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A Fragment of Papua New Guinea Philology

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1. INTRODUCTION

The purpose of this short paper is to make a little piece of the history of linguistics in Papua New Guinea better known.¹ Recently, in the course of research into the history of the Madang language family (a branch of the Trans New Guinea family), I came across a reference to an extinct language labelled ‘Bai-Maclay’ in Pawley & Hammarström’s (2018:63) listing of Madang languages. They make no further reference to it, so I decided to chase down the bibliographic reference, listed in the references below as Mikluxe-Maklaj (1951) but written in 1873. ‘Maklaj’ transliterates the Russian spelling of ‘Maclay’ (see section 2). The Bai² material is a wordlist of 64 items—not many data, so I decided to check out the reliability of Maclay’s data by comparing his Bongu thesaurus with more recently collected lexical materials and looking at what he himself wrote about language learning. The Bai wordlist is one of a number of wordlists published with a short article in which Maclay describes his experiences learning Bongu (/boŋu/: Hanke 1909:137).³ An English translation of the article and its Bongu thesaurus is appended to this paper.

Maclay (1846–1888) was a Russian polymath and explorer who spent September 1871 to December 1872 and June 1876 to November 1877 in the neighbourhood of Bongu village on Astrolabe Bay. He thus experienced life at Bongu before regular contact with European colonisers, which effectively began with the annexation of as *Kaiser-Wilhelmsland*, the northern half of what is today the Papua New Guinea mainland, as part of the protectorate of German New Guinea. Plenty has been written about Maclay’s work. His New Guinea diaries were translated into English by C. L. Sentinella (1975), who provides brief biographies for the periods before, between and after the diary extracts, and there is a fine and detailed biography (Webster 1984), so biographical information is restricted here to details relevant to Maclay’s language activities.

The article translated in the appendix to this paper was one of the first, perhaps *the* first, to be written about a language of the north coast of Papua New Guinea, and this alone made it worth translating. It has been published twice, first in 1882 in German as Miklucho-Maclay (1882), and then in 1951 in Russian, as a small part of Maclay’s six-volume collected works (re-published in 1991).

Circumstantial evidence suggests that the article was written in German. It is dated December 1873, when Maclay was a guest of the Dutch governor at Buitenzorg, today’s Bogor, a hill station in west Java inland from Batavia (= Jakarta). Here he took time to sort and write up the notes he had made during his first sojourn at Astrolabe Bay in 1871–1872. Webster (1984:117) describes Maclay’s procedure. She writes that

pain in the fingerjoints prevented his doing much writing himself. Nobody in Buitenzorg or Batavia could write the Russian language, or render French to his satisfaction. When he found an

¹ I am grateful to Andrew Pawley, Don Daniels and Harald Hammarström for commenting on an earlier draft of this paper, and to Simon Greenhill who helped me gain access to the Russian text referred to in the paper.

² Pawley & Hammarström use the label ‘Bai-Maclay’ to distinguish it from Dumun, also referred to as ‘Bai’ on the language map Z’graggen uses in all his Madang publications. Bai-Maclay is now included in the Glottolog (<https://glottolog.org/resource/languoid/id/baim1246>). It has no Ethnologue entry.

³ Don Daniels (pers. comm.) tells me that /boŋu/ is now the pronunciation used in Tok Pisin, even at Bongu, but not when people speak Bongu.

amanuensis who wrote German ‘almost without mistakes’, he worked through his notes, deciphering crabbed handwriting and obscure abbreviations and translating aloud as he went.

This brief account implies that the article was first written in German, and this is also supported by its appearance in German soon after as Miklucho-Maclay (1882). However, differences from the Russian version imply that the editors took various liberties, adding and subtracting bits and pieces and introducing inconsistencies into the wordlist. The portions omitted from the German version but present in the Russian appear in square brackets in the English translation. I have no direct information as to whether the Russian was translated from the German manuscript by the editors of the collected works or how it otherwise came into being. On the one hand, the title of the German version is followed by the words ‘mitgetheilt nach einem Manuscripte des Herrn N. von Miklucho-Maclay’ (‘communicated in accordance with a manuscript by Mr N. von Miklucho-Maclay’). This is not translated in the Russian version, but the article is signed at the end *N. fon Maklaj*, where *fon* transliterates German *von*, implying German provenance, as this was how Maclay signed in German, not in Russian. On the other hand, the presence of *l'* (*лб*) in Maclay’s data in the German version (§2) implies transliteration from Russian.

Table 1 Languages represented in Maclay’s additional materials

Language name (Z’graggen 1980)	Alternative language name	Maclay’s language names	Family	1873 list	Numerals	1877 list
Bongu	...	<i>Bongu</i>	Rai Coast	✓	✓	✓
Bom	Anjam, Bogadjim	<i>Bogati(m)</i>	Rai Coast	✓	✓	✓
Yangulam	...	<i>Ènglam-Mana^a</i>	Rai Coast	✓	✓	✓
Suroi	Siroi	<i>Maragum-Mana, Bibi</i>	Rai Coast	✓	✓	
Kolom	...	<i>Singor</i>	Rai Coast		✓	✓
Songum	Sam	<i>Tengum-Mana^a</i>	Rai Coast		✓	✓
Male	Soq	<i>Male, Buram</i>	Rai Coast		✓	✓
Erima	...	<i>Gorima</i>	Rai Coast			✓
Bai	...	<i>Bai</i>	Rai Coast			✓
Rempi	...	<i>Èrempi</i>	Mabuso		✓	✓
Biliau	Awad Bing	<i>Teljat</i>	Oceanic		✓	✓
Bilbil	...	<i>Bilibili</i>	Oceanic	✓		✓
Gedaged	Graged	<i>Mitebog</i>	Oceanic	✓	✓	
Siar	...	<i>Tiara</i>	Oceanic		✓	✓
Riwo	Ziwo	<i>Rio</i>	Oceanic		✓	✓
Takia	...	<i>Godagoda</i>	Oceanic			✓

^a*Mana* is the Bongu term for ‘mountain’, and indicates that these are upland villages.

The German and Russian versions agree in appending to the article a thesaurus of about 300 Bongu words; a list of men’s names found around Astrolabe Bay with a brief commentary on the meanings of some of them; a list of village names around Astrolabe Bay; and a comparative list of 62 lexical items and the numerals 1–20 from six languages, listed under ‘1873 list’ in Table 1.

At this point the German publication ends. The Russian version adds four further items that are not among the appendices to Maclay’s article. Whereas Maclay’s appendices are entirely in Cyrillic script, the data of the further items are in Roman. The editors of the collected works added them from unpublished materials in the archive of the All-Union Geographical Society (Loukotka 1953). They are as follows. (1) A tabulation of the numerals 1–7, 10 and 20 in twelve languages, listed under ‘Numerals’ in Table 1. (2) Two comparative tables entitled ‘List of words and speech patterns collected on the Maclay Coast, 1876-1877’, each with 76 items, for fourteen languages listed under ‘1877 list’ in Table 1. (3) A wordlist with 28 items

and numerals 1–10 entitled ‘Some words of a Rai dialect’. Comparison with Z’graggen’s (1980) data shows that this is Siroi. (4) A list of 41 items from a Bongu vocabulary acquired by Adolf Meyer (one of the editors of the German version of Maclay’s article) for which Maclay lists corrections.

