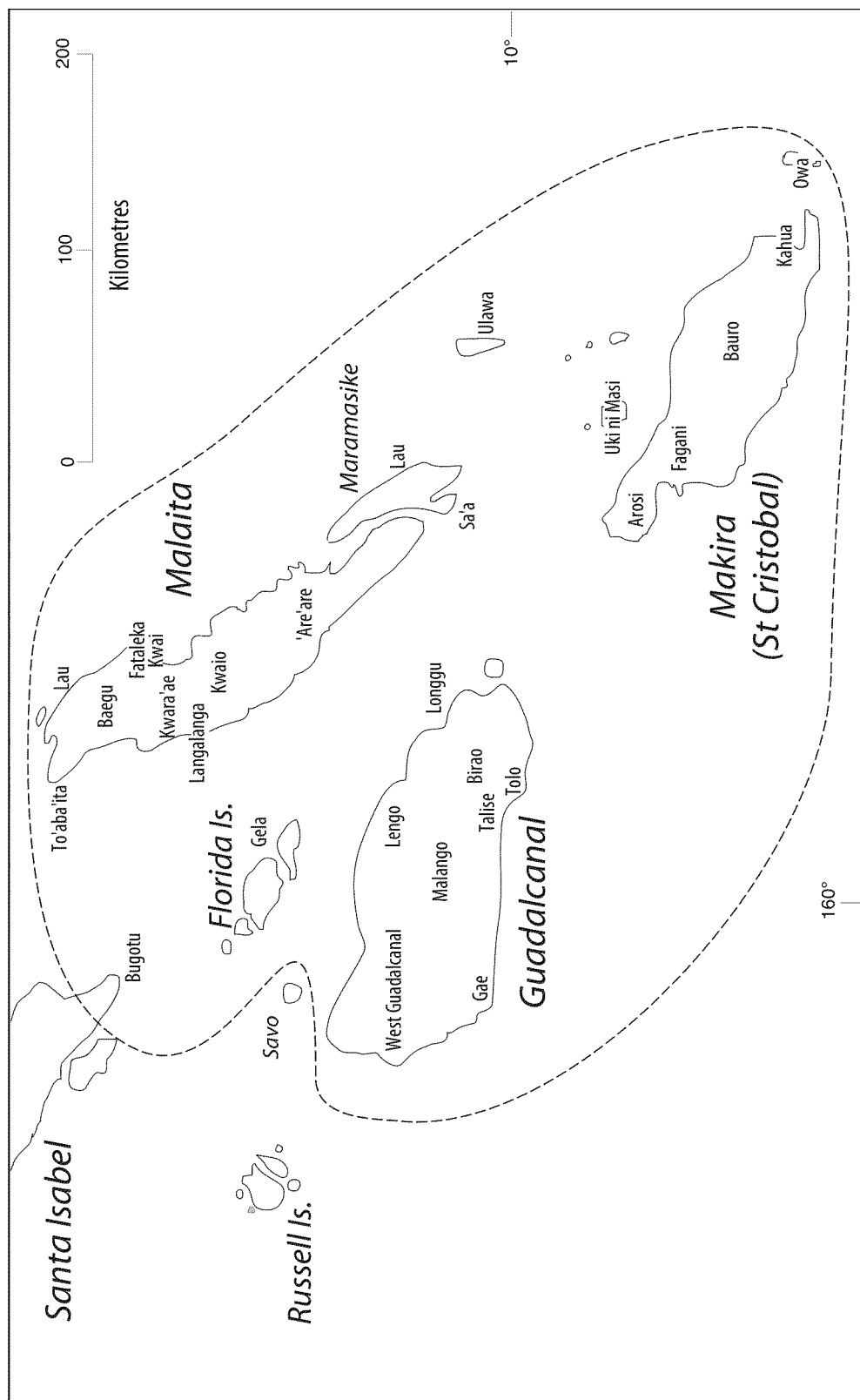


Map 6 Locations of languages of the Western Admiralties family, the North New Guinea linkage and the Sarmi-Jayapura family

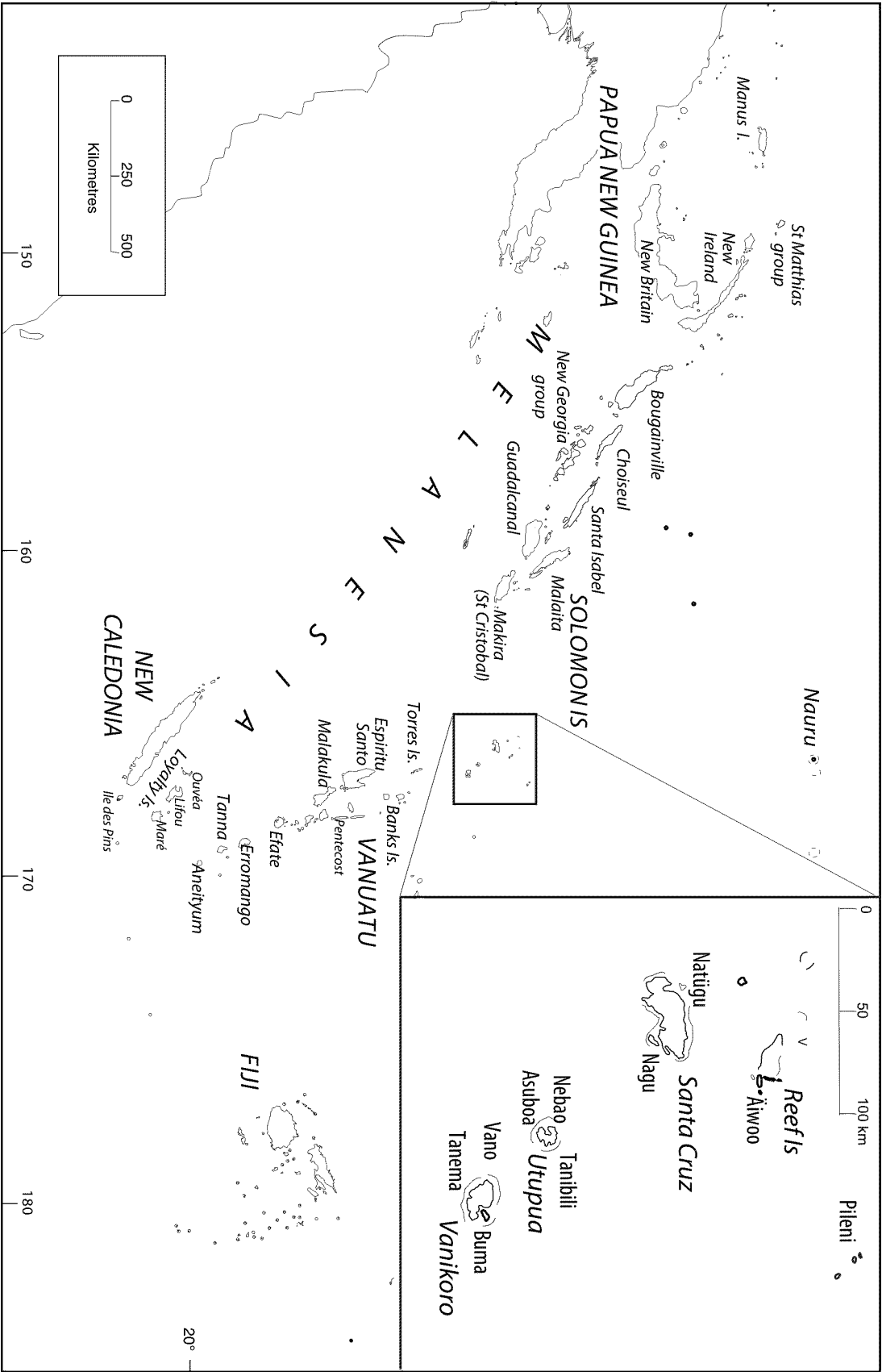


Map 7 Locations of languages of the Papuan Tip family

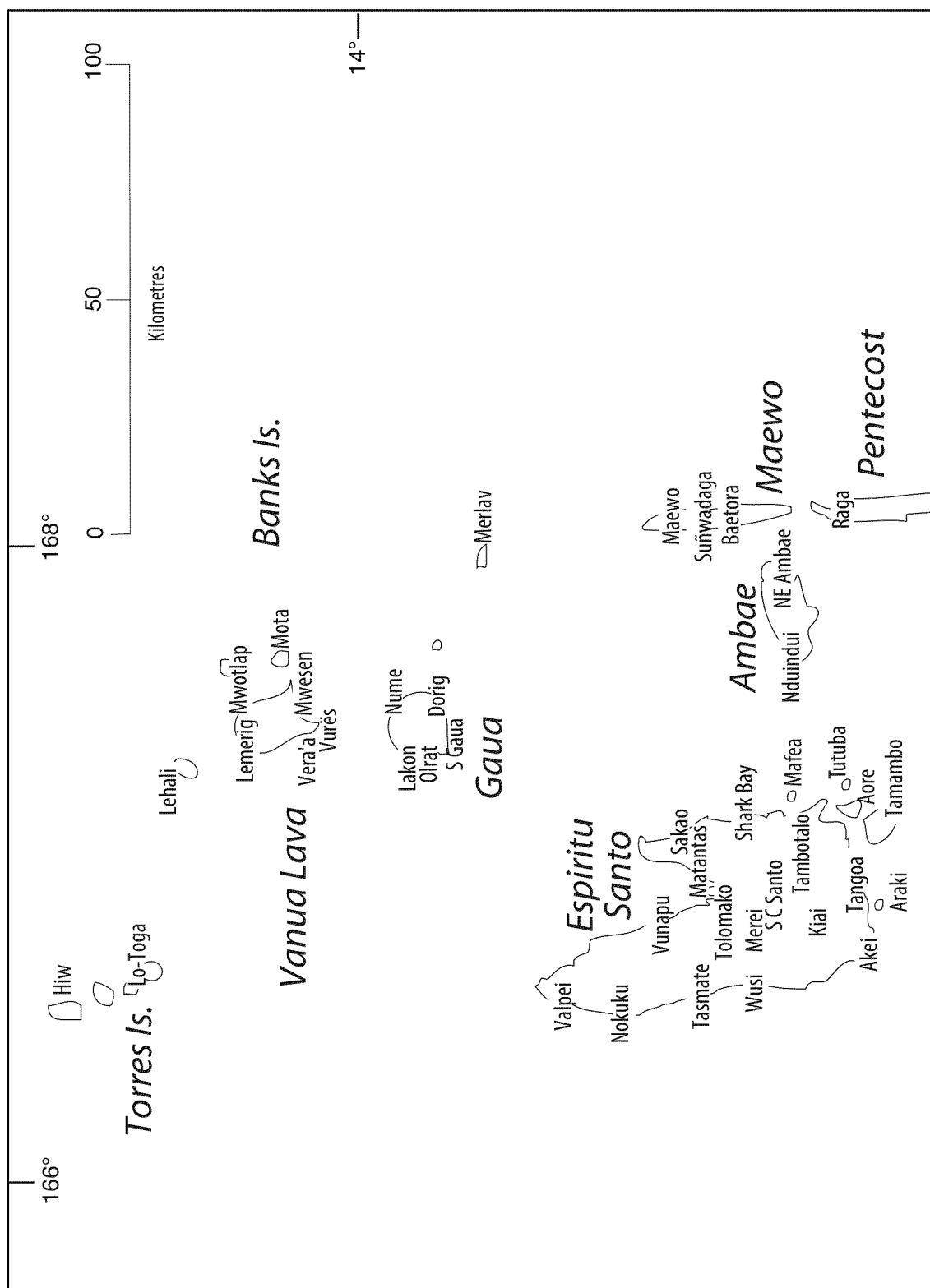




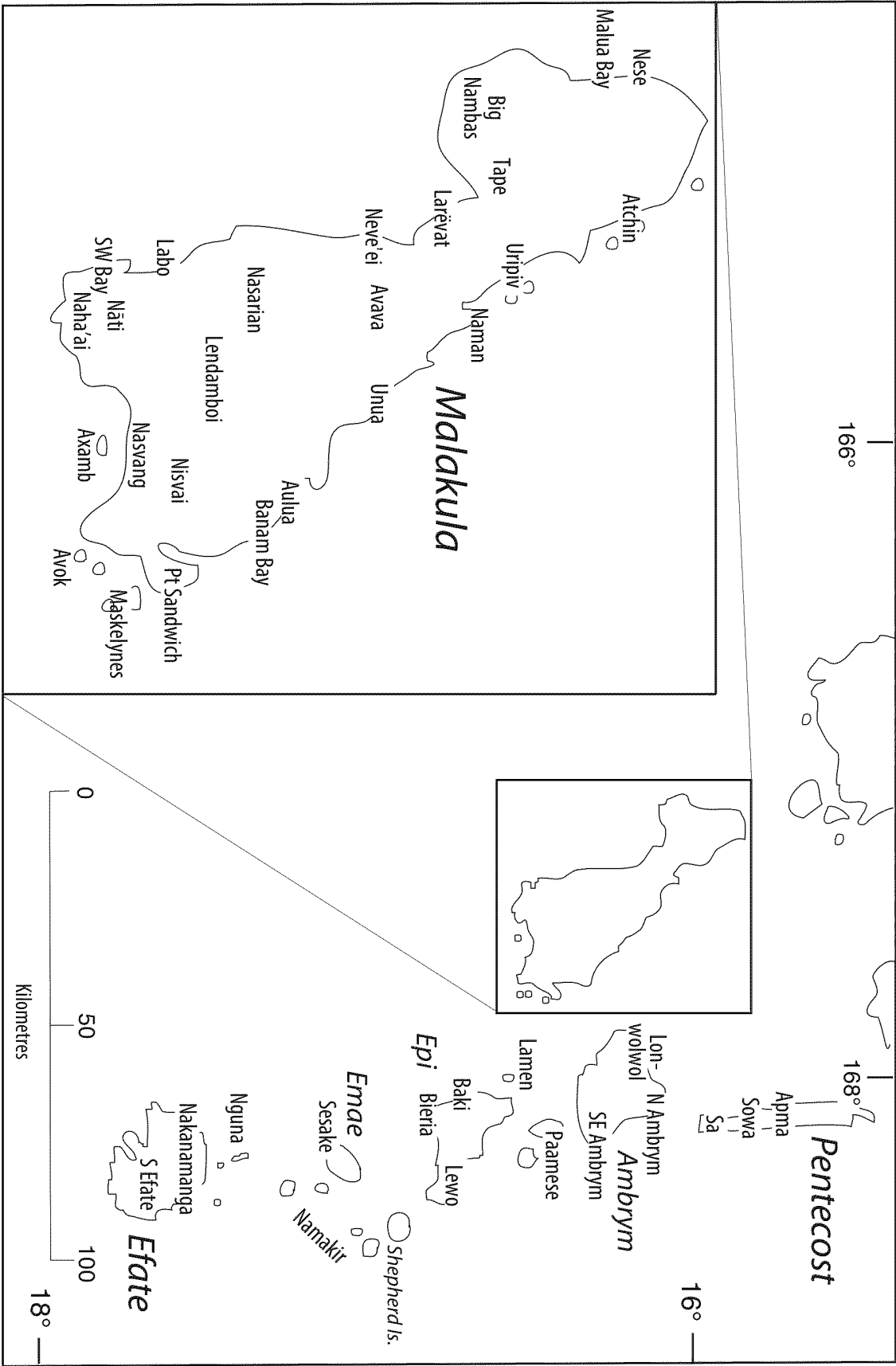
Map 9 Locations of Southeast Solomonic languages



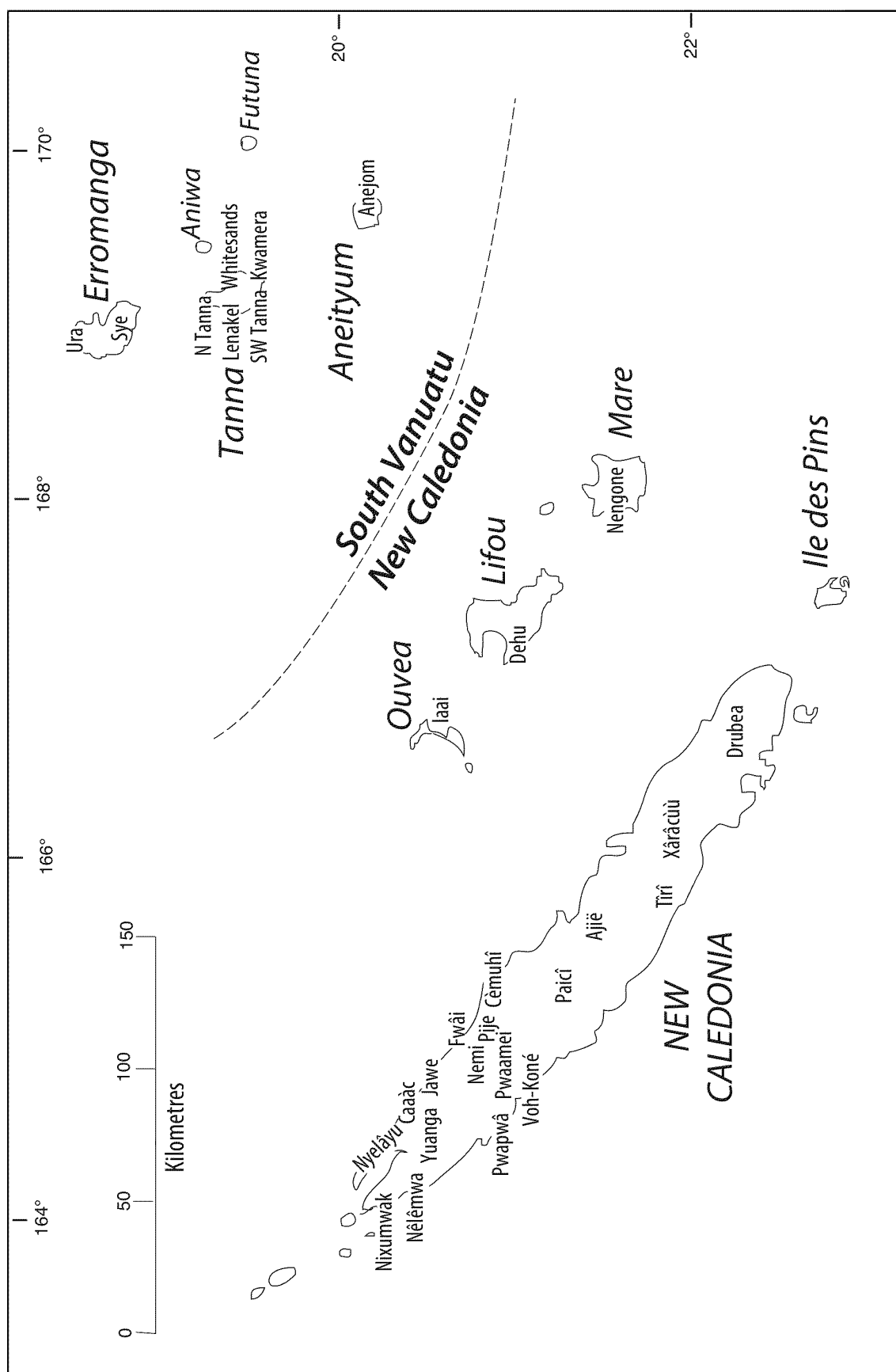
Map 10 Locations of Temotu languages and Pileni



