

# Organised Phonology Data

## Mussau-Emira New Ireland Province

**Austronesian;** *Malayo-Polynesian, Central-Eastern, Eastern Malayo-Polynesian, Oceanic, Western Oceanic*; St Matthias Group

Population census: 5,000 (2000)

Major villages: Lomakunauru, Palakau, Nae, Tasitel, Loverang, Lolieng, Katulusae, Magean, Loaua.

Linguistic work done by: John & Marjo Brownie

Data checked by: John Brownie (13 years fieldwork)

### Phonemic and Orthographic Inventory

/	ɑ	ɛ	ɣ	i	k	l	m	n	ŋ	ɔ	p	r	s	t	u	β	/
<	a	e	gh,g	i	k	l	m	n	ng	o	p	r	s	t	u	v,b	>
<	A	E	Gh	I	K	L	M	N	Ng	O	P	R	S	T	U	V,B	>

### Consonants

	Bilab	LabDen	Dental	Alveo	Postalv	Retro	Palatal	Velar	Uvular	Pharyn	Glottal
Plosive	p		t					k			
Nasal	m		n					ŋ			
Trill			r								
Tap/Flap											
Fricative	β			s				ɣ			
Lateral Fricative											
Approx											
Lateral Approx			l								
Ejective Stop											
Implos											

Relevant environments are word-initial, syllable-initial, lengthened across a syllable boundary, syllable-final followed by a different consonant (/m/ and /ŋ/ only), and word-final (/m/ only).

p	[ <sup>h</sup> pau.a]	/paua/	<paua>	‘dog’
	[ <sup>h</sup> ka.pu]	/kapu/	<kapu>	‘friend, sibling’
	[ <sup>h</sup> pap.pa]	/pap:a/	<pappa>	‘shoulder’
	-			
	-			

t	[ <sup>1</sup> ta.ma]	/tama/	<tama>	‘father’
	[ <sup>1</sup> ma.tɛ]	/mate/	<mate>	‘die’
	[ <sup>1</sup> kat.tɔ]	/kat:ɔ/	<katto>	‘star’
	-			
k	[ <sup>1</sup> ka.su]	/kasu/	<kasu>	‘walk, go’
	[ <sup>1</sup> pa.ka]	/paka/	<paka>	‘big’
	[ <sup>1</sup> muk.kɔ]	/muk:ɔ/	<mukko>	‘sea cucumber’
	-			
m	[ <sup>1</sup> ma.si]	/masi/	<masi>	‘good’
	[ <sup>1</sup> ta.ma]	/tama/	<tama>	‘father’
	[ <sup>1</sup> mim.mi.ri.na]	/mim:irina/	<mimmirina>	‘bitter’
	[ <sup>1</sup> la.ʏɛ.tɔm.tɔm.u.a]	/la = ʏɛ = tɔm- tɔmu = a/	<laghe tomtomua>	‘they were crowding him’
n	[ <sup>1</sup> saur.rɔm]	/saur:ɔm/	<saurrom>	‘darkness’
	[ <sup>1</sup> na.ma]	/nama/	<nama>	‘eat’
	[ <sup>1</sup> ki.na]	/kina/	<kina>	‘mother’
	[kɔ <sup>1</sup> rɔn.na]	/kɔ <sup>1</sup> rɔn:a/	<koronna>	‘true’
ŋ	[ <sup>1</sup> ŋa.lu. <sup>1</sup> ŋa.lu]	/ŋalunɔlu/	<ngalungalu>	‘tooth’
	[ <sup>1</sup> ma.ŋa]	/maŋa/	<manga>	‘holy’
	[ɛ. <sup>1</sup> ŋaŋ.ŋa.la]	/ɛ = ŋaŋ- ŋala/	<engangngala>	‘he is crying’
	[aŋ. <sup>1</sup> gɛ.lɛ. <sup>1</sup> ma.tu.ɛ.la]	/aŋ = ʏɛɛ = matu = ɛ = la/	<angghele matuela>	‘it has ripened’
r	[ <sup>1</sup> ra.ti]	/rati/	<rati>	‘hate, reject’
	[ <sup>1</sup> ta.ra]	/tara/	<tara>	‘see, look’
	[ <sup>1</sup> ʏɔr.ru]	/ʏɔr:u/	<ghorru>	‘seaweed sp’
	-			
β	[ <sup>1</sup> βa.tum]	/βatum/	<vatum>	‘tapioca’
	[ <sup>1</sup> kɔ.βa]	/kɔβa/	<kova>	‘stomach’
	[ɛ. <sup>1</sup> βab.bai:]	/ɛ = βaβ- βai:/	<evabbaii>	‘he is mending’
	-			

s	[ <sup>1</sup> sa.ma]	/sama/	<sama>	‘talk’
	[ <sup>1</sup> ma.si]	/masi/	<masi>	‘good’
	[ <sup>1</sup> pas.su]	/pas:u/	<passu>	‘play’
	-			
ɣ	[ <sup>1</sup> ɣa.lu.a]	/ɣalua/	<ghalua>	‘two’
	[lɔ. <sup>1</sup> ka.ɣi]	/lɔka -ɣi/	<lokaghi>	‘my uncle’
	[ε. <sup>1</sup> ɣag.ga.li]	/e = ɣaɣ- ɣali/	<eghaggali>	‘he is shaving’
	-			
l	[ <sup>1</sup> la.ka]	/laka/	<laka>	‘basket’
	[ <sup>1</sup> pa.la]	/pala/	<pala>	‘(fire) go out’
	[ <sup>1</sup> ɛl.la]	/ella/	<ella>	‘in the day’
	-			