The appendix to this paper includes only the thesaurus. The remaining items are omitted here because of their limited interest, as well as for reasons of space. The wordlists may occasionally show that a cognate that has been lost today still existed in the 1870s. For example, Maclay’s Rempi list has *boi* ‘star’, cognate with Bom *boi*, Bongu *buajn* and Kolom *buai*, where Z’graggen (1980) has Rempi *patui*, a loan from Gedaged, the Lutheran mission lingua franca on the Madang coast during the twentieth century. Of the 64 items from now extinct Bai, 25 have cognates in other Rai Coast languages that are obvious by inspection. Employing Z’graggen’s subgroups, 16 cognates are in the Yaganon subgroup, and five, four and three in the Minjim, Kabenau and Evapia subgroups respectively.⁴ This confirms Pawley & Hammarström’s (2018:63) assignment, based on Z’graggen (1975:2), of Bai to the Yaganon subgroup—but if Maclay’s list is accurate, it is something of an outlier from the rest of the group. But the list is too short for an assessment of its accuracy. Only the Bongu thesaurus is extensive enough to reveal something of the measure of Maclay’s linguistic skills.

These materials appear to be little known. Indeed, they are missing from the bibliography compiled by Maclay’s biographer (Webster 1984:389–405). The only other commentary on Maclay’s language data that I have found is Laukotka (1953; in Czech). This is essentially an appreciation of all Maclay’s contributions on Papuan languages in Anfert’ev et al. (1951), including his work in what is now Indonesian Papua. Much of the article introduces the reader to Papuan languages in general, since Laukotka justifiably assumes that his readers will know little about them. Almost nothing is said about the content of Maclay’s materials, but Laukotka attributes greater value to them than I do (section 4). He also believes that Maclay spoke the languages for which the latter provides wordlists. There is no evidence for this. Maclay apparently spoke only somewhat restricted Bongu (section 3.2).

2. CONVENTIONS

Before I give a brief analysis of Maclay’s competence as a linguist, some explanation of spelling conventions is in order. In the appended article Maclay says that he recorded his language data in Russian, i. e. in the Cyrillic alphabet. The data in the German version of the thesaurus are evidently a transcription from Cyrillic, as an apostrophe is used to transcribe the Cyrillic ‘soft sign’, a character that marks palatalisation of the preceding consonant where that consonant is not immediately followed by a vowel. Maclay most frequently uses the soft sign after *l*, rendered *l’* in the German transcription (see section 3.2).

What Timberlake (2004:25) calls ‘linguistic’ transcription is used here to transcribe words in Cyrillic characters.⁵ These include Maclay’s data in the appendix, his language names in Table 1 above, the words for ‘star’ above and the reference to the Russian version of Maclay’s paper listed below. This leads to the vexed question of Maclay’s name(s). Several different versions occur in the references. In Australia Maclay called himself *Nicholas de Mikouho-Maclay*. But this is not the whole story, as Maclay was born *Nikolaj Nikolaevič Mikluxo*. In 1868, in his twenties, he added the Scottish name Maclay (Russian *Maklaj*) to his surname. It is often said that this was due to Scottish ancestry, but it appears instead to have been part of the legend that Maclay was building around himself (Webster 1984:9). I have chosen to call him ‘Maclay’ here because this is the name he used of himself and for brevity’s sake.

⁴ The numbers add up to more than 25 as some items have cognates in more than one subgroup.

⁵ This transcription, labelled ‘Scholarly’, is set out in the Wikipedia article ‘Romanization of Russian’ (https://en.wikipedia.org/wiki/Romanization_of_Russian).

3. MACLAY AS A LINGUIST

My assessment of Maclay's contribution to linguistics is two-pronged. One prong is internal, i.e. concerned with the evidence that can be drawn from Maclay's wordlists, and in particular from the Bongu thesaurus presented in the appendix. The second prong is external, and is based on what Maclay himself and his biographer tell us about his work.

3.1. Internal evidence

Maclay's Bongu thesaurus can be evaluated with some accuracy because of the work of August Hanke, a Lutheran missionary who at the publication of his Bongu grammar and vocabulary in 1909 had spent eleven years among Bongu speakers. The work includes a vocabulary of a hundred pages, along with a finderlist. However, the comparison is not entirely straightforward, as neither Maclay nor Hanke was acquainted with the concept of the phoneme. This is unsurprising, as the ideas that underlie it were first expressed by the English linguist Henry Sweet (1877) and then independently by the Pole Jan Baudouin de Courtenay in 1894.⁶ He provided a definition of the phoneme, but the concept only caught on after the publication of de Saussure (1916) (Robins 1967:203–204; van der Hulst 2013:174).

Table 2 Bongu consonant inventory with Hanke's orthographic representations

	labial		apical		palatal	velar	uvular					
stop voiceless	(-) <i>p</i> -	<i>p</i>	<i>t</i>	<i>t</i>		<i>k</i>	<i>q</i> <i>ǰ-ǰ-ǰ'</i>					
voiced	<i>b</i>	<i>b</i>	(-) <i>b^w</i> -	<i>b'</i>	<i>d</i>	<i>d</i>	(-) <i>d</i> ⁱ -	<i>d'</i>	<i>g</i>			
prenasalised	<i>-^mb</i> -	<i>mb</i>			<i>-ⁿd</i> -	<i>nd</i>	<i>-ⁿd</i> ⁱ -	<i>nd'</i>	<i>-^ŋg</i> -	<i>ŋg</i>		
nasal	<i>m</i>	<i>m</i>			<i>n</i>	<i>n</i>	(-) <i>n</i> -	<i>ń</i>	<i>ŋ</i>	<i>ñ</i>		
fricative					<i>s</i>	<i>s</i>					(-) <i>h</i> -	<i>h</i>
trill					<i>r</i>	<i>r</i>						
lateral					<i>l</i>	<i>l</i>						
glide	<i>w</i>	<i>w</i>					<i>j</i>	<i>j</i>				

Maclay, as already noted, wrote his data in Russian, and they are presented in Roman transcription in Tables 3–9 and the appendix. Hanke used the Roman alphabet with a number of diacritics, shown in Table 2 but his data are transcribed phonemically in Tables 3–9 and the appendix, thanks to the assistance of Don Daniels (pers. comm.), who summarised the Bongu phonological system and drew my attention to the uvular stop phoneme (which also occurs in nearby Male [= Soq] and Bom [= Anjam, Bogadjim; Rucker 1990]). Bongu vowels are /a e i o u/. Its consonants are set out in Table 2, along with the symbols (in italics) used by Hanke. The one complication concerns uvular /q/, which Hanke prints as *ǰ* initially and medially and as *ǰ'* finally. There is no indication that he sees a relationship between them. He describes *ǰ* as a Dutch *g*, i. e. a postvelar voiced fricative. Daniels hears it as [q] (uvular stop) initially and [ɣ] (voiced uvular fricative) medially, and a comparison of others' attempts to represent it bears this out (see below). Hanke provides a phonetic description of *ǰ'* as 'a guttural *r*: The back of the tongue is lifted toward the soft palate in such a way that the uvula can swing freely.'⁷ This is a respectable description of a uvular fricative, and Daniels transcribes it as voiceless [χ]. The main allophones of /q/ are thus [q-ɣ-χ].

