A MUSSAU VOCABULARY, WITH PHONOLOGICAL NOTES

Robert Blust

0. INTRODUCTION AND AIMS

According to Beaumont (1976) there are nineteen Austronesian (AN) languages spoken in the New Ireland Province of Papua New Guinea. While most of these are found on New Ireland itself, a substantial minority are spoken on outlying islands. The most northerly of these is the language of the St. Matthias Archipelago, separated by the 50-mile wide Ysabel Channel from New Hanover to the south, and by 100 miles of open sea from the Admiralty Islands to the south-west.

The St. Matthias group consists of Mussau (or Musau), some 110 square miles in extent, Emira (Emir, E Mira), about 18 square miles in extent, and a number of smaller islands including Tenis (or Tench), 40 miles due east of Emira and 60 miles from the nearest landfall in New Ireland. Population according to the 1970-71 census figures is Mussau 3,153, Emira 498, Tenis 49 (Beaumont 1972:13).

Although there appear to be some dialect differences on Mussau itself, the available evidence suggests that a single language is spoken throughout the St. Matthias Archipelago. The most extensive publication on this language to date is an English-Emira (E Mira) vocabulary of about 500 words collected by Chinnery (1927). Lithgow and Claassen (1968) offer a few passing observations on the phonetic typology of Mussau (Musau), Emira and Tenis. Based on a comparison of equivalents for the first 120 meanings of a standard S.I.L. test list they also report 92% shared cognates between Mussau and Emira. Capell (1971:261ff) states that a Mussau (Musau) wordlist and sentences were supplied to him in 1945, and that he himself took some fieldnotes in 1952 on Emira (E Mira). He lists the Emira pronouns (singular, dual, trial, plural) together with three sentences, and a few possessive forms from Mussau. Beaumont (1972:29), who provides the most extensive review of the linguistic literature on New Ireland currently available, calls attention to an unpublished Mussau-English and English-Mussau wordlist which "was probably written by Pastor A.S. Atkins who was pioneer missionary for the Seventh Day Adventist Mission from 1934-1942. Each section of the wordlist has about 600 words". There are no phonological data in Chinnery nor, reportedly, in this manuscript. Finally, Beaumont (1976), basing himself on the first 105 items of the S.I.L. comparative vocabulary used by Lithgow and Claassen, gives a cognate score of 66% for Tenis with Mussau-Emira, which he treats as a single language (called 'Emira-Musau'). Based on cognate percentages with other languages of the New Ireland Province he assigns Emira, Mussau and
Tenis to a distinct St. Matthias subgroup. Nine Mussau-Emira and six Tenis words are given on a comparative vocabulary of New Ireland languages, and all six cases of overlap appear to be cognate.

The following vocabulary of approximately 570 words was collected as an incidental by-product of fieldwork conducted in the Admiralty Islands from February to May, 1975. Several Mussau speakers were located near Lorengau, Manus, and two elicitation sessions were arranged totalling about six contact hours. All elicitation was through the medium of New Guinea Pidgin English. The principal informant was Uloolu Ainamangas, a native of Lomakunauru village on southern Mussau who was born around 1930 and had served for several years as a Seventh Day Adventist missionary stationed in Manus. I was told that the speech of central and northern Mussau villages differs in some particulars from that of Lomakunauru.

My major aims in this paper are: 1. to extend the published lexical record for Mussau-Emira beyond the beginning made by Chinnery in 1927, and 2. to provide a first statement of both the synchronic and the diachronic phonology, which until now has been all but totally neglected. In addition to these aims I offer a few very limited remarks on grammar.

1. GRAMMAR

The discussion of grammar will be divided into 1. subsystems (numerals, pronouns) and 2. morphology and syntax.

1.1 Subsystems

The Mussau system of numeration can be outlined as follows. Numerals 16 - 19 were not recorded, but are inferred on the basis of the system apparent in the forms actually transcribed:

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   1 sesa      17 (ka-sa-ŋaulu-ga-itu)
   2 lua       18 (ka-sa-ŋaulu-ga-ulau)
   3 tolu      19 (ka-sa-ŋaulu-ga-sio)
   4 ata       20 ga-lue-ŋaulu
   5 lima      30 ko-tolu-ŋaulu
   6 nomo      40 ga-ati-ŋaulu
   7 itu       50 ga-lima-ŋaulu
   8 upalu     60 ga-onomo-ŋaulu
   9 sio       70 ga-itu-ŋaulu
  10 sa-ŋaulu  80 ga-ulau-ŋaulu
  11 ka-sa-ŋaulu-ka-teba 90 ga-sio-ŋaulu
  12 ka-sa-ŋaulu-ga-lua 100 ai-e-teba
  13 ka-sa-ŋaulu-kotolu 200 ai-e-lua
  14 ka-sa-ŋaulu-ga-ata 1000 airari-e-teba or ka-teba-airari
  15 ka-sa-ŋaulu-ga-lima 2000 airari-e-lua or ga-lua-airari
  16 (ka-sa-ŋaulu-ga-onomo) 3000 airari-e-tolu or ko-tolu-airari
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As can be seen, Mussau has an unmixed decimal system of counting. Moreover, the numerals 2 - 10 clearly reflect the corresponding Proto-Oceanic (POe) forms. The most significant synchronic problems in analysing this system are: 1. the suppletive alternation of sesa and teba in the meaning one, 2. the phonological alternation of lua (2, 12, 200, 2000) with lue (20), 3. the phonological
alternation of ata (4, 14) with ati (40), 4. the phonological alternation of nomo (6) with onomo (60), 5. the phonological alternation of ka, ga and ko, 6. the seemingly redundant presence of this preposed element in numerals above ten.

If the limited material permits any definite conclusions, sesa is perhaps restricted to serial counting (cf. la-ña-teba one day, bo-ña-teba one night, koko a-teba one fish). In the preceding contexts the function of teba seems to border on that of an article. This is further suggested by the recorded contrast ane-gi niu my coconut: ane-gi niu e-teba I have a/one coconut. One might therefore expect ale-gi e-teba to mean I have a/one house (ale), but this string was actually given to me in the meaning my house. Moreover, kina-gi e-teba my mother (kina) could hardly have a clausal interpretation. It thus appears likely that one form of possessive marking derives from an earlier clausal construction in which the numeral/article has (at least in non-contrastive contexts) become semantically vacuous. No reason can be given for the alternation of lua with lue, but explanations for the other anomalies will be suggested below.

Before considering the pronouns it should be noted that Chinnery’s material on the Emira numerals differs from mine in the following respects: 1. the word for one is unrelated (Latin-ng ai ia), 2. lua is the only stem form for two, (cf. galua two, ga luang au ulu twenty), 3. ati is the only stem form for four (gati four, ga ting au ulu forty), 4. onomo (written unomo) is the only stem form for six (gau nomong au ul sixty), 5. ga does not alternate with ka or ko (ga luang au ulu twenty, gato lung au ulu thirty), 6. ga appears on all numerals above one (galua, gatolu, gati, galima, etc.).

Mussau has three sets of pronouns of which the first two are partially similar. These are labelled A, B and C below. With one exception, only the singular forms were recorded for the third set.

<table>
<thead>
<tr>
<th></th>
<th>Set A</th>
<th>Set B</th>
<th>Set C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>sg.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>agi</td>
<td>-gi/gu</td>
<td>a-</td>
</tr>
<tr>
<td>2</td>
<td>io</td>
<td>-m</td>
<td>u-</td>
</tr>
<tr>
<td>3</td>
<td>ia</td>
<td>-na</td>
<td>e-</td>
</tr>
<tr>
<td><strong>dual</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (incl.)</td>
<td>ita lua</td>
<td>ita lua</td>
<td></td>
</tr>
<tr>
<td>(excl.)</td>
<td>ami lua</td>
<td>ami lua</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ana lua</td>
<td>ana lua</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ila lua</td>
<td>ila lua</td>
<td>la-lu</td>
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<tr>
<td><strong>plural</strong></td>
<td></td>
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</tr>
<tr>
<td>1 (incl.)</td>
<td>ita</td>
<td>ita</td>
<td></td>
</tr>
<tr>
<td>(excl.)</td>
<td>ami</td>
<td>mami</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ana</td>
<td>ana</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ila</td>
<td>ila</td>
<td></td>
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</tbody>
</table>

Set A consists of independent subject pronouns, Set B of object and possessive pronouns and Set C of proclitic subject markers in the verb complex (see below). A single trial form was recorded (ana tolu), and it therefore seems likely that a trial/paucal number is morphologically distinguished in Mussau, as it is in Emira. Collective plurals ita akapa all of us and ila akapa all of them were also recorded.
Capell's (1971) data indicate two types of possessive construction in Mussau, the first marked by a postclitic pronoun (tama-gi *my father*) and the second by a preposed complex of relation marker (RM) plus clitic pronoun: kalu-ku niu *my coconut* (as mere possession), ane-gi niu *my coconut (to eat)*, o-i-gu niu *my coconut (to drink)*. This type of distinction is, of course, widely attested in Oceanic languages. As indicated in the vocabulary, virtually all body part names and kinship terms as well as some non-material extensions of the self ('shadow/soul', 'name') were recorded with obligatory possessive suffixes. Unlike the situation in many Oceanic languages, however, some nouns which are not obligatorily possessed evidently take the same suffix, as in ale-gi e-teba *my house* (cf. e.g. nima-gi *my hand*, kina-gi e-teba *my mother*). Apart from ane-gi inana *my food* and ane-gi koko *my fish (to eat)*, I recorded little further information on the preposed relation markers. The possibility that Mussau has some relation markers other than those listed by Capell is suggested, however, by une-gi pen(i) *my pen*.

1.2 Morphology and syntax

I collected only 23 isolated sentences, three intransitive verb paradigms (eat, sleep, laugh) in the singular, and one relatively complete transitive verb paradigm (look). These are given in full below:

(1) sei e-nama-la ane-gi koko a-teba
   who he-eat RM-my fish a/one
   who ate my fish?

(2) u-nama-la saa
   you-eat what
   what did you eat?

(3) polii-saa John e-nama-la ane-gi koko a-teba
   why he eat RM-my fish a/one
   why did John eat my fish?

(4) a-nama-ie-la polii a-maamalo
   I-eat because I-hungry
   I ate it because I was hungry.

(5) elobi-saa u-gaa-la koko a-teba
   time-what you-catch fish a/one
   when did you catch the fish?\(^5\)

(6) ea u-gaa-la koko a-teba
   where you-catch fish a/one
   where did you catch the fish?

(7) u-gaa-la koko tale-saa
   you-catch fish how
   how did you catch the fish?

(8) u-gaa-la ga-isa koko
   you-catch how many fish
   how many fish did you catch?

(9) koko e-kaakaa-i tale keru
    fish it-stay-at inside basket
    the fish is inside the basket
(10) une-gi pen(i) atiulu toko/too/teke
   RM- my pen      this/that/that
   this/that is my pen

(11) gai-a uru-ŋ(ai me u-la su-lu-i
   fetch-it paper and you-go burn-it
   take the paper and burn it!

(12) poso-a-la ta-nima-m
   hold    in-hand-your
   hold it in your hand!

(13) pasi pate-a-la
   cut    break
   go cut it!

(14) porapora nima-m
   wash    hand-your
   wash your hands!

(15) bibi aogi e-la
   push back
   push it back!

(16) ṇusu poi e-la
   smell odor
   smell it!

(17) e-asai inoa-na
   he-pull breath-his
   he is breathing

(18) ila lokuloku
   they dance
   they are dancing

(19) agi a-tuutuu
   I    I-cook
   I'm cooking

(20) agi a-unu
   I    I-work
   I'm working

(21) ane-gi niu e-teba
   RM- my coconut a/one
   I have a/one coconut (to eat); my coconut

(22) agi a-ropi manu
   I    I-drink water
   I'm drinking water

(23) sei arari-m
   who name-your
   what is your name?

(24) a. agi a-namanama  I'm eating
    b. io u-namanama  you're eating
    c. ia e-namanama  he's/she's eating
(25) a. agi a-asekanue I'm sleeping
   b. io u-asekanue you're sleeping
   c. ia e-asekanue he's/she's sleeping

(26) a. agi a-kaŋakaŋa I'm laughing
   b. io u-kaŋakaŋa you're laughing
   c. ia e-kaŋakaŋa he's/she's laughing

(27) a. agi a-tara-la eta-na or agi a-tara ie-la
I'm looking at him/her
   b. io u-tara-la eta-gi or io u-tara-ie-gi-la
you are looking at me
   c. ia e-tara-la eta-m or ia e-tara io-la
he is looking at you
   d. ia e-tara-la eta-ita or ia e-tara ita-la
he is looking at us (incl.)
   e. ia e-tara-la eta-mami or ia e-tara mami-la
he is looking at us (excl.)
   f. ia e-tara-la eta-aŋa or ia e-tara aŋa-la
he is looking at you (pl.)
   g. ia e-tara-la eta-ira or ia e-tara ira-la
he is looking at them
   h. ila-lua la-lu tara-la eta-gi
they (dual) are looking at me
   i. ita tara-la eta-na
we (incl.) are looking at him/her
   j. ami tara-la eta-na
we (excl.) are looking at him/her

In addition to the above the following complex noun phrases should be noted: atei ι talia (= fresh water + round) lake, manu kulalaba (= water + big) high tide, kapu-gu bause (= elder sibling + my + female) my older sister, tubu-gu bause pisike (= lineal consanguine two generations removed + my + female + small) my grand-daughter, patu nima (= joint + arm) elbow, uu gila (= feather + bird) feather, biliki niu (= skin, integument + coconut) coconut husk, biliki-ŋ-ai (= skin, integument + tree) tree bark, riu-ŋ-aasono (= bone + of + rafter) rib, uru-ŋ-ai (= leaf + of + tree) leaf; paper, rarum-i-koko (= water + of + fish) fish broth, pakasa handle, pakasi kapu ( = handle + i + adze) adze handle.

Based on the foregoing extremely limited data the following tentative conclusions about Mussau sentence structure can be advanced:

1) the order of major sentence constituents is SVO

2) this order is internally mirrored in the verb complex. The verb complex is a single phonological word which consists minimally of two elements: 1. a pro-clitic subject marker which varies for person and number, and 2. the verb stem. Various suffixes or postclitics may follow a transitive verb stem, but too little material was collected to determine their functions with certainty (see below).

3) locative relations are indicated by prepositions
4) the structure of attributive constructions is head (+ possessor) + attribute. Genitive constructions follow the order part + whole.

As in human languages generally, the shortest morphemes in Mussau often present the biggest problems in analysis. A brief inventory of minor morphemes identified, and their possible functions follows:

/a/- (ligature?). The /a/ that appears in e.g. koko a-teba a/one fish looks rather like a numeral ligature, but this cannot yet be determined with confidence. Moreover, the relationship of this /a/ to the /e/ of e.g. ale-gi e-teba my house remains unclear.

-/a/ (transitive). An unambiguous suffix -/a/ was recorded in a few verbs, where it appears to mark transitivity. The clearest example is seen in the contrast between kasu mai come here (vocative) and kasu-a mai to bring (something).

-(V)na (attributive). An attributive suffix containing the common element -na is common in Mussau adjectives. In some cases this seems clearly to have the phonological shape -ana, as in raerae-ana red (cf. rae blood) and usosouso-ana white. In other cases the shape appears to be -ena, as in riuriu-ena skinny thin (cf. riu bone) and bobonji-ena black. In still other cases the suffix is -na, as in masoso or masoso-na ripe, cooked, kalakalanj-na near, malango-na dry, ou-na new. Lastly, some adjectives have no suffix, as aanaa hot, makarige cold, namuu big, pisike small, sesa bad, onose sweet and masau far. The distribution of -(V)na allomorphs is phonologically unpredictable, and so is mentioned here. Other problems with this suffix which may be amenable to a phonological solution are discussed under 'morphophonemics'.