**Vowels.**

i                      u

ε                      ɔ

a

Relevant environments are word-initial, word-final, syllable-final followed by a consonant, syllable-final followed by a vowel (except for /a/), as a complete syllable, and in a closed syllable.

i	[ <sup>1</sup> i.ta]	/ita/	<ita>	‘we (plural inclusive)’
	[pa. <sup>1</sup> ra.si]	/parasi/	<parasi>	‘quickly’
	[ <sup>1</sup> ki.na]	/kina/	<kina>	‘mother’
	[ai.ε. <sup>1</sup> sɔ.a]	/aiesɔa/	<aiesoa>	‘believe’
	[ <sup>1</sup> a.mi ai. <sup>1</sup> sou.i.la]	/ami aisɔu -i = la/	<ami aisouila>	‘we met them’
	[ <sup>1</sup> a.ra.rim]	/arari -m/	<ararim>	‘your (sg) name’
u	[u. <sup>1</sup> la.na]	/ulana/	<ulana>	‘moon, month’
	[ <sup>1</sup> mɔ.su]	/mɔsu/	<mosu>	‘pig’
	[ <sup>1</sup> ku.ra]	/kura/	<kura>	‘firewood’
	[su. <sup>1</sup> ε.na]	/suena/	<suenā>	‘house post’
	[ai. <sup>1</sup> u.lu.a]	/ai- ulua/	<aiulua>	‘towel’
	[ <sup>1</sup> βa.tum]	/βatum/	<vatum>	‘tapioca’

ε	[ε.ˈpɔ.na]	/εpɔna/	<epona>	‘on’
	[ˈβau.sɛ]	/βause/	<vause>	‘woman’
	[ˈkɛ.ru]	/kɛru/	<keru>	‘round basket’
	[ˌrae.rae.ˈa.na]	/raeraeana/	<raeraeana>	‘red’
	[ˈsai.ɛ.la]	/sai = ɛ = la/	<saiela>	‘cut it!’
	[ˈkɛ.kɛm]	/kɛkɛ -m/	<kekem>	‘your (sg) leg’
ɔ	[ˈɔ.sɛ]	/ɔsɛ/	<ose>	‘paddle’
	[ˈta.lɔ]	/talɔ/	<talo>	‘colour’
	[ˈmɔ.su]	/mɔsu/	<mosu>	‘pig’
	[ˈsɔ.ɑ]	/sɔɑ/	<soa>	‘shoot’
	[ɣa.ˌsi.ɔ.ˈaː.ta]	/ɣasio -aːta/	<ghasioaata>	‘nine times’
	[ˈsaur.rɔm]	/saurːɔm/	<saurrom>	‘darkness’
□	[ˈa.ɣi]	/aɣi/	<aghi>	‘I’
	[ˈni.ma]	/nima/	<nima>	‘arm, hand’
	[ˈta.ma]	/tama/	<tama>	‘father’
	-			
	[ɣao.ˈa.lu]	/ɣaɔalu/	<ghaoalu>	‘eight’
	[ˈta.mam]	/tama -m/	<tamam>	‘your (sg) father’

### Diphthongs

The diphthongs that occur in Mussau-Emira are /ai/, /ae/, /au/, /aɔ/, /ei/, /ɔi/, /ɔu/. Also, high-mid and high-low sequences, plus /ui/ can be pronounced as glides, especially in rapid speech. Within diphthongs, there is a phonetic variation from [ɛ] to [e], and from [ɔ] to [o]. Normally, the diphthongs are pronounced with the more closed vowels, and this is treated as allophonic variation of /ε/ and /ɔ/.

A complication is that one of the two vowels in a diphthong can be lengthened. This is dealt with below.

Relevant environments are word-initial, word-final, syllable-final followed by a consonant, syllable-final followed by a vowel, and as a complete syllable.

ai	[ˈai.sa.lɔ]	/aisalɔ/	<aisalo>	‘platform’
	[ˈka.raɪ]	/karai/	<karai>	‘clam sp.’
	[ˈtai.ta]	/taita/	<taita>	‘man’
	[ˈsai.ɛ.la]	/sai = ɛ = la/	<saiela>	‘cut it!’
	[ε.ˈai.mu.li]	/ε = aimuli/	<eaimuli>	‘he follows’