⁶ The 1894 work was written in Polish, and published in German translation the following year. An English translation appeared as Baudouin de Courtenay (1972).

⁷ 'ist ein gutturales *r*, Man hebt den Zungenrücken an den weichen Gaumen empor, und zwar so, daß das Zäpfchen frei schwingen kann.' (Hanke 1909:11)

At least two kinds of error can creep into a wordlist. The first kind occurs when the consultant misunderstands what the linguist is trying to elicit. Such elicitation errors are more common when consultant and linguist have no common language. The second kind of error occurs when the linguist mishears what the consultant says or the linguist doesn't know how to transcribe it.

Although Hanke had no phoneme concept, he appears to have a good grasp of Bongu phonetics and to have written its sounds consistently. Maclay's transcriptions indicate that certain distinctions elude him and that the allophones of /q/ cause him considerable difficulty.

Maclay misses the distinction between /n/ and /ŋ/ word-initially and -finally. The only initial example is /ŋam/ 'eye', which he transcribes as *nam-* in *nam-ge* (properly 'eyeball') and *nam-tange* 'eyebrow'. Word-finally he writes both /n/ and /ŋ/ as *-n*, as Table 3 shows.

Table 3 Maclay's transcription of word-final /n/ and /ŋ/

Maclay's gloss	Maclay	Hanke
/n/ 'stringbag'	<i>karun</i>	qaqun
'not be'	<i>aren</i>	aren
'star'	<i>buajn</i>	b ^w ain
'large woman's stringbag'	<i>gun</i>	qun
'tongue'	<i>muen</i>	muin
/ŋ/ 'arm'	<i>ibon</i>	ibonŋ
'comb'	<i>[g]asen</i>	qaseŋ 'needle, thorn'
'good'	<i>bilen</i>	bileŋ
'stone'	<i>gitan</i>	gitaŋ
'sugarcane'	<i>den</i>	diēŋ
'black cockatoo'	<i>gunjalan</i>	gupaŋ
'small'	<i>kenenen</i>	keneneŋ
'yam'	<i>ajan</i>	ajaŋ

Table 4 Maclay's transcription of word-medial /ŋ/ and /ŋg/

Maclay's gloss	Maclay	Hanke
/ŋ/ 'Canarium'	<i>kengar</i>	keŋaq
'go'	<i>angar</i>	aŋaq
'be lightning'	<i>milinger</i>	miliŋaq
'tree, wood'	<i>angam</i>	aŋam
'stand'	<i>pandingar</i>	pa ⁿ diŋaq
/ŋg/ 'right hand'	<i>gangmu</i>	a ⁿ gumu
'woman'	<i>nang[e]li</i>	na ⁿ gli
'earthquake'	<i>tangrin</i>	sa ⁿ gri ⁿ gi
'eyebrows'	<i>namtange</i>	ŋamta ⁿ ge
'food'	<i>ingi</i>	i ⁿ gi
'rat'	<i>minga</i>	mi ⁿ ga

Word-medially Maclay writes *ng* for /ŋ/ and *n* for /n/. But he also writes *ng* for /ŋg/ (Table 6), with one exception: Maclay writes *munki* ‘coconut’ for Hanke’s /moŋgi/ (this is the only instance of *nk* in his list). There is also crossover between /d/ and /dʲ/, as in Hanke’s /dʲeŋ/ ‘sugarcane’ in Table 3, but in all cases the following vowel is /i/, /e/ or /u/, i.e. front or high, suggesting that /d/ may have an allophone [dʲ] that overlaps with /dʲ/. In all cases of crossover that I have found, except one, the equation is Maclay’s /d/ vs Hanke’s /dʲ/: *xudi* ‘one’ vs /gudi/, *nadi* ‘they’ vs /nadi/. The exception is *djuga* ‘cassowary’ vs /duga/. But this requires further research, as there are cases where both authors have /dʲ/, sometimes before /a/: *xadža* ‘spear’ (noun) vs /qadža/, *udja* ‘digging stick’ vs /udja/.⁸

Table 5 Maclay’s transcriptions of initial /q/

	Maclay’s gloss	Maclay	Hanke
<i>k</i>	‘stringbag’	<i>karun</i>	qaqun
	‘moon’	<i>karam</i>	qaqam
	‘tooth’	<i>kagi</i>	qagi
	‘fish’	<i>kalb</i>	qaib
	‘bottle’	<i>kobu</i>	qobu
	‘canoe’	<i>kobum</i>	qobuŋ
zero	‘comb’	<i>asen</i>	qaseŋ ‘needle, thorn’
	‘tooth’	<i>agi</i>	qagi
	‘white’	<i>aubi</i>	qaubi
	‘evening’	<i>aluer</i>	qalu ‘night’
	‘bite’	<i>otangere</i>	qataŋwaq
<i>x</i>	‘village’	<i>xog[e]mu</i>	qoqumu
	‘spear’	<i>xadža</i>	qadža
<i>r</i>	‘child’	<i>remur</i>	qemor
	‘fence’	<i>rar</i>	qar
<i>g</i>	‘woman’s large stringbag’	<i>gun</i>	qun
	‘comb’	<i>gasen</i>	qaseŋ ‘needle, thorn’
	‘4’	<i>gorle</i>	qoqole
	‘hit’	<i>garler</i>	qaqalaq

The cause of the greatest problems for Maclay is /q/, for which he writes *k*, zero, *x*, *r*, *g* initially (Table 5). Despite the variety of these characters, they all reflect the difficulty Maclay had identifying the allophones of /q/, all alien to any language he spoke. Sometimes he heard an initial stop [q], and transcribed it as *k*. At other times it was barely audible, and he didn’t transcribe it. Occasionally it was pronounced with friction: hence *x* for [x] or *r* for [ʁ]. What *g* transcribes here isn’t clear: perhaps he heard a voiced stop [g], perhaps a voiced fricative [ɣ] or [ʁ]. An effect of this confusion is that word-initially Maclay uses each of *k*, *r* and *g* for two different phonemes: respectively /q, k/, /q, r/ and /q, g/. Maclay consistently writes medial /q/ as *r* (Table 6), reflecting [ʁ], but this again conflates /q/ with /r/.

Final /q/, written *r* by Hanke, is frequent in both sources, as the nonfinite form of the verb that is used as the citation form usually ends in /-aq/; e.g. Maclay *sjuer* ‘laugh’ and Hanke /siuwaq/, Maclay *angar* ‘go’ and Hanke /aŋaq/ ‘go, depart’. Again /q/ and /r/ are conflated.

⁸ Don Daniels (pers. comm.) reports the present-day forms as *qudi* ‘one’, *nadi* ‘they’, *djuqa* ‘cassowary’ and *qadža* ‘spear’.