/e/ (predicative?). This is perhaps the single most problematic morpheme recorded in the entire corpus. It appears before the citation forms of many (though not all) verbs, as in e asoaso poi to dream, e bukabukala to float, e (ma)matautu to fear, be afraid and e porapora to wash (but cf. asasa to swim, kanusu to spit, ropi to drink). In this position it resembles the marker of indefinite predication reported for Fijian, Samoan, Rennelense and some other Oceanic languages. Its absence with many verbs, however, is puzzling — though this may simply reflect the optional character of the particle in conjunction with the limited size of the corpus. In some other respects /e/ resembles a pronoun, much like the similar particle in Motu, Gilbertese, Marshallense and Ponapean, and it is possible that it will ultimately prove to be identical to the third person singular Set C proclitic. In addition /e/ is found criticised to /la/ in several imperative sentences, and occurs in such directional expressions as e lamana toward the sea and e lae toward the interior. As already noted, the /e/ in ale-gi e-teba my house or a-e-teba one hundred resembles a ligature. Finally, /e/ appears to be lexicalised in some words and expressions, as in e lo marase sky (PRED-in-middle), e lo alai good afternoon and possibly eboi-saa (= e lo bi saa?) when?

/eta/ (preposition?). A preposition-like element /eta/ was recorded in sentences 27a - j, where it is phonologically bound to the following object pronoun. It is possible that this phonological sequence consists of /e/ plus /ta/, and that the second morpheme is identical to the prenominal particle in poso-a-la ta-nima-m hold it in your hand!

/i/ (genitive). A genitive marker /i/ was recorded in rarum i koko fish broth. A second example can be isolated by comparison of pakasi kaputu handle of an adze with pakasa handle (in general), and a third example may be lexicalised in tukui lapu rainbow (cf. lapu kind of colorful lizard). An apparently more productive genitive marker is /y/ (see below).
/i/ (locative?). A single example of a possible locative marker /i/ was recorded in the sentence koko e-kaakaa-i tale keru the fish is inside the basket.

-/ie/. As noted already, the postverbal clitic complex -e-la occurs in several imperative sentences in the corpus. In one known case, however, the sequence -i-e-la is postposed to the verb stem: soa-i-e-la—shoot/stab him/it! (cf. soaso—la idem). Moreover, as seen in soaso—la, such variant pairs as katuu/katuu—la to fall and the first variant of sentences 27a—j, /la/ sometimes is postposed directly to the verb stem. Given these facts the morphological analysis of some verbs that were transcribed only in complex form is ambiguous: e.g. [ŋusu poiyela] smell it! = /ŋusu poi e la/ or /ŋusu po i e la/? In general I have chosen the pattern that appears to be most common for unambiguous forms. Thus in the present case I write /poi e la/, since -e-la is the most frequent postverbal clitic complex in my data. Given the overall pattern it seems likely that sentence 27b u-tara—ie—gi-la is an error for u-tara—gi-la. If so, there are grounds for regarding -ie as an allomorph of the third person singular Set A pronoun /ia/ and for regarding Set A forms as not exclusively subject pronouns.

-/la/. This element is closely associated with postverbal /e/, and is almost equally difficult to characterise given the limitations of the data. In sentences 27a—j, it might be considered a generalised (invariant) object marker which is postposed either to the verb or to the object pronoun. However, the citation form of to see, look at was recorded as tarala, and /la/ occurs in such intransitive constructions as /e mate /a/ he is dead. The preverbal /la/ of /la pasa asi/ plant the taro! appears to be distinct, though this is by no means certain. Finally, as will be mentioned presently, the main verb laa to go, walk is sometimes used as a verbal auxiliary to indicate motion away from the speaker, as in kasu—a laa to take. In [biβi aogi ela] push it back! the informant suggested that [ela] = go. If so it is possible that [ela] is /e laa/, and that these constructions thus parallel (or are calqued on?) Pidgin verbs of motion with /i/ (e.g. siubim i go push). However, since the last vowel of -e-la was consistently recorded as short, the informant's remark may have been nothing more than a forced attempt to find Mussau translation equivalents of the Pidgin elicitation forms.

/laa/, /mai/ (directional). These two verbal auxiliaries were recorded in only a few forms, but their significance is unambiguous in kasu—a mai to bring, kasu—a laa to take. It is noteworthy that laa can also be used as a main verb with the verbal auxiliary mai, which then contrasts with tau: laa mai to bring, laa tau to take.

-/ni/. This morpheme was recorded only in bause—ni wife (cf. bause female, woman) and taita—ni husband (cf. taita male, man).

/ŋ/ (genitive). In view of the limited quantity of data collected /ŋ/ appears to be a highly productive genitive marker. It was recorded as a functional morpheme in eight compounds with ai tree (biliki—ŋ—ai bark of a tree, laa—ŋ—ai branch of a tree, lue—ŋ—ai base of a tree, etc.), as well as in several compounds with nei odor (nei—ŋ—asi odor of taro nei—ŋ—ulu odor of breadfruit, etc.). In addition, several genitive compounds have been lexicalised, as in riŋ—ŋ—asongo rib (lit. bone of rafter), uru—ŋ—ulta heart (lit. head of octopus) and possibly ai pake —ŋ—ale roof (lit. covering-thing of house?). /ŋ/ is realised as a velar nasal only before vowel-initial nouns. Before consonant-initial nouns it is realised as zero: biliki niu coconut husk, patu nima elbow, ui mosu tail of a pig. Given this complementation some genitive
compounds in which the second noun was not recorded in isolation are morphologically ambiguous: [talīŋa ƞįįj] kind of mushroom = /talīŋa ƞįįj/ or /talīŋa ƞįįj/? In a few other cases a proposed lexical entry may be a genitive compound, as with kalanjisi sandfly and patuŋana anchor. The relationship between /ŋ/ and /i/ remains unclear.

/ŋa/ (ligature?). Historically the initial CV of ƞaulu group of ten derives from a numeral ligature which may or may not persist as a separate morpheme in contemporary Mussau. A similar element is found in [laŋaṭaŋa] a/one day and [bonaŋeŋa] a/one night. Since the Mussau words for day and night almost certainly derive from prototypes *daŋi, *boni it is tempting to regard these collocations as /laŋ a teba/, /bon a teba/, thus confirming the apparent ligature noted in /koko a teba/ a/one fish. The principal difficulty with this proposal is that the unquantified bases were recorded as [la] light and [bo] night, thereby supporting a phonemic analysis /laŋ a teba/, /bon a teba/. The homophonous postnominal element in tuu laalaa-ŋa-na fork of its branch (cf. laa branch) appears to be distinct.

/pa/- At some level of analysis it seems certain that paluaalua twin is to be related to lua two, but no parallels to the morphology of this form were observed.

/teba/ (article?). As noted already, teba resembles an article in some contexts, though in other contexts this interpretation is difficult. It is unclear why it was recorded in sentences (1), (3), (5) and (6) but not in sentences (7), (8) or (9).

/toa/ (collective). A collective particle toa was recorded in alikietoa children (cf. natu child, offspring), namuu atoa adults (cf. namuu big, wide; old, of people) and tungiatoa all. The phonemic analysis of these three items appears therefore to be /alikie toa/, /namuu ƞa toa/, /tu ƞa toa/. Such an analysis strengthens the argument for a ligature /ŋa/, and raises further questions about the range of functions of /e/. It is possible that the last element of /aluse taumata tu/ tall person is to be identified with the first element of /tu-ŋa toa/.

In addition to the foregoing minor morphemes which can be isolated on the basis of contrast within the present grammatical system of Mussau, two affixes which may or may not be productive can be isolated through comparison with other Austronesian languages.

/ai/- (collective or reciprocal action). Several recorded polysyllabic verbs appear to contain a reflex of POC *pəɾi- prefix of collective or reciprocal action. The most convincing candidates are aiobi to fight, as in war, aiora to copulate and perhaps aitoka to collect, gather. This affix may still be functional in Mussau, but the available data are insufficient to determine the point.

/ma/- (attributive). Many Mussau adjectives — both those recorded with the attributive suffix -(V)ŋa and those recorded without it — are polysyllables that begin with ma-: malaŋona dry, mamaatana heavy, masikana sweet, malalake thin, of materials, maroate wet, masau far, etc. Two words of this type were recorded with an optional additional sequence ma-: (ma)matautu to fear, be afraid, (ma)maulue living, alive. It is not known whether this extension is 1) a historically secondary layer of identical morphology or 2) a product of partial reduplication. If 1) these two items can be taken as evidence that /ma/- is still functional in Mussau. In view of the fact that ma- and -(V)ŋa can co-occur in the same base, however, it seems more likely that ma- is moribund, if not defunct.
Reduplication. A substantial number of the word bases in my corpus are reduplicated. In some cases reduplication appears to be little more than an arbitrary feature of the lexical item with no semantic content, as with areae susu nipple of the breast, batibati spider or gulugulua straight, correct, true. With non-stative verbs, however, reduplication probably has some grammatical functions. The available material does not permit us to state these with complete confidence, but a correlation of non-reduplicated verb stem with purposive or goal-directed action on the one hand, and of reduplicated verb stem with non-purposive or non-goal-directed action on the other seems likely. This perhaps appears most clearly in kasu mai come here!, kasu-a mai to bring, kasu-a laa to take next to kasukasu to walk, kuu-e-la blow on it! next to kuukuu to blow, of the wind and perhaps suusiio to dive down next to suusuu to bathe. In general this correlation can be stated in terms of transitivity, since purposive action is most commonly transitive and non-purposive action most commonly intransitive. Contrasts such as suusiio vs. suusuu and u-nama-la saa what did you eat? vs. ia e-namanama bua he is chewing betel suggest nonetheless that the basis for the distinction is not transitivity as such, but some other feature closely associated with it. Some exceptions to the foregoing pattern appear to exist, as with porapora mata-m wash your face! (where, however, a non-reduplicated base was not recorded) and soaso-a la stab him/it!.

Finally, several words of three identical syllables were noted, as with mamama to yawn and mumumu to suck. These appear to be invariant.

Subject pronoun deletion. Subject pronouns were recorded almost entirely within grammatical paradigms. In sentences that were not collected with a view to paradigmatic contrast the subject pronoun was normally omitted, much as in Romance, where person is marked redundantly by verbal inflection. 8

Order of question words. As can be seen in sentences (1) - (8), the interrogatives 'who?', 'why?', 'when?' and 'where?' are preverbal, while the interrogatives 'what?', 'how?' and 'how many?' are postverbal. The latter two, however, differ in that 'how many?' precedes the object, whereas 'how?' follows it. The data are insufficient to determine whether these observational differences reflect underlying syntactic differences, or merely the random recording of variable orders common to all of these words.

2. SYNCHRONIC PHONOLOGY

The discussion of synchronic phonology will be divided into 1. phoneme inventory, 2. phonotactic constraints, 3. morphophonemics and 4. phonetics.

2.1 Phoneme inventory

Mussau makes contrastive use of eleven consonants and five vowels, as follows:

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>p t k b g m n ñ s</td>
<td>i u e o a</td>
</tr>
<tr>
<td>r</td>
<td>(plus length)</td>
</tr>
</tbody>
</table>
In addition to the above I transcribed two phones which might be called "phantom laryngeals". Lithgow and Claassen (1968:7) noted as a general phonetic feature of Emira-Musau a "fluctuating ... h preceding word-initial vowels". I did not observe this feature, but instead transcribed [h] in final position once in [agih] I (which was otherwise recorded many times with a final vowel), and in [gagah] manta ray, which was recorded only once. Similarly, I transcribed an optional weak glottal stop following underlying final vowels in a number of words.

Neither of these phones is phonemic. They will be discussed further under phonetics (2.4).

2.2 Phonotactic constraints

Although trisyllables are quite common and quadrisyllables not unusual, a preliminary check of non-reduplicated bases in Musau suggests that the canonical shape with greatest frequency is CVCV.

There appear to be no limitations on the distribution of vowels, which occur in geminate clusters (aanasa warm, hot biiso foam, froth, bubbles) and in heterorganic clusters of up to four members (uaiata large brown rock ood). Final u, however, is rare after m, having been recorded only in mumumu to suck.

There is one known limitation on the distribution of consonants: /l/ and /r/ may not co-occur within the same morpheme. That this constraint is not due to accidental gaps in the data is clear from the historical phonology, where the non-permitted sequences invariably assimilated to /r/ ... /r/. Moreover, as seen earlier, a puzzling feature of the recorded third person plural pronoun is the occurrence of Set A ila, but Set B ira. The full significance of this observation is impossible to appreciate with the data to hand, but it is striking that in the dual number the liquid of the dual marker co-varies with that of the pronoun: ila lua they (dual), but ira rua them (dual).

The major question in Musau phonotactics is whether underlying final consonants and consonant clusters should be recognised. Final consonants were recorded in fourteen morphemes, as follows: 1. abum, 2. aum, 3. bagalaim, 4. batum, 5. gomgom, 6. kulum, 7. -m, 8. malumulm, 9. patio, 10. pen(i), 11. rarum, 12. raum, 13. saurorom, 14. taon. In addition a heterorganic consonant cluster was recorded in items 5 and 8 above, and in tuntumayana dull, blunt.

As can be seen, the range of consonants that is permitted pre-consonantally or before word-boundary in Musau is severely restricted. If we exclude the recent English loanword pen(i), which has an optional pronunciation with final vowel, only /m/ was recorded in these environments except in items 9 and 14. However [patiyōn] was transcribed with an irregular final stress which indicates that an underlying final vowel of undetermined quality has been deleted by a low-level allophonic rule. Similarly, Nevermann (1933:98) gives taono as the name of a fruit tree. If connected, this suggests that [taon] is a free variant of [taono]. These two words are thus perhaps best regarded (despite the stress in [tɑon]) as containing an underlying final vowel. As will be seen below (phonetics, 2.4), final vowels are commonly devoiced in Musau. In a number of words both Chinnery and Nevermann write a final consonant where I recorded an optionally voiceless vowel: Chinnery talinga bulong (bolo) deaf, kalangis (kalangisi) sandfly, Nevermann sinak (sinaka) sun. We must, therefore, ask whether preconsonantal and final /m/ is a feature of Musau morpheme structure, or a phonetic fact which results from the application of a low-level allophonic rule of vowel devoicing.
Since no instances of preconsonantal or final /m/ were recorded following /a/ or /e/, it might be supposed that these problematic consonants are followed in underlying representations by a vowel identical to that which precedes them: /abumu/, /bagalaimi/, /gomogomo/, etc. There are, however, two difficulties with this proposal. First, comparative evidence shows that the deleted vowel was not always identical to the vowel of the preceding syllable (thus gomgom < *komi komu). Supplying the missing vowel without phonetic or morphophonemic support from the language itself can therefore be a matter of rather hazardous guesswork. Second, although most of items 1-14 are represented by a single token in my fieldnotes, the second person singular Set B pronoun -m was recorded repeatedly in possessive paradigms as a final nasal. In at least some morphemes, then, a final vowel appears to have been genuinely lost. For the two reasons just given preconsonantal and final /m/ are tentatively written in a small number of forms. Further checking of the phonetic details of these forms by future fieldworkers on the language is, of course, strongly recommended.

2.3 Morphophonemics

Several morphophonemic problems were raised in connection with the numerals and will be discussed now.

In the first of these ati was seen to alternate with ati in ata four, ka-sa-naulu-ga-ata fourteen next to ga-atinaulu forty. It has been suggested elsewhere (cf. e.g. Blust 1974:105) that Proto-Oceanic had both *pat and *pati four. Mussau ati, ati may therefore reflect POC *pat and *pati respectively, though any syntactic distinction that may once have obtained has apparently now been lost.

A second alternation noted earlier in the numerals was that of onomo and onomo in nomo six and ga-onomo-naulu sixty. Historically *onomo six is expected, but all other numerals below ten are phonetically disyllabic (/ua lu/ = [walu]), a fact which we may presume to be perceptually more salient than the fact that all multiples of ten below one hundred consist of six syllables except sixty, which consists of seven. The alternation of nomo with onomo can thus be attributed to apocope under canonical pressure.

A third alternation in the numerals is that of ka-, ga-, ko-. So far as can be determined, this alternation is – at least in part – phonologically conditioned: k precedes a stem that begins with a voiceless stop (but not with s !), and o precedes a consonant-initial stem of which the second vowel is o. The latter condition, however, is ad hoc, and may not be genuinely phonological. A slightly different condition governs the alternation of the suffixal vowel in -gu (following stems that end in a rounded vowel) and -gi (elsewhere) first person singular Set B pronoun. The variant -ku, recorded by Capell in Emira, was not recorded in Mussau.