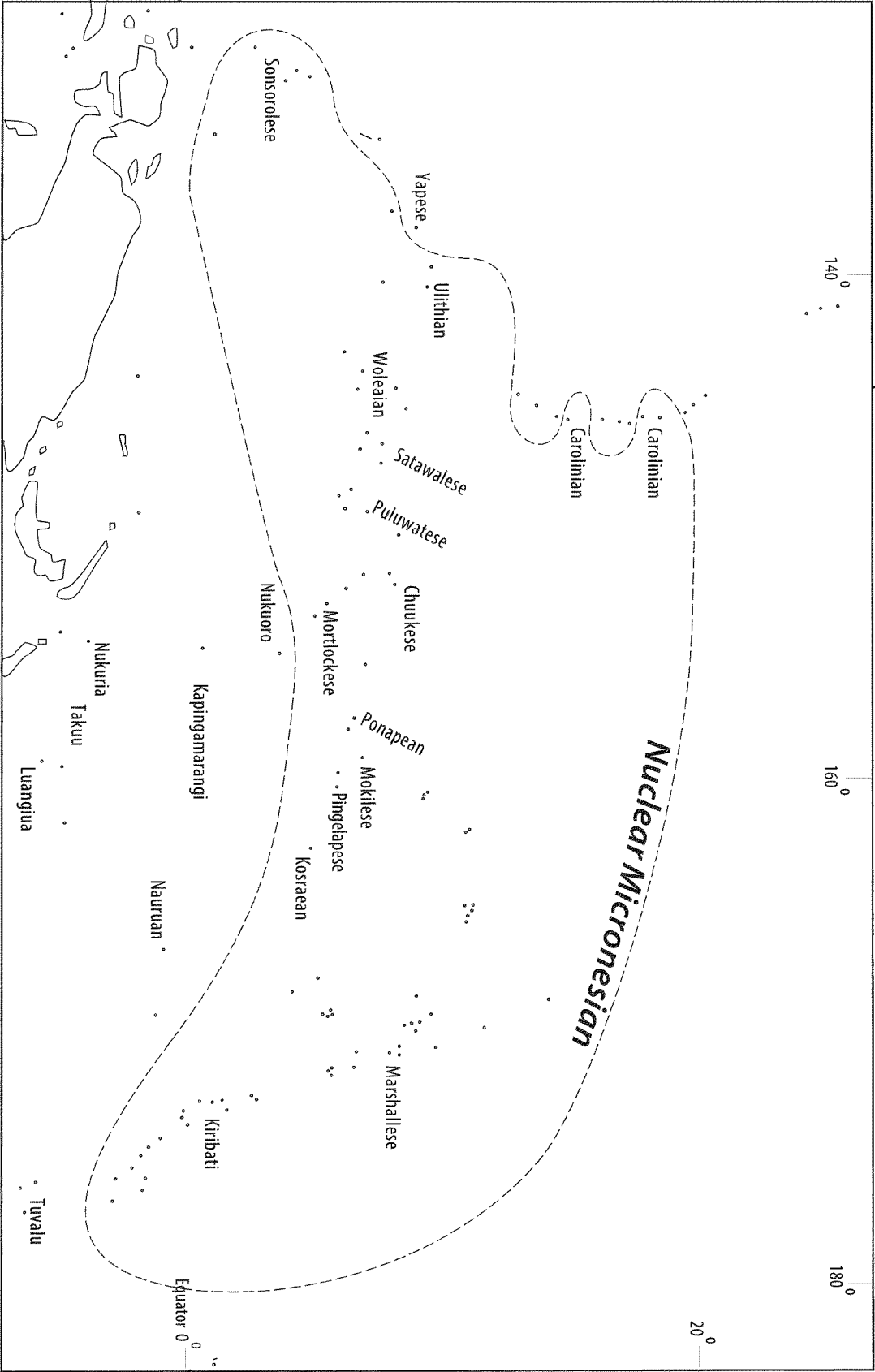
Map 11 Locations of languages of north Vanuatu



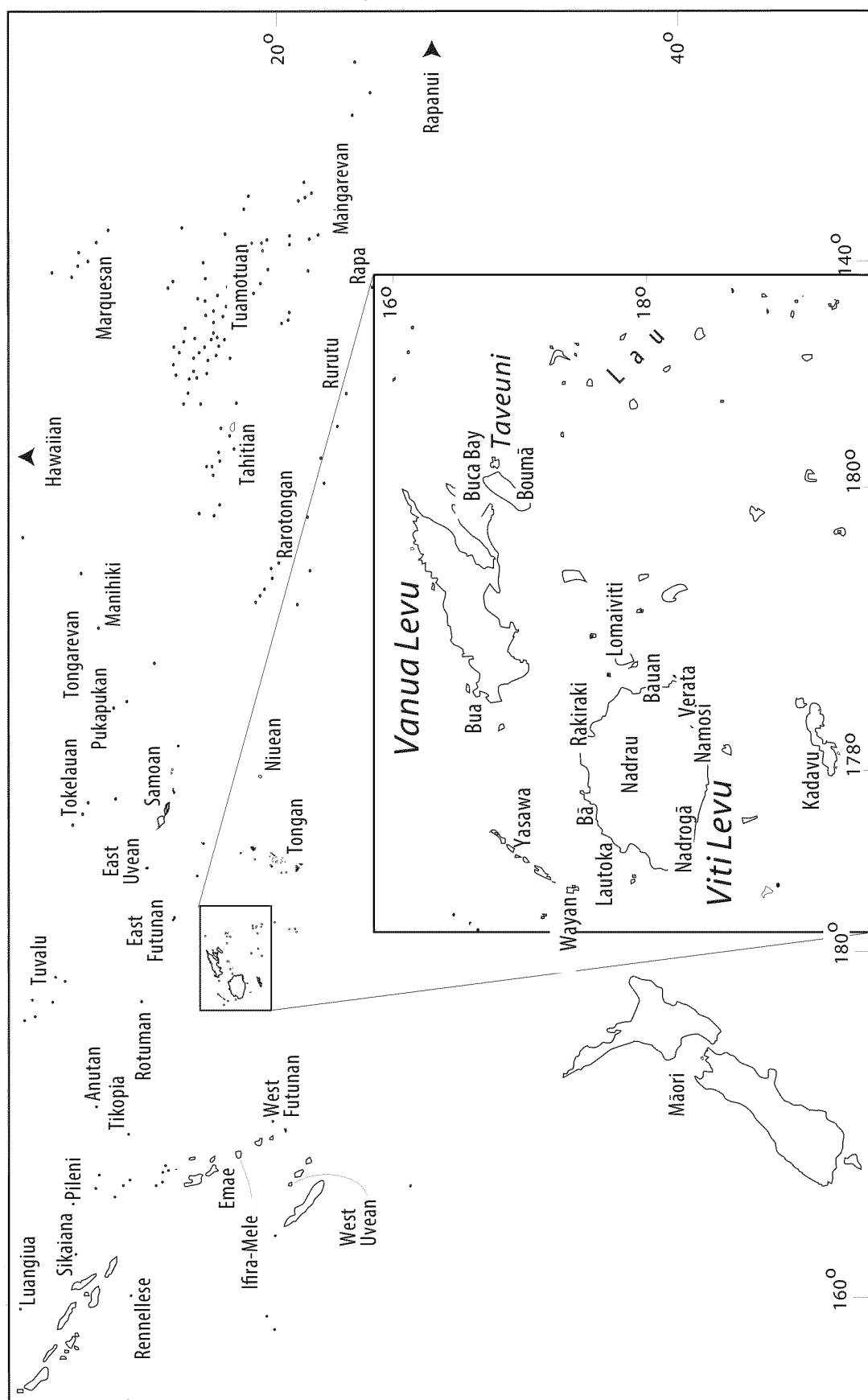
Map 12 Locations of languages of central Vanuatu



Map 13 Locations of South Vanuatu and New Caledonia languages



Map 14 Locations of Nuclear Micronesian and some Polynesian languages, and of Yapese and Nauruan



Map 15 Locations of Fijian and most Polynesian languages
(other Polynesian languages appear on Maps 10 and 14)

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Index of reconstructions by protolanguage

Protolanguages are ordered from the top of the Austronesian tree downward, but with all branches of Western Oceanic before Eastern Oceanic: see figures 1 and 2 (pp.9–10).

In alphabetising reconstructions, an upper-case character follows the corresponding lower-case character (thus *R* follows *r*), *y* follows *g*, *ñ* follows *n*, *ŋ* follows *n*, *ð* follows *S*, the digraph *dr* follows *d*, a superscripted character is treated like the corresponding unsuperscripted character, and macrons, parentheses and brackets are ignored. Because reconstructions that contain brackets represent two or more alternative reconstructions (for bracketing conventions see Table 13), where the alternatives would appear at different points in the index, they are spelt out as alternative reconstructions and appear at the appropriate point in alphabetical order. Thus POc *[bi]biRi-* ‘lips’ occurs at two points in the index, as *biRi-* and as *bibiRi-*, and POc **bwa(l,R)usu-* ‘nose’ as **bwalusu-* and as **bwaRusu-*.

Reconstructed PSV nouns consisting of **n(V)-* or **i-* ‘article’ + root and verbs consisting of **a-* or *e-* + root are alphabetised by the root.

Proto Austronesian (PAN)

<i>*ajem</i> ‘heart, mind’ 546	<i>*Caqu</i> ‘know how, be able to, be skilled at’ 540
<i>*alap</i> ‘fetch, get, take’ 426	<i>*Cau</i> ‘person’ 38, 40
<i>*baba</i> ‘carry a person pick-a-back; ride pick-a-back’ 437	<i>*CeRab</i> ‘belch’ 276
<i>*bañaw</i> ‘wash the body’ 483	<i>*Cinaqi</i> ‘guts’ 187
<i>*baŋuL</i> ‘wake up, get out of bed’ 314	<i>*CuqaS</i> ‘mature, elder’ 68
<i>*baqeRuh</i> ‘new; bachelor’ 65	<i>*CuqelaL</i> ‘bone’ 85
<i>*baRa</i> ‘shoulder’ 439	<i>*daLum</i> ‘water, potable, drinking, fresh’ 196
<i>*baRaQ</i> ‘lung’ 182	<i>*daqey</i> ‘forehead’ 108
<i>*baReq</i> ‘abscess, boil, swelling on the body’ 339	<i>*daRaQ</i> ‘blood’ 83
<i>*b<in>ahi</i> ‘woman, female’ 54	<i>*demdem</i> ‘brood, hold a grudge, remember, keep still’ 545
<i>*biRbiR</i> ‘lip’ 127	<i>*diRi</i> ‘stand’ 29, 377
<i>*bulaR</i> ‘cataract of the eye’ 356	<i>*diRus</i> ‘bathe’ 476
<i>*buLi</i> ‘hide, conceal’ 485, 487	<i>*gaCel</i> ‘itch, feel itchy’ 343
<i>*buqeni</i> ‘ringworm, <i>Tinea imbricata</i> ’ 21, 346	<i>*gemgem</i> ‘fist; hold in the fist’ 469
<i>*buReS</i> ‘spray water from the mouth’ 361	<i>*hisep</i> ‘suck, inhale’ 274
<i>*Caliŋa</i> ‘ear; k.o. tree fungus’ 122	<i>*huRaC</i> ‘artery, blood vessel, blood vein; muscle; nerve; sinew; tendon’ 98
<i>*Caŋis</i> ‘to cry’ 320	<i>*ka-wanaL</i> ‘be to the right’ 165
<i>*Caki</i> ‘faeces’ 202	<i>*ka-wiRi</i> ‘be on the left’ 164

- **kamay* ‘hand’ 163
 - **kaRat* ‘bite’ 265, 343
 - **kuris* ‘scurfy skin disease, scabies; scratch’ 345
 - **lima* ‘hand’ 160
 - **lipen* ‘tooth’ 131
 - **Lipis* ‘thin’ 570
 - **liqeR* ‘neck’ 139
 - **LiSawa* ‘breathe, breath’ 113, 186, 293
 - **Luka* ‘sore, wound’ ‘wounded’ 349
 - **ma-aCay* ‘die, dead; eclipse of sun or moon’ 214
 - **ma-amis* ‘sweet’ 512
 - **maCa* ‘eye, face’ 117
 - **ma-Lajam* ‘tame, accustomed to’ 547, 576
 - **ma-Lipis* ‘thin’ 570
 - **ma-liuS* ‘turn round’ 413
 - **ma-Luka* ‘wounded’ 338, 348
 - **ma-RuqaLay* ‘male, man’ 51
 - **ma-Seyaq* ‘shy, embarrassed; ashamed’ 585
 - **ma-Suab* ‘yawn, yawning’ 300
 - **ma-wanaL* ‘be to the right’ 165
 - **nanaq* ‘pus’ 341
 - **nemnem* ‘think’ 544
 - **nipen* ‘tooth’ 133
 - **ŋajan* ‘name’ 206
 - **ŋusuq* ‘nasal area, snout; mouth’ 126
 - **pa-susu* ‘give the breast to, nurse a child’ 252
 - **pasek* ‘wooden nail, dowel; drive in, as a wooden nail, dowel, or fencepost’ 461
 - **peRes* ‘squeeze out’ 363
 - **piliq* ‘choose, select’ 562
 - **puki* ‘vulva’ 158
 - **qabaRa* ‘shoulder’ 143
 - **qaCay* ‘liver’ 189, 520
 - **qadəp* ‘front, face’ 115
 - **qalep* ‘beckon, wave’ 462
 - **qalima* ‘hand’ 160
 - **qaLiŋu* ‘shadow, reflection’ 204
 - **qañud* ‘drift on a current, carried away by flowing water’ 407
 - **qajeSeR* ‘stench of urine’ 508
 - **qaqay* ‘foot, leg’ 167
 - **qetaq* ‘eat s.t. raw’ 231
 - **qinep* ‘lie down to sleep’ 378
 - **qubaL* ‘gray hair’ 94
 - **qudip* ‘life, alive’ 210
 - **qulu qulu* ‘head-end, upper’ 101
 - **quluh* ‘head’ 101
 - **qumah* ‘swidden; work a swidden’ 460
 - **qumuR* ‘fill the mouth with food or water’ 270
 - **qutiL* ‘penis’ 156
 - **rakat* ‘walk’ 393
 - **RuqaLay* ‘male, man’ 51
 - **sedu* ‘hiccup’ 275
 - **supsup* ‘sip, suck’ 250
 - **suquL* ‘carry on the head’ 435
 - **susu* ‘breast’ 148
 - **Sabij* ‘twins of the same sex’ 73
 - **Sajek* ‘smell’; ‘to smell (s.t.)’ 505
 - **Sesi* ‘flesh, meat’ 82
 - **SiRup* ‘sip, as soup or rice wine from a bowl’ 246
 - **Suab* ‘yawn, yawning’ 300
 - **SuLus* ‘withdraw, pull out, extract’ 452
 - **taqu* ‘right side’ 166
 - **tiaL* ‘belly’ 149
 - **tuduR* ‘sleep’ 308
 - **tuduS* ‘knee’ 169, 170
 - **utaq* ‘vomit’ 28, 283
 - **wanaL* ‘right’ 165
 - **waqay* ‘foot, leg’ 167
- Proto Malayo-Polynesian (PMP)**
- **ajan* ‘name’ 206
 - **alaq* ‘fetch, get, take’ 426
 - **aliq* ‘move, change’ 392
 - **ambit* ‘seize with the hands’ 467

- **ayu*[t,d] ‘copulate, have sexual intercourse’ 216
- **ba-b<in>ahi* ‘woman, female’ 54
- *(*bahaq*)*bahaq* ‘mouth, opening’ 128
- **bahu* ‘smell bad’ 507
- **bahu-an* ‘odour, stench’ 507
- **bañaw* ‘wash the hands’ 483
- **baɲun* ‘wake (s.o.) up, rouse (s.o.) from sleep’ 314
- **baRa* ‘hand, arm’ 161
- **baReqaɲ* ‘molar tooth’ 21, 133
- **bataɲ* ‘tree trunk, fallen tree, log; stem of a plant; body; corpse’ 79
- **batuk* ‘outer shell, skull’ 104, 107
- **belbel* ‘hydropoesia, bodily swelling caused by water retention’ 355
- **bener* ‘true, righteous, honest’ 554
- **beɲel* ‘deaf’ 357
- **betu* ‘appear, come into view’ 417
- **bibiR* ‘lip; labia of the vulva; eyelid’ 127
- **bilat* ‘open the eyes’ 316
- **bilat* ‘scar’ 91
- **bileR* ‘cataract of the eye’ 355
- **b<in>ahi* ‘woman, female’ 54
- **biRas*, **biRaq* ‘semen, smegma’ 201
- **bisul* ‘boil, abscess’ 340
- **bitil* ‘famine; hunger’ 253
- **buaq* ‘fruit; areca nut and palm; heart’ 181
- **buhat* ‘lift, stand up, arise, emerge, begin, depart, carry; cargo; take something; take a wife’ 434
- **buku* ‘node, knot, joint’ 175
- **bulu* ‘wash the hands’ 482
- **bulu ni mata* ‘eyelash’ 118
- **bulu-* ‘body hair; fur; feather; down’ 96
- **bulu-bulu* ‘hairy; hair-like growths; plants with hair-like growths’ 97
- **buni* ‘hide, conceal’ 485, 487
- **buqeni* ‘ringworm, *Tinea imbricata*’ 21, 346
- **buRah* ‘spray water from the mouth; spray a mixture of saliva and masticated medicinal herbs on an ailing body’ 361
- **buRiq* ‘wash, as the hands’ 482
- **buteliR* ‘wart, cyst, non-purulent skin eruption’ 21, 344
- **cekep* ‘seize, grasp’ 468
- **cupcup* ‘sip, suck’ 250
- **dahun* ‘leaf’ 93
- **dalem* ‘inside, interior; seat of emotions’ 523
- **diRus* ‘bathe’ 476
- **emuR* ‘hold in the mouth’ 271
- **eɲap* ‘gasp for breath’ 295, 351
- **engem* (?) ‘hold in the mouth’ 270
- **gatel* ‘itch’ 343
- **gidik*, ‘tickle’ 471
- **gila* ‘wild; insane’ 581
- **giri* ‘tickle’ 471
- **gutgut* ‘front teeth, incisors; gnaw, bite or tear off with the incisors’ 267
- **hajek* ‘smell, sniff, kiss’ 505
- **hesi* ‘flesh, meat’ 82
- **h<in>ipi* ‘a dream; was dreamt by’ 29, 313
- **hiRup* ‘sip, as soup or rice wine from a bowl’ 246
- **h<um>ipi* ‘to dream’ 28, 313
- **hunus* ‘withdraw, pull out, extract’ 452
- **hutek* ‘brain, marrow’ 110
- **ibut* ‘breeze, draught of wind’ 297
- **ijuj* ‘nose’ 123
- **iliɲ* ‘pour’ 454
- **inum* ‘drink’ 242
- **irid* ‘fan’ 465
- **isaw* ‘intestines’ 188
- **ka-wiRi* ‘be on the left’ 164
- **kaen* ‘eat’ 227
- **kaɲa* ‘be open, as the mouth’ 245
- **kapak* ‘wings; flutter’ 162
- **karut* ‘scratch, rasp’ 345