Table 6 Maclay's transcription of medial /q/

	Maclay's gloss	Maclay	Hanke
<i>r</i>	'arrow'	<i>aral'</i>	aqal 'bow and arrow'
	'moon'	<i>karam</i>	qaqam
	'cough'	<i>doral-</i>	doqal
	'stringbag'	<i>karun</i>	qaqun
	'4'	<i>gorle</i>	qoqole
	'hit'	<i>garler</i>	qaqalaq
	'bad'	<i>borle</i>	boqole
	'bone'	<i>surle</i>	suqule
	'low hut'	<i>barla</i>	baqala 'table-like structure'

There is one respect in which Maclay scores quite well in his transcriptions. There are epenthetic vocoids in Bongu (and in many languages of the Madang family), optionally inserted between adjacent consonants under conditions that have not been researched. As Daniels (pers. comm.) points out, Hanke seems not to recognise this phenomenon. He often interprets an epenthetic vocoid as a vowel identical to the preceding vowel. Maclay seems to have recognised this phenomenon intuitively, and often does not write the vocoid. The last five items of [Table 6](#) show that Hanke writes a vowel between /q/ and /l/ where Maclay omits it. I hypothesise that these items would be more accurately written as /qoql/, /qaqlaq/ and so on. Other instances of epenthesis in Hanke but not in Maclay, and vice versa, are recorded in [Table 7](#). In a few items Maclay records two forms, one with, one without *-e-*, implying that it is epenthetic.

Table 7 Transcription of epenthetic vocoids

Maclay's gloss	Maclay	Hanke
'village'	<i>xog[e]mu</i>	qoqumu
'girl'	<i>dagne</i>	dayane
'morning'	<i>je^mble</i>	die ^m bele-qa 'in the morning'
'righthand'	<i>garⁿmu</i>	a ⁿ gumu
'woman'	<i>nang[e]li</i>	na ⁿ gli
'burn scar'	<i>bubera</i>	bubra

The errors of Maclay's noted thus far are all transcription errors. Hanke criticises in his introduction the work of several people who had published on Bongu, but he is kinder to Maclay than to Maclay's successors. Nonetheless, he lists fourteen errors in Maclay's thesaurus entries (he implies that there are more) (Hanke 1909:3). They are divided below into elicitation errors ([Table 8](#)) and transcription errors ([Table 9](#)), although Hanke does not make this distinction.

The third column of [Table 8](#) lists explanations of Maclay's errors. Hanke lists them for only two entries. The other notes are mine, based on Hanke's vocabulary. The fourth column gives Hanke's corrections. Two subsets of errors merit comment. It seems that Maclay reverses /jawen/ 'ready to be eaten' and /qawe/ 'uncooked'. One wonders whether he simply confused them when he was transcribing his notes into publishable shape. The last three items in [Table 8](#) form the second subset. They are intriguing because they form a sequence: *jamba*, *aliu* and *al'vao* are the little, ring and middle fingers of the left hand. Hanke does not recognise these glosses, but gives them as a different sequence: 'tomorrow' (one day hence), 'day after

tomorrow’ or ‘day before yesterday’ (two days hence), and ‘two days after tomorrow’ or ‘two days before yesterday’ (three days hence). The alleged ‘errors’ here cannot be coincidental. Perhaps Maclay had witnessed someone counting off days into the future on his fingers.

Table 8 Transcription of epenthetic vocoids

Gloss	Maclay ^a	Explanation	Hanke
stream	<i>ibarinja</i> [<i>ibarynja</i>]	i baqinaq ‘water is fast’ ^b	i ‘water, stream’
belly	<i>tinam</i>	—	mine
low hut	<i>barla</i>	baqala ‘table-like structure’	sapa
large men’s house	<i>buamramra</i>	b ^w am ‘sago’	bodo
men’s stringbag carried over left shoulder	<i>telrun</i>	—	qaqun
bad, worthless	<i>djigor</i> [<i>digor</i>]	d ^h ugore ‘throw it away!’ ^b	boqole
ready (to be eaten)	<i>aue</i>	—	jawen
uncooked	<i>jawen</i> [<i>javen</i>]	—	qawe
tie up	<i>urenger</i>	urentaq ‘untie’	qosaq
left-hand little finger	<i>jamba</i>	‘tomorrow’	ibonj ingri ‘last finger’
left-hand ring finger	<i>aliu</i>	‘two days hence’	taumbli page ‘next to middle finger’
left-hand middle finger	<i>alwao</i> [<i>al’vao</i>]	aluwao ‘three days hence’	taumbli ‘middle finger’

^a Words in square brackets are from the Russian version. Otherwise entries in this column are from Hanke (1909:3), who uses the German version.

^b Hanke’s interpretations.

We do not know how many more elicitation errors Hanke would have found if he had listed them exhaustively. If those in Table 8 are all he noted, then, particularly in light of the comments in the previous paragraph, Maclay seems to have performed rather well in recording his thesaurus.

Just three of the errors listed by Hanke are transcription errors (Table 9). The final *-e* of Maclay’s *otangere* ‘bite’ is probably a typographic error. Maclay cites verbs in their non-finite form in *-r* and here surely intended *otanger*—still erroneous as he misses initial /q/ and because here, as elsewhere, he hears final /aq/ as *-er*. The third item, *keni*, is barely an error. Maclay writes *kenen* in the Russian version and says explicitly that it ends in a nasalised vowel ‘as in French’. The German version has *kenĩ*. The tilde indicates nasalisation, but Hanke omits it. Given Maclay’s conflation of /-n/ and /-ŋ/ as *-n*, what Maclay intends here is that ‘small’ has two forms, /kenen/ and /kenenen/, the second an internal reduplication of the first. Hanke apparently recognises only the second, but Daniels (pers. comm.) recorded both quite recently.

Table 9 Transcription errors of Maclay’s listed by Hanke

Gloss	Maclay	Hanke
men’s stringbag carried over left shoulder	<i>karun</i>	qaqun
bite	<i>otangere</i>	qatangaq
small	<i>keni</i> [<i>kenĩ</i> , <i>kenenen</i>]	kenenen

I have enumerated Maclay’s errors in places in painful detail, in order to make a fair assessment of his linguistic skills. One cannot blame him for not understanding the phonemic principle, as it was not yet discovered. It also seems to me that the allophones of /q/ could puzzle a 21st-century trained linguist for quite a while, and that the /d/~di/ crossover may simply have reflected Bongu phonetic realisations at the

time.⁹ One can fault Maclay, however, for not recognising the distinctions /n/ vs /ŋ/ and /ŋ/ vs /ŋg/—presumably a result of the fact that his native Russian has no /ŋ/, perhaps exacerbated by the fact that English (which he could speak and write) uses *ng* for both /ŋ/ vs /ŋg/. He did, after all, spend two 15-month periods near Bongu village, and one can reasonably say that in this regard he did not think like a linguist.

3.2. External evidence

The evidence in this section comes from Maclay himself, i.e. from the attached article and from his diaries (Sentinella 1975), and from his biographer (Webster 1984), who had access to far wider documentary evidence than I have.

Maclay says in the appended article that he is not a linguistic researcher. His education seems to have been somewhat fragmented: tutoring at home, a year at a St Petersburg Lutheran school where the language of instruction was German, then five years at a St Petersburg high school, ending in expulsion for participation in a street demonstration. He then spent two months as an external student of the physico-mathematical faculty of St Petersburg University, after which he was again expelled, apparently for taking part in illegal student meetings and was deprived of the right ever to study at a Russian university (Sentinella 1975:9–10; Webster 1984:1–2). The result was that he pursued higher studies in Germany—first in Heidelberg, then in Jena, where he encountered Darwin's foremost German disciple, Ernst Haeckel, and became Haeckel's assistant. This engendered an enthusiasm for overseas fieldwork and biological research, leading among many other things to Maclay's visits to New Guinea.