The last alternation in the numerals is that of ga- (which precedes numerals above ten) with zero (which precedes numerals below eleven). As noted already, Chinnery (1927) recorded this morpheme in all Emira numerals above 'one', and it seems likely from internal evidence (atu ko-tolu three stones of the hearth, trivet, gaisa how much, how many?) that a similar situation formerly existed in Mussau. The loss of ga- in the lower numerals is perhaps related to their greater conversational frequency, and the consequently greater pressure to minimise the articulatory effort needed to produce them.
The remaining morphophonemic alternations in Mussau centre about 1) the contraction of like-vowel sequences across morpheme boundary, and 2) suffixal alternations.

Contraction of the derived sequence $a + a$ was observed in aitoka to collect, gather + aitaaua together + [aitɔkaɪtɔwə] gather together and in e.g. agi a-asekanue + [âgi âsekanuwe] I'm sleeping. Contraction of the derived sequence $a + aa$ was observed in papapa shoulder + aanasa hot + [pappãnasə] noon. As a consequence of this alternation some verbs that were not recorded in paradigmatic sets are ambiguous for the presence of an initial vowel: [amãamalo] I am/was hungry = /a + amaamalo/ or /a + maamalo/?

Suffixal alternations pose much more fundamental problems for Mussau synchronic phonology. The most poorly attested of these is the alternation $\emptyset - a$ in pakas-i kapatu handle of an adze next to pakasa handle (in general). Historically this alternation almost certainly derives from the 'capture' of a genitive marker *$i$ by a preceding noun which ended in a consonant (hence pre-Mussau *pakas handle, pakas-i handle of. At a later stage Mussau added echo vowels to all words that ended in a consonant (hence *pakas > pakasa), thereby giving rise to the attested alternation. Although no other alternation with genitive -i was recorded, this example raises the question whether the addition of echo vowels in Mussau should be considered purely as a historical change, or as at least in part a synchronic rule.

This problem is raised much more acutely—at least in the corpus collected—in connection with Mussau adjectives. Most of the color terms are reduplicated, and in raere-ana red and usouso-ana white the presence of a suffix -ana seems incontestible. To isolate a suffix of the same shape in words such as beroberoŋانا black, kulukulutana dirty or raramukaŋa sharp, however, we must admit some morphophonemic final consonants which may in fact never appear as such phonetically. It would be comforting if the problem could be resolved by simple appeal to a more abstract level of phonological representation, but unfortunately this is not the case. As seen earlier, -ana alternates unpredictably with -ena, -na and zero. Consequently many adjectives which were recorded only in morphologically complex form are open to more than one morpheme analysis: [bɛroboŋona] = /beroberoŋ-ana/ or /beroberoŋ-na/; [owena] = /ou-na/ or /ouna/ (plus zero)? No definitive solution to these problems will be attempted in this paper, and the attributive ending will thus be retained for purposes of lexical representation (hence beroberoŋana, owna, usousoana, etc.). Where it is necessary to recognise a morpheme boundary in the discussion of historical phonology I do so, but without commitment as to the status of such a boundary in Mussau as it is spoken today.

2.4 Phonetics

The discussion of phonetics will be divided into 1. consonant and vowel allophones, 2. stress and length, 3. stress shift and 4. syncope.

2.4.1 Consonant and vowel allophones

The consonant phonemes of Mussau have their expected phonetic values, with the following qualifications: 1. all stops are unaspirated, 2. /t/ is postdental, 3. /b/ is spirantised intervocally, 4. /r/ is a 2-3 tap alveolar trill.
The spirantisation of /b/ was noted both within a morpheme and across morpheme boundary: /teba/ → [tɛba] a/one, /talˈɪŋa bolon̥o/ → [taltʃa bolon̥o] deaf. /ɡ/ was occasionally recorded as a spirant intervocically within a morpheme but appears to be much less consistently spirantised than /b/ in this environment. Spirantisation of /ɡ/ was not heard across morpheme boundary.

Mussau vowel phonemes have their expected phonetic values except as follows: 1. high vocoids tend to be non-syllabic in certain environments, 2. /e/ is [e] before another vowel, but [ɛ] elsewhere, 3. final vowels are optionally devoiced, 4. when not devoiced final vowels are sometimes followed by slight glottal closure.

Environments in which high vocoids tend to be non-syllabic are: a) word initially before a vowel (/iema/ → [yema] knife), b) word finally after a vowel (/niu/ → [nɪw] coconut), c) intervocically, both within a morpheme and across morpheme boundary (/lauei/ → [l̪awey] Hibiscus manihot, /isoi-e-la/ → [isoyɛla] cut it!), d) postvocically before a consonant (/pouru/ [p̪̝wru] mountain, /tauba/ → [taw̪̝ba] sardine). In the one known instance where conditions a) and b) both apply, a) takes precedence: /uɪ/ → [wɪ] tail. It is noteworthy that many words which contain only two vocoids are apparent exceptions to semivocalisation, as with /iə/ → [ɪya] elephant-ear taro, /uo/ → [ʊwa] crocodile and /ue/ → [uwe] fruit. These exceptions, however, are united by a common denominator: the second vowel is non-high. A very similar condition has been noted for the Kayan dialect of Uma Juman in Sarawak (Blust 1977a:74), where initial high vowels are semivocalised before a non-low vowel, but not before a low vowel. If the phonetic facts are accurate, they suggest that high vowels generally tend to become non-syllabic more readily before a different high vowel than before a mid vowel, and more readily before a mid vowel than before a low vowel. A few further remarks on semivocalisation will be made in connection with stress (2.4.2).

The optional devoicing of final vowels in Mussau was recorded only following voiceless obstruents and nasals. Although my corpus contains no examples of full devoicing following a voiced obstruent or liquid, it is likely that a weaker tendency to devoice final vowels also exists in these environments. As noted earlier, a 'phantom' –h was recorded in a single token of /agʔi/ first person singular Set A pronoun, and in /gaga/ manta ray, which was recorded only once. Given the well-established tendency to devoice final vowels in other environments, the anomalous phone in these two transcriptions can be seen as a partial devoicing of the final vowel.

Finally, the weak glottal closure that was sometimes observed following a final vowel may be indirectly related to the phenomenon of final devoicing. Mussau appears to be a language torn between an inherited phonemic tendency to maintain open syllables, and a secondary phonetic tendency — evidently shared with some other dialects of the New Ireland area — to devoice vowels in final position, and in certain word-internal environments. If the phonetic tendency to final devoicing is viewed as a type of lenition ('erosion from the right'), the glottal coda of final syllables might be seen as a type of fortition motivated by structural pressures which are acting to preserve the favored canonical form. However, non-phonemic final glottal stop is also widespread in the languages of the Admiralty Islands, and its presence in the speech of my informant may be due to contact influence.
2.4.2 Stress and length

In the great majority of cases primary stress was recorded on the penultimate vocoid:

[ráme] chew
[sésa] one
[ařóa] cuscus

talíña ear
[màlatáw] flesh, meat
[rámurámútipa] tongue

Nonetheless, a few apparent stress contrasts are found, as in:

A1 [báo] carry pick-a-back
A2 [baō:] rain

Since stress and length tend to co-occur in natural languages the length in [baō:] might be viewed as a predictable consequence of stress. But vowel length clearly is contrastive (and independent of stress) in e.g.

B1 [máo] heal
B2 [má:o] boil, abscess

Given the contrast in Bl : B2, the contrast in A1 : A2 is most parsimoniously attributed to underlying length, and primary stress can be assigned to the penultimate mora of the word. It is possible that phonemic length in the vowels has somewhat different realisations related to quality, as the vowel sequence in /ulaa/ swamp taro and /mamaa/ gecko sounds longer than the sequence in /bao/.

In a number of words with phonetic penultimate stress the stressed vowel is phonemically prepenultimate. This is true only where semivocalisation has occurred (2.4.1.), as in:

/ateio/ [atéyo] water
/katai/ [kátay] pandanus sp.
/pouru/ [pówrú] mountain
/taia/ [táya] generic for large crabs
/tauba/ [táwpá] sardine

This observation might be used to support the interpretation of non-syllabic high vocoids as phonemic semivowels in Mussau. However, consistency would then compel us to recognise atypical consonant clusters in e.g. /pówrú/ mountain and /tawba/ sardine. All high vocoids are therefore interpreted phonemically as vowels, and semivocalisation is presumed to occur prior to stress placement.

2.4.3 Stress shift

Mussau has a rule of stress shift which is reminiscent of the well-known rule in Malay and some other languages of western Indonesia. In accordance with this rule stress shifts after affixation so as to remain on the penultimate syllabic of the word:

/níma/ [níma] hand
/níma-gi/ [nímági] my hand
/niu/ [ńfiw] coconut
/niu-na/ [niyúna] its coconut

Unfortunately possessive paradigms were noted schematically in my field-notes (e.g. níma, níma-gi, -m, -na) and are not included in the limited material that was tape-recorded. It is thus impossible to say definitely where stress
falls in nouns that are possessed with -m. My recollection, however, is that stress falls on the last stem vowel in all forms suffixed with singular possessive markers. If true this may indicate that -m still contains an underlying final vowel.

2.4.4 Syncope

One of the most conspicuous phonetic facts about Mussau is the presence of geminate consonants both initially and intervocalically. I recorded all consonants except /b/ and /s/ as geminated in some words, and it is likely that the absence of [bb] and [ss] is fortuitous. Generally an alternative pronunciation was recorded in which the consonants of the geminate cluster were separated by a vowel identical to that which follows the geminate: [m:úko]  
holothurian, sea cucumber, [t:úlu]  
housepost, [kaːl:to]  
is, egg of a louse. Such long forms were said to be more commonly used by 'old people', and seem clearly to correspond in relevant details to the phonemic representation. Consonant gemination in Mussau can thus be attributed to a synchronic rule of syncope which deletes the vowel of the first of two successive identical syllables.

The deletion of the first vowel in the environment C1V1C1V1 (where subscript identity = class identity of segment) is of particular interest from a comparative viewpoint, as it parallels a historical change reported for Trukese by Goodenough (1963) and a change-in-progress reported for the Polynesian outlier of Takuu by Irwin Howard (personal communication). Changes of the type POC *tutuk-u > tuk is widespread in Oceanic languages, and were attributed to truncation under canonical pressure in Blust (1977b). However, as noted there (fn. 29) such truncations may in fact have been products of syncope plus geminate reduction.

As seen already, heterorganic consonant clusters are tentatively recognised in gomgom, malumalum and tumumu. It is noteworthy that the conditions for historical syncope in these forms include not only the presence of /m/, but also reduplication. Despite this general resemblance the two rules in Mussau (the first presumably diachronic, the second synchronic) appear to be fundamentally distinct.

Two further details connected with phonetic gemination in Mussau should be noted. First, where an underlying representation contains three successive identical syllables (and there are thus two possible environments for syncope), it is the middle vowel which drops:

/kukuku/ : [kú:k:u] white-tailed dove  
/malalalake/ : [maal:ake] thin, of material  
/e mumumu/ : [ɛ,mú:m:u] to suck  
/papapa/ : [páp:a] shoulder

According to Goodenough (1963) Trukese - which like Mussau permits geminates both initially and medially - shows an identical (in this case historical) rule: *titi > titi-n fence of, *papapa > papa-n its board. Relevant information on this point is lacking from the other languages.

The second detail concerns the relationship of syncope to stress placement. It is noteworthy that in such forms as /kukuku/, /e mumumu/ and /papapa/ stress is penultimate both in the non-syncopated and in the syncopated forms: [kukuku]  
[kú:k:u], [ɛ mumúmu]  
[ɛ mú:m:u], [papápa]  
[páp:a]. A second rule of stress
shift which assigns primary stress to derived penultimate vocoids is thus evidently required. Alternatively, in the formal terms of generative phonology stress placement could be regarded as a late rule which applies after semi-vocalisation, affixation and syncope.\textsuperscript{13}

3. DIACHRONIC PHONOLOGY

The discussion of diachronic phonology will be divided into 1. canonical changes and 2. segmental changes. Appendix 1 lists all Mussau forms for which I have been able to find, or to establish, a probable Proto-Oceanic etymology (several of the reconstructions being proposed here for the first time). Throughout the discussion reference is made to this body of data.

3.1 Canonical changes

Mussau is noteworthy in preserving POC final *t, *m, *n, *ŋ, *s and probably *d and *l in non-suffixed bases through the addition of an 'echo' vowel.\textsuperscript{14} In this respect it is similar to many other languages of New Ireland, Buka-Bougainville, the New Georgia Archipelago, and to some extent of Bugotu (Isabel), but differs from most of the better-known Oceanic languages. Oceanic languages generally appear to have altered a canonical shape that permitted final consonants to one that at some stage permitted only final vowels. Languages such as Motu, Fijian or the Polynesian group accomplished this drift to open syllables through the deletion of a final consonant, thereby preserving the predominantly disyllabic canonical shape of POC base morphemes. Languages such as Mussau accomplished the same change in syllable type only at the partial expense of the favored disyllabic canonical shape. For convenience we can call these two diachronic types 'morpheme reducing languages' and 'morpheme extending languages' respectively:

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of POC closed syllables in 'morpheme reducing languages': (Motu, Fijian, Samoan) and in 'morpheme extending languages' (Mussau)</td>
</tr>
<tr>
<td>POC</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>uRat</td>
</tr>
<tr>
<td>onom</td>
</tr>
<tr>
<td>pulan</td>
</tr>
<tr>
<td>asa</td>
</tr>
<tr>
<td>panas</td>
</tr>
</tbody>
</table>

Following the change to an open syllable pattern some OC languages of both types (e.g. the Nuclear Micronesian languages, Raluana) lost final vowels, thus reducing trisyllables to disyllables and disyllables to monosyllables — a process which apparently is under way in Mussau at the present time. Even in
languages which have not lost final vowels secondary reduplication or the
fossilisation of affixes has somewhat obscured this basic difference, but it
seems likely that morpheme extending languages like Mussau have a somewhat
lower percentage of disyllables than morpheme reducing languages which have
preserved POC final vowels. Finally, like the morpheme reducing languages
Mussau preserves original final consonants in many verb bases before a transi­
tive suffix, as in *susud-i-a > suli-a ǝǝw.

3.2 Segmental changes

The discussion of segmental changes will be divided into 1. regular
reflexes, 2. the problem of consonant grades, 3. irregular and indeterminate
reflexes and 4. chronological ordering.

3.2.1 Regular reflexes

The discussion of regular reflexes will be divided into 1. unconditioned
changes and 2. conditioned changes.

3.2.1.1 Unconditioned changes

Table 2 presents the Proto-Oceanic phoneme inventory as presently recon­
structed (*j and *ǝǝ follow Blust 1978):

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inventory of Proto-Oceanic phonemes</strong></td>
</tr>
<tr>
<td>consonants</td>
</tr>
<tr>
<td>P</td>
</tr>
<tr>
<td>d</td>
</tr>
<tr>
<td>m</td>
</tr>
<tr>
<td>s</td>
</tr>
<tr>
<td>w</td>
</tr>
</tbody>
</table>

Of the consonants listed in Table 2 *p, *t, *k, *d, *j and *s occurred
both plain (oral grade) and prenasalised (nasal grade), the two grades often
yielding different reflexes in attested Oceanic languages. Although differences
of consonant grade have not previously been distinguished for *p̂, the Mussau
reflexes suggest tentatively that a distinction is needed. The evidence indi­
cates that *q probably was a stop, but occurred only in the oral grade.
For present purposes a reflex will be called 'regular' under either of two sets of circumstances: 1) if it is demonstrated in a minimum of three independent cases, even if this is not the most frequent reflex, or 2) if it is demonstrated in two independent cases so long as no more frequent reflex is known. The following regular unconditioned changes can be established for Mussau (cf. Appendix 1):

<table>
<thead>
<tr>
<th>POC</th>
<th>MUSSAU</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>labials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>Ø</td>
<td>9, 29, 153</td>
</tr>
<tr>
<td>p</td>
<td>17, 128, 134</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>30, 33, 35</td>
<td></td>
</tr>
<tr>
<td>mp</td>
<td>p</td>
<td>129, 131, 133</td>
</tr>
<tr>
<td>m</td>
<td>b</td>
<td>31, 36, 38</td>
</tr>
<tr>
<td>m</td>
<td>m</td>
<td>13, 50, 98</td>
</tr>
<tr>
<td>labiovelars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pw</td>
<td></td>
<td>cf. 3.2.2.</td>
</tr>
<tr>
<td>mpw</td>
<td></td>
<td>cf. 3.2.2.</td>
</tr>
<tr>
<td>mw</td>
<td></td>
<td>cf. 3.2.3.</td>
</tr>
<tr>
<td>w</td>
<td></td>
<td>cf. 3.2.1.2.</td>
</tr>
<tr>
<td>dentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>t</td>
<td>24, 25, 169</td>
</tr>
<tr>
<td>nt</td>
<td>r</td>
<td>19, 194</td>
</tr>
<tr>
<td>d</td>
<td>l</td>
<td>168, 179</td>
</tr>
<tr>
<td>nd</td>
<td>r</td>
<td>60, 77, 164</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
<td>18, 20, 142</td>
</tr>
<tr>
<td>s</td>
<td>s</td>
<td>10, 14, 116</td>
</tr>
<tr>
<td>s</td>
<td>r</td>
<td>2, 21, 152</td>
</tr>
<tr>
<td>ns</td>
<td>r</td>
<td>141, 143, 144</td>
</tr>
<tr>
<td>l</td>
<td>s</td>
<td>106, 159, 160</td>
</tr>
<tr>
<td>palatals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>s</td>
<td>138, 139, 140</td>
</tr>
<tr>
<td>nj</td>
<td></td>
<td>52, 59, 179</td>
</tr>
<tr>
<td>ñ</td>
<td></td>
<td>43, 122</td>
</tr>
<tr>
<td>y</td>
<td></td>
<td>cf. 3.2.2</td>
</tr>
<tr>
<td>velars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Ø</td>
<td>69, 107, 111</td>
</tr>
<tr>
<td>qk</td>
<td>k</td>
<td>4, 7</td>
</tr>
<tr>
<td>q</td>
<td></td>
<td>cf. 3.2.1.2.</td>
</tr>
<tr>
<td>uvular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ø</td>
<td>4, 30, 105</td>
</tr>
<tr>
<td>l</td>
<td></td>
<td>61, 62, 176</td>
</tr>
<tr>
<td>back velar/glottal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q</td>
<td>Ø</td>
<td>29, 38, 57</td>
</tr>
</tbody>
</table>
The Proto-Oceanic vowels are normally reflected without change in Mussau. Exceptions are discussed under 3.2.1.2. and 3.2.3.