- **kaway* ‘wave the hand or arms; call by waving’ 464
- **kemi* ‘hold on by biting’ 270
- **kete*[b,p] ‘bite’ 267
- **kidi* ‘tickle’ 471
- **kilala* ‘know (a person), recognise, be acquainted with; feel, perceive’ 537
- **kilat* ‘open the eyes wide’ 496
- **kilep* ‘glance, glimpse’ 495, 496
- **kimet* ‘blink, flash’ 317
- **kiras* ‘scar’ 91
- **kirik* ‘tickle’ 471
- **kita* ‘see’ 492
- **kiu*[d,t,q] ‘thrusting movement of pelvis, as in sexual intercourse; sexual intercourse’ 218
- **kulit* ‘skin’ 89
- **kumis* ‘beard’ 136
- **kumuR* ‘gargle, rinse mouth’ 272
- **kuSkus* ‘fingernail, toenail, claw’ 176
- **la(ŋ)kaq* ‘step, stride; omit or skip over’ 394
- **lakaw* ‘move, go, walk’ 386–387
- **laqu* ‘thirst, hunger’ 255
- **lemiq* ‘press, knead’ 363
- **liget* ‘turn, rotate’ 414
- **lima* ‘hand’ 160
- **liu* ‘surpass, exceed’ 416
- **liwaq* ‘spit out, vomit’ 284
- **lumu* ‘soft, tender, gentle’ 573
- **madaRaq* ‘bloody, bleeding; menstruate’ 278
- **madiŋdiŋ* ‘cold’ 329
- **maheyaq* ‘shy, embarrassed; ashamed’ 21, 585
- **mahuab* ‘yawn, yawning’ 300
- **makadiŋdiŋ* ‘cold’ 330
- **malumu* ‘soft, tender, gentle’ 573
- **mamaq* ‘chew’ 237
- **mamis* ‘sweet’ 512
- **manajam* ‘tame, accustomed to’ 547, 576
- **manihawa* ‘breathe; breath’ 113, 186, 293
- **manuka* ‘wounded’ 338
- **maŋaq* ‘slit, crevice’ 129
- **maN-qinit* ‘hot, warm’ 29, 332
- **maŋete*[b,p] ‘bite’ 267
- **maŋsit* ‘vile smell’ 509
- **mapanas* ‘be/become warm, hot’ 331
- **mapia* ‘good’ 596
- **maRuqanay* ‘male, man’ 51
- **masakit* ‘be in pain, be sick’ 335
- **masuR* ‘sated, full (of food)’ 256
- **mata ni baReq* ‘core of a boil’ 339
- **mata ni susu* ‘nipple’ (eye + breast) 149
- **mataqu* ‘right side’ 166
- **matay* ‘die, be dead; be unconscious, numb, paralysed; go out (of fire or light)’ 214
- **matay matay* ‘to die in throngs; be on the verge of death’ 215, 218, 312
- **matiduR* ‘sleep’ 308
- **matuduR* ‘sleep’ 308
- **matuqah* ‘old (person)’ 68
- **maudehi* ‘be last; be after or behind; be late, be later; future’ 21, 421
- **mawiRi* ‘be on the left’ 164
- **miqmiq* ‘urine, urinate’ 287
- **misik* ‘sucking noise made as a signal to another person’ 272
- **m-uni* ‘hide’ 486
- **muRmuR* ‘hold in the mouth and suck’ 271
- **nihawa* ‘breathe; breath’ 113, 186, 293
- **ninih* ‘shake, tremble, rock’ 327
- **ñamñam* ‘taste, tasty’ 510
- **ñepñep* ‘drink, slurp, suck’ 247
- **ñepsep* ‘sip, suck’ 247
- **ŋajan* ‘name’ 206
- **ŋasŋas* ‘crush with the teeth’ 236
- **ŋete*[b,p] ‘bite’ 267
- **ŋiji* ‘grin, show the teeth’ 319
- **ŋisi* ‘grin, show the teeth’ 319

- **ɣorok* ‘snore’ 296
- **ɣuk*, **ɣuk-ɣuk* ‘grunt, moan’ 323
- **ɣulɣul* ‘arthritic or rheumatic pain’ 350
- **pa-lahud* ‘go down to the sea or coast’ 403
- **palaj* ‘palm of hand, sole of foot’ 178
- **panahik* ‘climb’ 400
- **panas* ‘be/become warm, hot’ 331
- **panaw* ‘fungus infection which produces light patches on the skin: *Tinea flava* or *Pityriasis*’ 347
- **panaw* ‘go away, depart, leave on a journey’ 389–390
- **pani(j)* ‘wing’ 162
- **pañaru* ‘give birth’ 219
- **pañepsep* ‘sip, suck’ 247
- **panan* ‘eat’ 226
- **panaŋa[p,b]* ‘gape, open the mouth wide’ 299
- **para* ‘coconut embryo’ 111
- **pasek* ‘wooden nail, dowel; drive in, as a wooden nail, dowel, or fencepost’ 461
- **pasu[ɲ]* ‘cheek bone’ 119
- **pian* ‘want, desire, wish or long for’ 593
- **pi(n)tik* ‘throb, beat’ 337
- **puliŋ* ‘turn round, rotate’ 398
- **pusej* ‘navel’ 151
- **qabin* ‘hold or carry under the arm’ 144, 442
- **qalep* ‘beckon, wave’ 462
- **qambit* ‘seize with the hands’ 467
- **qaninu* ‘shadow, reflection’ 204
- **qana[p,b]* ‘gape, open the mouth wide’ 28, 29, 299
- **qarep* ‘like, be fond of’ 587
- **qaRta* ‘outsiders, alien people’ 46
- **qatad* ‘appearance, mark’ 205
- **qatay* ‘liver; seat of the emotions, inner self’ 189, 520
- **qazay* ‘chin, jaw’ 135
- **qizuR* ‘saliva, spittle’ 283
- **quban* ‘gray hair’ 94
- **quluh* ‘head; top’ 101
- **quma* ‘swidden; work a swidden’ 460
- **q<um>aŋa[p,b]* ‘gape, open the mouth wide’ 299
- **qunzur* ‘thrust out, extend forward’ 431
- **ququs* ‘chewing on sugarcane’ 237
- **qutut* ‘flatulence; to fart’ 277
- **rakat* ‘walk’ 393
- **Rebek* ‘to fly’ 400
- **Rujan* ‘load a canoe; cargo’ 444
- **Ruqanay* ‘male, man’ 51
- **saliR* ‘flow, of water’ 408
- **sampay* ‘drape over the shoulder or from a line, as a cloth’ 439
- **saŋa* ‘bifurcation, to branch’ 173
- **seŋet* ‘acrid, pungent, of odour’ 509
- **sepsep* ‘sip, suck’ 247
- **seRep* ‘absorb, soak up’ 248
- **siku* ‘elbow, corner’ 175
- **supa(q)* ‘to spit, spittle, saliva’ 282
- **susu* ‘suck (at the breast)’ 250
- **taliŋa* ‘ear; k.o. tree fungus’ 122
- **tambuni* ‘afterbirth, placenta’ 195
- **tamiq* ‘taste, try’ 511
- **tamis* ‘taste, try’ 511
- **taŋis* ‘to cry’ 320
- **taqu* ‘know how, be able to, be skilled at’ 540
- **tau-mataq* ‘person’ 44
- **tekas* ‘come to rest in a place’ 372
- **teli* ‘female genitalia’ 159
- **tepeŋ* ‘try, test, experiment’ 512
- **teRab* ‘belch’ 276
- **tiduR* ‘sleep’ 308
- **tila*, **tilay* ‘female genitalia’ 159
- **tilen* ‘swallow’ 259–263
- **tilu* ‘earwax’ 356
- **tin[d]ap* ‘look intently’ 495
- **tubuq* ‘grow, thrive, swell’ 80, 223, 354
- **tuduR* ‘sleep’ 308
- **tuhud* ‘knee’ 169, 170

- **tuli* ‘earwax’ 356
- **tuqelan* ‘bone’ 21, 85
- **tuqud* ‘stand’ 374
- **tuzuq* ‘point at, point out, give directions’ 178
- **ujan* ‘load a canoe; cargo’ 444
- **uliq* ‘return home; return something; restore, repair; repeat; motion to and from’ 409–410
- **um-inum* ‘eat’ 242
- **um-uliq* ‘return home’ 410
- **uRat* ‘artery, blood vessel, blood vein; muscle; nerve; sinew; tendon; fibre; vein of a leaf’ 98
- **zaqat* ‘bad’ 597
- **zilak* ‘cross-eyed’ 356, 497
- **ziuq* ‘bathe’ 475
- **ziziq* or **zizir* ‘grin, show the teeth’ 323

Proto Malayo-Polynesian (?)

- (?) **mandiŋ-diy* ‘cold’ 329

Proto Central/Eastern Malayo-Polynesian (PCEMP)

- **anak meRaq* ‘newborn baby’ 61
- **bai(t)* ‘do, make’ 458
- **belen* ‘swallow’ 258
- **beŋel* ‘mute, unable to speak’ 357
- **biriŋ* ‘stone, throw a stone at’ 453
- **dada* ‘pull, haul, drag’ 433
- **daləm* ‘inside; mind, feelings’ 523
- **daun* ‘leaf, head hair’ 94
- **liŋi* ‘pour’ 454
- **malip* ‘laugh’ 317
- **mamawab* ‘to yawn’ 301
- **maya* ‘tongue’ 130
- **mutaq* ‘vomit’ 283
- **oliq* ‘return’ 410
- **papaR* ‘cheek’ 116
- **pasek* ‘drive in, as a stake; to plant (crops)’ 461
- **qentaq* ‘eat s.t. raw’ 231

- **turu* ‘knee’ 28, 170
- **upi* ‘(wind, person) blow’ 297

Proto Eastern Malayo-Polynesian (PEMP)

- **kanisu*, **kanusu*, **kanusi*, **kinusu* ‘to spit’ 280
- **molaŋ* ‘true, real, genuine’ 553
- **qenəp* ‘lie down to sleep’ 378
- **tinoni* ‘man, male’ 48

Proto Oceanic (POc)

- **acaŋ*, **aca-* ‘name’ 206
- **ajom*, **ajom-akin-i* ‘think, understand’ 546
- **akop* ‘learn’ 565
- **aku* ‘go, go away’ 386
- **ala(q)* ‘take, get’ 426
- **alap*, **alap-i-* ‘get, take’ 426
- **(ali)ali* ‘move from one location to another’ 392
- **aŋap* ‘gape’ 298PWoc
- **apic* ‘twins of the same sex’ 73
- **apu* (??) ‘fall’ 403
- **aropu* ‘run’ 396
- **ase* ‘breathe’ 28, 295
- **asio* ‘sneeze’ 28, 306 ?
- **aso* ‘put’ 450
- **asok* ‘to sniff, kiss’ **asok-i* ‘sniff or kiss s.t.’ 505
- **baba[R,l]i-* ‘cheek’ 116
- **banic* ‘wing, fin (probably pectoral); arm, hand’ 162
- **bati* ‘canine tooth, tusk’ 134
- **baw-an*, ‘odour, scent’ 508
- **bibiRi-* ‘lips’ 127
- **bila-* ‘spleen’ 192
- **bilat* ‘open the eyes’ 316
- **biRa* ‘roe, fish eggs’; ‘sediment, dregs’; ‘smegma’ 201
- **biRi-* ‘lips’ 127
- **bisu(l)* ‘sore on skin’ 340

- **bo* ‘have an odour, be smelly’ 507
- **bo-an* ‘odour, scent’ 508
- **bo[-]* ‘odour, scent’ 507
- **boe-* ‘odour, scent’ 507
- **bole* ‘to dream’ 314
- **bona(s)* ‘to smell, stink’; **bonas-i-* either ‘smell (s.t.)’ or ‘(s.t.) smell of (s.t.)’ 505
- **bono(r)* ‘true, correct’ 554
- **boŋol* ‘deaf mute’ 357
- **boRe* ‘to dream’ 314
- **boto[-]* probably ‘swelling’ 341
- **boto-* ‘buttocks’ 155
- **buaq* ‘areca nut and palm; heart’ 181
- **buku* ‘mound, knob, joint’ 159, 175, 340
- **buliŋ* ‘roll’ 398
- **bulo* ‘turn round, turn back’, *bulos-i-* ‘turn round, turn back’ 414
- **buni* ‘hide oneself, be hidden’ 485
- **buri (w,q)aqe* ‘heel’ 172
- **buru* ‘buttocks’ 156
- **butu(R)* ‘stamp foot, tread, kick’, **butuR-i-* ‘stamp on, tread on, trample’ 474
- **b^wab^waŋ* ‘a fool; foolish, stupid, insane’ 582
- **b^wae-* ‘armpit’ 144
- **b^wal(o,a)-* ‘stomach; hollow space’; ‘inside’ 185
- **b^walusu-* ‘nose’ 124
- **b^waŋ* ‘a fool; foolish, stupid, insane’ 582
- **b^waŋoR* ‘snot’ 199
- **b^wapu* ‘ignorant, stupid’ 582
- **b^waRusu-* ‘nose’ 124
- **b^watu(k)* ‘head; top (of s.t.)’ 104, 106–107
- **b^wau* ‘ignorant, stupid’ 582
- **b^wege* ‘twins’ 72
- **b^wisi-* ‘buttocks, anus; to fart’ 155, 277
- **b^wito-* ‘navel, umbilical cord’ 152
- **b^wole* ‘to dream’ 314
- **b^woRe* ‘to dream’ 314
- **b^woto-* ‘buttocks’ 155
- **dam^we* ‘lick, taste’ 268
- **dam^wi(s), *dam^wis-i-* ‘lick, taste’ 268
- **dape* or **dapi* ‘snot, nasal mucus’ 199
- **daRaC* ‘crawl along the ground’ 397
- **daRi* ‘rub, smear, anoint’ 363
- **dumu(s), *dumus-i-* ‘suck on, suck up (liquid)’ 249
- **duqu* ‘true, able to be believed’ 550
- **dradra* ‘pull’ 433
- **dram^wa-* ‘forehead’ 109
- **dram^we* ‘lick, taste’ 268
- **dram^wi(s), *dram^wis-i-* ‘lick, taste’ 268
- **dranum* ‘fresh water’ 196
- **drape* ‘snot, nasal mucus’ 199
- **drapi* ‘snot, nasal mucus’ 199
- **draRa(q)* ‘blood’ 83
- **draRaC* ‘crawl along the ground’ 397
- **draRi* ‘rub, smear, anoint’ 363
- **dredre* ‘tremble, shake’ 326
- **drere* ‘tremble, shake’ 326
- **drodrom* ‘think, worry; love, be sorry for, long for’ 545
- **drom-i* ‘think, worry; love, be sorry for, long for’ 545
- **gabase-* ~ **gabesi-* ~ **gabise-* ‘chin, jawbone’ 136
- **gogo(m), *gom-i* ‘hold in the fist’ 469
- **gomu* ‘keep s.t. in the mouth’ 270
- **goso* ‘wash s.o./s.t.’ 484
- **gumu* ‘gargle, rinse mouth’ 272
- **g^wag^wa* ‘drink by pouring down the throat’ 245
- **g^waŋ^wa* ‘drink by pouring down the throat’ 245
- **icaŋ, *ica-* ‘name’ 207
- **icuŋ* ‘nose’ 123
- **inum, *inum-i-* ‘drink’ 28, 242
- **ip(i)-ipi* ‘kidney’ 193
- **ipu* ‘(wind, person) blow’ 297
- **ipu-* ‘head hair, feather’ 92
- **irip, *irip-i-* ‘fan’ 465

- **iropu* ‘run’ 396
- **iRup*, **iRup-i* ‘sip (as soup), slurp’ 246
- **isaŋ*, **isa-* ‘name’ 207
- **iso-* ‘innards, guts’ 188
- **isop* ‘suck up, inhale’ 274
- **jamu* ‘person without spouse’ 71
- **jamu*, **jam^w-i-* ‘chew (betelnut)’ 235, 239
- **japula* ‘wash one’s hands, clean s.o.’ 484
- **jiji* ‘meat, fat, grease’ 82
- **jika* ‘be soiled, weakened’ 599
- **jilak* ‘be cross-eyed; glance around’ 356, 497
- **joŋas* ‘move quickly’ 396
- **juju(n)* ‘push’ 432
- **jumu*, **jum-i-* ‘suck, kiss, make kissing sound’ 274
- **juni-* ‘push’ 432
- **ka* ‘person belonging to a category’ 49
- **ka-supā[t-i]* ‘to spit [on], spittle’ 282
- **ka(i)* ‘person belonging to a category’ 49
- **kaba-* ‘wing; (?) arm, hand’ 162
- **kabase-* ~ **kabesi-* ~ **kabise-* ‘chin, jawbone’ 136
- **kadro-* ‘neck (?)’ 140
- **kame-* ‘hand’ 163
- **kamisu* ‘spittle, to spit’ 28, 280
- **kamu* ‘eat’ 232
- **kani[-]* ‘eat (s.t. starchy), eat (in general)’ 29, 227
- **kanisu* ‘spittle’, ‘spit’ 280
- **kanoŋ qi mata* ‘eyeball’ 121
- **kanusi* ‘spittle’, ‘spit’ 280
- **kap^wa* ‘belly’ 150
- **kara-maya-* ‘tongue’ 130
- **karak* ‘ringworm; to itch’ 343, 346
- **kaRaka* ‘crawl on all fours’ 396
- **kaRat*, **kaRat-i* ‘bite’ 265, 343
- **kaRu* ‘swim’ 405
- **kasio* ‘sneeze’ 28, 306 ?
- **kataqu* ‘be on the right; right hand’ 166
- **kati[-]* ‘bite’ 266
- **kauRi-* ‘left-hand, be on the left’ 164
- **kawanan* ‘right side’ 165
- **kawe* ‘carry, carry away’ 428
- **kawe* ‘wave the hand’ 464
- **kayu-kayu* ‘strong, tough, inflexible’ 571
- **keju-* ‘back of head, base of skull, occiput, nape’ 112
- **keju (qi) qaqe* ‘heel’ 172
- **kiju-* ‘back of head, base of skull, occiput, nape’ 112
- **kiju (qi) qaqe* ‘heel’ 172
- **kila* ‘ignorant’ (?) 581
- **kilala*, **kilala-i-*, **kila-i-* ‘know’ 537
- **kilat* ‘be seen clearly, discerned, recognised’, ‘see clearly, discern, recognise’ 496
- **kilop* ‘glance’, **kilop-i-* ‘glimpse s.t.’ 496
- **kimo* ‘blink, wink’, **kimo-kimo* ‘keep blinking or winking’ 317
- **kimusu* ‘spittle, to spit’ 28, 280
- **kira(s)* ‘scar’ 91
- **kiri(s)*, **kiris-i-* ‘tickle’ 471
- **kisu* ‘to spit’ 28, 29, 281
- **kita* ‘see’, **kita-i-* ‘see s.t.’ 492
- **kiu(C)* ‘movement in coitus’ 218
- **kodaq* ‘eat s.t. raw’ 231
- **komi* ‘close the jaws on s.t., hold s.t. in the mouth’ 270
- **koRo* ‘pubic hair’ 98
- **koso*, **koso-ŋa* ‘cough’ 301
- **koto(p)* ‘bite’ 267
- **kuka* ‘cough’ 302
- **kuku* ‘cough’ 302
- **kuku* ‘hang, suspend’ 383
- **kuku-* ‘finger, fingernail, toenail, claw (of quadruped or bird)’ 176
- **kukut* ‘bite’ 267
- **kulit* ‘skin (of people, animals, fruit), bark (of trees)’ 89
- **kumi-* ‘beard’ 136
- **kuri-kuri* ‘scabies’ 345