Maclay's main interests in Bongu were in biology and physical anthropology, followed by physical geography. Language learning was only a means to an end. It did not drive him in the way that his interests in the natural sciences did. We know little about Maclay's language education. Like a European gentleman of his time, he conversed and wrote in German, French and English, as well as his native Russian. Apart from his year at the German Lutheran high school, we don't know how and where he learned these languages. But it seems he had little or no grounding in the Latin, Greek and Hebrew that a generation later allowed German missionaries, Catholic and Protestant, to dissect the morphology and syntax of the Oceanic and Papuan languages they encountered in New Guinea—a task that Hanke performed quite respectably for Bongu some 25 years later.

A theme that surfaces again and again in Maclay's diaries and letters is his desire for peace and quiet, for isolation. Arriving in Bongu, he chose for his dwelling place a small headland about ten minutes' walk from Bongu village. One reason for the choice was that 'I very much dislike noise and I feared that being near the village, the shouts of the adults, the crying of the children, and the howling of dogs would disturb and annoy me.' (Sentinella 1975:23) Talking about the discomfort of tropical storms, he lets his desire to be alone peep through: '...the beauty surrounding me restores my normally good frame of mind—a frame of mind which rarely leaves me, if I find myself in beautiful surroundings and if there are no tiresome people around me.' (Sentinella 1975:78) And again: 'Noisy people also did not interfere today; no one came. I have been thinking that in a state of great peace (true, it is difficult to attain) a man can feel perfect happiness' (Sentinella 1975:108).

Maclay seems to have rationalised his desire to be alone as necessary to the pursuit of science, which was after all the reason he had travelled to New Guinea. But isolation from the very people whose language one wants to learn is obviously counter-productive, and it seems clear that language learning was for Maclay very much subordinated to the natural sciences. This seems to have been the practical reality, despite Maclay's pious assertions to the contrary, like his diary entry for 27th September 1871, a week after his arrival: 'from the first day of my acquaintance with the Papuans, I carried constantly a note book in my

⁹ They are clearly distinct today (Don Daniels, pers. comm.).

pocket for writing, at a suitable occasion, words of the native language' (Sentinella 1975:31). And on 17th November:

One thing is disappointing: I know so little of their language. I am convinced that a knowledge of the language is the only means of removing their distrust, which is still there, and that it is also the only means to become acquainted with the native customs, which in all probability are very interesting (Sentinella 1975:86–69).

One diary entry after another records Maclay's frustration at how difficult it is to learn the language. On 16th October 1891 he writes, 'the study of the language makes slow progress.' And again on 25th November, 'my study of the native language makes very slow progress.' By 18th February 1872 he is able to write of a conversation in the village, 'I now understood already quite a lot of their language although I could not yet speak much.' And on 29th March he confesses, 'Although I have been here more than half a year, my knowledge of the language is still inadequate.' At the end of May a group of villagers decide that Maclay needs a sexual partner and smuggle a girl into his bed while he is asleep. Waking up he expels her from his bed, remarking that he doesn't know enough of the language to express himself in this circumstance (Sentinella 1975:50, 73, 117, 148, 182–183).

After this his frustration dies down, but there is never an indication that his goal of understanding Bongu culture and thought is fulfilled (Webster 1984:71). During his second visit he finds himself trying to prevent a war between communities, but comments on 21st September 1876, 'To discuss with them the baseless nature of the theory of *onim* [sorcery] would have been impossible in view of my limited knowledge of the language of the natives' (Sentinella 1975:298; Webster 1984:203).

Maclay reveals enough about his language learning methods to allow us to see why his learning was so slow. As we have seen, he did not immerse himself in the community and the language. He comments in the first paragraph of the appendix that monolingual elicitation did not really work. He learned the nouns for objects, but after two months still knew no verbs of motion (Webster 1984:63). In the second paragraph of the appendix he complains that the language includes sounds that he simply cannot master, seemingly confirming the observations about /n/ vs /ŋ/ and about /q/ in section 3.1.3. Indeed, a number of comments in the appended article betray quite a strange view of language. He writes,

I think that alien sounds can be more correctly written in your native language, since it is possible to judge better, so to speak, the accuracy of reproduction when transmitting sounds with letters.

To a present-day linguist this is quite bizarre, confusing 'native language' with native writing system, and believing that the use of Cyrillic makes the recording of Bongu words more accurate, an assertion to which the analysis of his use of *ng* in section 3.1 gives the lie.

Maclay continues that the letters *y* (ѣ), *ju* (ю) and the soft sign (ь) make the Cyrillic alphabet very suitable for Bongu. Given that *y* occurs only in two words in the 300-word thesaurus, *barynja* 'walk, fly, swim' and *bagry* 'leaf', it is hard to see why it is 'suitable'. The Cyrillic letter *ju* occurs in twelve items, but then the letter *ja* (я), which Maclay doesn't mention, is found in thirty.

The usefulness of the soft sign (ь) is more obvious. It is said to be used to mark palatalisation of the preceding consonant if the latter is either word-final or followed by another consonant, but it distinguishes between other phonetic features too. In the transcribed thesaurus it appears as an apostrophe, occurring most often after *l*. Its function here is clear. Russian 'non-palatal' /l/ is apical and pharyngealised, whereas 'palatal' *l* is laminal (Ladefoged & Maddieson 1986:188; Timberlake 2004:56). Maclay intuitively uses *l'* before another consonant or word-finally because he recognises that the Bonggu sound is closer to the laminal *l*; it is not like the Russian non-palatal /l/, which is close to the 'dark *l*' of some English dialects.

Maclay offers no explanation of his tabulation of 'words in common' between Austronesian and Papuan languages and gives no indication of the supposed direction of borrowing—but it seems there is very little

borrowing here because Maclay has wrongly classified Bilbil and perhaps other Austronesian languages of Astrolabe Bay as ‘Papuan,’ not as Oceanic Austronesian.

Towards the end of the article Maclay presents the view that his 350 words or so were sufficient to communicate with Bongu speakers, and that the vocabulary of Bongu speakers themselves was no more than two or three times this figure. Any linguist who has systematically investigated the lexicon of a previously unwritten language knows that this assertion cannot be true, and its incorrectness is confirmed by Hanke’s hundred-page vocabulary. As an introduction to this topic, Maclay comments, ‘It amazed me that the natives often did not know some words in their own dialect; in this case, they went to elderly Papuans to find out the word they did not know.’ This, however, is a normal situation in a small speech community where there is no formal education and no written language. As people age, they sometimes need more specialised lexical items that they have perhaps never or only occasionally heard, and they use elderly speakers as their teachers.

One wonders whether Maclay’s remarks about the alleged poverty of the language reflect a desire on his part to believe that he is quite competent in it relative to his Bongu acquaintances. The expressions of frustration about language learning in the diaries disappear after May 1872, and only make the brief return mentioned above when he is dealing with sorcery. If the language were as restricted as he incorrectly claims, then, of course, he might just be quite a competent speaker. When Maclay writes his corrections to Meyer’s Bongu list mentioned above, he prefaces it as follows:

A list of words that Dr. Meyer received from the officers of the imperial Russian corvette *Vityaz*’ refers to the Papuan dialect of the villages of Gumbu, Gorendu and Bongu, located on the shores of Astrolabe Bay in New Guinea.

Since the inhabitants of these villages were my neighbours and I talked with them almost daily over 15 months, so that in the end I learned their language pretty well, I will allow myself to correct some of the incorrect words ...