3.2.1.2 Conditioned changes

The following conditioned changes have been noted:

ASSIMILATION (1): *l (≠ *l, *R) became r if an adjacent syllable contained r (≠ *nd, *ns): 138, 139, 140 (with *R > l), 142. This change is entirely regular, and is responsible for the observed constraint against the occurrence of l and r within the same morpheme (2.2.).

ASSIMILATION (2): *a > e/i: 10, 49, 50. *a often remains unchanged in this environment, even when the vowels in question come in contact (47, 48, 78, 148). Given its relatively high frequency, however, the partial assimilation of *a to a preceding *i is perhaps best regarded as a subregularity (cf. also 1.2., discussion of -ie). By contrast, the assimilation of *a to a following *i appears to be sporadic (87?, 155?).

ASSIMILATION (3): *a > o/o: 55, 106, 125. Although the sequence *aco generally remains unchanged (11, 20, 62, 80, 82, 92, 95), the partial assimilation of *a in this environment occurs with sufficient frequency that it seems best to regard it as a recurrent phenomenon. This change parallels the preceding one, with the puzzling qualification that the assimilation is progressive in (2) but regressive in (3). Note that the alternant ko- of the numeral marker discussed earlier (2.3.) occurs before tolu (ko-tolu-ŋalu *thirty*), but not before onomo (ga-onomo-ŋalu *sixty*).

CONTRACTION (1): The sequences *aw and *wa generally contracted to o: *aw (12, 162); *wa (30, 121, 122, 160, 172). Where both possibilities existed (in *-awa-*) the former contraction predominated twice (12, 162) and the latter once (172).

CONTRACTION (2): The sequence *ya contracted to e in one known item (77). Since the sequence *Ra occasionally underwent a similar contraction (17, 135, 187) it seems reasonable to assume an intermediate stage in which *R > y in some words. The entire collection of forms thus shows a close parallel to the second part of CONTRACTION (1). By contrast the sequences *ay and *aR did not contract (4, 5, 7, 17, 121, 122, 135, 158). It is unclear whether the change *a > e in *ipaR > ie and *kiRam > iema should be attributed to ASSIMILATION (2) or to contraction of earlier *a and an adjacent semivowel.

CONTRACTION (3): The sequences *-aqa, *-aqo- and *-aqe- contracted to a, o and e respectively following the loss of *q in a trisyllable (97, 101, 126, 175). Contraction did not occur following the loss of other consonants in trisyllables (2, 20, 93, 102, 190) or of *q in disyllables (75, 147). Similarly, contraction did not occur following the loss of *q in a trisyllable if either of the vowels thus juxtaposed was high (57, 78). It thus seems unlikely that the syllable loss in *puaqa > ua is related to the changes discussed here.

HAPLOLOGY: A sequence of identical syllables in an inherited trisyllabic or polysyllabic word was frequently reduced by haplology: 7, 67, 91 (*makadinda > makalirine > makaririge > makarine), 132, 134, 144, 163, 164. Haplology did not occur in disyllabic reduplications or in known trisyllabic compounds (65, 154). Words which became trisyllabic through regular change were not subsequently reduced by haplology (72, 138), and one form which could
have been reduced actually appears to have been extended by reduplication, possibly in consequence of its expressive character (118).

3.2.2 The problem of consonant grades

Nearly a century ago Kern (1886) drew attention to the fact that both p and b in languages such as Malay correspond sometimes to Samoan f, Fijian v, but sometimes instead to Samoan p, Fijian b. He found these divergent developments inexplicable.

Dempwolff (1920:5) maintained that the correspondences indicated by Kern were due to differences of consonant grade: PAN *p/b > SAM f, FIJ v, but *mp/mb > SAM p, Fij b. He demonstrated convincingly that the languages of island South-East Asia generally support the reconstructed oral/nasal grade distinctions. However, in some cases it was necessary for him to assume that Oceanic and non-Oceanic cognates contain obstruents with opposite consonant grades. Dempwolff's theory of consonant grades has been widely accepted by Oceanic linguists, but in recent years it has been found inadequate in accounting for two types of problems. First, consonant grade 'cross-over' is encountered not only between Oceanic and non-Oceanic AN languages, but also between Oceanic languages themselves, thus rendering the reconstruction of Proto-Oceanic consonant grade a difficult matter in some morphemes. Second, as noted in Blust (1976) some of the best-known Oceanic languages have not two, but three consonant grade reflexes of the palatals. Other languages show similar problems for the labials, dental and velars.

The phenomenon of consonant grade 'cross-over' is discussed in Blust (1978), where it is shown that for many morphemes the consonant grade reconstructed for a given obstruent is a function of the languages chosen as criterial witnesses (some widely separated witnesses supporting the oral grade, others the nasal grade). To cite one of a number of possible examples, Nali, Ere (Admiralties) dūh, Fijian dovū point unambiguously to POC *ntopu, but Mussau, Manam tou point just as clearly to POC *topu sugarcane. For other morphemes a single consonant grade appears to be consistently reflected. Thus, to my knowledge all languages that distinguish POC *nd from *d and *nt from *t reflect the prenasalised stop in the words for blood, pandanus and banana (POC *ndaRaq, *pandan, *punti). Moreover, this consistency holds even where other stops in the same morpheme exhibit inconsistent consonant grades, as with Proto-Admiralty *būdi (< *mpunti), Mussau uri, Fijian vudī (< *punti) banana.

We might attempt to modify the consonant grades of established Proto-Oceanic reconstructions so as to achieve greater consistency with the Mussau reflexes, but this almost certainly would be futile since other languages would contra-indicate the changes. Instead, I assume the following consonant grade reflexes in Mussau. The number of instances of each reflex in Appendix 1 is given in parentheses:

1. a) *p > Ø (39) 2. a) *t > t (39)
   b) *mp > b (12) b) *nt > r (2)
   > p (10)
3. a) *d > l (14) 4. a) *s > s (41)
   b) *nd > r (10) b) *ns > r (7)
5. a) *j > s (2)  
   b) *nj > (no examples) \(^{16}\) 
6. a) *k > ∅ (28)  
   b) *ŋk > k (15)  
   > g (3) 
7. a) *p\(^{w}\) > ∅ (1)  
   b) *mp\(^{w}\) > b (1) 

In each case the decision as to which segment should be considered the oral grade (OG) and which the nasal grade (NG) reflex is based on three considerations:

1. degree of constriction (OG reflexes are likely to be more open, NG reflexes more closed articulations)
2. relative frequency (OG reflexes are likely to be more frequent than their NG counterparts)
3. pattern of mergers (the consonant grade assumed for one segment type is more likely to merge with the same consonant grade of another segment type than with its opposite)

Consideration (1) favours ∅ as the OG reflex of POC *p and *k, and suggests that consonant grade distinctions — though not previously reconstructed for Proto-Oceanic — also occur in reflexes of *p\(^{w}\): uena < *kup\(^{w}\)ena casting net, but bo, bo-boŋi-ena < *mp\(^{w}\)oŋi night. Consideration (2) supports this decision for *p and *k and also suggests that t is the OG reflex of *t, and s the OG reflex of *s (and *j). Consideration (2) only weakly supports l as the OG reflex of *d, but this decision is further strengthened by consideration (3), since the merger of *nt, *nd and *ns is phonologically more plausible than the merger of *nt, *d and *ns. As noted by Dempwolff (1937) NG reflexes in Oceanic languages sometimes occur in environments from which they are excluded in non-Oceanic languages, as in Mussau sair-i-a (≪ *saind-i-a) split and makariŋe (≪ *maŋka-dindin) cold.

Developments such as POC *pakiwa > Mussau baio (≪ *mpakiwa) shark or *nsiwa > sio (≪ *siwa) nine, then, will not be considered irregularities. Rather, they will be treated as part of the general problem of 'cross-over' in consonant grades. The multiple NG reflexes of *p and *k present difficulties that I hope to address in a future publication.

The regular changes from Proto-Oceanic to Mussau are summarised in Table 3:
Table 3

Regular changes from POC to Mussau, indicating phonemic mergers and splits

<table>
<thead>
<tr>
<th>POC</th>
<th>Mussau</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>s</td>
</tr>
<tr>
<td>k</td>
<td>j</td>
</tr>
<tr>
<td>q</td>
<td>ηk</td>
</tr>
<tr>
<td>R</td>
<td>k</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>mp</td>
<td>p</td>
</tr>
<tr>
<td>(mpw)</td>
<td>b</td>
</tr>
<tr>
<td>m</td>
<td>η</td>
</tr>
<tr>
<td>t</td>
<td>i</td>
</tr>
<tr>
<td>nt</td>
<td>u</td>
</tr>
<tr>
<td>nd</td>
<td>a/y</td>
</tr>
<tr>
<td>ns</td>
<td>e</td>
</tr>
<tr>
<td>d</td>
<td>a/m</td>
</tr>
<tr>
<td>l</td>
<td>o</td>
</tr>
<tr>
<td>(R)</td>
<td>a</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
</tr>
</tbody>
</table>

3.2.3 Irregular and indeterminate reflexes

The following irregular reflexes have been noted:

1. *u > i : 3/44, 157
2. *u > ii : 35
3. *-V > Ø : 4, 45, 88, 141, 172
4. *-t > Ø : 17, 39
5. Ø > -e : 21, 91
6. *-pa > o : 33, 34
7. *-qi > Ø : 37, 74
8. *d > l, r : 51
9. *t > k : 68, 147
(10) \( *n > \emptyset \) : 75, 81
(11) \( *q > k \) : 87
(12) \( *i > e \) : 104, 173
(13) \( *l > n \) : 112 (?)
(14) \( *d > n \) : 115
(15) \( *o > a \) : 122
(16) \( *l > r \) : 127, 195
(17) \( *a > e \) : 87 (?), 155, 181, 185
(18) \( *R > k \) : 158
(19) \( *R > n \) : 171
(20) \( *-ya > \emptyset \) : 183

(1): although -gi alternates with -gu, it is clear that the former is the underlying (unconditioned) variant in Mussau, even though the latter agrees more closely with POC *-ŋku. Most witnesses support POC *au as an irregular development from PAN *aku first person singular subject pronoun. It is therefore likely that Mussau aɡi is modelled on -gi; (3): the loss of a final vowel after a nasal is sufficiently common to be considered a subregularity. However, as remarked under 2.2, it is possible that forms recorded with a final nasal (except -m second person singular possessive pronoun) have a careful speech pronunciation with the anticipated vowel. The loss of the final vowel in *kayu > ai wood is paralleled by *qayyu > aiu coconut crab and *puqaya > ua crocodile, and so might also be considered a subregularity. However, many Oceanic languages appear to reflect *kai or *kau rather than *kayu wood, and both aiu and ua show loss of an entire syllable. The former loss may be attributed to haplology, while the latter is unexplained; (5) the unexpected supporting vowel -e appears twice after *ŋ. That this is not a conditioned change, however, seems likely from *nsalaŋ > raŋa kind of sea urchin; (6) the parallel changes *mpapa > bao carry pick-a-back and *mpapaq > bao short suggest that *p sporadically became w in these words, the resulting forms then undergoing CONTRACTION (1). Since no other reflexes of POC etyma which contain the sequence *vpv are known, it is conceivable that this is a conditioned change parallel to the well-known Eastern Polynesian dissimilation of PPN *f ... f to *w ... h; (7) the sporadic loss of an identical last syllable in the words for 'night' (but not 'black')! and 'day' strongly suggests a meaning-based motive for this change; the details, however, remain obscure; (8) this puzzling alternation, if accurately recorded, may reflect a difference of consonant grade; (10) if Mussau tuutuu to cook is associated with POC *tunu burn, cook the change *n > \emptyset might be considered a subregularity, as it would then be attested in three forms. The difficulty with this proposal is that the changes *daqan > laa and *dapan > lapa could be due to analogical wrong division of earlier forms ending in -na on the misapprehension that this sequence was the third person singular possessive suffix. In view of this possibility the proposed etymology of tuutuu is perhaps best abandoned: (11) \( *q > k \) is possibly paralleled in *panaq shoot with a bow > ai manaki bow, but the latter form shows two irregularities, and is best discarded for the present; (17) this change could be regarded as a subregularity. However, given the distinct environments of 87 and 155 as against 181 and 185 I prefer to treat all instances of *a > e as irregular. No explanation can be suggested for any of the remaining sporadic changes.
The change $*m^w > m$ (136) may be regular, but the available data are insufficient to determine this.

In addition to the foregoing a morpheme division is assumed in 6, 26, 57 (njita), 64, 137, 154 and 165 (usulu). It is possible that Mussau ainao is a mishearing of **enaono, and thus points — like many reflexes in the Admiralty Islands — to *papenako.

Some other items may also turn out to reflect a POC etymon, but show semantic disagreements that cast doubt on the validity of cognition, or exhibit phonological irregularities for which parallels in at least two other words are as yet unknown. Examples in the former category include: 1) atañisi a tree: *tanis weep, with prefix?, 2) paka a tree: *mpaka banyan?, 3) oana large brown or yellow four-cornered fish (probably triggerfish species; *qawan the milkfish: Chanos chanos?), 4) tasi brother-in-law (< POC *tanji younger sibling of the same sex?) and 5) utana garden (< POC *qutan forest?). Examples in the latter category include: 1) POC *kan > ane marker of edible possession (?; expected **ana), 2) POC *mañawa (PAN *mañawa) > i-noa to breathe (?; expected **manoa), 3) POC *lolo > loa red tree ant (?; expected **lolo), 4) POC *maquidip > (ma)maulue living, alive (?; expected **mauli), 5) PAN *ma-wanana > muenana right side (?; expected **maonana), 6) POC *papaq > pa mouth (?; expected **aa/papa/baba), 7) POC *ndanum > rarum fresh water (?; expected **ranum(u)) and 8) POC *tunu > tuutu u to cook (?; expected **tunu). As already noted (1.2), Mussau may have a locative marker i < POC *i. Finally, in Blust (1984) Kwaio masi-?a, Lau ma-masi, Marshallese mā-met sweet are associated with POC *maqas in salty, with common change of meaning. However, in view of masini salty, Mussau masik-ana sweet cannot be interpreted in this way, and together with the other forms may indicate a previously overlooked POC etymon *masik.

### 3.2.4 Chronological ordering

It is clear that the changes discussed in the preceding sections did not all occur at once. Accordingly an attempt is made in this section to establish their relative chronology.