aε	[ <sup>1</sup> ae.la]	/aε = la/	<aεla>	‘pull them!’
	[ <sup>1</sup> ta.lae]	/talae/	<talae>	‘blue-lined surgeon fish’
	[ <sup>1</sup> lae.lae]	/laεlaε/	<laεlaε>	‘trochus shell’
	[ <sup>1</sup> tae.a]	/taεa/	<taea>	‘crab’
	[ka:.ka.tɔ. <sup>1</sup> ae.kε]	/ka:katoaeke/	<kaakatoaeke>	‘authority’
au	[ <sup>1</sup> au.pa.ka]	/aupaka/	<aupaka>	‘sweat’
	[ <sup>1</sup> βi.lau]	/βilau/	<vilau>	‘ten toea (coin)’
	[yε. <sup>1</sup> tau.la]	/yε = tau = la/	<ghe taula>	‘he gave’
	[yε. <sup>1</sup> tau.ε.la]	/yε = tau = ε = la/	<ghe tauela>	‘he gave it’
	[ε. <sup>1</sup> au.li.a]	/ε = aulia/	<eaulia>	‘he says’
aɔ	[ <sup>1</sup> ao.rε]	/aɔrε/	<aore>	‘shout’
	[ <sup>1</sup> ka.lao]	/kalao/	<kalao>	‘vine sp.’
	[ <sup>1</sup> sao.pi]	/saɔpi/	<saopi>	‘meet s.o.’
	[yao. <sup>1</sup> a.lu]	/yaoalu/	<ghaoalu>	‘eight’
	[ε.aɔ. <sup>1</sup> ao.sɔ]	/ε = aɔ- aɔsɔ/	<eaɔaoso>	‘he is jumping’
εi	[ <sup>1</sup> ei.lou]	/ε = ilou/	<eilou>	‘he runs’
	[ai. <sup>1</sup> sa.kei]	/aisakei/	<aisakei>	‘judge’
	[ <sup>1</sup> nei.na]	/nei -na/	<neina>	‘its smell’
	[yε. <sup>1</sup> lei.a]	/yεlei = a/	<gheleia>	‘do it’
	[ɔ.roi. <sup>1</sup> ei.li]	/ɔroi = εili/	<oroieili>	‘very many’
ɔi	[ <sup>1</sup> oi.ε.la]	/ɔi = ε = la/	<oiela>	‘brush it!’
	[ <sup>1</sup> ɔ.roi]	/ɔroi/	<oroi>	‘many’
	[ <sup>1</sup> koi.koi]	/koikoi/	<koikoi>	‘coconut shell’
	[ni. <sup>1</sup> moi.a]	/nimɔia/	<nimoia>	‘trial, trouble’
	[a. <sup>1</sup> oi.la]	/a = ɔi = la/	<aoila>	‘I brushed’
ɔu	[ <sup>1</sup> ou.na]	/ɔuna/	<ouna>	‘new’
	[ <sup>1</sup> ki.tou]	/kitou/	<kitou>	‘hermit crab’
	[u. <sup>1</sup> sou.sou. <sup>1</sup> a.na]	/usɔusɔana/	<usousouana>	‘white’
	[ <sup>1</sup> lou.a]	/loua/	<lloua>	‘crane one’s neck’
	[la.yε. <sup>1</sup> ou.lu.la]	/la = yε = ɔulu = la/	<laghe oulula>	‘they grumbled’

### Suprasegmentals (tone, stress, length)

Stress is normally on the penultimate syllable, with secondary stress on every second syllable before the penultimate syllable. There are a number of other factors that are involved in stress assignment, though. In particular, there are many clitics attached to verbs and nouns which do not have their own stress. Stress may also be attracted to a heavy syllable, that is, an open

syllable with a long vowel or a diphthong, or a closed syllable. Finally, when a light syllable that would otherwise have stress is preceded by another light syllable with the same vowel or /a/, then stress may shift to that syllable. Full details of stress assignment are dealt with in the Mussau-Emira Phonology Essentials paper.

Reduplication takes five different forms, depending partly on the phonetic shape of the word. The first pattern is when the first two syllables of the root are reduplicated, or the whole of a monosyllabic root. This is called disyllabic reduplication. The second pattern occurs with roots that begin with CV. In this pattern, the initial CV is reduplicated and the vowel lengthened. This is called CVV reduplication. The third pattern also occurs with roots that begin with CV. In this pattern, the CV is reduplicated, but the consonant at the beginning of the root is geminated. This is called CVC reduplication. The fourth pattern occurs with roots that begin with a long consonant. In this pattern, the initial consonant and vowel are reduplicated, with the initial consonant being shortened. This is called CV reduplication. The final pattern occurs with roots that begin with a short vowel. In this pattern, the vowel is lengthened. This pattern is called V reduplication. Examples are in the table below:

Root	Gloss	Reduplication pattern	Reduplicated form
[tɔka]	‘sit, dwell’	Disyllabic	[tɔkatɔka]
[rɔ:]	‘be able’	Disyllabic	[rɔ:rɔ:]
[kasu]	‘walk, leave’	Disyllabic	[kasukasɔ]
[asɔ]	‘lie down’	Disyllabic	[asɔasɔ]
[karasa]	‘sharpen’	Disyllabic	[karakarasa]
[kiri]	‘turn’	Disyllabic	[kirikiri]
[tara]	‘see, look’	CVV	[ta:tara]
[palata]	‘be ashamed’	CVV	[pa:palata]
[tiŋina]	‘stand’	CVV	[ti:tiŋina]
[rɛkata]	‘scatter’	CVV	[rɛ:rɛkata]
[ru]	‘carry on head’	CVC	[ruru]
[kala]	‘flow’	CVC	[kak:ala]
[tiŋɔ]	‘punt’	CVC	[tit:tiŋɔ]
[k:aɔa]	‘worship’	CV	[kak:aɔa]
[l:usu]	‘sleep deeply’	CV	[lul:usu]
[m:atɛ]	‘dry out’	CV	[mam:atɛ]
[s:ɔ]	‘go in’	CV	[sɔs:ɔ]
[ilɔu]	‘run’	V	[i:lɔu]
[apasuŋa]	‘show, teach’	V	[a:pasuŋa]
[uɛ]	‘say’	V	[u:ɛ]
[aika:ia]	‘believe’	V	[a:ika:ia]

The other main suprasegmental feature is length. Both consonants and vowels may be lengthened. Length can be at four different levels: lexical, morphophonemic, syntactic and discourse. Discourse level is usually lengthening of a vowel for emphasis. Syntactic length is when a word ending in one vowel is followed by a word beginning with the same vowel, and the vowel is realised as a long vowel. Morphophonemic length is produced by reduplication. Lexical length may be as a result of historical processes of syncope and loss of earlier consonants in a proto-form of the language.