It sounds as if Maclay is quite confident of his linguistic abilities here, but this is perhaps his public face.

4. CONCLUSION

Webster (1984:106, 194) forms the opinion that Maclay was far from becoming a competent speaker of Bongu, and the evidence considered here indicates that she is right. His failure to come to terms with Bongu phonology was demonstrated in section 3.1. He evidently underestimated the difficulties of learning an unwritten language, visible in his preferred isolation from the villagers and in his difficulties in eliciting vocabulary. His comments about language in the appended article are in places rather odd, and suggest that, even though he was a thoughtful biologist and anthropologist, he had limited grounding in language and language learning and had not theorised about them much at all.

A curious aspect of his writings about language is that, as far as I can find, he never makes any reference to morphology or syntax. Bongu has complex verbal morphology, mostly suffixing like the European languages he knew. The fact that he never mentions it implies that he perhaps never came to terms with it, and may also explain why he apparently found verbs hard to learn.

Webster (1984:339) concludes, in retrospect, that Maclay did not achieve much of lasting scientific value, despite phenomenal effort, largely because he put forward hypotheses without substantial enough evidence. Sadly this is also true of his linguistic data collection: it is usable only as a means of checking whether a particular cognate occurred in a particular language. Otherwise it is not a reliable record of the languages listed in Table 1. This view differs from that of Loukotka (1953), apparently the only other linguist to have written about Maclay’s language materials, who in the context of these materials describes

Maclay as an ‘oustanding researcher’. However, Loukotka is writing about the 1951 Soviet publication of the Russian materials, and does not appear to have examined their content in any depth.

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APPENDIX

Papuan dialects of the Maclay Coast¹¹ in New Guinea

N. N. Miklouho-Maclay

Learning the first Papuan dialect involved considerable difficulty. I could elicit the words I wanted to know only by pointing at the object, or with gestures imitating the corresponding action. But this method was the source of many misunderstandings and mistakes. Often the subject was called differently by different people, so I did not know for weeks which expression was correct. I will give an example here to show what often happened to me. I took, for example, some leaf or other to find out the word for 'leaf' in general. The native told me a word that I wrote down. Another Papuan, to whom I put the same question, told me a different word; a third a third word; from the fourth and fifth I got more new words. Which word was the real word for 'leaf'? Over time, I gradually found out that the first word was the name of the plant to which the leaf belonged, the second meant 'dirt' or 'unfit', maybe because I had picked up a leaf from the ground, or because it belonged to a plant for which the Papuans had no use; other words were specific properties of or the colour of the leaf: 'sour', 'good', 'yellow' etc. This happened with very many words. Instead of finding out the word for 'head', I heard from one (a word denoting) 'hair', from another a hairband, from a third *kumu* or *surra* (red or black dye with which Papuans dye their hair), and so on. My imagination and my mimicry were not enough to get the denotation of abstract concepts. I managed to discover only a few verbs in the Papuan language, but I could not recognize the words for the seemingly simplest ones. So, for example, I never knew the word for 'hear', and the word for 'see' I learned only in the fourth month of my stay there.

I also soon discovered that I was absolutely unable to imitate certain sounds of the Papuan language; I tried in vain to do this, so, although I could hear well that there was a difference (between the native pronunciation and mine), I still couldn't produce the correct production of the Papuan word with my speech organs. And since, before you write down a word, you must first pronounce the word and spell the spoken word with letters, many words that I could not pronounce correctly were also recorded erroneously. But not only did the speech organs prevent the transmission of some words, but hearing also plays an essential role: different people hear the same foreign word differently and often very differently. In addition, the natives pronounce words quite differently.

[Sounds seemingly absent from the Papuan dialects of Maclay Coast: *f*, *x* [x], *c* [ts].

I think that alien sounds can be more correctly written in one's native language, since it is possible to judge better, so to speak, the accuracy of reproduction when transmitting sounds with letters. Therefore, I wrote down all Papuan words first in Russian; the Russian alphabet was very suitable for this by the presence in it of letters *y* (ы), *ju* (ю) and the soft sign (ь).

¹¹ Mikouho-Maclay named a stretch of the north coast of mainland Papua New Guinea extending either side of Astrolabe Bay 'the Maclay Coast'. This name has long since been replaced by 'Rai Coast' (*rai* 'southeast tradewind').

In the Papuan dialects there are quite a few words that represent imitations of natural sounds and cries, such as, for example, many names of wild animals: *ken-ken* (cicada), *orong-orong* (frog); the names of various birds named after their cry, such as *koki*, *oka*, *roli*, *bikro*, *rigu*; the words *uu* (penis) and *aa* (vagina) also belong to this category.]

Almost every Maclay Coast village has its own dialect. Many words are different in villages a quarter of an hour's walk away (for example, in Gorendu a 'stone' is *ubu*, in the next village, Bongu, *gitan*; 'teeth' in the former are *aga*, in the latter *kagi*, etc.). Villages two or three hours apart have dialects that are almost mutually incomprehensible. During excursions that took one or more days, I used two, sometimes even three interpreters. Only elderly people know 2 or 3 dialects; they spend some time in other villages to learn them.

It amazed me that the natives often did not know some words in their own dialect; in this case, they went to elderly Papuans to find out the word they did not know.

The Papuan dialects of the Maclay Coast have words in common not only with Melanesian (Papuan—MR) languages. A number of these words are also present in Malayo-Polynesian (Austronesian—MR) languages, for example:

Gloss	Malayo-Polynesian	Papuan (Maclay Coast)
sky	<i>langi, langit</i>	<i>lan, lang</i>
earth, land	<i>fanua, benua, tana</i>	<i>tan, mana</i>
stone	<i>fatu, batu</i>	<i>pat</i>
person	<i>tangata, tamata</i>	<i>tamo, tomol, tangom</i>
head	<i>ulu</i>	<i>ualem</i>
eye	<i>mata</i>	<i>malau</i>
hand	<i>lima</i>	<i>liman, ban, ibon</i>
coconut	<i>niu</i>	<i>niu</i>
hell	<i>seru, heru, sisir</i>	<i>si</i>
three	<i>tolu, toru</i>	<i>toli</i>
five	<i>lima, rima</i>	<i>limata</i>

[There are probably more words in common with Malayo-Polynesian; those listed caught my eye when looking superficially (loans are bolded—MR), and it seems to me significant that they are the names of important items] (The German editors apparently added to the list. —MR)

The fact that my list consists of only about 300 words was due to three circumstances: first, not being a linguistic researcher, I memorised only the most necessary, especially since, as has already been said, the identification of individual words was not at all easy; secondly, during my recent stay in New Guinea, already quite fluent in the language of my neighbours, I neglected to write down many words, and since the imperial Russian clipper *Izumrud* arrived so unexpectedly and I just as unexpectedly left New Guinea, these words remained unrecorded and were later forgotten; thirdly, I found my knowledge of the language almost sufficient to communicate daily with the Papuans.

This last circumstance seems to me interesting, since I generally knew about 350 words (my unwritten and forgotten words did not exceed 50). I have a criterion for evaluating my knowledge: I often stayed in the same village for a whole day, sometimes even for a night, in the company of the same men, women and children, and listened attentively to the conversation of the natives among themselves. At the same time, I

found that there was very little I did not understand. Therefore, I suppose that the Papuans of these villages (Gorendu, Bongu, Gumbu) knew, perhaps, only twice as many words as I did; or at the most, three times as many, which is just a little over 1000 words.