The most important ordering relations among regular changes concern the loss of consonants, the contraction of vowel sequences and the addition of supporting vowels. Throughout the following discussion it is assumed that consonants which disappeared were lost in all positions through a single change (thus $*p > \emptyset$, not $*p- > \emptyset$, $*p-p > \emptyset$, $*p-p > \emptyset$ as historically distinct changes). If this assumption is false some of the conclusions that follow will be invalid.

It has been shown that where $*q$ was lost in a trisyllable a sequence of like vowels thus juxtaposed contracted:

<table>
<thead>
<tr>
<th>POC</th>
<th>MUSSAU</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>maqasin</td>
<td>masini</td>
<td>salty</td>
</tr>
<tr>
<td>maqati</td>
<td>mati</td>
<td>low tide, dry reef</td>
</tr>
</tbody>
</table>

It is noteworthy that contraction did not take place if the lost consonant was $*p$, $*k$ or apparently $*R$. 
These observations can be accounted for most simply if we assume the following order of changes, where (1) must precede (2) and (2) must precede (3), (4) and (5), but the latter three changes are unordered relative to one another:

1. \( *q > \emptyset \)
2. CONTRACTION (3)
3. \( *p > \emptyset \)
4. \( *k > \emptyset \)
5. \( *R > \emptyset \)

Now consider the contrast between like vowel sequences and simple vowels in such pairs as:

<table>
<thead>
<tr>
<th>POC</th>
<th>MUSSAU</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>monak</td>
<td>mona</td>
<td>tasty; fat (n.)</td>
</tr>
<tr>
<td>pulaka</td>
<td>ulaa</td>
<td>taro (Cyrtosperma)</td>
</tr>
</tbody>
</table>

By allowing rule (4) to apply before rule (2) Mussau mona can be derived in the following way:

\[
\begin{align*}
*\text{moñak} & \\
\text{moñaka} & (\text{echo vowel}) \\
\text{moña} & (4) \\
\text{moña} & (2) \\
\text{mona} & (\text{ñ > n})
\end{align*}
\]

However, as we have already seen, (4) cannot be ordered before (2), since CONTRACTION (3) would then also apply to \( *\text{pulaka} \), yielding the non-occurring form **ula. In other words, mona and ulaa show that the merger of \( *-ak \) and \( *aka \) which we would have expected as a result of the addition of echo vowels apparently never took place: \( *k \) was lost before echo vowels were innovated. Much the same can be said of \( *R \), as no reconstructed form ending in this segment contains a like vowel sequence: \( *\text{pi tapsuR} > \text{itaau} \) (not **itaau), \( *\text{niuR} > \text{niu} \) (not **niu), \( *\text{wakaR} > \text{oa} \) (not **oa), etc. For these reasons it must be concluded that the addition of echo vowels in Mussau postdated the loss of \( *k \) and \( *R \) in final position, and hence also changes (1) and (2). The available data do not permit a similar statement with regard to \( *p \).

The foregoing inference is of general interest to Oceanic linguistics, since many other languages which have added echo vowels have lost neither \( *k \) nor \( *R \). We can therefore conclude 1) that echo vowels were not present in Proto-Oceanic and 2) that the addition of echo vowels occurred independently in a number of languages over a relatively continuous geographical area in Western Melanesia.

Finally, it also appears possible to establish the chronology of several minor rules or sporadic changes relative to the addition of echo vowels in Mussau. Thus, the loss of \( *t \) in \( *\text{apaRa}t > \text{apae} \) and of \( *n \) in \( *\text{daqan} > \text{laa} \) evidently preceded the addition of echo vowels, since otherwise we would expect...
a three-vowel sequence in the former (**apaea) and a contraction of *-aqa-*
(**1a) in the latter. By contrast, the change *a > e in *kiRam > iema (not
**ieme) and *uRat > ueta (not **uete), like the loss of *t in *mpulut > buluu
(not **bulu) followed the addition of echo vowels, an inference that is partly
confirmed by Emira uata *sinew and possibly iama *handle.20

4. CONCLUSIONS

The present study should remind us above all else how few really thorough
descriptions are yet available for the 400 or more AN languages of Melanesia.
Nonetheless the limited analyses offered here hopefully mark an advance over
Chinnery (1927), who gives no phonetic information and whose arbitrary word
divisions can be highly misleading (e.g. ama-tau-tai-ili *coward, where mataatu
< POC *matakut *fear, afraid is thoroughly disguised). Most importantly, the
vocabulary has made possible a much improved understanding of Mussau historical
phonology.

It has been said that many of the AN languages of Melanesia contain little
non-basic lexical material with a known etymology, yet more than one third of
all Mussau lexical items collected (not just those in the 'basic' vocabulary)
have a probable Proto-Oceanic source. This suggests that a fuller vocabulary
could provide considerably more comparative material. At the same time Mussau
is certainly not among the lexically most conservative Oceanic languages. In a
still unpublished study (Blust 1981b) Mussau was found to retain about 25.6% of
the items reconstructed for Proto-Malayo-Polynesian (= Proto-Extra Formosan) on
a modified version of the Swadesh 200-item lexicostatistical test list. As
such it ranks 33rd in a sample of 70 Oceanic languages, or at about the 53rd
percentile. Some of the more conservative of these languages (Fijian, Mota,
the languages of the South-east Solomons and Polynesia) attracted comparative
attention from an early date and are now relatively well described. But the
lexicons of many others (e.g. Raga, Nauna, Nakanai, Leipon, Nuna, Wogo and
Seimat) are known only through short survey lists if at all. Apart from its
inherent value to Oceanic linguistics, then, the present vocabulary may have
an added value in inspiring a heightened awareness of the wealth of comparative
lexical material that remains to be tapped from the languages of this large and
still poorly described region.

5. ELICITED ROOT MORPHEMES AND MORPHOLOGICALLY COMPLEX FORMS21

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>aanasa warm, hot; to heat</td>
</tr>
<tr>
<td></td>
<td>aanasa manu to heat, boil</td>
</tr>
<tr>
<td></td>
<td>water</td>
</tr>
<tr>
<td>2</td>
<td>aasono rafter</td>
</tr>
<tr>
<td>3</td>
<td>aau upper limb</td>
</tr>
<tr>
<td></td>
<td>aau keke thigh</td>
</tr>
<tr>
<td></td>
<td>aau nima upper arm</td>
</tr>
<tr>
<td>4</td>
<td>abu to blow with the breath</td>
</tr>
<tr>
<td></td>
<td>(cf. kuu)</td>
</tr>
<tr>
<td>5</td>
<td>abum anthozoan, sea anemone</td>
</tr>
<tr>
<td>6</td>
<td>agi first person singular</td>
</tr>
<tr>
<td></td>
<td>class A pronoun</td>
</tr>
<tr>
<td>7</td>
<td>agueguli black ant (P. anis;</td>
</tr>
<tr>
<td></td>
<td>cf. loa)</td>
</tr>
<tr>
<td>8</td>
<td>ai1 stick, tree, wood</td>
</tr>
<tr>
<td></td>
<td>ai bua areca palm</td>
</tr>
<tr>
<td></td>
<td>ai erasi jointed vine the</td>
</tr>
<tr>
<td></td>
<td>fiber of which is used in</td>
</tr>
<tr>
<td></td>
<td>making nets</td>
</tr>
</tbody>
</table>
8 ai kaukau slitgong
ai keli fishing spear; punting pole (cf. ai tioŋo)
ai lala mast
ai manaki hunting bow
ai ŋ alata fishing pole
ai patoi outrigger boom (cf. ioro)
ai raramuti lime spatula
(P. stik kambang)
ai salo bed; storage shelf for firewood, etc.
ai salo ŋ olimo platform on outrigger canoe
ai tioŋo punting pole (cf. ai keli)

9 ai(thing, instrument, implement)
ai aloalo rudder of boat
ai e si o anua anchor (= thing that goes down to the land?)
ai gagali razor (traditionally of shell)
ai guma tongs
ai kakala broom
ai kame koko bait
ai pak e ŋ ale thatch (= thing to cover the house)
ai panukana wooden neckrest, pillow
ai saesae ladder (= thing for climbing)
ai sapisapi coconut scraper
ai sila comb
ai tuutuu cooking vessel (= thing for cooking)

10 ai3 hundred

11 ai to pull (cf. kunei)
ai a la pull it! (possibly ai-a-la)

12 ai3 earth oven

13 ai3 to steal

14 aiobi to fight, as in war (possibly ai-obi)

15 ai3 to copulate, have sexual intercourse (possibly ai-ora)

16 airari thousand (possibly ai-rari)

17 aisosa kind of basket (cf. kaka, keru, laka)

18 aitauna together

19 aitoka to collect, gather (possibly ai-toka)
aitoka aitauna to collect together

20 aiu coconut crab, Birgus sp. (cf. kitou, rikarikae, taia)

21 akala current, tide
akaakala to flow

22 akapa all

23 akarusi (-a, -e-la) to throw away, discard

24 akou inverted, upside-down

25 aku to fill with water

26 alai afternoon
e lo alai good afternoon
(greeting)

27 alanitana saltwater eel
(= ala ŋ itana?; cf. inaua)

28 alata (cf. ai; possibly ŋalata)

29 ale house
ale mas Na church

30 ali3 centipede

31 alikietoa children (collective; = aliki e toa? cf. namuu natu)

32 alo(-gu, -m, -na) neck

33 alo2 to steer
aloalo (cf. ai2)

34 alo3 kind of tree the wood of which is used for firewood, and was traditionally used to make fireplows

35 alo4 (-na) desire, want (n.)

36 aloa (-gi, -m, -na) mother's brother

37 alomasaaŋa to know (things), be knowledgeable (cf. kila)

38 alomu(-gu, -m, -na) parent-in-law
<table>
<thead>
<tr>
<th>No.</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>aluse</td>
<td>long, tall; deep</td>
</tr>
<tr>
<td>40</td>
<td>amaamalo</td>
<td>hungry (possibly a-maamalo)</td>
</tr>
<tr>
<td>41</td>
<td>ameti</td>
<td>(-a, -e-la) to hunt, go hunting</td>
</tr>
<tr>
<td>42</td>
<td>ami</td>
<td>first person plural exclusive Class A and B pronoun</td>
</tr>
<tr>
<td>43</td>
<td>ane</td>
<td>termite</td>
</tr>
<tr>
<td>44</td>
<td>ane</td>
<td>(-gi, -m, -na) relation marker, edible possession</td>
</tr>
<tr>
<td>45</td>
<td>anua</td>
<td>land (?) (cf. ai₂, Emira anua 'house')</td>
</tr>
<tr>
<td>46</td>
<td>aña</td>
<td>wide open, gaping</td>
</tr>
<tr>
<td>47</td>
<td>aogi</td>
<td>back, behind</td>
</tr>
<tr>
<td>48</td>
<td>aape</td>
<td>strong wind, storm wind</td>
</tr>
<tr>
<td>49</td>
<td>arana</td>
<td>littoral pandanus the leaves of which are used to plait mats — probably P. tectorius (P. aran) (cf. aum, ieri, katai, maruna)</td>
</tr>
<tr>
<td>50</td>
<td>araña</td>
<td>to stick, adhere to (cf. raqasi)</td>
</tr>
<tr>
<td>51</td>
<td>arari</td>
<td>(-gi, -m, -na) name sei arari-m what is your name?</td>
</tr>
<tr>
<td>52</td>
<td>areare</td>
<td>(cf. susu)</td>
</tr>
<tr>
<td>53</td>
<td>arita</td>
<td>the putty nut, Parinari laurinum</td>
</tr>
<tr>
<td>54</td>
<td>aroa</td>
<td>cuscus (P. kapul)</td>
</tr>
<tr>
<td>55</td>
<td>asaasa</td>
<td>to swim; to drift</td>
</tr>
<tr>
<td>56</td>
<td>asai</td>
<td>to pull, draw e-asai inoa-na he is breathing (= he is drawing his breath)</td>
</tr>
<tr>
<td>57</td>
<td>asakararike</td>
<td>to stumble, fall down (cf. katuu₁)</td>
</tr>
<tr>
<td>58</td>
<td>asaŋe</td>
<td>internal gills (cf. utaliŋa)</td>
</tr>
<tr>
<td>59</td>
<td>asekanue</td>
<td>to sleep (= aso kanue with morphophonemic change?)</td>
</tr>
<tr>
<td>60</td>
<td>asi</td>
<td>taro, probably Colocasia esculenta (cf. ia, kaala, ulaa)</td>
</tr>
<tr>
<td>61</td>
<td>asiŋe</td>
<td>to sneeze (onom.)</td>
</tr>
<tr>
<td>62</td>
<td>aso</td>
<td>to lie down asoaso poi to dream</td>
</tr>
<tr>
<td>63</td>
<td>asu</td>
<td>smoke</td>
</tr>
<tr>
<td>64</td>
<td>ata</td>
<td>four</td>
</tr>
<tr>
<td>65</td>
<td>atamana</td>
<td>door opening (atama-na? cf. Emira atama 'door')</td>
</tr>
<tr>
<td>66</td>
<td>atanisi</td>
<td>a tree, Casuarina equisetifolia</td>
</tr>
<tr>
<td>67</td>
<td>atea</td>
<td>(-gi, -m, -na) liver</td>
</tr>
<tr>
<td>68</td>
<td>ateio</td>
<td>fresh water ateio talia lake (= round water) ateio aakaala lake (= flowing water) (cf. manu, rarum; uela)</td>
</tr>
<tr>
<td>69</td>
<td>atu₁</td>
<td>to plait (mats, baskets)</td>
</tr>
<tr>
<td>70</td>
<td>atu₂</td>
<td>stone atu ko-tolu three stones of the hearth, trivet</td>
</tr>
<tr>
<td>71</td>
<td>au</td>
<td>ash</td>
</tr>
<tr>
<td>72</td>
<td>auena</td>
<td>behind, later</td>
</tr>
<tr>
<td>73</td>
<td>aulia</td>
<td>to stay, tell (= auli-a?; cf. poa)</td>
</tr>
<tr>
<td>74</td>
<td>aum</td>
<td>broad-leaved pandanus (cf. arana, ieri, katai, maruna)</td>
</tr>
<tr>
<td>75</td>
<td>autu</td>
<td>chin, jaw</td>
</tr>
<tr>
<td>76</td>
<td>bagalaim</td>
<td>small variety of the Malay apple, Syzygium gomata (cf. oaa)</td>
</tr>
<tr>
<td>77</td>
<td>bagii</td>
<td>cooking vessel of plaited pandanus leaves (ceramics were not used traditionally)</td>
</tr>
<tr>
<td>78</td>
<td>baio</td>
<td>shark</td>
</tr>
</tbody>
</table>
79 baka fishscale
80 balabala fence
81 balabalanä headache, toothache
82 balai fish sp.
83 balus (P) dove sp. (cf. kukuku)
84 baö1 carry pick-a-back
85 baö2 short (cf. tukuna)
86 baoo rain
87 batibati spider
88 batum tapioca
89 bause female, woman
bause-ni (-gi, -m, -na) wife
bause rauebulu widow
90 belu1 fish corral made of stone-filled baskets
91 belu2 (-a, -e-la) to throw (cf. ue2)
92 beroberoñana black (cf. boboñiena)
93 bibi to push
94 biiso foam, froth, bubbles
95 bilae stingray (cf. gaga)
96 bili (-gi, -m, -na) back (anatomic)
97 biliki (-gi, -m, -na) skin; body
biliki niu coconut husk
biliki ɲ ai bark of a tree
98 bito (-gu, -m, -na) navel
99 bo night
bo ɲa teba one night
100 boboñiena black (cf. beroberoñana)
101 bolono (cf. taliña)
102 bua areca nut
103 bukabukala to float
104 buluu to caulk

E
105 ea where?
106 elei to make, build
107 elobi time (?)
elobi saa when? (= what time?)
108 erasi (cf. ai1)

G
109 gaa to catch (fish)
110 gaga manta ray (cf. bilae)
111 gagaa large flat fish with big mouth
112 gagaga (cf. manu)
113 gagali to shave (cf. ai2)
114 gai (-a) to fetch, get
115 gaisa how much, how many? (possibly ga-isa)
116 gigima tree used to make canoes (cf. nakasa)
117 gila bird, fowl
118 goagoa catfish sp. (cf. matulubo)
119 gomgom to swallow (cf. tuku)
gomgom uela giant clam,
Tridacna sp. (lit. 'swallow saltwater')
120 goruru edible green seaweed
121 gou to bend, fold
122 guluguluena straight, correct, true
123 guma (cf. ai2)