Following are some contrasts for vowel length:

[a.na. <sup>1</sup> mi.si]	/anamisi/	<anamisi>	‘play’
[ <sup>1</sup> a:.na.sa]	/a:nasa/	<aanasa>	‘hot’
[ <sup>1</sup> ka.la]	/kala/	<kala>	‘approach’
[ <sup>1</sup> ka:.la]	/ka:la/	<kaala>	‘Singapore taro’
[ <sup>1</sup> la]	/la/	<la>	‘3rd person plural’
[ <sup>1</sup> la:]	/la:/	<laa>	‘go (nearby)’
[ <sup>1</sup> ε.lei]	/εlei/	<elei>	‘do, make’
[ <sup>1</sup> ε:.lei]	/ε:lei/	<eelei>	‘doing, making’
[ε. <sup>1</sup> ʏε.lei]	/ε = ʏεlei/	<eghelei>	‘he does’
[ε. <sup>1</sup> ʏε:.lei]	/ε = ʏε:lei/	<egheelei>	‘he is doing’
[ <sup>1</sup> i.ra]	/ira/	<ira>	‘count’
[ <sup>1</sup> i:.ri]	/i:ri/	<iiri>	‘tie’
[ <sup>1</sup> ki.la]	/kila/	<kila>	‘know’
[ <sup>1</sup> ki:.lə]	/ki:lə/	<kiilo>	‘convict surgeonfish’
[a. <sup>1</sup> li.ki]	/aliki/	<aliki>	‘youth’
[sɔ̌.a. <sup>1</sup> ki:.ki:]	/sɔ̌aki:ki:/	<soakiikii>	‘kingfisher’
[ <sup>1</sup> lə.ku]	/ləku/	<loku>	‘dance’
[ <sup>1</sup> lə:.lə:]	/lə:lə:/	<looloo>	‘fly’
[ɔ̌]	/ɔ̌/	<o>	‘this’
[ɔ̌:]	/ɔ̌:/	<oo>	‘have a fit’
[ <sup>1</sup> u.si]	/usi/	<usi>	‘follow’
[ <sup>1</sup> u:.si]	/u:si/	<uusi>	‘epiphyte’
[ <sup>1</sup> tu.ku]	/tuku/	<tuku>	‘piece’
[ <sup>1</sup> tu:.ε.la]	/tu: = ε = la/	<tuuela>	‘cook it!’

Long consonants are most often realised as across syllable boundaries, though it is also possible to have long consonants word-initial.

Following are some contrasts for consonant length:

[ai. <sup>1</sup> ʏu.i]	/aiʏui/	<aighui>	‘join a group’
[aig. <sup>1</sup> ga.li]	/aiʏ:ali/	<aiggali>	‘shave’
[ <sup>1</sup> kɔ̌.rɛ]	/kɔ̌rɛ/	<kore>	‘millipede’
[kɔ̌]	/kɔ̌/	<kko>	‘fish’
[ai. <sup>1</sup> kɛ.a]	/aikɛa/	<aikɛa>	‘hand-held fishing net’
[aik. <sup>1</sup> kɛ.li]	/aik:ɛli/	<aikkeli>	‘canoe pole’

[la]	/la/	<la>	‘3rd person plural’
[l:a]	/l:a/	<lla>	‘daytime’
[ <sup>1</sup> βɛ.lu]	/βɛlu/	<velu>	‘drop’
[ <sup>1</sup> βɛl.la]	/βɛl:a/	<vella>	‘area’
[ <sup>1</sup> ma.tɛ]	/mate/	<mate>	‘die’
[ <sup>1</sup> m:a.tɛ]	/m:atɛ/	<mmate>	‘dry out’
[tu. <sup>1</sup> ma.ri]	/tumari/	<tumari>	‘hit with a fist’
[tum. <sub>1</sub> ma.ta <sup>1</sup> βa.ŋa]	/tum:ataβaŋa/	<tummatavanga>	‘open place’
[ <sup>1</sup> nɔ.kɔ]	/nɔkɔ/	<noko>	‘mosquito’
[n:ɔ]	/n:ɔ/	<nno>	‘heat up’
[ai. <sub>1</sub> mɔ.nɔ. <sub>1</sub> mɔ.nɔ. <sup>1</sup> si.a]	/aimɔnɔmɔnɔsia/	<aimonomonosia>	‘prepare’
[ <sup>1</sup> mɔn.nɔ]	/mɔn:ɔ/	<monno>	‘mud’
[ŋi.la.ʏɛ. <sup>1</sup> u.ɛ]	/ŋila = ʏɛ = uɛ/	<ngila ghe ue>	‘they said’
[ <sup>1</sup> ŋi:si]	/ŋi:si/	<ngngiisi>	‘show one’s teeth’
[ <sup>1</sup> a.ŋa.ri]	/aŋari/	<angari>	‘make a noise’
[ɛ. <sup>1</sup> ŋaŋ.ŋa.la]	/e = ŋaŋ- ŋala/	<engangngala>	‘he is crying’
[pae]	/pae/	<pae>	‘look for’
[p:ae]	/p:ae/	<ppae>	‘different kind’
[ <sup>1</sup> ka.pa]	/kapa/	<kapa>	‘complete’
[ <sup>1</sup> pap.pa]	/pap:a/	<pappa>	‘shoulder’
[ <sup>1</sup> ru.ri]	/ruri/	<ruri>	‘rub’
[ <sup>1</sup> r:u.ti]	/r:uti/	<rruti>	‘pull down’
[tɔ. <sup>1</sup> ru.ɛ]	/tɔruɛ/	<torue>	‘family of shells’
[ <sup>1</sup> ʏɔr.ru]	/ʏɔr:u/	<ghorru>	‘kind of seaweed’
[su. <sup>1</sup> ku.li]	/sukuli/	<sukuli>	‘carry in the arms’
[ <sup>1</sup> s:u.ku]	/suku/	<ssuku>	‘bush material thread’
[ <sup>1</sup> pa.su]	/pasu/	<pasu>	‘fill’
[ <sup>1</sup> pas.su]	/pas:u/	<passu>	‘play’
[tɔ. <sup>1</sup> li.ti]	/tɔliti/	<toliti>	‘worm, maggot’
[ <sup>1</sup> t:ɔ.li]	/t:ɔli/	<ttoli>	‘fill’
[ <sup>1</sup> ka.tɔ.a]	/katɔa/	<katoa>	‘a few’
[ <sup>1</sup> kat.tɔ]	/kat:ɔ/	<katto>	‘star’