[After leaving the Maclay Coast, I noticed that in a very short time (five or six weeks) I had forgotten almost all the Papuan words that I had used daily for 15 months and had known well. This quick forgetting is amazing, because my memory is not bad at all, so this occurrence is probably the result of the great difference between the Papuan languages and Indo-European ones].

The natives of the Maclay Coast pronounced words from the European languages very well and readily accepted Russian terms for many of the objects I introduced to them.

Buitenzorg (= Bogor, West Java—MR), 14th December 1873, N. von Maclay

Table: Dialect of Gorendu, Bongu and Gumbu villages

Sky, air, earth	
earth	<i>mon, mon-damu</i>
sky	<i>mang, lang</i>
sea	<i>val'</i>
sun	<i>sing</i>
moon	<i>karam, kaaram</i>
full moon	<i>karam-boro</i>
crescent moon	<i>karam-rar</i>
star	<i>buain</i>
cloud	<i>narum</i>
thunder	<i>areng</i>
lightning	<i>milinger</i>
rain	<i>au</i>
earthquake	<i>tangrin</i>
fire	<i>bia</i>
smoke	<i>biaram</i>
ash	<i>ui</i>
water	<i>i</i>
river	<i>oli</i>
stream	<i>ibarynja</i>
mountain	<i>mana</i>
high tide	<i>tilio, siri</i>
low tide	<i>merou</i>
cold (n)	<i>derva</i>
wind	<i>temur</i>
NNW wind	<i>jaorte, iavar</i>
NE wind	<i>karag</i>
S wind	<i>bubere</i>
W wind	<i>dodau</i>
cliff	<i>betau</i>
stone	<i>ubu</i>
flint	<i>nar, neling</i>

sand	<i>ulul'</i>
sunrise	<i>sing-oren</i>
sunset	<i>sing-gumbueran</i>
morning	<i>jemble</i>
noon	<i>anam</i>
night, evening	<i>aluer</i>
today	<i>olam</i>
morning	<i>iamba</i>
yesterday	<i>iabom</i>
day after tomorrow/ before yesterday	<i>aliu</i>
Plants and animals	
tree, wood	<i>angam</i>
sheet	<i>angam-bagri</i>
bamboo whistle	<i>nau</i>
tobacco	<i>kaz'</i>
Canarium	<i>kengar</i>
lily	<i>linu</i>
young coconut	<i>munki-lja</i>
cocoa-nut	<i>munki</i>
small yellow coconut	<i>munki-guau</i>
large yellow coconut	<i>munki-ari</i>
large green coconut	<i>munki-bol'bole</i>
coconut shell	<i>muki-surla</i>
coconut kernel	<i>muki-dal'</i>
banana	<i>mogar</i>
salty wood ash soaked in sea water for a long time	<i>bor</i>
sago	<i>buam</i>
yam	<i>degargol'</i>

<i>Colocasia taro</i>	<i>bau</i>
<i>Dioscorea</i> (sweet potato) sp. /var.	<i>ian</i>
<i>Dioscorea</i> sp. /var.	<i>gobe</i>
<i>Dioscorea</i> sp. /var.	<i>kainda</i>
<i>Dioscorea</i> sp. /var.	<i>ilol'</i>
<i>Dioscorea</i> sp. /var.	<i>sori</i>
<i>Dioscorea</i> sp. /var.	<i>wuanda</i>
<i>Dioscorea</i> sp. /var.	<i>rorom</i>
<i>Dioscorea</i> sp. /var.	<i>iavan</i>
cinnamon bark	<i>muju</i>
ginger root	<i>li</i>
pig	<i>bul'</i>
dog	<i>sa, saa</i>
cuscus	<i>mab</i>
kangaroo	<i>tibol'</i>
mouse	<i>minga</i>
black cockatoo	<i>gunjalan</i>
white cockatoo	<i>rigi</i>
cassowary	<i>djuga</i>
chicken	<i>tutu, kukreku</i>
parrot	<i>kabrai</i>
hornbill	<i>nareng</i>
dove	<i>guna</i>
crocodile	<i>vaja, vau</i>
bird sp.	<i>koki</i>
bird sp.	<i>oka</i>
bird sp.	<i>koli</i>
bird sp.	<i>bikro</i>
wing	<i>badi-manasi</i>
lizard	<i>maluem</i>
frog	<i>orong-orong</i>
fish	<i>kal'b</i>
Fly	<i>niniga, ganjaniga</i>
ant	<i>uru, ugu, didjal'</i>
spider	<i>kobum</i>
cicada	<i>ken'-ken'</i>
squid	<i>gurete</i>
Person	
man	<i>tamo</i>
middle-aged man	<i>tamo-bilen</i>
old man	<i>tamo-kovai</i>
boy	<i>kil'mar, remur</i>
youth	<i>relago</i>
woman	<i>nang[e]li</i>

woman of 20–25 years	<i>nangli-bilen</i>
girl	<i>dagne</i>
children of both sexes	<i>malasi</i>
father	<i>mem</i>
mother	<i>am</i>
son	<i>do</i>
daughter	<i>dunderla</i>
brother	<i>abadam</i>
uncle	<i>baba</i>
address term for a man one has given a pig or pork to	<i>kobug</i>
address term for a man one has given a dog or dog meat to	<i>narum</i>
name	<i>denum</i>
head, forehead	<i>gate, mamangabar</i>
eyes	<i>namge</i>
nose	<i>mana</i>
nasal septum	<i>tile</i>
mouth	<i>mubo</i>
teeth	<i>agi, kagi</i>
tongue	<i>muen</i>
cheek	<i>uga</i>
ear	<i>dab, dab-bagry</i>
eyebrows	<i>namtange</i>
head hair	<i>gate-bagry</i>
body hair	<i>uli</i>
curls on the back of the head	<i>gatesi</i>
male pubic hair	<i>ū-djau</i>
female pubic hair	<i>ā-djau</i>
beard	<i>djau</i>
neck	<i>ko</i>
larynx	<i>gasengor</i>
chest	<i>mine, aval'</i>
back	<i>oro, melom</i>
belly	<i>tinam</i>
navel	<i>ujagolja</i>
rump	<i>bitamram</i>
penis	<i>ū</i>

testicles	<i>bola</i>
vagina	<i>ā</i>
arm, hand	<i>ibon</i>
elbow	<i>ibon-gor</i>
finger	<i>ibon-ge</i>
fingernail	<i>ibon-si</i>
palm of hand	<i>ibon-are</i>
leg, foot	<i>samba</i>
knee	<i>samba-gor</i>
calf	<i>ajandamu</i>
heel	<i>samba-burlu</i>
sole of foot	<i>samba-are</i>
toes	<i>samba-ge</i>
toenail	<i>sambung-si</i>
heart	<i>nisia</i>
blood	<i>gaer</i>
blood vessel	<i>dul'</i>
bone	<i>surle</i>
meat	<i>damu</i>
rib	<i>djarge</i>
collarbone	<i>kone</i>
breastbone	<i>are-djambi</i>
stomach	<i>ugle</i>
small intestine	<i>sinam</i>
colon	<i>lar</i>
liver	<i>arre</i>
gallbladder	<i>isse</i>
lungs	<i>oror</i>
backbone	<i>koolam</i>
bladder	<i>ipumen</i>
right hand	<i>gangmu</i>
left hand	<i>uain</i>
little finger of the left hand	<i>jamba</i>
ring finger of the left hand	<i>aliu</i>
middle finger of the left hand	<i>al'vao</i>
forefinger of the left hand	<i>undir</i>
thumb of the left hand	<i>singem</i>
little finger of the right hand	<i>ibon-busjuli</i>
ring finger of the right hand	<i>ibon-tauli</i>