124 ia1 elephant-ear taro,
Alocasia macrorhiza (cf. asi,
kaala, ulaa)
125 ia2 third person singular
class A pronoun
126  iaa  (cf. mamaulue)  
127  ie (-gi, -m, -na) sister-in-law  
128  iema  knife  
129  ieri  pandan sp. with long red or yellow fruit (cf. arana, aum, katal, maruna)  
130  iina  fat, grease  
131  ila₁  pandan sp. rain cape  
132  ila₂/ira  third person plural class A and B pronoun  
133  ilou  to run  
134  imuimutu  moss, algae  
135  inana  food  
136  inaqari  to talk  
137  inaua  freshwater eel (cf. alanjitana)  
138  inoa (-na) breath  
139  io  second person singular class A pronoun  
140  ioi  to count (cf. ira)  
141  ioro  outrigger boom (cf. ai patoi)  
142  iri (-la) to tie, bind by wrapping around (cf. nagi)  
143  iso (-a, -e-la) to cut, as fish (fish, meat, rope; cf. toai)  
144  ita  first person plural inclusive class A and B pronoun  
145  itau  tree from which the slitgong is made (= Calophyllum inophyllum?; cf. ḅitau)  
146  itu  seven  
147  K  
148  kaakaa  to stay  
kaakaa ́i  to stay at  

149  kaala  large-leaved taro sp. (cf. asi, ia, ulaa)  
150  kabitoto  nit, egg of a louse  
151  kaikai₁  to dig  
152  kaikai₂  (-na) wing  
kaikai  gila  wing of a bird  
153  kaka  open-mouth carrying basket (cf. aisosa, keru, laka)  
154  kakala  to sweep (cf. ai₂)  
155  kalakalānina  near  
156  kalanë nei  sandfly (probably kala-ñe nei; cf. kalanisi)  
157  kalanisi  sandfly (probably kala-ñisi; cf. kalanë nei)  
158  kalao  rattan  
159  kalasi  to peel, as yams  
160  kalio  mens' sarong (P. laplap)  
161  kalipa  bush spirit (P. masalai; cf. raroai, tootoo).  
162  kalokalo  (-a) to scratch  
163  kame  (cf. ai₂)  
164  kanusu  to spit  
165  kanakana  to laugh  
166  kao  to pour, spill  
167  kapou  monitor lizard, Varanus sp.  
168  kapu₁ friend, companion (= kapu₂?)  
169  kapu₂  (-gu, -m, -na) older sibling  
kapu-gu  my older sister  
kapu-gu taita  my older brother  
170  kaputu  adze, implement for dressing wood  
171  karaane  rain cloud  
172  karai  small clam sp.  
173  ka rake  largest digit of hand or foot  
ka rake keke  big toe  
ka rake nima  thumb  
174  karasa  to whet, grind a blade
175 kariboo hornbill sp. with white feathers (cf. kinaku)
176 karika no, not karika oro not many/much; few
177 karou a tree, the roots of which yield a crimson dye, Morinda citrifolia
178 karuma short upright stick on the outrigger float used to connect float and boom (cf. papasa)
179 kasu1 to go, walk (cf. laa2) kasukasu to walk kasu mai come here! (vocative) kasu-a laa to take kasu-a mai to bring
180 kasu2 (-na) gall
181 katai pandanus sp. with long fruit and small seeds (cf. arana, aum, ieri, maruna)
182 katoto star
183 katu1 seed
184 katu2 (cf. ṣaluṣalu)
185 katuu1 (-la) to fall from a height, as fruit (cf. asakararike)
186 katuu2 large snake sp. (cf. otuana, tariti)
187 kau (P) sweet potato
188 kaubebe butterfly (probably kau-bebe; cf. kurubebe)
189 kaukau (cf. ai1)
190 kauuru large bamboo from which combs are made
191 keke (-gi, -m, -na) foot, leg
192 keli (cf. ai1)
193 kereña (cf. mata)
194 keru kind of basket (cf. aisoa, kaka, laka)
195 kiki small red cockatoo
196 kikiau large mound-building bird, Megapodus
197 kila to know (people), be acquainted with (cf. alomasaana, tara)
198 kina (-gi, -m, -na) mother
199 kinaku hornbill sp. with black feathers (cf. kariboo)
200 kinari to sing
201 kiniti to pinch
202 kiriababa insectivorous cave bat
203 kiriiri a tree the crushed seeds of which are used to stupefy fish, Barringtonia asiatica (P. vut)
204 kiriola to turn
205 kitou hermit crab (cf. aiu, rikarikae, taia)
206 koba (-gi, -m, -na) abdomen, belly
207 koikoi coconut shell; canoe bailer of coconut shell
208 koko fish (cf. pisi2)
209 kolo(kolo) to call, hail someone
210 komo sleeping mat
211 konurumakere marlin, swordfish (= konuru-makere?)
212 koronana false, untrue
213 kosa earth, soil
214 koto surf, breakers (cf. tonetonea)
215 ku (-gu, -m, -na) penis
216 kukuku white-tailed dove sp. (cf. balus)
217 kulalaba big (cf. namuu)
218 kuluki to strip off bark, decorticate
219 kulukulutana dirty
220 kulum axe, implement for felling trees
221 kunei (-a, -e-la) to pull (cf. aia)
kunu to cough
kuraa fire; firewood
kurubebe butterfly (probably kuru-bebe; cf. kaubebe)
kuu to blow
kuu-e-la blow on it! (as on a fire to start it)
kuuku to blow, of the wind;
winds
kuuku tas hurricane

day
la na teba one day
laa branch
laa ai branch of a tree
tuu laalaa-na-na fork of a branch (= 'its fork'; cf. saña-saná)
laa go, walk (cf. kasu)
ulaa (you) go!
laa mai to bring
laa tau to take
lae hinterland, interior (cf. tubui)
laia ginger
laka round carrying basket
placed on the head (cf. aisosa, kaka, keru)
lala (cf. aí)
lalu lionfish
lamana sea near the shore
(cf. malama, malione)
ląnį brain
laį niu/laanąniu pith of young coconut
laŋ housefly
lapalapa palm, sole
lapalapa keke sole of the
foot
lapalapa nima palm of the
hand
lapu kind of colourful lizard
laso (-gu, -m, -na) testicles
lauei an edible plant,
Hibiscus manihot (cf. naula)
lima five
lisa louse
liu hole for housepost; grave
(= liuu?)
liue base, bottom
liue na base of a tree
liu place (cf. tauu)
liuu ai taataau place for
earth oven
liuu ai tuutuu fire place,
hearth (lit. 'place for the
cooking pot')
loa red tree ant (P. korakum)
(cf. agueguli)
lukuloku to dance
lonoti (-a) to chop wood
looloo to fly
lotoloto a hardwood tree:
Intsia bijuga (P. kwila)
lua two
luei calm, still, of water
lueki to vomit
lutalaua morning

maao boil, abscess
maasu black shore bird similar
to a seagull (cf. rabañana)
mai hither, toward the speaker
makariñe cold
makere sago palm
makikile sour
makuruke raw, uncooked
malalalake thin, of material
263 malama lagoon, shallow green water within the reef (cf. lamana, malione)
264 malaona dry
265 malatau flesh, meat
266 malatu large mullet sp. (P. karua)
267 malione deep blue sea beyond the reef (cf. lamana, malama)
268 malulum poisonous brown starfish (= crown of thorns?); cf. sijakoio)
269 mama type of seaweed used to weatherproof canoes
270 mamaa gecko, house lizard
271 mamaatana heavy
272 mamama to yawn
273 mamaulue/maulue living, alive e mamaulue/maulue iaa to be alive
274 mami first person plural exclusive class B pronoun
275 manaki (cf. aii)
276 manoi unicorn fish (Admiralty loan?)
277 manu water (cf. ateio, rarum, uela)
   manu gagaga tidal wave
   manu kulalaba high tide (lit. 'big water')
278 maŋa taboo, holy
279 manjini giant squid (cf. nusa)
280 mao heal, recover
281 marase middle e lo marase sky (lit. 'in the middle')?
282 marieba large flying fox sp. (cf. papaamara)
283 maroate wet (cf. posona)
284 maruna small pandanus sp. (cf. arana, aum, ieri, katai)
285 masaniki village, settlement
286 masau far
287 masikana sweet (cf. onose)
288 masina good
289 masini salty
290 masoko hiccough
291 masoso/masosona ripe, cooked
292 mata (-gi, -m, -na) eye, face; blade; source; sucker of plant
   mata kaala sucker of the kaala taro
   mata kereŋana sharp (cf. raramukana)
   mata ŋ asi sucker of the asi taro
   mata ŋ ateio source of a river
   mata salusalu blind
   mata ulaula spring, place where water bubbles up
   mata utu pride
293 matautu/mamatautu to fear, be afraid
294 mate dead, to die (cf. ubi)
   e mate la he is dead
295 mati low tide, dry reef (cf. poŋamati)
296 matulubo catfish sp. (cf. goagoa)
297 mauu pus; to stink
   mauu ŋ usai pus of a wound
298 me and, with (comitative)
299 meme urine, urinate
300 miroro large fish sp. (P. kulaipo)
301 mona pounded taro with coconut cream
302 monono swamp
303 mosou a tree with sweet fruit
304 mosu pig
305 muenana right side (cf. oaise)
306 mukei mango
307 mumuko holothurian, sea cucumber
308 mumumu to suck
A MUSSAU VOCABULARY, WITH PHONOLOGICAL NOTES

N

309 nagi (-a, -e-la) to tie, bind by wrapping around (cf. iri)
310 nakasa tree used for canoe hulls (cf. gigima)
311 nama(nama) to eat, chew u-nama-la saa what did you eat?
ia e-namanama bua he’s chewing betel
312 nami taste nami masini a salty taste
313 namisi to play
314 namuu big, wide; old, of people (cf. kulalaba, pokane) namuu ηa toa adults (collective)
315 nata coconut flower spathe (P. galimbong)
316 natu₁ (-gu, -m, -na) child, offspring (cf. alikietoa)
317 natu₂ latex-producing tree with apple-like fruit, *Palauquium* sp.
318 naula a flowering plant, *Hibiscus tiliaceus* (cf. lauei)
319 nei (-na) smell, odor nei batum odor of tapioca nei η asin odor of the asiTaro nei η ulu odor of breadfruit
320 neηa (-gi, -m, -na) younger sibling of the same sex (cf. tue₁)
321 nima (-gi, -m, -na) arm, hand
322 nimuru garfish
323 ninamanama year
324 ninanana to think
325 niu coconut tree niu-na dry coconut (= 'it's coconut? P. drai)
326 noko mosquito
327 nomo six
328 noŋonoŋo to hear
329 nou stonefish
330 nusa small squid (cf. manini)

331 ṅa²⁶ second person plural class B (and A?) pronoun
332 ṅaapa lime gourd (P. skin kambang)
333 ṅafingalu tooth ṅafingalu katu molar tooth
334 ṅaŋaŋala to whine, cry, weep
335 niηii (cf. talinya)
336 niŋa a tree, *Calophyllum inophyllum*, coastal variety (= itau? cf. tamanu)
337 ṅoo to snore
338 ṅunupi to crush lice
339 ṅusu nose; to smell (trans.) ṅusu poi e la smell it!

340 oa root
341 ooa large variety of the Malay apple, *Syzygium gomata* (cf. bagalaim)
342 oais left side (cf. muenana)
343 oana large brown or yellow four-cornered fish
344 oasa rope, vine oasa raraı̂ betel pepper
345 obo fallow land
346 olimo boat, canoe
347 onose sweet (cf. masikana)
348 onu turtle
349 oroi much, many
350 osoasa the canarium nut (P. galip)
ose canoe paddle
ose ose to paddle
oso yam
otolu egg
otolu gila bird egg, chicken egg
otuana snake (generic; cf. katuu₂, tariti)
ona new

pa mouth; hole in a pot, canoe, etc.
pae stinging nettle, Laportea sp.
paepae to seek, search for, find (cf. rere)
paka a tree, Terminalia sp.
pakasa handle
pakasi kaputu handle of an adze
pake to cover
pakapekegi back of the head
pakieu flying fish
palapalana thunder
palata sick
pale sail (Admiralty loan?)
palee hawk
palualua twin (cf. lua)
panukana (cf. ai₂)
papaamara small flying fox sp. (cf. marieba)
papapa (-gi, -m, -na) shoulder
papapa aanasa noon, time of day when the sun is hottest (lit. 'hot shoulder')
papasa connecting piece for outrigger float and booms (cf. karuma)

pararaŋisi gold-lip pearl shell (cf. ulaŋa)
parikaŋa charcoal
paro (-gu, -m, -na) vulva vagina
paru (-e-la) to hit, strike
paru e la tale ai hit him with a stick!
pasa(pasa) to plant
la pasa asi plant the taro!
pasi to cut
pasipasi young coconut (P. kula)
pasu full (as a container)
pate (-a-la) to break, snap as a rope
patilaka forehead (apparently pati-laka; cf. patinau)
patinau forehead (apparently pati-nau; cf. patilaka)
pationg dolphin, porpoise
patoi (cf. ai₁)
patu (-na) joint, node
patu keke knee
patu nima elbow
patu tou node of the sugar-cane stalk
patuŋua island (= patuŋ anua?)
pau to pluck, pull out
paua dog
pen/peni pen (E)
piipinosa to grow (intrans.)
pili (-a) to crumple up
pisij to fart, break wind
pisij fish (P)
pisike small; narrow
poa to say, tell (cf. aulia)
poi (cf. aso)
poi (cf. ŋusu)
400 pokane old, of things (cf. namuu)
401 polii because polii saa why?
402 poñamati coral reef (probably poña-mati; cf. mati)
403 porapora to wash (clothes, dishes, face or hands; cf. suu)
porapora mata-m wash your face!
porapora nima-m wash your hands!
404 posalai (-a, -e-la) to slap posalai e la slap him!
405 poso to hold, squeeze in the hand
poso a la ta nima-m hold it in your hand
poposoa to squeeze with the hand
posoposoa to hold in the hand
406 posona wet (cf. maroate)
407 pouru mountain
408 pua flower, blossom
pua ñ ai blossom of a tree
409 pue flatfish, flounder, halibut
410 puñana roof, ridgepole