- **kuRu* ‘hang’ 383
- **kusu* ‘to spit’ 28, 29, 281
- **kut-i* ‘bite’ 267
- **k^wa* or **k^wai* ‘person belonging to a category’ 49
- **k^wab-i-* (?) ‘get, take’ 428
- **k^wabu(r,R)* ‘widow or widower’
- **k^wag^wa* ‘drink by pouring down the throat’ 245
- **k^wala-* ‘male genitals’ 156
- **k^waŋ^wa* ‘drink by pouring down the throat’ 245
- **k^wap-i-* (?) ‘get, take’ 428
- **k^waro-k^waro* ‘k.o. skin disease, probably scabies’ 345
- **k^waru-k^waru* ‘k.o. skin disease, probably scabies’ 345
- **k^waru(t), *k^warut-i-* ‘scratch with fingernails’ 345
- **k^wasi-k^wasi* ‘scabies’ 345
- **k^wasi[-]* ‘scrape, scratch’; **k^wasi* ‘scraper made from mussel shell’ 345
- **k^wau* ‘get, take’ 428
- **k^wawa-* ‘scrotum, testicles’ 158
- **k^wawaq* ‘baby, small child’ 63
- **k^wawe* ‘carry, carry away’ 428
- **la* ‘go (away, to)’ 386–387
- **la-i-* ‘take, get, bring’ 427
- **laca(m)* ‘tame, docile, trained, well behaved’ 576
- **laka* ‘go, walk; step over’ 394
- **lako* ‘go (away, to)’ 386
- **lalo-*, **lalom* ‘inside; seat of thoughts and emotions’ 523
- **laŋa(t), *laŋat-i-* ‘raise, pull up, lever up’ 429
- **lapi* ‘take, get, give’ 426
- **lapuat* ‘big, large; chief’ 568
- **lap^war* ‘palm of hand, sole of foot’ 179
- **laq-i-* ‘take, get, bring’ 427
- **lasoR* ‘scrotum and/or testicles’ 158
- **lawe* ‘take hold of’ 466
- **-liki* ‘small’ 64
- **likot* ‘turn round’ 414
- **lili* ‘(be) dizzy’ 358
- **li-liu* ‘turn around, go back’ 412
- **lima-*, **nima-* ‘forearm and hand, arm and hand; five’ 160
- **liŋa-* ‘voice’ 138
- **liŋi(s), liŋis-i-* ‘pour out, spill (liquid)’ 454
- **lipo-* ‘tooth’ 131
- **liqoR* ‘throat’ 139
- **liqos* ‘look, see’, **liqos-i-* ‘look at s.t., see s.t.’ 493
- **liu* ‘go beyond, pass, surpass’ 416
- **liu* ‘turn aside, change direction’ 412
- **lo-losop(p)* ‘bathe, wash by swimming’ 480
- **lomi(q)* ‘press upon’ 363
- **loŋon* ‘hear’ 501
- **loŋoR* ‘hear’, **loŋoR-i-* ‘hear/listen to s.t.’ 502
- **losop-i-* ‘bathe, wash by swimming’ 480
- **loto* ‘boil, abscess’ 339
- **luaq* ‘eject forcefully from body; vomit, spit out, (?) discharge seminal fluid’, **luaq-i* ‘vomit on’, **luaq-akin[i]* ‘vomit s.t. up’ 284
- **luka* ‘yaws’ 349
- **lumu* ‘soft’ 573
- **madawa* ‘orphaned, separate’ 70
- **madraqu* ‘thirst’ 29, 255
- **madraRa(q)* ‘bloody, bleed’ 278
- **madrawa* ‘orphaned, separate’ 70
- **madridriŋ* ‘be cold’ 29, 329
- **madriRi* ‘be standing upright’ 29, 377
- **makaridriŋ* ‘(s.o.) be cold’ 330
- **makato* ‘(be) itchy’ 343
- **makini(t)* ‘to be stung, have a stinging pain’ 342
- **malaso* ‘be cold’, **malaso-ŋ* ‘cold’ 330
- **malip* ‘laugh’ 317
- **maliu* ‘change direction, turn’ 413

- *malu[-malumu]* ‘weak, tired’ 312
**malum* ‘hungry’ 254
**malumu* ‘soft’ 573
**mamaq, *mamaq-i-* ‘chew, masticate but not swallow’ 235, 237
**mamawap* ‘to yawn’ 301
**mamis* ‘to try by tasting; sweet’ 512
**manacam* ‘tame, docile, trained, well behaved; know, understand, think about’; ‘knowledge, understanding, thought, wisdom’ 547, 576
**manipis* ‘thin (of flat objects), flimsy’ 570
**manuka* ‘ulcer, sore, wound’ 338
**mañawa* ‘breathe, rest, be alive’; ‘breath, life, fontanelle’ 113, 186, 293
**maja(p)* ‘to open wide, gape’, ‘open mouth; gap, space’ 28, 299
**majawa-* ‘fontanelle, forehead’ 114
**majini(t)* ‘become hot, warm (?)’ 29, 332
**mapanas* ‘warm, hot’ ‘warm s.t. up’ 331
**mapo* ‘heal, be healed, cured, especially of wounds and sores’ 360
**maqañur* ‘floating, adrift’ 407
**maqoli* ‘true, able to be believed’ 552
**maqoni* ‘true, real’ 552
**maqono[ta]* ‘sweat’ 286
**maqurip* ‘be alive, live, flourish; be in good health, recover health’ 210
**maraqu* ‘be thirsty’ 255
**maridri(η)* ‘(s.o.) be cold’ 29, 329
**maRaqa(n)* ‘lungs’ 183
**masakit* ‘be in pain, sick’; ‘sickness’ 335
**mase* ‘breathe’ ? 28, 295
**masi(t)* ‘smell bad; [be] sour, acid, fermented’ ‘bad smell’ 509
**masoru* ‘to hiccup’ 275
**masuR* ‘sated with food or drink’ 256
**mataqu* ‘know, understand, be experienced’ 540
**matolu* ‘thick’ 569
**maturu(R)* ‘sleep, to be asleep’ 308
**mata ni paR(a,o)(q)* ‘core of a boil’ 339
**mata qi susu* ‘nipple’ 149
**mata-* ‘eye, face’ 117
**matakut* ‘be afraid’, **matakut-i-* ‘to fear (s.t.)’ 584
**mataqu* ‘right-hand’ 166
**mate* ‘die, be dead; be unconscious, numb, paralysed; die down, be calm (of storm, wind or sea); go out (of fire or light)’ 214
**mate-mate* ‘die; be weak, sickly; die or suffer in numbers’ 214
**matuqa* ‘mature, full-grown, ripe, old (person)’ 68
**mauRi-* ‘left hand; left side or direction’ 165
**mawanan* ‘right side’ 165
**mawap* ‘(v) yawn, yawning’ 300
**mawiRi* ‘left-hand, be on the left; left side or direction’ 164
**maya-* ‘tongue’ 130
**maya(q)* ‘shy, ashamed’ 21, 585
**meme, *[me]me-i-* ‘chew; (?) premasticate food for baby’ 235, 239
**meRa* ‘newborn; young person from birth to onset of adulthood’ 61
**meRa-meRa* ‘baby, very young child’ 62
**mimi(s)* ‘urinate’, **mimis-i-* ‘urinate on s.t.’, **mimis-aki[ni]-* ‘pass s.t. in the urine’ 287
**mimiq* ‘urinate’ 287
**minV-* ‘hand’ 163
**mipi* ‘to dream, have a dream’ 28, 313
**misi(k)* ‘make sucking noise with lips or teeth, as a signal or sign of annoyance’ 272
**mola(η)* ‘true, real, genuine’ 553
**mono(η)* ‘sit, stay, dwell’, **monoη-i* ‘sit on’ 369
**moqi* (?) ‘true’ 553
**moro* ‘mucus, semen’ 201

- *mule* ‘return, restore’ 410
**mumu(R)* ‘hold in the mouth and suck’ 270–271
**mumutaq* ‘vomit’ 283
**muni* ‘hide oneself, be hidden’ 28, 486
**muqa* ‘be in front, precede’ 420
**muri* ‘be behind, be after, follow’ 21, 421
**muri (qi) (w,q)aqe* ‘heel’ 172
**musu* ‘suck, make a sucking or kissing noise’ 273
**mutaq* ‘vomit’ 28, 283
**m^wala* ‘unmarried young woman’ 66
**m^wale-* ‘footprint’ 172
**m^waloq* ‘submerged rock or coral reef, coral head’ 558
**m^waqane* ‘man, male; brother (of woman)’ 51
**m^warap* ‘grow old’; ‘old person’ 70
**m^winum* ‘drink’ 28, 242
**m^witi* ‘suck, make a sucking noise’ 274
**nako-* ‘face’, ‘front’ 114
**nanam* ‘think about s.t., remember s.t.’, ‘mind, thought’ 544
**nanaq* ‘pus’ 341
**ninir* ‘tremble, shake; earthquake’ 327
**nipi* ‘to dream, have a dream’ 29, 313
**nipo-* ‘tooth’ 131
**nonom* ‘think about s.t., remember s.t.’, ‘mind, thought’ 544
**nopo(q)* ‘sit, stay, dwell’ 370
**nuka* ‘think, feel’, **nuka-* ‘mind, thought’ 546
**nunu* ‘shadow of person, likeness, reflection’ 204
**ñañami* ‘[be] tasty, taste good’, **ñami-* ‘to taste s.t.’ 510
**ñamu* ‘chew’ 240
**ñañau* ‘teach, learn’; **paka-ñañau* ‘teach’ 566
**ñapi-* ‘taste s.t.’ 512
**ñaro* ‘widower’ 72
**ñau* ‘teach, learn’; **pa-ñau* ‘teach’ 566
**ñawa* ‘breathe, rest, be alive; breath, life, fontanelle’ 113, 186, 293
**ñoñop* ‘put the face against, kiss, suck, sniff’ 29, 247
**ñosop* ‘suck (?)’ 247
**ñu-ñu(p)* ‘wash by immersing oneself, dive’ ‘wash s.o. by immersing them; dive for s.t.’ 479
**ñugup-i-* ‘wash s.o. by immersing them’ 479
**ñulu-i-* ‘wash s.o.’ 479
**ñup-i-* ‘wash s.o. by immersing them; dive for s.t.’ 479
**ñado-* ‘gums, palate’ 134
**ñale* ‘get, take, carry, bring’ 427
**ñali* ‘get, take, carry, bring’ 427
**ñaquñaqu* ‘stupid, ignorant’ 581
**ñaRa* ‘be breathless, pant’ 295, 350
**ñara(s)* ‘cry loudly’, **ñar-as-i-* ‘cry loudly for’ 322
**ñari(s), *ñar-is-i-* ‘gnaw, nibble, (perhaps of animals)’ 234
**ñaRo-* ‘molar tooth’ 134
**ñas, *ñas-i-* ‘chew (betelnut), suck and chew (sugarcane), bite into’ 235, 236
**ñau* ‘chew and eat’ 233
**ñau* ‘crazy’ 359
**ñau* ‘stupid, ignorant’ 581
**ñiji* ‘bare one’s teeth, grin’ 318
**ñisa or *ñijisa* ‘bare one’s teeth, grin’ 319
**ñisi* ‘bare one’s teeth, grin’ 319
**ñisu* ‘to spit’ 29, 281
**ñoro-ñorok* ‘channel above upper lip’ 125
**ñorok* ‘snot; grunt, growl, snore’ 199, 296
**ñoto, *ñot-i* ‘bite, nibble’ 267
**ñuju-* ‘external mouth, lips, snout, beak’ 126
**ñuk or *ñukjuk* ‘grunt, moan’ 323

- *ŋuŋu(l)* ‘inflammation of joints’ 350
**ŋusu* ‘to spit’ 29, 281
**ogom*, **ogom-i* ‘hold in the mouth’ 270
**oli(q)* ‘go back, come back’ 410
**omu(R)* ‘roll food around in the mouth’ 271
**oŋap* ‘pant, be out of breath’ 295, 350
**oRo* ‘come, go’ 391
**pa* ‘go away; move in a transverse direction’ 386, 390
**pa*, **pa-i-* ‘get, take, bring’ 427
**pa[ka]-usawiri* ‘teach, pass on’ 565
**pa[ka]-usuri* ‘teach, pass on’ 565
**pai(t)*, **pait-i-* ‘do, make’ 458
**paipine* ‘woman, female; sister (of man)’ 55
**pajale* ‘walk about, take a walk’ 395
**pala(j)* ‘palm of hand, sole of foot’ 178
**palau(r)* ‘go to sea, make a sea voyage’ 403
**pana* ‘go, move, walk’ 392
**panaik* ‘climb (tree etc.)’ 400
**panas* ‘warm, hot’ ‘warm up’ 331
**pano* ‘go (away)’, (?) ‘move in a transverse direction’ 386, 390
**pano* ‘skin disease which produces light patches on the skin, Tinea versicolor’ 347
**pañāRu* ‘give birth’ 219
**pañō* ‘wash the hands’ 483
**paŋan* ‘eat’; **[pa[ŋa]]-paŋan* ‘sharp’ 29, 226
**paŋaŋap* ‘open mouth wide, gape’ 29, 299
**paŋun* ‘wake (s.o.) up’ 314
**paŋus*, **paŋus-i-* ‘blow one’s nose’ 302
**papa* ‘carry a child slung on the back’ 438
**pa-panas-i-* ‘warm (s.t.) up’ 331
**papine* ‘woman, female; sister of man’ 54
**paqa(l)* ‘thigh’ 168
**paqaRo(k)*, **paqaRok-i-* ‘snatch, seize, rob’ 467
**paqoRu* ‘new, young, recent’ 65
**paraq* ‘spongy mass inside sprouting coconut’; possibly also ‘brain’ 111, 182
**paRa-* ‘hand, arm’ 161
**paRa-* ‘carry s.t. on the shoulder’ 439
**paRa-* ‘shoulder’ 143, 439
**paRa(ŋ)* ‘molar tooth’ 21, 133
**paRa(q)* ‘boil’ 339
**paRa(q)* ‘lung’ 182
**paRas* ‘step, tread’, **paRas-i-* ‘step on, tread on’ 473
**paRi-qait* ‘copulate, have sexual intercourse with one another’ 217
**paRo(q)* ‘boil’ 339
**paso(k)*, **pasok-i* ‘plant (tuber +); drive in (wooden nail +)’ 461
**pasu-* ‘facial bony ridge, especially cheek bone’ 119
**pasu-mata-* or **pasu qi mata-* ‘eyebrow ridge’ 119
**pasu[su]* ‘give birth’ 221
**pa-susu*, **pa-susu-i-* ‘suckle, feed (baby) at the breast’ 252
**pa-susup-i-* ‘suckle, feed (baby) at the breast’ 252
**pata-*, **pataŋ* ‘trunk of human body; corpse; tree trunk’ 79
**patu* ‘hard, strong, firm’ 105, 572
**patu(k)* ‘outer shell, skull’ 103–105
**pekas* ‘defecate; faeces’, *pekas-i* ‘defecate on s.t.’, *pekas-aki[ni]* ‘defecate s.t.’ 291
**pia(n)* ‘want to’ 593
**pidik* ‘throb’ 337
**pila(t)* ‘scar’ 91
**piliq*, **piliq-i-* ‘choose, select, pick out’ 562
**pine* ‘woman, female; sister of man’ 54
**pinut* ‘skin, bark’ 91

- *pipu-* ‘bladder’ 194
**piri(ŋ)* ‘stone, throw a stone at’ 453
**pisi(n)-mata* ‘eyelash’ 119
**pisiko* ‘flesh, muscle, meat’ 81
**pita* ‘heavy, difficult’ 312
**pitik* ‘to feel pain, throb’ 337
**pitolon* ‘hunger, famine; be hungry’ 253
**p^widik* ‘throb’ 337
**pole-* ‘forehead’ 110
**polo(m), *polom-i-* ‘swallow’ 258
**popo(l)* ‘hydropoesia, bodily swelling caused by water retention’ 355
**poqut* ‘be cold’ 331
**poRos, *poRos-i-* ‘squeeze out, wring out (liquid)’ 363
**poso* ‘hold’ 469
**potu* ‘appear, come into view’ 417
**pout* ‘be cold’ 331
**pu (??)* ‘fall’ 403
**puat* ‘carry, transport from place to place; carry on shoulder’ 434
**puco-* ‘heart’ 181
**puia* ‘good’ 596
**puia-wa (?)* ‘happiness’ 589
**puka* ‘fall’ 402
**puki-* ‘vagina’ 158
**pukuR* ‘cough’ 302
**puk^wa* ‘fall’ 402
**pula(R)* ‘close one’s eyes; blind; cataract’ 356
**pule-* ‘forehead’ 110
**pulo(s)* ‘turn round’, **pulos-i-* ‘turn (s.t.) round’ 414, 422
**pulu* ‘rub to make clean, wash’ 482
**pulu-* ‘body hair, fur, feathers’ 96
**puluk-i-* ‘roll’ 399
**pulu-pulu* ‘body hair’; **pulu-pulu[-ka]* ‘hairy’ 97
**pulu qi mata-* ‘eyelash, eyebrow hair’ 118
**puni* ‘hide, conceal s.t.’ 28, 485
**pupu-* ‘bladder’ 194
**puqi* ‘rinse, wash’ 483
**pura* ‘arrive, appear’ 418
**puri-* ‘roll’ 399
**puRas* ‘spray water from the mouth’ 361
**puRi* ‘pour water on’ 454
**puRiq* ‘wash, as the hands’ 482
**puRu-* ‘head hair; feather’ 92
**puRuk* ‘to spray spittle etc. from the mouth for magical purposes’ 361
**pusa* ‘be born’ 221
**puso-* ‘heart’ 181
**puso-* ‘navel, umbilical cord’ 151
**putiR* ‘wart, cyst, non-purulent skin eruption’ 21, 344
**p^wa* ‘mouth’ 128
**p^waja(R)* ‘clap hands’, **p^wajaR-i-* ‘slap with open hand’ 470
**p^waka* ‘come into view’ 419
**p^walala* ‘bald’ 95
**p^wapo* ‘deaf and dumb’ 357
**p^wap^waq* ‘inner mouth’ 128
**p^wap^waRa-* ‘cheek, side of face’; ‘side’ 116
**p^wap^wata* ‘bald’ 95
**p^waRa-* ‘cheek, side of face’; ‘side’ 116
**p^waralat* ‘be leaning, slanting’ 384
**p^wasa* ‘sore on skin’ 339
**p^wata* ‘bald’ 95
**p^watu-p^watu* ‘hard, strong, firm’ 105, 572
**p^watu(k)* ‘outer shell, skull’ 103–105
**p^watu[ka]-* ‘elbow, knee; joint, node’ 174
**p^wau-* ‘head’ 107, 108
**p^wilo(R)* ‘close one’s eyes; blind; be sight-impaired’ 355
**p^wiRa* ‘elephantiasis’ 353
**p^woqut* ‘be cold’ 331
**p^wosa* ‘appear’ 418
**p^wout* ‘be cold’ 331
**p^wuka or *p^wuk^wa* ‘fall’ 402
**p^wuluk-i-* ‘roll’ 399
**p^wuri-* ‘roll’ 399
**qabi* ‘take hold of, grasp’ 467

- *qacaŋ, *qaca-* ‘name’ 206
**qait* ‘copulate’, ‘copulation, sexual intercourse’, 216
**qait-i-* ‘have sexual intercourse with’ 216
**qajom, *qajom-akin-i* ‘think, understand’ 546
**qaliŋa-* ‘voice’ 138
**qaliqoR* ‘throat’ 139
**qalo(p), *qalop-i-* ‘beckon with the palm downward, wave’ 462
**qanunu* ‘shadow of person, likeness, reflection’ 204
**qanap* ‘gape’ 298
**qapaRa-* ‘shoulder; carry s.t. on the shoulder’ 439
**qapaRa-* ‘shoulder’ 143
**qapi(n), *qapin-i-* ‘hold or carry under the arm’ 442
**qapi(s), *qapis-i-* ‘carry (a child) on the hip or under the arm’ 441
**qap^{wi}(s), *qap^{wi}s-i-* ‘carry (a child) on the hip or under the arm’ 441
**qaqe-* ‘leg, foot’ 167
**qarop* ‘face’, ‘front, the side usually seen’ 115
**qarop qi [n,l]ima* ‘palm of hand’ 179
**qarop qi qaqe* ‘sole of foot’ 179
**qarop, *qarop-i-* ‘feel pity, empathy, be sorry for’ 587
**qasa* ‘swim’ 406
**qase-* ‘chin, jaw’ 135
**qaseqase-* ‘chin, jaw’ 135
**qasun* ‘gall, gall bladder, octopus sepia’ 191
**qata* ‘person’ 46
**qata-m^waqane* ‘man, male; brother (of woman)’ 52
**qata-pine* ‘woman, female’ 56
**qataq, *qataq-i-* ‘know, understand, realise (that)’ 539
**qata(r)* ‘image, reflection, soul, spirit’ 205
**qate busa-busaq* ‘lungs’ 183
**qate maRaqaŋ* ‘lungs’ 183
**qate puco(q)-puco(q)* ‘lungs’ 183
**qate qi qaqaŋ* ‘calf’ 171
**qate qi waqaŋ* ‘calf’ 171
**qate-* ‘liver; seat of emotions and thoughts’ 189, 520
**qate- patu [liver- strong/firm]* ‘brave’ 579
**qate- p^watu [liver- strong/firm]* ‘brave’ 579
**qawa* ‘mouth, opening’ 129
**qijuR* ‘to spit, spittle’ 283
**qilo* ‘be aware of, discern, see’ 497
**qitik* ‘small’ 64
**qodaq* ‘eat s.t. raw’ 231
**qulu-* ‘head; leader; hair of the head’, ‘top part’ 101
**qulu-qulu* ‘upper part of s.t.’ 101
**qumu(R)* ‘suck, hold in mouth’ 271
**qupan* ‘grey hair’ 94
**quruŋ* ‘emit a smell’, **quruŋ-i* ‘to smell s.t.’ 504
**qusi-* ‘suck and chew (sugarcane)’ 235, 237
**qusur* ‘push, shove’ 431
**quti-* ‘penis’ 156
**qutok, *quto-* ‘brain, pith, marrow’ 110
**qutut* ‘fart’ 277
**rage-* ‘one side of the upper rib cage’ OR ‘one side of the rib cage’ 147
**ragerage-* ‘one side of the upper rib cage’ OR ‘one side of the rib cage’ 147
**raka(t)* ‘go, walk’ 393
**ranum* ‘fresh water’ 196
**raqe-* ‘forehead’ 108
**raqu* ‘be thirsty’ 255
**raun* ‘leaf, head hair’ 93
**reki[-]* ‘see, look, see s.t., look at s.t.’ 492