[βa]	/βa/	<va>	‘complementiser’
[b:a]	/β:a/	<bba>	‘cheek’
[ <sup>1</sup> ka.βa.ti]	/kaβati/	<kavati>	‘close’
[ε. <sup>1</sup> βab.baii]	/ε = βaβ- βai:/	<evabbaii>	‘he is mending’

### Syllable Patterns

The syllable patterns include (with V: indicating a long vowel and C: indicating a long consonant): V, V:, VV, V:V, VV: CV, CV:, CVV, CV:V, CVV:, VC, VVC, CVC, CVVC, C:V, C:V:, C:VV, C:VV:. Closed syllables only occur in three cases: where a long consonant is divided between two syllables, with the tense/aspect prefix /aŋ/, and when the final consonant of a word or verb stem is /m/, which appears to be a result of deletion of /u/ in a final /mu/ syllable.

Pattern	Word-initial	Word-final	Following V	Following C	Whole word
V	[ <b>a</b> .na.'mi.si] /anamisi/ <anamisi> 'play'	[ <b>pau</b> .a] /paua/ <paua> 'dog'	[ <b>a</b> .li.' <b>ε</b> .na] /aliena/ <aliena> 'centipede'	-	[ <b>ɔ</b> ] /ɔ/ <o> 'this'
V:	[ <b>a</b> .la] /a:la/ <aala> 'edge'	[ <b>ki</b> .u. <b>a</b> ] /kiua:/ <kiuaa> 'talk about'	[ <b>ɣ</b> ai.tu.' <b>a</b> .ta] /ɣaitu -a:ta/ <ghaituaata> 'seven times'	-	[ <b>i</b> ] /i:/ <ii> 'kind of fruit'
VV	[ <b>ou</b> .na] /ouna/ <ouna> 'new'	[ <b>a</b> .tε. <b>ae</b> ] /ateae/ <ateae> 'classifier'	[u. <b>ai</b> .ε.'sɔ.a] /u = aiesɔa/ <uaiesoa> 'you (sg) believe'	-	[ <b>ai</b> ] /ai/ <ai> 'tree, wood'
V:V	[ <b>ai</b> .na.'si.a] /a:inasia/ <aainasia> 'being about to'	-	[ε.' <b>au</b> .li.a] /ε = a- aulia/ <eaaulia> 'he is saying'	-	-
VV:	[ <b>ai</b> .ri] /ai- iri/ <aiiri> 'thing for tying'	[ <b>ai</b> .aɔ] /aiaɔ:/ <aiaoo> 'scent'	[ <b>ai</b> .aɔ] /aiaɔ:/ <aiaoo> 'scent'	-	[ <b>au</b> ] /au:/ <auu> 'dust'
CV	[ <b>p</b> ɔ.'la.ka] /pɔlaka/ <polaka> 'break'	[ <b>ma</b> .si. <b>na</b> ] /masina/ <masina> 'good'	[ <b>ka</b> .la. <b>ka</b> .la. <b>ŋi</b> .na] /kalakalanina/ <kalakalangina> 'near'	[εs.' <b>su</b> .a] /ε = s:u = a/ <essua> 'she is breastfeeding him'	[ <b>mε</b> ] /mε/ <me> 'and'
CV:	[ <b>ka</b> .'ka.li.na] /ka:- kalina/ <kaakalina> 'bitter'	[ <b>ka</b> .tu] /katu:/ <katuu> 'fall'	[ε.a.' <b>sa</b> :ŋi] /ε = a- sa:ŋi/ <easaangi> 'he saves'	[tar.' <b>ri</b> .na] /ta- ri:na/ <tariina> 'torn'	[ <b>pi</b> ] /pi:/ <pii> 'squeal'
CVV	[ <b>ɣ</b> au.na] /ɣauna/ <ghauna> 'small'	[ <b>a</b> .lu. <b>sei</b> ] /alusei/ <alusei> 'long'	[ɣa.' <b>lai</b> .lɔ] /ɣalailɔ/ <ghalailo> 'yesterday'	[kək.' <b>kai</b> .li] /kək:a ili/ <kakkaili> 'cold'	[ <b>maε</b> ] /maε/ <maε> 'come'
CV:V	[ <b>tεi</b> .ε.la] /tε: -i = ε = la/ <teeiela> 'with him'	[ai.'kak. <b>kai</b> ] /ai- kak- kai:/ <aikakkaai> 'thing for carrying'	[ɣau.' <b>nai</b> .li] /ɣauna = □ ili/ <ghaunaaili> 'very small'	[a. <b>ɣ</b> al.ɔ.an.' <b>nai</b> .li] /a = ɣ- alɔan:a = □ ili/ <aghaloannaaili> 'I very much want'	[ <b>kai</b> ] /kai:/ <kaai> 'carry'
CVV:	[ <b>pei</b> .ra] /pei -ira/ <peiira> 'their possessions'	[ <b>a</b> .rau] /arau:/ <arauu> 'emphatic'	[ai.' <b>toi</b> .ra] /aitɔi -ira/ <aitoiira> 'their guardian'	[εs.' <b>sai</b> .la] /ε = s:ai = la/ <essaila> 'he coveted'	[ <b>kau</b> ] /kau:/ <kauu> 'sweet potato'
VC	[ <b>an</b> .ge.'ma.tε.la] /an = ɣε = matε = la/ <angghe matela> 'he had died'	[ε. <b>la</b> .kɔ.'la.kɔ. <b>am</b> ] /ε = lakɔ- lakɔ = am/ <elakolakoam> 'he is cursing you (pl)'	[a. <b>ɣ</b> a:.'su:. <b>em</b> ] /a = ɣ- a- □ su: = em/ <aghaasuuem> 'I baptise you (pl)'	-	[ <b>am</b> ] /am/ <am> 'you (pl)'