middle finger of the right hand	<i>ibon-si</i>
forefinger of the right hand	<i>ingri</i>
thumb of the right hand	<i>ibon-ni</i>
burn scar	<i>bubera</i>
saliva	<i>misil</i>
sweat	<i>mamanin</i>
Village, home, tools	
village or single house	<i>chog[e]mu</i>
house	<i>ta[a]l</i>
small hut	<i>tal'-do</i>
low hut	<i>barla</i>
large men's house	<i>buamramra</i>
high bench or k. o. table	<i>barla</i>
door	<i>leme</i>
ladder	<i>teta</i>
fence	<i>rar</i>
two central posts that carry the roof beam	<i>dogam-tamo</i>
four corner posts	<i>dogam nangeli</i>
roof beam	<i>obutan</i>
2 horizontal poles that connect the corner posts	<i>demum</i>
the front and back poles that connect the corner posts to the roof beam	<i>eli</i>
rafters	<i>tua</i>
outside the village	<i>dubu</i>
wooden bowl	<i>tabir</i>
coconut shell used as plate or vessel	<i>gamba</i>
clay pot	<i>vab</i>
potsherds used as pans	<i>vab-sab</i>
calabash, bottle	<i>kobu</i>
spoon from coconut shell	<i>kai</i>
spoon from bone	<i>šiljupa</i>

shell used to scrape coconut	<i>iarur</i>
knife	<i>serao</i>
digging stick	<i>udja</i>
trowl	<i>udja-sab</i>
bone knife or dagger	<i>dongan</i>
shell for polishing wood	<i>rerum</i>
basket	<i>gambor</i>
flat basket	<i>lekle</i>
coconut frond mat	<i>godim</i>
sago leaf sitting mat	<i>buam-tabegam</i>
idol figure	<i>telum</i>
dugout canoe	<i>kobum</i>
dugout canoe hull	<i>kobum-ani</i>
board	<i>kobum-rava</i>
canoe platform	<i>kobum-barla</i>
outrigger	<i>saman-mole</i>
outrigger boom	<i>kiainda (sic)</i>
wood nails connecting booms to outrigger	<i>saman-batota</i>
rudder	<i>ja</i>
wooden drum	<i>barum</i>
Clothing, weapons	
man's or woman's apron	<i>mal'</i>
armband above elbow	<i>sagju</i>
earring	<i>mela</i>
bamboo or stone ear decoration	<i>dab-tumbu</i>
nose-ring	<i>mana-tambu</i>
feather headdress	<i>katazan'</i>
bamboo §	<i>[g]asen</i>
pig-tusk decoration hanging from neck	<i>rormat-bul'ra</i>
man's bag, carried over left shoulder	<i>tel'run, karun</i>
man's little bag, carried on string around neck	<i>jambi, arigabi</i>

large stringbag carried on a woman's back	<i>gun</i>
man's shell belt	<i>ogbog</i>
man's hairband	<i>dju</i>
spear	<i>xadža</i>
bow	<i>aral'[age]</i>
bowstring	<i>aral'-ane</i>
arrow	<i>aral'-ge</i>
fish spear	<i>jur</i>
axe	<i>topor</i>
drum	<i>okam</i>
red face paint dye	<i>suru</i>
black face paint dye	<i>kumu</i>
music, musical instrument, men's celebration	<i>aj</i>
bamboo flute	<i>tjumbin</i>
musical instrument type	<i>aj-kabraj</i>
musical instrument type	<i>munki-aj</i>
musical instrument type	<i>orlan-aj</i>
musical instrument type	<i>ilol'-aj</i>
musical instrument type	<i>djaboku</i>
Adjectives, adverbs	
white	<i>aubi</i>
red	<i>isjuron</i>
blue	<i>ombrim</i>
yellow	<i>arle</i>
black	<i>anjambi</i>
bad	<i>borle, aka</i>
bad, worthless	<i>digor</i>
good	<i>bilē, aue</i>
small	<i>kenĩ, kenenen</i>
enough	<i>kere</i>
ready	<i>aue</i>
not really	<i>javen</i>
same	<i>al'germe</i>
the same	<i>mondon</i>
some time ago	<i>name</i>
here, where	<i>ande</i>

Pronouns	
I	<i>adi</i>
thou	<i>ni</i>
s/he	<i>nadi</i>
my	<i>adim</i>
thine	<i>nin</i>
hers/his	<i>nadin</i>
Numerals	
1	<i>chudi</i>
2	<i>ali</i>
3	<i>alub</i>
4	<i>gorle</i>
5	<i>ibon-be</i>
6	<i>igle-be</i>
7	<i>igle-ali</i>
8	<i>igle-alub</i>
9	<i>igle-gorle</i>
10	<i>ibon-ali-ali</i>
20	<i>samba-ali-ali</i>
Verbs	
be	<i>sen</i>
not be	<i>aren</i>
sleep	<i>njavar</i>
sit	<i>meja</i>
sit down here	<i>ande mi[e]</i>
stand	<i>pandingar</i>
go, cook	<i>olar</i>
walk, fly, swim	<i>barynja</i>
go	<i>angar</i>
I go	<i>angarmem</i>
gone	<i>angen</i>
come here	<i>gena</i>
I'll come	<i>ginesi</i>
they have come	<i>ginen</i>
come!	<i>geniba</i>
will they come?	<i>genban?</i> <i>genbeben?</i>
when they come...	<i>genbusin</i>
give	<i>ibi, jembe, adibi</i>
take	<i>nambe</i>
peel	<i>neljar</i>
scratch, scrape	<i>njau</i>
wipe	<i>sevar</i>
eat, drink, smoke	<i>ujar</i>
eaten	<i>uemen</i>

speak	<i>marena</i>
howl (of dog)	<i>anjan</i>
howl (of woman)	<i>agam[er]</i>
see	<i>onar</i>
have you seen?	<i>ni onemen</i>
look here	<i>ni onesi</i>
let me see (it)	<i>adi onar</i>
forget	<i>latibor</i>
lay down, hide	<i>diogar</i>
tie up	<i>urenger</i>
bite	<i>otangere</i>
hit	<i>garleran</i>
chew	<i>oveser, ovar</i>
hold s. o.'s hand	<i>barua</i>
blow	<i>pua</i>
carry, put down	<i>elear, maruar</i>
break (s. t.)	<i>alutar</i>
chop with axe	<i>gurar</i>
chopped	<i>guremen</i>
weave	<i>marau</i>
be hungry	<i>mambo</i>
laugh	<i>sjuer</i>
yawn	<i>arbitau</i>
sneeze	<i>eserla</i>
cough	<i>doral'</i>
urinate	<i>uebsira</i>
defaecate	<i>birova</i>
have sex	<i>uleran</i>