- **reqi[-]* ‘see, look, see s.t., look at s.t.’ 492
 **rere* ‘tremble, shiver, shake with fear, be fearful’ 325
 **ridriŋ* ‘tremble, shiver’ 324
 **rikit* ‘small’ 65
 **ri-riu(s)* ‘wash, bathe’, *rius-i-* ‘wash s.o., bathe s.o.’ 476
 **ririŋ* ‘tremble, shiver’ 324
 **roŋon* ‘hear’ 501
 **roŋoR-* ‘hear s.t., listen to s.t.’ 500
 **ruku* ‘go under water, duck under (s.t.), bow the head’ 406
 **ruru* ‘shake, tremble’ 326
 **rutu* ‘surprised’ 592
 **Rape* ‘pull, drag’ 432
 **Ropok* ‘to fly, jump’ 316, 400
 **Rujan*, **Rujan-i-* ‘load (s.t.) onto a canoe, transport by canoe’ 444
 **Ruma-* ‘chest’ 145
 **RumaRuma-* ‘chest’ 145
 **Ruqa-* ‘neck’ 137
 **sakit* ‘be in pain, sick’; ‘sickness’ 335
 **samo(s)*, **samos-i-* ‘massage, stroke’ 362
 **sana* ‘diarrhoea’ 352
 **saŋa-* ‘crotch; fork (in tree), forked stick or branch’ 173
 **saŋin* ‘emit a smell’, **saŋin-* ‘smell s.t.’ 503
 **sape* ‘carry by a strap over the shoulder’ 439
 **saqat* ‘bad’ 597
 **saqati* ‘bad’ 598
 **sigil*, **sigil-i-* ‘touch with the fingers’ 514
 **siki* ‘to fart’ 277
 **sikil*, **sikil-i-* ‘touch with the fingers’ 514
 **siku* ‘elbow, knee, angle’ 175
 **silak* ‘be cross-eyed; glance around’ 356, 497
 **siri(t)* ‘sniff, blow nose’ 303
 **sirip-i* ‘carry on a long shoulder pole between two people’ 440
 **siRi* ‘blow, hiss, fart’ 277
 **siRu* ‘blow, hiss, fart’ 277
 **sisi* ‘smile, show one’s teeth, bare one’s teeth’ 318
 **siu-siu* ‘wash oneself’, **siuw-i-* ‘wash s.o.’ 475
 **sogo(n)* ‘gather, congregate’, **sogon-i* ‘gather, bring together’ 420
 **soko(n)* ‘gather, congregate’, **sokon-i* ‘gather, bring together’ 420
 **sola(t)*, **solat-i-* ‘carry with a shoulder pole’ 439
 **sonom*, **sonom-i-* ‘swallow’ (cf. 264
 **soŋin* ‘emit a smell’, **soŋin-* ‘smell s.t.’ 503
 **soŋo* ‘[be] acrid, pungent, as smell of urine’ 509
 **sop-i-* ‘put lips to, kiss, suck, absorb (moisture)’ 29, 247
 **sorop* ‘hang’ 383
 **soRu* ‘to hiccup’ 275
 **soRop*, **soRop-i-* ‘absorb (liquid), suck up (liquid), sip, slurp, sniff’ 248
 **sosop* ‘put lips to, kiss, suck, absorb (moisture)’ 247
 **sugu(p)* ‘wash by immersing oneself, dive’, **sugup-i-* ‘wash s.o. by immersing them; dive for s.t.’ 478
 **suku* ‘elbow, knee, angle’ 175
 **sulu-i-* ‘wash s.o.’ 479
 **sup-i-* ‘wash s.o. by immersing them; dive for s.t.’ 476
 **supa* ‘to spit’ 282
 **suqun*, **suqun-i-* ‘carry on the head’ 435
 **suRi-* ‘bone’ 88
 **suru(t)* ‘sniff, blow nose’ 303
 **surup* ‘diarrhoea’ 352
 **susu-* ‘breast, milk’; **susu* ‘suckle’ 148

- *susu*, **susu-i-* ‘suck (the breast)’ 148, 250, 251
**susu(p)* ‘wash by immersing oneself, dive’ ‘wash s.o. by immersing them; dive for s.t.’ 476
**susup*, **susup-i-* ‘suck (the breast)’ 250, 251
**ta-lili* ‘(be) dizzy’ 358
**ta-qalo(p)*, **ta-qalop-i-* ‘beckon, wave’ 463
**tabal* ‘side of head’ 117
**tabe* ‘carry in both arms’ 443
**tabulos* ‘turn round, turn back’, *bulos-i-* ‘turn round, turn back’ 414
**tadaq* ‘look, look up’, **tadaq-i-* ‘see s.t., look up at s.t.’ 494
**tadra(q)* ‘have a dream’ 314
**tadraq* ‘look, look up’, **tadraq-i-* ‘see s.t., look up at s.t.’ 494
**takuRu-* ‘back’ 141
**taliŋa-* ‘ear’; **taliŋa* ‘generic term for mushrooms and fleshy fungi’ 122
**tami* ‘taste, try’ 511
**tamʷataq* ‘human being, especially in ordinary living form’ 44
**taŋis* ‘cry, lament; (of animals) make sound; (of musical instruments) sound’, **tanis-i-* ‘to cry for s.t.’, **tanis-aki[ni]-* ‘cry because of s.t.’ 320
**taŋo(p)* ‘take hold of, grasp, touch with the hand’ 514
**tapuni-* ‘placenta’ 195
**taqe-* ‘faeces’ 202
**taqu* ‘right hand’ 166
**taRa-qalo(p)*, **taRa-qalop-i-* ‘beckon, wave’ 463
**tari* ‘wait’, ‘wait for s.t.’ 484
**taRu(q)* ‘put down, lay down’ 449
**tau* ‘person in any form, including ghosts and supernatural person-like beings’ 38
**tau-* ‘person who verbs, person from placename’ 40
**tau paqoRu* ‘young person of marriageable age’ 65
**tau-mate* ‘dead person’ 45
**tau(r)* ‘hang, be suspended’ 382
**tau(r)*, **taur-i-* ‘hold in the hand’ 467
**tia-* ‘belly’ 150
**tian-an* ‘belly, (be) pregnant’ 219
**tibʷola* ‘carry on a long shoulder pole between two people; (?) long shoulder pole’ 448
**tige* ‘hop on one leg, limp’ 398
**tike* ‘squat, sit on haunches’ 380
**tinaqe* ‘intestines’ 187
**tinoni* ‘person, people’ 48
**tirop*, ‘look intently, as at reflection or searching for lice’; **tirop-i-* ‘look at s.t., look for s.t. intently’ 495
**tobʷa-* ‘stomach’ 184
**tobʷan* ‘old woman (?), old person’ 70
**toka* ‘come to rest, settle’ 372
**tolo(m)*, **tolom-i-* ‘swallow’ 259, 261–263
**toloŋ*, **toloŋ-i-* ‘swallow’ 260–261
**tonuq* ‘straight, correct’ 551
**topoŋ* ‘try’, **topoŋ-i* ‘try, test, sample s.t.’ 512
**toRap* ‘belch’ 276
**towa* ‘imitate, learn by imitation’, **towa-(a)kini-* ‘learn (s.t.) by imitation’ 564
**tubu* ‘thick’ 570
**tubuŋa* ‘crown of head’ 114
**tubuq* ‘grow, swell’ 223, 354
**tubuq-a(ŋ)* ‘body, substance’ 80
**tubutubuka* ‘thick’ 570
**tuku* ‘(person) hang by the arms, dangle’ 382
**tuli* ‘deaf, earwax’ 356
**tumu* ‘suck’ 248

**tuna* ‘true, able to be believed, correct’
550
**tunu-tunu* ‘hot’ 332
**tuqan*, **tuqa-* ‘bone’ 21, 85
**tuqu* ‘true, able to be believed’ 550
**tuqur* ‘stand’ 374
**tur* ‘knee’ 169
**turu-* ‘knee, joint’ 170
**turu(R)* ‘sleep, to be asleep’ 308
**turuŋ* ‘kneel’ 380
**tuRu(p)* ‘wade’ 404
**tusu-* ‘forefinger’; **tusuq-i-* ‘point at’
178
**tutu* (?) ‘stand’ 376
**tutuna* ‘true, able to be believed, correct’
550
**ua* ‘go towards addressee’ 386
**ucan*, **ucan-i-* ‘load (s.t.) onto a canoe,
transport by canoe’ 444
**udu* ‘accompany, go with (s.o.)’ 419
**udru* ‘accompany, go with (s.o.)’ 419
**ujumu*, **ujum-i-* ‘suck, kiss, make kissing
sound’ 274
**ukukut* ‘hang, suspend’ 383
**ule* ‘come back’ 409
**uli(q)* ‘come back’ 409
**unus*, **unus-i-* ‘withdraw, pull out,
extract’ 452
**upi* ‘(wind, person) blow’ 297
**usawiri* ‘imitate’; **pa[ka]-usawiri* ‘teach,
pass on’ 565
**usuri* ‘imitate’; **pa[ka]-usuri* ‘teach, pass
on’ 565
**utut* ‘fart’ 277
**wanan* ‘right side, right-hand’ 165
**waqe-* ‘leg, foot’ 167
**waRo(c)* ‘generic term for vines and
creepers; string, rope; vein, tendon’
100
**wasi* ‘wash’ 481
**wasi* ‘wild, untamed’ 578
**yaku* ‘go, go away’ 386

Proto Oceanic (?)

**asiŋe(k)* ‘sneeze’ 305
**asipeŋ* ‘sneeze’ 305
**dridri* ‘tremble’ 325
**gili(k)*, **gilik-i-* ‘tickle’ 471
**kasineŋ* ‘sneeze’ 305
**kasipeŋ* ‘sneeze’ 305
**keRe-* ‘female genitals’ 159
**kilik-i-* ‘tickle’ 471
**mia[n]* ‘sit, stay, live’ 371
**panopano* ‘walk’ 395
**papano* ‘walk’ 395
**puta* ‘(baby) be born’ 222
**tilo(m)-*, **tilom-i* ‘swallow’ 259
**tise* ‘sneeze’ 306
**tole-* ‘female genitalia’ 159
**t<um>uruŋ* ‘kneel’ 28, 380

Proto Western Oceanic (PWOC)

***biso-* ‘navel, umbilical cord’ 154
**busa(q)* ‘heart’ 182
**b^waka* ‘bald’ 95
**b^weka* ‘bald’ 95
***b^wiso-* ‘navel, umbilical cord’ 154
**jiki* ‘be in pain, be sore’ 336
**jiqu* ‘be in pain, be sore’ 336
**jiwaR*, **jiwaR-i-* ‘pour out (liquid)’ 455
**ka* ‘person belonging to a category’ 49
**kai* ‘person belonging to a category’ 49
**kapa-* or **kap^wa-* ‘fingernail, toenail,
claw (of quadruped or bird)’ 177
**kaRo* ‘shoulder’ 143
**kudu* ‘carry on the head’ 436
**kudru* ‘carry on the head’ 436
**k^wa* ‘person belonging to a category’ 49
**k^wabu(r, R)* ‘widow or widower’ 72
**k^wai* ‘person belonging to a category’ 49
**lupu* ‘gather, congregate’ 421
**maji(k,q)i* ‘be in pain, be sore’ 336
**maputa* ‘sleep’ 309
**mataip* ‘be fast asleep’ 309

- **muga* ‘be in front, precede’ 421
- **m^wao-* ‘molar tooth’ 133
- **nasi* ‘look’, **nasi-* ‘look at, see’ 499
- **pai-sok*, **pai-sok-i* ‘plant (tuber +)’ 460
- **popo-* ‘the complete skin, often used metonymically of the whole body’ 78
- **puta* ‘sleep’ 309
- **p^wati* ‘float, drift, be carried on water’ 408
- **p^wati-* or **p^woti-* ‘bladder’ 194
- **qudu*, **qudu-an* ‘be sorry for, pity, be merciful’ 588
- **sau* ‘reach out with hand, touch’ 514
- **sema-* or **sima-* ‘brain’ 111
- **tapi* ‘fan’ 466
- **tau-* emphatic pronoun formative 42
- **tini-* ‘the complete skin, often used metonymically of the whole body’ 78
- **tojol*, **tojol-i-* ‘swallow’ 260
- **towas* ‘upper arm’ 162
- **tudruŋ* ‘kneel’ 28, 380
- **tuku-* ‘knee, elbow’ 170
- **udu*, **udu-an* ‘be sorry for, pity, be merciful’ 588

Proto New Guinea Oceanic (PNGOc)

- PNGOc **b^waju(r,R)(i,u)* ‘urinate’ 290
- PNGOc **dam^wa*, **dam^war-i-* ‘lick’ 269
- PNGOc **dawe* ‘wave the hand’ 464
- PNGOc **dram^wa*, **dram^war-i-* ‘lick’ 269
- PNGOc **g(i,e)ju-* ‘back of head, base of skull, occiput, nape’ 113
- PNGOc **ku(r,R)a* ‘put’ 450
- PNGOc **midi* (?) ‘stand’ 377
- PNGOc **pako* ‘carry on a long shoulder pole between two people’ 441
- PNGOc **paku* ‘carry on a long shoulder pole between two people’ 441
- PNGOc **qata-m^waq(a)* ‘man, male’ 53
- PNGOc **sojo* ‘chew (betel)’ 264

Proto North New Guinea (PNNG)

- **mapine* ‘woman, female’ 56
- **ɲuru* ‘suck and chew (sugarcane)’ 235, 237
- **qata-mapine* ‘woman, female’ 57
- **sojo* ‘chew betel’ 264
- **ta-mapine* ‘woman, female’ 57
- **tono* ‘swallow’ 261

Proto Huon Gulf

- **matuy* ‘man’ 68

Proto Markham

- **yaram* ‘man’ 53

Proto Mengen

- **mate kana* ‘hungry’ 254

Proto Papuan Tip (PPT)

- **siba* ‘know’ 542

Proto Meso-Melanesian (PMM)

- **konom*, **konom-i-* ‘swallow’ 263
- **lap(e,i)-* ‘tongue’ 131
- **p^woda* ‘(baby) be born’ 222
- **tak(e,i)* ‘excrement’ 203

Proto Willaumez

- **hanu-* ‘soul, shadow, reflection’ 204
- **maci* ‘know’ 542

Proto Eastern Oceanic (PEOc)

- **abe-* ‘body’ 81
- **b^wisi* ‘spurt out, fart’ 276
- **kai* ‘person’ 49
- **kaila* ‘strong, firm’ 572
- **komu*, **komi* ‘suck at (a pipe)’ 252
- **leka* ‘good’ 597
- **lole* ‘be confused’ 591
- **mana* ‘laugh’ 318
- **mo(q)e* ‘be fast asleep’ 309

**m^weRa* ‘newborn; young person from birth to onset of adulthood’ 61
 **naki-* ‘put’ 450
 **olo* ‘swim’ 406
 **pai(s)*, **pais-i-* ‘copulate’ 217
 **pinu-pinu ni mata* ‘eyelid’ 120
 **poki* ‘return’ 411
 **pulu-* ‘body hair, fur, feathers’ 97
 **pus(u)-i-* ‘blow s.t. forcefully from the mouth’ 298
 **qabe-* ‘body’ 81
 **qa-lap^wa* ‘chief’ 568
 **qenop* ‘lie, rest horizontally’, **qenop-i-* ‘lie on, rest on s.t.’ 378
 **siu-siu* ‘wash oneself’, **siuv-i-* ‘wash s.o.’ 475
 **suRu qi mata* ‘tears’ 196
 **tubuŋa* ‘general term for swelling’ 355
 **tubuqa* ‘spirit being (possibly guardian spirit)’ 80
 **vaRa-* ‘lungs’ 182

Proto Eastern Oceanic (?)