R
411 rabañana seagull (cf. maasu)
412 rabarabaia lightning
413 rae (-gi, -m, -na) blood (cf. raeraeana)
414 raeraeana red (cf. rae)
415 raipa saliva
416 rame to chew
417 ramoramo sore, wound (cf. usai)
418 ramuramutipa (-gi, -m, -na) tongue
419 rañasi to stick, adhere to (cf. araña)
420 rarai (cf. oasa, uru)
421 raramukana sharp (cf. mata kereñana)
422 raramuti (cf. ai1)
423 rarana mangrove sp. (cf. tono)
424 raraña sea urchin
425 rararasa saw grass, Imperata cylindrica (P. kunai)
426 rare coral limestone
427 rari (-a) to rub, as medicine on the skin
428 rariao rat
429 rarooi bush spirit (P. masalai; cf. kalipa, tootoo)
430 rarum water (cf. ateio, manu, uela)
rarum i koko fish broth
rarum mata tears
431 rauebulu (possibly rau e bulu; cf. buse)
432 raum needle
433 raura frigate bird
434 rekati fishhook
435 rere to seek, search for, find (cf. paepae)
436 rikarikae hermit crab (cf. aiu, kitou, taia)
437 rira sand
438 riu bone
riu ñ aasono rib
riuriu-ena thin, skinny, of persons or animals (= 'bony')
439 roño to swell (cf. rupa)
e roño la it is swollen
440 roparopa frog
441 ropi to drink
442 roro thorn
443 rukeruke earthquake
444 rupa to swell (cf. roño)
e rupa la it is swollen
saa what?
sabana a tree with dry wood, similar to alo
sae up (cf. sio)
saesae to climb
sai to sharpen the point (of a stick, etc.; cf. supi)
saiki to sew, of clothes (cf. sui; suli)
sairi (-a, -e-la) to split
salana path, road, way
salii to husk coconuts
salo (cf. ai₁)
salusalu (cf. mata)
samana outrigger float
samusamu (-a) to bite
saناسانا (-na) fork of a branch (cf. tuu laalaa-ŋa-na)
saŋaulu ten (possibly saŋa-ulu)
saŋina lime (P. kambang)
sapesape barracuda, sea pike
sapisapi (cf. ai₂)
sau (-gu, -m, -na) chest (of a man)
saua to catch (as a ball) (possibly sau-a)
saurorom dark
sei who?
sesa₁ bad
sesa₂ one
sii banyan, Ficus sp.
sila to comb (cf. ai₂)
sinaka sun
sinakoio starfish (generic; cf. malumulm)
sio₁ down (cf. sae)
sio₂ nine
soa(soa) to shoot, stab
soa i e la shoot him!
soasoa la shoot him!
soana channel, passage through the reef
sokiki kingfisher
sui to sew, of mats, thatch, etc. (cf. saiki, suli)
suli (-a, -e-la) to sew (cf. saiki, suli)
sulu(-i-a) to burn (cf. usulu)
sunuki to carry on a pole between two men
sunuku pregnant
supi to sharpen the point (of a stick, etc.; cf. sai)
susu (-gu, -m, -na) breast areare susu nipple of the breast
susu/suusuu to bathe, dive
suu/sio to dive down
suusuu to bathe (cf. porapora)
taataau (cf. liuu)
taia generic for large crabs (cf. aiu; kitou, rikarikae)
taita male, man
taita-ŋi (-gi, -m, -na) husband
taita namuu old man
takea rollers for beaching a canoe
talakia/talakierna yellow
tale₁ inside
tale₂ with (instrumental), way, manner
tale saa how? in what way?
talia round
taliŋa (-gi, -m, -na) ear
taliŋa bolono deaf
taliŋa ɲiŋi mushroom (possibly taliŋa ɲiŋi)
494 tama (-gi, -m, -na) father
495 tamanu a tree, *Calophyllum inophyllum*, inland variety (cf. ɲitau)
496 taŋini a fish, the Spanish mackerel
497 taon a tree with sweet fruit (*P. pakpak*)
498 taotaoko sea eagle
499 tara to look
tara la look at it!
tara kila to recognise
500 tariti kind of quick, small snake (cf. katuu, otuana)
501 tasi1 (-gi, -m, -na) brother-in-law
502 tasi2 (cf. kuu)
503 tau1 (cf. ana)
504 tau2 to give
laa tau to take
mai tau to bring
tau la give it!
505 tauba sardine (*P. talay*)
506 tauge conch shell, triton
507 taulona large rock cod (cf. uaiata, uouna)
508 taumata person, human being
taumata tu ɲa toa people (collective)
509 tautauele dugong
510 tauu place (cf. liuu)
tauu ramoramo scar
511 teba a, one (cf. sesa2)
512 teka feces; to defecate
513 teke that (distant)
514 tine intestines
515 tiŋina to stand
 tiŋina sae stand up!
516 tiŋi dorsal fin
517 tiŋo (cf. ai1)
518 toa(-i-e-la) to cut (string, rope; cf. ɨsiɁ)
519 toka to sit
toka ɬo ļa sit down!
tokatoka to reside, live in a place
520 toko this
521 toli ti maggot
522 tolu three
523 tonetoega wave, swell in the open sea (cf. koto)
524 tono mangrove sp. with edible fruit (cf. rarana)
525 too that (near hearer)
526 tootoo shadow, reflection, spirit of the dead (cf. kalipa, raroaɁ)
527 toto grasshopper
528 totu to wake up
529 tou sugarcane
530 tubu (-gu, -m, -na) grandparent, grandchild
tubu bause grandmother
tubu bause pisike grand-daughter
tubu taita grandfather
tubu taita pisike grandson
531 tubui jungle, bush (cf. lae)
532 tubula satiated, full from eating
anga tubula you (pl.) are full
533 tue1 (-gi, -m, -na) older sibling of the same sex (cf. neŋa)
534 tue2 to fell a tree
tue la fell it!
535 tuku (-a) to swallow (cf. gomgom)
536 tukuilapu rainbow (possibly tuku i lapu; cf. lapu)
537 tukuna short (in length or height; cf. bao2)
538 tumari (-a, -e-ɬa) to hit (with the fist), punch
539 tumaroaroko bee
198 ROBERT BLUST

540 tumtumāna dull, blunt
541 tutulus housepost
542 tuu (cf. lāa₁)
543 tuutuu to cook (trans.)
   agī a-tuutuu I'm cooking

U
544 ua crocodile
545 uaiata large brown rock cod
   (cf. taulona, uouna)
546 ualu eight
547 ubi to strike, kill
   ubī e mate a la
548 ue₁ fruit
   ue ŋ ai fruit of a tree
549 ue₂ (-a, -e-la) to throw
   (cf. belu₂)
550 uela salt; saltwater (cf.
   ateio, manu, rarum)
551 uena casting net
552 ueta vein, vessel, tendon
553 ui (-na) tail
   ui koko tail of a fish
   ui mosu tail of a pig
554 uita octopus
555 ulaa swamp taro with large
   leaves, Cyrtosperma sp.
   (cf. asi, ia, kaala)
556 ulana moon, month

557 ulāna gold-lip pearl shell
   (used in other parts of St.
   Matthias, but not in
   Lomakunauru; cf. pararanji)
558 ulaula to effervesce, bubble
   up
559 ulu breadfruit
560 uŋu to work
561 uŋuru (-gu, -m, -na) head hair
562 uouna giant black rock cod
   (cf. taulona, uaiata)
563 uri banana
564 uru₁ (-gu, -m, -na) head
   uru ŋ uira heart (lit. 'head
   of octopus')
565 uru₂ leaf
   uru ŋ ai leaf of a tree;
   paper
   uru rarai betel leaf (P.
   lip ndaka)
566 usai sore, wound (cf.
   ramaramo)
567 ususoana white
568 usulu coconut leaf; torch
   made of coconut leaf (cf.
   sulu)
569 utalīna external gills (= uu
   taliña? cf. asaŋe)
570 utana garden
571 utu (cf. mata)
572 uu feather (also 'body hair'?)
   uu gila feather of a bird
**APPENDIX 1**

Mussau reflexes of Proto-Oceanic reconstructions

<table>
<thead>
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<th>MUSSAU</th>
<th>ENGLISH</th>
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<tbody>
<tr>
<td>1</td>
<td>-a</td>
<td>-a (transitive)</td>
<td>3sg object pronoun</td>
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<tr>
<td>2</td>
<td>panas (&gt; pa-panas)</td>
<td>aana (house)</td>
<td>hot</td>
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<td>3</td>
<td>(i)-au</td>
<td>agi</td>
<td>1sg subject pronoun</td>
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<tr>
<td>4</td>
<td>kayu</td>
<td>i</td>
<td>wood, tree</td>
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<td>5</td>
<td>paRi-</td>
<td>ai (?)</td>
<td>reciprocal prefix</td>
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<td>6</td>
<td>penako</td>
<td>ainao</td>
<td>to steal</td>
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<td>7</td>
<td>qayuyu</td>
<td>aiu</td>
<td>coconut crab</td>
</tr>
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<td>8</td>
<td>pa-Rapi</td>
<td>alai</td>
<td>afternoon, evening</td>
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<td>9</td>
<td>pale</td>
<td>ale (house)</td>
<td>public building</td>
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<tr>
<td>10</td>
<td>qalipan</td>
<td>aliena (land?)</td>
<td>centipede</td>
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<td>alo</td>
<td>neck</td>
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<td>qalawa</td>
<td>aloa</td>
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<td>1pl ex. subject pronoun</td>
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<td>ane</td>
<td>termite</td>
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<td>panua</td>
<td>anua (land?)</td>
<td>settled area</td>
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<td>aŋak/aŋap</td>
<td>aŋa (house)</td>
<td>to gape</td>
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<td>apaRat</td>
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<td>putty nut</td>
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<td>kandoRa</td>
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<td>cusous, phalanger</td>
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<td>asaŋ</td>
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<td>asĩne (land?)</td>
<td>to sneeze (onom.)</td>
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<td>kasu/qasu</td>
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<td>qate</td>
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<td>liver</td>
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<td>patuR</td>
<td>atu</td>
<td>to plait</td>
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<td>qapu²⁹</td>
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<td>30</td>
<td>pakiwa³⁰</td>
<td>baio</td>
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<td>(mpada)mpada</td>
<td>balalala (land?)</td>
<td>fence</td>
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<td>mpalai</td>
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<td>fish sp.</td>
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<td>papa</td>
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<td>carry pick-a-back</td>
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<td>short</td>
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<td>35</td>
<td>pujoq</td>
<td>biiso</td>
<td>foam, bubbles</td>
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<td>36</td>
<td>mpito³¹</td>
<td>bito</td>
<td>navel</td>
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<td>37</td>
<td>pWOjí</td>
<td>bo, bo-boj-ena (land?)</td>
<td>night</td>
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<td>38</td>
<td>mpuaq</td>
<td>bua</td>
<td>areca nut</td>
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<td>39</td>
<td>mpulut</td>
<td>buluuu (to caulk)</td>
<td>gum, sap glue</td>
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<td>40</td>
<td>e-</td>
<td>e-</td>
<td>3sg subject marker</td>
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<tr>
<td>41</td>
<td>pea³²</td>
<td>ea</td>
<td>where?</td>
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<td>42</td>
<td>ka</td>
<td>ga/ka/ko (house)</td>
<td>ordinal marker</td>
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<td>pijà</td>
<td>ga-isa (house)</td>
<td>how many/how much?</td>
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<td>-ŋku</td>
<td>-gi/gu (house)</td>
<td>1sg possessive pronoun</td>
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<tr>
<td>45</td>
<td>źkommunŋkomo</td>
<td>gomgom (to swallow)</td>
<td>to rinse the mouth, gargle</td>
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<td>46</td>
<td>i</td>
<td>i</td>
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<td>piRaq</td>
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<td>taro (Alocasia sp.)</td>
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<td>sister-in-law</td>
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<td>axe, knife</td>
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<td>limut</td>
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<td>piatuR</td>
<td>itau/ŋ-itau</td>
<td>a tree: Calophyllum sp.</td>
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<td>58</td>
<td>pitu</td>
<td>itu</td>
<td>seven</td>
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<td>59</td>
<td>kali</td>
<td>kaikai</td>
<td>to dig</td>
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<td>ndkadaŋi</td>
<td>kala-kalaŋi-na</td>
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<td>kadası</td>
<td>kalaši</td>
<td>to peel</td>
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<td>kaŋo-a</td>
<td>kal-o-kalo-a</td>
<td>to scratch</td>
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<td>ndkanus</td>
<td>kanusu</td>
<td>to spit</td>
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<td>qasu</td>
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<td>(kau)mpempe</td>
<td>kaupebe</td>
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<td>kaundu</td>
<td>kauru</td>
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<td>kila</td>
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<td>nig, egg of louse</td>
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<td>Ropok</td>
<td>loo-loom</td>
<td>to fly</td>
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<td>dua</td>
<td>lua</td>
<td>two</td>
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<td>87</td>
<td>luq</td>
<td>lu-e</td>
<td>to vomit</td>
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<td>-mu</td>
<td>-m</td>
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<td>ma</td>
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<td>attributive/stative</td>
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<td>mai</td>
<td>mai</td>
<td>hither, toward speaker</td>
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<td>makadindin</td>
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<td>(ma)-Raño</td>
<td>ma-laño-na</td>
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<td>ma-maat-ana</td>
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<td>1pl ex. possessive pronoun</td>
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<td>mapo</td>
<td>mao</td>
<td>to heal, recover</td>
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<td>(ma)-sauq</td>
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<td>mata</td>
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<td>eye, face, focus</td>
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<td>matakut</td>
<td>(ma)matautu</td>
<td>afraid</td>
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<td>100</td>
<td>mate</td>
<td>mate</td>
<td>die, dead</td>
</tr>
<tr>
<td>101</td>
<td>maqati</td>
<td>mati</td>
<td>low tide, ebb</td>
</tr>
<tr>
<td>102</td>
<td>mapuRuk</td>
<td>mauu (pus; to stink)</td>
<td>rotten</td>
</tr>
<tr>
<td>103</td>
<td>me</td>
<td>me</td>
<td>and, with</td>
</tr>
<tr>
<td>104</td>
<td>mimiq/mimIR</td>
<td>meme</td>
<td>urine, urinate</td>
</tr>
<tr>
<td>105</td>
<td>moñak</td>
<td>mona</td>
<td>tasty; fat (n.)18</td>
</tr>
<tr>
<td>106</td>
<td>mansoku</td>
<td>mosou</td>
<td>cinnamon tree</td>
</tr>
<tr>
<td>107</td>
<td>-ña</td>
<td>-na</td>
<td>38g possessive pronoun</td>
</tr>
<tr>
<td>108</td>
<td>ŋama</td>
<td>(nama)nama</td>
<td>to eat, chew</td>
</tr>
<tr>
<td>109</td>
<td>ŋami</td>
<td>nami (taste)</td>
<td>to taste</td>
</tr>
<tr>
<td>110</td>
<td>natu</td>
<td>natu</td>
<td>child</td>
</tr>
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<td>111</td>
<td>ŋatuq</td>
<td>natu</td>
<td>tree sp.</td>
</tr>
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<td>112</td>
<td>lima/nima</td>
<td>nima</td>
<td>hand, arm</td>
</tr>
<tr>
<td>113</td>
<td>niuR</td>
<td>niu</td>
<td>coconut tree</td>
</tr>
<tr>
<td>114</td>
<td>onom</td>
<td>(o)nomo</td>
<td>six</td>
</tr>
<tr>
<td>115</td>
<td>dojoR</td>
<td>nojo-nojo</td>
<td>to hear</td>
</tr>
<tr>
<td>116</td>
<td>nopuq</td>
<td>nou</td>
<td>stonefish</td>
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<td>117</td>
<td>nusa</td>
<td>nusa</td>
<td>squid</td>
</tr>
<tr>
<td>118</td>
<td>(ŋa)ŋada</td>
<td>ŋa-ŋalala</td>
<td>to whine, whimper</td>
</tr>
<tr>
<td>119</td>
<td>ŋoRo</td>
<td>ŋoo</td>
<td>to snore</td>
</tr>
<tr>
<td>120</td>
<td>ŋusu</td>
<td>ŋusu (nose)</td>
<td>labial circle</td>
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<tr>
<td>121</td>
<td>wakaR</td>
<td>oa</td>
<td>root</td>
</tr>
<tr>
<td>122</td>
<td>waRoj</td>
<td>oasa</td>
<td>vine, rope</td>
</tr>
<tr>
<td>123</td>
<td>poñu</td>
<td>onu</td>
<td>turtle</td>
</tr>
<tr>
<td>124</td>
<td>ponse</td>
<td>ose</td>
<td>canoe paddle</td>
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<tr>
<td>125</td>
<td>qatoluR</td>
<td>otolu</td>
<td>egg</td>
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<td>126</td>
<td>paqoRu</td>
<td>ou-na</td>
<td>new</td>
</tr>
<tr>
<td>127</td>
<td>palu</td>
<td>paru</td>
<td>to hit, strike</td>
</tr>
<tr>
<td>128</td>
<td>pansi</td>
<td>pasi</td>
<td>to split, cut</td>
</tr>
<tr>
<td>129</td>
<td>mpatu</td>
<td>patu</td>
<td>joint, node</td>
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<tr>
<td>130</td>
<td>mpiši</td>
<td>pisi</td>
<td>to fart</td>
</tr>
<tr>
<td>131</td>
<td>mpośi</td>
<td>poi</td>
<td>odor, smell</td>
</tr>
<tr>
<td>132</td>
<td>popos</td>
<td>poso39</td>
<td>to hold in hand, squeeze</td>
</tr>
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<td>133</td>
<td>mpua</td>
<td>pua</td>
<td>flower</td>
</tr>
<tr>
<td>134</td>
<td>ppuŋ-an</td>
<td>pungana</td>
<td>roof ridge, ridgepole</td>
</tr>
<tr>
<td>135</td>
<td>ndaRaq</td>
<td>rae</td>
<td>blood</td>
</tr>
<tr>
<td>136</td>
<td>ndamu</td>
<td>rame</td>
<td>to chew</td>
</tr>
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<td>137</td>
<td>ndamu</td>
<td>ra-ramu-ti</td>
<td>lime spatula</td>
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<td>138</td>
<td>nsalaŋ</td>
<td>raraŋa</td>
<td>sea urchin sp.</td>
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<td>139</td>
<td>lanse</td>
<td>rare</td>
<td>coral limestone</td>
</tr>
<tr>
<td>140</td>
<td>nsaRi</td>
<td>rari</td>
<td>to rub, smear, anoint</td>
</tr>
<tr>
<td>141</td>
<td>saRum</td>
<td>raum</td>
<td>needle</td>
</tr>
<tr>
<td>142</td>
<td>ndaula</td>
<td>raura</td>
<td>frigate bird</td>
</tr>
<tr>
<td>143</td>
<td>suRi</td>
<td>riu (&lt; M)</td>
<td>bone</td>
</tr>
<tr>
<td>144</td>
<td>sosop-i</td>
<td>ropi (to drink)</td>
<td>to suck, drink</td>
</tr>
<tr>
<td>145</td>
<td>nsapa</td>
<td>saa</td>
<td>what?</td>
</tr>
<tr>
<td>146</td>
<td>nsake</td>
<td>sae, saesae</td>
<td>to climb, upwards</td>
</tr>
<tr>
<td>147</td>
<td>saqit</td>
<td>saik-i</td>
<td>to sew (clothes)</td>
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<tr>
<td>148</td>
<td>said-i-a</td>
<td>sair-i-a</td>
<td>to split</td>
</tr>
<tr>
<td>149</td>
<td>nsalan</td>
<td>salana</td>
<td>path, road</td>
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<td>No.</td>
<td>POC</td>
<td>MUSSAU</td>
<td>ENGLISH</td>
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<tr>
<td>-----</td>
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<td>------------------------------</td>
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<td>150</td>
<td>nsaman</td>
<td>samana</td>
<td>outrigger float</td>
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<tr>
<td>151</td>
<td>samuksamuk</td>
<td>samusamu (to bite)</td>
<td>to chew, bite</td>
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<td>152</td>
<td>saŋa</td>
<td>saŋa-saŋa</td>
<td>bifurcation, to branch</td>
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<td>153</td>
<td>sa-ŋa-puluq</td>
<td>saŋaulu</td>
<td>ten</td>
</tr>
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<td>154</td>
<td>ndondom</td>
<td>sau-rorom</td>
<td>dark</td>
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<tr>
<td>155</td>
<td>nsai`</td>
<td>sei</td>
<td>who?</td>
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<tr>
<td>156</td>
<td>esa</td>
<td>s-esah</td>
<td>one</td>
</tr>
<tr>
<td>157</td>
<td>suda</td>
<td>sila</td>
<td>to comb</td>
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<td>158</td>
<td>sinaR</td>
<td>sinaka (sun)</td>
<td>to shine</td>
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<td>159</td>
<td>nsipo</td>
<td>sio</td>
<td>down</td>
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<td>160</td>
<td>nsiwa</td>
<td>sio</td>
<td>nine</td>
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<td>161</td>
<td>nsoka</td>
<td>soa (to shoot)</td>
<td>to stab, shoot</td>
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<td>162</td>
<td>sawan</td>
<td>soana</td>
<td>channel, Strait</td>
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<tr>
<td>163</td>
<td>susuk-i</td>
<td>su-i</td>
<td>to sew (mats, etc.)</td>
</tr>
<tr>
<td>164</td>
<td>susud-i</td>
<td>sul-i</td>
<td>to sew (mats, etc.)</td>
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<td>165</td>
<td>suluq</td>
<td>sulu (to burn), u-sulu</td>
<td>torch</td>
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<td>166</td>
<td>susu</td>
<td>susu</td>
<td>breast</td>
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<tr>
<td>167</td>
<td>suku</td>
<td>suu</td>
<td>to bathe, dive</td>
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<tr>
<td>168</td>
<td>ntaliŋa</td>
<td>taliŋa</td>
<td>ear</td>
</tr>
<tr>
<td>169</td>
<td>tama</td>
<td>tama</td>
<td>father</td>
</tr>
<tr>
<td>170</td>
<td>tamanu</td>
<td>tamanu</td>
<td>a tree: Calophyllum sp.</td>
</tr>
<tr>
<td>171</td>
<td>taŋiR</td>
<td>taŋini</td>
<td>a fish: Spanish mackerel</td>
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<tr>
<td>172</td>
<td>tawan</td>
<td>taon</td>
<td>a tree: Pometia pinata</td>
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<tr>
<td>173</td>
<td>tapuR</td>
<td>taue</td>
<td>conch shell, triton</td>
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<td>174</td>
<td>taumataq</td>
<td>taumata</td>
<td>person, human being</td>
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<tr>
<td>175</td>
<td>tinaqe</td>
<td>tine</td>
<td>intestines</td>
</tr>
<tr>
<td>176</td>
<td>toka</td>
<td>toka</td>
<td>to sit, squat; reside</td>
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<tr>
<td>177</td>
<td>tolu</td>
<td>tolu</td>
<td>three</td>
</tr>
<tr>
<td>178</td>
<td>togoR</td>
<td>togo</td>
<td>mangrove</td>
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<td>179</td>
<td>ntopu</td>
<td>tou</td>
<td>sugarcane</td>
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<tr>
<td>180</td>
<td>tumpu</td>
<td>tubu</td>
<td>grandparent/grandchild</td>
</tr>
<tr>
<td>181</td>
<td>tuka</td>
<td>tue</td>
<td>elder sibling of same sex</td>
</tr>
<tr>
<td>182</td>
<td>tudu/tuRu^[1]</td>
<td>tu-tulu</td>
<td>housepost</td>
</tr>
<tr>
<td>183</td>
<td>puqaya</td>
<td>ua</td>
<td>crocodile</td>
</tr>
<tr>
<td>184</td>
<td>walu</td>
<td>ualu</td>
<td>eight</td>
</tr>
<tr>
<td>185</td>
<td>puaq</td>
<td>ue</td>
<td>fruit</td>
</tr>
<tr>
<td>186</td>
<td>kupwen^[2]</td>
<td>uena</td>
<td>casting net</td>
</tr>
<tr>
<td>187</td>
<td>uRat</td>
<td>ueta</td>
<td>vein, vessel, tendon</td>
</tr>
<tr>
<td>188</td>
<td>ikuR</td>
<td>ui (&lt; M)</td>
<td>tail</td>
</tr>
<tr>
<td>189</td>
<td>kuRita</td>
<td>uita</td>
<td>octopus</td>
</tr>
<tr>
<td>190</td>
<td>pulaka</td>
<td>ulaa</td>
<td>taro (Cyrtosperma sp.)</td>
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<tr>
<td>191</td>
<td>pulan</td>
<td>ulana</td>
<td>moon, month</td>
</tr>
<tr>
<td>192</td>
<td>pudapuda</td>
<td>ulaula</td>
<td>foam, bubbles</td>
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<tr>
<td>193</td>
<td>kuluR</td>
<td>ulu</td>
<td>breadfruit</td>
</tr>
<tr>
<td>194</td>
<td>punti</td>
<td>uri</td>
<td>banana</td>
</tr>
<tr>
<td>195</td>
<td>qulu</td>
<td>uru</td>
<td>head</td>
</tr>
<tr>
<td>196</td>
<td>puso</td>
<td>usouso-ana</td>
<td>white</td>
</tr>
<tr>
<td>197</td>
<td>pulu</td>
<td>uu</td>
<td>body hair, feather</td>
</tr>
<tr>
<td>198</td>
<td>-Vna</td>
<td>-Vna</td>
<td>attributive suffix</td>
</tr>
</tbody>
</table>
NOTES