VVC	[ <b>ai</b> p. <sup>1</sup> pɔːa]	-	[ <sup>1</sup> ni. <b>ai</b> k. <sup>1</sup> kai.aː]	-	[ <b>aim</b> ]
	/ai- pɔːa/		/ni- aik:aiːa/		/ai -m/
	<aippooa>		<niaikkaiaa>		<aim>
	‘converse’		‘belief’		‘your (sg) tree’
CVC	[ <b>tɔ</b> t.tu. <sup>1</sup> aː.nɛ]	[ɛ. <sup>1</sup> tai. <b>mm</b> ]	[tau. <sup>1</sup> <b>mat</b> .tu:]	[ <sup>1</sup> ta.ŋɛ. <sup>1</sup> <b>tam</b> ]	[ <b>tum</b> ]
	/tɔtʉaː -nɛ/	/ɛta = imim/	/taumatʉu/	/ta- ŋ- ɛta = m/	/tum/
	<tottuaane	<etaimim>	<taumattu>	<ta ngetam>	<tum>
	‘his rising’	‘to you (pl)’	‘person’	‘for you (pl)’	‘collarbone’
CVVC	[ <sup>1</sup> <b>saur</b> .rɔm]	[ <sup>1</sup> ɔ.li. <sup>1</sup> <b>moim</b> ]	[ <sup>1</sup> ɔ.li. <sup>1</sup> <b>moim</b> ]	[ <sup>1</sup> la. <b>ɣais</b> . <sup>1</sup> sa.teː]	[ <b>raum</b> ]
	/saur:ɔm/	/ɔlimɔ -im/	/ɔlimɔ -im/	/la = ɣ- ai- s:a -teː/	/raum/
	<saurrom>	<olimoim>	<olimoim>	<la ghaissa tee>	<raum>
	‘darkness’	‘your (pl) canoe’	‘your (pl) canoe’	‘they are angry with’	‘needle’
C:V	[ <sup>1</sup> <b>s</b> a.βɔ.tɔ]	-	-	-	[kɔː]
	/s:aβɔtɔ/				/k:ɔ/
	<ssavoto>				<kko>
	‘sin’				‘fish’
C:V:	[ <sup>1</sup> <b>p</b> ɔːa]	-	-	-	[ <b>n</b> aː]
	/pɔːa/				/n:aː/
	<ppooa>				<nnaa>
	‘speak’				‘think’
C:VV	[ <sup>1</sup> <b>k</b> ai.la]	-	-	-	[ <b>p</b> ae]
	/k:aila/				/p:ae/
	<kkaila>				<ppae>
	‘tell’				‘another kind’
C:VV:	[ <sup>1</sup> <b>s</b> aiː.la]	-	-	-	[ <b>s</b> aiː]
	/s:aiː = la/				/s:aiː/
	<ssaila>				<ssaii>
	‘coveted’				‘covet’

### Conventions: Phonological

All stops are unaspirated.

The voiced bilabial fricative, /β/, can also occur as a stop, [b], especially word-initially, and when geminated. However, there is some free variation with this.

The voiced velar fricative, /ɣ/, can also occur as a stop, [g], especially word-initially, when geminated, or following the tense/aspect prefix /aŋ/. Again, there is some free variation with this.

The vowels tend to have a range of values depending on the individual, the presence or absence of length, whether they are part of a diphthong, or in a closed syllable. Thus, /i/ can be realised as [i] or [ɪ], /ɛ/ as [ɛ] or [e], /a/ as [a] or [ʌ], /u/ as [u] or [ʊ], and /ɔ/ as [ɔ] or [o].

In the Southern Mussau dialect especially, final vowels are frequently dropped, often at the end of utterances. This results in closed syllables that would not be present in the words given in isolation. There are, however, words that end in /m/ which do not have a deleted vowel. Historical reconstruction implies that there were earlier forms ending in /mu/ which

have lost the /u/. The absence of words ending in /mu/ confirms this. Some examples of dropped final vowels are:

[si.'nak]	/sinaka/	<sinaka>	'sun'
[ <sup>1</sup> ma.sin]	/masina/	<masina>	'good'
[βa.li.'eŋ]	/βaliɛŋa/	<valienga>	'cave'

In names of people and places, plus a few loan-words, there are a few phonemes that otherwise do not appear in the language. The most common of these would be /dʒ/, /f/, /d/, /z/ and /h/. Some examples are listed below:

[dʒoub]	/dʒoub/	<Job>	man's name
[dʒɛ.ru.'sa.lɛm]	/dʒɛrusalɛm/	<Jerusalem>	city name
[ <sup>1</sup> dɔk.ta]	/dɔkta/	<dokta>	'doctor'
[ <sup>1</sup> frɛ.di]	/frɛdi/	<Freddy>	man's name
[ <sup>1</sup> frɛd.lin]	/frɛdlin/	<Fredlyn>	woman's name
[ <sup>1</sup> lɛz.li]	/lɛzli/	<Leslie>	man's name
[ɛ.'zi.ki.ɛl]	/ɛzikiɛl/	<Ezekiel>	man's name
[ <sup>1</sup> ɛm.li]	/hɛmli/	<Hemly>	woman's name
[ <sup>1</sup> qa.gɛn]	/hagɛn/	<Hagen>	city name

### Conventions: Orthographic

The velar nasal /ŋ/ is written <ng> as in English and Tok Pisin.