**dramu*, **dram^w-i-* ‘chew’ 235, 241

Proto Southeast Solomonic (PSES)

**abe* ‘body, bulk’ 81
 **b^wa(l,R)usu-* ‘nose’ 124
 **[garo]garo-* ‘one side of rib cage’ 146
 **luda* ‘load (s.t.) onto a canoe, transport by canoe’ 444
 **luka-luka* ‘yaws in adults’ 349
 **manasa* ‘tame’ 577
 **noso*, **nosov-i-* ‘suck, sip, (moisture)’ 247
 **qabe* ‘body, bulk’ 81
 **tada, tadaq-i-* ‘look at s.t., look up to s.t.’ 494
 **tono*, **tonom-i-* ‘swallow’ 262
 **utu*, **utuni* ‘true’ 554

Proto Malaita-Makira

**garat-a* ‘ringworm’ 347
 **yai* ‘person, person belonging to ...’ 49

Proto Remote Oceanic (PROc)

**amosi* ‘massage, stroke’ 363
 **ara* ‘haul, drag’ 445
 **drudru* ‘shake, tremble’ 327
 **[kayu]kayu-a* ‘strong’ 572
 **kete* ‘basket’ 185
 **kona-* ‘lower abdomen’ 154
 **m^wat(i,u)a* ‘sneeze’ 28, 307
 **puRuk* ‘cough’ 302
 **qara* ‘haul, drag’ 445
 **qata-maquri* ‘living person’ 47
 **ta-maquri* ‘living person’ 47
 **tani* ‘disease characterised by pale patches on skin’ 348
 **ule-* ‘penis’ 156
 **va-vaŋan-i* ‘feed (animal, person)’ 230
 **wai(R) ni mata* ‘tears’ 197
 **bati-* ‘tusk, upper canine tooth’ 134

Proto Southern Oceanic (PSOc)

**b^wau-* ‘head’ 108
 **b^wau-* ‘knee, joint’ 174
 **b^wili* ‘close eyes’ 317
 **b^wilu* ‘close eyes’ 317
 **b^(w)oto-* ‘buttocks, bottom’ 155
 **liji* ‘put, leave’ 450
 **ma-daRa* ‘bleed’ 278
 **meRe-* ‘urine’, **[me]meRe* ‘urinate’, *meRes-i-* ‘urinate on’ 289
 **qata-m^waqane* ‘man, male’ 52
 **qata-vine* ‘woman, female’ 56
 **qaviŋa* ‘armpit; carry under the arm’ 144
 **vasu* ‘eyebrow’ 120

Proto North/Central Vanuatu (PNCV)

**abe-* ‘body incl. spiritual and other less tangible aspects’ 81
 **baba* ‘carry child; bear child’ 437

- **balase* ‘jawbone’ 117
- **bani-* ‘wing, armlet; (?) arm, hand’ 162
- **bava* ‘carry child; bear child’ 437
- **b<in>isi* ‘know’ 542
- **bisi* ‘know’ 542
- **bo[-]* ‘odour, scent’; **b[o,u]* ‘have an odour, be smelly’ 508
- **boa* ‘odour, scent’ 508
- **bore (N,V)* ‘dream’ 314
- **bu[-]* ‘odour, scent’; **b[o,u]* ‘have an odour, be smelly’ 508
- **buluk-i* ‘fold, bend’ 399
- **b^watu-* ‘head’, **b^watu* ‘club’ 106
- **b^watu kayua* ‘wilful, stubborn’ 580
- **b^wisi* ‘buttocks, anus; to fart’ 155, 277
- **daleqo-* ‘neck, throat; voice’ 140
- **dam^wis-i* ‘lick, taste’ 269
- **dodomi* ‘think about, love’ 545
- **dumu-si* ‘suck, sip, taste’ 249
- **iri*, **iriv-i-* ‘fan’; **iriv-irivi* ‘fan’ 465
- **kai-masi* ‘sorcerer’ 49
- **kaRa-ti* ‘itchy, stinging; bite’ 343
- **kaRo* ‘vine, rope; vein’ 100
- **kum^wi-* ‘beard’ 136
- **la-i* ‘take, give’ 427
- **lavi* ‘carry, take’ 426
- **le(q)o* ‘word, speech, voice’ 139
- **leqos-i* ‘see, look at’ 493
- **li-liu* ‘return; be backwards, be upside down’ 412
- **liŋi* ‘pour’ 454
- **liu* ‘go beyond, exceed’ 416
- **liu-liu* ‘return; be backwards, be upside down’ 412
- **lolo-* ‘inside; heart, seat of feelings and thoughts’ 523
- **ma-lumu* ‘soft, gentle, weak’ 573
- **madau* ‘quiet, gentle’ 577
- **madou* ‘thirsty’ 255
- **madua* ‘orphan; separate’ 70
- **magura* ‘thin, lean’ 570
- **maono[ta]* ‘sweat’ 286
- **marou* ‘thirsty’ 255
- **matuqa* ‘right hand, right side’ 166
- **mawiri* ‘left hand, left side’ 164
- **m^wala-gelo* ‘young person, probably young unmarried man’ 67
- **m^wasu* ‘bald’ 95
- **m^wera* ‘child’ 61
- **ŋori* ‘channel above upper lip’ 125
- **qalov-i* ‘beckon, wave’ 463
- **qata* ‘individual, person, human being’ 46
- **qavin-i-* ‘carry under arm’ 442
- **qum^wa* ‘work, clear land’ 460
- **rave* ‘pull’ 432
- **rovo* ‘run, flow, jump, fly’ 401
- **rur* ‘earthquake; shake’ 327
- **sale* ‘float, flow’ 408
- **saqati* ‘bad’ 598
- **sir(i,u)*, **sir(i,u)t-i-* ‘blow nose’ 303
- **siri* ‘fart’ 277
- **soko* ‘add, join’ 420
- **solo* ‘carry over shoulder on a stick’ 440
- **suqun*, **suqun-i-* ‘carry on the head, wear on the head’ 435
- **sur(i,u)*, **sur(i,u)t-i-* ‘blow nose’ 303
- **suRu(i) mata* ‘tears’ 196
- **ta-marayai* ‘old man’ 69
- **taŋo-vi* ‘touch, feel, grope’ 514
- **tia-* ‘belly’ 150
- **tiqel-i* ‘touch, reach’ 515
- **tob^wa* ‘stomach, belly’ 184
- **toka*, **toko* ‘sit, stay, be in a place’ 372
- **tu-tunu* ‘warm, hot’ 332
- **uRati* ‘vein’ 99
- **va-susu* ‘give birth, lay egg’ 221
- **vai* ‘make, do, be’ 459
- **varas-i* ‘step on, step over’ 473
- **vei* ‘make, do, be’ 459
- **viles-i* ‘turn’ 416
- **vilos-i* ‘turn’ 416
- **vinuti* ‘skin, husk, rind’ 91
- **vitolo* ‘hungry’ 253

*vosa ‘a sore, a boil’ 340
 *votu ‘emerge, appear’ 417
 *voza ‘clap, slap, strike’ 470
 *vui ‘pour water on’ 455
 *vuia ‘good’ 596
 *vuluk-i ‘fold, bend’ 399
 *vuru ‘cough’ 302
 *v^wav^wa ‘(open) mouth’ 128
 *zam^wan ‘chew; fibrous residue’ 239
 *zavula ‘wash one’s hands’ 484
 *zimi ‘sip, suck, taste’ 249
 *zolo ‘carry over shoulder on a stick’ 440
 *zum-i ‘kiss, make kissing sound’ 274

Proto Torres-Banks

*do-domi ‘think, worry’ 545
 *m^wala-m^wala ‘girl, young woman’ 66

Proto South Efate/South Vanuatu

*a-tVɲol-i ‘swallow’ 261

Proto South Vanuatu (PSV)

*ata-mama(q), i- ‘person’ 47
 *ata-mama(q), n- ‘person’ 47
 *ata-mimi(q), i- ‘person’ 47
 *ata-mimi(q), n- ‘person’ 47
 *atam^waqane, i- ‘man, male’ 53
 *atam^waqane, n- ‘man, male’ 53
 *atavine, i- ‘woman, female’ 56
 *atavine, n- ‘woman, female’ 56
 *beni, a- ‘emit an odour’ 506
 *bieni, a- ‘emit an odour’ 506
 *butoŋi-, na- ‘navel’ 153
 *curia, a- ‘carry on pole or shoulder’ 440
 *da(q,V), nə- ‘blood’ 83
 *gum^w-i, a- ‘put or hold in mouth, suck’
 271
 *ic-i, a- ‘copulate’ 217
 *iri-iri, a- ‘fan’ 465
 *kova(q) ‘baby, small child’ 63
 *laqVs, e- ‘look at, look for’ 493
 *leli- ‘heart, seat of feelings, insides’ 523

*liŋi-i, a- ‘put, leave’ 450
 *livo-, na- ‘incisor tooth’ 132
 *mada[], a- ‘bleed’ 279
 *metay[Vt], a- ‘be afraid, fear’ 584
 *misa, a- ‘sick, be in pain’ 336
 *misa, a- ‘sick, be in pain’ 336
 *mu(y)av, a- ‘yawn’ 300
 *m^w(i,la)-, na- ‘track (of s.t.), footprint’
 172
 *m^wuni(m,m^w), a- ‘drink’ 242
 *pan, a- ‘go, walk’ 389
 *rur, a- ‘shake’ 327
 *s(u)mu-i, a- ‘suck’ 275
 *taqi, nə- ‘excrement’ 203
 *təpu-, na- ‘stomach, belly’ 184
 *toy, a- ‘sit, stay, live at, be at’ 373
 *ua-, n- ‘neck’ 138
 *ur, na- ‘vein, artery, sinew’ 99
 *van ‘go’ 389
 *van, a- ‘go, walk’ 389
 *veyas, a- ‘defecate’ 291
 *vutoy, nə- ‘brain’ 111
 *vVsayo-, na- ‘meat, flesh’ 82
 *v^wi(i), a- ‘to water, pour water on’ 455
 *yevi, a- ‘pull’ 433

Proto Tanna

*p-atavine ‘woman, female’ 56

Proto New Caledonia

*tonom ‘swallow’ 259

Proto Micronesian (PMic)

*afara ‘shoulder’ 439
 *afi, afis-i- ‘carry on the hip or under the
 arm’ 441
 *ala ‘take, get’ 426
 *[alo]alo, *alo[f]-i ‘wave, beckon’ 463
 *are, arek-i ‘haul, pull, tow’ 445
 *ata, *ata-i- ‘know, understand’ 539
 *cam^w(a,i)t-i ‘lick’ 268
 *cece ‘shake, tremble’ 326

- *cici* ‘tremble’ 325
**cucu* ‘tremble, shake’ 327
**fā* ‘apply the sole of the foot’, **fās-i*
‘apply the sole of the foot to s.t.’ 473
**faŋ(o,u)s-i* ‘blow one’s nose’ 304
**faŋu-ni* ‘awakened, awaken’ 315
**far[a,e]-* ‘lungs’ 182
**faro, farok-i* ‘hold tightly’ 467
**fasu* ‘eyebrow’ 120
**faSale* ‘walk, move around’ 395
**faSo, *faSok-i* ‘plant; planted; a planted
thing’ 461
**fata, fata-ŋa* ‘tree trunk’ 79
**fili* ‘choose’ 562
**fou* ‘feel cold’ 331
**irip, *irip-i* ‘fan’ 465
**kaila* ‘strong’ 572
**kaŋi-* ‘eat’ 229
**ka(sS)i[sS]ifa* ‘spit, spittle’ 282
**kāSu* ‘to itch’ 344
**kila, kila-a, kila-i-* ‘know’ 538
**koro* ‘pubic hair’ 98
**ku* ‘bite’ 267
**kuku* ‘bite’ 267
**kum^wu* ‘have liquid in the mouth’ 272
**kurer[a,e]* ‘to belch’ 276
**kuti, *kukuti* ‘bite’ 267
**lalo-* ‘seat of emotions, mind’ 523
**lō, *lō-Si* ‘see’ 494
**maanu* ‘adrift, drift’ 407
**maci, *macici* ‘be cold’ 329
**ma[n,ñ]awa* ‘life, alive’ 293
**maŋo-* ‘top of head, fontanelle’ 114
**marewu* ‘thirsty’ 255
**maSeru* ‘hiccup’ 275
**masu* ‘sated with food or drink’ 257
**mate* ‘die, lose consciousness’ 214
**maturu* ‘sleep’ 308
**mauri* ‘alive’ 210
**mawa* ‘yawn, be open mouthed’ 300
**mawono* ‘perspiration’ 286
**misi* ‘smack one’s lips’ 273
**m^waTie* ‘to sneeze’ 307
**m^woa* ‘ahead, going before’ 420
**m^woe* ‘sleep soundly’ 309
**m^wua* ‘ahead, going before’ 420
**ñama* ‘taste’ 511
**ŋaco-* ‘palate, gums’ 134
**ŋari, *ŋari-ti* ‘nibble, gnaw, crunch’ 234
**p^wau-p^wau* ‘silly, stupid’ 582
**p^wauSu-* ‘nose’ 124
**p^wexe, p^we-p^wexe* ‘twins’ 73
**p^woto* ‘swelling’ 341
**p^wuto* ‘navel’ 153
**p^wutu* ‘step, tread, apply one’s foot’ 474
**rere* ‘tremble (with fear)’ 325
**ruku* ‘tip, go under water’ 406
**rut(i,u)* ‘become aware, wake up, be
surprised’ 592
**Saŋa* ‘move quickly’ 396
**saŋu* ‘smell s.t.’ 503
**Sū-Sū* ‘bathe’, *Sū* ‘dive down’, *Sūf-i-*
‘bathe s.o., dive for s.t.’ 477
**taŋi* ‘cry, weep’, **taŋiSi-* ‘cry, weep for
s.o./s.t.’ 321
**tapa-* ‘cheek’ 117
**tap(a,e), tap(a,e)-ki* ‘lift up, carry, bear in
one’s hands’ 443
**tau* ‘person’ 39
**tau-mate* ‘dead person’ 39, 45
**tau-tub^wa* ‘spirit of a deceased person’
39
**tawu-* ‘master, expert’ 40
**tia-* ‘stomach, belly, abdomen’ 150
**tiŋi* ‘fart’ 278
**tip^wu* ‘be born, bear young’ 223
**Toka* ‘settle, alight’ 373
**torom-i-* ‘suck, sip’ 262
**tup^wu* ‘be born, bear young’ 223
**tuu* ‘to stand; stopped, halted’ 375
**ua* ‘tendon, vein’ 99
**unu, *unum-i* ‘drink’ 244
**u[s,S]a, u[s,S]an-i* ‘load (s.t.) onto a
canoe, transport by canoe’ 445

- *waka ‘vein, artery, sinew’ 100
- *wua- ‘grey hair’ 94
- *wua, wuawua, wua-ti, wua-ta ‘carry, convey, transport’ 434
- *wule ‘penis’ 157

Proto Micronesian (?)

- (?) *p^wax(a,e) ‘come into view, reveal’ 419

Proto Central Micronesian

- *fatuku ‘head’ 104
- *ka(w)o ‘newly born, infant’ 63
- *worom-i ‘swallow’ 265
- *m^wa-ali-ali ‘circle, circling, dizzy’ 358

Proto Central Pacific (PCP)

- *bō ‘squeeze, rub firmly, massage in this way’ 363
- *buku ‘female genitals’ 159
- *dolo ‘crawl (along the ground)’ 397
- *jamu ‘eat scraps of food’ 239
- *jila, *ji-jila ‘look sideways’ 497
- *jona ‘yaws; octopus sucker’ 349
- *keju- ‘back of head’ 112
- *kete ‘abdomen; basket’ 185
- *koto ‘lie down’ 379
- *mali ‘laugh, smile, grin’, *mali-mali ‘keep laughing’ 318
- *moze ‘sleep’ 309
- *pus-i ‘blow energetically’ 298
- *qadra ‘awaken, be awake’, *qadrav-i- ‘keep watch over’ 315
- *qalo ‘spirit, soul, insides’ 187
- *roŋo ‘hear, be heard’ ‘listen, heed, obey’ 501
- *sape ‘malformed, of foot, club-footed’ 359
- *sī ‘semen, that which spurts out’ 202
- *sola ‘survive, escape danger’ 212
- *suqi ‘pour water on/into’ 455

- *toka ‘sit, squat, live, stay, settle, coagulate’ 373
- *tuqu ‘stand, be somewhere’, tuqur-a ‘stand on/near s.t.’, tuqur-aki- ‘stand up with’ 375
- *uja ‘be loaded onto a canoe, be transported by canoe’ ‘load (s.t.) onto a canoe, transport by canoe’ 444
- *ujan-i- ‘load (s.t.) onto a canoe, transport by canoe’ 444
- *vaka-roŋo ‘listen, heed, obey’ 501
- *veŋu ‘blow one’s nose’ 304
- *via ‘desiderative particle or prefix’ 593
- *via inu ‘thirsty’ 256
- *via kani ‘hungry’ 254
- *via moze ‘sleepy’ 311
- *voto-voto ‘have goosebumps’ 323
- *wai-wai ‘weak, tired’ 312
- *wale ‘ignorant, unskilled, stupid, mad’ 582

Proto Fijian

- *kai or *k^wai ‘person of a place or category specified by the modifier’ 50

Proto Polynesian (PPn)

- *ako ‘acquire mentally, learn, teach’ 566
- *amo(amo) ‘stroke, rub gently’ 362
- *aŋa ‘habit, custom, way of acting’ 575
- *awa ‘channel, passage through reef’ 129
- *fafana ‘feed (animal)’ 230
- *fafanu ‘awaken s.o.’ 315
- *fai ‘copulate’ 218
- *fai ‘do, make’ 459
- *faka-qilo-a ‘make s.t. known’ 498
- *faka-qilo-ŋa ‘mark, sign, signal’ 499
- *faka-qiloqilo ‘make s.o. wise’ 498
- *falala ‘lean, stoop, slant’ 384
- *fanau ‘give birth; be born’; *fānau ‘offspring’ 219
- *fanua ‘placenta’ 195

- **fāŋa-i* ‘feed, provide food for’ 230
- **fajo* ‘blow or speak through nose’ 304
- **fasa* ‘mad, crazy’ 360
- **fata-fata* ‘chest’ 145
- **feŋu* ‘blow nose, snort’ 304
- **fia inu* ‘thirsty’ 256
- **fia kai* ‘hungry’ 254
- **fine* ‘woman’ 54
- **fītaqa* ‘be tired, fatigued’ 312
- **fō* ‘rub, as in washing clothes, extracting starch from arrowroot’ 363
- **fofō* ‘massaging’ 363
- **folo*, **folom-i* ‘swallow, ingest’ 258
- **fuli* ‘turn round or over’ 399
- **fuqi* ‘wash feet or hands, pour water over, soak’ 483
- **iso* ‘pith, core; umbilical cord’ 188
- **isu-peqe* ‘nasal mucus’ 200
- **ka-kai* ‘people of one place or kind’ 50
- **ka-kau* ‘swim’ 405
- **ka-kawa* ‘sweat, be sweaty’ 286
- **kai* ‘person of one place or kind’ 50
- **kai* ‘war; food’ 227
- **kamo, kamo-t-ia* ‘beckon; make sign with hand or eye’ 464
- **kao-kao* ‘ribs, flank, side’ 147
- **kasō-kasō* ‘ribs, upper side’ 147
- **kau* ‘swim’ 405
- **kau-qahe* ‘cheek, chin, jawbone’ 136
- **kawe* ‘carry, bear’ 428
- **kite* ‘see, appear, know’ 492
- **kona* ‘lower abdomen’ 155
- **koro-koro-* ‘throat’ 140
- **laka* ‘step, march; pass, cross over’ 394
- **lamu* ‘chew’ 241
- **lanu* ‘bathe or wash in fresh water’;
‘amniotic fluid’ 196
- **laŋa* ‘raise up’ 429
- **laqe* ‘forehead’ 109
- **lau-ŋutu* ‘lips’ 127
- **lawe* ‘take hold of, lay hold of’ 466
- **leka* ‘pleasant’ 597
- **lele* ‘fly, run, leap’ 401
- **leqo* ‘voice’ 140
- **liu* ‘turn round’ 413
- **lo-qi-mata* ‘tears’ 197
- **lolo* ‘coconut oil’ 197
- **lolo* ‘flood, submerge’ 197
- **lomi* ‘squeeze, press down upon’ 363
- **lulu* ‘shake, tremble’ 327
- **ma-fana* ‘be warm’ 331
- **ma-mawa* ‘to yawn’ 301
- **mā-saŋa* ‘set of twins’ 73
- **maka-lili* ‘cold, chilly’ 330
- **male* ‘cough, clear the throat’ 303
- **mama* ‘chew, masticate but not swallow’
238
- **mānawa* ‘breathe; breath’ 293
- **maŋa* ‘be open; orifice, vaginal opening’
129
- **maŋeho* ‘itch(y), sexually titillated’ 344
- **maŋeso* ‘itch(y), sexually titillated’ 344
- **maqanu* ‘be afloat’ 407
- **maqoni* ‘true, real’ 553
- **mata a lima* ‘finger’ 178
- **mātau* ‘know, understand, be
experienced’ 541
- **mili* ‘rub, massage’ 364
- **miŋi* ‘sound made with the lips’ 273
- **miti* ‘suck, lick up’; ‘be sucked, be
extracted’ 274
- **mohe* ‘sleep’ 310
- **moni* ‘swallow, suck’ 249
- **muqa* ‘be first, precede, precede’;
**muqa-ki* ‘before, first’ 421
- **namu* ‘taste’, ‘odour, flavour’;
**namu-aʔa* ‘have a strong smell or
flavour’ 511
- **nimo* ‘vanish, forget’ 558
- **[ni]nimo* ‘vertigo’ 359
- **nofo* ‘sit, dwell’, **nofoq-i* ‘sit on, dwell
in’ 370
- **ŋā* ‘breathe, pant’ 296, 350
- **ŋali* ‘nibble, gnaw’ 234