1. On all recent maps that I have been able to consult the name 'Mussau' (or 'Musau') is applied to the major island of the St. Matthias group. Nevermann (1933:17), however, calls this island 'St. Matthias' and reserves the name 'Musau' for an islet of 35 hectares lying between it and the reef island of Eloaua.

2. Dyen (1965:37, 41) regards Mussau as an isolate within the 'Austronesian Linkage' — that is, as a primary branch of the Austronesian language family. In view of the numerous phonological, lexical and grammatical innovations which Mussau shares exclusively with other Oceanic languages this classification can hardly be taken seriously.

3. To judge from the pattern for thousands, it is likely that alternative forms ka-teba-ai, ga-lua-ai, exist for one hundred, two hundred, etc. though these were not heard.

4. For a possessive construction which derives from a clausal source in another Austronesian language cf. colloquial Indonesian saya punya isteri my wife (lit. I have a wife).

5. It is unclear whether a-teba can function as a definite article, or whether it is neutral with regard to definiteness. The English translations must be regarded as convenient approximations.

6. Lister-Turner and Clark (1930) give e as a third person subject marker in Motu: (ia) e gini he/she/it stands, (idia) e gini they stand. As in Mussau, however, it has some uses which seem less straightforward: e hitologumu I am hungry (lit. it hungers me), e goreregumu I am ill, etc. The existence of similar systems of subject marking in various languages of eastern Indonesia suggests that the subject-marking function of Mussau, Motu e is old, and may have been transformed into an indefinite predicative function in Eastern Oceanic languages when the original system of subject marking broke down.

7. Interestingly, Chinnery (1927) records a 'reversed' genitive construction in Emira, as in ai-uruna (Mussau uru-ŋ-ai) leaf, ai-pana (pua-ŋ-ai) blossom, ai-viliki (biliki-ŋ-ai) bark of a tree and ai-oan (oa-ŋ-ai) root of a tree. While the structure of these constructions is generally whole + part + third person singular possessor, at least one compound that Chinnery cites contains an additional element -i which may mark the genitive: ai-lai-ina (Mussau laa-ŋ-ai) branch of a tree.

8. cf. Lister-Turner and Clark (1930:12) for a very similar situation in Hanuabada Motu (but not in 'Police' Motu).

9. Phonetically, -mu also occurs in /samusamu-a/ to bite and /alomu/ parent-in-law, but these items were recorded only in suffixed form. As will be seen, it is possible that the near-constraint against /u/ between /m/ and a following word boundary is not phonemic, but rather a product of low-level allophonic rules.

10. Chinnery frequently — but inconsistently — writes Emira v corresponding to Mussau /b/: bilik skin, ai viliki tree bark (Mussau /biliki/), valavala (/balabala/) fence, tuvui grass, tubui wild (probably both = Mussau /tubui/ jungle, bush).
11. Geminate r is a lengthened (5-6 tap?) trill.

12. In this connection we might also recall Milner's (1958) explanation of aspirated stops in Kapingamarangi and Tuvalu (Ellice) as deriving from earlier partial reduplications which presumably gave rise to historically intermediate geminates, much as the written geminates of Italian are realised in some colloquial varieties as voiceless aspirates. Haudricourt (1971:384) reports a similar situation in New Caledonia. To the extent that these changes agree, then, they may be regarded as exemplifications of a common phonological drift in Oceanic languages.

13. Certain exceptions remain, as with [pappāna] noon next to [papāpa] ~ [pāppa] shoulder, [aanāsa] hot, and [amāamalo] I am/was hungry. These may be due to transcriptional error, and should be checked in future fieldwork on the language.

14. Reflexes of final *d were recorded only before a transitive suffix. No reflexes of final *l were recorded, but as POC *l is retained in non-final position, its retention in final position is expected.

15. Consonant grades in Appendix 1 follow Grace (1969), or earlier (mostly unpublished) Proto-Oceanic reconstructions of my own. The distinctions suggested here are attributed to a language of undetermined time-depth that can conveniently be called 'pre-Mussau'.

16. The reader is reminded that I write Milke's *nj as *ns unless it reflects PAN *(n)j. My *nj is the nasal grade of POC *j < PAN *j.

17. Parentheses indicate minor rules, or weakly attested reflexes; a/y and a/w are to be read as **a adjacent to *y, *a adjacent to *w", as explained in 3.2.1.2.

18. cf. also lua two, ka-sa-ŋaulu-ga-lua twelve, etc. next to ga-lue-ŋaulu twenty.

19. However, note Pokao vinao, Tami pinau, Havannah Harbour binako to steal, cited by Milke (1968). Together with Mussau ainao these words could be taken as evidence for a POC doublet *pinako.

20. If, on the other hand, taon is /taon/ and derives from POC *tawaw, some instances of *wa > o evidently preceded the addition of echo vowels.

21. P. = New Guinea Pidgin, E. = English. Many lexicalised phrases in Mussau are likely calques on New Guinea Pidgin (e.g. atei tali = P. rauwara lake, tara kila = P. luksave to recognise, ubi e mate = P. kilim i dai to kill). Since the semantic structure of Pidgin is determined to a very large extent by its Austronesian component, however, some of these similarities may be due to common origin.

22. Although ai1 and ai2 clearly are distinct, the assignment of compounds to one rather than the other is often arbitrary, as a great many traditional implements are/were made of wood.


24. Said to be an Emira word.

25. Greeting? cf. alai afternoon, e lo alai good afternoon; Chinnery (1927) elo la day.

26. Initially misedanalysis as qa. This error was caught after the vocabulary had been typed, hence the alphabetical anomaly.
27. Unless stated otherwise glosses are generally those attributed to the POC reconstruction.

28. Emira atama door suggests that Mussau atamana may be a morphologically complex reflex (atama-na) of a POC form which lacked the final consonant. However, Emira sala < *nsalan path shows that POC *-n was lost in some other bases. Kayan (Southwell 1980) katamen (variant: betamen) door doorway may be connected and so support the reconstruction of *-n, though the last vowel is problematic.

29. Tongan efu dust, assigned by Dempwolff to PAN *qabu, is now generally derived from POC *ndapuR. Mussau au shows that a reflex of PAN *qabu also survived in Proto-Oceanic.

30. Grace (1969) writes *pakiwak, basing himself on Capell (1943). The latter, however, derives the Oceanic terms for shark from 'Indonesian' *pa- iwak, on the apparently groundless speculation that reflexes of POC *pakiwa are cognate with Javanese iwak fish, Samoan faiva fishing trip, fishing party. To date no support for a final consonant in this form is known from any Oceanic language, and no cognates are known outside the Oceanic group.

31. Milke (1968) posits *mbuto (Grace: *mputo) navel, but several of the reflexes he cites (Tuna bito-no, Tongan pito) point instead to *mpito.

32. Pawley (1972:78) attributes Proto-Polynesian *fea and a few similar forms in languages of central and northern Vanuatu (Sesake, Motu vea) to Proto-Eastern Oceanic *pai where?, taking the distribution of the 'irregular' forms as evidence for a 'North Hebridean-Central Pacific' subgroup of Eastern Oceanic languages. Mussau ea, however, shows that *pea almost certainly was found in Proto-Oceanic.

33. Milke (1968) writes *gRam (Grace: *ki Ram) stone adze, axe, but cites Meto II (Vitu Islands) kira knife among his reflexes. Together with this form Mussau iema can be taken as evidence that the meaning of *kiRam included knife.

34. Doublet *qanus-i; cf. Motu kanud-i to spit, spittle.

35. Probably a morphologically complex from of POC *mpempe; cf. Motu kaubebe idem.

36. If Mussau -laba is cognate with e.g. Roviana lavat-ana great, large, Nggela lava great (in compounds), Sa'a laha big, Trukese napa big, large, great, principle, main the lack of a final syllable -ta is unexplained. Only Trukese agrees in reflecting the nasal grade of *p.

37. Dempwolff (1938) assigned Tongan laka go, walk, step and similar forms in other Polynesian languages to PAN *lankaq step, stride. Motu raka step, walk, go, however, indicates a POC etymon with *d-.

38. Reconstructed in Blust (1978) as *mönak fat; sweet. Mussau mona pounded taro with coconut milk might be regarded as semantically too divergent to justify the proposed cognate association. This connection is made far more likely, however, by Gitua mona sago, Nggela mona coconut cream, i.e. shredded coconut and salt water squeezed over food; tender, of food (monamona); greasy and Sa'a mona tele a dish made from taro, which suggest that POC *mönak referred additionally to a taro dish prepared with coconut cream.
39. Possibly from POC *poRos squeeze, wring out juice. If so, however, the semantic fit is poorer, and the derivation violates the chronological ordering of CONTRACTION (2) and *R > ∅ assumed in 3.2.4.

40. Proto-Oceanic may have had a doublet *nsei; cf. Pawley (1972:78), Tryon (1976:420ff).

41. Grace (1969) lists only *turu (my *tudu) post, but Aua u, Nauna tu house-post point instead to *tuRu.

42. Milke (1968) gives *gubeña (Grace: *kupeña) fishing net. Evidence for the doublet appears in Blust (1981a:244ff).

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