The voiced velar fricative /ɣ/ is written <gh> as the preference of the speakers. However, when it is geminated, it is usually written as <gg>. This is seen as closer to English and Tok Pisin.

Place names with an initial /β/ are very often written with an initial <B>. For example, village names include Boliu and Bai.

Length is written by doubling the grapheme, as is done in several languages of the world (including Finnish).

When one of the two locational proclitics /a/ 'person of' or /ɛ/ 'locative' is attached to a place name, the place name is capitalised, but not the proclitic, unless it is at the beginning of a sentence. For example, <eBoliu> 'at Boliu', <aRoitano> 'person of Roitano'.

Verbs can be long phonological words, and so are broken up by inserting word breaks after /la/ '3rd person plural subject', /auɛ/ 'IRREALIS', /ɣɛ/ 'PAST' and /ɣɛɛ/ 'YESTERDAY'S PAST'.

### Sample Text

/ɣaine akiukiua: ne: natuna:teβa tueyi || natuna:teβa tueyi geɣa:la aliki eteβa taita:teβa || taita:teβa getaula aliki eteβa me taita:teβa gekasula || aliki eteβa βause ateβa ɔio ge kin:a gesunjiela gesae emae etayi gela: sio emarati epo || gemaratila epo natuna natu taita:riyi gekarimiela kin:a karika riyi rarum es:una | ue || kin:a karika riyi rarum es:una yenim toka susu poi geaeae poi rarum es:u ta kin:a me karika poi eriye es:u emaemae || βara aɣenan:a βa mas ɣa: teβa ne: dokta me:mae me:tara aliki eteβa me apasunja riye salana tani aitaraliki eteβa || aliki eteβa ɔio dokta getau mae sio marasina ta kin:a geropila kateβa ulana || kateβa ulana geropila me karika ɣe tani ne: rarumena ne: aimotomoto etana || aliki eteβa ɔio karika gesusu emasina || areare s:una geusaila || areare s:una geusaila dokta geuela βa la: pae teβa mene teβa ma:ma: emae me:s:u aliki eteβa || ɔkei | βause ateβa ɣelao sio tani paea lila || lila gema: sio ges:ula:liki eteβa || βause ateβa ia:nae || tananuena enae ami ɣeɣala enae gele aliki eteβa βause ateβa ges:ua lila ges:uela ero:ro: kateβa ulana || me ami ɣemene s:ɔ mae || ia ɔio aliki eteβa enim namanama pɔ:pɔ: | eropirɔpi supu pɔ:pɔ: | supu pamkeni me eɣoluyɔlu pamkeni me enamanama kau: || aliki eteβa ia ɔia etokatoka ami nim aitaranjabalue ia ɔ/

<Ghaine akiukiuaa, nee, natuna ateva tueghi. Natuna ateva tueghi ghe ghaala aliki eteva taita ateva. Taita ateva ghe taula aliki eteva me taita ateva ghe kasula. Aliko eteva vause ateva oio ghe kinna ghe sungiela ghe sae emae etaghi ghe laa sio. Aimaratie, nee, ghe laa sio emarati Epo. Ghe maratila Epo natuna natu taita arighi. Natuna taita arighi ghe karimiela kinna karika righi rarum essuna, ue. Kinna karika righi rarum essuna ghe nim toka susu poi ghe aeae poi rarum essu ta kinna me karika poi righi rarum essu ghe maemae. Vara me aghe nanna va mas ghaa teva, nee, dokta me emae me etara aliki eteva me eapasunga righi salana tani aitaraliki eteva. Aliko eteva oio dokta ghe tau mae sio marasina ta kinna ghe ropila kateva ulana. Kateva ulana ghe ropila me karika ghe tani ne rarumena ne aimotomoto etana. Aliko eteva oio karika ghe susu emasina. Areare ssuna ghe usaila. Areare ssuna ghe usaila dokta ghe uela va laa pae teva mene teva maamaa emae me essu aliki eteva. OK, vause ateva aghe lao sio tani paea Lila. Lila ghe mae sio ghe ssula aliki eteva. Vause ateva ia aNae. Tanganuena eNae ami ghe ghoala eNae ghele aliki eteva vause ateva ghe ssua Lila ghe ssuela erooroo kateva ulana. Me ami ghe mene sso mae. Ia oio aliki eteva enim namanama popo, eropiropi supu popo, supu pamkeni me egholugholu pamkeni me enamanama kauu. Aliko eteva ia oia etokatoka ami nim aitaranjabalue ia o.>

‘Today I will talk about, um, my older sister’s daughter. My older sister’s daughter had a son. A man gave her the child and the man left. This young woman was sent by her mother and came to me. The delivery, um, she went to deliver at Epo. She gave birth to her son at Epo. She gave birth to a son, but the mother had no milk in her breasts, yes. The mother had no milk in her breasts although he just sucked and pulled unsuccessfully milk from his mother and no liquid from her breasts was coming at all. Then I thought that I must get a, um, doctor and he came and he saw the young woman and showed her how to look after the baby. The baby here, the doctor gave some medicine to his mother which she took for a month. She took it for a month but there was no liquid when he sucked from her. The boy could not nurse well. Her nipple became sore. Her nipple became sore and the doctor said to find another mother to come and breastfeed the baby. OK, a woman went to find Lila. Lila came to

breastfeed the baby. The woman is from Nae. Her home is in Nae we went to Nae and the young woman breastfed him, Lila breastfed him for a month. They came home again. This boy was just eating pawpaw, drinking soup of pawpaw, soup of pumpkin and eating pumpkin and eating sweet potato. This boy is living here and we are looking after him that way.'