- **ɣalo* ‘out of sight, disappeared, forgotten, lost’ 558
- **ɣuɣu* ‘rheumatism, arthritis’ 350
- **ɣutu* ‘mouth, beak’ 126
- **ofo* ‘be startled, surprised; wake up’ 316, 592
- **ola* ‘be alive, well, healthy; recover from illness’ 212
- **paka-* ‘lower part of trunk’ 155
- **papa-a-tuqa* ‘small/flat of back’ 142
- **paqao* ‘seize, take by force, rob’ 467
- **patu* ‘callus, lump, tumour’ 107
- **[pia]pia* ‘sticky secretion’ 201
- **poa* ‘fish odour’ 508
- **pono* ‘true, correct’ 554
- **poto* ‘wise, clever’ 583
- **pula* ‘foreign body in eye’ 356
- **puɲa* ‘swelling, abscess’ 355
- **pus-i* ‘blow air from the mouth’ 298
- **qafi*, **qafis-i* ‘hold or carry under the arm’ 442
- **qafin-i* ‘hold or carry under the arm’ 442
- **qai*, **qait-i* ‘copulate’ 217
- **qalo* ‘belly, bowels; front, soft side of a thing’ 187
- **qanu[si]* ‘to spit’ 280
- **qara* ‘wake up, (be) awake’ 316
- **qarof-i-waqe* ‘sole of foot’ 179
- **qarofa* ‘love, pity, compassion’ 587
- **qata* ‘spirit, soul, shadow, reflection’ 205
- **qata-mai* ‘intelligent, expert, clever’ 540
- **qate qi waqe* ‘calf muscles of lower leg’ 171
- **qate-loa* ‘spleen’ 192
- **qate-pili* ‘spleen’ 192
- **qilo* ‘perceive, be aware of’ 498
- **qilo-a* ‘to know, be aware’, ‘know s.t.’ 498
- **qilo-qilo* ‘be wise, aware’ 498
- **qulu* ‘head, hair of head’ 101
- **quto* ‘brain, pith of a tree, spongy mass in sprouting coconut’ 110
- **samu* ‘eat one food only’ 232
- **samu* ‘eat scraps’ 240
- **sela* ‘asthma, gasp for breath’ 351
- **siku* ‘extremity, end; tail’ 176
- **silā* ‘glance, look sideways’ 498
- **sina* ‘white or grey hair’, **sinā* ‘be white- or grey-haired’ 94
- **sola* ‘flee, escape danger’ 212
- **soɲi* ‘smell s.t., sniff s.t., greet s.o. by pressing nose to face or limb and sniffing’ 504
- **soɲo* ‘smell of urine’ 509
- **suqi* ‘dilute, mix with liquid’ 455
- **taka-lili* ‘tremble, shiver’ 324
- **takoto* ‘lie down’ 379
- **tale* ‘cough’ 303
- **tama-qiti* ‘child’ 64
- **tama-riki* ‘children’ 65
- **tane* ‘skin disease, tinea’ 348
- **taɲata* ‘man(kind); person’ 45
- **ta-qalo*, **ta-qalof-i-* ‘beckon, signal with the hand’ 463
- **taqane* ‘male’ 53
- **taqe-tuli* ‘earwax’ 198, 357
- **tau-* ‘person who ..., person from ...’ 40
- **teki* ‘hop’ 398
- **tete* ‘shiver, tremble’ 326
- **tike* ‘squat’, *tike-tike* ‘keep squatting’ 380
- **tino* ‘body, trunk of tree, hull of canoe’ 79
- **tiro* ‘look, observe’, **tirof-i* ‘gaze at s.t.’ 495
- **tise* ‘sneeze’ 307
- **toka* ‘sit, settle, coagulate, run aground’ 373
- **toko-mahuru* ‘hiccup’ 275
- **tole* ‘female genitals’ 159
- **tonu* ‘straight, correct’ 551
- **tuli* ‘deaf; earwax’ 198, 356
- **tupu* ‘grow’ 223
- **tupuqa* ‘supernatural being, demon’ 80

**tuqa* ‘back’ 86

**uku* ‘dive, submerge’, **ukuf-i-* ‘dive for
s.t.’ 478

**ule* ‘penis’ 156

**uso* ‘pith, core; umbilical cord’ 188

**wale* ‘mad, ignorant, unskilled’ 582

**waqe* ‘leg, foot’ 168

Proto Nuclear Polynesian (PNPn)

**fe-qiti* ‘copulate’ 217

**feka-feka* ‘entrails of fish’ 292

**iwi* ‘bone’ 89

**poŋa qi isu* ‘nostril’ 125

**tama-mea-mea* ‘newborn child’ 62

Proto Central/Eastern Polynesian

**papa-ariŋa* ‘cheek’ 117

Proto Eastern Polynesian (PEPn)

**maoli* ‘true, genuine; native, indigenous’

Alphabetical index of reconstructions

In alphabetising reconstructions, an upper-case character follows the corresponding lower-case character (thus *R* follows *r*), *γ* follows *g*, *ñ* follows *n*, *ŋ* follows *ñ*, *ð* follows *S*, the digraph *dr* follows *d*, a superscripted character is treated like the corresponding unsuperscripted character, and macrons, parentheses and brackets are ignored. Because reconstructions that contain brackets represent two or more alternative reconstructions (for bracketing conventions see Table 13), where the alternatives would appear at different points in the index, they are spelt out as alternative reconstructions and appear at the appropriate point in alphabetical order. Thus POc *[bi]biRi-* ‘lips’ occurs at two points in the index, as *biRi-* and as *bibiRi-*, and POc **bwa(l,R)usu-* ‘nose’ as **bwalusu-* and as **bwaRusu-*.

Reconstructed PSV nouns consisting of **n(V)-* or **i-* ‘article’ + root and verbs consisting of **a-* or *e-* + root are alphabetised by the root.

<i>*abe-</i> , PEOc, ‘body’ 81	<i>*[alo]alo</i> , <i>*alo[f]-i</i> , PMic, ‘wave, beckon’ 463
<i>*abe-</i> , PNCV, ‘body incl. spiritual and other less tangible aspects’ 81	<i>*ambit</i> , PMP, ‘seize with the hands’ 467
<i>*abe</i> , PSES, ‘body, bulk’ 81	<i>*amo(amo)</i> , PPn, ‘stroke, rub gently’ 362
<i>*acaŋ</i> , <i>*aca-</i> , POc, ‘name’ 206	<i>*amosi</i> , PROc, ‘massage, stroke’ 363
<i>*afara</i> , PMic, ‘shoulder’ 439	<i>*anak meRaq</i> , PCEMP, ‘newborn baby’ 61
<i>*afi</i> , <i>afis-i-</i> , PMic, ‘carry on the hip or under the arm’ 441	<i>*aŋa</i> , PPn, ‘habit, custom, way of acting’ 575
<i>*ajan</i> , PMP, ‘name’ 206	<i>*aŋap</i> , POc, ‘gape’ 298
<i>*ajem</i> , PAn, ‘heart, mind’ 546	<i>*apic</i> , POc, ‘twins of the same sex’ 73
<i>*ajom</i> , <i>*ajom-akin-i-</i> , POc, ‘think, understand’ 546	<i>*apu</i> (?), POc, ‘fall’ 403
<i>*ako</i> , PPn, ‘acquire mentally, learn, teach’ 566	<i>*ara</i> , PROc, ‘haul, drag’ 445
<i>*akop</i> , POc, ‘learn’ 565	<i>*are</i> , <i>arek-i</i> , PMic, ‘haul, pull, tow’ 445
<i>*aku</i> , POc, ‘go, go away’ 386	<i>*aropu</i> , POc, ‘run’ 396
<i>*ala</i> , PMic, ‘take, get’ 426	<i>*ase</i> , POc, ‘breathe’ 28, 295
<i>*ala(q)</i> , POc, ‘take, get’ 426	<i>*asiŋe(k)</i> , POc (?), ‘sneeze’ 305
<i>*alap</i> , <i>*alap-i-</i> , POc, ‘get, take’ 426	<i>*asio</i> , POc, ‘sneeze’ 28, 306 ?
<i>*alap</i> , PAn, ‘fetch, get, take’ 426	<i>*asipeŋ</i> , POc (?), ‘sneeze’ 305
<i>*alaq</i> , PMP, ‘fetch, get, take’ 426	<i>*aso</i> , POc, ‘put’ 450
<i>*(ali)ali</i> , POc, ‘move from one location to another’ 392	<i>*asok</i> , POc, ‘to sniff, kiss’, <i>*asok-i-</i> ‘sniff or kiss s.t.’ 505
<i>*aliq</i> , PMP, ‘move, change’ 392	<i>*ata</i> , <i>*ata-i-</i> , PMic, ‘know, understand’ 539
	<i>*ata-mama(q)</i> , <i>i-</i> , PSV, ‘person’ 47

- *ata-mama(q)*, *n-*, PSV, 'person' 47
**ata-mimi(q)*, *i-*, PSV, 'person' 47
**ata-mimi(q)*, *n-*, PSV, 'person' 47
**atam^waqane*, *i-*, PSV, 'man, male' 53
**atam^waqane*, *n-*, PSV, 'man, male' 53
**atavine*, *i-*, PSV, 'woman, female' 56
**atavine*, *n-*, PSV, 'woman, female' 56
**awa*, PPn, 'channel, passage through reef' 129
**ayu[t,d]*, PMP, 'copulate, have sexual intercourse' 216
**baba*, PAn, 'carry a person pick-a-back; ride pick-a-back' 437
**baba*, PNCV, 'carry child; bear child' 437
**baba[R,l]i-*, POc, 'cheek' 116
**ba-b<in>ahi*, PMP, 'woman, female' 54
**(bahaq)bahaq*, PMP, 'mouth, opening' 128
**bahu*, PMP, 'smell bad' 507
**bahu-an*, PMP, 'odour, stench' 507
**bai(t)*, PCEMP, 'do, make' 458
**balase*, PNCV, 'jawbone' 117
**bani-*, PNCV, 'wing, armlet; (?) arm, hand' 162
**banic*, POc, 'wing, fin (probably pectoral); arm, hand' 162
**bañaw*, PAn, 'wash the body' 483
**bañaw*, PMP, 'wash the hands' 483
**baɲuL*, PAn, 'wake up, get out of bed' 314
**baɲun*, PMP, 'wake (s.o.) up, rouse (s.o.) from sleep' 314
**baqeRuh*, PAn, 'new; bachelor' 65
**baRa*, PAn, 'shoulder' 439
**baRa*, PMP, 'hand, arm' 161
**baRaqa*, PAn, 'lung' 182
**baReq*, PAn, 'abscess, boil, swelling on the body' 339
**baReqaɲ*, PMP, 'molar tooth' 21, 133
**bataɲ*, PMP, 'tree trunk, fallen tree, log; stem of a plant; body; corpse' 79
**bati-*, PSOc, 'tusk, upper canine tooth' 134
**bati*, POc, 'canine tooth, tusk' 134
**batuk*, PMP, 'outer shell, skull' 104, 107
**bava*, PNCV, 'carry child; bear child' 437
**baw-an,*, POc, 'odour, scent' 508
**belbel*, PMP, 'hydropoesia, bodily swelling caused by water retention' 355
**belen*, PCEMP, 'swallow' 258
**bener*, PMP, 'true, righteous, honest' 554
**beni*, *a-*, PSV, 'emit an odour' 506
**beɲel*, PCEMP, 'mute, unable to speak' 357
**beɲel*, PMP, 'deaf' 357
**betu*, PMP, 'appear, come into view' 417
**bibiR*, PMP, 'lip; labia of the vulva; eyelid' 127
**bibiRi-*, POc, 'lips' 127
**bieni*, *a-*, PSV, 'emit an odour' 506
**bila-*, POc, 'spleen' 192
**bilat*, PMP, 'open the eyes' 316
**bilat*, PMP, 'scar' 91
**bilat*, POc, 'open the eyes' 316
**bileR*, PMP, 'cataract of the eye' 355
**b<in>ahi*, PAn, 'woman, female' 54
**b<in>ahi*, PMP, 'woman, female' 54
**b<in>isi*, PNCV, 'know' 542
**biRa*, POc, 'roe, fish eggs'; 'sediment, dregs'; 'smegma' 201
**biRas*, **biRaq*, PMP, 'semen, smegma' 201
**biRbiR*, PAn, 'lip' 127
**biRi-*, POc, 'lips' 127
**biriɲ*, PCEMP, 'stone, throw a stone at' 453
**bisi*, PNCV, 'know' 542
***biso-*, PWOC, 'navel, umbilical cord' 154
**bisu(l)*, POc, 'sore on skin' 340
**bisul*, PMP, 'boil, abscess' 340

- **bitil*, PMP, ‘famine; hunger’ 253
- **bo-an*, POc, ‘odour, scent’ 508
- **bō*, PCP, ‘squeeze, rub firmly, massage in this way’ 363
- **bo*, POc, ‘have an odour, be smelly’ 507
- **bo[-]*, PNCV, ‘odour, scent’; *b[o,u] ‘have an odour, be smelly’ 508
- **bo[-]*, POc, ‘odour, scent’ 507
- **boa*, PNCV, ‘odour, scent’ 508
- **boe-*, POc, ‘odour, scent’ 507
- **bole*, POc, ‘to dream’ 314
- **bona(s)*, POc, ‘to smell, stink’; **bonas-i-* either ‘smell (s.t.)’ or ‘(s.t.) smell of (s.t.)’ 505
- **bono(r)*, POc, ‘true, correct’ 554
- **boŋol*, POc, ‘deaf mute’ 357
- **bore (N,V)*, PNCV, ‘dream’ 314
- **boRe*, POc, ‘to dream’ 314
- **boto-*, POc, ‘buttocks’ 155
- **boto[-]*, POc, probably ‘swelling’ 341
- **boto-*, POc, ‘buttocks’ 155
- **bu[-]*, PNCV, ‘odour, scent’; *b[o,u] ‘have an odour, be smelly’ 508
- **buaq*, PMP, ‘fruit; areca nut and palm; heart’ 181
- **buaq*, POc, ‘areca nut and palm; heart’ 181
- **buhat*, PMP, ‘lift, stand up, arise, emerge, begin, depart, carry; cargo; take something; take a wife’ 434
- **buku*, PCP, ‘female genitals’ 159
- **buku*, PMP, ‘node, knot, joint’ 175
- **buku*, POc, ‘mound, knob, joint’ 159, 175, 340
- **bulaR*, PAn, ‘cataract of the eye’ 356
- **buliŋ*, POc, ‘roll’ 398
- **bulo*, POc, ‘turn round, turn back’, *bulos-i-* ‘turn round, turn back’ 414
- **bulu ni mata*, PMP, ‘eyelash’ 118
- **bulu-*, PMP, ‘body hair; fur; feather; down’ 96
- **bulu-bulu*, PMP, ‘hairy; hair-like growths; plants with hair-like growths’ 97
- **bulu*, PMP, ‘wash the hands’ 482
- **buluk-i*, PNCV, ‘fold, bend’ 399
- **buLi*, PAn, ‘hide, conceal’ 485, 487
- **buni*, PMP, ‘hide, conceal’ 485, 487
- **buni*, POc, ‘hide oneself, be hidden’ 485
- **buqeni*, PAn, ‘ringworm, *Tinea imbricata*’ 21, 346
- **buqeni*, PMP, ‘ringworm, *Tinea imbricata*’ 21, 346
- **buri (w,q)aqe*, POc, ‘heel’ 172
- **buru*, POc, ‘buttocks’ 156
- **buRah*, PMP, ‘spray water from the mouth; spray a mixture of saliva and masticated medicinal herbs on an ailing body’ 361
- **buReS*, PAn, ‘spray water from the mouth’ 361
- **buRiq*, PMP, ‘wash, as the hands’ 482
- **busa(q)*, PWOC, ‘heart’ 182
- **buteliR*, PMP, ‘wart, cyst, non-purulent skin eruption’ 21, 344
- **butoji-*, *na-*, PSV, ‘navel’ 153
- **butu(R)*, POc, ‘stamp foot, tread, kick’, **butuR-i-* ‘stamp on, tread on, trample’ 474
- **b^wa(l,R)usu-*, PSES, ‘nose’ 124
- **b^wab^waŋ*, POc, ‘a fool; foolish, stupid, insane’ 582
- **b^wae-*, POc, ‘armpit’ 144
- **b^waju(r,R)(i,u)*, PNGOC, ‘urinate’ 290
- **b^waka*, PWOC, ‘bald’ 95
- **b^wal(o,a)-*, POc, ‘stomach; hollow space’; ‘inside’ 185
- **b^walusu-*, POc, ‘nose’ 124
- **b^waŋ*, POc, ‘a fool; foolish, stupid, insane’ 582
- **b^waŋoR*, POc, ‘snot’ 199
- **b^wapu*, POc, ‘ignorant, stupid’ 582
- **b^waRusu-*, POc, ‘nose’ 124

- *b^watu kayua*, PNCV, ‘wilful, stubborn’ 580
**b^watu-*, PNCV, ‘head’, **b^watu* ‘club’ 106
**b^watu(k)*, POc, ‘head; top (of s.t.)’ 104, 106–107
**b^wau-*, PSOc, ‘head’ 108
**b^wau-*, PSOc, ‘knee, joint’ 174
**b^wau*, POc, ‘ignorant, stupid’ 582
**b^wege*, POc, ‘twins’ 72
**b^weka*, PWOC, ‘bald’ 95
**b^wili*, PSOc, ‘close eyes’ 317
**b^wilu*, PSOc, ‘close eyes’ 317
**b^wisi-*, POc, ‘buttocks, anus; to fart’ 155, 277
**b^wisi*, PEOc, ‘spurt out, fart’ 276
**b^wisi*, PNCV, ‘buttocks, anus; to fart’ 155, 277
***b^wiso-*, PWOC, ‘navel, umbilical cord’ 154
**b^wito-*, POc, ‘navel, umbilical cord’ 152
**b^wole*, POc, ‘to dream’ 314
**b^wore*, POc, ‘to dream’ 314
**b^woto-*, POc, ‘buttocks’ 155
**b^woto-*, PSOc, ‘buttocks, bottom’ 155
**cam^w(a,i)t-i*, PMic, ‘lick’ 268
**cece*, PMic, ‘shake, tremble’ 326
**cekep*, PMP, ‘seize, grasp’ 468
**cici*, PMic, ‘tremble’ 325
**cucu*, PMic, ‘tremble, shake’ 327
**cupcup*, PMP, ‘sip, suck’ 250
**curia, a-*, PSV, ‘carry on pole or shoulder’ 440
**Caliŋa*, PAn, ‘ear; k.o. tree fungus’ 122
**Caŋis*, PAn, ‘to cry’ 320
**Caqu*, PAn, ‘know how, be able to, be skilled at’ 540
**Cau*, PAn, ‘person’ 38, 40
**CeRab*, PAn, ‘belch’ 276
**Cinaqi*, PAn, ‘guts’ 187
**CuqaS*, PAn, ‘mature, elder’ 68
**CuqelaL*, PAn, ‘bone’ 85
**da(q,V), nə-*, PSV, ‘blood’ 83
**dada*, PCEMP, ‘pull, haul, drag’ 433
**dahun*, PMP, ‘leaf’ 93
**dalem*, PMP, ‘inside, interior; seat of emotions’ 523
**dalego-*, PNCV, ‘neck, throat; voice’ 140
**daləm*, PCEMP, ‘inside; mind, feelings’ 523
**daLum*, PAn, ‘water, potable, drinking, fresh’ 196
**dam^wa*, **dam^war-i-*, PNGOC, ‘lick’ 269
**dam^we*, POc, ‘lick, taste’ 268
**dam^wi(s)*, **dam^wis-i-*, POc, ‘lick, taste’ 268
**dam^wis-i*, PNCV, ‘lick, taste’ 269
**dape or *dapi*, POc, ‘snot, nasal mucus’ 199
**daqey*, PAn, ‘forehead’ 108
**daRaC*, POc, ‘crawl along the ground’ 397
**daRaq*, PAn, ‘blood’ 83
**daRi*, POc, ‘rub, smear, anoint’ 363
**daun*, PCEMP, ‘leaf, head hair’ 94
**dawe*, PNGOC, ‘wave the hand’ 464
**demdem*, PAn, ‘brood, hold a grudge, remember, keep still’ 545
**diRi*, PAn, ‘stand’ 29, 377
**diRus*, PAn, ‘bathe’ 476
**diRus*, PMP, ‘bathe’ 476
**do-domi*, Proto Torres-Banks, ‘think, worry’ 545
**dodomi*, PNCV, ‘think about, love’ 545
**dolo*, PCP, ‘crawl (along the ground)’ 397
**dumu-si*, PNCV, ‘suck, sip, taste’ 249
**dumu(s)*, **dumus-i-*, POc, ‘suck on, suck up (liquid)’ 249
**duqu*, POc, ‘true, able to be believed’ 550
**dradra*, POc, ‘pull’ 433
**dramu*, **dram^w-i-*, PEOc (?), ‘chew’ 235, 241
**dram^wa-*, POc, ‘forehead’ 109