### **Orthography Chart**

The orthographies that are relevant for Mussau are English and Tok Pisin. However, there have been several different orthographies in use over the years. The early missionaries published a hymn book in 1935 which used an orthography based on Fijian. The preface to the 1990 reprint and a set of 30 Bible lessons used a different orthography. When vernacular elementary education began in the 1990s, the schools used another different orthography, though they no longer use that orthography, having adopted the orthography outlined here. The orthography outlined in this paper is different to all these previous orthographies. The main changes are the representations of /ɣ/, /ŋ/ and /β/, plus the handling of length in both consonants and vowels.

In the chart, those phonemes that do not exist in Mussau-Emira apart from in loan words are enclosed in parentheses. Similarly, the phonemes of Mussau-Emira which do not exist in English (/ɣ/ and /β/ are given their nearest equivalents in English and Tok Pisin, /g/ and /v/ or /b/, and are enclosed in parentheses.

Phonemes	Mussau-Emira	Tok Pisin, English	1935 Hymn book	1990 Hymn book preface	Elementary schools
/a/	<A,a>	<A,a>	<A,a>	<A,a>	<A,a>
/ɑ:/	<Aa,aa>	-	<A,a,aa>	<A,a,aa,a',a'a,a-a>	<A,a>
(/d/)	<(D,d)>	<D,d>	<d>	<D,d>	-
/ɛ/	<E,e>	<E,e>	<E,e>	<E,e>	<E,e>
/ɛ:/	<Ee,ee>	-	<E,e>	<E,e,e',e'e,ee>	<E,e>
/ʏ/	<Gh,gh>	(G,g)	<Q,q>	<G,g>	<Gh,gh>
/y:/	<Gg,gg>	-	<Q,q>	<G,g,gg>	<Gh,gh>
(/h/)	<(H,h)>	<H,h>	-	<H>	-
/i/	<I,i>	<I,i>	<I,i>	<I,i>	<I,i>
/i:/	<Ii,ii>	-	<I,i>	<I,i,i-i,i,ii>	<I,i>
(/dʒ/)	<(J,j)>	<J,j>	<J,j>	<J,j>	-
/k/	<K,k>	<K,k>	<K,k>	<K,k>	<K,k>
/k:/	<Kk,kk>	-	<K,k>	<K,KK,Kk,k,kk,k'k>	<K,k>
/l/	<L,l>	<L,l>	<L,l>	<L,l>	<L,l>
/l:/	<Ll,ll>	-	<L,l>	<L,LL,Ll,l,ll,l'l>	<L,l>
/m/	<M,m>	<M,m>	<M,m>	<M,m>	<M,m>
/m:/	<Mm,mm>	-	<M,m>	<M,m>	<M,m>
/n/	<N,n>	<N,n>	<N,n>	<N,n>	<N,n>
/n:/	<Nn,nn>	-	<N,n>	<N,NN,n,nn,n-n,n'n>	<N,n>
/ŋ/	<Ng,ng>	<ng>	<G,g>	<Ng,ng>	<Ngh,ngh>
/ŋ:/	<Ngng,ngng>	-	<G,g>	<Ng,ng>	<Ngh,ngh>
/ɔ/	<O,o>	<O,o>	<O,o>	<O,o>	<O,o>
/ɔ:/	<Oo,oo>	-	<O,o>	<O,o,o-o,oo>	<O,o>
/p/	<P,p>	<P,p>	<P,p>	<P,p>	<P,p>
/p:/	<Pp,pp>	-	<P,p>	<P,p,pp,p'p>	<P,p>
/r/	<R,r>	<R,r>	<R,r>	<R,r>	<R,r>
/r:/	<Rr,rr>	-	<R,r>	<R,r,rr>	<R,r>
/s/	<S,s>	<S,s>	<S,s>	<S,s>	<S,s>
/s:/	<Ss,ss>	-	<S,s>	<S,SS,Ss,s,ss>	<S,s>
/t/	<T,t>	<T,t>	<T,t>	<T,t>	<T,t>
/t:/	<Tt,tt>	-	<T,t>	<T,t,tt>	<T,t>
/u/	<U,u>	<U,u>	<U,u>	<U,u>	<U,u>
/u:/	<Uu,uu>	-	<U,u>	<U,u,u'u,uu,u-u>	<U,u>
/β/	<V,B,v>	(B,V,b,v)	<V,v>	<V,B,v,b>	<V,v>
/β:/	<Bb,bb>	-	<V,B,v,b>	<V,B,v,b>	<V,B,v,b>
(/w/)	<(W,w)>	<W,w>	-	-	-
(/z/)	<(Z,z)>	<Z,z>	-	-	-

**Bibliography**

- Atkins, A. S. 1935. *Buka Kinari Inagari Musao*. First edition 1935, Second edition 1990. Musao Island, Kavieng, P.N.G.: Seventh-day Adventist Mission.
- Brownie, John. 2009. *Mussau-Emira Phonology Essentials*. Manuscript.
- Brownie, John, and Marjo Brownie. 2007. *Mussau Grammar Essentials*. Ukarumpa: SIL-PNG Academic Publications.