- *dram^{wa}*, **dram^{war-i}*, PNGOc, ‘lick’ 269
**dram^{we}*, POc, ‘lick, taste’ 268
**dram^{wi(s)}*, **dram^{wis-i}*, POc, ‘lick, taste’ 268
**dranum*, POc, ‘fresh water’ 196
**drape*, POc, ‘snot, nasal mucus’ 199
**drapi*, POc, ‘snot, nasal mucus’ 199
**draRa(q)*, POc, ‘blood’ 83
**draRaC*, POc, ‘crawl along the ground’ 397
**draRi*, POc, ‘rub, smear, anoint’ 363
**dredre*, POc, ‘tremble, shake’ 326
**drere*, POc, ‘tremble, shake’ 326
**dridri*, POc (?), ‘tremble’ 325
**drodrom*, POc, ‘think, worry; love, be sorry for, long for’ 545
**drom-i*, POc, ‘think, worry; love, be sorry for, long for’ 545
**drudru*, PROc, ‘shake, tremble’ 327
**emuR*, PMP, ‘hold in the mouth’ 271
**eṇap*, PMP, ‘gasp for breath’ 295, 351
**eṇgem (?)*, PMP, ‘hold in the mouth’ 270
**fā*, PMic, ‘apply the sole of the foot’,
**fās-i* ‘apply the sole of the foot to s.t.’ 473
**fafaja*, PPn, ‘feed (animal)’ 230
**fafaju*, PPn, ‘awaken s.o.’ 315
**fai*, PPn, ‘copulate’ 218
**fai*, PPn, ‘do, make’ 459
**faka-qilo-a*, PPn, ‘make s.t. known’ 498
**faka-qilo-ṇa*, PPn, ‘mark, sign, signal’ 499
**faka-qiloqilo*, PPn, ‘make s.o. wise’ 498
**falala*, PPn, ‘lean, stoop, slant’ 384
**fanau*, PPn, ‘give birth; be born’; **fānau* ‘offspring’ 219
**fanua*, PPn, ‘placenta’ 195
**fāṇa-i*, PPn, ‘feed, provide food for’ 230
**faṇo*, PPn, ‘blow or speak through nose’ 304
**faṇos-i*, PMic, ‘blow one’s nose’ 304
**faṇu-ni*, PMic, ‘awakened, awaken’ 315
**faṇus-i*, PMic, ‘blow one’s nose’ 304
**far[a,e]-*, PMic, ‘lungs’ 182
**faro, farok-i*, PMic, ‘hold tightly’ 467
**fasa*, PPn, ‘mad, crazy’ 360
**fasu*, PMic, ‘eyebrow’ 120
**faSale*, PMic, ‘walk, move around’ 395
**faSo, *faSok-i*, PMic, ‘plant; planted; a planted thing’ 461
**fata-fata*, PPn, ‘chest’ 145
**fata, fata-ṇa*, PMic, ‘tree trunk’ 79
**fatuku*, Proto Central Micronesian, ‘head’ 104
**fe-qiti*, PNPn, ‘copulate’ 217
**feka-feka*, PNPn, ‘entrails of fish’ 292
**feṇu*, PPn, ‘blow nose, snort’ 304
**fia inu*, PPn, ‘thirsty’ 256
**fia kai*, PPn, ‘hungry’ 254
**fili*, PMic, ‘choose’ 562
**fine*, PPn, ‘woman’ 54
**fītaqa*, PPn, ‘be tired, fatigued’ 312
**fō*, PPn, ‘rub, as in washing clothes, extracting starch from arrowroot’ 363
**fofō*, PPn, ‘massaging’ 363
**folo, *folom-i*, PPn, ‘swallow, ingest’ 258
**fou*, PMic, ‘feel cold’ 331
**fuli*, PPn, ‘turn round or over’ 399
**fuqi*, PPn, ‘wash feet or hands, pour water over, soak’ 483
**gabase-, *gabesi-, *gabise-*, POc, ‘chin, jawbone’ 136
**gaCel*, PAn, ‘itch, feel itchy’ 343
**garat-a*, Proto Malaita-Makira, ‘ringworm’ 347
**[garo]garo-*, PSES, ‘one side of rib cage’ 146
**gatel*, PMP, ‘itch’ 343
**geju-*, PNGOc, ‘back of head, base of skull, occiput, nape’ 113
**gemgem*, PAn, ‘fist; hold in the fist’ 469
**gidik,*, PMP, ‘tickle’ 471

- *giju-*, PNGOc, 'back of head, base of skull, occiput, nape' 113
**gila*, PMP, 'wild; insane' 581
**gili(k)*, **gilik-i-*, POc (?), 'tickle' 471
**giri*, PMP, 'tickle' 471
**gogo(m)*, **gom-i*, POc, 'hold in the fist' 469
**gomu*, POc, 'keep s.t. in the mouth' 270
**goso*, POc, 'wash s.o./s.t.' 484
**gumu*, POc, 'gargle, rinse mouth' 272
**gum^w-i*, *a-*, PSV, 'put or hold in mouth, suck' 271
**gutgut*, PMP, 'front teeth, incisors; gnaw, bite or tear off with the incisors' 267
**g^wag^wa*, POc, 'drink by pouring down the throat' 245
**g^way^wa*, POc, 'drink by pouring down the throat' 245
**yai*, Proto Malaita-Makira, 'person, person belonging to ...' 49
**yaram*, Proto Markham, 'man' 53
**hajek*, PMP, 'smell, sniff, kiss' 505
**hanu-*, Proto Willaumez, 'soul, shadow, reflection' 204
**hesi*, PMP, 'flesh, meat' 82
**h<in>ipi*, PMP, 'a dream; was dreamt by' 29, 313
**hiRup*, PMP, 'sip, as soup or rice wine from a bowl' 246
**hisep*, PAn, 'suck, inhale' 274
**h<um>ipi*, PMP, 'to dream' 28, 313
**hunus*, PMP, 'withdraw, pull out, extract' 452
**huRaC*, PAn, 'artery, blood vessel, blood vein; muscle; nerve; sinew; tendon' 98
**hutek*, PMP, 'brain, marrow' 110
**ibut*, PMP, 'breeze, draught of wind' 297
**ic-i*, *a-*, PSV, 'copulate' 217
**icanj*, **ica-*, POc, 'name' 207
**icuŋ*, POc, 'nose' 123
**ijunj*, PMP, 'nose' 123
**iliŋ*, PMP, 'pour' 454
**inum*, **inum-i-*, POc, 'drink' 28, 242
**inum*, PMP, 'drink' 242
**ip(i)-ipi*, POc, 'kidney' 193
**ipu-*, POc, 'head hair, feather' 92
**ipu*, POc, '(wind, person) blow' 297
**iri-iri*, *a-*, PSV, 'fan' 465
**iri*, PNCV, 'fan' 465
**irid*, PMP, 'fan' 465
**irip*, **irip-i-*, POc, 'fan' 465
**irip*, **irip-i*, PMic, 'fan' 465
**iriv-i-*, PNCV, 'fan'; **iriv-irivi* 'fan' 465
**iropu*, POc, 'run' 396
**iRup*, **iRup-i-*, POc, 'sip (as soup), slurp' 246
**isaŋ*, **isa-*, POc, 'name' 207
**isaw*, PMP, 'intestines' 188
**iso-*, POc, 'innards, guts' 188
**iso*, PPn, 'pith, core; umbilical cord' 188
**isop*, POc, 'suck up, inhale' 274
**isu-peqe*, PPn, 'nasal mucus' 200
**iwi*, PNPn, 'bone' 89
**jamu*, **jam^w-i-*, POc, 'chew (betelnut)' 235, 239
**jamu*, PCP, 'eat scraps of food' 239
**jamu*, POc, 'person without spouse' 71
**japula*, POc, 'wash one's hands, clean s.o.' 484
**jiji*, POc, 'meat, fat, grease' 82
**jika*, POc, 'be soiled, weakened' 599
**jiki*, PWOC, 'be in pain, be sore' 336
**jila*, **ji-jila*, PCP, 'look sideways' 497
**jilak*, POc, 'be cross-eyed; glance around' 356, 497
**jiqui*, PWOC, 'be in pain, be sore' 336
**jiwaR*, **jiwaR-i-*, PWOC, 'pour out (liquid)' 455
**jona*, PCP, 'yaws; octopus sucker' 349
**jonas*, POc, 'move quickly' 396
**juju(n)*, POc, 'push' 432
**jumu*, **jum-i-*, POc, 'suck, kiss, make kissing sound' 274

- *juni-*, POc, ‘push’ 432
**kabase-*, **kabesi-*, **kabise-*, POc, ‘chin, jawbone’ 136
**ka-kai*, PPn, ‘people of one place or kind’ 50
**ka-kau*, PPn, ‘swim’ 405
**ka-kawa*, PPn, ‘sweat, be sweaty’ 286
**ka-supat-i*, POc, ‘to spit [on], spittle’ 282
**ka-wanaL*, PAn, ‘be to the right’ 165
**ka-wiRi*, PAn, ‘be on the left’ 164
**ka-wiRi*, PMP, ‘be on the left’ 164
**ka*, POc, ‘person belonging to a category’ 49
**ka*, PWOC, ‘person belonging to a category’ 49
**ka(i)*, POc, ‘person belonging to a category’ 49
**ka(ss)i[sS]ifa*, PMic, ‘spit, spittle’ 282
**ka(w)o*, Proto Central Micronesian, ‘newly born, infant’ 63
**kaba-*, POc, ‘wing; (?) arm, hand’ 162
**kadro-*, POc, ‘neck (?)’ 140
**kaen*, PMP, ‘eat’ 227
**kai* or **k^wai*, Proto Fijian, ‘person of a place or category specified by the modifier’ 50
**kai-masi*, PNCV, ‘sorcerer’ 49
**kai*, PEOc, ‘person’ 49
**kai*, PPn, ‘person of one place or kind’ 50
**kai*, PPn, ‘war; food’ 227
**kai*, PWOC, ‘person belonging to a category’ 49
**kaila*, PEOc, ‘strong, firm’ 572
**kaila*, PMic, ‘strong’ 572
**kamay*, PAn, ‘hand’ 163
**kame-*, POc, ‘hand’ 163
**kamisu*, POc, ‘spittle, to spit’ 28, 280
**kamo*, *kamo-t-ia*, PPn, ‘beckon; make sign with hand or eye’ 464
**kamu*, POc, ‘eat’ 232
**kani[-]*, POc, ‘eat (s.t. starchy), eat (in general)’ 29, 227
**kanisu*, PEMP, ‘to spit’ 280
**kanisu*, POc, ‘spittle’, ‘spit’ 280
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**kanusi*, POc, ‘spittle’, ‘spit’ 280
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**siri(t)*, POC, 'sniff, blow nose' 303
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**siu-siu*, POC, 'wash oneself', **siuw-i-* 'wash s.o.' 475
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- **sonom*, **sonom-i-*, POC, ‘swallow’ (cf. 264
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 **sojo*, PNNG, ‘chew betel’ 264
 **sojo*, POC, ‘[be] acrid, pungent, as smell of urine’ 509
 **sojo*, PPn, ‘smell of urine’ 509
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 **sosop*, POC, ‘put lips to, kiss, suck, absorb (moisture)’ 247
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 **suku*, POC, ‘elbow, knee, angle’ 175
 **sulu-i-*, POC, ‘wash s.o.’ 479
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 **supa(q)*, PMP, ‘to spit, spittle, saliva’ 282
 **supsup*, PAn, ‘sip, suck’ 250
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 **suqi*, PPn, ‘dilute, mix with liquid’ 455
 **suquL*, PAn, ‘carry on the head’ 435
 **suqun*, **suqun-i-*, POC, ‘carry on the head’ 435
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 **susu*, PAn, ‘breast’ 148
 **susu*, PMP, ‘suck (at the breast)’ 250
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 **susup*, **susup-i-*, POC, ‘suck (the breast)’ 250, 251
 **Sabij*, PAn, ‘twins of the same sex’ 73
 **Sajek*, PAn, ‘smell’; ‘to smell (s.t.)’ 505
 **Saŋa*, PMic, ‘move quickly’ 396
 **Sesi*, PAn, ‘flesh, meat’ 82
 **SiRup*, PAn, ‘sip, as soup or rice wine from a bowl’ 246
 **Suab*, PAn, ‘yawn, yawning’ 300
 **SuLus*, PAn, ‘withdraw, pull out, extract’ 452
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 **takuRu-*, POC, ‘back’ 141
 **tale*, PPn, ‘cough’ 303
 **ta-lili*, POC, ‘(be) dizzy’ 358

- *taliņa*-, POC, 'ear'; **taliņa* 'generic term for mushrooms and fleshy fungi' 122
**taliņa*, PMP, 'ear; k.o. tree fungus' 122
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**ta-mapine*, PNNG, 'woman, female' 57
**tama-qiti*, PPn, 'child' 64
**ta-maquri*, PROc, 'living person' 47
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**tama-riki*, PPn, 'children' 65
**tambuni*, PMP, 'afterbirth, placenta' 195
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**tamiq*, PMP, 'taste, try' 511
**tamis*, PMP, 'taste, try' 511
**tam^wataq*, POC, 'human being, especially in ordinary living form' 44
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**tani*, PROc, 'disease characterised by pale patches on skin' 348
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**tajis*, PMP, 'to cry' 320
**tajis*, POC, 'cry, lament; (of animals) make sound; (of musical instruments) sound', **tanis-i*- 'to cry for s.t.', **tanis-aki[ni]*- 'cry because of s.t.' 320
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**tau*, PMic, 'person' 39
**tau*, POC, 'person in any form, including ghosts and supernatural person-like beings' 38
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**teli*, PMP, 'female genitalia' 159
**tepeŋ*, PMP, 'try, test, experiment' 512
**teRab*, PMP, 'belch' 276
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**təpu*-, *na*-, PSV, 'stomach, belly' 184
**tia*-, PMic, 'stomach, belly, abdomen' 150
**tia*-, PNCV, 'belly' 150
**tia*-, POC, 'belly' 150

- *tiaL*, PAn, ‘belly’ 149
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**tinaqe*, POc, ‘intestines’ 187
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**tinoni*, PEMP, ‘man, male’ 48
**tinoni*, POc, ‘person, people’ 48
**tiji*, PMic, ‘fart’ 278
**tip^wu*, PMic, ‘be born, bear young’ 223
**tiqel-i*, PNCV, ‘touch, reach’ 515
**tiro*, PPn, ‘look, observe’, **tirof-i* ‘gaze at s.t.’ 495
**tirop,*, POc, ‘look intently, as at reflection or searching for lice’; **tirop-i* ‘look at s.t., look for s.t. intently’ 495
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**tise*, PPn, ‘sneeze’ 307
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**tob^wa*, PNCV, ‘stomach, belly’ 184
**tob^wan*, POc, ‘old woman (?)’, old person’ 70
**toy*, a-, PSV, ‘sit, stay, live at, be at’ 373
**toka*, **toko*, PNCV, ‘sit, stay, be in a place’ 372
**toka*, PCP, ‘sit, squat, live, stay, settle, coagulate’ 373
**toka*, POc, ‘come to rest, settle’ 372
**toka*, PPn, ‘sit, settle, coagulate, run aground’ 373
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**tole*, PPn, ‘female genitals’ 159
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**tubuq-a(ŋ)*, POc, ‘body, substance’ 80
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**tubuq*, POc, ‘grow, swell’ 223, 354
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- *tuhud*, PMP, ‘knee’ 169, 170
**tuku-*, PWOC, ‘knee, elbow’ 170
**tuku*, POC, ‘(person) hang by the arms, dangle’ 382
**tuli*, PMP, ‘earwax’ 356
**tuli*, POC, ‘deaf, earwax’ 356
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**t_{um}uruŋ*, POC (?), ‘kneel’ 28, 380
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**tup^wu*, PMic, ‘be born, bear young’ 223
**tuqa*, PPn, ‘back’ 86
**tuqan*, **tuqa-*, POC, ‘bone’ 21, 85
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**tuqu*, POC, ‘true, able to be believed’ 550
**tuqu*, PCP, ‘stand, be somewhere’, tuqur-a ‘stand on/near s.t.’, tuqur-aki- ‘stand up with’ 375
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**tuqur*, POC, ‘stand’ 374
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**turuŋ*, POC, ‘kneel’ 380
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**tutuna*, POC, ‘true, able to be believed, correct’ 550
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**tuzuq*, PMP, ‘point at, point out, give directions’ 178
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**ua*, PMic, ‘tendon, vein’ 99
**ua*, POC, ‘go towards addressee’ 386
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**udu*, **udu-an*, PWOC, ‘be sorry for, pity, be merciful’ 588
**udu*, POC, ‘accompany, go with (s.o.)’ 419
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**uja*, PCP, ‘be loaded onto a canoe, be transported by canoe’ 444
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**ujumu*, **ujum-i-*, POC, ‘suck, kiss, make kissing sound’ 274
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**ule-*, PROc, ‘penis’ 156
**ule*, POC, ‘come back’ 409
**ule*, PPn, ‘penis’ 156
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**uliq*, PMP, ‘return home; return something; restore, repair; repeat; motion to and from’ 409–410
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**um-uliq*, PMP, ‘return home’ 410
**unu*, **unum-i*, PMic, ‘drink’ 244
**unus*, **unus-i-*, POC, ‘withdraw, pull out, extract’ 452
**upi*, PCEMP, ‘(wind, person) blow’ 297
**upi*, POC, ‘(wind, person) blow’ 297
**ur*, *na-*, PSV, ‘vein, artery, sinew’ 99

- **uRat*, PMP, 'artery, blood vessel, blood vein; muscle; nerve; sinew; tendon; fibre; vein of a leaf' 98
- **uRati*, PNCV, 'vein' 99
- **usawiri*, POc, 'imitate'; **pa[ka]*-usawiri 'teach, pass on' 565
- **uso*, PPn, 'pith, core; umbilical cord' 188
- **usuri*, POc, 'imitate'; **pa[ka]*-usuri 'teach, pass on' 565
- **utaq*, PAn, 'vomit' 28, 283
- **utu*, **utuni*, PSES, 'true' 554
- **utut*, POc, 'fart' 277
- **vai*, PNCV, 'make, do, be' 459
- **vaka-rojo*, PCP, 'listen, heed, obey' 501
- **van*, *a*-, PSV, 'go, walk' 389
- **van*, PSV, 'go' 389
- **vaRa*-, PEOc, 'lungs' 182
- **varas-i*, PNCV, 'step on, step over' 473
- **vasu*, PSOc, 'eyebrow' 120
- **va-susu*, PNCV, 'give birth, lay egg' 221
- **va-vajan-i*, PROc, 'feed (animal, person)' 230
- **veyas*, *a*-, PSV, 'defecate' 291
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- **via kani*, PCP, 'hungry' 254
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